

Knowledge-to-Action Processes in the Implementation of
a Trauma-sensitive Sport Model for Youth Programming

Majidullah Shaikh

School of Human Kinetics, Faculty of Health Sciences

University of Ottawa

DISSERTATION

Submitted to the University of Ottawa in partial requirements for the
degree of Doctor of Philosophy in Human Kinetics

School of Human Kinetics

Faculty of Health Sciences

University of Ottawa

© Majidullah Shaikh, Ottawa, Canada, 2022

Abstract

Underserved youth (e.g., from families facing inadequate housing, food insecurity, financial instability) are disproportionately exposed to traumatic experiences (e.g., family discord or violence, neglect, poverty, racism), which can lead to several negative life-long consequences (e.g., affective and somatic disturbances, anxiety, depression, suicidal ideation). Community organizations that target underserved youth may be ideally situated to offset the negative consequences of trauma through leveraging a trauma-sensitive sport model for youth programming. A trauma-sensitive sport model involves a blend of positive youth development approaches (i.e., creating safe environments for youth to experience positive relationships, autonomy, and opportunities to build skills), trauma-sensitive approaches (e.g., considering the potential effects of trauma on youth's participation and development, and prioritising their needs for safety, voice, empowerment, choice, and collaboration), and program designs that leverage and re-design sporting activities to help youth navigate trauma symptoms, build a social support system, and develop various resilience-related skills (e.g., emotional regulation, decision-making). Little research has examined the implementation and effectiveness of a trauma-sensitive sport model for youth programming in a community setting. Use of this model can contribute to greater capacities of youth sport leaders to promote underserved youth's healthy participation and development.

This dissertation was conducted in partnership with BGC Canada, a national non-profit community organization that serves disadvantaged communities. From 2016-2021, a trauma-sensitive sport model for youth programming was implemented in this organization through the Bounce Back League (BBL) initiative. The purpose of this dissertation was to explore the knowledge-to-action processes involved in translating this model in a community program setting. The knowledge-to-action cycle (KTAC; Graham et al., 2006) was used to conceptually

guide the studies carried out in this dissertation, in outlining key phases for consideration in translating a trauma-sensitive sport model. While most of these phases are described in this dissertation, the empirical articles focused on assessing four phases of this cycle, which included: (a) *assess barriers and facilitators to knowledge use*, (b) *select, tailor, and implement interventions*, (c) *monitor knowledge use*, and (d) *evaluate outcomes*.

Intrinsic case study methodologies were used to understand community-based knowledge translation processes and outcomes within the case of the BBL initiative. A community-based participatory research approach was used to engage in equitable collaboration between researchers and community members for the development of this initiative. Utilisation-focused evaluation principles were used to work with community members to determine what to evaluate, how to evaluate, and how results would be used. Grounded in a pragmatic paradigm, a mixed methods research design was used to collect data through the initiative, which included individual and group interviews with leaders, leader-reported logbooks, leaders self-reported questionnaires, leaders' assessments of youth's participation, communications on an online messaging platform (Slack), and researchers' observations of training opportunities and leaders' practices.

The purpose of Article 1 was to outline the overarching process of integrating a trauma-sensitive sport model within the BBL program, from 2016-2021. Several stages of program development were described, including: (a) collaboratively planning the program; (b) piloting the program to three clubs; (c) adapting the program using pilot insights; (d) expanding the adapted program to ten clubs; and (e) creating opportunities to maintain, sustain, and scale-out practices throughout grant duration and beyond. Lessons learned regarding the leadership team's experiences in terms of developing, adapting, and integrating a trauma-sensitive sport model for youth programming in this community context were shared.

The purpose of Article 2 was to explore factors involved in the implementation of a

trauma-sensitive sport model for youth programming in BBL. This article paralleled the KTAC phase of *assess barriers and facilitators to knowledge use*. A mixed-methods evaluation of the pilot phase of BBL was conducted. Three clubs participated in training, implementation, and evaluation of BBL. The data were collected through interviews, logbooks, and assessments. The quantitative data were interpreted using descriptive statistics and comparative *t*-tests; the qualitative data were interpreted using thematic and content analyses. The RE-AIM framework was used to categorise the various processes and outcomes involved in program implementation. The results showed that programs reached a large number of youth but struggled to retain youth from season to season. The leaders perceived that the intentional structure of the program, opportunities to practice self-regulation, relationship focus, and life skill focus, were all linked to positive participation in youth members. Components of leaders' training and program delivery were noted as successful, but the sustained benefits of these successes were challenged by leader turnover and funding limitations. In line with the KTAC phases, insights were generated on what works and what does not in facilitating this type of programming in a community setting for underserved youth and helped inform future adaptations to the program as it was rolled out (discussed in Article 1).

The purpose of Article 3 was to explore leaders' learning experiences from participating in an initial training workshop and prior to their implementation of programming. This article paralleled the *select, tailor, and implement interventions* phase and the *evaluate outcomes* phase of the KTAC model. The value-creation framework was used to explore learning experiences based on the interactions and values that leaders discussed. Participants were leaders who attended initial training workshops. A mixed-methods approach was used to collect data through observations, interviews, and self-reported questionnaires. The quantitative data were interpreted using descriptive statistics and Wilcoxon Signed-Ranks Tests; the qualitative data were

interpreted using thematic analysis. The results showed that the leaders: (a) valued having a variety of learning opportunities that were relevant to their roles and contexts, (b) appreciated the diverse focus on foundational and practical content, and (c) shared an interest to learn how to support trauma-exposed youth and facilitate better programming. Implications were discussed for the improvement of training opportunities to better meet leaders' needs within a community organization and support leaders' intentions to apply knowledge into action.

Article 4 builds on the previous study, where the purpose was to explore leaders' learning experiences as they implemented programming and while they participated in continuing training and development activities. This article also paralleled the *select, tailor, and implement interventions* phase and the *evaluate outcomes* phase of the KTAC model. The participants were leaders who were involved in implementing BBL at their clubs. A mixed-methods approach was used to collect data through interviews, observations, surveys, and communications on an online messaging platform (Slack). The quantitative data were analysed using descriptive statistics, data charting, and non-parametric analyses; the qualitative data were interpreted using thematic analysis. The results indicated that the leaders learned through various interactions throughout their practice (e.g., implementing programs at their homes sites, receiving mentoring, conversations with peers), and discussed gains in applied value (e.g., program facilitation strategies, youth-support skills), realised value (e.g., youth's receptivity and behaviour change), and transformative value (e.g., transfer of leaders' skills, influence on club culture). Implications were discussed for the improvement of training opportunities to promote ongoing social learning and maintenance of program practices.

The purpose of Article 5 was to explore the fidelity and quality of leaders' application of a trauma-sensitive sport model to programming. This article paralleled the *monitor knowledge use*

phase of the KTAC model. The promising practices criteria were used as an evaluation framework to categorise dimensions of quality relevant to program effectiveness. Leaders from 11 BBL programs participated. A mixed-methods approach was used to collect data through observations, interviews, and logbooks. The quantitative data were interpreted using descriptive statistics; the qualitative data were interpreted using thematic analysis. The results showed that: (a) all programs showed evidence of supportive adult and youth relationships, (b) programs led by trained leaders maintained program fidelity and implemented more features to a stronger extent than untrained leaders, (c) trained leaders may have compromised mastery orientation opportunities in favour of other program components. Implications were discussed related to what may facilitate or constrain program fidelity and quality in this setting, and how training and development opportunities can mitigate challenges in leaders' capacities.

This dissertation offered an evaluation of the knowledge-to-action processes involved in integrating a trauma-sensitive sport model into BGC Canada. The results of this dissertation provided insights of how BGC Canada leaders learned and facilitated a trauma-sensitive sport model for youth programming, the differences training and development may contribute to the quality of their program practices, and how involvement in this initiative resulted in changes in leaders' behaviours, skills, and identities, as well as positive youth developmental outcomes. Practical implications were shared on how BGC Canada and similar community organizations can enhance their partnership and facilitate these interventions. As well, the value of taking a systems-based approach to planning future interventions with a trauma-sensitive sport model was also discussed to maximise multi-level impacts. Academic implications were shared on how future research can also take a systems-based approach to evaluating knowledge translation processes in youth sport interventions.

Acknowledgements

I could not have achieved this work without the support of the amazing people in my life, at work, at home, and in my social circles. I would like to first thank Dr. Tanya Forneris. Tanya, you gave me my first chance and my kick-start to my career. I will always remember that first phone call in winter 2015 where it felt like every idea and experience we shared were resonating so well with one another. I knew our relationship would be a perfect match, and every conversation we've had since then has only reinforced and elevated this first impression for me. Tanya, you always took a human-first approach with me. Your patience in my process, and continued appreciation and acknowledgement of my work was really supportive, especially through the rough times. You also valued enabling opportunities for me to excel in my academic career and really understanding my need for community-engaged work and helping me get there, connecting me to BGC Canada and other community organizations. Thank you for bringing me in to support you in your community work, learn alongside you, and ultimately empower me in transitioning me from a supportive role to a lead role with BGC Canada. Even though most of our connection has been unfortunately at a distance, it never seemed like it, and now I am even more excited to continue seeing you and working with you in the same city again!

I am grateful for Dr. Diane Culver's guidance throughout my PhD. You and I first met on my evaluation committee in 2016 and I always felt you showed genuine interest in my work and were always willing to help me expand on my learning. Even though I was initially situated outside of your domain of expertise, you saw potential in me to take me on as a student, and quickly co-lead several of your national and international collaborations in coach learning and education. This exposure was invaluable to my development as a project leader, team player, and mentor, and helped me cross boundaries from the periphery of coach learning to being recognised as an expert. You also invited me to bring my work into your space on multiple occasions, having

me share and co-educate our lab members in PYD and KT topics, which was mutually beneficial in reinforcing and rethinking through my own areas of work. I really appreciate you always being supportive, advocating for me, and also taking a human-first approach with me. I am very lucky to have had you and Tanya as my co-supervisors!

Dr. Bradley Young, you and I hit it off right away (must be the Torontonians connection) from that first APA 6905 class, which was my favourite course I've ever taken. You saw potential in me immediately and went out of your way to throw me into new challenges (guest lectures, assessing graduate students) or advocate for me in academic leadership opportunities. I always felt in our conversations you treated me as your contemporary and made me feel recognised. I appreciated your mentorship and committed interest in my program of study, and always helping support me with new ideas, connections, and helping me consider ways in which my research can have impact, while also meeting my own values of being a community-engaged researcher.

Thank you to Dr. Corliss Bean, who has been a strong role model of success for me. You have mentored and supporting me in multiple program evaluation projects including this dissertation, helped me to navigate my relationships with community partners, and connected me to a broader network of national partners to help me advance my learning and my professional development. Thank you to Sara Kramers, for co-leading PYD projects together, and sharing the same values for community advancement and equity for underserved populations. I really benefitted from having you as a sounding board, as someone who understands our field of work and the challenges we commonly encounter. Corliss and Sara, both of you exemplify PYD principles in being caring, empathetic, and patient. You have been the best co-worker-friends I could ask for, and I look forward to continuing our all-star partnership in the years to come.

To Lou Bergholz and Maren Rojas, thank you for being amazing and inspirational leaders. Your enthusiasm for this work was infectious and helped us accomplish so much more than we

ever anticipated for this initiative. You successfully helped us identify with and be a major part of a movement much greater than our project and I hope we continue to connect as we scale out this work going forward. To the leadership team at BGC Canada, thank you for the amazing partnership that we have carried over and sustained to these years. Denise and Jan, you brought us all to the table and made sure we learned from every small step to achieve big results. Meccana and Teresa, thanks for continuing the momentum on this project throughout the pandemic and helping us directly respond to the community's needs. Thank you all the BGC leaders, across Canada, past and present, who shared their spaces, their lives, and their experiences with me and the leadership team for this work. I am also grateful for the club participants who took part in this research and shared their insights around play and learning.

Thank you to my lab members, past and present – Tiago, Frank, Erin, Michel, Cass, Laura, Iman, Siobhan, Nicole, Vincenzo, Koray, and Sydney, for the opportunities to co-learn and co-construct new ideas with you. As well, thank you to my office mates whose lab I infiltrated, Poppy, Krista, Johnny, Connor, and Keita, for bringing me in as one of their own. Thank you to the faculty in our department: Dr. Michelle Fortier, the funnest professor who supported my idea-sharing in class and helped make conferences and social events a blast; and Dr. Michael Robidoux, it was excellent to work alongside with you on several student-hockey challenges and always managing super exciting events.

For my peers who boosted me along the way. Sieger, my best friend – we bonded in Brad's class, and it's been only up ever since. Thanks for all the boogie nights, rapping the wrong lyrics over every song, and both cracking jokes and spending time remembering how well we cracked jokes together. In tough situations, I can always rely on you to *save me plais*. Jenson, you helped me learn that there's more to life than being stuck in PhD work all the time. Thank you for going on hiking and small-town adventures together, suffering through all the terrible brunches,

being goofy through in-house dance parties, and helping me learn to value spending quality time with those I care about most. Ryan, thank you for always being one meme away, and always *congrating* me when I “done it” the most.

All my Ottawa family, including Wes, Jenn, Angelica, Dave, Darrin, Nick, Vikki, Jon, Jenna, Andrew, Lisa, SDB, Justin, and Rob, thank you all the laughs, board game nights, karaoke, dancing, and silliness – all the things that helped me feel happy, warm, and loved. To my friends back home (Brennon, Max, and Gabriel), and my family (Ami, Abu, Api, Ukhti, Baji, and Bhai), thank you for supporting me, being proud for me, and wishing me success all along the way.

Land Acknowledgement

Much of the conceptualization, communication, data analysis, and writing of this dissertation was conducted while situated on un-ceded and un-surrendered Algonquin Anishinaabe territory, alternatively known as Ottawa. The Peoples of the Algonquin Anishinaabe Nation have lived on this territory for millennia. Their culture and presence have nurtured and continue to nurture this Land. I honour the Peoples and Land of the Algonquin Anishinaabe Nation. Beyond this territory, this study was conducted nationally, across this Land known as Turtle Island, and alternatively known as Canada. I honour all First Nations, Inuit, Métis and all Indigenous Peoples and their valuable past and present contributions to this Land.

As a researcher in sport-based youth development, primarily working with community-based organizations that serve youth, I believe it is critical to decolonise our mindsets and practice, and learn from Indigenous Elders, Knowledge Keepers, organizations, and consult from their expertise, guidance, and implement the Truth and Reconciliation Calls to Action that is relevant to our work and personal lives. I acknowledge that those of us who are not First Nations, Inuit, or Métis have settled on Turtle Island, whether welcomed or not. Thus, we must inherit the responsibility to respect and care for the Land that we live, learn, play, and work on. A Land that nourishes and shelters us. I strive to journey in this relational accountability.

Statement of Contributions

I, Majidullah Shaikh, was responsible for: (a) co-conceptualising this doctoral research, (b) co-developing the initiative to action the trauma-sensitive sport model in youth programming, (c) co-leading evaluation activities in this initiative and carrying out the majority of research activities that comprised this dissertation, (d) writing the five articles that comprise this dissertation. Dr. Tanya Forneris, my thesis co-supervisor, was involved in: (a) co-conceptualising this doctoral research, (b) co-developing the initiative to action the trauma-sensitive sport model in youth programming, (c) contributing to the evaluation directions of the initiatives, and contributing her interpretations of the evaluation results, and (d) re-vising the articles in this doctoral dissertation. Given her contributions, she is a co-author on all articles in this dissertation. Dr. Diane Culver, my thesis co-supervisor, was involved in: (a) co-conceptualising this doctoral research, (b) contributing her interpretations of the research results, and (c) re-vising Articles 3-5 in this doctoral dissertation. Given her contributions, she is a co-author on Articles 3-5. Both co-supervisors have reviewed the doctoral research in its entirety and provided their approval of this dissertation.

Dr. Corliss Bean contributed to this project as a member of the evaluation team for the initiative, with her responsibilities spanning: (a) conducting research and evaluation activities in the pilot stage of this initiative, (b) providing her interpretations to research results as a critical friend, and (c) contributing to the writing of Article 1, where she is named a co-author. Mr. Lou Bergholz and Ms. Maren Rojas of Edgework Consulting were involved in the co-development of this initiative, directing most of the training and development activities, program design and support activities, and leading the partnership. They contributed their insights to Article 1 and helped re-vise it, and as such, they are named co-authors on this article. Ms. Meccana Ali, who was affiliated with BGC Canada at the time of the study, directed the initiative activities and

support from BGC Canada clubs' participation in this initiative. She contributed her insights and revisions to Article 1 and was named a co-author of that article.

Ms. Melanie Bouchard contributed valuable time in helping the researcher: (a) transcribe data across the Articles, and (b) contribute as a critical friend to the data analysis and interpretations of Article 5 (e.g., coding data, observing and assessing videos of program practices). As such, she was named a co-author on Article 5. Other research volunteers who contributed to various research management tasks (i.e., transcription, data entry, data organization) were Mr. Kieran McBride, Ms. Alanna Stobbe, Ms. Gillian King, Ms. Mackenzie Snelgrove, Ms. Erin Fletcher, and Ms. Tess Fraser.

Thesis advisory committee members, Dr. Bradley Young and Dr. Tracey O'Sullivan, provided feedback during the proposal stage of the research, as well as in re-conceptualising the research design to meet the new circumstances of the COVID-19 pandemic. Their insights were valuable in informing considerations for embarking on community-based research work. As well, thank you to the thesis evaluation members, Dr. Martin Camiré and Dr. Meredith Whitley, for their valuable review, feedback, and discussion to strengthen the final product of this thesis.

Informed consent was obtained from all human research participants in this study (Appendix A). This research was examined and approved by the University of Ottawa Research Ethics Board, Office of Research Ethics and Integrity (#H03-17-23, #H-09-19-4960), which operates in accordance with the Tri-Council Policy Statement and other applicable laws and regulations in Ontario (see Appendix B for Certificates of Ethics Approval).

This project was funded by the Public Health Agency of Canada under the Family Violence Investment (#1617-HQ-000017), the Social Sciences and Humanities Research Council Doctoral Fellowship (#752-2021-2528), the Sport Participation Research Initiative (#862-2021-0020), and the Association of Applied Sport Psychology - seed grant.

Table of Contents

Abstract	ii
Acknowledgements.....	vii
Statement of Contributions	xii
Table of Contents.....	xiv
List of Figures	xxi
List of Tables	xxii
List of Appendices	xxiii
CHAPTER I.....	1
Introduction	1
Literature Review.....	1
<i>Context</i>	<i>1</i>
<i>Community Programming as a Context for Youth Engagement</i>	<i>4</i>
<i>Mechanisms for Promoting Development and Trauma Healing.....</i>	<i>5</i>
<i>Positive Youth Development.....</i>	<i>5</i>
<i>Youth Sport as a Context for Development</i>	<i>10</i>
<i>The Trauma-sensitive Sport Model</i>	<i>14</i>
<i>Understanding Trauma and its Impact on Youth's Sport Participation</i>	<i>14</i>
<i>Bringing Awareness to Mechanisms that Influence Resilience</i>	<i>15</i>
<i>Harnessing Trauma-sensitive Principles Through Sport Practice.....</i>	<i>16</i>
<i>Re-designing Sport to Facilitate Growth and Outcomes</i>	<i>17</i>
<i>Promoting Self-regulation Through Competition and Teachable Moments.....</i>	<i>18</i>
<i>Applying a Trauma-sensitive Sport Model to Youth Programming.....</i>	<i>18</i>
<i>Mechanisms for Supporting Learning and Application of Knowledge</i>	<i>20</i>
<i>Key Terms and Processes</i>	<i>20</i>
<i>Training and Development of Leaders</i>	<i>22</i>
<i>Program Evaluation</i>	<i>25</i>
Theoretical Approaches	26
<i>Knowledge-to-Action Cycle.....</i>	<i>26</i>
<i>RE-AIM Framework.....</i>	<i>30</i>
<i>Value-Creation Framework.....</i>	<i>31</i>

<i>Promising Practices</i>	33
The Current Study	34
<i>Bounce Back League</i>	35
Description of Articles	36
CHAPTER II	40
Methodology	40
<i>Research Positioning</i>	40
<i>Paradigm</i>	41
<i>Research Approaches</i>	41
<i>Methodology and Methods</i>	44
CHAPTER III	46
Results	46
Article 1: Integrating a Sport-based Trauma-sensitive Program in a National Youth-serving Organization	47
Abstract	48
Introduction	49
<i>Context and Partnership</i>	51
<i>Guiding Approach: The Knowledge-to-Action Cycle</i>	52
Mobilising Knowledge into Action in the Bounce Back League	53
<i>Planning</i>	55
<i>Pilot</i>	57
<i>Adaptation</i>	64
<i>Tailoring the Training Intervention</i>	65
<i>Supporting Staff's Motivations and Accounting for Staff Turnover</i>	65
<i>Enhancing Recruitment Strategies</i>	65
<i>Transitioning of Training Responsibilities to In-House Trainers</i>	66
<i>Expansion</i>	66
<i>Sustainability</i>	67
<i>Using a Train-the-Trainer Model</i>	68
<i>Developing Context-Specific Resources</i>	68
<i>Expansion to Reach Canadian Newcomers</i>	69

<i>Transitioning to a Virtual Platform in COVID-19</i>	<i>69</i>
Lessons Learned	70
<i>Meaningful Change Starts with Small Steps</i>	<i>70</i>
<i>Maintain Ongoing Two-way Communication with Stakeholders.....</i>	<i>71</i>
<i>Integrate-with Rather Than Add-on to Existing Activities</i>	<i>72</i>
Conclusion.....	72
References	74
Article 2: A RE-AIM Evaluation of a Sport-based Trauma-Sensitive Youth Development Program.....	
Program.....	81
Abstract.....	82
Introduction	83
<i>Context</i>	<i>85</i>
Materials and Methods	87
<i>The Evaluators</i>	<i>87</i>
<i>Participants</i>	<i>87</i>
<i>Timeline</i>	<i>87</i>
<i>Training and Implementation Support</i>	<i>88</i>
<i>Trauma-sensitive Sport Model – Program Design.....</i>	<i>88</i>
<i>Measures</i>	<i>89</i>
<i>Member Data.....</i>	<i>89</i>
<i>Staff Data.....</i>	<i>90</i>
<i>Data Analysis</i>	<i>91</i>
Results	94
<i>Reach and Effectiveness</i>	<i>94</i>
<i>Who Attended the Program?</i>	<i>94</i>
<i>How Did the Program Influence Members' Participation and Skill Development?</i>	<i>94</i>
<i>What Facilitated or Constrained Program Reach and Effectiveness?</i>	<i>96</i>
<i>Adoption and Implementation</i>	<i>98</i>
<i>Who Adopted and Implemented Programming?</i>	<i>98</i>
<i>To What Extent Did Staff Facilitate the Program Effectively?</i>	<i>98</i>
<i>What Facilitated Program Adoption and Implementation?</i>	<i>98</i>

<i>What Constrained Program Adoption and Implementation?</i>	101
<i>Maintenance</i>	102
<i>To What Extent Did Staff Intend to Continue Program Practices?</i>	102
<i>What Facilitated or Constrained Program Maintenance?</i>	103
Discussion	104
<i>Strengths, Limitations, and Future Directions</i>	106
<i>Conclusions</i>	107
References	108
Article 3: Learning a Trauma-sensitive Sport Model: Training Workshop Experiences....	114
Abstract	115
Introduction	116
<i>Learning Theories</i>	118
<i>Context</i>	120
Methods	120
<i>Methodology</i>	120
<i>Procedure and Participants</i>	121
<i>Training Workshops</i>	124
<i>Data Collection</i>	126
<i>Data Analysis</i>	128
<i>Trustworthiness</i>	129
Results and Discussion	129
<i>What do I Already Know?</i>	131
<i>Experiences with Trauma-exposed Youth</i>	131
<i>Beliefs About Sport</i>	132
<i>What did Leaders Desire to Learn, and What did they Gain?</i>	134
<i>Foundational Knowledge of Trauma-sensitive Practices and Using Sport to Heal</i>	134
<i>How to Fulfill Their Roles as BBL Leaders</i>	136
<i>What are the Ways I Learn Best?</i>	139
<i>Diverse, Balanced, and Practical Content</i>	140
<i>Social Learning Opportunities</i>	141
<i>Strong and Credible Trainers</i>	142

<i>What do I Intend to do With my Knowledge?</i>	144
<i>Re-Think Sport Practices With a Trauma-Sensitive Lens</i>	144
<i>Consider Ways to Apply Knowledge Beyond Sport</i>	145
<i>Share Knowledge With Others</i>	146
Reflections and Recommendations	147
References	152
Article 4: Learning a Trauma-sensitive Sport Model: Program Implementation Experiences	160
Abstract	161
Introduction	162
Methodology and Methods	167
<i>Participants</i>	167
<i>Procedure</i>	168
<i>Training Workshops</i>	170
<i>Monthly Consultations and Meetings</i>	170
<i>Online Social Learning Space</i>	171
<i>Data Collection</i>	171
Participants	172
<i>Data Analysis</i>	172
<i>Trustworthiness</i>	173
Results and Discussion	174
<i>How was my Learning Journey Supported?</i>	174
<i>Interactions With Master Trainers</i>	177
<i>Other Activities to Promote Learning</i>	180
<i>How did I Apply my Knowledge to Practice?</i>	182
<i>Being Intentional in Program Planning and Practice</i>	182
<i>Adapting Program Knowledge to Meet the Demands of the Setting</i>	184
<i>Sharing Practices with Peers</i>	187
<i>How did my Participation Make a Difference?</i>	188
<i>Building Knowledge and Confidence over Time</i>	188
<i>Growth in Members' Comfort and Development</i>	189

<i>Changes to Self outside of BBL</i>	191
Summary and Reflections	193
Conclusions	198
References	199
Article 5: Delivering a Trauma-sensitive Sport Model for Youth Programming	206
Abstract	207
Introduction	208
Methodology	213
<i>Context</i>	213
<i>Positionality</i>	213
<i>Procedures</i>	214
<i>Clubs and Participants</i>	214
<i>Training Workshop</i>	217
<i>Program Design and Delivery</i>	222
<i>Data Collection</i>	222
<i>Observations</i>	222
<i>Logbooks</i>	223
<i>Individual and Group Interviews</i>	223
<i>Data Analysis</i>	223
<i>Trustworthiness</i>	224
Results	225
<i>Supportive Relations With Adults</i>	225
<i>Supportive Relations With Peers</i>	227
<i>Level of Engagement</i>	228
<i>Opportunities for Cognitive Growth</i>	230
<i>Appropriate Structure</i>	231
<i>Over-control and Chaos</i>	233
<i>Mastery Orientation</i>	234
Discussion	235
<i>Conclusions</i>	240
References	242

CHAPTER IV	251
General Discussion	251
<i>Summary of Articles</i>	<i>251</i>
<i>Training and Development</i>	<i>255</i>
<i>Program Design and Delivery</i>	<i>262</i>
<i>Intervention Planning.....</i>	<i>266</i>
<i>Partnership Processes and Outcomes</i>	<i>271</i>
<i>Building Relationships and Trust</i>	<i>272</i>
<i>Establishing a Partnership Philosophy.....</i>	<i>272</i>
<i>Organizational Commitment</i>	<i>274</i>
<i>Evaluation</i>	<i>275</i>
<i>Reflections on Theory.....</i>	<i>277</i>
<i>Strengths, Limitations, and Future Directions</i>	<i>280</i>
<i>Methods</i>	<i>281</i>
<i>Training and Development</i>	<i>282</i>
<i>Program Processes and Outcomes.....</i>	<i>284</i>
<i>Advancing Youth Development Approaches Using a Social Justice Lens.....</i>	<i>285</i>
<i>Implications</i>	<i>286</i>
Conclusions	288
References	290
Appendices	340

List of Figures

Introduction

Figure 1. <i>The Knowledge-to-Action Cycle as Conceptualised by Graham et al. (2006)</i>	29
Figure 2. <i>Value-Creation Framework by Wenger-Trayner and Wenger-Trayner (2020)</i>	33

Article 1

Figure 1. <i>Process of Mobilising Sport-Based Trauma-Sensitive Practices Into Action in the Bounce Back League (BBL) Project</i>	54
---	----

Article 2

Figure 1. <i>Logic Model of Bounce Back League (BBL) in Pilot Phase 2017-2019</i>	86
---	----

Article 3

Figure 1. <i>Value-creation Framework by Wenger-Trayner & Wenger-Trayner (2020)</i>	119
---	-----

Article 4

Figure 1. <i>Value-creation Framework by Wenger-Trayner & Wenger-Trayner (2020)</i>	165
Figure 2. <i>Timeline of Project Activities (2017-2021)</i>	169
Figure 3. <i>Weekly Active Members on the Bounce Back League (BBL) Slack Workspace</i>	176

Article 5

Figure 1. <i>Relationship Between Curriculum Components and Promising Practices</i>	221
---	-----

General Discussion

Figure 3. <i>Process of Mobilising Sport-Based Trauma-Sensitive Practices Into Action in the Bounce Back League (BBL) Project</i>	252
---	-----

List of Tables

Introduction

Table 1. <i>Map of the Dissertation Articles</i>	38
--	----

Article 1

Table 1. <i>Description of BGC Canada-adapted BBL Training Modules</i>	59
--	----

Table 2. <i>Description and Suggested Duration of BBL workout structure and the BBL Skills</i>	61
--	----

Article 2

Table 1. <i>Content Analysis of Written Responses from Coaches' Logbooks</i>	93
--	----

Article 3

Table 1. <i>Participant Demographics Information</i>	123
--	-----

Table 2. <i>Description of BGC Canada-adapted BBL Training Modules</i>	125
--	-----

Table 3. <i>Descriptive Statistics and Comparative Tests of Quantitative Measures Data</i>	130
--	-----

Article 5

Table 1. <i>Promising Practices Rating System Criteria</i>	212
--	-----

Table 2. <i>Composition of BGC Canada Clubs' and Involvement in Data Collection Activities</i> ...	216
--	-----

Table 3. <i>Description of BGC Canada-adapted BBL Training Modules</i>	218
--	-----

Table 4. <i>Description and Suggested Duration of BBL workout structure and the BBL Skills</i>	219
--	-----

Table 5. <i>Descriptive Statistics of Promising Practices Rating System Data</i>	220
--	-----

List of Appendices

Appendices	340
Appendix A. Recruitment Letters and Consent Forms	341
<i>Appendix A.1. Pilot – Leader Consent Form</i>	<i>341</i>
<i>Appendix A.2. Pilot - Youth Assent Form</i>	<i>343</i>
<i>Appendix A.3. Pilot - Parent Information Letter</i>	<i>344</i>
<i>Appendix A.4. Expansion - Leader Invitation Letter</i>	<i>345</i>
<i>Appendix A.5. Expansion - Leader Consent Form – Questionnaires, Observations, and Interviews</i>	<i>346</i>
<i>Appendix A.6. Expansion - Leader Consent Form – Focus Group</i>	<i>349</i>
<i>Appendix A.7. Expansion - Program Manager Consent Form</i>	<i>351</i>
<i>Appendix A.8. Expansion - Information Letter for BBL Observers</i>	<i>353</i>
Appendix B. Ethics Approvals	354
<i>Appendix B.1. Ethics Approval – Pilot</i>	<i>354</i>
<i>Appendix B.2. Ethics Approval – Pilot</i>	<i>356</i>
Appendix C. Interview Guides	358
<i>Appendix C.1. Pilot Interview Guide – Pre-training</i>	<i>358</i>
<i>Appendix C.2. Pilot Interview Guide – Post-training</i>	<i>359</i>
<i>Appendix C.3. Pilot Focus Group Guide – Mid-year-one</i>	<i>360</i>
<i>Appendix C.4. Pilot Interview Guide – Post-year-one</i>	<i>361</i>
<i>Appendix C.5. Expansion Interview Guide – Post-training</i>	<i>362</i>
<i>Appendix C.6. Expansion Interview Guide – Post-program</i>	<i>363</i>
<i>Appendix C.7. Expansion Focus Group Guide – Post-program</i>	<i>365</i>
Appendix D. Leader Questionnaires	366
<i>Appendix D.1. Demographics and Experience Questionnaire</i>	<i>366</i>
<i>Appendix D.2. Knowledge Quiz</i>	<i>367</i>
<i>Appendix D.3. Attitudes Related to Trauma-informed Care Scale (ARTIC)</i>	<i>373</i>
<i>Appendix D.4. Knowledge Questionnaire</i>	<i>376</i>
<i>Appendix D.5. Training Satisfaction Questionnaires</i>	<i>377</i>
Appendix E. Promising Practices Rating System	378
Appendix F. Logbook	379
Appendix G. Report Card	381
Appendix H. Example of Slack Workspace	382

CHAPTER I

Introduction

Advancement in the research and application of youth development principles in sport is challenged by the existing evidence-to-practice gap in this area (Holt et al., 2016). Despite efforts by academics to disseminate research products to appropriate knowledge users, the uptake of this knowledge by applied practitioners has been stagnant. Thus, there is a need to evaluate the barriers to knowledge dissemination and uptake that contribute to this evidence-to-practice gap, as well as the contrasting facilitators that help ease these processes. Such work can help identify solutions for improved knowledge translation (KT) practices, which can optimise program contexts and the developmental outcomes of youth program participants.

The literature review will first start with an overview of: (a) the context of focus (i.e., underserved youth, community settings), (b) mechanisms for promoting trauma healing (e.g., positive youth development, resilience-building processes, and trauma-sensitive approaches), and (c) youth sport as a context for development (e.g., benefits and challenges of sport, sport-based youth development, and a trauma-sensitive sport model). The focus will then shift to current theoretical understandings and research on what may facilitate leaders' learning and application of a trauma-sensitive sport model to youth programming. Finally, theoretical approaches that will guide this dissertation are introduced, which will set the bases for the article objectives and research design.

Literature Review

Context

Underserved Youth and Exposure to Trauma

Underserved youth (also recognised in relevant literature as socially vulnerable, at-risk, or

equity-deserving youth), are youth¹ who generally experience disadvantaged circumstances such as being from a low-income family, living in an under-resourced neighbourhood, or facing inadequate housing, food insecurity, racial discrimination, and/or systems of oppression (Misztal, 2011). These youth are disproportionately affected by and exposed to trauma, in terms of elevated frequencies and negative consequences to youth development (Blendon & Casey, 2019; Breslau et al., 2004; Buka et al., 2001; Evans, 2004). The Substance Abuse and Health and Mental Health Services Administration (SAMHSA, 2014) defined trauma as:

Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning and physical, social, emotional, or spiritual well-being.

Trauma is often used to describe both the traumatic event(s) and their outcomes, and these outcomes can vary from person to person (Kimberg & Wheeler, 2019). Traumatic events and experiences may include any unexpected events outside of a person's control, such as violence, abuse, neglect, domestic conflict, accidents, natural disasters, racial and ethnic prejudice, and exposure to war and conflict (Cook et al., 2005; Delgado & Staples, 2007; Steele & Malchiodi, 2012). Trauma can also be intergenerational, where systematic oppression, poverty, and discrimination can be passed down both individually and within communities (Alvarez, 2020; Monaco, 2020). Neuroscientists have recognised that trauma is associated with alterations in brain structure and chemistry that are associated with one's stress response (Shonkoff et al.,

¹ The terms youth, young people, and adolescents have been used to categorise people in the life stages between childhood and adulthood, and the use of these terms may vary based on age. For the purposes of this dissertation, the term youth will refer to people between the ages of 8-12 years old. This term youth was also most commonly used by the community members of the organisation worked with in this dissertation.

2009). Youth exposed to trauma may exhibit a hyperarousal response (e.g., fight, flight, or freeze) to stressful stimuli, and may display behaviours such as aggression, emotional dysregulation, struggling to put feelings into words, or isolation from others (Anda et al., 2006; Kisiel et al., 2009). Left untreated, lifelong consequences associated with trauma can include exhibiting aggressive or socially avoidant behaviours, difficulties with executive functioning, academic problems, school dropout, somatic and affective disturbances, substance use and abuse, and overall health problems (Anda et al., 2006; Glaser, 2000; Kimber et al., 2017).

The striking prevalence of traumatic exposure in youth has been stressed by multiple scholars and organising bodies (Centers for Disease Control and Prevention, 2016; Hillis et al., 2016; Pinheiro, 2006). Awareness and widespread prevalence of the effects of trauma on one's development arose most significantly from the adverse childhood experiences (ACEs) study from the Centers for Disease Control and Prevention (Felitti et al., 1998, 2019). In this study, 13,494 adults were asked to report their ACEs across domains of abuse, neglect, and household function. The results showed that more than half of the respondents reported at least one ACE, and 1/4th reported 2 or more categories of ACEs. A greater number of ACEs was associated with elevated risks of negative health behaviours and outcomes (e.g., physical inactivity, severe obesity, alcoholism, substance abuse, depression, and suicide attempts). In Canada, 32% of people aged 15 and older have experienced some form of maltreatment before age 15 (Burczycka, 2015). These findings have led to a demand for youth-serving systems (e.g., schools, community organizations, social services) to integrate approaches that enable the early prevention and treatment of the adverse consequences of trauma (Bulanda & Byro Johnson, 2016; M. Harris & Fallot, 2001; Ko et al., 2008; Martin et al., 2017; Walkley & Cox, 2013; Whitley et al., 2018).

Additionally, in the wake of the COVID-19 pandemic, the need for sustained responses to the prevalence and impact of trauma became more evident. Pandemic-related cuts and closures

resulted in decreased access to primary and secondary health care, closures of daycares, schools, and community programming, and financial and employment-related instability (Chanchlani et al., 2020). In homes, children were experiencing social isolation, decreased access to supports, and increased risks for maltreatment – particularly when home was not a safe place – and such risks can have lasting negative consequences on children’s experiences and development (Chanchlani et al., 2020; Fegert et al., 2020; UNICEF Canada, 2020; M. Ward, 2020). Thus, as youth return to recreational contexts, such as community programming, there is a greater need for leaders in these settings to be equipped for responding to and supporting these underserved youth in their transition and development.

Community Programming as a Context for Youth Engagement

Community out-of-school program settings may involve multiple program offerings across various domains (e.g., education, leadership, sports, healthy living, arts), with leaders interacting with youth in multiple programs and services as coaches, program facilitators, mentors, managers, and counselors. Historically, community programs emerged to provide safe spaces for youth to meet pressing needs of working families during out-of-school hours combined with safety and health concerns during youth’s unsupervised time (Coatsworth & Conroy, 2007; Halpern, 2002). Over the 20th century, these programs shifted to adopt broader aims that included facilitating youth’s character development, citizenship, social and cognitive growth, health, and well-being (Mahoney et al., 2009). Growing research supported the notion that youth’s engagement in these settings was linked to academic enrichment and life skill building, while unsupervised time was linked to poor development (Mahoney et al., 2009; Vandell et al., 2015). However, compared to middle and high-income families, underserved youth have encountered barriers to accessing out-of-school programming, despite these programs being by underserved youth’s families (Howe et al., 2010; Vandell et al., 2015).

In response, several community organizations across North America have created programs and services that are explicitly targeted to include youth from high-poverty schools and neighbourhoods; these initiatives aim to decrease barriers to access and provide these youth with opportunities to enhance their development (Vandell et al., 2020). Generally, these opportunities include programming that is mix of health promotion and risk prevention approaches to youth engagement. Two relevant approaches under these categories are discussed in the next section: positive youth development (health promotion), and trauma-sensitive practice (risk prevention).

Mechanisms for Promoting Development and Trauma Healing

Positive Youth Development

Positive youth development (PYD) is both a field of inquiry and an approach to youth programming and practice that focuses on the development of the life skills, talents, attributes, and potential of all youth in multiple life domains (Damon, 2004; Larson, 2000; R. M. Lerner et al., 2005; Ullrich-French et al., 2012). The approach has been adopted and valued by several sectors that support youth across government, community, and schools. Programs and services that use a PYD approach can influence positive outcomes for underserved youth, such as lower levels of depression and alcohol use (Milot Travers & Mahalik, 2021) and enhanced resilience and well-being (Sanders et al., 2015)

While PYD and similar or related concepts emerged across several settings and fields of study, many of the assumptions proposed by the PYD approach may be grounded within relational developmental systems and bio-ecological theory (Bronfenbrenner & Ceci, 1994; Lerner & Castellino, 2002). These theories posit that the bi-directional influences of a person with their surrounding context are dynamic and ever-changing with time. Approaches to youth development are focused on altering or regulating these individual-context relations to achieve desired outcomes. PYD posits that optimal development can occur when the context (e.g., a

positive environment involving supporting leaders and structured activities) is aligned with youths' strengths (e.g., building capacity to lead and contribute to others; R. M. Lerner et al., 2014). Thus, programs designed with PYD principles can structure program content and processes to promote these positive bi-directional connections.

Several scholars have proposed the essential elements that may characterise a PYD program. For instance, Roth and Brooks-Gunn (2003) proposed that a PYD program involves: (a) program goals to promote PYD, (b) an environment that promotes caring and supportive relationships with adults and peers, empowers youth, communicates prosocial norms and expectations, and provides opportunities for recognition, and (c) opportunities for youth to build skills, engage in real and challenging activities, and broaden their horizons. Similarly, R. M. Lerner's (2004) "big three" criteria of PYD programs include: (a) positive and sustained adult-youth relationships, (b) opportunities to build life skills, and (c) opportunities to use life skills in the community. As well, according to Catalano et al.'s (2004) review, youth programs may be seen as PYD programs if they seek to achieve one or more PYD outcomes such as resilience, bonding, social competence, self-determination, positive identity, etc.

The extent to which programs achieve PYD outcomes depends on the qualities of the structures and processes of these programs (Mahoney et al., 2004). Into the 1990s, most organizations and groups with relevant PYD aims developed their own policies and procedures based on 'what works' (Halpern, 2002). Development of consensus on how programs should be structured and delivered began with the introduction of a comprehensive framework for quality programming from The National Research Council and the Institute of Medicine (Eccles & Gootman, 2002), which subsequently led to the development of several tools to assess program quality across settings (Yohalem & Wilson-Ahlstrom, 2010). In Yohalem and Wilson's (2010) review of research-based observational tools to assess program quality in out-of-school

programming, they identified six core concepts shared across these tools: (a) relationships: interactions between and among youth and adults, (b) the environment: the extent to which the climate and setting is physically and psychologically safe, (c) engagement: the extent that youth are meaningfully involved in activities; (d) social/behavioural norms: the different expectations about respectful interactions, social responsibility, and conflict resolution, (e) skill-building: opportunities for youth to build various skills through deliberately structured learning activities, and (f) routine/structure: how the program is organised including timing, transitions, and consistency. The way these processes are configured and intentionally delivered will also influence youth outcomes.

PYD is recognised as a strength-based approach, in contrast to deficit-reduction approaches to youth development which focus strictly on diminishing risk factors such as inactivity, anti-social behaviour, substance use, and delinquency (Roth & Brooks-Gunn, 2003; Ullrich-French et al., 2012). Over the past few decades of research and practice, PYD has generally been favoured in comparison to deficit-reduction, given the focus of regarding all youth as having assets to develop. At the same time, PYD may over-emphasise the promotion of developmental assets, while neglecting the mitigation of risk factors, despite studies that suggest that the promotion of positive outcomes does not necessarily lead to reductions in negative outcomes (Catalano et al., 2002; J. V Lerner et al., 2013; Schwartz et al., 2007). As well, both strength-based and deficit-reduction approaches, operate on several similar mechanisms, in leveraging developmental assets (or protective factors) to promote thriving (or inhibit risk factors that lead to problem behaviours; Roth & Brooks-Gunn, 2016). Thus, scholars have advocated for integrative models that regards these approaches as co-existing rather than competing with one another (J. V Lerner et al., 2013; Schwartz et al., 2007). Such an integrated model may involve the combination of PYD with trauma-sensitive approaches.

Trauma-sensitive Approaches

Trauma-sensitive approaches involve integrating knowledge and understandings around trauma and its impact on youth's brain, bodies, behaviours into program policies, procedures, and practices to help support these youth's needs for safety, choice, and control (Knight, 2019; Leitch, 2017). Instead of responding to problem behaviours that youth may exhibit by labelling them as intentionally misbehaving, trauma-sensitive practitioners consider that children may behave with adaptive responses to adversity – in that their behaviours may represent coping mechanisms to triggers in their environment (Knight, 2015; National Centre for Trauma-Informed Care, 2011). Such approaches emphasise orienting youth with supports to help them foster resilience.

Resilience is recognised as the process through which protective factors mitigate risk associated with adversity and orient toward positive outcomes (Masten, 2001). At the individual level, resilience can be seen as one's capacities to manage obstacles and daily challenges; (Rutter, 2006; Sapienza & Masten, 2011). Highly resilient youth may exhibit skills across several domains including personal skills (e.g., willingness to engage, problem solving, cooperation, self-awareness), social skills and peer support (e.g., ability to work with others, helping behaviours, seeking social support), and emotional skills (e.g., managing stress, leveraging resources to recover, (Liebenberg et al., 2012; Walsh et al., 2010). Beyond the individual level, scholars have posited that resilience is: (a) relational and environmental, not solely individual, (b) is a dynamic process and not a fixed trait, (c) cultivated rather solely inherent, and (d) focused on recovery and return rather than solely on endurance and perseverance (Kegelaers & Sarkar, 2021; Sarkar & Page, 2022). Several scholars have discussed the use of community programs as contexts for building resilience-related skills in youth (Henley, 2010; Masten, 2014; Sanders et al., 2015).

Several terms have been used for approaches and services for responding to trauma,

188 which include trauma-informed, trauma-focused, and trauma-sensitive approaches (Bloom, 2016;
 189 Mersky et al., 2019). Trauma-informed systems engage clients in programming that emphasise
 190 six principles: safety; trustworthiness and transparency; peer support; collaboration and
 191 mutuality; empowerment; voice and choice; and cultural, historical and gender issues (Berliner &
 192 Kolko, 2016; SAMHSA, 2014). Trauma-informed practices are characterised by: (a) a *realization*
 193 of the widespread impacts of trauma on youth's development and well-being and how to support
 194 these youth's healing, (b) a recognition of the signs and symptoms of trauma, (c) a *response* from
 195 individuals, programs, organizations, and systems to support trauma-exposed youth, and (d)
 196 actively preventing *re-traumatization* through trauma-aware program policies, procedures, and
 197 practices (SAMHSA, 2014). These systems also aim to screen and assess trauma to determine
 198 their clientele, and refer clients to trauma-focused (i.e., trauma-specific) treatments that aim to
 199 target and reduce posttraumatic symptoms and orient individuals towards healing. Trauma-
 200 sensitive approaches, on the other hand, adopt the same principles as trauma-informed
 201 approaches,² but do not necessitate screening and assessment for trauma; as such, these
 202 approaches can be operationalised in systems where such screening, assessment, and referral
 203 practices are not implemented regularly, such as community program settings that reach a large
 204 number of people (Mersky et al., 2019; Ponio et al., 2021). While trauma-focused interventions
 205 can be effective in promoting healing (Black et al., 2012), the capacity to promote widespread
 206 impact is challenged by the youth's access to these mental health supports, and the extensive
 207 training needed to maintain practitioners to implement and sustain these interventions (Branson et
 208 al., 2017; Hanson & Lang, 2016). Trauma-sensitive interventions are not meant to replace

² While the leadership team and its partnership with BGC Canada used the term "trauma-informed" to refer to the project throughout its development and implementation, the current dissertation used the term trauma-sensitive to appropriately differentiate this approach.

trauma-focused interventions; rather, these interventions intend to take a population health perspective in infusing trauma-sensitive thinking in the policies, procedures, and practices in contexts that everyday youth engage in, to promote interactions that can widely support youth's healing and development (Tebes et al., 2019). Thus, these trauma-sensitive interventions can operate as a complement to more trauma-informed and trauma-focused interventions.

The use of trauma-informed and trauma-sensitive approaches has been looked at in multiple settings such as residential treatment (Russel et al., 2017), schools (Berger, 2019; Wynard et al., 2020), and juvenile justice (Branson et al., 2017), and some research in movement-based modalities such as yoga (Emerson et al., 2009) and dance (Ley et al., 2017). Limited but emerging research has looked at using youth sport as a setting for integrating trauma-sensitive approaches (Bergholz et al., 2016; D'Andrea et al., 2013; Hussey, 2021; Whitley et al., 2022). Community sport settings may be fruitful environments for the integration of trauma-sensitive approaches as they are popular (Coatsworth & Conroy, 2007), and can reach many unscreened trauma-exposed youth. In this context, leaders (lay workers) can be trained and developed to promote trauma-sensitive approaches in a community setting to the same extent as mental health professionals (Han et al., 2021).

Youth Sport as a Context for Development

Sport activities are often seen as inherently motivating, goal-oriented pursuits that necessitate a balance of discipline, self-direction, and perseverance (Moreau et al., 2018; Vandell et al., 2015). Given that these activities are highly demanded by youth, maintains their interests, and keeps them returning to programming, many researchers have viewed sport programs as fruitful environments for the facilitation of positive developmental and health experiences for underserved youth (Coatsworth & Conroy, 2007; Haudenhuyse et al., 2014; G. J. Jones et al., 2017; Van Der Veken et al., 2020). Positive development in sport has often been viewed through

the lens of life skills building, where life skills are assets or competencies spanning intrapersonal (e.g., planning, decision-making, goal-setting), and/or interpersonal domains (e.g., teamwork, leadership, cooperation), that are developed in sport and applied (or transferred) to other contexts (Danish et al., 2004; Gould & Carson, 2008b; Papacharisis et al., 2005; S. Pierce et al., 2017). Participation in sport has been associated with higher levels of positive developmental outcomes (e.g., higher levels of initiative, self-knowledge, emotional regulation, physical skill building, and teamwork) compared to other organised activities (Hansen et al., 2003; Larson et al., 2006; Linver et al., 2009); these outcomes are enhanced when youth participate in sport in conjunction with other activities (Forneris et al., 2015; Zarrett et al., 2018).

Despite the benefits of sport, scholars have cautioned against viewing sport as an inherent and universal good in its pursuits for developmental change (Coakley, 2011, 2016). Sport participation can contribute to negative experiences such as athlete maltreatment, burnout, bullying, physical punishment, excessive stress, drug and substance abuse, violence, and discrimination and exclusion (Bean et al., 2014; Denison et al., 2021; Eime et al., 2013; Eklund & DeFreese, 2020; Fraser-Thomas & Côté, 2009; Kerr et al., 2019; Massey & Whitley, 2021). These experiences can also disproportionately affect underserved youth who face stigma, exclusion, structural inequities, or conflict (Massey & Whitley, 2021). The use of sport to promote protective factors and positive outcomes for underserved youth depend on certain conditions that are in line with and are favourable to PYD (Hartmann, 2003; Holt et al., 2016). These conditions can include: how sport activities are organised, the relational interactions between youth and their coaches, peers, parents/caregivers; the norms and cultures of the sporting activity, the meaning that youth derive from sport, and the way youth integrate their sporting experiences with other aspects of their lives (Gould, 2019). As such, several scholars have pressed for the need for sport environments and conditions to be intentionally structured and

facilitated to promote PYD (Bean & Forneris, 2016; Gould & Carson, 2008a). Participation in intentionally structured sport-based PYD programs may be conducive to enhanced youth well-being (Falcão et al., 2012; Roth & Brooks-Gunn, 2003), increased rates of sport participation (Côté & Mallett, 2013), long-term retention of youth in sport (R. E. Smith & Smoll, 1997), and youth's individual development and contributions to society (R. M. Lerner et al., 2005).

Multiple conceptual and/or heuristic sport-based models have been proposed that outline the ingredients or conditions of sport programs that promote PYD. Fraser-Thomas and colleagues (2005) posited that youth sport programs need to consider multiple domains of youth development (e.g., physical, psychological, social, academic), be conducted in appropriate settings, and foster youth developmental outcomes. These authors claimed that efforts need to be made to make sport accessible to all youth, and that policy makers, sport organizations, leaders, and parents/caregivers all play a role in youth's development in these programs. Petitpas and colleagues (2005) posited that effective sport-based PYD programs incorporate a *context* that responds to participants' needs, offers *external assets* such as parents, leaders, and communities that provide support, offers opportunities to build *internal assets* (life skills), and use *evaluation* to monitor and report on the processes and effectiveness of programs in promoting life skills. Côté and colleagues (2014) proposed the personal assets framework, which considers personal engagement in activities, quality relationships, and appropriate environments as interacting factors in creating an atmosphere that promotes confidence, competence, connection, and character. Over time, long-term participation in these programs will result in benefits to youth's participation, performance, and personal development.

Holt et al. (2017) proposed an empirically-based model for sport-based PYD, based on the results of 63 qualitative studies. The model proposed that sport-based PYD program processes spanned three categories: (a) PYD climate (e.g., youth's relationships with adults,

peers, and family), (b) life skills program focus (e.g., opportunities to engage in activities that are designed for youth to develop skills within sport and life), and (c) PYD outcomes across physical (e.g., physical literacy, motor fitness), personal (e.g., decision-making, planning), and social (e.g., cooperation, leadership) domains. To build PYD outcomes, an implicit pathway can be seen in fostering an appropriate PYD climate, while a more explicit pathway can be realised from intentionally teaching and promoting opportunities for youth to learn and practice life skills in and outside of sport (Turnnidge et al., 2014). Holt and colleagues (2017), along with several other youth sport scholars, have advocated for the adoption of both implicit and explicit pathways to promote a more holistic approach to youth development (Bean & Forneris, 2016; Camiré et al., 2011; Newman, Santos, et al., 2021; Santos et al., 2018).

Several curricula have been developed to guide the implementation of sport-based PYD programs such as Going for the Goal (Danish, 1997; Danish et al., 1998), Play It Smart (Petitpas et al., 2003), Sports United to Promote Education and Recreation (Danish et al., 1996, 2002), Teaching Personal and Social Responsibility model (Hellison, 2011; Hellison et al., 2003), and LiFE Sports (Anderson-Butcher et al., 2014). Scholars have suggested that curricula models may not be as effective as programs derived from and created within the context (Coatsworth & Conroy, 2007). Instead, program planners should consider the guiding principles and best practices of implementing these models and developing a program model in conjunction with community members of the context where the model will be applied (Coatsworth & Conroy, 2007). Research in sport-based PYD has suggested that program models and curricula need to be comprehensive (lots of activities to reach outcomes/goals), use a variety of teaching methods (e.g., discussions, instruction, integration of learning in movement activities), and provide enough programming for youth to achieve benefits (Coatsworth & Conroy, 2007).

It has been proposed that sporting activities may offer possibilities for creativity and

innovation that are necessary for meeting the complex and varying needs of trauma-exposed youth (D’Andrea et al., 2013). For trauma-exposed youth, sport can offer several interconnected healing factors to re-connect and restore feelings of embodiment, competence, and control, such as: (a) physical and mental escape (e.g., focused immersion in a space and activity); (b) natural feedback mechanisms where youth can observe changes in their skills/progress quickly); (c) competitive environments where youth are motivated to perform, adapt to stressors, and improve; and (d) caring adults who support youth’s physical and psychological safety (Holt et al., 2017; Whitley et al., 2018). Concurrently, several scholars have proposed principles for how to integrate a trauma-sensitive lens to sport-based PYD programming (Bergholz et al., 2016; Massey & Williams, 2020; Whitley et al., 2018).

The Trauma-sensitive Sport Model

A trauma-sensitive sport model may incorporate both health promotion and risk prevention theories of change, in that the philosophies underlying these approaches are based on deficit-reduction (e.g., reducing trauma symptoms) through strategies that are strength-based (e.g., building life skills). In this way, a trauma-sensitive sport model can be used to help produce protective factors and mitigate risk factors, which can lead to increases in youth’s resilience and orient youth toward thriving. This model is comprised of five major components: (a) understanding trauma and its impact on youth’s sport participation; (b) bringing awareness to mechanisms that influence resilience; (c) harnessing trauma-sensitive principles through sport practice; (d) re-designing sport to facilitate growth and outcomes; and (e) promoting self-regulation through competition and teachable moments.

Understanding Trauma and its Impact on Youth’s Sport Participation

It is important for leaders to understand the prevalence of trauma, how the mind and body respond to traumatic experiences, and indicators of trauma symptomatology (Steele & Malchiodi,

2012). Contextualised to sport, trauma-exposed youth may exhibit atypical behaviour and emotions that can constrain their abilities to fully immerse and participate in sport. These can include loss of focus, difficulty handling pressure, struggling to play by the rules, aggression in the face of benign incidents, lack of self-awareness, and inability to form pro-social relationships (Bergholz et al., 2016). These behaviours can be understood as symptoms – or even coping mechanisms – to deal with trauma (Steele & Malchiodi, 2012). Without the intentional structure of sport environments, paired with misalignment of leaders’ expectations of their youth, the sport experience can potentially re-trigger traumatic experiences and precipitate youth’s atypical behaviours (Elliott et al., 2005). As such, programs intentionally designed with trauma-sensitive PYD approaches can leverage mechanisms that influence resilience in the design of their programs to reduce re-traumatization and support youth to have positive program experiences.

Bringing Awareness to Mechanisms that Influence Resilience

Several mechanisms have been proposed by scholars in the field for intentionally structuring and facilitating sport-based trauma-sensitive PYD programs (Bergholz et al., 2016; Darroch et al., 2020; Quarmby et al., 2022; Whitley et al., 2018). An important mechanism is the experience of positive, nurturing, and *supportive interactions and relationships* between a youth’s peers, family, and/or significant adults such as teachers, coaches, and counsellors (Ludy-Dobson & Perry, 2010; Theokas & Lerner, 2006). These relationships can help promote positive attachment with adults, where relationships with adults may otherwise be (or were) fractured from current (or past) traumatic experiences (Arvidson et al., 2011; Perkins & Borden, 2003). Fostering *physical and psychologically safe environments* can be healing for youth who may find the world an unsafe place (M. Harris & Fallot, 2001; Sampson & Gifford, 2010). An *appropriate structure* with a predictable schedule of activities, positive behavioural expectations, and opportunities for youth control and empowerment through competency-building, can help

maintain a needed sense of security and control for youth (Eccles & Gootman, 2002). Leaders also *promote strengths and self-beliefs* in helping youth recognise their competencies and progression through encouragement and feedback, where youth may otherwise view themselves negatively because of their trauma (Quarmby et al., 2022). *Individualised consideration* and *advocating youth autonomy and voice* can help youth feel seen and heard, and foster ownership over their participation in programming, through leaders' provision of choices, soliciting their feedback, and engaging them in co-leading activities (S. Ward & Parker, 2013). A program's design needs to focus on *integration with local cultural practices*. Traumatic experiences can vary by culture, and the context in which youth are living needs to be understood to help reinforce feelings of familiarity and safety and help integrate practice with the community (Bergholz et al., 2016; Elliott et al., 2005). *Finally, long-term engagement* of youth is important to sustain outcomes (e.g., consistent participation for over months or years), as complex symptoms can take time to heal (Cloitre et al., 2009; Cook et al., 2005; Larson, 2000). These mechanisms tend to overlap with one another in practice, and as such, need to be collectively regarded by program leaders to encourage the development of a therapeutic community adapted to the local context.

Harnessing Trauma-sensitive Principles Through Sport Practice

With an understanding of mechanisms for structuring and facilitating programs, program leaders can learn and employ strategies to harness these mechanisms. For example, to enhance physical and psychologically safe environments, leaders can offer opportunities for youth to opt in or out of play, be available for informal time with youth (e.g., checking in), employ group-management strategies, and add visible statements (e.g., posters and signs) of positive values that reflect trauma-sensitive mechanisms (Bergholz et al., 2016; Russel et al., 2017). To facilitate a supportive structure with opportunities for skill-building, this could involve providing youth

opportunities to practice and rehearse skills related to sport development as well as self-regulation, using mindful awareness/ exercises to monitor and manage stress (e.g., breathing and heart rate monitoring), and incorporating specific sessions in the sport program to reflect on and discuss how to transfer these skills to everyday life (Bergholz et al., 2016; Cook et al., 2005; Raymond, 2019).

Re-designing Sport to Facilitate Growth and Outcomes

Along with strategies within a program environment, leaders can also learn how to re-design and adapt the sport or game itself to align with youth development and trauma-sensitive principles and the needs of youth and their contexts. Re-designing sport involves making intentional changes in how sport and physical activities are experienced to achieve desired outcomes (McCarthy et al., 2016). Here, sport can be deconstructed by each of its domains (i.e., playing space, equipment, rules of the game, rules of the league, and roles of those involved), and leaders can change the nature of how one or more of these pieces will be experienced to be better aligned with desired outcomes. In trauma-sensitive sport design, the desired outcomes are to build resilience and orient youth toward thriving; to achieve these desired outcomes, different sport domains can be re-designed based on integrating trauma-sensitive mechanisms.

Trauma-sensitive sport re-design involves intentionally tinkering different sport domains to help support resilience-building in youth. For instance, the *role* of a referee could be re-designed to be like the role of a *coach*, providing guidance to players when they make mistakes as opposed to penalising them. Here, the mechanisms of enhancing supportive relationships and providing opportunities to build skills are integrated into the sport re-design. Similarly, a *rule of the game* can be re-designed such as incorporating unlimited timeouts - where youth can call timeouts as often as they want for any reason. This re-design can help youth to regain a sense of control in a situation that may seem chaotic or overwhelming. Here, the mechanism of promoting

physical and psychological safety is integrated into this sport re-design.

Promoting Self-regulation Through Competition and Teachable Moments

Despite moderations to programs to enhance safety and reduce stimuli that may induce stress response, the model also recognises that stress encounters are inevitable consequences due to inherent features of sport (i.e., real stakes, high intensity, physical contact); as such, these mechanisms should be leveraged as healing moments and teachable moments. Where contemporary recreational sport programs may attempt to inhibit competitive structures (e.g., not keeping score, removing teams), competition in a trauma-sensitive sport model is regarded as a necessary component of fostering growth. Competitive sport has been associated with greater growth experiences than non-competitive sport (e.g., emotional regulation, identity work, prosocial norms; Wilkes & Côté, 2010), and can be a motivating factor to make sporting activities more interesting, drive youth to engage and improve, and ultimately contributes to youth's competence development and prolonged participation (Whitley et al., 2018). Healthy competition that still prioritises youth's holistic development can involve playing for real stakes (e.g., keeping score, tracking wins and losses); these environments can create opportunities for youth to learning coping strategies to deal with loss, recover, and return to play (Bergholz et al., 2016; Camiré, 2015; Whitley et al., 2018). Relatedly, when faced with stress encounters, programs based in a trauma-sensitive sport model are responsive in offering structures for youth to self-regulate (e.g., space and time to take breaks and recover), and leaders can use these circumstances as teachable moments (i.e., opportunities to co-develop self-regulation strategies that youth could use to tackle current or future negative circumstances; Bergholz et al., 2016; Newman, Santos, et al., 2021).

Applying a Trauma-sensitive Sport Model to Youth Programming

Limited research has examined the implementation of a trauma-sensitive sport model for

youth programming. Of this limited research, D’Andrea et al. (2013) looked at implementing a trauma-sensitive sport model in a youth residential treatment setting, known as the Do the Good program. Their initiative involved training caregivers – with no prior sport coaching training – on the psychoeducation of trauma, and philosophies and program implementation strategies for a trauma-sensitive sport model. These caregivers then implemented weekly one-hour sessions with patients over five months. Based on data collected and analysed from measures of youth’s behaviours and mental health, and observations of caregivers and youth, participation in the initiative was associated with increases in leaders’ relationship-building practices, reductions in youth’s trauma symptomology, and improvements in youth’s mental health compared to controls. Relatedly, Whitley et al. (2022) explored athletes’ experiences of participation in a trauma-sensitive sport program known as Street Soccer. The results demonstrated that the program leaders trained in a trauma-sensitive sport model were able to create environments that were safe, enjoyable, inclusive, fostered a sense of belonging, promoted caring relationships, and offered a learning-focused structure that supported building various sport and life skills for cultivating resilience. The results across these studies have collectively demonstrated the potential benefits of implementing a trauma-sensitive sport model for improving leaders’ facilitation of positive climates and learning-focused structures, and improvements in participants’ outcomes. However, more research is needed to understand the processes of how leaders, without formal clinical or mental health training and education, translate this model in a youth community program setting.

Given that leaders are primarily responsible for structuring and facilitating youth sport programming (Camiré et al., 2011; Vella et al., 2011), it is important to construct training and development (T&D) opportunities for these leaders to implement a trauma-sensitive sport model. The common goals of PYD trainings are to help leaders: (a) build their understandings of PYD; (b) understand their own their own personal views, philosophies, ways of interacting with youth,

and reflect how these influence the processes of PYD; (c) build skills to adopt and develop PYD practices; and (d) adapt to and manage the social pressures and challenges within their coaching contexts (Gould & Carson, 2008b; Newman et al., 2016; Santos et al., 2017; Vella et al., 2013). Similarly, the common goals of trainings on trauma-sensitive practices are to build leaders' knowledge, attitudes, and behaviours with regards to: (a) the prevalence and impact of trauma exposure, (b) creating safe environments, (c) fostering opportunities for choice, collaboration, and connection, and (d) providing strengths-based programming that is tailored to clients' needs (S. M. Brown et al., 2012; Ponc et al., 2021; Purtle, 2020; Russel et al., 2017). The following section discusses several practices to promote the facilitation of leaders' learning via T&D and subsequent use of relevant knowledge in their practice.

Mechanisms for Supporting Learning and Application of Knowledge

Key Terms and Processes

Prior to understanding how to support leaders' learning of relevant knowledge for implementing a trauma-sensitive sport model, it is important to define key terms. *Knowledge* has been broadly defined as information with meaning that exists within the individual, experienced through perception, or generated through thinking, and/or reasoning (Brauner & Becker, 2006). Knowledge can be either *explicit*, in that it is codifiable, formal, and systematic; or knowledge can be *tacit*, in that it is abstract and difficult to explain to others, often gained implicitly through experience and immersion (Lei et al., 1997; Scott & Laws, 2006).

Learning is the process of producing knowledge, where data and information are integrated into a person's existing knowledge bases, stored as memories, and used for various purposes (Brauner & Becker, 2006). In terms of *how* learning happens, Jarvis (2006, 2009) proposed that learning is a process of transformation, and that each person's biography (e.g., personal characteristics, backgrounds, knowledge, and experiences) will determine what they

seek to learn and how they learn it. The emphasis on knowledge being bound to the individual is important, as data and information exist external to the individual, accessible to others at any time; whereas another person's knowledge is only accessible if that person is present, available, able, and willing to share their knowledge (Brauner & Becker, 2006). Wenger and colleagues have emphasised this social nature of learning, where people construct their own knowledge through their experience of working within social environments and interacting with others (Cushion, 2011; Lave & Wenger, 1991; Wenger, 1998). A more general view was offered by Moon (2004), in that learning is viewed as a flexible network of feelings and ideas composed of clusters of interconnected ideas and feelings.

Moon (2004) also differentiated between learning *contexts* (i.e., the specific settings where learning occurs), and learning *situations* (i.e., learners' perception of a context unique to the learner). Learning contexts can be typified into formal (e.g., through formal education or standardised curricula), nonformal (e.g., through optional, unstandardised activities), and informal (e.g., through experience and self-direction; Beckett & Hager, 2005; Coombs & Ahmed, 1974; Eraut, 2000; Mallett et al., 2009; Nelson et al., 2006). Learning situations can be typified into mediated (i.e., learning where another person directs learning), unmediated (i.e., where the learner chooses and seeks what knowledge is important or relevant to them), or internal (i.e., where the learner has not gained new information but is reflecting on existing information; Mallett et al., 2009; Werthner & Trudel, 2006). These learning situations are interconnected and complementary, offering multiple avenues for processing and blending knowledge (Mallett et al., 2009; Nelson et al., 2006). As such, participation in multiple learning contexts is advantageous for enhancing learning (Moon, 2001; Poell, 2013).

Within sport, the effective practice of leaders has been defined as: "The consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve

athletes' competence, confidence, connection and character in specific coaching contexts" (Côté & Gilbert, 2009, p. 316). Professional knowledge refers to knowledge about sport, youth and athlete characteristics, coaching strategies, and foundational skills. Interpersonal knowledge refers to relationships between adults and youth, peer relationships, and other stakeholders. Finally, intrapersonal knowledge refers to one's own coaching philosophies informed by experiences both within and outside of the context, and both current and lifelong learning (Côté & Gilbert, 2009; Gilbert & Côté, 2013). Effective knowledge application is a key part of coaching practice and providing leaders with a range of opportunities that can help them gain useful practical experiences and training throughout their coaching is essential to their overall development (Côté & Gilbert, 2009; Lemyre et al., 2007; Nelson et al., 2006). Moreover, research has indicated that youth who are led by trained leaders report elevated development of psychosocial skills and positive relationships with their leaders and peers (Coatsworth & Conroy, 2009; Macdonald et al., 2010). Thus, training and development of leaders is a key part in helping the sport experience be one that fosters rather than inhibits youth's development.

Training and Development of Leaders

Leaders' learning and application of knowledge in sport is complex to capture and understand, given the fluid nature of coaching practice which involves constant planning, monitoring, evaluation, reaction, and adaptation in the face of changing issues and situations (Bowles & Dwyer, 2021; R. L. Jones & Wallace, 2005). Learning in sport coaching has been recognised as a personal and social process that happens over time, shaped through a variety of learning situations that may happen in and out of coaching sessions (Cushion et al., 2003, 2010). The current dissertation focuses on learning opportunities across nonformal and informal activities and interactions that may contribute to leader development in sport.

Research concerned with trauma-sensitive approaches has suggested that non-formal

learning opportunities (e.g., training workshops) can be successful in helping leaders grow their awareness of trauma-sensitive concepts (e.g., the indicators and impact of trauma, how trauma behaviours may be coping mechanisms), and shift their attitudes towards favouring the use of trauma-sensitive approaches in practice (Barnett et al., 2018; S. M. Brown et al., 2012; Hummer et al., 2010). While initial training can help offer basic and foundational skills for leaders to implement program curricula, scholars also suggest that it is necessary for an ongoing system of supports to be implemented that help leaders think through problems in their contexts and develop solutions, and offer continuing educational opportunities (Coatsworth & Conroy, 2007; Cushion et al., 2003; Moon, 2001). Thus, informal learning opportunities after initial training are valued by leaders in their learning, such as interacting with others, observing others, learning by doing, trial and error, and receiving mentorship (Cushion et al., 2003; Gilbert et al., 2009; Leeder et al., 2021; Stoszkowski & Collins, 2016; Van Woezik et al., 2021). Across nonformal and informal learning opportunities, research in sport has suggested that coaches prefer opportunities that are characterised by: (a) peer learning and knowledge sharing, (b) learner-centred approaches to facilitation, (c) reflective practice (Lemyre et al., 2007; Nelson et al., 2013; Trudel & Gilbert, 2006; Wright et al., 2007). Participation in these types of opportunities can increase the likelihood of satisfaction, retention of knowledge, and knowledge use after training (Strobel & van Barneveld, 2012).

Peer learning involves learning through helping others in similar roles (as opposed to experts and professionals; Olaussen et al., 2016; Werner & Dickson, 2018). This form of learning is linked with improved skills, competencies, social skills (Olaussen et al., 2016). Knowledge sharing is a process of peer learning, promoting people to reflect on the decisions and consequences they made in their practices, and better understand the nature, barriers, and facilitators of their environment (Amayah, 2013; N. B. Jones et al., 2003). These knowledge

sharing activities can contribute to enhanced organizational learning and performance (Ipe, 2003; Kim & Yun, 2015).

Learner-centred approaches to facilitation involve focusing on both the learner and on their learning as a process of construction that is dependent on the learners' biographies and contexts (Blumberg, 2009; Weimer, 2002, 2013). This form of learning umbrellas several different methods of learning, such as experiential learning (e.g., learning in the doing, through trial and error; Dewey, 1910; Kolb, 2014; Wolfe & Byrne, 1975), and problem-based learning (e.g., learning through exploring solutions to real or relevant issues; (Barrows & Tamblyn, 1980; Hmelo-Silver, 2004; Wood, 2003). These approaches are contrasted with teacher-centred learning methods which involve the direction of learning content transmitted from the teacher/expert to the student as the recipient (Bligh, 1972; Butler, 1992). Teacher-centred learning often takes the form of more traditional or didactic methods of teaching (e.g., lectures, instruction). These approaches can be favourable when focusing on short-term knowledge acquisition and retention of a broad knowledge base, while problem-based learning can be more effective in improving trainees' long-term understandings and retention of knowledge, satisfaction with training, improved perceptions of education (Dochy et al., 2003; Norman & Schmidt, 1992; Strobel & van Barneveld, 2012). Relevant research in trauma education has reported success in combining trauma theory with problem-based learning to promote leaders' self-confidence to work with trauma-exposed youth (Strand et al., 2014).

Reflection is a process of thinking about thinking, and linking knowledge to practice, with the intention of preparing a person for action (Gibbs, 1988; Saylor, 1990). Knowles et al. (2001) viewed reflection as a necessary process of learning for sport leaders: "Encouraging practitioners to reflect upon practice is thought to create the opportunity for the exploration of good practice, the identification of areas for improvement and the formulation of ideas for change." (p. 187).

Schön (1983) differentiated between two types of reflection *processes*: (a) reflection-in-action: reflection that occurs while doing an action and using the knowledge generated to inform different situations encountered in practice, and (b) reflection-on-action: reflection following a practice experience. Reflection processes are optimised when conducted socially, in interactions with others (Benammar, 2004; Cronin & Lowes, 2016; Lave & Wenger, 1991). Structured reflective practice can be facilitated in several ways, such as group discussions, feedback through peer observation, supervision, or mentoring, and written reflections (e.g., journaling).

To the author's knowledge, little to no research has looked at the processes and outcomes of learning a trauma-sensitive sport model. Such exploration can help inform what facilitates learning of this model, what barriers are encountered, how T&D activities can be structured and facilitated to optimise learning of the model, and how features of the model may be adapted to different community program settings. Scholars have called for more research on leaders' T&D to explore how leaders perceive, negotiate, and apply knowledge within their contexts (Nelson et al., 2013). In this dissertation, the knowledge-to-action processes that influence learning in a multi-faceted T&D intervention were explored. Here, leaders' learning was considered a mechanism of knowledge translation (Lyle, 2018b).

Program Evaluation

Conducting research and evaluation of programming can help to build strong empirical knowledge bases and results can be used to improve the policies, procedures, and practices of these programs (Guyadeen & Seasons, 2018; Nation et al., 2003). Evaluation has been advocated for as an essential criterion in the operations of community and youth sport programming (Coatsworth & Conroy, 2007; Gould, 2019; Petitpas et al., 2005). While traditionally, program evaluation usually occurs at the end point of an initiative in judging a program's effectiveness or value, scholars and evaluation groups have recommended to treat evaluation as an ongoing,

flexible process that informs program improvements, and that is adaptive to changing environments, people, goals, and research on evidence and theory-based best practices (Guyadeen & Seasons, 2018).

Evaluations can incorporate process and/or outcome evaluation components. Outcome evaluations are most common and focus on assessing whether a program meets its desired/intended goals or outcomes within and beyond the program environment. Process evaluations can focus on assessing to what extent a program was implemented as planned (adherence), how well it was implemented (quality), and how programs may have been configured to changing contexts, people, and circumstances (adaptability; Berkel et al., 2011). This type of evaluation can help bring insights into how the program was done but also how programming may link to the results of outcome evaluations (Linnan & Steckler, 2002). Programs that take up ongoing evaluation activities can monitor how their program is working, learn through trial and error, and adjust when activities are not feasible and/or not meeting desired outcomes. Given the low likelihood of initial or pilot programming to run flawlessly and/or reach desired outcomes optimally, it is important to incorporate evaluation and learnings from these implementations to inform future implementations (Berkel et al., 2011). Evaluations can also be used to enhance accountability and credibility of programming to beneficiaries (e.g., leaders, youth, community members, funders) by offering evidence of the program's success and feasibility.

Theoretical Approaches

Knowledge-to-Action Cycle

Knowledge translation is regarded as an active process of applying research into practice to improve health services or health outcomes. The Canadian Institute for Health Research (CIHR) defines KT as “a dynamic and iterative process that includes synthesis, dissemination,

exchange, and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products, and strengthen the health care system.” (Canadian Institutes for Health Research, 2016). KT may also refer to related, overlapping, or synonymous terms and processes such as knowledge exchange, knowledge transfer, knowledge mobilization, implementation science, knowledge integration, and research utilisation, which collectively refer to the use of various forms of knowledge (including research) into action (Grimshaw et al., 2012; McKibbon et al., 2010; Nilsen, 2015). The use of knowledge generally falls under two umbrella approaches: end-of-grant KT, and integrated knowledge translation (iKT). End-of-grant KT involves conducting KT at the end of the research process, most commonly through knowledge *dissemination* – where research findings are tailored to research users to consider and potentially action in their work. (Canadian Institutes for Health Research, 2016). Conversely, iKT aims to engage research users with researchers throughout the research process (not only at the end). The main process here is knowledge *exchange*, which involves interactions between researchers and research users, resulting in mutual learning throughout planning, knowledge production, dissemination, and application (Canadian Institutes for Health Research, 2016).

The importance of implementing KT is to reduce the gap between scientific evidence and practice (Grimshaw et al., 2012). James et al., (2017) stressed the need for using KT approaches to guide trauma-sensitive research, to transition from dissemination that is oriented to “letting it happen” to re-orientation to “making it happen”. In the field of sport, theory-practice gaps have been identified in sport leaders’ development (Abraham & Collins, 1998; A. J. Bush et al., 2013; Cushion & Lyle, 2010; Lyle, 2018b), sport policy (Holt, Pankow, et al., 2018), sport sciences (Bishop, 2008), and youth sport (Gould, 2016; Holt & Knight, 2014; Martindale et al., 2005).

Scholars have recognised that much of the research conducted in sport has limited

practical relevance and does not reflect the complexity of the coaching process (Abraham & Collins, 2011; Bowes & Jones, 2006). R. L. Jones (2011) argued that the “blame” for the theory-practice gap in sport is on “both sides”, in that academics may value theory development more than improvements to practice, while leaders may regard research-based theory as unnecessary in comparison to practice-based theory. On the other hand, Lyle (2018) posited that most academics adopt intentions for conducting and disseminating research to improve practice, however these research dissemination practices and the outputs themselves are not tailored well to the recipients/beneficiaries they are intended for. As well, practice-based theories have credibility as they are derived from knowledge that leaders generate through their practice and store as experiences (Eraut, 1994; Lyle, 2018b); however, these practices are simply not collected and disseminated the way research-based theories are. Many current research outputs are prone to take research findings and generalise, decontextualise, and reduce findings to recommendations, which thus only serve to reinforce what leaders already knew about their practices (Lyle, 2018b). Thus, *in situ* intervention studies are necessary to generate understandings of the particularity of contexts, and leaders’ learning and knowledge application within these contexts, so that research results may be more relevant, contextualised, and actioned to enhance leaders’ contexts and practices (Lyle, 2018b).

The knowledge-to-action cycle (KTAC; Graham et al., 2006) offers a model to visualise the processes in which knowledge is put into action (see Figure 1). The KTAC has been used in over 140 health-related studies (Field et al., 2014) and has recently been used to guide studies in youth sport (e.g., Holt, Camiré, et al., 2018; Kosmenko et al., 2019) and trauma-sensitive practice (Galvin et al., 2021; Pizzirani et al., 2020).

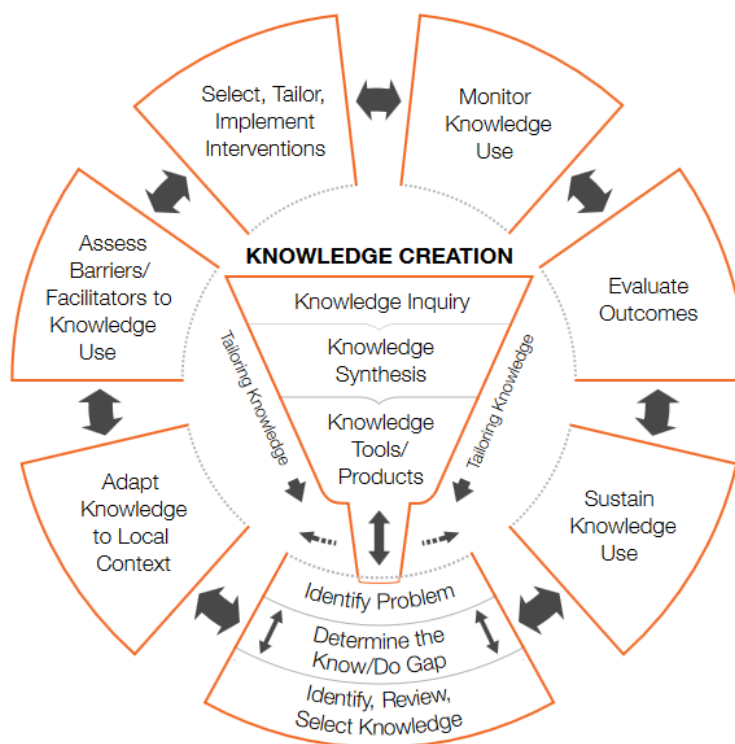


Figure 1. *The Knowledge-to-Action Cycle as Conceptualised by Graham et al. (2006)*

Two components comprise the KTAC – knowledge creation and the action cycle – and these components involve several phases. The knowledge creation component involves the synthesis of primary studies, which is then used to develop knowledge products that present knowledge in clear, accessible ways. The intent of this component is to package knowledge to be put into action by potential knowledge users. The action cycle concerns the use of this knowledge in practice, and spans seven phases: (a) identify the problem or knowledge gaps; (b) identify, review, and select knowledge relevant to the problems or gaps; (c) adapt this knowledge to the local context in which it will be used; (d) assess barriers and facilitators to knowledge use in the local context; (e) select, tailor, and implement interventions to introduce knowledge to potential knowledge users (interventions here refers to initiatives to increase knowledge use in knowledge users); (f) monitor knowledge use; (g) evaluate outcomes of the knowledge use; and (h) sustain ongoing knowledge use. As seen in Figure 1, these phases are ordered sequentially, allow for

reciprocal back-and-forth between phases, and fluid boundaries. Multiple phases could be undergone at the same time, overlap each other, occur out of order, and practices in one phase can inform practices in other phases (Graham et al., 2006).

The KTAC has been recently used in sport-based PYD to guide the development and implementation of an intervention to promote the use of research into youth sport practice (PYDSportNET; Holt, Camiré, et al., 2018; Holt, Pankow, et al., 2018). The use of KTAC in conceptually examining processes involved in translating a trauma-sensitive sport model in community-based youth programming can help generate insights of strategies and challenges of implementing these interventions, to inform future intervention efforts. For this dissertation, the KTAC was applied as an overarching approach to guide the exploration of knowledge-to-action throughout the studies.

RE-AIM Framework

The *RE-AIM framework* is a holistic approach to guiding and evaluating the implementation success of an intervention. This framework has been used in the planning, implementation, and/or evaluation of over 430 studies (RE-AIM, 2022), and can be used to contextualise and extend science into real world settings (Kwan et al., 2019). The framework spans five dimensions that capture key indicators of intervention success: (a) reach: the extent that an intervention reaches the intended population; (b) effectiveness: the extent that an intervention achieves key outcomes, (c) adoption: the number of stakeholders that adopt the intervention, (d) implementation: the extent and quality of executing the intervention, and (e) maintenance: how well the intervention is sustained over time. All dimensions are complex and multi-faceted. For instance, implementation can focus on: (a) fidelity, or the extent to which an intervention is implemented consistently across contexts, (b) quality, or how well the intervention is implemented across contexts, and (c) adaptation, or how much the intervention is modified

based on the demands of the contexts. In research relevant to the present study's context, scholars have used the RE-AIM framework to evaluate different levels of programming: programming offered by multi-service sport organizations (Lawrason et al., 2020); school and community-based physical activity programs (Janssen et al., 2013; Koorts & Gillison, 2015); coach development programming (Richmond et al., 2021; Van Hoya et al., 2015); and coach-delivered training interventions in community sport (J. C. Brown et al., 2016; Finch & Donaldson, 2010; Mawson et al., 2018). These studies collectively demonstrate the wide applicability of RE-AIM to assessing program implementation across contexts. Thus, in this dissertation, RE-AIM was used to evaluate a pilot intervention using a trauma-sensitive sport model for youth programming.

Value-Creation Framework

Scholars in human learning have conceptualised the learning and use of knowledge by people and communities as *value-creation* (Wenger-Trayner & Wenger-Trayner, 2020; Wenger et al., 2011). The value-creation framework can help to assess social interventions by providing a framework to link different social learning interactions to desired outcomes (see Figure 2). Value-creation is visualised across eight cycles that stem from social learning interactions: (a) orienting value, generated from understanding one another's contexts and biographies (internal dimension) and the broader contexts of practices (external dimension), to improve the relevancy of the space and connect it with resources and relationships across other spaces; (b) immediate value, generated from connecting with knowledge that one values and is interested in, feeling part of something bigger than oneself, having fun, being pushed out of one's comfort zone, and interacting with others who share similar values and priorities in their participation; (c) potential value, generated from co-constructing novel knowledge (e.g., approaches, perspectives, relationships, and/or resources), that have the potential to be applied in one's practice; (d) applied value, generated from the application of new knowledge, and reflection on the nature of this

application (e.g., in terms of feasibility, usefulness, quality, importance); (e) realised value, generated from the extent to which application of new knowledge is conducive or can contribute to changes that the person may care to make; (f) transformative value, generated from transformative changes to peoples' biographies (internal dimension) and their broader contexts (external dimension), beyond the specific changes that were anticipated by participants in the space; (g) strategic value, generated from engagement with one another and joint intentionality to make a difference to the space (internal dimension), and intentions to improve connections and partnerships outside of the space (external dimension); and (h) enabling value, generated from participants in the space being keen to learn how to learn (internal dimension), and people beyond the space providing support and resources for learning (external dimension). The first six cycles are ordered sequentially and involve reciprocal feedback loops; the value that is perceived in one cycle (e.g., applied value) can inform the next cycle (e.g., realised value), while also re-informing the previous cycle (e.g., potential value). That said, value does not always move sequentially across all cycles. The latter two cycles constitute the processes that enable feedback loops between the first six cycles and social learning interactions (Wenger-Trayner & Wenger-Trayner, 2020). In sport research, the value-creation framework has been used to evaluate social learning spaces for improving leaders' coaching practices (Bertram et al., 2015, 2017; Culver & Duarte, 2022; Duarte et al., 2021). Similarly, in this dissertation, this framework was used to evaluate how different social learning interactions influence the learning and use of knowledge of a trauma-sensitive sport model for youth programming by leaders in a community sport-providing organization.

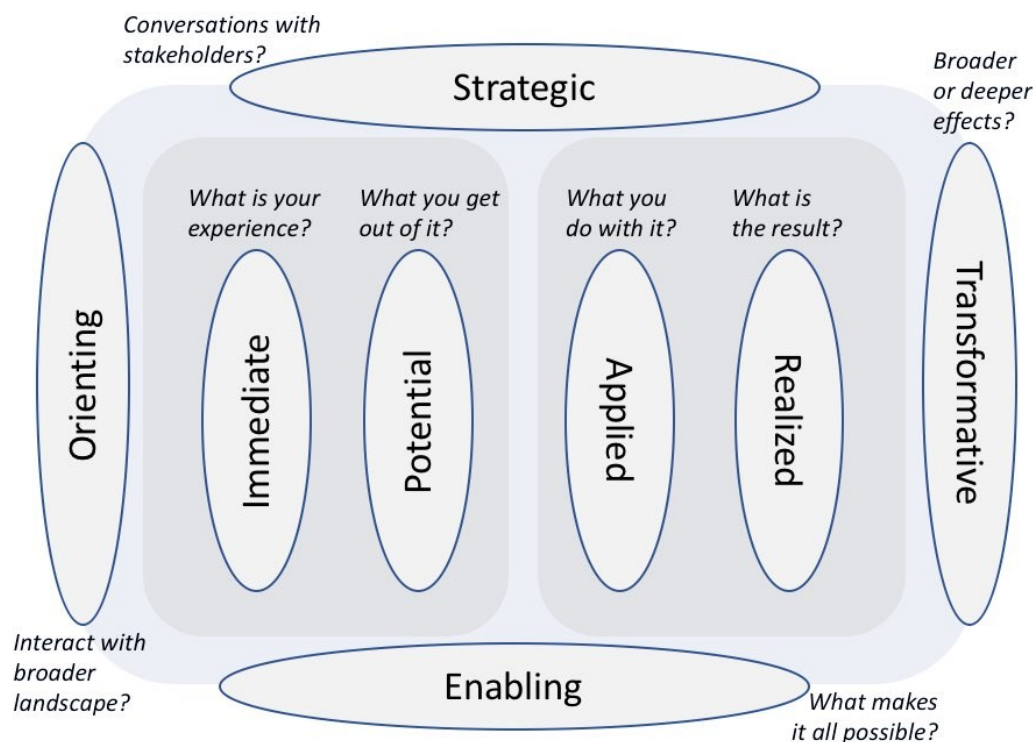


Figure 2. Value-Creation Framework by Wenger-Trayner and Wenger-Trayner (2020)

Promising Practices

The *promising practices* are a set of criteria for out-of-school programs that may be conducive to PYD outcomes. These criteria were developed by Policy Studies Associates Inc., (2005) for the Study of Promising After-School Programs (Vandell et al., 2005). Eight research-based criteria were proposed which included: (a) supportive relations with adults: fostering caring relationships with youth and actively supporting them with their needs; (b) supportive relations with peers: encouraging youth to interact with one another respectfully, supportively, and cooperatively; (c) level of engagement: designing and facilitating activities and discussions that engage youth's attention and immersion, (d) opportunities for cognitive growth: creating activities that engage youth in higher-level thinking, reflection, and life skill building; (e) appropriate structure: organising programs with consistent and predictable schedules, with clear rules and expectations for respect and participation, and a learning-focused curriculum or

program model; (f) over-control: allowing youth to exercise self-direction in their participation without imposing, and allowing them to learn through practice and experimentation; (g) chaos: managing individuals' and groups in productive levels of participation and addressing disruptive behaviours as they arise; and (h) mastery orientation: promoting skill-building through explicit instructions and modeling of skills/concepts, and creating and facilitating activities with progressive challenges and tasks. The promising practices have been used as a framework to assess the nature and quality of out-of-school community programming (Vandell et al., 2004, 2006; Vandell, Reisner, et al., 2005). Thus, in this dissertation these criteria were used as a framework for categorising key program implementation features and assessing the delivery of a trauma-sensitive sport model to community programming.

The Current Study

BGC Canada offers community programming to children and youth of all ages. The mission of BGC Canada is to provide a safe, supportive place where club members can experience new opportunities, overcome barriers, build positive relationships and develop confidence and skills (BGC Canada, 2022). While BGC Canada welcomes club members of all backgrounds, they are typically located in neighbourhoods that have a high presence of underserved youth; more than 70% of the families served are in low-income situations (BGC Canada, 2022).

In 2016, BGC Canada began the process of developing the Bounce Back League (BBL) to action a trauma-sensitive sport model for youth programming, funded through the Public Health Agency of Canada's Family Violence Prevention Investment. The overall objective of the BBL initiative was to train program leaders in the trauma-sensitive sport model and have them design and deliver this programming to help address the physical and mental health needs of BGC Canada members who may have been affected by family violence. The initiative was

initially planned as four stages: (a) the pilot: the development of trauma-sensitive sport programming across three core clubs; (b) adaptation and refinement: using the evaluation of the pilot program to adapt and refine the program for the next stage; (c) the expanded rollout: rolling out implementation of the program across an additional ten clubs; and (d) sustaining programming: putting into action a plan to actively disseminate the knowledge produced from this initiative to improve BGC Canada practices. Over time, the nature of this initiative development plan changed due to adaptations to programming resulting from monitoring and evaluation insights, and external factors such as inconsistent funding, changes in organizational leadership, leader turnover, and the COVID-19 pandemic. A description of how the BBL initiative changed over time is offered in Article 1.

Bounce Back League

Theories of change can be useful to conceptualise how and why a program operates. The CCMO (Context, mechanism resource, mechanism reasoning, outcomes) configuration is a useful tool to make sense of a program's theory of change (Pawson & Tilley, 2012; Ryan et al., 2022). The context refers to the pre-existing characteristics of the people in the environment, and the nature of the environment itself that surrounds the program. Context is ever-changing, fluid, and operates through time within, across, and around the program. *Mechanism resources* refer to the entities in the environment that are intended to influence the participant's experiences, such as support, staff, time, and activities. *Mechanism reasoning* relates to how the resources are reacted to, such as participant's experiences and perceptions of the resources. Finally, *outcomes* relate to the effects caused by the mechanisms within the context.

Thus, a briefly summarised program theory for BBL looks like: Youth who may be undergoing current or past adverse or traumatic experiences participate in a weekly out-of-school sport program (context), where they engage in structured activities led by leaders trained to

deliver youth programming using a trauma-sensitive sport model (mechanism resources). Such practices by leaders may include fostering safe environments, positive and supportive interactions with youth, intervening with youth in times of stress, and providing youth opportunities to build skills. These youth would then experience a sense of belongingness, positive interactions with peers, immersion in sport, support in times of stress, and competency-building (mechanism reasoning), which will lead to their development of resilience-related skills that they can apply from sport to life, and enhanced sense of well-being (outcomes). The leaders, through their training and involvement in a variety of learning opportunities (mechanism resources), would engage in learning that results in changes to their knowledge, skills, attitudes, confidence, and behaviours (mechanism reasoning), that may result in transformative changes to their perspectives and practices related to youth work (outcomes). Article 1 provides more details on the program components and their implementation over the 5 years of the initiative.

Description of Articles

The overall purpose of this dissertation was to understand the knowledge-to-action processes of the implementation of a trauma-sensitive sport model for youth programming within a community organization. A map of this dissertation can be found in Table 1; the purposes of each paper and their connections to theoretical approaches described in the previous section are outlined below.

The purpose of **Article 1** was to describe the process and partnership of developing BBL from 2016-2021. The article outlined how the KTAC was used as a guide to map out key KT phases for translation of a trauma-sensitive sport model to youth programming in BGC Canada.

The purpose of **Article 2** was to explore the processes and outcomes of implementing BBL during the pilot stage. This article paralleled the *assess barriers and facilitators to knowledge use* phase of the KTAC model, in describing what constrained or facilitated

programming. The RE-AIM framework was used to assess key indicators of program success.

The purpose of **Article 3** was to explore leaders' learning experiences as they participated in initial training workshops to learn a trauma-sensitive sport model, and prior to implementing programming. This article paralleled the *select, tailor, and implement interventions* and the *evaluate outcomes* phases of the KTAC model, in examining how the leaders perceived their participation in the training workshop, and what they felt was gained from their participation. The value-creation framework was used to interpret the different ways leaders' interactions in the space were associated with relevant and meaningful benefits to learning.

Article 4 continued from the previous study; the purpose of this study was to explore leaders' learning experiences as they participated in various T&D activities, and while they implemented programming. Like Article 3, this article also paralleled the *select, tailor, and implement interventions* and the *evaluate outcomes* phases of the KTAC model, in examining how the leaders perceived their participation in various T&D activities, and what they felt was gained from their participation in T&D activities and in implementing the program. The value-creation framework was used again to interpret the different ways leaders' interactions throughout their participation were associated with relevant and meaningful benefits to themselves and their broader contexts.

The purpose of **Article 5** was to assess the fidelity and quality of applying the trauma-sensitive sport model to youth programming. This article paralleled the *monitor knowledge use* phase of the KTAC model, in examining how leaders applied their knowledge gained from participation in T&D activities. The *promising practices* were used as a framework to assess key program features related to positive youth development.

854 Table 1. *Map of the Dissertation Articles*

Purpose of Dissertation: To evaluate the knowledge-to-action processes in the implementation of a trauma-sensitive sport model for youth programming				
	Article 2	Article 3	Article 4	Article 5
KTAC Phases	Assess barriers and facilitators.	Select, tailor, and implement interventions. Evaluate outcomes.	Select, tailor, and implement interventions. Evaluate outcomes.	Monitor knowledge use.
BBL Phase	Pilot phase. 2017-2018.	Pilot phase and expansion phase. 2017-2019.	Pilot phase until end-of-funding. 2017-2021.	Expansion phase. 2019 –2020.
Purpose	To explore factors involved in the implementation of a trauma-sensitive sport model in BBL.	To explore leaders' learning experiences from participating in initial training workshops prior to implementing BBL.	To explore leaders' experiences from participating in a variety of training and development activities as they implemented BBL.	To examine the fidelity and quality of leaders' application of the trauma-sensitive sport model in BBL.
Research Questions	How successful was BBL programming on dimensions of reach, effectiveness, adoption, implementation, and maintenance, and what facilitated or constrained this success?	How does participation in a training workshop constrain or facilitate program leaders' learning and application of a trauma-sensitive sport model to programming? How effective was the training workshop on leaders' learning?	How did leaders learn as they implemented BBL? How effective were training and development opportunities on leaders' learning?	To what extent do leaders apply knowledge of a trauma-sensitive sport model in programming? What was the quality of leaders' application of a trauma-sensitive sport model in their programming?
Conceptual / Theoretical Approach	RE-AIM Framework (Glasgow, 1999; re-aim.org, 2022).	Value-creation framework (Wenger-Trayner & Wenger-Trayner, 2020). Human learning theories.	Value-creation framework (Wenger-Trayner & Wenger-Trayner, 2020). Human learning theories.	Promising practices (Vandell et al., 2005).
Methodology	Intrinsic case study. Multi-site process and outcome evaluation.	Phenomenological case study.	Phenomenological case study.	Intrinsic case study. Multi-site process evaluation.
Procedure	Retrospective analysis of pilot data.	Participants were sampled from leaders planning to attend initial training workshops. Data were collected prior to, during, and immediately after the training workshops.	Participants were sampled from leaders who implemented BBL programming. Data were collected as leaders implemented BBL and participated in training and development activities, and at post-funding.	Programs were sampled from existing clubs who were implementing BBL, and participants were sampled from leaders who were implementing these programs. Data were collected as leaders implemented BBL.

Methods	Individual and group interviews, Leader-reported logbooks, Leader-completed report cards.	Individual interviews, Researchers' observations, Leaders' self-reported questionnaires on relevant knowledge, attitudes, and satisfaction.	Individual and group interviews, Researchers' observations, Archives of community discussions, Leaders' self-reported questionnaires on relevant knowledge.	Individual and group interviews, Researchers' observations, Leader-reported logbooks.
----------------	---	---	---	---

855 Note: Article 1 was not included in this table as this article covered the processes of partnering and developing the BBL, including the procedures carried out in
856 Articles 2-5, and provided an overview of how BBL implementation stages were conceptually connected to the KTAC model

CHAPTER II

Methodology

Research Positioning

MS identified as a Canadian man with Pakistani and East African roots born to Muslim refugee parents. His family grew up in low-income housing and his affordance of opportunities for sport and recreation early in his childhood was limited. In late adolescence through to young adulthood, **MS** was involved in youth development and physical activity-based community programming as a participant and later as a facilitator/counsellor. His experiences led him to his current research area and interests in sport-based youth development programming for underserved youth. Based on his personal experiences as well as his familiarity and expertise with relevant empirical, theoretical, and practice-based knowledge (Bean & Forneris, 2016; Bergholz et al., 2016; Holt et al., 2020), **MS** has carried out this dissertation work with the assumptions that intentionally structured sport-based youth development programs result in mutual benefits to leaders (i.e., enhanced personal knowledge, attitudes, skills, and values, and caring relationships with youth), and members (e.g., prosocial behaviours, resilience-related skill building). These assumptions were recognised by **MS** and his co-supervisors as advantageous to this program of work on a practical level, in enabling deeper relatability with the organizational partners and its membership, and building trusting relationships with these partners, which resulted in greater access to the organizations' resources and avenues for data collection - ultimately enhancing this work. These assumptions also enabled greater commitment for **MS** to engage reflectively and critically with this work, given its personal meaningfulness to him. However, **MS** also recognised the need to be intentional in bracketing some of these assumptions, to not diminish or override the perspectives, viewpoints, and feedback of participants in this study, who may or may not align with **MS's** interpretations. Thus, **MS** engaged in practices of

reflexivity and trustworthiness that are described further in the articles offered in this dissertation.

Paradigm

This study operated within a pragmatic paradigm. Pragmatism is a worldview that suggests that different methods and tools may be useful in different contexts; thus, it is practical and appropriate to use and adapt multiple different methods to address an initiative's research questions (Hesse-Biber & Johnson, 2015). The research questions are of primary importance, more so than the methods or philosophies; as such, this paradigm is not constrained by the epistemological values of incommensurability (Denzin et al., 2018) that are typically adopted in more purist representations of quantitative and qualitative research designs; quantitative and qualitative paradigms are seen as compatible and can be used in conjunction with one another. This approach privileges the practical relevance and usefulness of methods over their philosophical underpinnings.

Research Approaches

A community-based participatory research (CBPR) approach was adopted for this initiative; here, community partners were equitably involved in a collaborative process with researchers and experts who aimed to produce actionable change in improving the conditions of a community-identified problem or issue (Frisby et al., 2005; Israel et al., 2001). These processes value co-construction and knowledge exchange between researchers and community partners, helping to bridge gaps between the two parties and increase the relevance of research findings (B. Smith et al., 2022). Several principles of CBPR have been proposed by scholars (Israel et al., 1998, 2017), including: (a) recognising the community as a unit of identity, and partners work with this community to strengthen their sense of identity through collective engagement; (b) building a community's strengths and resources, such as developing people's skills, access to resources, and engagement in meaningful social networks; (c) facilitating collaboration, equitable

partnership, and power-sharing through recognising social inequalities that implicate community members, and engaging these members in the research process to inform the relevancy of research in guiding community-identified issues; (d) promoting co-learning and capacity-building of partners, through learning from partners' existing knowledge and competencies, and facilitating opportunities for partners to develop research competencies; (e) integrating and achieving balance between research and action for the benefit of all partners, through generating information that can inform action, and using translation strategies to facilitate the actionability of this information; (f) emphasising public health problems of local relevance and taking ecological approaches to address multiple determinants of health; (g) developing systems through cyclical and iterative processes across multiple phases including development, monitoring, evaluation, and actioning; (h) disseminating results to all partners through translating results in understandable and respectful ways; (i) committing to long-term processes and sustainability, through developing relationships and planning beyond a funding period, and (j) addressing issues of systems of oppression that influence the experiences of historically marginalised populations, and practicing cultural humility. CBPR has been advocated as an approach to community-based sport research, to help researchers engage in knowledge exchange processes with community members, empower community members in research decision-making processes, increase the relevancy of research activities and results, promote the usability of research results for action in program decision-making and improvement, and improve the capacities of leaders to self-sustain interventions beyond grant funding periods (Jull et al., 2017; Schinke & Blodgett, 2016; B. Smith et al., 2022). This, this approach was suitable for addressing science-to-practice gaps identified in youth sport (Lyle, 2018b).

The community partners in this initiative, collectively referred to as the leadership team, worked together throughout all stages of the initiative. The team comprised of BGC Canada

929 administrators, master trainers from Edgework Consulting, and the evaluation team. The two
930 BGC Canada administrators held different positions. The first position was the Director of
931 National Programs, responsible for overseeing the initiative, and the Manager of National
932 Programs, responsible for initiative logistics and finance. The positions encountered turnover at
933 the onset of the pandemic. Two new staff took over the BBL profile in May 2020, and again in
934 May 2021 and August 2021. Edgework Consulting conducts several sport-for-development
935 initiatives with youth-serving organizations, emphasising the development of interventions,
936 curricula, and training grounded in trauma-sensitive and healing-centred philosophies. In this
937 initiative, Edgework was primarily responsible for the methodology of the intervention (the
938 design, training, and facilitation of BBL). The two members of Edgework, LB and MR, took on
939 roles as master trainers, in which they were subject matter experts, course designers, mentors,
940 assessors, and workshop facilitators throughout the initiative. Finally, the evaluation team was
941 comprised **MS**, **TF**, and **CB**. **TF** was the lead evaluator on this project, bringing her research
942 expertise in sport-based youth development, and her practical expertise in community-based
943 program development and evaluation, to lead the direction of evaluation questions and activities
944 and contribute to the program curriculum and design. **MS** and **CB**, both sport-based youth
945 development researchers, were evaluation consultants on this initiative. They were responsible
946 for choosing and adapting the evaluation measures, training leaders to incorporate various
947 evaluation measures, analysing and reporting findings, soliciting feedback from leaders on their
948 experiences of evaluation and interpretations of the results, and providing recommendations for
949 improving programming. Gradually over the pilot and accelerating as **MS** embarked on his PhD
950 dissertation, **TF**'s role as lead evaluator was transitioned to **MS**, and **MS** took most of the
951 responsibility for directing and carrying out evaluation activities. Throughout, team members met
952 over the phone bi-monthly and in-person at all training workshops that were hosted for the

initiative. All teams worked together to share resources, connect with clubs, oversee implementation, adaptation, and evaluation, and reflect on program processes, evaluation findings, and decision-making for program adaptation and improvement.

Methodology and Methods

For this dissertation, intrinsic case study methodologies were adopted. This methodology involved the use of multiple methods to generate an in-depth exploration of phenomena within the boundaries of a *particular* case – that is, a case that is studied out of interest in that case (Stake, 2005). A case study is “not a methodological choice but a choice of what is to be studied” (Stake, 2005, p. 443); in this dissertation, the overall purpose was to explore the case of the BBL to understand knowledge-to-action processes and outcomes of implementing a trauma-sensitive sport model for youth programming in a multi-site community organization.

Utilisation-focused evaluation is commonly used to promote practical application of evaluation results (Patton, 2008, 2012). This method emphasises the importance of involving key beneficiaries in evaluation decision-making, to tailor the use of evaluation processes and outcomes to inform decision-making and program improvements. Such evaluation methods are often used in the initial or formative years of a program to identify lessons learned and use results to inform program improvements in subsequent iterations (Patton, 2008). Principles of utilisation-focused evaluation were used including: (a) soliciting input from the leadership team and on what to evaluate; and (b) soliciting feedback from BGC Canada leaders on the successes and challenges of doing evaluation, how to improve evaluation activities, and the kinds of data, results, and reporting of results that were most valuable to them.

A mixed-methods research design, in which both quantitative and qualitative approaches to research are employed, was used in this initiative. This dissertation used a multi-stage mixed methods approach (Nastasi et al., 2007), in which each of the studies adopted a convergent design

where quantitative data and qualitative data were gathered concurrently (Fetters et al., 2013). Within a given study, once the data were collected, they were analysed separately, and then integrated to elaborate or expand on one another to present a compelling picture of the phenomena in question (Brannen & O'Connell, 2015). In all studies, the qualitative data were regarded as the primary data while the quantitative data were regarded as supplementary, as qualitative approaches are highly valued when gaining initial insights into an emerging area of research (Horn, 2011). This mixed methods research design is appropriate for problem-centred studies in which methods and theories are used instrumentally, in line with a pragmatic paradigm (Leavy, 2017).

Across the studies, a range of methods were used. The descriptions of these methods are further offered within each of the articles. Methods included: (a) individual and group semi-structured interviews with participants on their experiences of learning and program implementation (see Appendix C for interview guides); (b) leaders' self-reported questionnaires throughout initiative implementation on relevant knowledge, attitudes, and training satisfaction (see Appendix D for all questionnaires); (c) researchers' observations of training sessions and program sessions using rigorous field notes and a rating system (Example of a program session observation scale is in Appendix E), (d) logbooks completed by leaders on their session-by-session program implementation experiences (see Appendix F), (e) report cards completed by leaders to assess and report on youth's participation in programming (see Appendix G), and (f) participation in an online messaging platform (Slack; see example in Appendix H). A range of analyses were employed to analyse these data, including quantitative analyses (e.g., descriptive statistics, *t*-tests, Wilcoxon Signed-Rank Tests), and qualitative analyses (e.g., thematic analysis, content analysis), and the steps carried out to conduct these analyses are described in further detail within each article.

1002

CHAPTER III

1003

Results

1004

1005 **Article 1: Integrating a Sport-based Trauma-sensitive Program in a National Youth-serving**
1006 **Organization**

1007 Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a sport-
1008 based trauma-sensitive program in a national youth-serving organization. *Child and*
1009 *Adolescent Social Work Journal*, 38, 449–461. [https://doi.org/10.1007/s10560-021-00776-](https://doi.org/10.1007/s10560-021-00776-7)

1010 7

1011

Abstract

There is a pressing need to equip youth-serving community organizations to respond to the unique needs of trauma-exposed children. Early prevention measures can be an effective means of redirecting children to self-regulatory healing, while facilitating their transition toward strength-based thriving. Sport can offer a powerful opportunity to reach these children; however there remains little information on how to effectively develop, deliver, evaluate, and sustain trauma-sensitive sport programs in a community context. The purpose of this paper is to outline a case study of integrating a trauma-sensitive sport model for youth programming with the BGC Canada's national Bounce Back League program. An interdisciplinary partnership of academic, community, and practice experts used a community-based participatory action research approach, paired with a knowledge translational approach, to guide the process of program development. Mixed methods (e.g., surveys, logbooks, interviews, focus groups, online communications) were used to generate ongoing insights of staff's training experiences, successes and challenges of program implementation, and potential impact of program on club members. Several stages of program development are described, including: (a) collaboratively planning the program; (b) piloting the program to three clubs; (c) adapting the program using pilot insights; (d) expanding the adapted program to ten clubs; and (e) creating opportunities to maintain, sustain, and scale-out practices throughout grant duration and beyond. Lessons learned regarding the leadership team's experiences in terms of developing, adapting, and integrating trauma-sensitive practices in this community context are shared.

Keywords: community-engaged, child, knowledge translation, evaluation, scale-out

Introduction

The high prevalence of traumatic exposure in childhood underscores the need for systematic approaches to mitigate potential harm (Felitti et al., 2019). In Canada, 32% of adults report that they experienced abuse in childhood (Afifi et al., 2014). Childhood maltreatment has been associated with increased risk of negative outcomes in adulthood (e.g., depression, anxiety, psychosis, and suicidal behaviours; Li et al., 2020; Liu et al., 2017). Several different childhood experiences can contribute to traumatic consequences, including abuse, neglect, household dysfunction, peer victimization, racial discrimination, and community violence exposure (Alvarez, 2020; Matheson et al., 2019). Children living in under-served communities (e.g., from families facing inadequate housing conditions, financial strain, or food insecurity) are disproportionately exposed to and affected by traumatic experiences (Drake & Jonson-Reid, 2014). Community workers can use a strengths-based approach to mitigate these negative consequences and foster psychosocial skills in children, including resilience (i.e., positive adaptation in the face of adversities; Folke, 2016); trauma-sensitive practices have been gaining traction as an effective means to promote resilience-building.

Trauma-sensitive practice involves leveraging protective factors that promote healthy development in child engagement activities (e.g., supportive adult-child relationships, sense of safety, opportunities to build competence; NCTSN, 2015). The Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) proposed four “Rs” of trauma-sensitive practice: (a) realising the widespread impact of trauma, (b) recognising the signs and symptoms of trauma in children, (c) responding by embedding trauma knowledge into practice and policy, and (d) proactively resisting re-traumatization. Community workers routinely encounter trauma-exposed children (Mersky et al., 2019); when these workers integrate trauma-sensitive practice, they are more responsive to these children’s needs and are better equipped to intervene and

reduce trauma-related harm. The evidence base on trauma-sensitive practice is growing; initiatives in early childcare and education, schools, child welfare, and behavioural health, have observed improvements in positive developmental outcomes for children (e.g., Bartlett et al., 2018) and reduction in children's trauma-related symptomatology (e.g., Barto et al., 2018).

A Trauma-sensitive Sport Model

Community sport contexts offer popular, enjoyable, and motivating opportunities to build skills (Holt et al., 2020), and can reach many unscreened trauma-exposed youth (Bergholz et al., 2016). For trauma-exposed populations, sport can offer healthy psychological escape, sense of belonging, and promote embodiment and control (Massey & Williams, 2020). However, sport can also expose children to negative experiences (e.g., bullying, maladaptive coaching practices, overwhelming pressure from ego-oriented climates; Crane & Temple, 2015). These experiences may be especially salient for children from under-resourced communities, and can trigger re-traumatization (Massey & Williams, 2020). Intentionally structured sport can be an avenue to mitigate negative experiences while promoting positive outcomes (Bean & Forneris, 2016).

A trauma-sensitive sport model for youth programming adopts a holistic pathway for youth development in using both deficit-reduction approaches (i.e., philosophies on how intentional youth engagement can mitigate trauma-related consequences) and strength-based approaches (e.g., ways of thinking in which all youth can thrive). In programs modeled using trauma-sensitive sport model, staff are trained on the negative impacts of trauma (e.g., emotional dysregulation, impairments in social relatedness), how trauma symptoms may be exhibited in sport (e.g., irritability, lack of focus, peer conflict), how sport can be used to build children's resilience from traumatic exposure (e.g., motivating environments, proximate child-adult interactions), and how to leverage and re-design sport (in terms of playing spaces, equipment, rules, roles, and structures) to support children's resilience building (Bergholz et al., 2016).

There is a dearth of literature regarding the processes of using a trauma-sensitive sport model for youth programming. Often, literature on sport-based youth development programs focuses on detailing program outcomes, without also detailing implementation processes (i.e., how the program was developed, the program content, and how it was delivered; Holt et al., 2020). Such work can unearth context-specific experiences of integrating these practices (i.e., successes and challenges), which in turn can help inform best practices for improvement and sustainability of youth sport programs. Therefore, the purpose of this paper is to: (a) describe a case study of the Bounce Back League (BBL), a youth program using a trauma-sensitive sport model hosted in multiple clubs of BGC Canada (formerly known as Boys & Girls Clubs of Canada), a national non-profit youth-serving community organization; and (b) outline lessons learned in the development of this program. The authors used a knowledge translation (KT) approach to describe how knowledge of a trauma-sensitive sport model for youth programming was translated and adapted to the BGC Canada community context, and how these practices were maintained and sustained.

Context and Partnership

Collaborative and mutually supportive relationships between community programmers and scholars offer multiple avenues of expertise in informing design, delivery, monitoring, and evaluation of sport-based youth development programs, and can promote program sustainability (Coakley, 2011; Welty Peachey et al., 2018). In 2016, the BBL project emerged from an interdisciplinary partnership comprised of: three researchers with expertise in sport-based youth development and program evaluation; (b) two master trainers from Edgework Consulting with expertise in building sport-based youth development programming and designing training activities to promote a trauma-sensitive sport model for youth programming; (c) two BGC Canada administrators who oversaw project activities and funding; and (d) three managers who

directed activities and services at three different BGC Canada clubs. This partnership, known as the BBL leadership team, collaborated on decisions and activities across all phases of BBL program development (i.e., conceptualization, planning, training, implementation, evaluation, adaptation, maintenance, and sustainability). The leadership team used a community-based participatory action research (CBPR) approach; here, all team members were equitably involved to produce actionable change in improving a community-identified issue (Coughlin et al., 2017). This research was grounded in pragmatism, where people and their contexts are in constant interaction, and these interactions shape the environment and the knowledge that is generated; thus, the research design was adaptable based on ongoing reflection and collaborative decisions made by the research team to address a shared goal (Hall, 2013). The methodologies and methods chosen for this study were based on what worked best to address the research questions and were most practical to implement within the context.

Guiding Approach: The Knowledge-to-Action Cycle

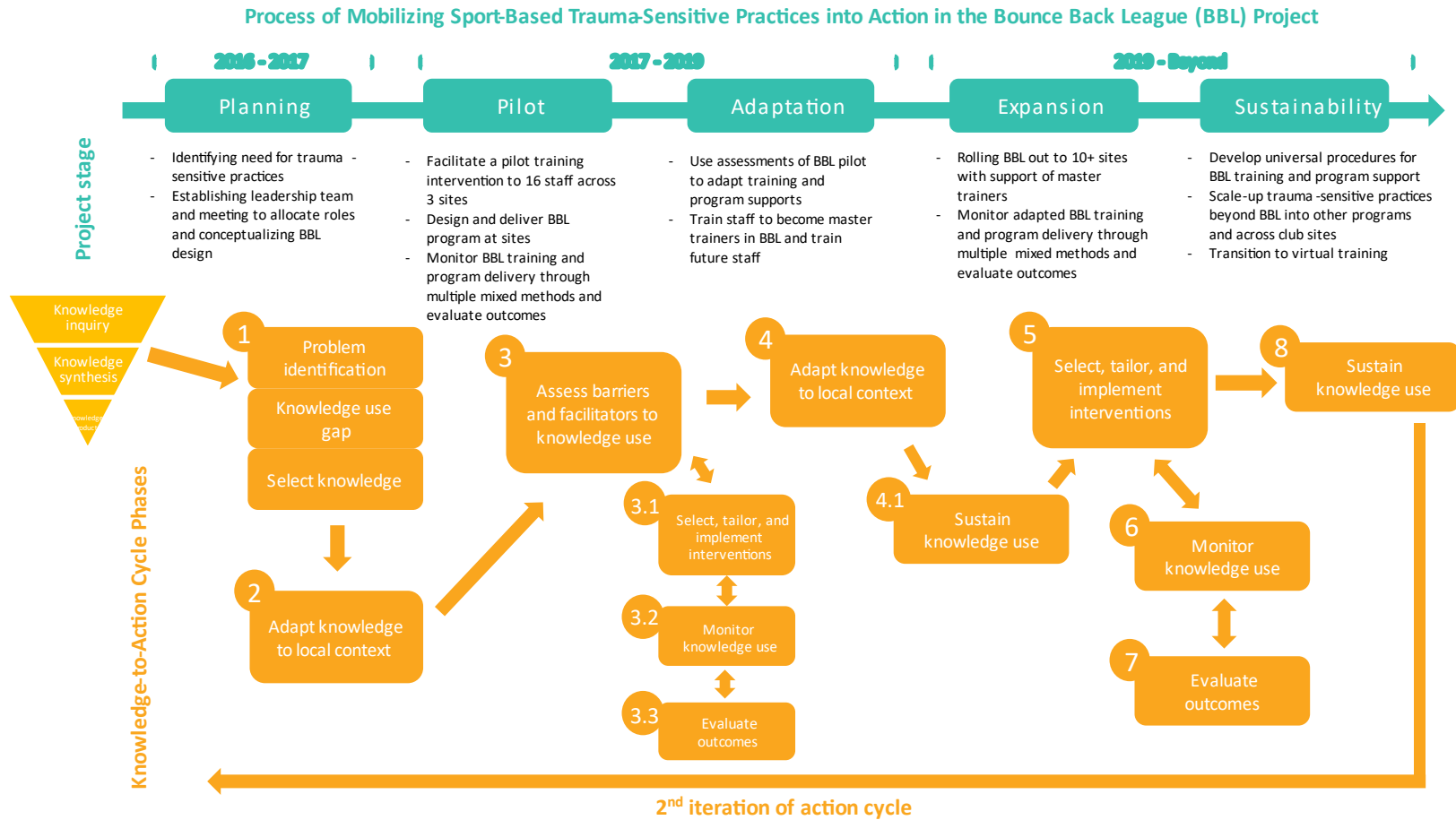
To understand and guide the use of knowledge in practice, it is useful to refer to KT approaches; knowledge translation involves the exchange, synthesis, and application of knowledge through a dynamic and iterative process of interactions between relevant stakeholders (Bowen & Graham, 2013). Using KT approaches within community partnerships are ideal for augmenting the uptake, integration, and sustainability of community programs (e.g., Bean, Sewell, et al., 2020). The knowledge-to-action cycle (KTAC; Graham & Tetroe, 2010) can help visualise the process in which a trauma-sensitive sport model was actioned in BGC Canada. The KTAC has been recently used to guide studies in sport-based youth development (e.g., Holt et al., 2018) and trauma-related practices (e.g., Pizzirani et al., 2020). Two components comprise the KTAC (*knowledge creation* and the *action cycle*). *Knowledge creation* involves synthesising primary studies to inform and develop knowledge products that can be actioned by knowledge

users. The *action cycle* concerns the use of these knowledge products and spans seven phases: (a) identifying the problem; determining the know-do gap; and identifying, reviewing, and selecting knowledge relevant to the problems or gaps; (b) adapting this knowledge to the context in which it will be used; (c) assessing barriers and facilitators to knowledge use in the local context; (d) selecting, tailoring, and implementing interventions to enhance knowledge use by potential knowledge users; (e) monitoring knowledge use; (f) evaluating outcomes of knowledge use; and (g) sustaining knowledge use. The application of KTAC can be iterative, with fluid boundaries between phases and reciprocal loops where practices in one phase can inform practices in other phases (Graham & Tetroe, 2010). Such was the case in this project.

Mobilising Knowledge into Action in the Bounce Back League

A case study methodology was used to understand the phenomenon of translating a trauma-sensitive sport model for youth programming to a community context (Creswell & Poth, 2018). This case study is bounded to the BBL program, developed by the leadership team, and hosted in 18 BGC Canada clubs, involving 50+ club staff and 600+ members. The KTAC guided project development and followed five stages: (a) planning – problem-identification and conceptualising BBL to align with BGC Canada’s needs; (b) the pilot – BBL rollout across three core clubs; (c) adaptation – using pilot insights to adapt BBL; (d) expansion – BBL rollout across 10 additional clubs; and (e) sustainability – capacity-building and knowledge dissemination activities to improve BBL in BGC Canada (see Figure 1 for the interactions between BBL stages and KTAC phases).

1150 Figure 1. *Process of Mobilising Sport-Based Trauma-Sensitive Practices Into Action in the Bounce Back League (BBL) Project*



Planning

In the planning stage, the KTAC phase of *identify a problem, determine the know-do gap, and identify, review, and select knowledge*, were focused on. The leadership team identified the *problem* that many BGC Canada club members (hereafter referred to as ‘members’) face risk of traumatic exposure (e.g., >70% of the families served are in low-income situations). These members may lack access to health promotional supports, especially if they have not been screened with a trauma-related disorder, despite exhibiting trauma-related symptoms. As well, many members may not have the developmental capacities to understand or articulate their experiences of trauma or lack power to disclose when the sources of trauma are from their close relationships. Thus, the leadership team identified the need to equip BGC Canada staff to support members’ unique needs. Many staff were already equipped with training related to facilitating positive youth development (e.g., [HIGH FIVE®](#)), mental health first-aid, crisis intervention, and referral protocols when identifying children who needed external health supports or clinical care. As well, many staff possessed experience in facilitating several youth development programs across domains of leadership, education, creative arts, and recreation. However, many staff were not equipped with knowledge (*know*) or skills (*do*) to support trauma-exposed members in times of dysregulation, promote self-regulation practices, or design environments that minimise harm and foster resilience-building.

To address this *know-do* gap, the knowledge that was *identified, reviewed, and selected* was a trauma-sensitive sport model for youth programming, and the purpose of this project was to build BGC Canada staff’s application of this model. This model was chosen given the popularity of BGC Canada’s sport programs, the numerous benefits these practices offer (Massey & Williams, 2020), and the ease to which they can be embedded into staff’s existing work. The model also operates at a low-profile—programs do not need to be marketed as trauma-related to

members or caregivers; rather, programs can be branded as unique sport experiences that intentionally teach resilience-related life skills through sport. This strategy avoids stigmatization, allowing all members to participate, undifferentiated by their trauma.

Next, *adapt knowledge to the local context* was focused on in the BBL planning stage. This process involved adapting a trauma-sensitive sport model for youth programming to the BGC Canada context, within their existing human resources, physical spaces, and organizational capacities. The leadership team met over three days to discuss adaptation and development. The core objectives of these meetings were to: (a) provide psychoeducation to stakeholders on the model, (b) conceptualise a program using the model that can be adapted to BGC Canada clubs, (c) generate buy-in from key BGC Canada managers who may champion the program, (d) develop a plan and establish timelines for the project, (e) formulate an evaluation process and identify key outcomes, and (f) solidify a process for collaboration and communication as a leadership team.

From these meetings, the leadership team developed connections with each other, generated value and excitement for the project, and collaboratively established the project goals, which included: (a) develop a training program that will build staff's competencies to apply a trauma-sensitive sport model for youth programming at their clubs, (b) have staff implement this model as the BBL program across 13 clubs (reaching 20-25 members [8-12 years old]/club, per season), (c) use a train-the-trainer model to build BGC Canada's capacity to maintain and sustain BBL, and (d) evaluate program components to inform BBL adaptations. In line with each goal were the intended outcomes: (a) staff implement BBL effectively at their clubs; (b) BBL members experience improvements in basic psychological needs support, resilience-related life skills, and well-being; (c) an in-house trainer team is formed to train future BBL staff beyond grant duration; and (d) program materials are developed with guidelines for effective BBL

1200 implementation.

1201 The leadership team established to communicate regularly on BBL program development
 1202 over monthly phone/video calls. Roles of team members were also established. Here, BGC
 1203 Canada administrators were responsible for coordinating, communicating, and checking-in with
 1204 clubs on an ongoing basis, which included relaying expectations and arranging for staff
 1205 involvement in BBL trainings. The master trainers were responsible for designing and delivering
 1206 the training to staff and holding ongoing phone/video calls with lead staff at each club to answer
 1207 design questions and offer feedback. BGC Canada managers were responsible for participating in
 1208 trainings and managing their own club's design and delivery of BBL.

1209 The researchers were responsible for developing evaluation tools, training staff on how to
 1210 use the tools, assisting clubs with collecting data during on-site visits, analysing and
 1211 communicating these data, and soliciting staff feedback regarding the feasibility of evaluation
 1212 activities in practice. The program was to be carried out over 4 subsequent years, including 2
 1213 years of piloting across three clubs with ongoing adaptation. Evaluation findings from pilot and
 1214 adaptation stages would inform the expansion to 10 clubs in the final two years. Use of a train-
 1215 the-trainer model would help build and maintain project sustainability beyond grant duration.

1216 **Pilot**

1217 The pilot stage involved implementing the BBL training with three BGC Canada clubs,
 1218 who then went on to design and deliver their first seasons of BBL – with the leadership team's
 1219 close monitoring, evaluation, and ongoing support, as per their established roles in the planning
 1220 stage. In alignment with the KTAC phase *assess barriers and facilitators to knowledge use*, this
 1221 BBL stage focused on exploring the successes and challenges that arose in the pilot. Given that
 1222 multiple KTAC phases can be undergone concurrently, three sub-phases were also carried out:
 1223 *select, tailor, and implement an intervention, monitor knowledge use, and evaluate outcomes. A*

1224 multi-faceted training intervention was designed for staff to learn how to develop BBL programs
1225 at their home clubs. Twelve staff participants (three managers, three supervisors, six coaches)
1226 across three clubs, were gathered to attend an initial 3-day intensive workshop.

1227 The workshop was primarily facilitated by the master trainers, with the support and
1228 participation of the researchers and BGC Canada administrators. The topics broadly covered: (a)
1229 psychoeducation of the prevalence and impact of trauma on the child, (b) factors that contribute
1230 to trauma healing in sport, (c) strategies to intervene with members in times of dysregulation, (d)
1231 the BBL program components and skills, (e) strategies for coaching and re-designing sporting
1232 activities to facilitate resilience-building, (f) strategies to facilitate members' skill development.
1233 The topics were further adapted in subsequent iterations of the training workshop during the
1234 BBL's adaptation stage (see Table 1 for list of modules).

1235

1236 Table 1. *Description of BGC Canada-adapted BBL Training Modules*

#	Module	Description
1	Understanding trauma	Understanding the parts of the brain, the stress-response system and defining trauma.
2	How trauma shapes behaviour	Understanding adverse childhood experiences (ACEs) and their link to negative consequences, the impact of trauma on a child's behaviour, and how children's behaviour can push us away.
3	How healing happens	Four steps of healing: participation, regulation, daily functioning, and better place. Identifying mechanisms in clubs and staff's interactions that promote healing. Becoming trauma-sensitive.
4	Good group management	Principles and strategies for group management to support children to participate effectively.
5	Stepping in during times of dysregulation (Part I)	Identifying when a child needs more help, understanding the difference between skill and will, and helping participants develop the skill of self-regulation, through deep breathing, taking timeouts, timed practice, individualised schedules, focusing on one skill, leveraging social support in regulation, redirected questioning, and developmentally-appropriate challenges.
6	Stepping in during times of dysregulation (Part II)	Connecting with the dysregulated participant using the SEPR system of stabilise, explore, plan, and return. Understanding what the child is going through at each stage and what they need.
7	Introduction to the Bounce Back League (BBL)	How sport can heal through several elements: home field advantage, seasons of play, competence, physical activity, team and community focus, immersion and engagement, organization and structure, decision-making, and real-stakes. Introduction to BBL as a trauma-sensitive sport experience, leveraging competency, competition, team-orientation, caring coaches, physical activity, and core principles of positive youth development.
8	The BBL workout (Part I)	Introducing and describing the intent behind each component of the BBL workout structure: Arrival, Warm-Up, Skill Play, Transition Time, Game Time, Cool Down, Team Time, and Departure.
9	The BBL workout (Part II)	Goals and strategies for coaching each BBL workout component and designing a full workout. Planning a season of play across several workouts, setting rules and expectations, coordinating coaching in pairs, and evaluating the workouts and seasons of play.
10	Coaching sport	Understanding how to be a caring coach, and matching different coaching styles (guided discovery, command style) to different situations.
11	The BBL skills	Understanding the BBL skills (Come To Play, Build My Team, and Play On), their intentions, and how to integrate them into coaching.
12	Championing trauma-sensitive approaches in our clubs and communities	How to share the BBL with others and build the BBL skills across programs, staff, and clubs. Using a resilience-building, strength-based focus in communications, and avoiding stigmatization.

1237

1238

1239 The facilitators used delivery strategies such as brief lectures, story sharing, paired and
1240 group discussions, active games and sports, coaching practice, role play activities, and workbook
1241 activities. Staff received a guidebook as a resource to use post-workshop as they returned to their
1242 home clubs to implement BBL. Staff gathered again at 4- and 12-months into programming to
1243 attend refresher workshops (2-days each). A social learning space was established via [Slack](#), an
1244 online messaging platform, where the leadership team and participating clubs shared experiences,
1245 resources, strategies, media, and questions with one another throughout the project, in effort to
1246 ease access to communications, resources, and learning opportunities.

1247 During program implementation, each club aimed to recruit 20-25 members (ages 8 to 12)
1248 per season. The goal was for each club to run three seasons a year, with each season building on
1249 the relationships and skill development of the previous season. Members were welcome to
1250 participate in multiple seasons. Clubs could choose season length (6-10 weeks), the sport (e.g.,
1251 basketball, soccer, ball hockey), and session frequency (all clubs chose 1/week). All clubs were
1252 responsible for structuring sessions around a universal BBL workout structure, comprised of
1253 seven intentional components (see Table 2 for complete details): (a) Arrival, (b) Warm-Up, (c)
1254 Skill Play, (d) Transition Time, (e) Game Time, (f) Cool Down, (g) Team Time, and (h)
1255 Departure. This structure offered a predictable schedule of activities, in which members could
1256 experience safety, skill-building opportunities, and practice regulating themselves in competitive,
1257 real stakes environments (Bergholz et al., 2016).

1258 Table 2. *Description and Suggested Duration of BBL workout structure and the BBL Skills*

BBL Workout			
Activity	Description		Timing
Arrival	A welcoming sport environment where coaches connect with players as they transition into the sport session. Coaches reinforce feelings of belonging (e.g., greet players individually and by name), and identify players who may be entering in a tough place and consider pulling them aside for a check-in.		5 min
Warm-Up	A structured sequence of activities to help players tune-in and center themselves in the present, elevate their heart rates, and prepare their bodies and brains to fully participate. Coaches leverage activities like practicing pulse checks, deep breathing, body scan stretches, player-led warmups, and paired activities.		5 min
Skill Play	1-2 specific games that prioritise: (a) <i>engagement</i> - maximise movement and fun, minimise instruction; (b) <i>repetition</i> – facilitate rhythm, rehearsal, and skill progression; (c) <i>choice</i> – players decide own pace/challenge. Coaches monitor Skill Play and engage in coachable moments (e.g., demonstrate a skill, reinforce praise, adjust task difficulty).		10-20 min
Transition Time	Time for players to take a structured break and hydrate. Coaches can organise players into teams for Game Time.		5 min
Game Time	A competitive environment that exposes players to test sport and life skills under dynamic circumstances and real stress/stakes (i.e., keeping score). Sport is re-designed to optimise engagement and skill-building opportunities (e.g., small-sized playing spaces, unlimited timeouts, non-punitive referee as a coach). Coaches seek parity in team composition, enable fair playing time for all players, provide specific praise to players in gameplay while only instructing players on the bench, and intervene one-on-one with players during challenging situations.		30-35 min
Cool Down	A structured sequence of activities to help players regulate their breathing and heart rates and begin preparation to transition out of BBL. Coaches revisit Warm-Up activities (e.g., heart rate) and asks players to assess any changes.		5 min
Team Time	A carefully and creatively facilitated conversation with players and coaches intended to draw out key learnings, promote reflection and connection and help players apply what they are learning in sport to their lives. Coaches probe players to share highs and lows, give praise to one another, revisit specific in-game moments, discuss most significant learnings, ask burning questions, identify specific BBL skills used in the session or season, and discuss examples where players can use (or have used) skills with their peers, at home, at school, or in their communities.		5-10 min
Departure	How we help players transition out of the sport session safely and successfully. Coaches create informal time with players, remind players how they can transfer skills to life, and check-in with players who may be in a tough place.		5 min
BBL Skills			
Skill	Description	Domains	Coaching strategy
Come to Play	Knowing myself and preparing to make the most of the opportunities and challenges in front of me.	Engagement and readiness	Promotion of willingness, preparation, and full immersion in activities.
Build My Team	Investing in people to form a system for support and skill-building together.	Interpersonal effectiveness	Promotion of teamwork, leadership, prosocial behaviours, interpersonal effectiveness, respect for others, peer support, and seeking support.
Play On	Persisting and adapting when faced with adversity and staying on my positive path.	Emotional awareness and regulation	Promotion of awareness of self, valuing rest, perseverance, overcoming challenges.

1260 Staff were trained on several techniques to proactively facilitate members' regulation
 1261 (e.g., practicing deep breathing to help calm emotions, allowing unlimited timeouts to rest when
 1262 feeling overwhelmed, and structuring a space [*The Zone*] to enter, self-regulate, and return to
 1263 main activities when ready). Staff also adopted a 4-step framework to connect with members in
 1264 times of dysregulation: (a) stabilise – support the member in a triggered state to re-regulate and
 1265 arrive to a place where they can have a conversation, (b) explore – facilitate a judgment-free
 1266 inquiry about what the member is experiencing, (c) plan – co-construct strategies to resolve what
 1267 happened and to regulate better in the future, and (d) return – co-construct strategies to transition
 1268 back to the activities on the member's own will.

1269 The program also focused on teaching three BBL skills tied to resilience building (see
 1270 Table 2): (a) Come To Play (e.g., preparation, self-awareness), (b) Build My Team (e.g.,
 1271 empathy, seeking support), and (c) Play On (e.g., effort, recovery). Strategies to facilitate these
 1272 BBL skills included defining skills out loud, having a 'skill of the week', posters with skills and
 1273 definitions, encouraging and praising skill use, and reflecting on skills during Team Time (Bean
 1274 et al., 2018). These skills were constructed based on evidence of what works in trauma-sensitive
 1275 sport programming (Edgework Consulting, 2020), understandings of life skill development
 1276 through sport (Holt et al., 2020), and BGC Canada core values (BGC Canada, 2020).

1277 In evaluating the program, three questions were proposed: (a) how did staff perceive their
 1278 training experiences and what value was generated from these experiences? (b) what were the
 1279 successes and challenges that staff met in implementing their training into practice? and (c) what
 1280 was the impact of programs on members? A mixed-methods approach was used to address these
 1281 questions. To explore staff's training experiences, knowledge surveys and interviews were
 1282 conducted pre- and post-training, and field notes, pictures, and audio-recordings were taken
 1283 during training (Appendices C and D). To monitor successes and challenges, staff completed

structured logbooks after each BBL session, participated in multiple focus groups and interviews, and conversed on Slack, and online messaging platform (Appendices C-F, and H). To examine program impact, members completed surveys on well-being (Tennant et al., 2007), resilience-related skills (Windle et al., 2011), and basic needs support (Bean, Rocchi, et al., 2020). Members also took part in interviews and arts-based activities, and staff completed report cards of members' participation (Appendix G; Shaikh, Bean, & Forneris, 2020).

Evaluation results related to staff's training experiences revealed that many desired outcomes were reached, including high satisfaction and usefulness of the training workshop for staff, building staff's BBL-related knowledge and skills, and staff's use of trauma-sensitive practices in the BBL and into their everyday lives (Shaikh et al., 2018; Shaikh, Bergholz, et al., 2019). Several facilitators to knowledge use were identified: (a) staff's existing experiences with trauma-exposed members in BGC Canada helped ease adoption of BBL programming, (b) staff found the training workshops highly engaging, useful, applicable, and valuable, (c) staff perceived that training content aligned with what they experienced in practice, (d) ongoing meetings with trainers facilitated continuous learning for staff, and (e) the pilot allowed room for trial and error, which eased staff's apprehensions in applying a novel program and practice (Shaikh et al., 2018; Shaikh, Bergholz, et al., 2019; Shaikh, Forneris, et al., 2019).

Despite these facilitators, clubs reported several challenges (i.e., Shaikh, Bergholz, et al., 2019) that were consistent with research in community programs (Forneris et al., 2013; Larson et al., 2015). A major difficulty was in recruiting and retaining children (e.g., scheduling difficulties, building value for the BBL, competition with other programs, referral-recruitment versus open-to-all recruitment). Inconsistent attendance made it difficult for staff to maintain an engaging experience where members can foster positive peer connections. Staff also found it challenging to balance the demands of a structured program with the myriad of children's

behavioural issues (e.g., outbursts, disengagement, aggression), given that BGC Canada staff – and members – are most familiar with unstructured, free play opportunities. As well, clubs encountered staff turnover – an inevitable reality of youth-serving organizations where many staff are part-time or in transition phases of their careers – which led to loss of capacity, especially when staff were BBL trained.

Consistent relationships are primary protective factor in supporting trauma healing (NCTSN, 2015). A benefit of having BBL managers and supervisors attend training was their capacity to step in when staff were absent. This strategy worked well given that the BBL members were also BGC Canada members who attended other programs within the club. Thus, members interacted with supervisors and managers on a regular basis beyond BBL – contributing to consistency in mentorship. Evaluation results related to program impact revealed improvements in outcomes, albeit non-significant; here, perceived well-being trended upward from pre-post season, and members who attended >80% sessions reported higher basic psychological needs support (Shaikh & Forneris, 2020). Qualitative data analysis revealed that the members reported feeling accepted, having improved friendships, and developing sport and life skills (Shaikh & Forneris, 2020). These positive learning experiences suggested some initial effectiveness of the BBL. Overall, these evaluation findings informed BBL adaptations in the next stage.

Adaptation

Concurrently with the pilot stage, the adaptation stage was informed by the combination of ongoing leadership team meetings, consultations and check-ins with each club, and evaluation results. The KTAC phase of *adapt knowledge to the local context* was re-visited, using insights of barriers and facilitators to knowledge use to inform ongoing BBL project development, and adapting BBL processes at the organizational-level and club-level. These adaptations were

communicated through email, bi-monthly meetings, Slack, and refresher training workshops. The major adaptations included: (a) tailoring the training intervention, (b) supporting staff's motivations and accounting for staff turnover, (c) enhancing recruitment strategies, and (d) transition of training responsibilities to in-house trainers.

Tailoring the Training Intervention

The leadership team worked together to develop 12 BGC Canada-adapted modules, covering how to build staff's awareness and value of trauma-sensitive sport models, and how to structure and design a BBL program (see Table 1). These modules were the foundational structure for the training workshop and the development of BBL resources (i.e., the coach guidebook, operating manual, training manual). To address the challenges that staff encountered in intervening with dysregulated members, more focus was added to strategies for managing groups and helping members return to a stabilised state.

Supporting Staff's Motivations and Accounting for Staff Turnover

At the organizational level, the leadership team established bi-monthly check-ins with all pilot clubs together. This strategy offered additional mentorship and oversight to the staff, building morale, shared understanding, and value for BBL (Ika & Donnelly, 2017), and enabled staff to share experiences and learn from each other. At the club level, managers were encouraged to: (a) choose trainee candidates that were full-time staff and planned to invest in the club long-term; (b) supervise at least half of staff's BBL sessions and provide them feedback to help monitor, support, and enhance the quality of their BBLs; and (c) have other staff sit in on BBL sessions to observe, participate, learn, and eventually transition into BBL when faced with staff turnover.

Enhancing Recruitment Strategies

At the organizational level, customizable promotional materials were created (i.e., posters,

infographics) with BBL branding for clubs to use in their marketing. To enhance recruitment, all clubs were encouraged to remove limits to BBL membership and invite all children to participate regardless of pre-identified risk status. This strategy helped maximise reach and inclusiveness to unscreened trauma-exposed children.

Transitioning of Training Responsibilities to In-House Trainers

To promote the self-sustaining capacity of the BBL, a train-the-trainer model was used to train BGC Canada managers and other key staff to become BBL in-house trainers (Shaikh, Bean, et al., 2019). To carry this out, an intensive training workshop was facilitated by the leadership team, in which BGC Canada managers learned and delivered the 12 BGC Canada-adapted BBL training modules to their peers and received feedback to improve their delivery. Following the workshop, these newly trained in-house trainers returned to their home clubs to plan the delivery of BBL training workshops to their staff. These workshops were also observed by leadership team members, who provided feedback. The in-house trainers were then expected to help train newly onboarded staff in the expanded rollout.

Expansion

The expansion involved rolling out, monitoring, and evaluating the adapted training intervention and BBL programs in ten additional clubs across Canada. Three KTAC phases of *select, tailor, and implementing interventions, monitor knowledge use, and evaluate outcomes* were undergone (again). Here, the in-house trainers carried out the training intervention as an intensive, in-person workshop to 20 staff, covering the 12 BGC Canada-adapted training modules. The leadership team supported in-house trainers in communicating expectations, coordinating travel and logistics for clubs, and modifying evaluation tools. The newly trained staff went on to deliver programs at their home clubs, while continuing to receive support from in-house trainers (e.g., bi-monthly calls), and the leadership team (e.g., via Slack, email, and on-

site visits). The same evaluation questions were used to monitor BBL training and program implementation, using a slightly modified mixed-methods approach. For instance, items on knowledge assessments and logbooks were matched to the adapted training modules, and the length and wording of member's surveys were simplified.

Each club ran one season (~6-10 weeks); the second season was cut short due to the COVID-19 pandemic. Currently, evaluation is still ongoing, as clubs offer either in-person, physically-distanced program delivery, or virtual delivery. However, initial outcomes of the BBL expansion have indicated that: (a) the training intervention was successful in improving knowledge and attitudes of participating staff in BBL and a trauma-sensitive sport model; (b) the training intervention was perceived as enjoyable and useful for staff; (c) in most clubs, recruitment of members successfully reached 20-25+ members; however, at least two clubs were well under this mark; (d) having trained staff is essential for running high-quality BBL programs; yet, with staff turnover, clubs without trained staff resorted to traditional practices of youth engagement in sport, resulting in loss of BBL-related knowledge. Thus, there is a need for incorporating alternative sustainability practices within BGC Canada to maintain BBL quality during and beyond grant duration.

Sustainability

The sustainability stage involves strategies put in place to continue BBL beyond grant-end, in alignment with the *sustain outcomes* phase of KTAC. The first goal in this plan was to maintain and expand the BBL (as a youth program that uses a trauma-sensitive sport model) to more clubs across Canada. A second, broader goal was to build staff's capacities in trauma-sensitive practices across BGC Canada clubs and programs, beyond sport. This second goal was constructed based on advocacy from BBL staff of the value of trauma-sensitive practices and their applicability in club work outside the BBL, as well as interest from additional clubhouses in

building their club's trauma-sensitive capacity. Several processes will contribute to reaching these two goals: (a) using a train-the-trainer model, (b) developing context-specific resources, (c) expanding to reach Canadian newcomers, (d) transitioning to a virtual platform in COVID-19.

Using a Train-the-Trainer Model

Using a train-the-trainer model helped build the organization's ownership of the program, promoting internal sustainability (Shaikh, Bean, et al., 2019; Whitley et al., 2015). Here, BBL managers who delivered BBL in the pilot were offered training to develop into in-house trainers and went on to facilitate BBL training for staff within and beyond their clubs. These training opportunities were facilitated by the master trainers. Clubs with access to in-house trainers were then able to host training workshops on a trauma-sensitive sport model for youth programming. These in-house trainers also trained staff at a national level, whether through facilitating training workshops or consultations with newly onboarded BBL clubs.

Developing Context-Specific Resources

Developing context-specific knowledge products was important for communicating knowledge in clear and user-friendly ways, which can facilitate continued use of knowledge in practice (Holt et al., 2018). Materials were created that can be shared and used universally across the clubs, including the coach guidebook, training manual, promotional materials, and evaluation activities. As well, evaluation findings were shared throughout the project through user-friendly media (i.e., presentations, reports, infographics, and posters). Blogging was used as an effective means of disseminating knowledge beyond academic audiences (Stoneham & Kite, 2017); here, the leadership team published a blog on strategies for integrating a trauma-sensitive sport model into play (Shaikh, Bean, & Bergholz, 2020). The authors also shared their experiences on integrating evaluation activities within community organizations along with effective strategies for sport stakeholders to build evaluation capacity (Shaikh, Bean, & Forneris, 2020).

1428 ***Expansion to Reach Canadian Newcomers***

1429 Given the importance of funding in maintaining relationships and capacity building
 1430 (Coppola & McHugh, 2018), various means of extending BBL funding have been explored. The
 1431 BGC Canada secured funding to extend BBL across five additional clubs to target Canadian
 1432 newcomer populations. Direct support for newcomers is needed as they may face unique
 1433 traumatic exposure; refugees from conflict regions can face loss, grief, family separation, mental
 1434 health disorders, and migratory stressors (Ley & Barrio, 2019). In this expansion, an advisory
 1435 group was created with BBL managers to share and co-construct strategies for meeting newcomer
 1436 needs and integrating equity, diversity, and inclusion principles in BBL design, recruitment, and
 1437 practice. Development of BBL for newcomers is currently underway. This extension has taken on
 1438 a unique look post-pandemic, where clubs have had to shift their BBL programs to virtual and
 1439 physically-distanced settings.

1440 ***Transitioning to a Virtual Platform in COVID-19***

1441 To effectively meet BBL staff's needs in the pandemic, staff perspectives were sought
 1442 through virtual meetings and a needs assessment survey. Staff largely requested more training in
 1443 trauma-sensitive practices, support to shift BBL virtually, and strategies to facilitate small group,
 1444 in-person activities. Thus, the leadership team delivered virtual training for staff during Summer
 1445 2020, which covered refreshers of BBL content and strategies to facilitate virtual BBL. All clubs
 1446 then transitioned to a modified BBL in Fall 2020 (i.e., in-person or virtually). Monitoring and
 1447 evaluation are currently ongoing, to gain insights of successes and challenges of facilitating BBL
 1448 in a COVID world.

1449 The abrupt shift, the need for trauma-sensitive practices across clubs in Canada, and the
 1450 success in adapting the BBL based on changing conditions, made it ideal for the leadership team
 1451 to pursue further options for project scale-out (Ika & Donnelly, 2017). Thus, funding was secured

to develop virtual trauma-sensitive training for scale-out to BGC Canada's 775 clubs nationally. Here, the KTAC will be re-cycled as a second iteration. The *problem identified* was the need for integrating trauma-sensitive practices across all BGC Canada clubs; the *selected knowledge* was the BGC Canada-adapted trauma-sensitive practice modules and program materials; this knowledge will be *adapted* from in-person to virtual via the BGC Canada's [virtual e-learning platform](#); and this training will be *implemented* to ten BGC Canada clubs, reaching ~150 staff.

Lessons Learned

The strength of the BBL partnership has led to many successes and effective responses to challenges in the BBL development process. Three lessons are shared that were most pertinent to advancing KT processes in BGC Canada. These lessons may be considered by sport, community, and recreation groups when integrating trauma-sensitive practices for effective project development: (a) meaningful change starts with small steps, (b) maintain ongoing two-way communication with stakeholders, and (c) integrate-with rather than add-on to existing activities.

Meaningful Change Starts with Small Steps

The leadership team avoided using an all-at-once approach in both the training and implementation to ease integration and prevent overburdening staff (Bromley et al., 2015). Instead, a developmental approach was taken, involving short, intensive training workshops and ongoing consultations over a long period of time. This approach enabled more time for staff skill-building (i.e., BBL design and delivery) and learning through trial and error (an oft-preferred source of learning in sport; Walker et al., 2018). The ongoing consultations helped monitor skill development and generate insights on *high impact behaviours* – staff skills used to generate effective results. High impact behaviours are not necessarily known from the outset – their effectiveness will depend on the staff's characteristics, the demands of the context, and the member's needs (Larson et al., 2015). Thus, it was worth investing time in the design and pilot

process to determine these high impact behaviours and prioritise them in project development. For instance, a high impact behaviour in BBL was *integrating BBL skills* (e.g., naming and defining skills, using skills in informal conversations, integrating a “skill of the week”).

When staff integrated BBL skills, members were more likely to understand and internalise the skills. While effectiveness of explicit life skill teaching is supported in youth sport research (Bean et al., 2018), the developmental approach used in BBL was necessary to explore what these behaviours looked like, under what conditions do they manifest, and how effective they were (Holt et al., 2020). Then, these skills were emphasised in further training and communications (e.g., sharing strategies), and in evaluation (e.g., logbooks included a space for staff to describe how they embedded BBL skills).

Maintain Ongoing Two-way Communication with Stakeholders

It was beneficial to engage BGC Canada stakeholders (i.e., program managers, club staff) from the outset, and communicate using easy channels of access (i.e., regular phone/video meetings, consultations with specific clubs, emails, and Slack). This ongoing communication aligned with the project’s CBPR approach and was conducive to relationship building between the leadership team, stakeholders, and their peers (Coppola & McHugh, 2018). Such relationship building can contribute to synergies between groups and building stakeholders’ value for the project and its future (Schinke et al., 2013). Stakeholder input (e.g., feedback) and insights (e.g., club-specific successes and challenges) were also gathered in-depth through ongoing evaluation activities (e.g., interviews, focus groups, logbooks). These findings were valuable in actively supporting adaptations to existing programs, as opposed to exclusively at the end of the grant period (Brush et al., 2020). As well, open communication helped identify which clubs needed extra support and intervene with them (e.g., if clubs faced challenges in recruitment, planning

1500 activities for a wide age-range of members or integrating evaluation within a fixed time
1501 schedule).

1502 **Integrate-with Rather Than Add-on to Existing Activities**

1503 Given the multi-faceted nature of staff's work within a community program context
1504 (Newman et al., 2020), it was important to work within the existing capacities of clubs and staff,
1505 rather than starting from scratch. For example, several clubs found it challenging to create an
1506 entirely new BBL (e.g., recruitment of members and staff, scheduling) and found that adapting an
1507 existing sport program to BBL was more feasible. Moreover, evaluation activities were
1508 developed and adapted through trial and error of what works. This process revealed that the act of
1509 *doing* evaluation was beneficial for participants.

1510 With staff, logbooks were used to report session-by-session experiences, which brought
1511 insights into program fidelity; the logbooks also mutually benefitted staff in reflecting on the
1512 program session together – by discussing successes and challenges and setting goals for the next
1513 session. With members, quantitative pre-post surveys were used – which members found
1514 unengaging. Thus, evaluation was shifted to include more creative, engaging, and participatory
1515 activities (e.g., drawing, story-telling) that could be integrated within existing programming
1516 (Shaikh, Bean, & Forneris, 2020). These activities enabled participants to share their experiences
1517 – which mutually benefitted the program and members in applying BBL skills (e.g., applying
1518 *Come To Play* by being willing to share, applying *Build My Team* when giving praise to another
1519 member; Jacquez et al., 2013).

1520 **Conclusion**

1521 This case study described the process of mobilising a trauma-sensitive sport model within
1522 nationally-run community youth programming, accomplished through a partnership between
1523 academic, community, and practice experts. For this partnership, it was essential to maintain

1524 open, ongoing collaboration to: (a) reinforce a shared vision, (b) co-construct insights of barriers,
1525 facilitators, and potential impacts, (c) use insights to develop high-quality adaptations, and (d)
1526 build towards sustainability, expansion, and scale-out. The success of this project helped train
1527 50+ staff across Canada, reach 600+ members, and build increased awareness of – and need for –
1528 integrating trauma-sensitive practices across all BGC Canada clubs nationally beyond the BBL.
1529 The story of developing the BBL can offer foundational understandings of best practices in
1530 integrating trauma-sensitive practices in this community organization, which may be useful for
1531 informing intentionally-planned sport in similar youth-serving groups and organizations.

1532

References

- 1533
- 1534 Afifi, T. O., Macmillan, H. L., Boyle, M., Taillieu, T., & Ba, K. C. (2014). Child abuse and
- 1535 mental disorders in Canada. *Canadian Medical Association Journal*, 186(9), 324–332.
- 1536 <https://doi.org/10.1503/cmaj.140314>
- 1537 Alvarez, A. (2020). Seeing race in the research on youth trauma and education: A critical review.
- 1538 *Review of Educational Research*, 90(5), 583–626.
- 1539 <https://doi.org/10.3102/0034654320938131>
- 1540 Bartlett, J. D., Griffin, J. L., Spinazzola, J., Fraser, J. G., Noroña, C. R., Bodian, R., Todd, M.,
- 1541 Montagna, C., & Barto, B. (2018). The impact of a statewide trauma-informed care initiative
- 1542 in child welfare on the well-being of children and youth with complex trauma. *Children and*
- 1543 *Youth Services Review*, 84, 110–117. <https://doi.org/10.1016/j.childyouth.2017.11.015>
- 1544 Barto, B., Dym, J., Ende, A. Von, Bodian, R., Rosa, C., Gri, J., Goldman, J., Kinniburgh, K.,
- 1545 Spinazzola, J., Montagna, C., & Todd, M. (2018). The impact of a statewide trauma-
- 1546 informed child welfare initiative on children's permanency and maltreatment outcomes.
- 1547 *Child Abuse & Neglect*, 81, 149–160. <https://doi.org/10.1016/j.chiabu.2018.04.023>
- 1548 Bean, C., & Forneris, T. (2016). Examining the importance of intentionally structuring the youth
- 1549 sport context to facilitate positive youth development. *Journal of Applied Sport Psychology*,
- 1550 28(4), 410–425. <https://doi.org/10.1080/10413200.2016.1164764>
- 1551 Bean, C., Kramers, S., Forneris, T., & Camiré, M. (2018). The implicit/explicit continuum of life
- 1552 skills development and transfer. *Quest*, 70(4), 456–470.
- 1553 <https://doi.org/10.1080/00336297.2018.1451348>
- 1554 Bean, C., Rocchi, M., & Forneris, T. (2020). Using the Learning Climate Questionnaire to assess
- 1555 basic psychological needs support in youth sport. *Journal of Applied Sport Psychology*,
- 1556 32(6), 585–606. <https://doi.org/10.1080/10413200.2019.1571537>

- 1557 Bean, C., Sewell, K., & Jung, M. E. (2020). A winning combination: Collaborating with
 1558 stakeholders throughout the process of planning and implementing a type 2 diabetes
 1559 prevention programme in the community. *Health and Social Care in the Community*, 28(2),
 1560 681–689. <https://doi.org/10.1111/hsc.12902>
- 1561 Bergholz, L., Stafford, E., & D’Andrea, W. (2016). Creating trauma-informed sports
 1562 programming for traumatised youth: Core principles for an adjunctive therapeutic approach.
 1563 *Journal of Infant, Child, and Adolescent Psychotherapy*, 15(3), 244–253.
 1564 <https://doi.org/10.1080/15289168.2016.1211836>
- 1565 Bowen, S., & Graham, I. D. (2013). Integrated knowledge translation. In S. Straus, J. Tetroe, & I.
 1566 D. Graham (Eds.), *Knowledge translation in health care: Moving from evidence to practice*
 1567 (pp. 14–23). John Wiley & Sons.
- 1568 BGC Canada. (2020). *Mission & Vision*. [https://www.bgccan.com/en/who-we-are/mission-](https://www.bgccan.com/en/who-we-are/mission-vision/)
 1569 [vision/](https://www.bgccan.com/en/who-we-are/mission-vision/)
- 1570 Bromley, E., Mikesell, L., Jones, F., & Khodyakov, D. (2015). From subject to participant: Ethics
 1571 and the evolving role of community in health research. *American Journal of Public Health*,
 1572 105(5), 900–908. <https://doi.org/10.2105/AJPH.2014.302403>
- 1573 Brush, B. L., Mentz, G., Jensen, M., Jacobs, B., Saylor, K. M., Rowe, Z., Israel, B. A., &
 1574 Lachance, L. (2020). Success in long-standing community-based participatory research
 1575 (CBPR) partnerships: A scoping literature review. *Health Education and Behavior*, 47(4),
 1576 556–568. <https://doi.org/10.1177/1090198119882989>
- 1577 Coakley, J. (2011). Youth sports: What counts as “positive development?” *Journal of Sport &*
 1578 *Social Issues*, 35(3), 306–324. <https://doi.org/10.1177/0193723511417311>
- 1579 Coppola, A. M., & McHugh, T.-L. F. (2018). Considering culturally relevant practices and
 1580 knowledge-sharing when creating an activity-promoting community research agenda. *Sport*,

- 1581 *Education, and Society*, 23(1), 14–27. <https://doi.org/10.1080/13573322.2015.1129942>
- 1582 Coughlin, S. S., Smith, S. A., & Fernandez, M. E. (2017). *Handbook of Community-Based*
- 1583 *Participatory Research*. Oxford University Press.
- 1584 Crane, J., & Temple, V. (2015). *A systematic review of dropout from organised sport among*
- 1585 *children and youth*. 21(1), 114–131. <https://doi.org/10.1177/1356336X14555294>
- 1586 Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among*
- 1587 *five approaches* (5th ed.). SAGE.
- 1588 Drake, B., & Jonson-Reid, M. (2014). Poverty and child maltreatment. In J. E. Korbin & R. D.
- 1589 Krugman (Eds.), *Handbook of child maltreatment Vol. 2* (pp. 131–148). Springer.
- 1590 Edgework Consulting. (2020). *Sport for healing*. <https://www.edgework-sportforhealing.com/>
- 1591 Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss,
- 1592 M. P., & Marks, J. S. (2019). Relationship of childhood abuse and household dysfunction to
- 1593 many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE)
- 1594 Study. *American Journal of Preventive Medicine*, 56(6), 774–786.
- 1595 <https://doi.org/10.1016/j.amepre.2019.04.001>
- 1596 Folke, C. (2016). Resilience (Republished). *Ecology and Society*, 21(4), 44.
- 1597 <https://doi.org/10.5751/ES-09088-210444>
- 1598 Forneris, T., Whitley, M. A., & Barker, B. (2013). The reality of implementing community-based
- 1599 sport and physical activity programs to enhance the development of underserved youth:
- 1600 Challenges and potential strategies. *Quest*, 65(3), 313–331.
- 1601 <https://doi.org/10.1080/00336297.2013.773527>
- 1602 Graham, I. D., & Tetroe, J. M. (2010). The knowledge to action framework. In J. Rycroft-Malone
- 1603 & T. Bucknall (Eds.), *Models and frameworks for implementing evidence-based practice*
- 1604 (pp. 207–220). Wiley-Blackwell.

- 1605 Hall, J. N. (2013). Pragmatism, evidence, and mixed methods evaluation. In D. M. Mertens & S.
 1606 Hesse-Biber (Eds.), *Mixed methods and credibility of evidence in evaluation. New*
 1607 *Directions for Evaluation* (Vol. 138, pp. 63–81). <https://doi.org/10.1002/ev.20054>
- 1608 Holt, N. L., Camiré, M., Tamminen, K. A., Pankow, K., Pynn, S. R., Strachan, L., MacDonald,
 1609 D. J., & Fraser-Thomas, J. (2018). PYDSportNET: A knowledge translation project bridging
 1610 gaps between research and practice in youth sport. *Journal of Sport Psychology in Action*,
 1611 9(2), 132–146. <https://doi.org/10.1080/21520704.2017.1388893>
- 1612 Holt, N. L., Deal, C. J., & Pankow, K. (2020). Positive youth development through sport. In G.
 1613 Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (4th ed., Vol. 1, pp. 429–
 1614 446). John Wiley & Sons, Inc. <https://doi.org/10.4324/9780203944783>
- 1615 Ika, L. A., & Donnelly, J. (2017). Success conditions for international development capacity
 1616 building projects. *International Journal of Project Management*, 35(1), 44–63.
 1617 <https://doi.org/10.1016/j.ijproman.2016.10.005>
- 1618 Jacquez, F., Vaughn, L. M., & Wagner, E. (2013). Youth as partners, participants or passive
 1619 recipients: A review of children and adolescents in community-based participatory research
 1620 (CBPR). *American Journal of Community Psychology*, 51(1–2), 176–189.
 1621 <https://doi.org/10.1007/s10464-012-9533-7>
- 1622 Larson, R. W., Walker, K. C., Rusk, N., & Diaz, L. B. (2015). Understanding youth development
 1623 from the practitioner’s point of view: A call for research on effective practice. *Applied*
 1624 *Developmental Science*, 19(2), 74–86. <https://doi.org/10.1080/10888691.2014.972558>
- 1625 Ley, C., & Barrio, M. R. (2019). Promoting health of refugees in and through sport and physical
 1626 activity: A psychosocial, trauma-sensitive approach. In T. Wenzel & B. Droždek (Eds.), *An*
 1627 *Uncertain Safety* (pp. 301–343). Springer. https://doi.org/10.1007/978-3-319-72914-5_13
- 1628 Li, M., Arcy, C. D., & Meng, X. (2020). Maltreatment in childhood substantially increases the

- 1629 risk of adult depression and anxiety in prospective cohort studies: Systematic review, meta-
 1630 analysis, and proportional attributable fractions. *Psychological Medicine*, 46, 717–730.
 1631 <https://doi.org/10.1017/S0033291715002743>
- 1632 Liu, J., Fang, Y., Gong, J., Cui, X., Meng, T., Xiao, B., He, Y., Shen, Y., & Luo, X. (2017).
 1633 Associations between suicidal behaviour and childhood abuse and neglect: A meta-analysis.
 1634 *Journal of Affective Disorders*, 220, 147–155. <https://doi.org/10.1016/j.jad.2017.03.060>
- 1635 Massey, W. V., & Williams, T. L. (2020). Sporting activities for individuals who experienced
 1636 trauma during their youth: A meta-study. *Qualitative Health Research*, 30(1), 73–87.
 1637 <https://doi.org/10.1177/1049732319849563>
- 1638 Matheson, K., Foster, M. D., Bombay, A., McQuaid, R. J., & Anisman, H. (2019). Traumatic
 1639 experiences, perceived discrimination, and psychological distress among members of
 1640 various socially marginalised groups. *Frontiers in Psychology*, 10, 1–16.
 1641 <https://doi.org/10.3389/fpsyg.2019.00416>
- 1642 Mersky, J. P., Topitzes, J., & Britz, L. (2019). Promoting evidence-based, trauma-informed social
 1643 work practice. *Journal of Social Work Education*, 55(4), 645–657.
 1644 <https://doi.org/10.1080/10437797.2019.1627261>
- 1645 NCTSN | The National Child Traumatic Stress Network. (2015). *Resilience and child traumatic*
 1646 *stress*. <https://www.nctsn.org/resources/resilience-and-child-traumatic-stress>
- 1647 Newman, T. J., Anderson-Butcher, D., & Amorose, A. J. (2020). Examining the influence of
 1648 sport program staff and parent/caregiver support on youth outcomes. *Applied Developmental*
 1649 *Science*, 24(3), 263–278. <https://doi.org/10.1080/10888691.2018.1467762>
- 1650 Pizzirani, B., Green, R., O'Donnell, R., & Skouteris, H. (2020). Healthy lifestyle programs in
 1651 out-of-home care: Implementing preventative trauma-informed approaches at scale.
 1652 *Australian Social Work*, 75(1), 5–18. <https://doi.org/10.1080/0312407X.2020.1716260>

- 1653 SAMHSA. (2014). SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed
 1654 Approach. *HHS Publication, July, 27*.
- 1655 Schinke, R. J., Smith, B., & McGannon, K. R. (2013). Pathways for community research in sport
 1656 and physical activity: criteria for consideration. *Qualitative Research in Sport, Exercise and*
 1657 *Health, 5*(3), 460–468. <https://doi.org/10.1080/2159676X.2013.846274>
- 1658 Shaikh, M., Bean, C., & Bergholz, L. (2020, September 3). Bringing a trauma-sensitive focus
 1659 into children's active play. *SIRC Blog*. <https://sirc.ca/blog/trauma-sensitive-focus/>
- 1660 Shaikh, M., Bean, C., & Forneris, T. (2018). Training outcomes and program delivery: Pilot
 1661 evaluation of a trauma-informed sport program. *Journal of Exercise, Movement, and Sport,*
 1662 *50*(1). <https://www.scapps.org/jems/index.php/1/article/view/1891>
- 1663 Shaikh, M., Bean, C., & Forneris, T. (2019). Community stakeholders' involvement in a train-
 1664 the-trainer model to integrate trauma-informed sport programming in a national community.
 1665 *Journal of Exercise, Movement, and Sport, 51*(1).
 1666 <https://www.scapps.org/jems/index.php/1/issue/view/14>
- 1667 Shaikh, M., Bean, C., & Forneris, T. (2020). Six recommendations for youth sport stakeholders
 1668 when evaluating their programs. *Journal of Sport Psychology in Action, 11*(3), 165–182.
 1669 <https://doi.org/10.1080/21520704.2020.1746709>
- 1670 Shaikh, M., Bergholz, L., Scott, B., Rojas, M., Bean, C., & Forneris, T. (2019). *The experience of*
 1671 *assessing and adapting trauma-informed sport programs in a national community*
 1672 *organization*. https://appliedsportpsych.org/site/assets/files/1047/2019_abstracts.pdf
- 1673 Shaikh, M., & Forneris, T. (2020). Investigating youth's psychosocial outcomes from
 1674 participation in trauma-informed sport programming: A two-year pilot study. *Journal of*
 1675 *Sport & Exercise Psychology, 42*, S104. <https://doi.org/10.1123/jsep.2020-0172>
- 1676 Shaikh, M., Forneris, T., & Culver, D. (2019). *Leaders' perceptions of the value of delivering a*

- 1677 *trauma-informed sport program: A pilot study*. 15th European Congress of Sport and
 1678 Exercise Psychology (FEPSAC).
- 1679 Stoneham, M. J., & Kite, J. (2017). Changing the knowledge translation landscape through
 1680 blogging. *Australian and New Zealand Journal of Public Health*, 41(4), 333–334.
 1681 <https://doi.org/10.1111/1753-6405.12656>
- 1682 Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., &
 1683 Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS):
 1684 Development and UK validation. *Health and Quality of Life Outcomes*, 5(63), 1–13.
 1685 <https://doi.org/10.1186/1477-7525-5-63>
- 1686 Walker, L. F., Thomas, R., & Driska, A. P. (2018). Informal and nonformal learning for sport
 1687 coaches: A systematic review. *International Journal of Sports Science and Coaching*, 13(5),
 1688 694–707. <https://doi.org/10.1177/1747954118791522>
- 1689 Welty Peachey, J., Cohen, A., Shin, N., & Fusaro, B. (2018). Challenges and strategies of
 1690 building and sustaining inter-organizational partnerships in sport for development and
 1691 peace. *Sport Management Review*, 21(2), 160–175.
 1692 <https://doi.org/10.1016/j.smr.2017.06.002>
- 1693 Whitley, M. A., Forneris, T., & Barker, B. (2015). The reality of sustaining community-based
 1694 sport and physical activity programs to enhance the development of underserved youth:
 1695 Challenges and potential strategies. *Quest*, 67(4), 409–423.
 1696 <https://doi.org/10.1080/00336297.2015.1084340>
- 1697 Windle, G., Bennett, K. M., & Noyes, J. (2011). A methodological review of resilience
 1698 measurement scales. *Health and Quality of Life Outcomes*, 9(8), 1–18.
 1699 <http://www.hqlo.com/content/9/1/8>

**Article 2: A RE-AIM Evaluation of a Sport-based Trauma-Sensitive Youth Development
Program**

Shaikh, Majidullah^{1*}; Forneris, Tanya²

1 – University of Ottawa, Ottawa, ON, Canada

2 – The University of British Columbia, Kelowna, BC, Canada

Revised and re-submitted to the International Journal of Sport and Exercise Psychology

Abstract

Programs using a trauma-sensitive sport model can support underserved youth to feel safe, participate fully, and build life skills. A RE-AIM framework was used to evaluate the implementation of a trauma-sensitive sport model to youth programming. Three clubs of a Canadian youth-serving organization attended training and implemented programming from 2017-2019. Multiple methods including interviews, logbooks, and assessments helped map each RE-AIM dimension across training, delivery, and program outcomes. *Reach and Effectiveness*: 218 youth attended over the two years (144 boys, 67 girls, 2 unidentified; $M_{\text{age}} = 9.12 \pm 1.26$). Staff reported successes in youth's life skills such as willingness, peer support, and self-regulation (increased by 9.16%, significant at $t [53] = -8.00, p < .001, d = -.42$). Reach and effectiveness were facilitated by youth being drawn to sport, the intentional structure, relationship focus, and long-term engagement, but challenged by attrition from season to season. *Adoption and Implementation*: 18 leaders were trained and reported success in facilitating program components and integrating life skills but were challenged by scheduling and staff limitations. *Maintenance*: Leaders valued the program for their youth, but their participation was contingent on implementation success, continued funding, and leader retention. The results brought insights of salient processes and outcomes in delivering sport-based trauma-sensitive programs, and what capacities and resources are necessary to deliver and sustain quality programs.

Keywords

trauma-informed, positive youth development, community-engaged, utilisation-focused evaluation, afterschool

Introduction

Traumatic exposure is widespread, can result in cognitive and emotional dysregulation, is linked with long-term negative outcomes (e.g., substance abuse, mental health issues), and disproportionately affects youth from under-resourced communities (Felitti et al., 2019; Walsh et al., 2019). Trauma-sensitive initiatives can equip youth workers (i.e., program staff) to support youth in navigating trauma symptoms, develop skills (e.g., emotional regulation, decision-making), and build resilience (Cutuli et al., 2019; Leitch, 2017).

A trauma-sensitive sport model for youth programming is grounded in the principles and approaches of positive youth development (PYD; Damon, 2004; Larson, 2000) and trauma-sensitive care (Hanson et al., 2018). PYD is a strength-based approach emphasising the holistic development of youth to help them fulfil their potential and thrive. Trauma-sensitive care involves considering how trauma can adversely affect youth's health and well-being and reducing these effects through prioritising their needs for safety, choice, and control (Leitch, 2017). Programs based in a trauma-sensitive sport model can support trauma-exposed youth's development through helping them psychologically escape, re-connect with and restore feelings of embodiment and competence, and build life skills (Massey & Williams, 2020; Whitley et al., 2018). These programs are characterised by: (a) contextualised and relevant staff training on trauma-sensitive pedagogy, (b) adapting program design and coaching to meet youth's needs, (c) consistent schedules, rules, and expectations, (d) fostering caring relationships with adults and peers, (e) advocating youth autonomy, self-beliefs, and voice in programming, (f) teaching mindful awareness/exercises to regulate stress (e.g., breathing and heart rate monitoring); (g) integrating local cultural practices (e.g., relatable role models, shared terms and language; e.g., Bergholz et al., 2016; Darroch et al., 2020; Whitley et al., 2018). Evaluating sport-based trauma-sensitive programs may inform program planning in community organizations that reach many

1754 unscreened trauma-exposed youth.

1755 The RE-AIM framework (Glasgow et al., 2019; RE-AIM, 2022) is a holistic model for
 1756 assessing five key elements involved in interventions (i.e., reach, effectiveness, adoption,
 1757 implementation, maintenance). This framework has been used in the planning, implementation,
 1758 and/or evaluation of over 430 studies (RE-AIM, 2022), and can contextualise and expand
 1759 evaluation results in community settings (Kwan et al., 2019). *Reach* can refer to the extent that a
 1760 target population participated in the program (e.g., how well a program reached trauma-exposed
 1761 youth). *Effectiveness* can refer to how well a program achieved its intended outcomes (e.g.,
 1762 positive developmental experiences). *Adoption* can refer to the extent that the program was taken
 1763 up by organizations, providers, and/or participants (e.g., how well training environments
 1764 promoted staff's learning and uptake of a trauma-sensitive sport model). *Implementation* can refer
 1765 to the fidelity and quality of planning and delivering a program (e.g., how well a trauma-sensitive
 1766 sport model was applied). Finally, *maintenance* can refer to the extent that the
 1767 organization/provider/participant continued programming (e.g., leaders' intentions of continuing
 1768 to use a trauma-sensitive sport model beyond the intervention period).

1769 In research relevant to the present study's context, scholars have used the RE-AIM
 1770 framework to evaluate different levels of programming: trauma-sensitive programming (Meegan,
 1771 2022); trauma-sensitive training (Loomis, 2018); programming offered by multi-service sport
 1772 organizations (Lawrason et al., 2020); school and community-based physical activity programs
 1773 (Janssen et al., 2013; Koorts & Gillison, 2015); coach development programming (Lemonius &
 1774 Strachan, 2018; Richmond et al., 2021; Van Hoya et al., 2015); coach-delivered training
 1775 interventions in community sport (Brown et al., 2016; Finch & Donaldson, 2010; Mawson et al.,
 1776 2018). Given the wide applicability of this model, the RE-AIM framework can be used to
 1777 evaluate key dimensions of programs based on a trauma-sensitive sport model, to offer insights of

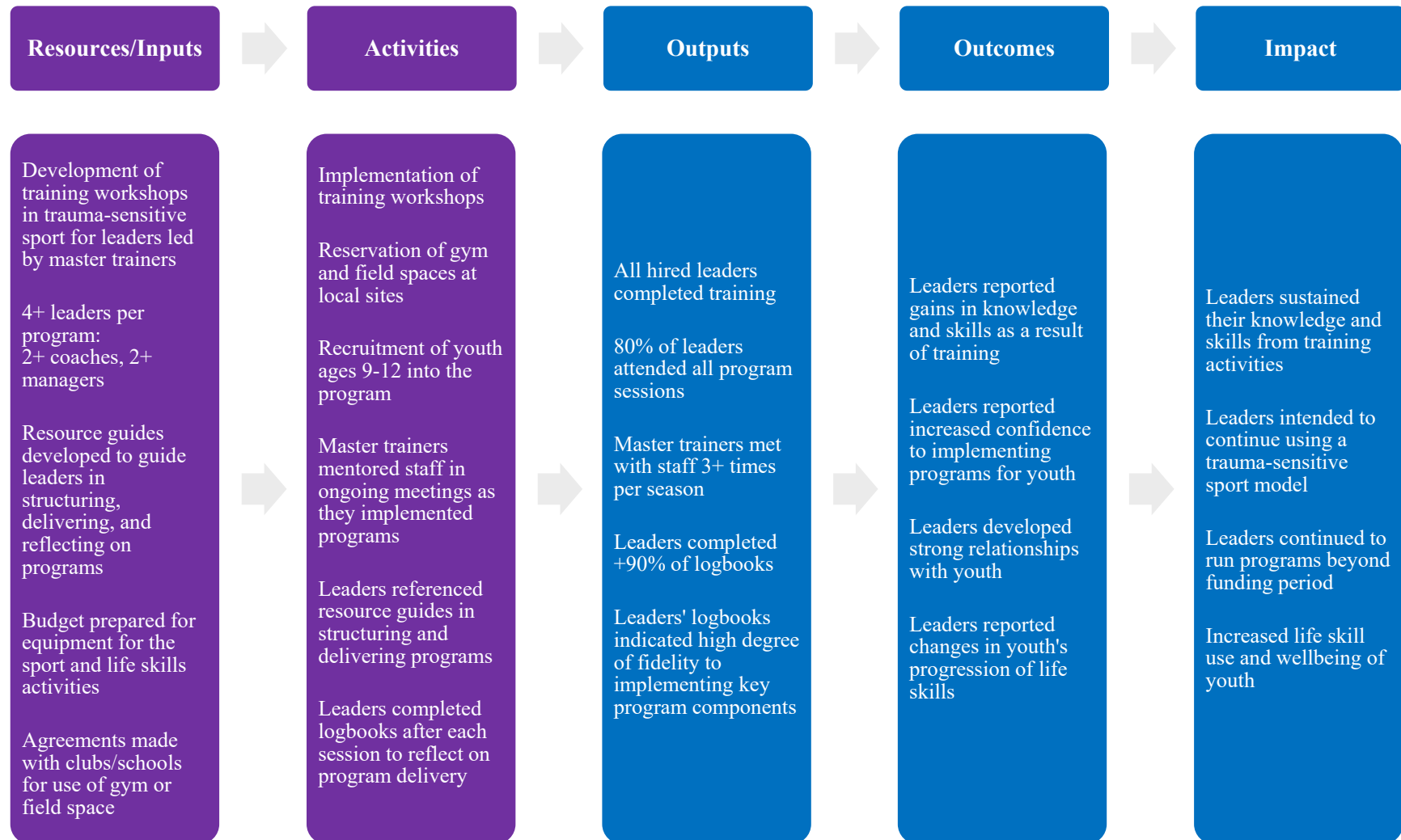
the barriers/facilitators of implementing this model and the degree to which these programs were successful.

Interest in trauma-sensitive work has grown and spanned multiple disciplines, which has raised inquiry on how trauma-sensitive programs are applied and their subsequent outcomes (Cutuli et al., 2019). The purpose of this study was to evaluate the pilot of a program using a trauma-sensitive sport model within a national youth-serving organization. The RE-AIM framework was used to evaluate program processes (e.g., training, delivery, outputs) and outcomes (e.g., life skills), and facilitators and constraints to these factors.

Context

BGC Canada is a national community youth-serving organization that primarily serves under-resourced communities. In 2016, with funding from the Public Health Agency of Canada, the organization launched the Bounce Back League (BBL) to address the physical and mental health needs of underserved youth. An interdisciplinary team led project development and decision-making, comprised of evaluators (including the authors), master trainers from Edgework Consulting who designed the BBL program and training activities, and administrators of BGC Canada. The present study focused on the pilot stage of the 5-year project (see Shaikh et al., 2021), which involved training staff, piloting programs at three clubs, and evaluating the program to inform subsequent adaptations. See Figure 1 for a logic model outlining the process and intended impact of this pilot.

1797 Figure 1. *Logic Model of Bounce Back League (BBL) in Pilot Phase 2017-2019*



Materials and Methods

A utilisation-focused evaluation within a pragmatic paradigm was used (Leavy, 2017; Patton, 2012). The authors' methodological choices were based on: (a) generating meaningful data for community members to use in program decision-making; (b) practicality in addressing evaluation questions; and (c) acknowledging that knowledge can be both socially constructed and based in reality. As such, a variety of methods were chosen to understand RE-AIM dimensions at the organizational, staff, and youth levels.

The Evaluators

Both authors were evaluators on the leadership team, with interests in trauma-sensitive practice, program evaluation, and sport-based youth development. The authors held the assumption that structured approaches to sport-based youth development result in greater youth benefits than non-intentional program delivery (Bean, Kramers, et al., 2018; Holt et al., 2020). All authors engaged in discussions throughout the project to remain aware of potential biases/assumptions and how these influenced their interpretations (Smith & McGannon, 2017).

Participants

Three BGC Canada clubs participated in this project. Club A was in British Columbia in a small urban city with a semi-diverse population, Club B was in a rural township in Ontario, and Club C was in a large, urban, diversely populated city in Ontario. Purposeful sampling was used to recruit youth (i.e., any program members), and program staff (i.e., managers and front-line workers). This strategy ensured representation and role-diversity across clubs and staff.

Timeline

Ethical approval was granted by the University of Ottawa's Office of Research Ethics and Integrity (#H03-17-23), and prior consent was solicited through digital forms and re-confirming consent prior to data collection activities. Over two years (2017-2019), staff attended three

training workshops, implemented BBL, and received ongoing mentoring from master trainers. Critical time points of data collection included: (1) after the first training workshop (0 months); (2) after the second training workshop (4 months); (3) after the first year (10 months); (4) after the third training workshop (15 months), and at end of pilot (22 months). The next sections outline the training and program design, and a full description is published elsewhere (Shaikh et al., 2021).

Training and Implementation Support

The master trainers led the training workshops. Topics included: (a) psychoeducation on trauma – the prevalence, impact and nature of trauma on the body, brain, and behaviour; (b) sport for healing – using sport to heal through relationship-building, safety, healthy competition, support for motivation and efficacy, and skill-building; (c) context coaching – learning about members’ environments and experiences to meet their individual needs; (d) responsive coaching – recognising youth experiencing stress, helping them stabilise, exploring what led to their stress, co-planning strategies to re-stabilise in the future, and recover and return to play. The first workshop lasted 3 days (20 hours) and subsequent workshops each lasted 2 days (16 hours). In year one, staff participated in video/phone mentoring sessions with master trainers to debrief, reflect, and plan their sessions. These sessions lasted 1-1.5 hours each, every 3-4 weeks.

Trauma-sensitive Sport Model – Program Design

Over two years, each club ran programs weekly, out-of-school, and chose season lengths (6-10 sessions) and sports (e.g., basketball, floor hockey, soccer). Each club aimed to recruit 20-25 members (ages 8 to 12), ideally retaining members from season to season to maintain skill development and relationship building. Staff were responsible for delivering the workout structure each session, comprised of eight intentional components: (a) Arrival: welcoming members and establishing a sense of safety and belonging; (b) Warm-Up: activities to help

1846 members be present and prepare to engage (e.g., self-monitoring heart rate, breathing); (c) Skill
 1847 Play: small games to get moving, practice skills, or engage in self-paced challenges; (d)
 1848 Transition Time: water break, activity set up; (e) Game Time: large games/scrimmages to test
 1849 sport and life skills under dynamic conditions; (f) Cool Down: activities to slow down and
 1850 prepare for discussion; (g) Team Time: conversation to share experiences, offer feedback, and
 1851 reflect on applying skills in sport and life; (h) Departure: exit and check-in with members who
 1852 may need extra care.

1853 A life skill focus was adopted, where staff were expected to integrate skills by teaching
 1854 and defining life skills, encouraging skill use, and discussing skill use in and out of sport during
 1855 Team Time. Three resilience-related life skills were focused on: (a) Come To Play: being
 1856 prepared, willing to engage, and putting in effort; (b) Build My Team: caring for others,
 1857 communicating, and seeking support from others; (c) Play On: taking breaks when needed,
 1858 regulating and recovering, and returning when ready. A space called The Zone was also created to
 1859 promote self-regulation skills. Members could exit activities at any time to enter The Zone to take
 1860 a break, participate in an alternative activity, or seek support.

1861 **Measures**

1862 A multi-stage mixed-methods evaluation design was adopted to evaluate the program
 1863 across multiple time points. The evaluation questions were aligned with RE-AIM dimensions: (a)
 1864 Reach and Effectiveness: “Who attended the program?”, “How did the program influence
 1865 members’ participation and skill development?”, (b) Adoption and Implementation: “Who
 1866 implemented programming?”, “To what extent did staff facilitate the program effectively”; and
 1867 (c) Maintenance: “To what extent did staff intend to continue programs?”. Facilitators and
 1868 constraints to fulfilling each RE-AIM dimension were also identified.

1869 ***Member Data***

Staff led data collection at their sites, with periodical assistance from the evaluators. A *demographic survey* was developed to gather data on youth's age, gender, and racial/ethnic identity. In year two, a *report card* was developed to assess youths' use of life skills and overall physical activity, consisting of 8 items on a 10-point scale from '1' (low) to '10' (high), corresponding to BBL life skills (See Appendix G). Sample items included: "Willingness to engage in program activities" (Come to Play), "Ability to understand how their attitudes and emotions affect others" (Build my Team), and "Ability to choose to take breaks when they need to." (Play On). Two written response questions were also posed: (a) "Please provide comments on the member's overall participation" and (b) "How has the program impacted this member?". Staff completed report cards for each member at pre- and post-season.

Staff Data

Staff completed a structured two-page *logbook* (see Appendix F) on their program delivery experiences after each session ($N_{\text{logbooks}} = 148$). The logbook structure evolved over the pilot, but generally asked staff to share experiences of maintaining the workout structure, managing members' behaviours, integrating life skills, and facilitating The Zone. After the second training workshop, participants also rated how well they integrated life skills and The Zone, from '1' (strongly disagree) to '5' (strongly agree). After the third training workshop, an additional rating scale was included on maintaining the workout structure.

Individual interviews ($n = 29$, $M_{\text{duration}} = 35$ mins, range: 20-63 mins) and *focus group interviews* ($n = 6$, $M_{\text{duration}} = 66$ mins, range: 53-104 mins) were conducted. Each interview was conducted by the first author or a critical friend (CB, see Statement of Contributions) with expertise in sport-based youth development and focused on participants' perceptions of training, program planning and delivery, effects of programs on members, perceptions of goal fulfilment, and future intentions. These interviews were semi-structured, using pre-developed interview

guides (See Appendices C.2-C.4) to enable guided conversations in predetermined directions, with flexibility to probe and explore based on participants' responses (Leavy, 2017). The interviews were also audio-recorded, conducted over the phone or in-person.

Data Analysis

Quantitative data from demographic surveys, report cards, and logbooks were managed in SPSS 25 (IBM Corp., 2017). Descriptive and frequency statistics (e.g., means, standard deviations, medians) were calculated. Data were Winsorised to address outliers, recoding extreme values to normally distributed values (Field, 2018). The alpha value for all comparative tests was 0.05 and effect size calculated as Cohen's *d*. Differences in logbook scores before and after the second training workshop were examined using Independent Samples T-Tests. Pre- and post-season report card ratings were aggregated across data collection points; differences from pre-to-post season were calculated using a Paired Samples *T*-Test.

Qualitative data from report cards, logbooks, and interviews (transcribed verbatim), were imported into NVivo R1 (QSR International, 2020). For the interview data only, thematic analysis (Braun et al., 2016) was used to generate and map program processes and outcomes. The first author read interview transcripts multiple times to immerse himself in the data and grasp their contents. Then, passages were *coded* deductively (i.e., under RE-AIM dimensions) and inductively (e.g., novel or interesting passages relevant to evaluation questions). Codes were grouped to form subthemes/themes to generate a coding map, and several modifications were made throughout the process. The process continued until the authors interpreted that the coding map sufficiently represented the phenomena of study. The authors and the critical friend met throughout to discuss their interpretations and novel directions for data collection and analysis.

For the report card and logbooks data only, a content analysis approach was used to separately organise these data into categories representing what was explicitly written by

1918 participants (Elo & Kyngäs, 2008). The evaluators examined these data intensively, and
1919 categorised responses with similar or related meanings together (see Table 1 for a list of
1920 categories). Then, relevant passages were drawn from to support the existing coding map.
1921

1922 Table 1. *Content Analysis of Written Responses from Coaches' Logbooks*

Code	Frequency
Positive sentiments (e.g., session went well, youth were receptive and enjoyed activities, no challenges to report)	93
Managing youth's behaviours	
Facilitators	
Members used Play On skills (e.g., using The Zone, taking breaks, returning to play)	60
Members used Come To Play skills (e.g., good attentional focus, willingness to engage, sharing in Team Time)	33
Members used Build My Team skills (e.g., peer support and encouragement, team-building, mentoring)	29
Members showed evidence of program skill development	10
Members showed evidence of sport skill development	3
Constraints	
Members struggled with attention, distractions, transitions between activities	61
Members exhibited frustration, aggression, or physicality	11
Low numbers of members attended	9
Members showed lack of engagement or willingness to participate	9
Maintaining workout structure (i.e., Arrival, Warm-Up, Skill Play, Transition Time, Game Time, Cool Down, Team Time, Departure)	
Facilitators	
Appropriate supervision (e.g., coaches know roles, balance between multiple tasks)	11
Creating opportunities for sport-related skill building, reflection, and planning	9
Strategies for maximising engagement (e.g., keeping kids active, coaching on the bench)	7
Allowing youth input on activities	6
Discussing rules and expectations	2
Constraints	
Time limitations (e.g., activities are too long, parents pick up members early)	15
Environment issues (e.g., inadequate facilities, loud noises, external distractions)	10
Coach burden (e.g., roles are highly demanding, not enough coaches)	5
Skills of members varied (e.g., due to wide age range)	4
Integrating program skills (i.e., Come To Play, Build My Team, Play On)	
Discussed skills as a topic during group huddles or Team Time	32
Stated skills out loud, during moments of praise, encouragement	9
Facilitated activities to get members to practice program skills	9
Discussed in teachable moments (e.g., stopping play to talk about skill use)	8
Used in moments of individual one-on-one support	2
Integrating The Zone	
The Zone set up but not used by any members	51
The Zone was not set up or promoted	14
The rules and expectations of The Zone were discussed and its use was promoted	9

1923

1924

Results

The results were divided into three sections corresponding to RE-AIM dimensions, evaluation questions, and factors that facilitated/constrained these dimensions. Pseudonyms were used where known.

Reach and Effectiveness

Who Attended the Program?

Over the 2-year pilot, 218 members participated. By gender, participants comprised of 144 boys (67%), 67 girls, (31%), and 4 unspecified (2%). By age, participants comprised of 8 years old and under ($n = 64$, 32%), age 9 ($n = 65$, 34%), age 10 ($n = 32$, 16%), age 11 ($n = 29$, 15%), and age 12+ ($n = 4$, 2%), $M_{\text{age}} = 9.12 \pm 1.26$. The racial/ethnic identity composition was 100 White members (46%), 34 people of colour³ (16%), and 84 uncategorised (38%). In year one, 119 members attended across the three clubs, and 104 members in year two. Within year one, the season-to-season retention rate was 63%, and within year two, this rate was 53%. However, from year one to year two, the retention rate was only 13% ($n = 15$ members retained). This may be due to several reasons, such as the gap between 4-month gap between spring and fall seasons, limited relationship-building and marketing efforts over the summer, and older members aging out of BBL.

How Did the Program Influence Members' Participation and Skill Development?

Data from report cards ($n = 54$) indicated staff saw improvements in their members' skill development from pre-season ($M = 6.66 \pm 1.56$) to post-season ($M = 7.27 \pm 1.34$). A Paired Samples t -Test showed this difference was significant at $t [53] = -8.00$, $p < .001$, $d_{\text{Cohen}} = -.42$

³ People of colour were youth who identified as Black ($n = 9$, 4%), Indigenous ($n = 7$, 3%), East Asian ($n = 4$, 2%), South Asian ($n = 3$, 1%), Middle Eastern ($n = 3$, 1%), Latine ($n = 1$, <1%), and multiracial ($n = 7$, 3%).

1946 (medium effect size). Additionally, several logbook responses shared session-by-session
 1947 observations of members' use of life skills.

1948 Staff often reported members' using Come To Play skills, such as being ready to
 1949 participate and put effort into activities: "When she did participate - she was very successful,
 1950 positive attitude, strong effort"; and "[Member] was always willing to participate, suggest new
 1951 Warm-Ups, and lead activities". Similarly, Build My Team skills were discussed in members'
 1952 interpersonal skills: "BBL gave him an opportunity to become a better team member and
 1953 cooperate with others". Finally, Play On skills were discussed regarding members' self-regulatory
 1954 experiences: "BBL gave him a chance to let out his energy, continue to develop his skills, and
 1955 learn the importance of communication and emotional regulation". The longer members attended,
 1956 the more they adapted to program norms and expectations:

1957 The ones that participate in one or two seasons you could see they understood... this
 1958 wasn't a place where it was all about whether you were a winner and a loser, or you're
 1959 going to be reprimanded or sat on the bench if you miss the ball. (Mary)

1960 As a result, it was longer-tenured members that adopted greater prosocial behaviours and
 1961 immersion into BBL:

1962 The kids who attended all three seasons were the ones helping during Team Time to bring
 1963 us back to a serious topic... It was neat to see the kids that had been there [in previous
 1964 seasons] refocusing the conversation. (Rachel)

1965 Challenges with youth behaviour were also reported such as: (a) self-esteem issues –
 1966 "Lack of physical fitness often kept [member] from participating as he was embarrassed he
 1967 couldn't keep up with other boys his age." (b) peer conflicts – "[Member's] focus was often on
 1968 others - which made it hard to see how she was doing or accepting responsibility for her
 1969 actions"), and (c) lack of friends – "Sporadic attendance due to lack to interest from other girls at

1970 [clubhouse] - likes activity but would rather be with her friends”. These results showed not all
 1971 members benefitted from participation, had different motivations for participating, and some
 1972 program features (e.g., sport focus) did not meet youth’s needs or posed participation barriers.

1973 ***What Facilitated or Constrained Program Reach and Effectiveness?***

1974 The authors inferred several factors which may have influenced reach and effectiveness:
 1975 (a) meeting youth’s interests; (b) integrating within an existing programs, (c) building
 1976 relationships, and (d) facilitating intentional structure and life skills focus.

1977 **Meeting Youth’s Interests.** Primarily, youth were recruited by probing interests of
 1978 existing BGC Canada members, and through referrals from partnered community agencies.
 1979 Recruiting within clubs tended to yield better results; Rachel would tailor her marketing to
 1980 youth’s specific interests: “When recruiting kids, I'm looking at every piece of BBL and choosing
 1981 what I think those kids are going to grab. Just looking at it on an individual level and trying to
 1982 comfort more kids in one activity.” Given the multi-sport focus of BBL, each club switched
 1983 sports each season. This strategy enhanced the variety of activities, but challenged reach: “Ideally
 1984 [members] would sign up for all of that one [year]. But a lot of them like to go “Oh hockey, I'll
 1985 sign up for that... Oh, you're going to do indoor soccer now, I don't want that.” (James).
 1986 Scheduling conflicts with other popular sport programs also challenged reach: “They would not
 1987 want to participate because they had soccer [at another club] later that night.” (Joshua).

1988 **Integration Within an Existing Program.** The multi-faceted nature of BBL (e.g.,
 1989 combining sport with life skills) enabled staff to target more members’ interests than a sport only
 1990 program. Clubs already benefited from having existing relationships with the parents/caregivers
 1991 of targeted members, which facilitated their buy-in: “The parents have been around for quite
 1992 some time. So the rapport with them is well established. When I said ‘Hey we started a program
 1993 and this is the focus.’ They were all for it.” (Yusra).

1994 Club C created a novel program outside their schedule to exclusively target youth with
 1995 identified trauma histories referred from community agencies. However, this led to challenges
 1996 requiring novel recruitment strategies and hiring new staff. Susan realised that embedding
 1997 trauma-sensitive sport within her club's existing programs could reach and benefit more youth
 1998 than their targeted program:

1999 We thought we'd cater or service a population [of trauma-exposed youth] that we weren't
 2000 always able to... but this program is more about providing some skill sets like resilience
 2001 to the kids that we service everyday that might have experiences that aren't too pleasant
 2002 for them... We realised this would be amazing to roll into the everyday things we do.

2003 **Building Supportive Relationships.** All clubs recognised relationship building as an
 2004 important staff skill. Susan prioritised onboarding staff with relationship-building skills and then
 2005 training them in trauma-sensitive and coaching practices: "When training people or building this
 2006 program, it's more important to me they can demonstrate they know how to build relationships -
 2007 and from there we can teach them all the rest of the skill-based pieces." Rachel felt her
 2008 relationship building contributed to members' comfort and willingness to seek support. "They
 2009 would choose me as a staff to come through, if they were dealing with something difficult and
 2010 thought they had someone to seek out. I just kept relationship building and [helped them] see
 2011 those coaches as a partner."

2012 **Facilitating Intentional Structure and Life Skills Focus.** The structure demanded
 2013 youth's engagement in ways not seen from their regular program offerings. Rachel said:
 2014 "There's really no sit time in BBL, it's constant going and constant activity... there's a lot less
 2015 [challenging] behaviours with children because they're so active and they're so busy they don't
 2016 have downtime to get in conflicts." Staff felt their integration of life skills linked with members'
 2017 use of skills. Using program-specific language helped members identify with the program better

and keep returning: “Staff were super consistent in using the same language, [which] the kids eventually looked forward to. They adopted the language and showing up and pushing their peers to show up each week, helps build this like camaraderie amongst the group.” (Yusra).

Adoption and Implementation

Who Adopted and Implemented Programming?

By pilot-end, 18 staff across three clubs received training in a trauma-sensitive sport model ($M_{age} = 33.24 \pm 11.43$; range 22-62 years old, 12 women, 6 men), and ten of these staff attended all three training workshops. Each club also had 1-3 assistant coaches who co-led programming. Three trained staff left the club by pilot-end, and clubs encountered turnover in assistant coaches from season to season.

To What Extent Did Staff Facilitate the Program Effectively?

The logbooks offered insights of how well BBL sessions went. Up until the second training workshop, low to average ratings were given for integration of life skills ($n = 81$; $M = 3.76 \pm .89$) and The Zone ($n = 81$, $M = 2.65 \pm 1.52$). After the third training workshop, ratings ($n = 43$) trended higher for both skill integration ($M = 4.07 \pm .67$), and The Zone ($M = 3.79 \pm .67$), and staff also felt they maintained the workout structure highly ($M = 4.05 \pm 1.08$). Independent samples *t*-tests revealed that the differences from before and after the third training workshop were significant for skill integration ($t[122] = -1.99$, $p = .03$, $d_{Cohen} = .376$) and The Zone ($t[122] = -5.75$, $p < 0.01$, $d_{Cohen} = .88$). This result may indicate that running programs long-term and/or staff’s participation in refresher training led to improved program facilitation.

What Facilitated Program Adoption and Implementation?

Several components contributed to successful adoption and implementation: (a) emphasis on training and development, (b) maintaining workout structure; (c) integrating life skills, and (d) setting up The Zone.

Emphasis on Training and Development. Many staff felt the training workshops were useful and relevant to what they encountered in practice, as Mary shared:

The training we did was hands down the best part of my learning or where I gained the most knowledge. Then, bringing it back to our club and running it with a group of kids was the piece that had solidified or reinforced what we learned.

Having staff trained with a shared understanding was important to run programs successfully as a team: “I think having partners that had a good understanding of what we were doing was really important for pre-planning, for actually executing, and having somebody to debrief with.” (James). Given the importance of a synergised staff team, staff made sure to share training knowledge and how to run programming effectively with the assistant coaches at their clubs:

[We] realised the importance of the training and how what we learned is going to impact the kids and how they react. That led to conversations on how we help [untrained staff] catch up with the training... we helped him focus on more of the context aspect, what The Zone was and what it was for, and how he can use that with other kids as well. (Agatha)

Maintaining Workout Structure. Sessions were perceived as successful when staff consistently facilitated all workout structure components, encountered few behaviour challenges, and observed youth enjoying the activities: “The session went very well this week. Each element this week was a familiar game with a twist, therefore we were able to decrease the amount of instructional time. Ultimately keeping the kids moving and causing less behavioural challenges.” (Rachel). The sport aspect drew youth in, which made the trauma-sensitive components (e.g., discussing emotions), easier to facilitate: “I really love the sport-mode delivery. [Members] are more open to it, simply because it is delivered through sport rather than a counselling session on how to become closer to yourself or understand your feelings.” (James). Using sport as a vehicle

for trauma-sensitive intervention also offered opportunities for members to engage in learning and receive support from staff in times of distress. The sport setting allowed staff to be creative about the learning opportunities they enabled for members:

You're not in that sit-down setting so you really have to be really creative about ways to integrate [trauma-sensitive approaches] into each session, kind of without the kids knowing it... if a child gets frustrated during the session, rather than just focusing on them returning to the game, really breaking down what the pieces were of that [frustration]. In BBL you can do it while you are shooting a ball with a kid, or getting in The Zone with a kid. (Rachel)

Integrating Life Skills. Staff discussed several strategies for integrating life skills. Most often, these opportunities were based on facilitating group discussions around a life skill during Team Time. Rachel discussed her conversation on sportspersonship (as a Build My Team skill): “We talked about how not being a “ball hog” is a huge part of sportsmanship. After that the ideas started flowing. The kids talked about cheering each other on, creating strategies with your team for everyone to play.”

Another strategy was discussing skills throughout the activities. Staff used certain game circumstances as opportunities to discuss life skills: “The situations that arose during the game (going from being ahead to trailing) really helped with integrating life skills. We spoke about playing on through adversity and continuing to try during the game.” (Kenneth). Staff would use moments of distress as an opportunity for skill-building: “We are using the skills more and more in teachable moments when they need a break or are frustrated.” (Joshua). Finally, staff also discussed skill use in other life domains: “Along with having kids use The Zone today, our topic of “healthy competition” guided our conversation about using The Zone to Play On. We also talked about “zones” outside of BBL, what spaces do we have at our schools? home?” (James).

2090 **Setting up The Zone.** The Zone enabled youth to step in and out of activities at their own
 2091 will, to help them practice their self-regulation strategies. The Zone was integrated to help
 2092 members practice taking breaks, resting, and returning to play: “[I’m] using The Zone as
 2093 encouragement for kids to take some time to themselves before they are ready to Play On.
 2094 Helping the kids make adjustments so they are able to Play On.” (Rachel).

2095 ***What Constrained Program Adoption and Implementation?***

2096 Despite finding value in the training and program, many staff cited challenges in
 2097 maintaining BBL structure, partly due to scheduling and time limitations, and staff burden and
 2098 turnover.

2099 **Scheduling and Time Limitations.** The clubs and members were more familiar with
 2100 unstructured activities. Spaces were often shared and fluid with other activities, making more
 2101 difficult to facilitate structured discussions, as James shared: “We ran Team Time in the mini
 2102 gym, overall went well however very loud making it difficult to hear, distracting as well.”
 2103 Allocating only one hour was often not enough to facilitate activities to their full extent: “I wish
 2104 we had more time to fit it all in... we weren't even doing our core activities because everything
 2105 was just so fast.” (Courtney). Frequently, time limitations resulted from members’ struggles to
 2106 pay attention, and staff’s difficulty managing groups during transitions between activities –
 2107 leading to interruptions: “Kids were difficult to organise and keep focused, took longer to explain
 2108 concepts” (James), and “A lot of time was taken speaking to them about listening and how to
 2109 transition more smoothly.” (Rachel). Allocating more time made it easier to maintain structure:

2110 We switched to two hours, and two hours helped a lot. We had a lot of time to really make
 2111 use of The Zone, talk the kids through each activity, answer any questions, and more
 2112 Team Time, which the kids really liked. (Agatha)

2113 **Staff Burden and Turnover.** The coaches had multi-faceted roles including managing

2114 energetic young members, creating skill building opportunities, planning and facilitating
 2115 engaging activities, and responding to members facing conflicts or distress. Some coaches felt
 2116 delivering the sport program alone was already so demanding, it compromised their ability to be
 2117 intentional or creative: “Running a sport program took a lot of my brain power... I didn't have
 2118 comfort to be really innovative around some of the BBL skills and the special components of the
 2119 sport program.” (James). Thus, staff felt high-quality program delivery required more coaches
 2120 than the recommended two per program: “If they're moving forward and piloting it with other
 2121 clubs across the country - two [coaches] is not going to suffice.” (Susan). However, staff turnover
 2122 was a consistent issue. Hiring and training new staff had to be balanced with the cost of losing
 2123 those staff given the shifting nature of their positions. Rachel desired a training strategy that was
 2124 both time-effective and enabled staff to learn quality program practices:

2125 In [coaching] positions, we do have turnover. How do you make a long-lasting training,
 2126 and still implement BBL when you have turnover? You don't want [training] too intense
 2127 that you spend too much time and then they're not there by the end of the season. So
 2128 something that can roll out and transfer easily.

2129 **Maintenance**

2130 *To What Extent Did Staff Intend to Continue Program Practices?*

2131 Many staff valued what BBL can bring to the club and for their youth long-term; as a
 2132 result, these staff committed to continue programming. Mary shared:

2133 Learning in this trauma-approached philosophy is needed to address the needs of our
 2134 current population. By not doing this we are not meeting our mission and values—
 2135 providing a safe and supportive environment for our children, creating a safe emotional
 2136 space, and providing that caring, understanding relationship.

2137 Also discussed was the value of integrating trauma-sensitive approaches beyond this

2138 single program into other youth activities. Rachel advocated for reforming all club programming
2139 to adopt trauma-sensitive features:

2140 We can change pieces of our own after-school program to include things like The Zone, to
2141 not use physical activity as punishment, to help kids reflect when they're feeling angry
2142 rather than just letting it go, and helping kids recognise when they need space or when
2143 they need time and helping support them.

2144 ***What Facilitated or Constrained Program Maintenance?***

2145 The leadership team intentionally took on a developmental, trial and error approach to this
2146 project, where staff were encouraged to work and adapt BBL in whatever ways necessary, with
2147 BGC Canada's support. This approach helped William feel confident carrying out and building
2148 BBL over several years:

2149 I feel confident because this is a multi-year approach, we have the support and resources
2150 to really sort it through and do it well. I feel good that this is new and we know that we're
2151 changing and it's okay to have little hiccups.

2152 Program success was also a motivator for staff: "Bringing back the excitement that we had back
2153 when it was just a conversation before we started BBL, when we were just brainstorming. So
2154 seeing it run successfully definitely brought back that initial excitement." (Yusra)

2155 It was not uncommon in the organization to face limited and insecure funding streams,
2156 with programs mostly run by part-time/volunteer staff. As such, maintaining this program would
2157 be dependent on how well clubs could navigate these limitations:

2158 For what we've been delivering, if you know anything about BGC Canada there isn't a lot
2159 of money to throw around? That is a concern - can we sustain the staffing numbers?...

2160 How do we make sure that it's viable staffing wise? (James)

2161 Yusra wanted to onboard more full-time staff to facilitate programming, however this was

challenging given the high probability of their turnover:

A lot of our senior staff that I would love to bring in on the project I know are just graduating from school looking for a full-time job. So they may not be around in September. I don't want to get my hopes up and it come crumbling down.

Discussion

The purpose of this study was to conduct a RE-AIM evaluation of BBL. The results offered insights of what a trauma-sensitive community sport program may look like, what can facilitate or constrain programming, and what outcomes may come members' participation and development. The results are discussed with respect to the broader literature in sport-based youth development and trauma-sensitive initiatives, along with strategies for navigating challenges and improving future programming.

When considering *reach*, BBL drew in large numbers, yet faced challenges with retaining members from season to season. Younger youth (ages 8-9) participated, partly explained by BGC Canada's general reach to this cohort in supervised out-of-school programming, and older participants may move on to activities with increased independence and specialised interests (Vandell et al., 2015). For gender, while girls participated less than boys in sport (reflecting broader participation trends), the gender diversity of boys and girls in [organizations]' membership is closer to equal. Thus, explicit efforts to reach girls should be promoted (e.g., training staff in gender inclusion practices, adapting programs to girls' interests and needs). Finally, participation rates were higher for White youth compared to youth of colour. Racialised families can encounter limited access to out-of-school programs even when programs target them (Deutsch et al., 2017); barriers can include cultural attitudes (e.g., valuing playing outside as opposed to organised activities), and older children having to care for younger siblings (Vandell et al., 2015). Thus, explicit efforts to engage families and offer culturally relevant programs

2186 should be promoted.

2187 *Effectiveness* may link to three *implementation* features that were feasible to implement
 2188 and oft-cited as most salient to promoting quality participation (Vandell et al., 2015): (a) a sense
 2189 of safety and belongingness, through checking in with youth at Arrival and Departure, and using
 2190 The Zone for practicing self-regulation (e.g., take breaks when needed, recover, and return to
 2191 play; Bergholz et al., 2016); (b) supportive and safe relationships with committed staff, which can
 2192 be a corrective experience for youth who otherwise experience disruptive adult relationships
 2193 (Bergholz et al., 2016); and (c) challenging, age-appropriate, and highly engaging activities,
 2194 which may have linked to members' enjoyment, and promoted feelings of immersion/escapism
 2195 (Whitley et al., 2018). Beyond these features, incorporating a life skill focus added an *explicit*
 2196 approach to promoting youth development. Integrating life skills in discussions, language, and
 2197 activities was linked to greater life skill development in members, paralleling recommendations
 2198 from youth sport literature (Bean, Kramers, et al., 2018; Holt et al., 2017).

2199 *Adoption* was explored through how well program practices were taken up. While trauma-
 2200 sensitive training can enhance staff's empathy and knowledge, it is less known whether these
 2201 outcomes are linked to behaviour change (Purtle, 2020). In this study, staff's participation in
 2202 training was potentially linked to stronger program practices. It is likely that offering ongoing
 2203 training opportunities may have influenced these improvements as opposed to one-off trainings
 2204 (Purtle, 2020).

2205 Finally, *maintenance* was in part dependent on the successfulness of the previous four
 2206 dimensions. The affordance to take a developmental approach and freely adapt their program
 2207 enabled staff to navigate challenges with time and scheduling, and learn and try new
 2208 implementation strategies. Results from monitoring fidelity and adaptability may help inform
 2209 organizations on what program components should be prioritised to optimise facilitation and

2210 reduce constraints. For instance, future programs should prioritise the intentional structure and
 2211 life skill focus for their feasibility and perceived effectiveness, allocating more time to better
 2212 fulfil these program components, and having multiple coaches to ease staff burden, share duties,
 2213 and manage groups better.

2214 Along with the successes and benefits seen across RE-AIM dimensions, several
 2215 challenges to participation were noted. Challenges included lack of friends, self-esteem issues,
 2216 and peer conflicts, which may be linked to unmet needs (e.g., low sense of competence,
 2217 autonomy, and relatedness) and the presence of traditional, ego-involving norms of sport (e.g.,
 2218 avoiding mistakes, comparison to others, emphasis on competition versus cooperation; Duda et
 2219 al., 2014). While BBL was intentional in promoting task-involvement (e.g., emphasis on life
 2220 skill-building) and autonomy support (e.g., allowing youth to enter and leave play at will), more
 2221 education on coaching strategies to support such motivational climates may be beneficial.
 2222 Strategies can include providing incentives (e.g., rewards for consistent attendance), soliciting
 2223 youth input (e.g., co-creating activities and rules), and leadership opportunities (e.g., scheduling
 2224 weekly team captains; Lauver & Priscilla, 2005).

2225 The challenge of staff turnover may have hindered continued relationship-building,
 2226 members' social support systems, and reduced benefits of long-term engagement (Duda et al.,
 2227 2014). Additionally, with trained staff departing BBL, specific program knowledge becomes lost,
 2228 hampering program maintenance. Staff turnover can be mitigated through ongoing professional
 2229 development and opportunities to co-learn and share knowledge with others (Deutsch et al.,
 2230 2017). Related work on this project reported links between staff's retention and ongoing training,
 2231 mentoring, and knowledge sharing with staff from other clubs (Shaikh et al., 2019).

2232 **Strengths, Limitations, and Future Directions**

2233 This study was one of the first holistic evaluations of a sport-based trauma-sensitive

program. Using RE-AIM as an evaluation framework helped capture key features of programming over several time points to inform later adaptations to this program. The utilisation-focused evaluation approach enabled the creation of context-specific tools (e.g., logbooks, report cards) with feedback from the clubs to capture relevant insights to help inform organizational decision-making. This project relied on staff's self-report data on their practices and youth outcomes, which may be subject to positivity biases. Future work could benefit from observations of coaches' practices to complement these data (see expansion phase; Shaikh, Bouchard, et al., 2021), as well as from youth's perspectives of their participation using participatory, art-based, and/or movement-based evaluation activities (Leavy, 2017).

In evaluating organizational initiatives, even with multiple methods, it is often unclear which program features are linked to successful implementation and program outcomes. Such challenges are not unique to programs in sport-based youth development (Holt et al., 2020) or trauma-sensitive design (Darroch et al., 2020). While the authors interpreted some implementation-outcome links in this study, direct examinations may be beneficial to learn which features are most essential (e.g., Bean, Harlow, et al., 2018). It also warrants exploring staff's experiences related to practice and application (e.g., satisfaction, burnout, turnover), as these were key factors that facilitated or constrained programming in this study (Purtle, 2020).

Conclusions

Sport-based trauma-sensitive programs can offer safety and support for underserved youth. This study offered initial insights on structuring and facilitating these programs. Insights of the benefits of multiple training opportunities and flexibility of program delivery have informed adaptations to the expansion phase of this project. Similar youth-serving organizations may benefit from the lessons learned in this pilot for structuring effective programs and navigating facilitation challenges in community settings.

References

- 2259
- 2260 Bean, C., Harlow, M., Mosher, A., Fraser-Thomas, J., & Forneris, T. (2018). Assessing
- 2261 differences in athlete-reported outcomes between high and low-quality youth sport
- 2262 programs. *Journal of Applied Sport Psychology*, 30(4), 456–472.
- 2263 <https://doi.org/10.1080/10413200.2017.1413019>
- 2264 Bean, C., Kramers, S., Forneris, T., & Camiré, M. (2018). The implicit/explicit continuum of life
- 2265 skills development and transfer. *Quest*, 70(4), 456–470.
- 2266 <https://doi.org/10.1080/00336297.2018.1451348>
- 2267 Bergholz, L., Stafford, E., & D’Andrea, W. (2016). Creating trauma-informed sports
- 2268 programming for traumatised youth: Core principles for an adjunctive therapeutic approach.
- 2269 *Journal of Infant, Child, and Adolescent Psychotherapy*, 15(3), 244–253.
- 2270 <https://doi.org/10.1080/15289168.2016.1211836>
- 2271 Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research.
- 2272 In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport*
- 2273 *and Exercise* (pp. 191–205). Routledge.
- 2274 Brown, J. C., Verhagen, E., Van Mechelen, W., Lambert, M. I., & Draper, C. E. (2016). Coaches’
- 2275 and referees’ perceptions of the BokSmart injury prevention programme. *International*
- 2276 *Journal of Sports Science & Coaching*, 11(5), 637–647.
- 2277 <https://doi.org/10.1177/1747954116667100>
- 2278 Cutuli, J. J., Alderfer, M. A., & Marsac, M. L. (2019). Introduction to the special issue: Trauma-
- 2279 informed care for children and families. *Psychological Services*, 16(1), 1–6.
- 2280 <https://doi.org/10.1037/ser0000330>
- 2281 Damon, W. (2004). What is positive youth development? *The Annals of the American Academy of*
- 2282 *Political and Social Science*, 591(1), 13–24. <https://doi.org/10.1177/0002716203260092>

- 2283 Darroch, F. E., Roett, C., Varcoe, C., Oliffe, J. L., & Gonzalez Montaner, G. (2020). Trauma-
 2284 informed approaches to physical activity: A scoping study. *Complementary Therapies in*
 2285 *Clinical Practice*, 41(101224), 1–10. <https://doi.org/10.1016/j.ctcp.2020.101224>
- 2286 Deutsch, N. L., Blyth, D. A., Kelley, J., Tolan, P. H., & Lerner, R. M. (2017). Let's talk after-
 2287 school: The promises and challenges of positive youth development for after-school
 2288 research, policy, and practice. In N. L. Deutsch (Ed.), *After-School Programs to Promote*
 2289 *Positive Youth Development: Integrating Research into Practice and Policy, Volume 1* (pp.
 2290 45–68). Springer. https://doi.org/10.1007/978-3-319-59132-2_4
- 2291 Duda, J. L., Papaioannou, A. G., Appleton, P. R., Quested, E., & Krommidas, C. (2014). Creating
 2292 adaptive motivational climates in sport and physical education. In *Routledge Companion to*
 2293 *Sport and Exercise Psychology: Global perspectives and fundamental concepts* (pp. 544–
 2294 558). <https://doi.org/10.4324/9781315880198.ch35>
- 2295 Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced*
 2296 *Nursing*, 62(1), 107–115. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>
- 2297 Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M.
 2298 P., & Marks, J. S. (2019). Relationship of childhood abuse and household dysfunction to
 2299 many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE)
 2300 Study. *American Journal of Preventive Medicine*, 56(6), 774–786.
 2301 <https://doi.org/10.1016/j.amepre.2019.04.001>
- 2302 Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). SAGE.
- 2303 Finch, C. F., & Donaldson, A. (2010). A sports setting matrix for understanding the
 2304 implementation context for community sport. *British Journal of Sports Medicine*, 44(13),
 2305 973–978. <https://doi.org/10.1136/bjsm.2008.056069>
- 2306 Glasgow, R. E., Harden, S. M., Gaglio, B., Rabin, B., Smith, M. L., Porter, G. C., Ory, M. G., &

- 2307 Estabrooks, P. A. (2019). RE-AIM planning and evaluation framework: Adapting to new
 2308 science and practice with a 20-year review. *Frontiers in Public Health*, 7(64), 1–9.
 2309 <https://doi.org/10.3389/fpubh.2019.00064>
- 2310 Hanson, R. F., Lang, J. M., Fraser, J. G., Agosti, J. R., Ake, G. S., Donisch, K. M., & Gewirtz, A.
 2311 H. (2018). Trauma-informed care: Definitions and statewide initiatives. In *The APSAC*
 2312 *handbook on child maltreatment* (4th ed., pp. 272–291). SAGE.
- 2313 Holt, N. L., Deal, C. J., & Pankow, K. (2020). Positive youth development through sport. In G.
 2314 Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (4th ed., Vol. 1, pp. 429–
 2315 446). John Wiley & Sons, Inc. <https://doi.org/10.4324/9780203944783>
- 2316 Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D.
 2317 J., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth
 2318 development through sport based on results from a qualitative meta-study. *International*
 2319 *Review of Sport and Exercise Psychology*, 10(1), 1–49.
 2320 <https://doi.org/10.1080/1750984X.2016.1180704>
- 2321 IBM Corp. (2017). *IBM SPSS Statistics for Windows* (25.0). IBM Corp.
- 2322 Janssen, M., Toussaint, H. M., Mechelen, W. Van, & Verhagen, E. A.L.M. (2013). Translating the
 2323 PLAYgrounds program into practice: A process evaluation using the RE-AIM framework.
 2324 *Journal of Science and Medicine in Sport*, 16(3), 211–216.
 2325 <https://doi.org/10.1016/j.jsams.2012.06.009>
- 2326 Koorts, H., & Gillison, F. (2015). Mixed method evaluation of a community-based physical
 2327 activity program using the RE-AIM framework: Practical application in a real-world setting
 2328 Energy balance-related behaviours. *BMC Public Health*, 15(1), 1–10.
 2329 <https://doi.org/10.1186/s12889-015-2466-y>
- 2330 Kwan, B. M., McGinnes, H. L., Ory, M. G., Estabrooks, P. A., Waxmonsky, J. A., & Glasgow, R.

- 2331 E. (2019). RE-AIM in the real world: Use of the RE-AIM framework for program planning
 2332 and evaluation in clinical and community settings. *Frontiers in Public Health*, 7(345), 1–10.
 2333 <https://doi.org/10.3389/fpubh.2019.00345>
- 2334 Larson, R. W. (2000). Toward a psychology of positive youth development. *American*
 2335 *Psychologist*, 55(1), 170–183. <https://doi.org/10.1037/0003-066X.55.1.170>
- 2336 Lauver, S. C., & Priscilla, M. D. L. (2005). Recruitment and retention strategies for out-of-
 2337 school-time programs. *New Directions for Youth Development*, 2005(105), 71–89.
 2338 <https://doi.org/10.1002/yd.108>
- 2339 Lawrason, S., Turnnidge, J., Tomasone, J., Allan, V., Dawson, K., Martin, L. J. (2020).
 2340 Employing the RE-AIM framework to evaluate multisport service organization initiatives.
 2341 *Journal of Sport Psychology in Action*, 12(2), 87–100.
 2342 <https://doi.org/10.1080/21520704.2020.1773592>
- 2343 Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and*
 2344 *community-based participatory research approaches*. The Guilford Press.
- 2345 Leitch, L. (2017). Action steps using ACEs and trauma-informed care: A resilience model. *Health*
 2346 *& Justice*, 5(5), 1–10. <https://doi.org/10.1186/s40352-017-0050-5>
- 2347 Lemonius, M., & Strachan, L. (2018). Critical reflection on the development of the GIFT Project
 2348 and examination of Project SCORE partnership using RE-AIM. *Journal for Peace and*
 2349 *Justice Studies*, 28(1), 40–64. <https://doi.org/10.5840/peacejustice20182812>
- 2350 Loomis, A. M. (2018). The role of preschool as a point of intervention and prevention for trauma-
 2351 exposed children: Recommendations for practice, policy, and research. *Topics in Early*
 2352 *Childhood Special Education*. <https://doi.org/10.1177/0271121418789254>
- 2353 Massey, W. V., & Williams, T. L. (2020). Sporting activities for individuals who experienced
 2354 trauma during their youth: A meta-study. *Qualitative Health Research*, 30(1), 73–87.

- 2355 <https://doi.org/10.1177/1049732319849563>
- 2356 Mawson, R., Creech, M. J., Peterson, D. C., Farrokhyar, F., & Ayeni, O. R. (2018). Lower limb
 2357 injury prevention programs in youth soccer: A survey of coach knowledge, usage, and
 2358 barriers. *Journal of Experimental Orthopaedics*, 5(1). [https://doi.org/10.1186/s40634-018-](https://doi.org/10.1186/s40634-018-0160-6)
 2359 0160-6
- 2360 Meegan, R. (2022). *A formative evaluation using re-aim framework for enhanced shelter services*
 2361 [Seattle University]. <https://scholarworks.seattleu.edu/dnp-projects/51>
- 2362 Patton, M. Q. (2012). *Essentials of utilisation-focused evaluation*. SAGE.
- 2363 Purtle, J. (2020). Systematic review of evaluations of trauma-informed organizational
 2364 interventions that include staff trainings. *Trauma, Violence, and Abuse*, 21(4), 725–740.
 2365 <https://doi.org/10.1177/1524838018791304>
- 2366 QSR International. (2020). *NVivo R1 [Computer software]*. QSR International Pty Ltd.
- 2367 RE-AIM. (2022). *RE-AIM - Reach Effectiveness Adoption Implementation Maintenance*.
 2368 <https://re-aim.org>
- 2369 Richmond, S. A., Bruin, S., Black, A. M., Pike, I., & Babul, S. (2021). Active & Safe Central:
 2370 Using a mixed-methods design and the RE-AIM framework to evaluate a sport and
 2371 recreational injury prevention resource for practitioners in Canada. *BMJ Open*, 11(e039070),
 2372 1–9. <https://doi.org/10.1136/bmjopen-2020-039070>
- 2373 Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a sport-
 2374 based trauma-sensitive program in a national youth-serving organization. *Child and*
 2375 *Adolescent Social Work Journal*, 38, 449–461. <https://doi.org/10.1007/s10560-021-00776-7>
- 2376 Shaikh, M., Bouchard, M., & Forneris, T. (2021). An action research case study to examine
 2377 coaches' implementation of sport-based trauma-sensitive practices in a nationally-run
 2378 community program. *Journal of Sport and Exercise Psychology*, 43(S1), 90.

- 2379 <https://doi.org/10.1123/jsep.2021-0103>
- 2380 Smith, B., & McGannon, K. R. (2017). Developing rigor in qualitative research: Problems and
 2381 opportunities within sport and exercise psychology. *International Review of Sport and*
 2382 *Exercise Psychology*, 11(1), 101–121. <https://doi.org/10.1080/1750984X.2017.1317357>
- 2383 Van Hoya, A., Larsen, T., Sovik, M., Wold, B., Heuzé, J. P., Samdal, O., Ommundsen, Y., &
 2384 Sarrazin, P. (2015). Evaluation of the Coaches Educators training implementation of the
 2385 PAPA project: A comparison between Norway and France. *Scandinavian Journal of*
 2386 *Medicine and Science in Sports*, 25(5), e539–e546. <https://doi.org/10.1111/sms.12352>
- 2387 Vandell, D. L., Larson, R. W., Mahoney, J. L., & Watts, T. W. (2015). Children's organised
 2388 activities. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science:*
 2389 *Ecological settings and processes* (7th ed., pp. 1–40). John Wiley & Sons.
- 2390 Walsh, D., McCartney, G., Smith, M., & Armour, G. (2019). Relationship between childhood
 2391 socioeconomic position and adverse childhood experiences (ACEs): A systematic review.
 2392 *Journal of Epidemiology and Community Health*, 73(12), 1087–1093.
 2393 <https://doi.org/10.1136/jech-2019-212738>
- 2394 Whitley, M. A., Massey, W. V., & Wilkison, M. (2018). A systems theory of development through
 2395 sport for traumatised and disadvantaged youth. *Psychology of Sport and Exercise*, 38, 116–
 2396 125. <https://doi.org/10.1016/j.psychsport.2018.06.004>
- 2397

2398 **Article 3: Learning a Trauma-sensitive Sport Model: Training Workshop Experiences**

2399 Majidullah Shaikh¹, Diane M. Culver¹, Tanya Forneris²

2400 ¹The University of Ottawa, Ottawa, ON

2401 ²The University of British Columbia - Okanagan, Kelowna, BC

2402 *Manuscript for submission to the International Sport Coaching Journal*

2403

Abstract

Training youth sport leaders in program models that promote the holistic development of youth and create safety, collaboration, choice, trust, and empowerment can help support trauma-exposed youth's participation and healing. The purpose of this study was to explore the learning experiences of leaders from a national community youth-serving organization who participated in an initial training workshop to learn a trauma-sensitive sport model for programming. The value-creation framework was used to explore learning experiences based on the interactions and values leaders discussed. Two cohorts of leaders were interviewed about their preferences for training and development, and their experiences of learning in workshops, and the researcher observed training workshops and took detailed field notes. The interview data were analysed collectively using a deductive-inductive thematic analysis and supported with context from the researchers' observations. Data were also collected on leaders' satisfaction with training, knowledge perceptions, content knowledge, and attitudes towards trauma-sensitive practice, and these data were analysed using descriptive statistics and Wilcoxon Signed-Ranks tests. The leaders improved in their relevant knowledge and attitudes from pre-to-post participation. Having a variety of learning opportunities was valued by the leaders, and they were interested in learning knowledge to help them support their youth's needs better within and beyond sport, and shared intent to promote more responsive, trauma-sensitive, program practices. Implications were discussed for the improvement of training opportunities to promote ongoing social learning and maintenance of program practices.

Introduction

Traumatic exposure is widespread, can result from abuse, neglect, household dysfunction, peer victimization, racism, and community violence; and can disrupt youth's self-regulation and life development (Dye, 2018; Felitti et al., 1998; Finkelhor et al., 2015). Community sport may be a context for youth's trauma healing, in facilitating a sense of belonging, psychological escape, and embodied experiences (Massey & Williams, 2020). Youth sport leaders (e.g., coaches, teachers, community program staff) may act as agents of change (Newman et al., 2016; Vella et al., 2011), as they are often entrusted with fostering safety, promoting competency-building, and nurturing adult-child relationships, while mediating factors that may contribute to youth's stress (e.g., disruptive caregiver relationships, peer pressure). Despite the demanding nature of these roles, educational opportunities on fostering youth development or promoting mental health support are limited in youth sport (Breslin et al., 2017; Camiré et al., 2014; Santos, Gould, et al., 2019). Leaders trained on using a trauma-sensitive sport model can facilitate healing for many unscreened trauma-exposed youth who participate in their programs.

A trauma-sensitive sport model is an approach to programming that emphasises a blend of trauma-sensitive and positive youth development (PYD) approaches. Trauma-sensitive approaches recognise the widespread prevalence and negative consequences of trauma on youth's development, and prioritise principles of safety, collaboration, choice, trust, and empowerment (Harris & Fallot, 2001). PYD emphasises building youth's strengths and promoting their potential through safe environments and caring relationships, and learning-focused activities that help youth develop and apply various life skills (Lerner et al., 2005). Training leaders in a trauma-sensitive sport model would involve building their knowledge and awareness on: (a) the prevalence and impact of trauma on the mind, body, and behaviour; (b) promoting safety, belongingness, and well-being through caring relationships in a group program setting; (c)

2449 establishing routine, consistent structures, and expectations within a sport program; (d)
 2450 responding to youth in moments of distress, (e) facilitating and responding to youth voice, (f)
 2451 promoting strengths and self-beliefs, (g) modifying sport program design and coaching practices
 2452 to meet youth's needs; (h) skills for supervisors to support their staff, and (i) integration of
 2453 trauma-sensitive practice into policies and procedures (Bergholz et al., 2016; Purtle, 2020;
 2454 Quarmby et al., 2022; Whitley et al., 2018).

2455 Training workshops can offer a structured educational space for participants to engage in
 2456 both teacher-directed (e.g., lectures, instruction, assessment and feedback), and learner-centred
 2457 activities (e.g., problem-based learning, leading or co-leading activities in the learning space, peer
 2458 discussions; Lemyre et al., 2007; Nelson et al., 2013; Trudel & Gilbert, 2006; Wright et al.,
 2459 2007). In social work settings, training workshops can be successful in helping caregivers grow
 2460 awareness of trauma-sensitive concepts (e.g., the indicators and impact of trauma, how trauma
 2461 behaviours may be coping mechanisms), and shift attitudes towards favouring use of trauma-
 2462 sensitive practices (Barnett et al., 2018; Brown et al., 2012; Hummer et al., 2010). Participation
 2463 in teacher-directed activities is favourable in terms of short-term knowledge acquisition, while
 2464 learner-centred activities can increase the likelihood of training satisfaction, retention of
 2465 knowledge, and knowledge use (Strobel & van Barneveld, 2012). In the limited research on
 2466 sport-based PYD training interventions, the results have revealed that these programs are
 2467 effective in enhancing leaders' knowledge and understanding of their youth (Falcão et al., 2012),
 2468 and that practical activities are necessary for promoting leaders' use of training content in their
 2469 practice (Santos, Camiré, et al., 2019). In research on trauma-sensitive practices, training
 2470 interventions have been effective in shifting trainees' awareness, knowledge, confidence, and
 2471 favourable attitudes related to trauma-sensitive practice (Purtle, 2020); however, the use and
 2472 effectiveness of trauma-sensitive training in a sport context remains understudied.

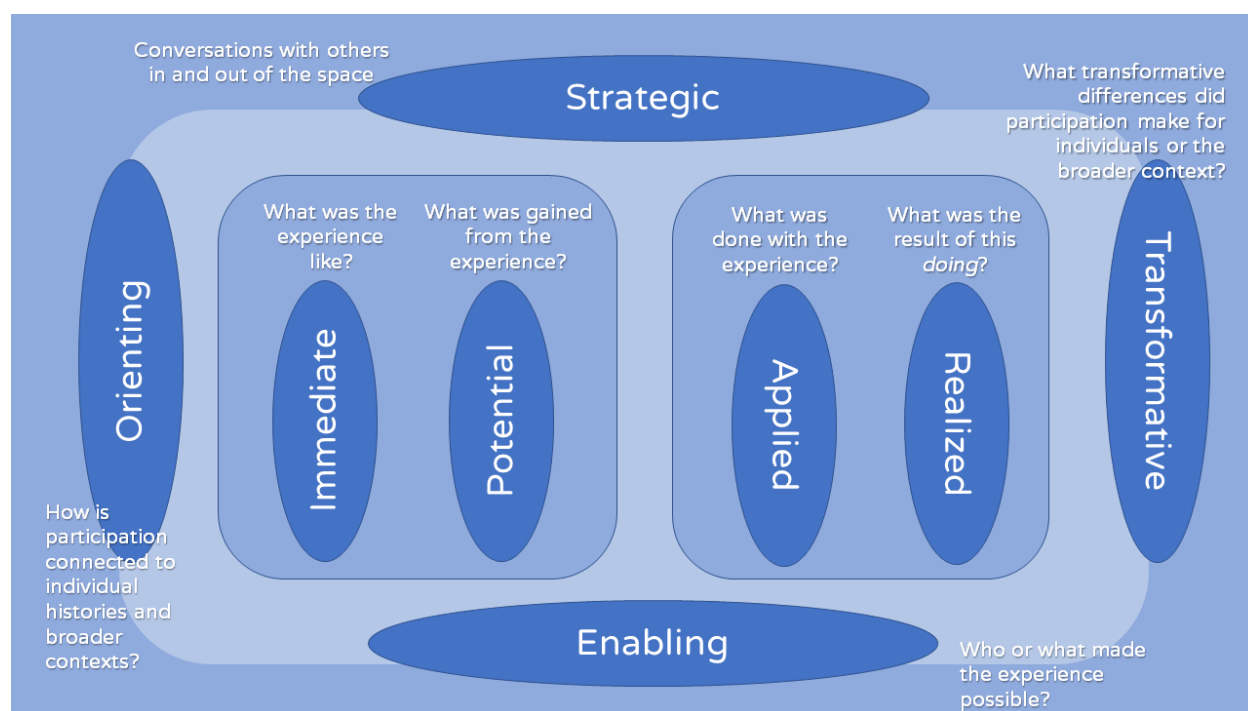
2473 **Learning Theories**

2474 Several learning theorists have conceptualised theories for how leaders learn (Jarvis,
 2475 2006; Moon, 2004; Stodter & Cushion, 2016; Trudel et al., 2010). Collectively, leaders' learning
 2476 is understood as a personal and social process of filtering and guiding relevant information in
 2477 accordance with their biography and contexts. One's biography – or who one is at any given time
 2478 - consists of a network of cognitive structures (e.g., one's experiences, beliefs, knowledge,
 2479 dispositions). A person's biography is constantly in flux as one receives, processes, and
 2480 transforms information cognitively, emotionally, and practically. Similarly, a leader's context
 2481 comprises of the social and organizational environment in which they apply knowledge; the
 2482 context imposes its own facilitating and constraining factors to the learning and use of
 2483 knowledge. Thus, what leaders may seek to learn, how they learn, and what they learn and apply,
 2484 will depend on how each leader filters and selects relevant information based on their existing
 2485 biographies and contexts. Thus, the same learning opportunity may result in different learning
 2486 outcomes for each leader (Stodter & Cushion, 2014; Trudel et al., 2013).

2487 To evaluate learning, Wenger-Trayner & Wenger-Trayner (2020) conceptualised the
 2488 learning and use of knowledge by people and communities as *value-creation* (See Figure 1). The
 2489 value-creation framework links interactions in a social learning space (e.g., a training workshop)
 2490 to eight cycles of value: (a) orienting value which is the value from connecting the social learning
 2491 space to trainees' contexts and histories (internal dimension), and the broader landscape (external
 2492 dimensions); (b) immediate value, which is the value created immediately from the interactions
 2493 such as enjoyment in learning a topic of relevant interest, and interacting with like-minded
 2494 people; (c) potential value, which constitutes insights, connections, and resources created from
 2495 the interactions that have the potential to be applied; (d) applied value, which relates to drawing
 2496 from collected insights to actually change one's practice and put knowledge into action; (e)

realised value, which is the extent to which changes in practice have an impact on what matters; (f) transformative value, which is the extent to which radical changes in the context generate new ways of learning in the context (internal dimension) and transform the broader environment (external dimension); (g) strategic value, refers to the value created from engagement with relevant stakeholders; and (h) enabling value, refers to the value created from improving social learning. The first six cycles are ordered sequentially and involve reciprocal feedback loops; the value that is perceived in one cycle (e.g., applied value) can inform another cycle (e.g., realised value), while also re-informing a previous cycle (e.g., potential value). The latter two cycles, strategic and enabling value, constitute the processes that enable feedback loops between the first six cycles and social learning interactions.

Figure 1. *Value-creation Framework by Wenger-Trayner & Wenger-Trayner (2020)*



Research on training leaders to use a trauma-sensitive sport model for programming can generate insights on: (a) how leaders learn from this training, and (b) what they take away from this training to apply in their practices and in their broader contexts. These insights can inform

the design of community-based training interventions to better align with the learning needs of leaders, as well as best practices in facilitating shifts in leaders' attitudes and intentions towards behaviour change. Therefore, the purpose of this study was to explore the learning experiences of leaders in a national community organization who participated in a training workshop to learn a trauma-sensitive sport model.

Context

BGC Canada is a national organization that primarily serves youth in under-resourced neighbourhoods (e.g., communities where families may face financial instability, food insecurity, or inadequate housing conditions). In 2016, BGC Canada began the process of training leaders at select clubs to implement a program using a trauma-sensitive sport model, known as the Bounce Back League (BBL). An inter-disciplinary leadership team carried out the development, implementation, and evaluation of this project. The leadership team comprised: (a) BGC Canada administrators, responsible for leading the project, coordinating with leaders, and handling logistics, financing, and scheduling; (b) master trainers from Edgework Consulting, responsible for program and training design, facilitating training workshops, mentoring leaders, and providing ongoing consultations; and (c) the authors as the evaluation team, responsible for facilitating evaluation activities and evaluation training for leaders.

Methods

Methodology

A mixed-method phenomenological case study methodology was used, to explore how participants experience, perceive, or are influenced by a particular phenomenon (Creswell & Poth, 2018; Martiny et al., 2021). The phenomenon in this study was leaders' learning in a training workshop, within the boundaries of the BBL. This methodology aligns well with the research questions of understanding how leaders learn (e.g., through what they perceived and

experienced), and what leaders take away from their experiences (e.g., through what they gained and how they make sense of training content). Given that this study was situated within a larger community-engaged initiative, utilisation-focused evaluation principles (Patton, 2008, 2012) were used to inform methodological decisions of what to evaluate, and how to evaluate. These decisions were made in conjunction with the leadership team members over the course of the BBL initiative, to align with what activities and findings they valued and felt best met their individual and contextual needs.

MS and **TF** possess extensive experience and expertise in youth program evaluation. Since 2016, the **MS** has engaged in numerous interactions and built relationships with the study participants to support BBL's impact. The authors acknowledge their relevant expertise, experiences, and intentions had varying influence on their interpretations of data in this study, and thus, the interpretations derived from this study should not be seen as the only possible experiences constructed from these data. **DMC** shared her expertise on the use of learning theories to explore leaders' training and development, and acted as a critical friend to **MS** in interpreting evidence and linking it to the principles of the value-creation framework.

Procedure and Participants

Ethical approval for this study was granted by the University of Ottawa's Office of Research Ethics & Integrity (#H-09-19-4960; See Appendix B). Two cohorts were involved in this study. The first cohort (the pilot) comprised of leaders from three clubs who attended a three-day intensive training workshop in Fall 2017, facilitated by the master trainers. The second cohort (the expansion) comprised of leaders from ten clubs, who participated in a two-day training workshop in Fall 2019, facilitated by both the master trainers and pilot leaders who adopted new roles as in-house trainers. In both cohorts, all leaders who planned to attend the training workshop were emailed by the program manager to volunteer their contact information

2560 (See Appendix A.4). The first author then emailed contacts with a consent form outlining the
2561 project details, the roles of the researchers and participants, the voluntary nature of the study, and
2562 the confidentiality and anonymity of their data (See Appendices A.1, A.5). In the pilot phase, all
2563 twelve leaders who attended the training workshop consented to participate in this study (9
2564 women, 3 men; age: 21 to 60 years old, $M_{\text{age}} = 36.33 \pm 12.26$; experience: 1 to 30 years, $M_{\text{exp}} =$
2565 11.36 ± 9.61). In the expansion phase, 10 of the 20 leaders who attended the workshop consented
2566 to participate (5 women, 5 men; age: 22-41 years old, $M_{\text{age}} = 28.00 \pm 5.40$; experience: 2 to 8,
2567 $M_{\text{exp}} = 6.40 \pm 4.62$), and only 8 of these participants were interviewed. Participants ranged in
2568 roles from frontline staff to program directors. See Table 1 for an outline of demographic
2569 information and characteristics for each participant.

2570 Table 1. *Participant Demographics Information*

Pseudonym	Club	Age	Gender	Racial or Ethnic Identity	Years in BGC Canada	Profile
Pilot						
Susan	A	48	Woman	White	20	Manager
Yusra	A	30	Woman	Black	10	Manager
Agatha	A	25	Woman	South Asian	2	Youth Worker
Vanessa	A	21	Woman	White	<1	Youth Worker
Olivia	A	28	Woman	Black	7	Coach
Brenda	B	50	Woman	White	30	Manager
Mary	B	47	Woman	White	21	Supervisor
Rachel	B	26	Woman	White	4	Coach
Joshua	B	35	Man	White	10	Coach
William	C	38	Man	White	19	Manager
Nicole	C	29	Woman	White	7	Manager
James	C	60	Man	White	25	Youth Worker
Courtney	C	27	Woman	White	10	Coach
Expansion						
Alice	E	26	Woman	White	2	Youth Worker
Michael	F	31	Man	White	5	Manager
Melissa	I	30	Woman	White	8	Coach
Julia	J	22	Woman	Indigenous	3	Youth Worker
Brent	K	27	Man	White	3	Manager
Bobby	K	23	Man	White	5	Youth Worker
Naomi	L	29	Woman	White	6	Manager
Bradley	O	25	Man	White	5	Coach
Amir	P	26	Man	Middle Eastern	9	Coach

2572 **Training Workshops**

2573 The workshops were structured to prepare the leaders to implement BBL at their clubs.
2574 The modules presented to the pilot cohort generally covered: prevalence and impact of trauma on
2575 the brain, body, and behaviour; using sport to heal; learning and meeting youth's individual
2576 needs; planning and facilitating a trauma-sensitive workout structure; leveraging competition to
2577 heal; integrating life skills; long-term project objectives; evaluation activities. The expansion
2578 workshops covered an adapted version of the modules based off the results of the pilot stage of
2579 this project (see Table 2 for a detailed description). Throughout the workshops, trainers used a
2580 variety of delivery strategies including brief lectures, story sharing, paired and group discussions,
2581 group brainstorming, role play, and sport activities. Activities emphasised problem-based
2582 learning, with practical, movement-based, and context-specific activities (Strand et al., 2014).
2583

2584 Table 2. *Description of BGC Canada-adapted BBL Training Modules*

2585

#	Module	Description
1	Understanding trauma	Understanding the parts of the brain, the stress-response system and defining trauma.
2	How trauma shapes behaviour	Understanding adverse childhood experiences (ACEs) and their link to negative consequences, the impact of trauma on a child's behaviour, and how children's behaviour can push us away.
3	How healing happens	Four steps of healing: participation, regulation, daily functioning, and better place. Identifying mechanisms in clubs and staff's interactions that promote healing. Becoming trauma-sensitive.
4	Good group management	Principles and strategies for group management to support children to participate effectively.
5	Stepping in during times of dysregulation (Part I)	Identifying when a child needs more help, understanding the difference between skill and will, and helping participants develop the skill of self-regulation, through deep breathing, taking timeouts, timed practice, individualised schedules, focusing on one skill, leveraging social support in regulation, redirected questioning, and developmentally-appropriate challenges.
6	Stepping in during times of dysregulation (Part II)	Connecting with the dysregulated participant using the SEPR system of stabilise, explore, plan, and return. Understanding what the child is going through at each stage and what they need.
7	Introduction to the BBL	How sport can heal through several elements: home field advantage, seasons of play, competence, physical activity, team and community focus, immersion and engagement, organization and structure, decision-making, and real-stakes. Introduction to BBL as a trauma-sensitive sport experience, leveraging competency, competition, team-orientation, caring coaches, physical activity, and core principles of positive youth development.
8	The BBL Workout (Part I)	Introducing and describing the intent behind each component of the BBL structure: Arrival, Warm-Up, Skill Play, Transition Time, Game Time, Cool Down, Team Time, and Departure.
9	The BBL Workout (Part II)	Goals and strategies for coaching each BBL component and designing a full workout. Planning a season of play across several workouts, setting rules and expectations, coordinating coaching in pairs, and evaluating the workouts and seasons of play.
10	Coaching sport	Understanding how to be a caring coach, and matching different coaching styles (guided discovery, command style) to different situations.
11	The BBL skills	Understanding the BBL (Come To Play, Build My Team, and Play On), their intentions, and how to integrate them into coaching.
12	Championing trauma-sensitive approaches	How to share the BBL with others and build the BBL skills across programs, staff, and clubs. Using a resilience-building, strength-based focus in communications, and avoiding stigmatization.

2586 Table re-published from Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a
 2587 sport-based trauma-sensitive program in a national youth-serving organization. *Child and Adolescent Social Work*
 2588 *Journal*, 38, 449–461. <https://doi.org/10.1007/s10560-021-00776-7>
 2589

Data Collection

Data collection methods varied across the cohorts, given that methodological decisions were made over time with input from community members of what evaluation activities they were willing to participate in. Semi-structured interviews were conducted with each participant via one-on-one phone or video calls: Pilot cohort at pre-training ($n = 12$, $M = 36$ mins, range = 22-55 mins) and post-training ($n = 12$, $M = 33$ mins, range = 20-46 mins), and expansion cohort at post-training only ($n = 7$, $M = 47$ m, range = 30-63 mins). These interviews were facilitated by the first author and a fellow scholar-expert in PYD through sport (CB, see Statement of Contributions). Semi-structured interviews allowed for guided conversations in predetermined directions, with flexibility for the interviewers to probe and explore based on participants' responses (Smith & Sparkes, 2017). The interviewers each followed pre-developed interview guides. The pre-training interview guide covered participants' backgrounds and experiences related to training/education in PYD, sport coaching, management, trauma-sensitive practices, and their expectations for the workshop (See Appendix C.1). The post-training interview guide covered participants' perceptions of satisfaction with the workshop, successes and challenges of the workshop, perceived changes in knowledge, skills, and awareness, and their expectations and confidence in implementing a trauma-sensitive sport model at their clubs (See Appendices C.1, C.5).

The authors conducted *observations* of the training workshops and documented these observations into detailed field notes. The authors made note of what the trainers did (e.g., presenting content, facilitating discussions, role play, movement games, Q&A, soliciting reflection, providing feedback and suggestions), how participants were engaging (e.g., enthusiasm or fatigue, participating in discussions or listening quietly), and what participants shared (e.g., experiences, thoughts, questions, feedback). All interviews and participant

2614 discussions were audio-recorded.

2615 *Self-perceptions of knowledge* were measured using a 10-item knowledge questionnaire
 2616 (See Appendix D.4). Participants rated their knowledge level on a 10-point scale, from ‘1’ (not at
 2617 all familiar) to ‘10’ (very familiar) across various domains (e.g., leading a youth program,
 2618 elements of trauma, trauma-sensitive sport, integrating trauma-sensitive skills into sport). These
 2619 perceptions were solicited for both the pilot and expansion cohorts, prior to and after their
 2620 attendance in the training workshop. Participants’ *satisfaction* with the workshop was also
 2621 solicited (See Appendix D.5). In the pilot, the measure involved 14 statements on a 5-point Likert
 2622 scale from ‘1’ (very strongly disagree) to ‘7’ (very strongly agree). In the expansion, to reduce
 2623 participant burden/fatigue given the additional measures included (see next paragraph), the
 2624 measure was reduced to five statements on a 7-point Likert scale from ‘1’ (strongly disagree) to
 2625 ‘7’ (strongly agree). Both measures covered the usefulness of the training, relevance of the
 2626 content, social connections made, strengths of trainers, and confidence to implement BBL.

2627 For the expansion cohort only, participants’ *content knowledge* was measured using a 24-
 2628 item multiple choice quiz that offered questions related to the content of the trauma-sensitive
 2629 training workshop (i.e., the brain on trauma, trauma’s impact on youth, strategies for
 2630 intervention, group management strategies, trauma-sensitive sport, the BBL workout, the BBL
 2631 skills; See Appendix D.2). As well, participants’ *attitudes* were solicited through a shortened
 2632 version of the Attitudes Towards Trauma-informed Care (ARTIC) scale (Baker et al., 2016). This
 2633 measure involves 21 bi-polar items that the participants must rate on a 7-point scale according to
 2634 the attitude with which they align (See Appendix D.3). The bi-polar statements consisted of a
 2635 favourable trauma-sensitive attitude (e.g., “Students’ learning and behaviour problems are rooted
 2636 in their history of difficult life events”) and an unfavourable attitude (“Students’ learning and
 2637 behaviour problems are rooted in their behavioural or mental health condition”). Participants

were not informed in the questionnaire of which attitude in each pair was more favourable from a trauma-sensitive perspective.

Data Analysis

The first author (**MS**) transcribed all audio recordings and imported them into NVivo R1 (QSR International, 2020). The authors engaged in discussions throughout the process as they carried out a thematic analysis approach to generate understandings of the leaders' learning experiences (Braun et al., 2016). First, **MS** read all transcripts multiple times to grasp their contents. Second, he began deductively coding passages related to learning theories and the value-creation framework. Simultaneously, any passages **MS** identified as important were coded inductively (e.g., perceptions of project's impact, suggestions for workshop improvement). Passages related to the same concept were categorised under the same code. Third, after all relevant passages were coded, these codes were reviewed and could be either modified, removed, or merged with other codes. Fourth, similar or related codes were grouped together under sub-themes and themes, which represented overarching insights the authors interpreted from the data. Fifth, the authors finalised the themes and sub-themes, and used them to generate analytic narratives. Here, the authors offered descriptive context for the relevant passages and provided their interpretations in line with the research question. Sixth, once the theme names, descriptions, and interpretations were finalised, the authors compiled and presented them in this paper with supporting and representative quotations and data generated from observations.

For the quantitative data, descriptive statistics were calculated (means, standard deviations, medians). Differences in participants' knowledge and attitudes assessments at pre- and post-workshop were examined using Wilcoxon Signed-Ranks Tests (effect sizes calculated as $r = Z/\sqrt{N}$). The results from these analyses were charted, and integrated within the thematic analysis generated to supplement and support the interpretations presented in each theme.

2662 **Trustworthiness**

2663 The authors had extensive involvement with this project and its participants, and have
 2664 contributed to the project's growth. This involvement was advantageous in helping the authors
 2665 co-construct a holistic picture of the participants' experiences, but this involvement may have
 2666 resulted in the authors being susceptible to a positivity bias in their reporting. To allow for
 2667 critical appraisal, BGC Canada administrators and leaders were informed that the authors would
 2668 seek both to identify the strengths of the training workshop and areas that require improvement.
 2669 The authors recognise that their assumptions/biases influenced the research process; thus, the
 2670 authors engaged in bracketing practices to help understand the nature of these influences, helping
 2671 with transparency to the reader. The first author kept a reflective journal of his thoughts and
 2672 assumptions (e.g., how he felt about his positioning within the organization, shifting between
 2673 roles as an evaluator, a scholar-expert, and a community-focused advocate), and engaged in
 2674 ongoing reflective conversations with the other authors (Tracy, 2010). Throughout the results, the
 2675 authors presented the data and their associated descriptions, along with presenting their own
 2676 interpretations – to allow the reader to view and interpret the data for themselves.

2677 **Results and Discussion**

2678 A thematic map was generated from the analysis which resulted in five themes
 2679 representing the learning experiences of these leaders: (a) what do I already know? (b) what is
 2680 important for me to learn? (c) what are the ways I learn best? and (d) what do I intend to do with
 2681 my knowledge? Within each theme, the authors' reflections are shared connecting the results
 2682 with concepts from value-creation and learning theories. The results from quantitative data
 2683 analyses can be seen in Table 3. Quotations from the pilot and expansion cohort leaders were
 2684 respectively indicated by (P) and (E).

2685 Table 3. *Descriptive Statistics and Comparative Tests of Quantitative Measures Data*

Measures	Pre- Workshop				Post-Workshop				Wilcoxon Signed-Ranks Test		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>Z</i>	<i>p</i>	<i>r</i>
Pilot											
Self-perceptions of knowledge 10 items on a 10-point scale	11	6.67	1.62	7.10	11	8.52	.74	8.70	2.70	.007	.81
Training satisfaction 14 items on a 5-point scale					9	4.62	.26	4.50			
Expansion											
Self-perceptions of knowledge 10 items on 10-point scale	18	5.62	1.17	5.77	18	7.70	1.31	7.90	-2.97	.003	.70
Content knowledge 24 multiple choice questions	18	15.11	3.64	15	18	17.67	3.27	18.00	-3.58	<.001	.84
Attitudes towards trauma-informed care 21 bi-polar items on a 7-point scale	18	5.65	.68	5.69	18	5.98	.61	6.10	-2.90	.003	.69
Training satisfaction 5 items on a 7-point scale					18	6.09	0.69	6.30			

2686

2687 **What do I Already Know?**

2688 Many of the leaders shared similar training backgrounds and experiences. All the leaders
 2689 had certifications in first aid and High Five (youth program quality practices), and annual
 2690 refreshers on administrative policies and procedures. Most of the leaders had no prior training on
 2691 trauma-related topics; yet many had worked with trauma-exposed youth. With regards to sport
 2692 coaching, a small portion of the leaders had coaching backgrounds, trained through the National
 2693 Coaching Certification Program, and various coaching and training seminars hosted by sport
 2694 clubs outside of BGC. In this theme the participants spoke to the *orienting value* that they derived
 2695 from their involvement in this project – what common experiences and contexts they encountered
 2696 at their clubs and in their lives, that helped orient their learning in this training workshop. Two
 2697 subthemes are discussed, that describe the experience, knowledge, and attitudes that leaders
 2698 carried into their training: (a) experiences with trauma-exposed youth, and (b) beliefs about sport.

2699 ***Experiences with Trauma-exposed Youth***

2700 Despite a lack of access to screening protocols or members' medical histories, the leaders
 2701 commonly encountered trauma-exposed youth at their clubs and carried existing capacities to
 2702 support these youth. This result is not unexpected as the leaders operated in under-resourced
 2703 communities – where the prevalence and risk of trauma may be disproportionately high (Walsh et
 2704 al., 2019). William (P) said he recognised trauma in youth who exhibited out-of-norm
 2705 behaviours:

2706 Often you can see certain characteristics that stick out, you're thinking that something's
 2707 up. Like how they're engaging or disengaging from the program, or could be rebellious
 2708 responses or lashing out... Behaviours that are out of the norm for them, if you've known
 2709 them for a long time, and all of a sudden there's a significant change.

2710 While their clubs lacked any screening protocols for trauma, many leaders were familiar with the

2711 disadvantaged circumstances or potential trauma history of their members. Brenda's (P)

2712 awareness of her members' circumstances drove her motivation to support them:

2713 The building I'm working right now is where street-involved kids' access, and I can see
2714 the results of the trauma they've been exposed too... and I know if we don't intervene in
2715 that trajectory, they're going to be those kids that are coming into [community] shelter.

2716 Potential trauma histories were often identified through the relationships built with youth, in
2717 which they would disclose their experiences over time:

2718 There have been a few [kids] that haven't been referred to us that do come to our program
2719 and they ended up disclosing things that happened to them in the past. That's due to the
2720 relationship our staff built with them and the youth feel comfortable enough to confide in
2721 them. They bring forth their past which explains some of their behaviour. (Courtney, P)

2722 The leaders' capacities for how to respond to trauma were evident as well. Brent (E)
2723 already used trauma-sensitive principles in working with members: "We know there are some
2724 kids and we know the homelife they have, so we already deal with that from a trauma-informed
2725 approach or we try to be as understanding as possible and approach things positively."

2726 ***Beliefs About Sport***

2727 Many of the leaders felt that sport can offer healing opportunities for their members.

2728 Nicole (P) discussed how sport offered opportunities for physical and mental escapism:

2729 It can be useful because it's hopefully a space where they can clear their mind and as an
2730 outlet... Being active and having more energy to hopefully boost their general feelings of
2731 themselves too and their morale.

2732 The training workshop intended to prepare these leaders on sport that incorporated competitive
2733 activities within a recreational setting. The leaders held differing opinions on the role of
2734 competitive versus recreational sport. Rachel (P) found that competition can offer skill-building

2735 opportunities that can be applied by members in other settings: “I guess if that's related to trauma,
2736 competition is helpful in those that need to really push and strive and work through it. And then
2737 they're able to use the skills in more of a recreation setting after.” Agatha (P) felt recreational
2738 settings offer more supportive opportunities for members to build relationships and engage in
2739 sport as an outlet:

2740 I think [recreation] provides for a more supportive environment, whether that's in terms of
2741 your relationship with your coach or with whoever you're engaging in that activity with. I
2742 think not working towards winning would play a factor as well, in that they're just playing
2743 to release themselves of stress, playing to have fun.

2744 Courtney (P) felt both competitive and recreational opportunities offered holistic opportunities
2745 for skill-building and relationship-building:

2746 I am very competitive so I believe that learning how to win and to lose is very important
2747 and not letting that affect your self-esteem or your enjoyment for the sport. But I also play
2748 other sports just for recreation and I think the atmosphere is important; you're able to
2749 build relationships, have support, and work on skills. (Courtney, P)

2750 Susan (P) expressed the need to have supportive leaders in place to be able to foster the benefits
2751 of sport, whether recreational or competitive: “I think what's crucial is that you have the right
2752 coach in place. The differences can be positive, as opposed to become negative if the pressure is
2753 put on the athlete.”

2754 Overall, the leaders felt that sport settings, whether competitive or recreational, could
2755 foster different PYD benefits, and that both environments require caring relationships to achieve
2756 these outcomes. This result aligned with the predominant literature in youth sport on how to
2757 foster positive climates in sport, in terms of the roles of caring coaches across settings (Bean et
2758 al., 2020, 2021). Together, the leaders' existing youth work capacities paired with their sport

2759 coaching beliefs demonstrated the readiness and receptivity of these leaders to learn a trauma-
 2760 sensitive sport model.

2761 Although the leaders had shared experiences in youth work, the authors interpreted three
 2762 profiles of shared biographies and contexts that help to understand the differences in the leaders
 2763 training, experience, and philosophies towards learning and practice: (a) youth workers, i.e.,
 2764 those with social work or counselling backgrounds; (b) sport coaches, i.e., those with coaching or
 2765 athletic backgrounds; and (c) managers, i.e., those with administrative backgrounds in managing
 2766 youth programs and supervising staff. These profiles were used in this study to understand how
 2767 people with certain shared biographies may have navigated this learning environment.

2768 **What did Leaders Desire to Learn, and What did they Gain?**

2769 Given their readiness to implement programming, the leaders shared an interest to seek
 2770 knowledge that would help them better fulfil their roles as trauma-sensitive practitioners, but also
 2771 to expand on gaps in knowledge required for their existing roles as sport coaches, youth workers,
 2772 or managers. As such, these leaders sought out knowledge to fit these needs, and constructed new
 2773 learning related to enhancing their ways of knowing and program practices. Two subthemes are
 2774 discussed: (a) foundational knowledge of trauma-sensitive practices and using sport to heal, and
 2775 (b) how to fulfill their roles as BBL leaders.

2776 ***Foundational Knowledge of Trauma-sensitive Practices and Using Sport to Heal***

2777 All the leaders shared an interest to learn more about the definitions, foundations, and
 2778 research regarding trauma-sensitive practices. Nicole (P) shared she wanted to learn: “A little bit
 2779 more examples of exact trauma and what is classified as trauma and what is not classified as
 2780 trauma.” For James (P), he was motivated to keep up with the research behind trauma: “I want to
 2781 learn more about the science of trauma because I know there’s all kinds of brain development
 2782 happening, new information that is coming from research.” Beyond understanding what trauma

is, the leaders also wanted to learn how to support trauma-exposed members in their programs and build their skills to handle stress: “Just trying to equip the kids with the skills to get through any of the hardships in life as well as the good things in life.” (Julia, E). Similarly, Vanessa (P) spoke to how she wanted to learn the mechanisms of sport programs that can help to build youth’s skills: “I would want to know more about how we could facilitate the sport to be purposeful in that sense. And how it scientifically can help them and give them skills.”

Indeed, the workshops contributed to strong learning outcomes for the participants. The pilot and expansion cohorts both significantly improved in their knowledge perceptions from pre-to-post-workshop, and the expansion cohort’s scores on content knowledge significantly improved (see Table 3). The leaders felt that many of their knowledge needs were met in understanding trauma behaviours and their neuroscientific bases, as Courtney (P) shared:

Just knowing it will take work but it can change, and it doesn't need to be clinical care in order to make a difference. The reminder of the function of the brain and people's actions are just a reaction to the stimulus, versus like they're doing it because they have a choice. Adopting this trauma lens helped the leaders be more aware that the “inappropriate” behaviours they may see in their members may not be due to a lack of *will*, but rather a lack of *skill*:

You are seeing [behaviours] you might call inappropriate or unsafe. It is very much because they simply lack the skills to deal with those situations effectively. When you look at it from that lens, it’s easier to step back and say that "well look this kid isn't trying to do this intentionally, I am sure they would rather be successful and have a happy experience." (James, P)

Finally, the leaders spoke to an enhanced awareness and understanding of how the environment can contribute to members’ behaviours, and how that understanding is empowering to their youth work practice:

2807 For me it was more individual stuff - how much their day before coming here matters.
 2808 The impact their life at home... you think kids can just turn on and off right to having a
 2809 bad day or "here's a ball, go have fun" [leading to] "okay i'm happy". But it doesn't
 2810 necessarily always work like that, so I just think it was giving me a better understanding
 2811 of kids in general, how to work with them, and doesn't hurt to always have more info, so I
 2812 think I grew in that sense. (Amir, E)

2813 The training offered both an understanding of trauma and how the leaders can intervene and help
 2814 youth manage trauma-related distress:

2815 They [trainers] did a really good job at tying in that cognitive psychology and specifically
 2816 how that works in the human brain, and then how having a positive role model who can
 2817 really support children and youth of how they can not only rewire, but help to manage
 2818 that past trauma. (Michael, E)

2819 ***How to Fulfill Their Roles as BBL Leaders***

2820 The leaders also sought to learn how to facilitate their roles. These expectations aligned
 2821 with the gaps they perceived in their current knowledge and roles in their clubs. The sport
 2822 coaches were interested in learning about youth work beyond what they knew from sport:
 2823 "looking at it from a different perspective as opposed to just looking at it from a sports
 2824 perspective." (Joshua, P). Similarly, the youth workers sought to incorporate sport components in
 2825 their youth work practices: "I was really interested in the concept of competition, and how that
 2826 can inform us in the way we deal with people who have trauma. And how that can be a helpful
 2827 tool." (James, P). Rachel (P) wanted to learn how her youth worker role fits within a sport
 2828 environment, and also learn sport coaching skills given her limited coaching background:

2829 I am hoping to develop some skills, because I don't have a coaching background. I do
 2830 enjoy sport in my own life. So just helping kids in more of that coaching aspect and how

2831 do I take my clinical study or clinical experiences of sitting in an office and apply it to a
2832 hands-on sport setting with children. That's more of what I want to learn.

2833 Alice (E) discussed how she felt less confident leading the sport aspects than the trauma-sensitive
2834 aspects prior to the workshop: "I'm trained as a science teacher, whereas sport is something I was
2835 little bit truthfully nervous to take on leading. I'm more concerned about how to teach sport as
2836 opposed to how to integrate the trauma aspects of it." Finally, the managers wanted to learn more
2837 about the program itself, so that they can be in a stronger position to support their leaders to
2838 facilitate programs, and their members to participate:

2839 I'm there to help him [leader] structure the actual workouts and then during the workouts
2840 provide extra support for either my coach or any kiddos that could use the extra support,
2841 if they're frustrated, or if they just need extra help with skill acquisition. (Michael, E)

2842 Knowledge of the design was important for helping managers establish what the program
2843 looks like, and their roles in this process. After attending the workshop, William (P) explained
2844 how helpful it was to understand the design, beyond just how they approach youth:

2845 We started off and I was like "What does that mean?" Okay we're going to change some
2846 rules, and the way we talk to kids is going to be different. But now I understand it's right
2847 from the way we greet them to the warmup to the drill session to the individual approach,
2848 the lack of putting them on the spot early on and then the competitive play, the Cool
2849 Down and then the Team Time, and that intentional approach... I know now what it's
2850 going to look like when we say we're going to do a trauma-informed program.

2851 The leaders also considered how they would work together to implement the program design.

2852 Courtney (P) expressed her co-worker's strengths lie more in youth work (e.g., facilitating close
2853 discussions and debriefs/reflections), while her strengths are aligned more to coaching; thus, she
2854 felt they complemented each other in program facilitation:

2855 I feel like [fellow youth worker] is unreal at debriefing. I love watching him do it. So he'll
2856 probably take the lead on that. I'll probably do more of the sport... I definitely think we're
2857 going to tag team just so it flows a lot better; so, I'll probably run one activity, and while
2858 I'm doing that, he's going to be coaching but also setting up.

2859 Brenda (P), another program manager, expressed how she felt more clarity in her role of staff
2860 supervision and support:

2861 I feel like [the workshop] confirmed to me a lot... I need to make sure the staff are hitting
2862 the targets that have been set for us... it's knowing these are the expectations of what we
2863 want the program to look like. To be able to say to the staff, this is what I think we
2864 learned, so we need to do it this way.

2865 However, some of the managers felt differently, in that the training intervention was more
2866 geared toward training coaches, and less on training managers and supervisors: "I feel like the
2867 workshop was more tailored towards being a coach... Anytime that were learning, everyone was
2868 [referred to] as coaches..." (Brent, E). To address this, Brent (E) suggested there should be
2869 explicit moments of the training where supervisors and coaches learn specifically about their role
2870 requirements and how they differ from one another: "Maybe if there was a time period where
2871 everyone who was going to be a supervisor and everyone who was going to be a coach breaks off
2872 and gets a little more in depth of what their exact role is."

2873 Overall, this subtheme offered insights of the *orienting value* that the leaders constructed
2874 from seeking knowledge that would help them better approach youth interactions with a trauma-
2875 sensitive lens and implement program models in their roles as sport coaches, youth workers, or
2876 managers. Thus, *immediate value* – inherent value from the experience itself – was generated for
2877 participants in receiving information that met these knowledge needs. However, some managers
2878 felt the workshop was more geared to front-line staff, and thus managers did not derive

immediate value from their participation, pointing to the notion that the workshop content was uneven in considering the knowledge needs of all participating leaders.

Potential value – insights on how knowledge can be applied – was also generated in the leaders shifting their attitudes on their program practices from the new knowledge they received and recognising ways to implement program models based on their existing roles and contexts. Regarding approaches to youth work, it was evident that leaders were actively reflecting on how content on trauma’s impact for youth applied to the youth they encountered in their programs, helping bring insights of the *why* behind the behaviours they had seen (Gilbert & Trudel, 2001; Moon, 2001). Leitch (2017) stressed how neuroscientific information can help learners adopt a trauma lens– understanding that youth’s disruptive behaviours may result from chemical imbalances (dysregulation) rather than deliberate non-compliance. Thus, leaders are better able to prioritise helping youth to restore the regulation of their nervous systems, as opposed to primarily attempting to manage youth’s behaviours. Regarding their approaches to sport programming, it was evident that leaders constructed potential value in learning how to implement the program design. Similar research has reported that when training programs outline a specific program design/curriculum, this can enable leaders to feel equipped with pedagogical tools to explicitly apply sport-based PYD approaches (Koh et al., 2015).

What are the Ways I Learn Best?

The leaders shared preferences for learning environments that were based on their experiences in previous trainings, as well as their experiences in this project. The leaders were generally satisfied with their workshop experiences, with both cohorts rating training satisfaction highly (see Table 3). Overall, the leaders valued learning environments that involved: (a) diverse, balanced, and practical content; (b) connecting with peers from different contexts; (c) strong and credible expert trainers.

2903 ***Diverse, Balanced, and Practical Content***

2904 Most leaders felt having a *variety* of activities was most valuable to their learning (i.e.,
 2905 informative lectures, peer discussions, active movement, role play, and application in practice).
 2906 Mary (P) shared: “I loved all the different variety of activities. I enjoyed how the information was
 2907 presented to us and the opportunity to see it in action, hear it, process it.” While activities were
 2908 diverse in the learning opportunities they enabled, the leaders also felt that the workshop
 2909 *balanced* content effectively between teaching program philosophies and practice:

2910 I thought they did a really good job at separating the different portions of the training. A
 2911 little bit of background, brain functions and what trauma is and how that can affect
 2912 behaviours. And then the second day, a little bit more practical, actually how to run your
 2913 program, and the actual demonstration of how to do a workout. (Michael, E)

2914 While having a variety of learning opportunities was enjoyable for the participants, there
 2915 was a clear preference for practical learning opportunities, which involved hands-on application
 2916 of the content. Alice (E) shared how the training got them to move and try out the activities rather
 2917 than sitting and listening, which enabled better learning:

2918 It was more engaging and hands-on than other trainings I've done... [other trainings] are
 2919 very stand and deliver and I sit and listen... I think having the participants using that
 2920 knowledge or evaluating it or having to experience it is a lot more engaging way to learn.

2921 The practical opportunities were valuable for helping understand how to apply the
 2922 training knowledge in their own practices, as these three leaders shared: “We were actually
 2923 participating in the sport so we could reference what we did in the training when we're planning
 2924 instead of just sitting there listening to it.” (Vanessa, P); “Playing the games during the training,
 2925 and seeing how our instructors are implementing their skills in terms of context coaching was
 2926 really beneficial and it really helped figure out how to do it when I start the program.” (Agatha,

P); and “The debrief Team Time at the end I felt was really powerful. Us all sitting and going over some of the example questions that we would ask our kiddos when we actually did facilitate our programs here at our respective clubs.” Finally, these practical activities offered opportunities for the leaders to engage in reflection: “I like that we got to go through one of the workouts and experience it and then kind of debrief it and see and talk about the choices that they [the trainers] made and what worked and how, why they chose certain things.” (Alice, E).

Enabling value refers to how learning is made possible in a social learning space; in this study, the leaders’ perceptions of the content being diverse, balanced, and practical, generated enabling value for them, in that the content aligned with the leaders learning needs. Coach education scholars have expressed that variety in learning opportunities is more valuable to learning than single methods (Guest, 2001; Paquette & Trudel, 2018; Stodter & Cushion, 2016). Additionally, interactivity indicated hands-on, experiential, and problem-based learning, where learners sought to learn by doing in tackling realistic, context-specific issues – a common preference of coaches in sport (Erickson et al., 2008; Newman et al., 2017). As well, participation in movement-based learning activities has been associated with improved on-task behaviour, demonstrating that these activities may facilitate learning (Martin & Murtagh, 2017).

Social Learning Opportunities

The leaders valued when learning environments incorporated opportunities for social learning. Courtney (P) enjoyed being solicited for questions and input throughout the workshop: “I think the delivery was amazing. We were also included and there's a lot of time for discussion. We weren't just strictly listening the whole time, we were able to give feedback and ask questions.” The leaders shared their own stories during the workshop, making it more interactive, as Joshua (P) discussed:

We talked about our own experiences that were related to a lot of the information

2951 [trainers] were giving out, and I think that made it easier. It wasn't just like we sat there
 2952 for X amount of hours and took in all the information and didn't have any interaction with
 2953 each other.

2954 Bobby (E) shared his pleasure with hearing from leaders in different contexts who had the same
 2955 experiences as him: "I just really enjoyed the training... Talking with [other leaders] realising
 2956 that they go through the same stuff that we go through on a daily basis, even though it's a
 2957 different club and a different atmosphere." Here, the social nature of the workshop contributed to
 2958 *immediate value* in the leaders connecting and identifying with others and their contexts.

2959 The leaders were able to generate their own strategies for practice from interacting with
 2960 others. Susan (P) shared how hearing others' shared experiences helped her re-think her own club
 2961 practices: "[Other leaders'] shared experiences also helped me foresee certain hiccups we might
 2962 get and then how to work through them. Everyone was open and sharing and engaged, that made
 2963 the difference. Similarly, William (P) said: "You're role playing, which is positive, but then
 2964 bringing some of those examples back to the group, because everybody will approach it slightly
 2965 differently. You might pick up different approaches from different people." In this manner,
 2966 *potential value* was generated by the leaders in considering how they can apply the approaches
 2967 and practices that they observed in their peers to their own contexts.

2968 ***Strong and Credible Trainers***

2969 The strength of the trainer was an important piece for enhancing learning. Several leaders
 2970 shared their positive reviews of the trainers in the workshop: "I was just really impressed with the
 2971 facilitators and their level of knowledge and their ability. I thought they were both really natural."
 2972 (James, P); "[The trainers] were so comfortable with what they're talking about. And it comes
 2973 with having a high knowledge." (Joshua, P); "They're well educated so you trust what they're
 2974 telling you." (Nicole, P). One of the strengths of the trainers was their positivity and enthusiasm,

2975 which resonated with the leaders: “They were really outgoing. They learned all our names. They
 2976 really seem to buy into the program, they really loved the program and believed in it. And so it
 2977 drew us, as the pretend children into the program.” (Naomi, E)

2978 Another strength was their abilities to offer compelling and descriptive examples. Rachel
 2979 (P) stressed how valuable it was to hear their trainers’ stories: “I liked all the practical storytelling
 2980 that [trainer] did. He told so many stories about himself around the world and about his
 2981 experiences, and you got to see it all in context rather than just on paper.” The leaders appreciated
 2982 when the trainers would discuss and show different strategies that they could apply in their
 2983 contexts as Brenda (P) explained: “I think [trainer] was really good at ‘I think you could say this’
 2984 or ‘use this as an opportunity’; and so to see him use it in action when playing the games, made it
 2985 easier to see.” For the expansion cohort, having leaders who previously ran the program
 2986 enhanced the different perspectives they brought to facilitation: “All the [trainers] were a little
 2987 different and their own way of running things and I think and it demonstrated how differently the
 2988 program can be run and how everybody brings strengths to the table.” (Brent, E)

2989 Agatha (P) also shared a similar sentiment, in that when the trainers demonstrated the
 2990 skills, it helped participants feel more confident to potentially apply strategies at their clubs:

2991 I think it was watching our instructors demonstrate those skills, because they were really
 2992 specific to how our program is supposed to be running. I think those are the skills and the
 2993 things that I saw them display, were the things I feel most comfortable bringing to our
 2994 own program.

2995 Ultimately, the strengths of the trainers were important in nurturing these learning
 2996 environments to be interactive and social – also contributing to *enabling value*. Through their
 2997 effective structuring of interactive activities, the trainers intentionally facilitated links between
 2998 content and practice, which is recognised as a more meaningful approach to learning (Trudel et

2999 al., 2013). Coach education literature has shown the value of having trainers knowledgeable in
 3000 innovative educational practices, of the coaches and the contexts they work in, and able to
 3001 facilitate opportunities for belongingness and collaboration between participants (Abraham,
 3002 2016; Dohme et al., 2019; Nelson et al., 2013). This finding is also reflected in trauma-sensitive
 3003 practice literature, where learners perceive value in receiving stories or case-scenarios (Kenny et
 3004 al., 2017).

3005 **What do I Intend to do With my Knowledge?**

3006 This theme represented the post-workshop intentions the leaders shared. The leaders'
 3007 scores on the ARTIC measure significantly improved from pre-to-post-workshop, which suggests
 3008 that the leaders shifted attitudes towards favouring trauma-sensitive practices in their youth work
 3009 after attending the workshop (see Table 3). This theme spanned three subthemes: (a) re-think
 3010 sport practices with a trauma-sensitive lens; (b) consider ways to apply knowledge beyond sport;
 3011 and (c) share knowledge with others.

3012 ***Re-Think Sport Practices With a Trauma-Sensitive Lens***

3013 The leaders spoke to being practically-oriented and conceptualised how they could apply
 3014 a trauma-sensitive sport model. The leaders shared how there would be more intentionality in
 3015 their re-designing of sport programs to accommodate skill-building opportunities for all children,
 3016 while interweaving awareness of trauma's impact:

3017 The actual workout will be different [from our typical sport programs] because we didn't
 3018 have all the elements. At each part of the workout, there's actually intentionality built into
 3019 it, and that's not what we're used to. [For example], Warmup, the intent in the past would
 3020 have been just to warm up your body, but there wouldn't have been any kind of thought
 3021 that self-regulation or body awareness - we're [now] teaching about that. (Mary, P)

3022 Building off the leaders' value for intentionality, the sport coaches looked forward to

3023 incorporate learning-focused components, like Team Time – an opportunity for youth to reflect
3024 on their participation and life skill use: “Team Time I never would have thought of doing during
3025 a sport. I debrief all the time when I run outdoor adventure programs. So it’ll be cool to take
3026 something from there and apply it to sport.” (Courtney, P). At the same time sport coaches also
3027 learned new ways to enhance the engagement of their sport coaching, as Courtney (P) continued:
3028 “A few drills we've done in the past, there are still people waiting in lines and waiting to
3029 participate. So I think having as many people as engaged as possible would really help the
3030 experience.”

3031 ***Consider Ways to Apply Knowledge Beyond Sport***

3032 The leaders noted how a lot of the concepts of the trauma-sensitive sport model were
3033 applicable to their everyday interactions with youth beyond BBL. Bobby (E) shared: “it opened
3034 my eyes and made me want to listen more and put more effort into figuring out what’s wrong
3035 with the kid, not just giving a consequence.” Naomi (E) echoed these sentiments, sharing how
3036 she began to re-think her previous punitive practices: “I had suspended a kid for a few days, we
3037 were frustrated with his behaviour. He's someone who [faced several adversities]. Sitting in
3038 training the whole time, I was like, “I should not have done that, there's better ways...”. These
3039 data are indicative of transformative value, as some leaders reconsidered how they would interact
3040 going forward with difficult youth, indicating a change in attitude. A few of the leaders shared
3041 how this knowledge would influence their identities, in being able to internalise trauma-sensitive
3042 practice as a part of all their interactions:

3043 This might be the next step for me professionally as well. Becoming more knowledgeable
3044 and understanding this concept better so we then can really truly delivered in a manner
3045 where we believe it and we live it and we breathe it. (Susan, P)

3046 Beyond their own practices, the leaders felt that they could integrate their program

3047 principles into other club activities. Some of the managers conceptualised new structures they
 3048 could create to handle chaotic situations, such as enabling safe spaces that members could go to
 3049 when reacting to triggering situations: “After we had the training [I was thinking of] different
 3050 ways I could create spaces where kids could get away to calm down. We have a lot of runners
 3051 here who run away from situations.” (Naomi, E). Susan (P) shared how their club could integrate
 3052 program features like Team Time to encourage opportunities for discussion and reflection in their
 3053 other programs:

3054 We can almost adapt it into a lot of other areas in the work we do as well. Sport is great,
 3055 but we thought about how Team Time would be something we could do in some of our
 3056 afterschool programs, in our dance programs, and a few other things as well.

3057 Brent (E) went as far as to suggest re-considering their policies around punishing members when
 3058 they exhibited consistent behavioural issues:

3059 There was a time when after 4 or 5 times of [behaviour] not getting better the immediate
 3060 response be “Okay well you're going to miss a day of the club”. But now my mindset is if
 3061 you sent them home, especially you never know what their home life is like, and if you're
 3062 punishing them for the way they're acting at the club by not letting them be at the club and
 3063 then they're home, they're just learning and experiencing those same behaviours. They're
 3064 not here and you're not able to coach them on getting better or making better choices.

3065 ***Share Knowledge With Others***

3066 The last topic of the workshop focused on helping leaders construct how they could
 3067 champion their knowledge about the trauma-sensitive sport model in their home contexts. As a
 3068 result, the leaders discussed being ready to share knowledge about the trauma-sensitive sport
 3069 model to others. Melissa (E) shared how she wanted to bring her practices back to her staff: “I
 3070 can help other staff or new staff or the younger staff come in show them what I've learned and

3071 how it's helped me.” Rachel (P) elaborated on her desire to share knowledge with her staff to
 3072 build on their skill sets for working with children:

3073 I would love to take some tools away to teach to my other staff team. We get a variety of
 3074 people, some of them are very strong in coaching and sport, but don't have any experience
 3075 in child behaviours. So helping [staff] have more strengths in those diverse areas.

3076 Beyond sharing with staff within the sport and club environment, Susan (P) shared that the
 3077 training knowledge would help her to support families better:

3078 I want to be able to provide some more help and resources not only to the children
 3079 themselves but to their families. Because they'll probably turn to me and be like “This is
 3080 what happened yesterday, any suggestions or how can you help?” So I'm hoping to be
 3081 there for the team and then also be there for the families and the participants.

3082 Across this theme, the leaders spoke to several ways they could take their training
 3083 experiences and apply it to practice. The leaders, in re-considering and shifting the ways they
 3084 would typically facilitate youth interactions within their sport programming, generated *potential*
 3085 *value*; however, when they also considered ways in which to re-consider their youth interactions,
 3086 procedures, and policies, these were evident of *transformative value*, in leaders creating
 3087 intentions to change their broader contexts (beyond the sport program space). In this manner,
 3088 leaders reflected on how training content may apply with reference to their past experiences,
 3089 thoughts, and beliefs (biographies), and their contexts (BGC club programming), where they
 3090 either reinforced their existing knowledge (e.g., having new language or terms to label their youth
 3091 practices), and either rejected information, or adapted it to meet the needs of their context (e.g.,
 3092 re-conceptualising their existing procedures in practice and considering new ways to incorporate
 3093 a trauma-sensitive lens; Stodter & Cushion, 2017).

3094 **Reflections and Recommendations**

3095 This study explored the learning experiences of leaders as they journeyed through training
 3096 on a trauma-sensitive sport model for youth programming. The resulting thematic map showed
 3097 how leaders' learning was shaped by their biographies and contexts. These biographies/contexts
 3098 related to three profiles of sport coaches, youth workers, and managers of a youth-serving
 3099 organisation. The value-creation framework was used to categorise the different value cycles
 3100 enabled by specific social learning interactions. The facilitation of diverse balanced content and
 3101 social learning opportunities by credible trainers helped the leaders reinforce and build upon their
 3102 previous knowledge of youth engagement and sport coaching practices, shift attitudes toward a
 3103 more trauma-sensitive and PYD lens, and build intentions towards applying a trauma-sensitive
 3104 sport model for programming.

3105 Overall, the results showed how participation in this workshop generated value for the
 3106 leaders. The content was valuable in enhancing the leaders' understanding of youth trauma,
 3107 trauma-sensitive and PYD approaches, and leveraging and designing sport programs with a
 3108 trauma-sensitive sport model; this enhanced understanding led to strong intentions to apply their
 3109 training knowledge to practice. Part of this value was generated from the balance of the
 3110 workshop's learning objectives, in focusing on both foundational knowledge and practical skill
 3111 development, while also ensuring that a variety of activities were provided to align with these
 3112 objectives and accommodate the diverse ways that learners learn (Guest, 2001; Paquette &
 3113 Trudel, 2018). However, some conflicts arose with managers finding content did not align with
 3114 their knowledge needs. This misalignment brings up the importance of aligning training curricula
 3115 with leaders' existing experiences (Morgan et al., 2013; Stodter & Cushion, 2016), and the
 3116 potential benefits of catering parts of training to leaders with similar cognitive structures (Trudel
 3117 et al., 2013). Thus, the authors recommend further centring learners' needs in learning activities.
 3118 Conducting needs assessments prior to hosting workshops can help training planners to learn

3119 about the roles and backgrounds of the leaders and what they would like to attain from training,
3120 to then use this information to tailor and adapt learning objectives, content, and outcomes to
3121 those leaders needs. Use of the value creation framework up front for framing activities can also
3122 facilitate a learner-centred approach (see Duarte et al., 2020; Wenger-Trayner & Wenger-
3123 Trayner, 2020).

3124 Applying training knowledge beyond the sport program setting was also recognised by
3125 the leaders, generating orienting value in linking the knowledge to their broader contexts. Often,
3126 community organizations like BGC Canada's clubs involve staff in multiple roles (e.g., sport
3127 programming, recreation, administration, community outreach), and their members also
3128 participate in multiple club activities (e.g., educational/homework activities, arts, leadership,
3129 sport and outdoor activities, etc.), which can result in multiple opportunities for staff-youth
3130 interactions. Here, sport programs can exist as a micro-system within a broader club system (Holt
3131 et al., 2017), and leaders who use trauma-sensitive and PYD approaches in their interactions
3132 within and outside the sport system – and share their knowledge with other staff – may help to
3133 build bridges between members' support systems and learning across the activities they engage in
3134 (Roth & Brooks-Gunn, 2016). Moreover, these reflections show that leaders recognised the
3135 external dimensions of orienting value as they saw their learning space as part of a wider
3136 landscape inhabited by external audiences that could use the learning of their space (Wenger-
3137 Trayner & Wenger-Trayner, 2020).

3138 A strength of this study was its use of a value-creation framework to help assess learning
3139 across a variety of interactions. The framework enabled a nuanced look at how leaders'
3140 participation in training may have been beneficial in different relevant and meaningful ways,
3141 helping to capture complexity in leaders' learning experiences. This enabled a shift from typical
3142 evaluations of training interventions which may focus primarily on a small subset of outcomes

(e.g., training satisfaction and knowledge acquisition), and neglect examining the processes involved in learning (Lyle, 2007). Concurrently, the authors were sometimes challenged by linking evidence under specific cycles when they could be interpreted across multiple cycles (Bertram et al., 2017). Thus, it was beneficial in this study for **MS** and **DMC** to meet regularly, share their perspectives, and negotiate their interpretations of the data and how they may link to the value cycles.

The results of this study are confined to the case of the BBL project. Studies of similar phenomena (i.e., leaders' learning of a trauma-sensitive sport model), may differ across contexts, participants, and in the ways the training was facilitated, and as such, the generalisability of the findings in the present study are limited. However, given the widespread prevalence of trauma (Statistics Canada, 2022), this training program may be relevant to other community youth-serving organizations who wish to build the initial capacities of their lay workers (leaders) to adopt more trauma-sensitive and PYD approaches in their practices, potentially promoting enhanced support for existing youth members of their programs. As well, given that the training environment was largely structured and facilitated by the trainers, examining their perceptions would be warranted. Future studies could explore what content and facilitation strategies the trainers valued, what successes and challenges they experienced in planning and facilitation, and what learning outcomes they sought in their trainees. Such information could help understand how to better meet the needs of trainers and their participants in these environments, and promote better learning.

Conclusions

This was one of the first empirical studies focused on how leaders learn a trauma-sensitive sport model. The use of learning theories to explore this phenomenon offered insights as to how leaders' biographies and contexts were linked to what they sought to learn, how they

3167 learned, what they gained from training, and what they intended to do with their training. These
3168 insights may point to the possible scalability of a trauma-sensitive sport model, in that its
3169 components may enhance existing practices as well as application both within sport programming
3170 and in broader contexts that leaders interact with youth. At a practical level, these results offered
3171 initial insights into leaders' learning needs in a multi-program-providing community context, and
3172 how training content and facilitation can meet these needs (Moon, 2001; Trudel et al., 2020).
3173

References

- Abraham, A. A. (2016). Task analysis of coach developers: Applications to the FA youth coach educator role. In W. Allison, A. Abraham, & A. Cale (Eds.), *Advances in coach education and development* (pp. 73–85). Routledge.
- Baker, C. N., Brown, S. M., Wilcox, P. D., Overstreet, S., & Arora, P. (2016). Development and psychometric evaluation of the Attitudes Related to Trauma-Informed Care (ARTIC) Scale. *School Mental Health*, 8(1), 61–76. <https://doi.org/10.1007/s12310-015-9161-0>
- Barnett, E. R., Yackley, C. R., & Licht, E. S. (2018). Developing, implementing, and evaluating a trauma-informed care program within a youth residential treatment center and special needs school. *Residential Treatment for Children and Youth*, 35(2), 95–113. <https://doi.org/10.1080/0886571X.2018.1455559>
- Bean, C., Shaikh, M., & Forneris, T. (2020). Coaching strategies used to deliver quality youth sport programming. *International Sport Coaching Journal*, 7(1), 39–51. <https://doi.org/10.1123/iscj.2018-0044>
- Bean, C., Shaikh, M., Kramers, S., & Forneris, T. (2021). Does context matter? Unpacking differences in program quality and developmental experiences across competitive and recreational youth sport. *International Journal of Sports Science & Coaching*, 16(5), 1204–1213. <https://doi.org/10.1177/17479541211001879>
- Bergholz, L., Stafford, E., & D’Andrea, W. (2016). Creating trauma-informed sports programming for traumatised youth: Core principles for an adjunctive therapeutic approach. *Journal of Infant, Child, and Adolescent Psychotherapy*, 15(3), 244–253. <https://doi.org/10.1080/15289168.2016.1211836>
- Bertram, R., Culver, D. M., & Gilbert, W. (2017). A university sport coach community of practice: Using a value creation framework to explore learning and social interactions.

- 3198 *International Journal of Sports Science and Coaching*, 12(3), 287–302.
 3199 <https://doi.org/10.1177/1747954117710503>
- 3200 Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise
 3201 research. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research*
 3202 *in Sport and Exercise* (pp. 191–205). Routledge.
- 3203 Breslin, G., Shannon, S., Haughey, T., Donnelly, P., & Leavey, G. (2017). A systematic review
 3204 of interventions to increase awareness of mental health and well-being in athletes, coaches
 3205 and officials. *Systematic Reviews*, 6(177), 1–15. <https://doi.org/10.1186/s13643-017-0568-6>
- 3206 Brown, S. M., Baker, C. N., & Wilcox, P. (2012). Risking connection trauma training: A pathway
 3207 toward trauma-informed care in child congregate care settings. *Psychological Trauma:*
 3208 *Theory, Research, Practice, and Policy*, 4(5), 507–515. <https://doi.org/10.1037/a0025269>
- 3209 Camiré, M., Trudel, P., & Forneris, T. (2014). Examining how model youth sport coaches learn
 3210 to facilitate positive youth development. *Physical Education and Sport Pedagogy*, 19(1), 1–
 3211 17. <https://doi.org/10.1080/17408989.2012.726975>
- 3212 Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among*
 3213 *five approaches* (5th ed.). SAGE.
- 3214 Dohme, L.-C., Rankin-Wright, A. J., & Lara-Bercial, S. (2019). Beyond knowledge transfer: The
 3215 role of coach developers as motivators for lifelong learning. *International Sport Coaching*
 3216 *Journal*, 6(3), 317–328. <https://doi.org/10.1123/iscj.2019-0034>
- 3217 Duarte, T., Culver, D. M., & Paquette, K. (2020). Framing a social learning space for wheelchair
 3218 curling. *International Sport Coaching Journal*, 8(2), 197–209.
 3219 <https://doi.org/10.1123/iscj.2019-0095>
- 3220 Dye, H. (2018). The impact and long-term effects of childhood trauma. *Journal of Human*
 3221 *Behavior in the Social Environment*, 28(3), 381–392.

- 3222 <https://doi.org/10.1080/10911359.2018.1435328>
- 3223 Erickson, K., Bruner, M., MacDonald, D. J., & Côté, J. (2008). Gaining insight into actual and
 3224 preferred sources of coaching knowledge. *International Journal of Sports Science and*
 3225 *Coaching*, 3(4), 527–538. <https://doi.org/10.1260/174795408787186468>
- 3226 Falcão, W. R., Bloom, G. A., & Gilbert, W. (2012). Coaches' perceptions of a coach training
 3227 program designed to promote youth developmental outcomes. *Journal of Applied Sport*
 3228 *Psychology*, 24(4), 429–444. <https://doi.org/10.1080/10413200.2012.692452>
- 3229 Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss,
 3230 M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to
 3231 many of the leading causes of death in adults. *American Journal of Preventive Medicine*,
 3232 14(4), 245–258. [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
- 3233 Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2015). A revised inventory of Adverse
 3234 Childhood Experiences. *Child Abuse and Neglect*, 48, 13–21.
 3235 <https://doi.org/10.1016/j.chiabu.2015.07.011>
- 3236 Gilbert, W., & Trudel, P. (2001). Learning to coach through experience: Reflection in model
 3237 youth sport coaches. *Journal of Teaching in Physical Education*, 21, 16–34.
 3238 <https://doi.org/10.1123/jtpe.21.1.16>
- 3239 Guest, R. (2001). The instructor's optimal mix of teaching methods. *Education Economics*, 9(3),
 3240 313–326. <https://doi.org/10.1080/09645290110086162>
- 3241 Harris, M., & Fallot, R. D. (2001). *Using trauma theory to design service systems*. Jossey-Bass.
- 3242 Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D.
 3243 J., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth
 3244 development through sport based on results from a qualitative meta-study. *International*
 3245 *Review of Sport and Exercise Psychology*, 10(1), 1–49.

- 3246 <https://doi.org/10.1080/1750984X.2016.1180704>
- 3247 Hummer, V. L., Dollard, N., Robst, J., & Armstrong, M. I. (2010). Innovations in implementation
3248 of trauma-informed care practices in youth residential treatment: A curriculum for
3249 organizational change. *Child Welfare*, 89(2), 79.
- 3250 Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. Routledge.
- 3251 Kenny, M. C., Vazquez, A., Long, H., & Thompson, D. (2017). Implementation and program
3252 evaluation of trauma-informed care training across state child advocacy centers: An
3253 exploratory study. *Children and Youth Services Review*, 73, 15–23.
- 3254 <https://doi.org/10.1016/j.childyouth.2016.11.030>
- 3255 Koh, K. T., Camiré, M., Regina, S. H. L., & Soon, W. S. (2015). Implementation of a values
3256 training program in physical education and sport: A follow-up study. *Physical Education
3257 and Sport Pedagogy*, 2016, 1–15. <https://doi.org/10.1080/17408989.2016.1165194>
- 3258 Leitch, L. (2017). Action steps using ACEs and trauma-informed care: A resilience model.
3259 *Health & Justice*, 5(5), 1–10. <https://doi.org/10.1186/s40352-017-0050-5>
- 3260 Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to coach. *The
3261 Sport Psychologist*, 21, 191–209. <https://doi.org/10.1123/tsp.21.2.191>
- 3262 Lerner, R. M., Almerigi, J. B., Theokas, C., & Lerner, J. V. (2005). Positive youth development:
3263 A view of the issues. *The Journal of Early Adolescence*, 25(1), 10–16.
- 3264 <https://doi.org/10.1177/0272431604273211>
- 3265 Lyle, J. (2007). A review of the research evidence for the impact of coach education.
3266 *International Journal of Coaching Science*, 1(1), 19–36.
- 3267 Martin, R., & Murtagh, E. M. (2017). Effect of active lessons on physical activity, academic, and
3268 health outcomes: A systematic review. *Research Quarterly for Exercise and Sport*, 88(2),
3269 149–168. <https://doi.org/10.1080/02701367.2017.1294244>

- 3270 Martiny, K. M., Toro, J., & Høffding, S. (2021). Framing a phenomenological mixed method:
 3271 From inspiration to guidance. *Frontiers in Psychology*, 12(March).
 3272 <https://doi.org/10.3389/fpsyg.2021.602081>
- 3273 Massey, W. V., & Williams, T. L. (2020). Sporting activities for individuals who experienced
 3274 trauma during their youth: A meta-study. *Qualitative Health Research*, 30(1), 73–87.
 3275 <https://doi.org/10.1177/1049732319849563>
- 3276 Moon, J. A. (2001). *Short courses & workshops: Improving the impact of learning, training &*
 3277 *professional development*. Kogan Page Limited.
- 3278 Moon, J. A. (2004). *A handbook of reflective and experiential learning – theory and practice*.
 3279 Routledge.
- 3280 Morgan, K., Jones, R. L., Gilbourne, D., & Llewellyn, D. (2013). Innovative approaches to coach
 3281 education pedagogy. *Nuances: Estudos Sobre Educação*, 24(1), 218–234.
 3282 <https://doi.org/10.14572/nuances.v24i1.2170>
- 3283 Nelson, L., Cushion, C. J., & Potrac, P. (2013). Enhancing the provision of coach education: The
 3284 recommendations of UK coaching practitioners. *Physical Education and Sport Pedagogy*,
 3285 18(2), 204–218. <https://doi.org/10.1080/17408989.2011.649725>
- 3286 Newman, T. J., Alvarez, M. A. G., & Kim, M. (2017). An experiential approach to sport for
 3287 youth development. *Journal of Experiential Education*, 40(3), 308–322.
 3288 <https://doi.org/10.1177/1053825917696833>
- 3289 Newman, T. J., Ortega, R. M., Lower, L. M., & Paluta, L. M. (2016). Informing priorities for
 3290 coaching education: Perspectives from youth sport leaders. *International Journal of Sports*
 3291 *Science and Coaching*, 11(3), 436–445. <https://doi.org/10.1177/1747954116645207>
- 3292 Paquette, K., & Trudel, P. (2018). Learner-centred coach education: Practical recommendations
 3293 for coach development administrators. *International Sport Coaching Journal*, 5(2), 169–

- 3294 175. <https://doi.org/10.1123/iscj.2017-0084>
- 3295 Patton, M. Q. (2008). *Utilisation-focused evaluation* (4th ed.). SAGE.
- 3296 Patton, M. Q. (2012). *Essentials of utilisation-focused evaluation*. SAGE.
- 3297 Purtle, J. (2020). Systematic review of evaluations of trauma-informed organizational
 3298 interventions that include staff trainings. *Trauma, Violence, and Abuse*, 21(4), 725–740.
 3299 <https://doi.org/10.1177/1524838018791304>
- 3300 QSR International. (2020). *NVivo R1 [Computer software]*. QSR International Pty Ltd.
- 3301 Quarmby, T., Sandford, R., Green, R., Hooper, O., & Avery, J. (2022). Developing evidence-
 3302 informed principles for trauma-aware pedagogies in physical education. *Physical Education*
 3303 *and Sport Pedagogy*, 27(4), 440–454. <https://doi.org/10.1080/17408989.2021.1891214>
- 3304 Roth, J. L., & Brooks-Gunn, J. (2016). Evaluating youth development programs: Progress and
 3305 promise. *Applied Developmental Science*, 20(3), 188–202.
 3306 <https://doi.org/10.1080/10888691.2015.1113879>
- 3307 Santos, F., Camiré, M., MacDonald, D. J., Campos, H., Conceição, M., & Silva, A. (2019).
 3308 Process and outcome evaluation of a positive youth development-focused online coach
 3309 education course. *International Sport Coaching Journal*, 6(1), 1–12.
 3310 <https://doi.org/10.1123/iscj.2017-0101>
- 3311 Santos, F., Gould, D., & Strachan, L. (2019). Research on positive youth development-focused
 3312 coach education programs: Future pathways and applications. *International Sport Coaching*
 3313 *Journal*, 6(1), 132–138. <https://doi.org/10.1123/iscj.2018-0013>
- 3314 Statistics Canada. (2022). Survey on mental health and stressful events. In *Government of*
 3315 *Canada*. (Issue December 2021). [https://www150.statcan.gc.ca/n1/daily-](https://www150.statcan.gc.ca/n1/daily-quotidien/220520/dq220520b-eng.htm)
 3316 [quotidien/220520/dq220520b-eng.htm](https://www150.statcan.gc.ca/n1/daily-quotidien/220520/dq220520b-eng.htm)
- 3317 Stodter, A., & Cushion, C. J. (2014). Coaches' learning and education: A case study of cultures

- 3318 in conflict. *Sports Coaching Review*, 3(1), 63–79.
- 3319 <https://doi.org/10.1080/21640629.2014.958306>
- 3320 Stodter, A., & Cushion, C. J. (2016). Effective coach learning and processes of coaches’
 3321 knowledge development: What works? In P. A. Davis (Ed.), *The Psychology of Effective*
 3322 *Coaching and Management* (pp. 35–51). Nova Science Publishers, Inc.
- 3323 Stodter, A., & Cushion, C. J. (2017). What works in coach learning, how, and for whom? A
 3324 grounded process of soccer coaches’ professional learning. *Qualitative Research in Sport,*
 3325 *Exercise and Health*, 9(3), 321–338. <https://doi.org/10.1080/2159676X.2017.1283358>
- 3326 Strand, V. C., Abramovitz, R., Layne, C. M., Robinson, H., & Way, I. (2014). Meeting the
 3327 critical need for trauma education in social work: A problem-based learning approach.
 3328 *Journal of Social Work Education*, 50(1), 120–135.
- 3329 <https://doi.org/10.1080/10437797.2014.856235>
- 3330 Strobel, J., & van Barneveld, A. (2012). When is PBL more effective? A meta-synthesis of meta-
 3331 analyses comparing PBL to conventional classrooms. *Interdisciplinary Journal of Problem-*
 3332 *Based Learning*, 3(1). <https://doi.org/10.7771/1541-5015.1046>
- 3333 Tracy, S. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research.
 3334 *Qualitative Inquiry*, 16(10), 837–851. <https://doi.org/10.1177/1077800410383121>
- 3335 Trudel, P., Culver, D. M., & Werthner, P. (2013). Looking at coach development from the coach-
 3336 learner’s perspective: Consideration for coach development administrators. In P. Potrac, W.
 3337 Gilbert, & J. Denison (Eds.), *Routledge Handbook of Sports Coaching* (pp. 375–387).
 3338 Routledge.
- 3339 Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In D. Kirk, D. Macdonald, &
 3340 M. O’Sullivan (Eds.), *Handbook of Physical Education* (pp. 516–539). SAGE.
- 3341 <https://doi.org/10.4135/9781848608009.n29>

- 3342 Trudel, P., Gilbert, W., & Werthner, P. (2010). Coach education effectiveness. In J. Lyle & C.
 3343 Cushion (Eds.), *Sport coaching: Professionalisation and practice* (pp. 135–152). Churchill
 3344 Livingstone.
- 3345 Trudel, P., Milestetd, M., & Culver, D. M. (2020). What the empirical studies on sport coach
 3346 education programs in higher education have to reveal: A review. *International Sport*
 3347 *Coaching Journal*, 7(1), 61–73. <https://doi.org/10.1123/iscj.2019-0037>
- 3348 Vella, S. A., Oades, L., & Crowe, T. (2011). The role of the coach in facilitating positive youth
 3349 development: Moving from theory to practice. *Journal of Applied Sport Psychology*, 23(1),
 3350 33–48. <https://doi.org/10.1080/10413200.2010.511423>
- 3351 Walsh, D., McCartney, G., Smith, M., & Armour, G. (2019). Relationship between childhood
 3352 socioeconomic position and adverse childhood experiences (ACEs): A systematic review.
 3353 *Journal of Epidemiology and Community Health*, 73(12), 1087–1093.
 3354 <https://doi.org/10.1136/jech-2019-212738>
- 3355 Wenger-Trayner, E., & Wenger-Trayner, B. (2020). *Learning to make a difference: Value*
 3356 *creation in social learning spaces*. Cambridge University Press.
 3357 <https://doi.org/10.1017/9781108677431>
- 3358 Whitley, M. A., Massey, W. V., & Wilkison, M. (2018). A systems theory of development
 3359 through sport for traumatised and disadvantaged youth. *Psychology of Sport and Exercise*,
 3360 38, 116–125. <https://doi.org/10.1016/j.psychsport.2018.06.004>
- 3361 Wright, T., Trudel, P., & Culver, D. M. (2007). Learning how to coach: The different learning
 3362 situations reported by youth ice hockey coaches. *Physical Education & Sport Pedagogy*,
 3363 12(2), 127–144. <https://doi.org/10.1080/17408980701282019>

3364 **Article 4: Learning a Trauma-sensitive Sport Model: Program Implementation Experiences**

3365 Majidullah Shaikh¹, Diane M. Culver¹, Tanya Forneris²

3366 ¹The University of Ottawa, Ottawa, ON

3367 ²Th– University of British Columbia - Okanagan, Kelowna, BC

3368 Manuscript for submission to the *International Sport Coaching Journal*

3369

Abstract

Exploring the learning experiences of youth sport leaders as they apply a trauma-sensitive sport model to programming can help understand how learning environments can facilitate or constrain knowledge application. Wenger and colleagues' (2020) value-creation cycle offers a useful framework to assess the value that is enabled (e.g., changes to one's self and/or one's social environment) from leaders' social learning interactions (e.g., ongoing mentoring, informal education, peer interaction). The purpose of this study was to assess the learning experiences of leaders as they implemented programming based on a trauma-sensitive sport model in a nationally-run Canadian youth-serving organization. Two cohorts of leaders participated in training and development activities as they implemented programming at their home sites. The data were gathered through interviews, knowledge surveys, communications on an online workspace, and usage metrics from this workspace. A thematic analysis was conducted with the qualitative data, deductively using the value-creation framework to categorise learning experiences based on the interactions and values that leaders discussed. Descriptive statistics and Wilcoxon Signed-Ranks tests were calculated for the knowledge survey data to show changes in knowledge over time, and the online workspace data were charted to demonstrate trends in usage. The quantitative results were incorporated in the qualitative thematic map. The results indicated that leaders encountered various learning interactions (e.g., training workshops, applied practice, peer discussions), and discussed gains in immediate value (e.g., enjoyment, peer-relationships), applied value (e.g., program facilitation skills, supporting youth's learning, youths' receptivity), realised value (e.g., leaders' knowledge, youths' behaviour change), and transformative value (e.g., transfer of leaders' skills, influence on club culture and practices). Implications were discussed for program improvement and ongoing program leaders' education.

Introduction

The widespread and ubiquitous nature of trauma exposure in childhood demands action from community organizations to prevent and treat its short- and long-term effects (Centre for Addiction and Mental Health, 2020). Traumatic exposure can result in cognitive and emotional dysregulation, impairments in social relatedness, and is associated with mental health issues through to adulthood (Felitti et al., 2019; Greger et al., 2015). Such exposure disproportionately affects youth from disadvantaged communities (e.g., youth from low-income families facing instability in housing, food, and health resources; Walsh et al., 2019). Community organizations can offer sport-based trauma-sensitive programs to help mitigate the effects of trauma and contribute to youth's healthy participation, development of life skills and resilience-building (Bergholz et al., 2016; Whitley et al., 2018).

A program based on a trauma-sensitive sport model involves leaders who are trained to: (a) realise trauma's impact on youth; (b) recognise how trauma can impact sport participation, and how sport can contribute to re-traumatization; (c) respond to youth's dysregulated behaviours with strategies to help youth practice self-regulation and recovery, (d) resist re-traumatization through proactively re-designing sport structures and activities promote trauma-sensitivity, (e) leverage inherent features of sport (e.g., competition, intensity) to promote growth (Bergholz et al., 2016; SAMHSA, 2014; Shaikh, Bean, et al., 2021). From a strength-based perspective, training leaders in this model can build their capacities to create high-quality sport activities and youth development experiences (Bergholz et al., 2016). From a prevention-based perspective, with awareness/sensitivity to youth's trauma, leaders can mitigate youth's re-traumatization and negative development in their programs (Massey & Whitley, 2016). Given the novelty of the trauma-sensitive sport model, limited research has explored how community sport leaders learn to apply these practices and how to best support their learning process in these settings.

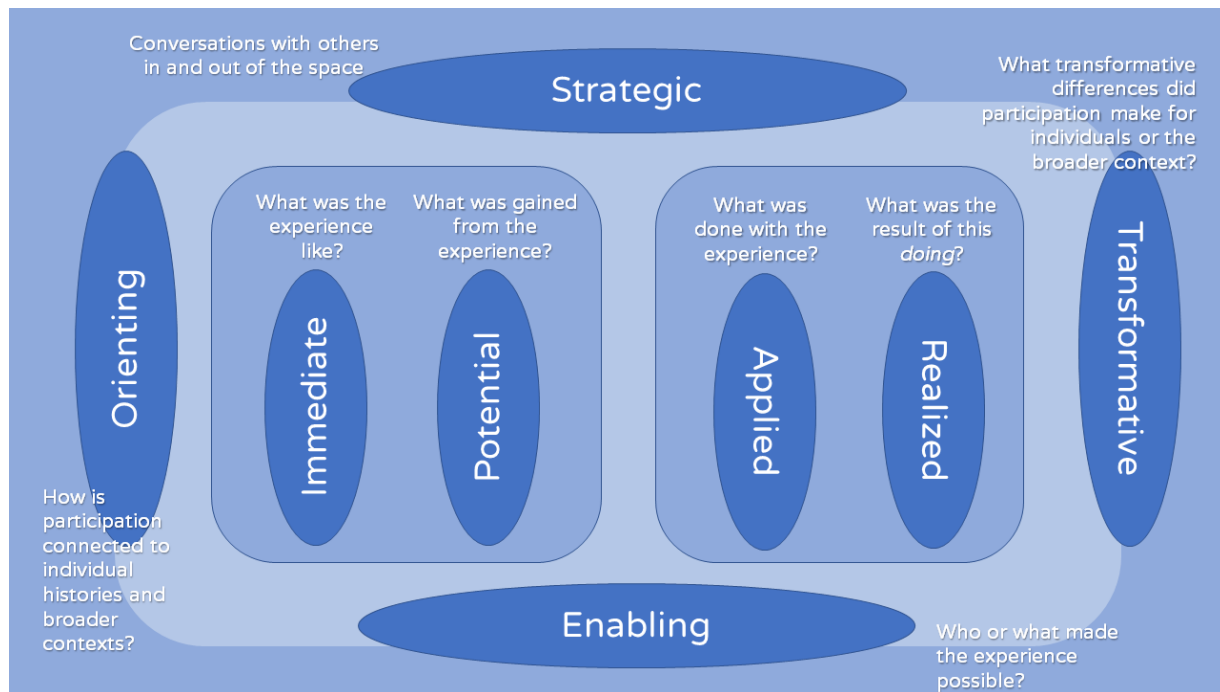
Various learning opportunities across several contexts can be leveraged to train sport leaders to promote their development (Jarvis, 2009; Stodter & Cushion, 2017). Within recreational sport contexts (e.g., contexts that prioritise youth's participation over talent development), leaders most often engage in informal learning such as interactions with peers and other stakeholders in and out of sport, learning from their youth, consulting manuals, learning by doing, and some nonformal learning such as workshops and seminars on specific topics or mentoring programs (Rocchi & Couture, 2018; Van Woezik et al., 2021). Across these various ways of learning, research has suggested that organizations can facilitate optimal environments through several strategies such as: (a) using a variety of learning opportunities, (b) developing leaders' skills in learning (e.g., reflective skills, planning, and seeking peer support), (c) uniting evaluation with learning, (d) focusing on facilitation rather than instruction, (e) prioritising making content meaningful to leaders, and (f) empowering leaders with autonomy to choose different learning options (Paquette & Trudel, 2018). As well, organizations can use trainers in dynamic roles as subject matter experts, workshop facilitators, mentors, assessors, and course designers (similar to the notion of a coach developer; Culver et al., 2019), to offer a holistic array of support, guidance, and trust-building with the leaders (Paquette & Trudel, 2018). The present study explored how community sport leaders within a specific setting learned a trauma-sensitive sport model as they implemented programming and participated in a variety of learning opportunities such as training workshops, ongoing consultations with trainers, monthly meetings with peers, and participation in an online workspace.

The value-creation framework (Wenger-Trayner & Wenger-Trayner, 2020) can guide assessments of learning in social learning spaces (e.g., explicit training and development activities, social encounters in coaching practice). The framework (see Figure 1) envisions how learning interactions can be linked to different forms of *value*, categorised across several value-

3443 creation cycles which include: (a) orienting value from connecting how participation in the space
3444 is related to one another's histories, practices, and the broader context; (b) immediate value from
3445 interacting with like-minded others and engaging in relevant and interesting topics; (c) potential
3446 value from the new knowledge (e.g., resources, strategies, tools) that is generated from the
3447 interactions and has the potential to be applied in one's practice; (d) applied value from using
3448 new knowledge in one's practice and reflecting on the features of this application (e.g.,
3449 practicality or usefulness); (e) realised value from observing or reflecting on how the application
3450 of new knowledge may have an impact on what matters; (f) transformative value from
3451 recognising the transformations that may have resulted from participation in the space to one's
3452 self (e.g., their identities, mindsets), and their broader contexts (e.g., youth's behaviours,
3453 organizational culture), beyond intended changes; (g) strategic value from purposefully working
3454 with others on actioning shared goals or priorities, and improving one's relationships with others
3455 beyond the space; and (h) enabling value from being proactive in one's learning and receiving
3456 external supports to engage in this learning.

3457

3458

Figure 1. *Value-creation Framework by Wenger-Trayner & Wenger-Trayner (2020)*

3459

3460

This study was part of a larger initiative conducted with leaders from BGC Canada who

3461

participated in an initial training to learn a trauma-sensitive sport model for youth programming

3462

(Shaikh et al., n.d.). Results from this initial study also used the value-creation framework to

3463

assess leaders' learning, with the authors interpreting that leaders' participation in this initiative

3464

generated: (a) orienting value from having experiences of working with trauma-exposed youth,

3465

with intentions to learn more about how to support them in their contexts, (b) immediate value

3466

through hearing shared and novel perspectives from leaders from other clubs, and practice

3467

applying practices to different context-relevant scenarios, (c) potential value from connecting

3468

knowledge to application in their sport program practices and sharing knowledge with peers, (d)

3469

transformative value in shifting their individual perspectives in line with the tenets of a trauma-

3470

sensitive sport model; in re-thinking their policies, practices, and procedures in their broader

3471

contexts of work; and with intentions to advocate for these approaches in their broader contexts,

3472

and (e) enabling value from content being delivered in balanced and diverse ways, with credible

3473 facilitators, along with social learning and collective reflection opportunities. In the present study,
3474 the learning experiences of leaders were explored as they implemented a trauma-sensitive sport
3475 model for youth programming, while at the same time continuing to participate in several
3476 learning opportunities.

3477 **Context**

3478 The program of focus in this study is the Bounce Back League (BBL), housed within
3479 BGC Canada, a national Canadian organization that primarily serves youth from disadvantaged
3480 communities (e.g., low-income families facing housing instability, food insecurity, unstable
3481 employment, etc.). The program uses a trauma-sensitive sport model, and was led and developed
3482 by an inter-disciplinary leadership team made up of evaluators (including **MS** and **TF**), BGC
3483 Canada administrators, and trauma-sensitive sport master trainers from [Edgework Consulting](#).
3484 The team was involved in a community-based participatory approach to collaborate on decision-
3485 making and negotiating a shared vision throughout all project activities (e.g., planning, piloting,
3486 adapting, expanding, sustaining, evaluating). BBL was run in 13 clubs (with some clubs
3487 operating in multiple locations). Each program session was targeted toward 8-12 year old
3488 members, and operated at least once a week, out-of-school, in 6-10 week seasons, usually with a
3489 different sport each season (e.g., basketball, hockey, soccer, badminton, etc.). The BBL program
3490 would often involve at least one manager to handle program logistics, recruitment, and
3491 marketing, and at least two frontline staff facilitating the program on-the-ground. The frontline
3492 staff were also primarily responsible for completing structured logbooks after each session to
3493 evaluate their successes and challenges with facilitating key BBL components. BBL operated
3494 within a broader array of programs and services offered at each club; thus, members interacted
3495 with coaches within BBL as well as in other activities at the club. More information about the
3496 BBL program is discussed in Shaikh, Bean, et al., (2021).

Methodology and Methods

The approach and methodology for this study was a mixed-methods phenomenological case study (Martiny et al., 2021). This approach was used to help understand how participants experienced the phenomenon of learning through their participation in the BBL, using diverse quantitative and qualitative methods, capturing how learning was experienced and constructed by the participants. The authors carried a shared expertise in youth program evaluation, coach learning, and sport-based youth development, and all authors advocated for program design that promoted positive emotional climates as well as the opportunity to develop and transfer life skills (Bean et al., 2018; Holt et al., 2017). **MS** was oriented to contributing to the BGC context given his similar experiences in recreational multi-service programs as both a participant as well as a facilitator. Since the onset of this project, **MS** had numerous interactions with the leadership team members and the participants, built strong rapport with participants, and helped contribute to the project's continued development, implementation, impact, and sustainability. **TF** is the project's evaluation lead and has contributed significantly to the project's vision and impact. **DMC** carried expertise in the use of learning theories to assess training and development, and was a critical friend for **MS** in interpreting the evidence using the value-creation framework.

Participants

Two cohorts were involved in this study over the course of 2017-2021. The first cohort comprised the pilot leaders, who joined the project in Fall 2017 ($n = 12$, 9 women, 3 men; age: 21 to 60 years old, $M_{\text{age}} = 36.33 \pm 12.26$; experience: 1 to 30 years, $M_{\text{exp}} = 11.36 \pm 9.61$). The second cohort comprised the expansion leaders, who joined the project in Fall 2019 ($n = 20$ leaders, 5 women, 5 men; age: 22-41 years old, $M_{\text{age}} = 28.00 \pm 5.40$; experience: 2 to 8, $M_{\text{exp}} = 6.40 \pm 4.62$). Participants ranged in roles from frontline staff to program directors.

Ethical approval for this study was granted by the University of Ottawa's Office of

Research Ethics & Integrity (#H-09-19-4960; See Appendix B). In both cohorts, all leaders who planned to participate in the project were emailed by the BBL program manager to volunteer their contact information (See Appendix A.4). MS then emailed volunteers consent forms offering details about the project purpose, expectations for participants, voluntary nature of participation, and how their data would be handled and reported with respect to security, privacy, and anonymity (See Appendices A.1, A.5-A.6).

Procedure

The project spanned three general phases of program implementation: (a) pilot, from Fall 2017 to Summer 2019, (b) expansion, from Fall 2019 to Winter 2020, and (c) Pandemic, from Spring 2020 to Spring 2021. See Figure 2 for a timeline of this project's activities. The overarching plan was to have: (a) pilot leaders trained and mentored by master trainers as they ran programming at their home sites; (b) A portion of pilot leaders trained to become in-house trainers; (c) in-house trainers trained and mentored expansion leaders as they implemented programming, (d) the leadership team facilitating leaders in social learning opportunities (e.g., through hosting ongoing meetings, on-site visits to observe and provide feedback, mentoring activities and interacting on an online social messaging platform [Slack]). The nature and affordance of these activities changed over time, given insights from engaging in ongoing monitoring and evaluation activities to inform program adaptations; as well as disruptions due to variations in funding over time, staff turnover, and the pandemic in March 2020 resulting in program and club closures and staff layoffs.

3541 Figure 2. *Timeline of Project Activities (2017-2021)*

Year	2017	2018	2019	2020	2021
Programming	Three pilot clubs run programming		Three pilot clubs and ten expansion clubs run programming		
Training workshops	Pilot leaders participate in training workshops	Pilot leaders participate in two refresher training workshops (January and November)	In-house trainers (w/ assistance from master trainers) train expansion leaders	All leaders receive refresher training workshops facilitated by master trainers	
		Pilot leaders receive training to become in-house trainers			
Mentoring	Pilot leaders receive ongoing mentoring from master trainers		Expansion leaders receive mentoring from in-house trainers		
Monthly meetings				Monthly meetings for leaders	
Slack workspace	Pilot leaders and leadership team		All leaders and leadership team		
Evaluation	Interviews at Pre-and-Post Training Workshop (Shaikh et al., n.d.)	Interviews at refresher workshops and end of year one	Interviews at Pre-and-Post Training Workshop (Shaikh et al., n.d.)		Interviews at end of project.
	Data generated from Slack				

3542

3543 ***Training Workshops***

3544 In both the pilot and expansion phases, leaders participated in initial two-day training
 3545 workshops prior to running programs at their home clubs. Details of this training have been
 3546 reported elsewhere (Shaikh, Bean, et al., 2021). The topics broadly covered psychoeducation on
 3547 trauma, trauma-sensitive practice, integrating trauma-sensitive practice into sport, trauma-
 3548 sensitive coaching techniques, and life skills education. The experiences of the leaders in this
 3549 training are discussed in an earlier study from this project (Shaikh et al., n.d.).

3550 In the pilot, the leaders also participated in two in-person 2-day refresher training
 3551 workshops at 4 months and 14 months into running programming. In each refresher workshop,
 3552 the leadership team reinforced the project vision and goals, reviewed previous content, shared
 3553 evaluative findings and solicited feedback, shared best practices and techniques between clubs,
 3554 elaborated on certain practices as per the leaders' requests (e.g., activity planning, sport coaching
 3555 skills, teaching life skills, and responsive coaching), and offered opportunities for deeper
 3556 connections between clubs. The workshops comprised of a mix of short talks, paired/ group
 3557 activities, addressing case scenarios, brainstorming ideas on whiteboards and flipcharts, role
 3558 playing, and examples of stories and lived experiences shared by facilitators. Given funding
 3559 limitations and the pandemic, these refresher workshops were dropped during the expansion
 3560 stage, and offered again in Summer 2020 to help the leaders transition programs to socially-
 3561 distanced or virtual environments. Several clubs resumed programming in-person from Fall 2020
 3562 to Summer 2021.

3563 ***Monthly Consultations and Meetings***

3564 During the pilot, the master trainers conducted personal consultations with the pilot
 3565 leaders, reaching out by phone/video call to staff from each club every 2-3 weeks to discuss their
 3566 program experiences, solicit questions, and offer guidance and strategies for tackling any

challenges they encountered. The master trainers also visited each club at least once to observe their programming and offer constructive feedback (both in the pilot and expansion). With the expansion cohort, the in-house trainers offered to consult with leaders in a similar manner as the master trainers. However, due to limitations in funding and oversight, these consultations were less structured than initially intended.

At the onset of the pandemic, monthly meetings were facilitated by the master trainers to continue to support all the leaders. Meetings were 1-2 hours and held over Zoom with all BBL clubs to get staff to share their experiences, successes, and challenges of running programs.

Online Social Learning Space

An online social learning space was created on the Slack messaging platform to facilitate communication, interactions, and resource sharing for all members of the BBL project (i.e., leadership team, leaders from all clubs). On Slack, communication happens on a shared workspace through channels associated with specific topics. A channel was created for each club to discuss anything related to BBL off-site; and channels associated with general discussion, questions, and resources were also be created. Members of the leadership team (specifically master trainers and MS) actively used the space to solicit leaders' sharing of their stories and experiences. See Appendix H for an example of the workspace.

Data Collection

Throughout the project, semi-structured individual and focus group *interviews* were conducted with participants via phone/video call. These interviews were facilitated by MS and another member of the evaluation team. The interviews focused on exploring participants' experiences of their social learning interactions and application of training to practice; and impacts of their learning regarding their practice, identities, youth, program, and club culture (See Appendices C.2-C.7). All interviews were audio-recorded and transcribed. The monthly meetings

were observed and conversations from these meetings were documented by **MS**. As well, communications on Slack were also extracted for data analysis. Slack kept track of engagement, both active engagement through communications (e.g., posting, commenting, and interacting with one another through channels) and passive engagement through views (e.g., entering channels and reading without interacting). Data on the weekly active and passive usage of Slack were generated (collectively) and used for data analysis.

Participants completed retrospective pre-post *knowledge surveys* at two time points, to understand how well staff adopted program knowledge, and how this knowledge may have changed over time (See Appendix D.4). There were 10 items on a 10-point Likert scale from ‘1’ (not familiar at all) to ‘10’ (very familiar). Participants retrospectively rated their familiarity of each item twice; once at a pre-specified time point, and once at the time of doing the survey. The items included facilitating youth programs, trauma-related knowledge, using trauma-sensitive practices, using sport to heal, sport coaching, and context coaching. The pandemic disrupted the evaluation of the expansion cohort’s perceptions of knowledge adoption, and how this changed over time; thus, only pilot cohort data were presented in this study.

Data Analysis

The data from interviews, observations, and Slack were imported into NVivo R1 (QSR International, 2020) to be managed. A deductive-inductive thematic analysis approach was used to interpret patterns of meaning from these data, to help generate understandings of the leaders’ learning experiences throughout their participation (Braun et al., 2016). This approach involved reading through the data and taking notes of initial insights related to leaders’ learning. Then, a thorough review was undertaken in which passages relevant to the research question were coded under meaning units, either deductively (e.g., related to value-creation and coach learning theories), or inductively (e.g., insights related to adapting trauma-sensitive sport knowledge to

practice). An iterative process was taken in terms of modifying codes, grouping themes and subthemes, and ensuring alignment of content with the research questions (allowing flexibility for change between the thematic map and research questions). Once the resulting thematic map was realised, the authors prepared the results with their descriptions and interpretations of the themes and subthemes, with supporting passages, using pseudonyms to mask the participants' identities. The iterative process involved moving back-and-forth between different phases of the process, and multiple discussions between the authors to discuss their interpretations and directions for the analysis.

Usage data from Slack were collected and grouped by season. Descriptive statistics (means, standard deviations) were calculated to note trends in usage from the start, middle, and end of each season. Data were charted to show a visual representation of Slack usage over time. For the knowledge surveys, descriptive statistics were also calculated, and comparisons of differences in retrospective to present ratings at each time point were conducted using Wilcoxon Signed-Ranks Tests (effect sizes calculated as $r = Z/\sqrt{N}$). The results of these data were used to support the themes presented in the thematic map generated in the qualitative analyses.

Trustworthiness

To augment trustworthiness, several strategies were taken up by the authors. The authors met multiple times throughout the research project to reflect on their involvement and how they have contributed to the nature of the participants' experiences in the project. The nature of this involvement was often seen as an advantage for generating rich and detailed data with the participants, given the development of strong relationships and the frequency of interaction with them. However, the authors were also mindful that they inevitably may have contributed to the participants relating to their experiences more positively than others. As such, quantitative, objective data were also used to supplement the predominantly qualitative, subjective results in

this study. The authors ensured that both the successes and shortfalls of the project in contributing to positive learning experiences were documented, and these reflections were shared throughout the paper to offer an honest depiction of the project. The consent of the participants was solicited to conduct such critical appraisals, and was welcomed and valued by them in understanding the true nature of their program involvement and about areas in which the BBL initiative could be improved. Given this transparency with the participants, the authors may have garnered more honest and truthful responses from participants, who may have felt that their input, whether positive or negative, was valued in promoting program change.

Results and Discussion

The results from all analyses were categorised across several themes: (a) how was my learning journey supported? (b) how did I apply my knowledge to practice? (c) how did my participation make a difference? Pseudonyms were used where possible; pilot leaders were indicated by (P) and expansion leaders were indicated by (E).

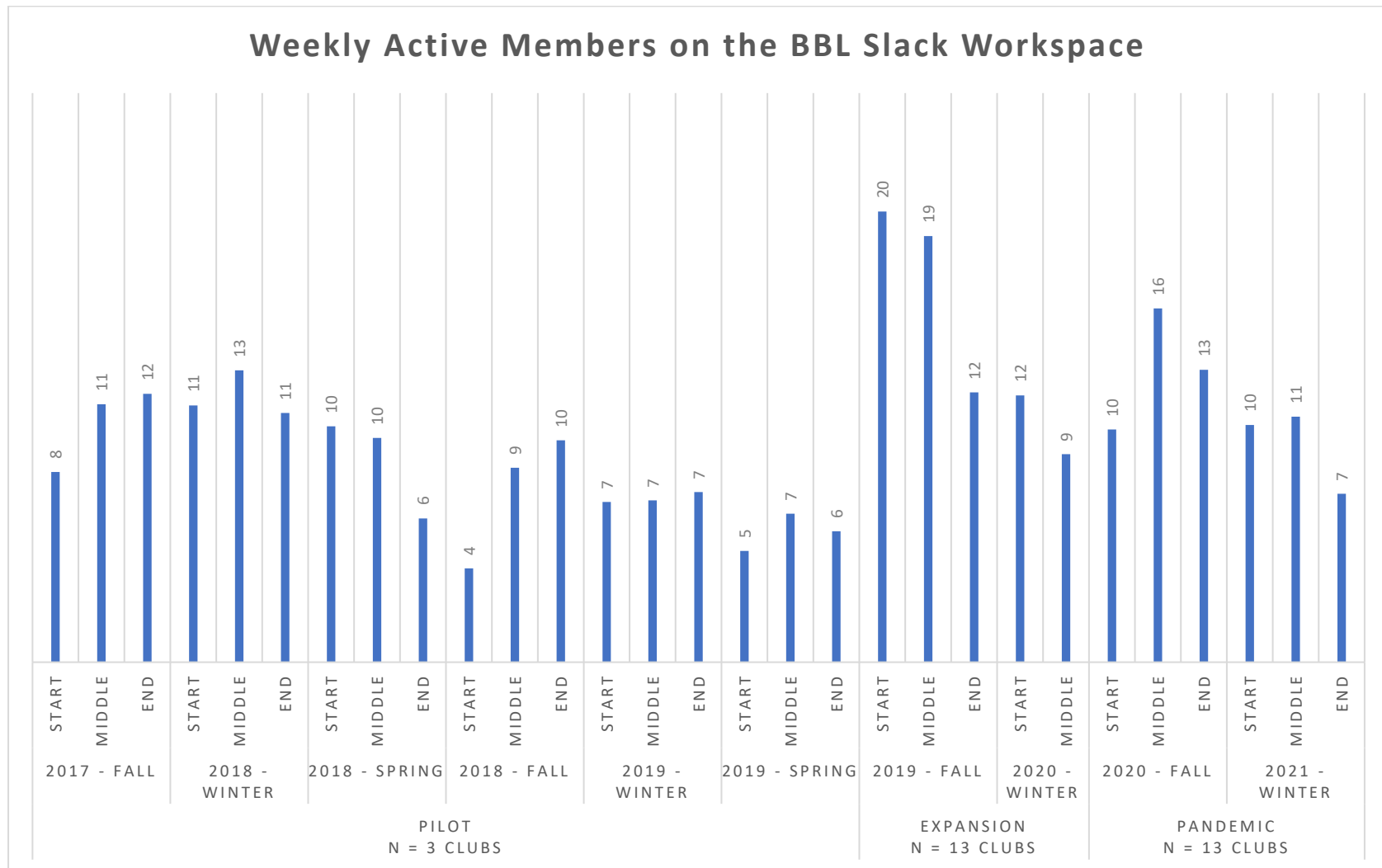
How was my Learning Journey Supported?

Throughout the project, the leaders participated in several social interactions: (a) leadership team members supporting all leaders, (b) master trainers mentoring all leaders, (c) in-house trainers from the pilot mentoring the expansion leaders, (d) leaders receiving co-workers' support at their home clubs, and (e) leaders interacting with peers from other clubs. These interactions spanned several modes including personal consultation calls and on-site visits, interactions at refresher training workshops, monthly meetings, communications on Slack, and conversations at clubs and in practice.

The consultation calls were consistent with the pilot cohort (occurring every 3-4 weeks) and each club was visited at least once by the master trainers. Consultation calls were less consistent with the expansion cohort as some in-house trainers encountered difficulty

3663 coordinating with leaders (especially in cases where neither had met in-person due to the
3664 pandemic). The master trainers were only able to visit three expansion clubs prior to the
3665 pandemic. Monthly meetings were sporadically attended; sometimes clubs only had one leader
3666 attend on their behalf. The leaders' use of Slack is visualised in Figure 3, which ranged from 4-13
3667 active members throughout the pilot ($M = 9 \pm 2.56$); however while the number of clubs
3668 increased to 13 in the expansion cohort, the number of active members only increased by a small
3669 amount (9-20 members, $M = 14 \pm 4.72$), and lessened during the Pandemic (7-16 members; $M =$
3670 11, 2.75). Despite these limitations and the inconsistency in interactions, several of these
3671 interactions were positively valued by the leaders, generating *enabling value* in making learning
3672 happen. Three types of learning interactions are described in the next sub-sections which
3673 included: (a) interactions with master trainers, (b) interactions with peers, and (c) other activities
3674 to promote learning.

3675 Figure 3. *Weekly Active Members on the Bounce Back League (BBL) Slack Workspace*



3676

3677 *Interactions With Master Trainers*

3678 Most predominantly, the leaders spoke highly of the involvement of the master trainers in
 3679 their learning and practice. James (P) spoke about how the master trainers encouraged them to
 3680 take a trial-and-error approach to applying their knowledge in practice, and learn from mistakes:
 3681 “We would talk to [master trainer] and she was already really supportive but also saying “give it a
 3682 shot see how it works out, who knows?”. That was comforting for us to know that we had that
 3683 support.” (James, P). The use of Slack also offered additional opportunities to connect with
 3684 master trainers. For instance, an interaction between a master trainer and a leader is shown below.
 3685 The leader, Rayana (E) was encountering difficulty with Team Time, and the master trainer
 3686 offered advice centred around different strategies the leader could use to get members to
 3687 transition from active play to a state of discussion, and ways to solicit youth’s input:

3688 Rayana: Hi all, similarly to [fellow leader], things are going well at our other [Club]
 3689 outreach, we have a great group and great coaches who are learning as they go, with
 3690 guidance from myself. Team Time has also been a small challenge, but it is improving
 3691 every week and our kids are now realising it is an important part of the program.

3692 [Master Trainer]: @Rayana, what are you finding most challenging about Team Time?
 3693 How can I help?

3694 Rayana: Getting the kids to wind down after being so excited from our BBL workout, and
 3695 keeping focused on the conversation.

3696 [Master Trainer]: First, I'd make sure you're doing a 5-minute Cool Down, where you are
 3697 getting the kids' heart rates down and getting them into a calmer state. You may even
 3698 gather them and get them doing some breathing/stretching where they are not necessarily
 3699 talking at that point. Second, you may try paired conversations first where the question is
 3700 asked of the group but they discuss privately in pairs before answering, or you could try a

3701 "talking" stick. Where only the person who is holding the stick can speak - so it can get
 3702 passed around. Or, you could also try to start Team Time with "pass the praise" where
 3703 each child tells another child something good they did that day. This would start with the
 3704 coach picking someone out to model the praise, then it gets passed to that kid. They then
 3705 say something good about another teammate, etc. Let me know if you've tried any of
 3706 these and they didn't work, then I'll offer up some more!

3707 Typically, while assessment and feedback activities are valued by leaders for improving
 3708 their practice, some leaders may be susceptible to adopting simulated behaviours to influence
 3709 positive assessments of their practice (Ciampolini, Milistetd, Brasil, et al., 2019). However, in
 3710 BBL, the leaders felt comfortable in being assessed by the master trainers. Joshua (P), described
 3711 how the master trainers provided feedback on their progress, offering motivation to improve their
 3712 practices:

3713 If you have someone there [observing] to push you to the limit, it's going to be that much
 3714 better and I feel like that's kind of like what [the trainer's] role was... she makes you dive
 3715 in to how are you going to change that, how are you going to improve that.

3716 This comfort may have resulted from the master trainers being in double roles as the leaders'
 3717 mentors as well, building trusting and mutually respectful relationships and helping the leaders
 3718 see the assessment activity as a learning opportunity rather than a performance assessment (Van
 3719 Woezik et al., 2021).

3720 As subject matter experts, the master trainers also supported the leaders' self-regulated
 3721 learning on trauma-related subjects, as Yusra (P) discussed: "For trauma-informed practices, all
 3722 the readings and resources from [master trainers] have been great... It is an area of interest for me,
 3723 I'm reading and trying to keep up with the newest practices.

3724 ***Interactions With Peers***

3725 The leaders valued the opportunities they had to interact with peers throughout the
 3726 project, to receive support, share stories and resources, and engage in co-learning. Interactions
 3727 with other clubs were most valued through the monthly calls, which offered an opportunity for
 3728 leaders to share their experiences and co-generate strategies for navigating challenges and
 3729 fulfilling their goals. Melissa (E) found these meetings helpful in receiving support from team
 3730 members and leaders at multiple levels, and learning from other clubs' leaders' experiences:
 3731 "Learning what other people were doing and then having those group meetings with there being a
 3732 representative from national who helps us out. I just think it was extremely helpful to see where
 3733 other clubs are at." For Amir (E), the meetings offered a sense of relief in hearing other leaders
 3734 share the same experiences and challenges: "I think those meetings are more help than you could
 3735 ever imagine. It takes a weight off your shoulders when you show up and see someone else doing
 3736 the same thing". Amir (E) also found the meetings useful for sharing strategies, especially as all
 3737 clubs were addressing the same goal (i.e., helping support underserved youth):

3738 And sometimes you come across solutions that you share with each other, because even
 3739 though we work at my club [only], we're all doing the same thing around the country, and
 3740 our goal is to help the kids. It's not like I need to hide my secrets, so you don't help your
 3741 kids in British Columbia, it makes no sense.

3742 The leaders also leveraged Slack at times to reach out to peers with questions. An
 3743 interaction is shown below of a leader (Rachel, P) asking for strategies other clubs may be using
 3744 to engage members from the start of their program; another leader (James, P) responded with
 3745 their use of cheers for building enthusiasm:

3746 Rachel: Hey coaches! I am curious what each of you are doing for your welcomes each
 3747 week. We used to have half of the group welcome the other with high-fives on the way in
 3748 but our dynamics have changed and now have kids filtering in more slowly. Any ideas on

3749 how to make our welcome have more excitement?

3750 James: Hello Rachel, we have always had Arrivals staggered as we do BBL as an evening
 3751 program. We start our night just before warm up with a BBL cheer. We gather everyone
 3752 and put our hands in together, this session we are repeating the BBL skills, Come to Play,
 3753 Build my Team, Play On. We do it three times, starting quietly and building to a roar on
 3754 the third time, accompanied by all hands rising together on the last Play On.

3755 At their home clubs, the leaders worked in teams to facilitate programming. Working with
 3756 and receiving informal feedback from their co-workers was one way that the leaders engaged in
 3757 ongoing reflection on successes and challenges in their program sessions. Rachel (P) relied on her
 3758 co-workers' observations of their program sessions to recognise where she could improve:

3759 You get so involved with session, you forget some of those pieces that are really
 3760 important. It's nice to have [managers] watch you and help you acknowledge because
 3761 once we talk about it after it makes a lot more sense like "Oh I would question why I did
 3762 it that way, but I just didn't in the moment". I think having them reflect on how we're
 3763 doing has been really helpful.

3764 The results of this subtheme align with the broader literature where interactions with peers
 3765 are often the most used and preferred sources of coaching knowledge for leaders (Van Woezik et
 3766 al., 2021). Novice leaders, like the ones in this study, also tend to feel more at ease asking
 3767 questions to their peers (Lave & Wenger, 1991). As such, it is important to consider ways to
 3768 facilitate and enhance opportunities for peer interaction and learning, such as through
 3769 communities of practice (Bowles & Dwyer, 2021).

3770 ***Other Activities to Promote Learning***

3771 To supplement their learning and practice, the leaders engaged in self-regulated activities
 3772 (i.e., logbooks and Slack). Structured logbooks were completed by the leaders after each session

3773 to report their successes and challenges in managing the group and members' behaviours,
 3774 maintaining the workout structure, and integrating life skills and life skills transfer. Within each
 3775 club, leaders either completed these alone or with their peers. The leaders felt that these logbooks
 3776 offered an additional learning opportunity for them – to reflect on their previous sessions,
 3777 consider strategies to navigate challenges, and set goals for future sessions: "I feel like I can
 3778 explain the entire session, like everything that happened... then I can look back on old ones, the
 3779 goals I had written, and say "'Oh yeah, this is something I can do next time.'" (Melissa, E).
 3780 Completing multiple logbooks allowed Joshua (E) to track his progress as a leader:

3781 I think the logbooks are the perfect length in terms of how many questions you're
 3782 answering, in terms of the feedback you're providing, and then if you go back and look at
 3783 these logbooks just to see where you were at... Are things the same? Are they different?
 3784 Have they changed at all?

3785 In general, the logbooks offered a structured means to engage in a form of reflective practice for
 3786 coaches, which is recognised as an important and valued learning pathway for leaders
 3787 (Ciampolini, Milistetd, Rynne, et al., 2019; Trudel & Gilbert, 2006).

3788 The leaders also consulted resources shared by their peers on Slack, which enabled
 3789 greater knowledge capacity in BBL overall. Naomi (E) used other leaders' materials to adapt her
 3790 own program plans:

3791 It was cool to go on Slack and see other people's templates for how they were doing their
 3792 workouts. It is fun to see what other people are doing, instead of like having to ...
 3793 reinvent the wheel on your own.

3794 The data suggested that a small but substantial portion of leaders regularly consulted Slack within
 3795 each cohort (see Figure 3). Using online platforms to share resources has been shown to be
 3796 valuable, especially when learning novel practices, to access resources to understand different

ways of applying their knowledge (Clements & Morgan, 2015); such support can help leaders transition their learning from transformations in ways of thinking and feeling about sport coaching, to transformations in ways of actioning sport coaching knowledge (Duarte et al., 2021). However, only a small portion of leaders were regularly active members of the Slack workspace. While the expansion phase added 10 more clubs to the original three clubs, the number of Slack active members only doubled. Perhaps, this result may be because pilot cohort leaders had more interactions within smaller groups with leaders from other clubs, and had more personal calls with master trainers than the expansion cohort – building connections early and over time, and bringing value to continuing these interactions.

How did I Apply my Knowledge to Practice?

Earlier work from this project indicated that the leaders generated *potential value* in connecting their initial training experiences prior to implementing the program to potential application in practice through re-thinking their sport program practices and broader club practices and advocating to share knowledge with others. In the present study, the leaders generated *applied value*, in the different ways they applied training knowledge into practice across three subthemes: (a) being intentional in program planning and practice, (b) adapting program knowledge to meet the demands of the setting, and (c) sharing practices with staff.

Being Intentional in Program Planning and Practice

In bringing their knowledge to a program setting, the leaders spoke to their purposeful planning of practices. Rachel (P) designed sessions with an enhanced understanding and reflection on how some youth may respond to activities, and planned ways to ease their participation:

When we're planning we're thinking about children on an individual level. So we're going to do this drill, we know so-and-so is not going to interact well; so how are we going to

3821 change that [activity] in order to get them more involved and more excited with it?

3822 Alice (E) was purposeful in designing physical spaces in her programs to promote the practice of
3823 self-regulation, where members could use the space to take breaks when stressed:

3824 We've created a space for the kids where it's like if they need a break, they've got that
3825 space that they can go to... I had to look and say how can we provide these opportunities
3826 for the kids who are in a gym space or being active that they can still step out and have a
3827 break and not have it disrupt the whole group.

3828 Beyond planning and design, the leaders spoke of being more intentional in their interactions and
3829 practices with the members. Bradley (E) became more patient and understanding in his approach:

3830 I just take the calm approach with pretty much every child now. Some children respond
3831 better to the stern approach, but I've gotten away from that and just went "Hey, buddy,
3832 what's wrong? I'm here to listen not to yell." And they respond [thinking] "Well he's
3833 calm... He's not going to get mad at me."

3834 Despite their intentionality, some leaders felt that their youth were not receptive to their
3835 teaching, bringing into question whether they were facilitating the program effectively:

3836 The hardest to implement is having the kids take the skills that they've learned from BBL
3837 and carrying them into their everyday lives... like, they're congratulating each other in
3838 club and as soon as they walk out the doors, they're making fun of each other... Maybe
3839 they don't understand fully what we're trying to do, or they don't see how these skills can
3840 carry over into life. But it also might be we're just not teaching them properly. (Julia, E)

3841 Alice (E) also found challenges with her integration of life skills. She found it difficult to balance
3842 getting members engaged and regulating well with the explicit discussion of life skills; Alice felt
3843 that this was an area that she and her coaches could improve on:

3844 We could be more effective in tying the links between building skills and translating what

3845 that looks like into their lives.... we've felt a lot of challenges with getting them engaged
 3846 and having the kids be regulated enough to participate that, focusing so much on the
 3847 regulation, we haven't brought in as much of the skills as we'd like to. I'd love for it to just
 3848 be a seamless thing where we're talking about something and by the end of the day they're
 3849 like "oh yeah I see exactly how this relates to my life."

3850 The results of this subtheme provided evidence that much of the training content was
 3851 relevant and applicable to the leaders' practice. Staff were intentional in applying trauma-
 3852 sensitive principles such as meeting individual youth's needs, promoting self-regulation skill-
 3853 building, and approaching youth's behaviours with patience and curiosity rather than punishment.
 3854 At the same time, the dynamic nature of members' participation made it difficult to incorporate
 3855 life skills teaching, and promote transfer of life skills beyond programming. Bean et al., (2018)
 3856 discussed how promotion of life skills transfer in sport exists on a continuum, where *explicit*
 3857 promotion of life skills (e.g., discussing and providing opportunities to practice life skills) is
 3858 dependent on the existence of a structured environment that *implicitly* promotes youth
 3859 development (e.g., facilitating emotional safety, norms around respect, caring relationships).
 3860 Given the novelty of facilitating a structured program within the typically unstructured
 3861 programming spaces of BGC Canada clubs, the leaders, especially those new to coaching
 3862 structured sports, may need to contribute more effort into establishing a positive emotional
 3863 climate, leading to constrained capacity for facilitating higher-level, explicit life skills teaching.

3864 ***Adapting Program Knowledge to Meet the Demands of the Setting***

3865 At the start of their program implementation journeys, some of the leaders felt strong
 3866 intentions to apply their knowledge to practice, but were less confident in how well they could
 3867 apply knowledge. As a youth worker, Rachel (P) shared her apprehension in being able to adopt
 3868 sport coaching skills for her youth: "I was so worried about not being able to teach them [sport]"

3869 skills. I didn't want to embarrass myself by knowing that the kids know more about hockey than I
3870 do and I wasn't going to get those skills perfectly.” The leaders noted that the contexts of training
3871 and the actual program were not always harmonious. The program environment was more
3872 dynamic and challenging compared to the scenarios they encountered in training: “[The master
3873 trainers] made it look easy but this is a little bit harder than we thought it would be when we're
3874 actually doing in front of 20 kids.” (Mary, P), and “Trainings are just so clean... [back at the
3875 club] you've switched the adult members for children who are unpredictable” (Yusra, P)

3876 For many leaders, their confidence in leading programming and applying knowledge to
3877 practice came from learning through experience. For Michael (E), the ability to take action, make
3878 mistakes, and work through frustrations was a learning opportunity: “I was supervising that
3879 program firsthand and it gave us that push to say ‘I know this is frustrating but we're going to try
3880 it and we're going to fail, but that's okay and we're going to work through it.’ Melissa (E) spoke to
3881 the need to be adaptive to new youth and new circumstances, despite program planning: “You can
3882 always try and prepare so much for a group but you're going to get new kids with different
3883 backgrounds and personalities and every day you learn something different.” Bobby (E)
3884 increased his ability to react to new situations: “Just being able to understand behaviours better to
3885 react to them better. I think I react to behaviours much differently after that training than I used
3886 to.” Michael (E) shared how he adapted his program plans over time based on how the members
3887 were responding:

3888 We basically followed our initial program plans that we had planned before the program
3889 began... we left ourselves a lot of wiggle room if the children didn't like this type of drill,
3890 or they didn't particularly like these discussion topics. So, going forward, we'll pick from
3891 our barrel of discussion topics or narrow down the specific activities and drills that the
3892 children of our group really enjoyed.

3893 Alice (E) also discussed changing the sports to incorporate variety, especially given their limited
 3894 knowledge of coaching sport, to meet members' needs for novelty within the existing structure:

3895 Neither of us [coaches] has much experience leading sports activities so we struggled in
 3896 how to lead those activities and support skill development. In the beginning we had kids
 3897 who expressed they were sick of playing basketball (our sport for the season). We found
 3898 that switching up our Warm-Up and skill building activities to not specifically basketball
 3899 helped in keeping them engaged, and providing some free gym time at the end was a good
 3900 incentive for them.

3901 For these leaders, *learning in the doing* was a necessary component of their knowledge
 3902 application, which is oft-cited as a primary way that leaders learn (Erickson et al., 2008; Van
 3903 Woezik et al., 2021). These results support the notion of the processes behind learning in the
 3904 doing, which involve generating and testing strategies, evaluating those strategies (e.g., through
 3905 feedback of youth's receptivity), and making judgments of 'what works' to inform adaptations
 3906 and subsequent applications (Stodter & Cushion, 2017).

3907 Adaptation was also embraced by leaders through incorporating youth voices in their
 3908 planning – soliciting feedback from members to adapt programs and better meet their needs:

3909 Just trying to meet their needs. When we have our Team Time at the end, [asking] what
 3910 would they like to see next week, and that helps me plan after they give their input. [As a
 3911 result] they're invested and want to keep coming back each week... instead of just saying
 3912 “here, this is what we're going to do” and them not really enjoying it. (Bobby, E)

3913 Alice (E) also shared: “We started having the kids work together in teams to plan some of the
 3914 workouts within our provided guidelines and this helped us to get them engaged and excited
 3915 about the activities. They had some really great ideas!”. In these cases, the *applied value* of
 3916 soliciting feedback helped to inform program decision-making, and the *realised value* generated

from this process was seeing the members' become more excited and motivated to return each week. These practices reflect youth-adult partnership strategies, which have been associated with numerous benefits for youth (e.g., increased sense of agency, youth-adult connection, motivation to participate) and programming (e.g., improved program planning and facilitation to meet youth's needs; Bean et al., 2017; Ramey et al., 2017).

Sharing Practices with Peers

Within their clubs, the leaders often worked with and interacted with their clubhouse colleagues to operate their sport programming. The leaders found it important to create opportunities to share and educate these leaders to develop knowledge of a trauma-sensitive sport model. Tanya (E) facilitated training opportunities for peers at her club: "[Coach] and I have been doing the summer staff training here... What we would do is use the manual and turn it into PowerPoints ourselves and then have a group session to train everyone." Alice (E) felt that the frameworks they were taught were easy to share with the leaders at her club, given their practical, step-by-step focus: "I really liked the section where they talked about working with dysregulated participants.... it gave a four-step plan of how to engage with them and I found that was a really great way to communicate it to the staff." The leaders also worked and interacted with staff outside of BBL, in other programs and services offered by their club. Michael (E) found it important to share trauma-sensitive practices with these staff as well:

I really want to empower my staff to have those skills, to observe those modeling opportunities that we share with them so that they can implement that in their own specific programs as well. So we do a lot of trainings, we do scenarios like "how would we go about doing this [situation] in a very strength-based trauma-informed way."

Sharing knowledge with others helped to ensure that knowledge relevant to running the program is not only used by the participants who attended training workshops. In this way, the

leaders contributed to greater trauma-sensitive capacities of staff at their clubs, both within their sport programming and outside of sport. Such practices can offer more opportunities for members to experience trauma-sensitive interactions and support from staff outside of BBL, facilitating positive developmental experiences across multiple settings (Keller, 2005).

How did my Participation Make a Difference?

As the leaders applied their knowledge into practice, it was evident that their participation in training opportunities and facilitating programming affected themselves and their members. Two themes are discussed in this section: (a) building knowledge and confidence over time, and (b) growth in members' comfort and development.

Building Knowledge and Confidence over Time

With the pilot cohort, their knowledge of trauma-sensitive practices changed over time. Differences in knowledge perceptions from the training workshop to the first refresher workshop (~10 weeks) were significant at a large effect size ($n = 10$, $M_1 = 7.20$, $M_2 = 8.30$, $Z = 2.5$, $p = .012$, $r = .79$). Knowledge continued to build over time from after the first refresher workshop to the end of the first year at a large effect size ($n = 7$, $M_1 = 8.20$, $M_2 = 8.60$, $Z = 2.02$, $p = .043$, $r = .76$). The leaders' conversations around their knowledge growth complemented these findings, in feeling more able to perform effectively as trauma-sensitive sport leaders. James (P) shared:

Through the experience of being a coach for four seasons, I can hear things and I can see things I can talk about and I can have sense of learning... but I need to *do* things [to learn]. That feedback that I get from the participants, really [helped me] solidify concepts and understandings.

Similarly, the leaders in the expansion cohort also felt greater confidence in being BBL leaders, as Bobby (E) shared: "I think BBL has really made me come out of my shell more. I'm able to get more excited around the kids and be sillier and just being in that coaching role helped me out a

lot.” For these leaders, *realised value* was generated in applying strategies and seeing the differences that these experiences have made in their abilities and confidence to implement the program effectively and feel comfortable with it. Related literature in school-based contexts has noted that training exposure, as well as experience teaching and interacting with trauma-exposed youth, can build trauma-related confidence (Alisic et al., 2012).

For some leaders, they did not feel that their existing youth work practices changed, but rather their language and ways of knowing about the impact of their practices changed substantially, reinforcing the notion that what they are doing is important. Yusra (P) said:

I don't think anything's changed. A lot of things just now have new labels, new language, now thinking through a trauma informed lens and now bringing rhyme and reason to the practices I was already doing.

Growth in Members' Comfort and Development

As a result of their program practices, many leaders felt that members were more comfortable with them, and better at life skills use. Michael (E) found members enjoyed how the leaders played roles as both a supportive adult and a sport coach: “I think having that very empathetic staff member but also putting on that ‘coach hat’ really sat well with the kiddos and they were very excited to enter our gym and participate.” This dual role may have challenged typical notions of how a sport coach should be for youth, which the youth appreciated. These practices helped to facilitate a safe environment for the members, which promoted their comfort and further engagement, as Yusra (P) discussed:

I guess that [they have] a safe space, a lot of the kids now are more comfortable and coming in and talking about what they're going through or what they're feeling as opposed to coming in and feeling like they have to shut down or keep things to themselves.

The leaders reported strong relationships between the practices they used and life skill use

3989 in their members. Michael (E) shared how empathy and encouragement from his staff helped
3990 promote his members' progress:

3991 We really saw leaps and bounds of progress. That consistency and teamwork, the
3992 perseverance from the kiddos and a lot of our kids were on that younger side so 7-8-9
3993 years old and really haven't had to deal with that frustration level in sports. That
3994 encouragement and that empathy from the staff team really [influenced] those kiddos.

3995 James's (P) explicit discussion of life skills seemed to be adopted by members over time:

3996 They hear me blabbing on enough about the BBL skills... and two weeks later out pops
3997 something from their mouth where you go "oh, so you *were* listening!" So they do
3998 internalise some of this stuff. Now they don't always practice and it sometimes when we
3999 [teach] it's not always great. But there is growth there. I see that. And that's part of what
4000 excites me. That I can see, that there is an effect.

4001 The leaders also shared concerns about whether their practices were actually making a
4002 difference to members beyond their participation in sport. Susan (P) felt that they didn't spend a
4003 long enough time with the members, nor did they have a means to assess transferrable outcomes
4004 for members beyond the program:

4005 I'm hoping - I mean we haven't seen it yet. But we're going to keep an eye on it that
4006 they're going to use [life skills] outside of the gym space as well. Now that they've learned
4007 the new tools and skill sets, can they now adapt these outside of the sport environment?

4008 James (P) also felt that when member retention faltered, it was harder to understand whether their
4009 programming was making a difference for these members.

4010 Ideally, I know the kids will be coming back for an 8 week session and [more]. But there
4011 are times when you see a kid for 8 weeks and then they don't sign up for the next thing. I
4012 wonder, how effective what we've done has been?

4013 *Changes to Self outside of BBL*

4014 Many of the leaders reported how their participation contributed to changes in their
4015 practices both within the club but also broadly in other youth work contexts, with their peers, and
4016 how they approach people in general. In this manner, the leaders generated *transformative value*,
4017 in changing their identities as they related to their youth work overtime, and applying their
4018 knowledge outside of the context of practice alone. Melissa (E) developed different attitudes
4019 towards emotional reactions to stress conveyed by others and herself:

4020 I may be better as a coach or a program leader or even outside of work [when] talking to
4021 my friends or someone [my] own age having an emotional reaction to something... I
4022 channel things I've learned. It doesn't necessarily just help [members], it can help
4023 anybody like it helps me.

4024 Michael (E) felt he became much more empathetic in his role as a manager at his club,
4025 approaching meetings with a trauma-sensitive lens and offering his staff guidance on adopting
4026 their own self-care and self-regulation strategies.

4027 When I have my monthly meetings with my staff members, before I go in, I have to
4028 remind myself to really have that trauma-informed lens and to be ultra sympathetic.
4029 Something that doesn't affect me might really affect one of my staff members, and I have
4030 to be cognizant of that and work with them on that level. To help them and supply them
4031 with maybe tips or tricks or suggestions of how to get them from a very stressful state to a
4032 more baseline comfortable state.

4033 These results demonstrated how training and implementing a trauma-sensitive sport
4034 model contributed to changes in the leaders' ways of knowing and how they perceive different
4035 human interactions, as opposed to solely learning strategies for facilitating youth sport
4036 programming. The training workshops dual foci on both learning practical strategies to

4037 implement programming through experiential and problem-based learning (the how), and the
4038 underlying philosophies and need for this programming through lecturing (the why), may have
4039 helped leaders to consider and construct different ways that knowledge may apply within and
4040 beyond their BBL programming (Ciampolini, Milistetd, Rynne, et al., 2019; Paquette & Trudel,
4041 2018).

4042 Many leaders also spoke to greater comfort in taking on new roles because of their
4043 participation in this project. Bobby (E) felt motivated to become a baseball coach outside of the
4044 club, because of his successful experiences in BBL:

4045 I'm actually thinking of becoming a baseball coach. I think with the training I had for
4046 BBL that's going to be able to help me out in the long run, especially I can add Team Time
4047 at the end even in the baseball team.

4048 Susan (P) discussed the value of taking on more front-line roles outside of her typical managerial
4049 responsibilities, offering her new perspectives towards her youth work practices:

4050 In the past I've been directed by my executive director to steer away from the front line...
4051 I think BBL changed my role where it brought me back to the reality of the everyday
4052 services what it looks like in an hour programming.... It kind of reminded me that it's
4053 okay every once in a while [to change roles].

4054 The pilot leaders who were a part of the project the longest derived a lot out of their
4055 participation, being a part of the project's development, supported as in-house trainers, and
4056 watching the project grow and spread over time, leading to transformations in the organization:

4057 Being part of something from conception to now seeing it be nationally used as a program
4058 that so many clubs across the country are doing and then being quoted as one of the
4059 experts is such a great feeling. It's why we get into this field of work of seeing and
4060 making a difference, but also we do it at the club level all the time, so being a part of

something that is bigger than just the club level was so cool. That's my biggest perspective - is seeing something from this little seedling and watching it grow to be this beautiful big tree and being one of the seeds that started it. (Yusra, P)

Summary and Reflections

The purpose of this study was to understand leaders' learning experiences as they implemented a trauma-sensitive sport model in programming while participating in various social learning interactions. The value-creation framework was used to understand the types of value generated throughout leaders' participation. The results showed that leaders learned through: (a) interactions with peers and mentors in multiple different spaces, (b) self-regulated learning activities, and (c) through practice-based experiences. Such learning related to structuring and facilitating a trauma-sensitive sport model (e.g., fostering positive emotional climates, responding to youth in times of dysregulation, facilitating opportunities for practicing self-regulation, and life skills teaching), and ways to adapt programming to the demands of the setting (e.g., trial and error processes, soliciting and using feedback). This participation in turn led to changes in leaders' knowledge and attitudes, potential differences in members' participation, and changes to leaders' identities towards youth work practice and their practices beyond BBL.

The results from this study were confined to the context of the BBL program within BGC Canada; however, the following reflections will relate the results to the broader literature on human learning in sport and what BGC Canada and similar youth-serving and sport-providing organizations should consider in their leader development strategies. In understanding learning overall in this project, the results supported the idea that learning is both a social and individual process (Walker et al., 2018); and a variety of interactions and opportunities are valued and used by sport leaders in their learning such as mentoring, peer interactions, feedback, and learning through doing (Van Woezik et al., 2021). Overall, given the value of the variety of learning

interactions, BGC Canada and similar youth-serving organizations need to consider prioritising learning opportunities beyond formal training to develop leaders (Rocchi & Couture, 2018).

With regards to purposeful opportunities to support learning, in part one of this study, the master trainers were valued for their strong facilitation capabilities and encouraging social and peer interactions, offering *enabling value* in supporting learning, and generating *immediate value* for participants to engage in meaningful experiences with exposure to new knowledge and perspectives. In the present study, the leaders also spoke highly of the trainers' involvement to continue offering *enabling value* over a longer period, resulting in *immediate value* of feeling motivated and confident to apply. The results support research that suggests that trainers can support leaders' learning by: (a) being empathetic, approachable, and developing supporting relationships (i.e., through direct mentoring), (b) facilitating peer learning and cohesion (i.e., through monthly meetings), and (c) promoting aspirations and leaders' sense of purpose (i.e., through developing leaders as in-house trainers and as trauma-sensitive advocates; Dohme et al., 2019).

While their support was highly appreciated, the master trainers were limited in their capacity to reach clubs across Canada and facilitate face-to-face interactions. Part of this support process was intended to be complemented with the training of in-house trainers; however, this process was constrained by limited funding and the pandemic. At the same time, the leaders in this study leveraged opportunities to co-learn with peers, whether this was encouraged by the leadership team (e.g., through sharing stories and resources on Slack and at monthly meetings) or naturally engaged in with peers and other leaders at their clubs. Peer learning – and knowledge sharing, more specifically – can improve individuals' skills and competencies (Olaussen et al., 2016) and organizational learning (Ipe, 2003). Perhaps, future training and support should leverage these leaders' existing motivations to share knowledge, in training leaders on strategies

4109 to share and communicate essential program knowledge with others.

4110 The logbooks offered structured opportunities for leaders to reflect on key trauma-
 4111 sensitive sport practices and engage in self-regulated learning. The structure of the logbooks in
 4112 BBL were ideal in prompting leaders to focus on both positive and negative experiences,
 4113 promoting a more rounded experience of reflection; leaders may otherwise focus negatively on
 4114 their practice when reflective writing is unstructured (Knowles et al., 2001, 2006). Future efforts
 4115 should consider integrating logbooks as a core part of programming and leaders' development,
 4116 rather than solely as an evaluation tool, by allocating 5-10 minutes after a program session
 4117 dedicated to reflecting and completing logbooks (Shaikh et al., 2020). Broadly, reflection
 4118 activities should consider incorporating elements to prompt leaders' thinking beyond the
 4119 pragmatic foci of facilitators and barriers to their practice, to be more reflective of their ways of
 4120 thinking, coaching styles, and interactions with youth, and how these may influence youth
 4121 outcomes (Gould & Carson, 2008) Such reflection can help leaders to critically reflect on the
 4122 *what* and *why* behind why they do what they do, which may enhance the relevancy and
 4123 applicability of their knowledge to practice (Gould & Carson, 2008; Newman et al., 2021;
 4124 Stodter & Cushion, 2017).

4125 Using Slack was a cost-effective way to continue social interactions beyond face-to-face
 4126 opportunities and promote knowledge sharing. However, the limited use of Slack was partly due
 4127 to the lack of familiarity and training in Slack by the leadership team and leaders – who learned
 4128 how to use the space through trial and error alone. If investing in such practices, organizations
 4129 should consider offering tutorials of the different functions and use of the space (e.g., through
 4130 online training or at in-person events), continue offering context-specific tips of how to use the
 4131 space, and have a facilitator regularly solicit responses in the space (Clements & Morgan, 2015).

4132 The exploration of behaviour change in sport coaching development is an understudied

area (Walker et al., 2018). This study was valuable in understanding how knowledge of a trauma-sensitive sport model was directly *transferred* from leaders' participation in learning opportunities to changes in leaders' practices. Beyond behaviour change alone, this study also recognised how learning is also a process of cognitive and emotional transformations, that are constantly in flux and change a person's existing cognitive structures/biographies (Jarvis, 2009; Moon, 2001; Trudel et al., 2013). Thus, changes to one's attitudes, beliefs, motivations, intentions, and feelings about youth work and sport coaching were also evident.

However, beyond the notion of transfer, the results also supported the notion of an additional filtering mechanism for the *translation* of knowledge that was dependent on their contexts (Stodter & Cushion, 2017). That is, knowledge of a trauma-sensitive sport model was adapted based on the actual constraints or facilitators of the context, resulting in cycles of *applied* or *realised value*. This process generally involved adapting knowledge to the club setting, observing and reflecting on the effects of these applications, and using these observations and reflections to inform subsequent adaptation and application (Gilbert & Trudel, 2001). The nature of these applications was tied to the individual (e.g., comfort and familiarity with practices), the environment (e.g., how youth were receiving the practices), and facilitators and constraints (e.g., support from peers, master trainers; time limitations). Support for these reflective adaptation practices is more likely to be found in environments where flexibility and trial and error is accepted as part of the development process (Gilbert & Trudel, 2001; Schön, 1983). The developmental nature of this program enabled leaders to continue to engage in experiential learning through their program implementation, with freedom and flexibility for trial and error, and ongoing guidance from trainers. Thus, similar organizations should exercise the same levels of flexibility to facilitate these experiential and reflective learning opportunities for coaching.

At the same time, learning by doing can also result in unintended consequences. Relying

solely on internal judgments of ‘what works’ can lead to leaders carving out a ‘tried and test’ approach to youth work that is sustained in one’s biography (Stodter & Cushion, 2017); these practices, without external support for leaders’ development, risk being limited to their practical value alone, and unlinked with evidence-and-theory-informed knowledge. Such risks may have been encountered in this project, where leaders who encountered difficulties teaching life skills may have rejected or abandoned those practices given the lack of applied or realised value generated from their use. Thus, it is important that external supports for leaders’ development be delivered purposefully and consistently to offer ongoing guidance (e.g., guidance from mentors, access to others’ Slack resources).

The literature on understanding leaders’ learning in recreational sport contexts (i.e., primarily focused on participation for all youth without exclusion based on talent) is limited but necessary given that most leaders work at this level (Walker et al., 2018). Thus, this research contributed to this area of inquiry. The immersion of **MS** and **TF** in the project helped to strengthen the study, in being able to generate multiple forms of data over a long period of time. The leadership team’s involvement with facilitating *in situ* evaluation activities (e.g., observing, influencing, and assessing leaders’ knowledge use) was valued in this study to understand leaders’ learning beyond the formal learning environment, generating insights of barriers and facilitators to knowledge use, and the differences leaders’ participation made to themselves, others, and their environments (Stodter & Cushion, 2019). The longitudinal nature of this study helped to capture important examples of realised and transformative value, which may not have otherwise been captured in shorter studies (Wenger et al., 2011). While not included in the present study, broader work in this project has also supplemented understandings of the applied value generated in this project through observations of program sessions (Shaikh, Bouchard, et al., 2021), the realised value regarding outcomes of youth’s participation in programming (Shaikh

& Forneris, 2020), and transformative value of the impacts of leaders' participation on club practices and BGC Canada's strategic directions.

Conclusions

The results of this study offered evidence of how BGC Canada leaders' participation in learning opportunities and knowledge application influenced their own knowledge and practices, as well as their youth's participation. Previous results suggested that initial training helped to prepare leaders with intentions and knowledge to apply this model; within the present study, it was evident that the leaders continued to learn through their interactions with peers and trainers, self-regulated activities, and the application and adaptation of knowledge into practice. Thus, BGC Canada and similar sport-providing organizations should consider the need for supporting ongoing learning through consistent opportunities for peer interaction, consultations with trainers, assessment and feedback practices, while promoting flexibility in the adaptation of knowledge into practice.

References

- 4195
- 4196 Alisic, E., Bus, M., Dulack, W., Pennings, L., & Splinter, J. (2012). Teachers' experiences
 4197 supporting children after traumatic exposure. *Journal of Traumatic Stress*, 25, 98–101.
 4198 <https://doi.org/10.1002/jts.20709>
- 4199 Bean, C., Harlow, M., & Kendellen, K. (2017). Strategies for fostering basic psychological needs
 4200 support in high quality youth leadership programs. *Evaluation and Program Planning*, 61,
 4201 76–85. <https://doi.org/10.1016/j.evalprogplan.2016.12.003>
- 4202 Bean, C., Kramers, S., Forneris, T., & Camiré, M. (2018). The implicit/explicit continuum of life
 4203 skills development and transfer. *Quest*, 70(4), 456–470.
 4204 <https://doi.org/10.1080/00336297.2018.1451348>
- 4205 Bergholz, L., Stafford, E., & D'Andrea, W. (2016). Creating trauma-informed sports
 4206 programming for traumatised youth: Core principles for an adjunctive therapeutic approach.
 4207 *Journal of Infant, Child, and Adolescent Psychotherapy*, 15(3), 244–253.
 4208 <https://doi.org/10.1080/15289168.2016.1211836>
- 4209 Bowles, R., & Dwyer, A. O. (2021). Identifying learning in a coaching community of practice: A
 4210 collaborative self-study a collaborative self-study. *European Journal for Sport and Society*,
 4211 19(3), 214–231. <https://doi.org/10.1080/16138171.2021.1930943>
- 4212 Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research.
 4213 In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport*
 4214 *and Exercise* (pp. 191–205). Routledge.
- 4215 Centre for Addiction and Mental Health. (2020). *Trauma*. [https://www.camh.ca/en/health-](https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/trauma)
 4216 [info/mental-illness-and-addiction-index/trauma](https://www.camh.ca/en/health-info/mental-illness-and-addiction-index/trauma)
- 4217 Ciampolini, V., Milistetd, M., Brasil, V. Z., & Nascimento, J. V. do. (2019). Teaching strategies
 4218 adopted in coach education programs: Analysis of publications from 2009 to 2015. *Journal*

- 4219 *of Physical Education*, 30(1), Article: e3006. <https://doi.org/10.4025/jphyseduc.v30i1.3006>
- 4220 Ciampolini, V., Milistetd, M., Rynne, S. B., Brasil, V. Z., & do Nascimento, J. V. (2019).
- 4221 Research review on coaches' perceptions regarding the teaching strategies experienced in
- 4222 coach education programs. *International Journal of Sports Science & Coaching*, 14(2), 216–
- 4223 228. <https://doi.org/10.1177/1747954119833597>
- 4224 Clements, D., & Morgan, K. (2015). Coach development through collaborative action research:
- 4225 enhancing the learning environment within a national talent development system. *Sports*
- 4226 *Coaching Review*, 4(2), 139–161. <https://doi.org/10.1080/21640629.2016.1159453>
- 4227 Culver, D. M., Werthner, P., & Trudel, P. (2019). Coach developers as 'facilitators of learning' in
- 4228 a large-scale coach education programme: One actor in a complex system. *International*
- 4229 *Sport Coaching Journal*, 6(3), 296–306. <https://doi.org/10.1123/iscj.2018-0081>
- 4230 Dohme, L.-C., Rankin-Wright, A. J., & Lara-Bercial, S. (2019). Beyond knowledge transfer: The
- 4231 role of coach developers as motivators for lifelong learning. *International Sport Coaching*
- 4232 *Journal*, 6(3), 317–328. <https://doi.org/10.1123/iscj.2019-0034>
- 4233 Duarte, T., Culver, D. M., & Paquette, K. (2021). Assessing the value created in a social learning
- 4234 space intervention: Four vignettes of parasport coaches. *International Sport Coaching*
- 4235 *Journal*, 8(3), 348–361. <https://doi.org/10.1123/iscj.2020-0006>
- 4236 Erickson, K., Bruner, M., MacDonald, D. J., & Côté, J. (2008). Gaining insight into actual and
- 4237 preferred sources of coaching knowledge. *International Journal of Sports Science and*
- 4238 *Coaching*, 3(4), 527–538. <https://doi.org/10.1260/174795408787186468>
- 4239 Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M.
- 4240 P., & Marks, J. S. (2019). Relationship of childhood abuse and household dysfunction to
- 4241 many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE)
- 4242 Study. *American Journal of Preventive Medicine*, 56(6), 774–786.

- 4243 <https://doi.org/10.1016/j.amepre.2019.04.001>
- 4244 Gilbert, W., & Trudel, P. (2001). Learning to coach through experience: Reflection in model
 4245 youth sport coaches. *Journal of Teaching in Physical Education*, 21, 16–34.
 4246 <https://doi.org/10.1123/jtpe.21.1.16>
- 4247 Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future
 4248 directions. *International Review of Sport and Exercise Psychology*, 1(1), 58–78.
 4249 <https://doi.org/10.1080/17509840701834573>
- 4250 Greger, H. K., Myhre, A. K., Lydersen, S., & Jozefiak, T. (2015). Previous maltreatment and
 4251 present mental health in a high-risk adolescent population. *Child Abuse and Neglect*, 45,
 4252 122–134. <https://doi.org/10.1016/j.chiabu.2015.05.003>
- 4253 Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D.
 4254 J., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth
 4255 development through sport based on results from a qualitative meta-study. *International*
 4256 *Review of Sport and Exercise Psychology*, 10(1), 1–49.
 4257 <https://doi.org/10.1080/1750984X.2016.1180704>
- 4258 Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *University of*
 4259 *Minnesota*, 2(4), 337–359. <https://doi.org/10.1177/1534484303257985>
- 4260 Jarvis, P. (2009). *The Routledge international handbook of lifelong learning*. Routledge.
- 4261 Keller, T. E. (2005). A systemic model of the youth mentoring intervention. *The Journal of*
 4262 *Primary Prevention*, 26(2), 169–188. <https://doi.org/10.1007/s10935-005-1850-2>
- 4263 Knowles, Z., Gilbourne, D., Borrie, A., & Nevill, A. (2001). Developing the reflective sports
 4264 coach: A study exploring the processes of reflective practice with a higher education
 4265 coaching programme. *Reflective Practice*, 2(2), 185–207.
 4266 <https://doi.org/10.1080/14623940123820>

- 4267 Knowles, Z., Tyler, G., Gilbourne, D., Eubank, M. (2006). Reflecting on reflection: Exploring the
 4268 practice of sports coaching graduates. *Reflective Practice*, 7(2), 163–179.
 4269 <https://doi.org/10.1080/14623940600688423>
- 4270 Martiny, K. M., Toro, J., & Høffding, S. (2021). Framing a phenomenological mixed method:
 4271 From inspiration to guidance. *Frontiers in Psychology*, 12(March).
 4272 <https://doi.org/10.3389/fpsyg.2021.602081>
- 4273 Massey, W. V., & Whitley, M. A. (2016). The role of sport for youth amidst trauma and chaos.
 4274 *Qualitative Research in Sport, Exercise and Health*, 8(5), 487–504.
 4275 <https://doi.org/10.1080/2159676X.2016.1204351>
- 4276 Moon, J. A. (2001). *Short courses & workshops: Improving the impact of learning, training &*
 4277 *professional development*. Kogan Page Limited.
- 4278 Newman, T. J., Lower-hoppe, L. M., Burch, M., & Lauren, M. (2021). Advancing positive youth
 4279 development-focused coach education: Contextual factors of youth sport and youth sport
 4280 leader perceptions. *Managing Sport and Leisure*, 26(4), 326–340.
 4281 <https://doi.org/10.1080/23750472.2020.1766760>
- 4282 Olausson, A., Reddy, P., Irvine, S., & Williams, B. (2016). Peer-assisted learning: Time for
 4283 nomenclature clarification. *Medical Education Online*, 21(1), Article: 30974.
 4284 <https://doi.org/10.3402/meo.v21.30974>
- 4285 Paquette, K., & Trudel, P. (2018). Learner-centred coach education: Practical recommendations
 4286 for coach development administrators. *International Sport Coaching Journal*, 5(2), 169–
 4287 175. <https://doi.org/10.1123/iscj.2017-0084>
- 4288 QSR International. (2020). *NVivo R1 [Computer software]*. QSR International Pty Ltd.
- 4289 Ramey, H. L., Lawford, H. L., & Vachon, W. (2017). Youth-adult partnerships in work with
 4290 youth: An overview. *Journal of Youth Development*, 12(4), 38–60.

- 4291 <https://doi.org/10.5195/jyd.2017.520>
- 4292 Rocchi, M., & Couture, A. L. (2018). Recreational and developmental youth coach learning.
- 4293 *Physical Education and Sport Pedagogy*, 23(3), 267–279.
- 4294 <https://doi.org/10.1080/17408989.2017.1406464>
- 4295 SAMHSA. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*.
- 4296 <https://nicic.gov/samhsas-concept-trauma-and-guidance-trauma-informed-approach>
- 4297 Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Jossey-Bass.
- 4298 Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a sport-
- 4299 based trauma-sensitive program in a national youth-serving organization. *Child and*
- 4300 *Adolescent Social Work Journal*, 38, 449–461. <https://doi.org/10.1007/s10560-021-00776-7>
- 4301 Shaikh, M., Bean, C., & Forneris, T. (2020). Six recommendations for youth sport stakeholders
- 4302 when evaluating their programs. *Journal of Sport Psychology in Action*, 11(3), 165–182.
- 4303 <https://doi.org/10.1080/21520704.2020.1746709>
- 4304 Shaikh, M., Bouchard, M., & Forneris, T. (2021). An action research case study to examine
- 4305 coaches' implementation of sport-based trauma-sensitive practices in a nationally-run
- 4306 community program. *Journal of Sport and Exercise Psychology*, 43(S1), 90.
- 4307 <https://doi.org/10.1123/jsep.2021-0103>
- 4308 Shaikh, M., & Forneris, T. (2020). Investigating youth's psychosocial outcomes from
- 4309 participation in trauma-informed sport programming: A two-year pilot study. *Journal of*
- 4310 *Sport & Exercise Psychology*, 42, S104. <https://doi.org/10.1123/jsep.2020-0172>
- 4311 Stodter, A., & Cushion, C. J. (2017). What works in coach learning, how, and for whom? A
- 4312 grounded process of soccer coaches' professional learning. *Qualitative Research in Sport,*
- 4313 *Exercise and Health*, 9(3), 321–338. <https://doi.org/10.1080/2159676X.2017.1283358>
- 4314 Stodter, A., & Cushion, C. J. (2019). Evidencing the impact of coaches' learning: Changes in

- 4315 coaching knowledge and practice over time. *Journal of Sports Sciences*, 37(18), 2086–2093.
- 4316 <https://doi.org/10.1080/02640414.2019.1621045>
- 4317 Trudel, P., Culver, D. M., & Werthner, P. (2013). Looking at coach development from the coach-
- 4318 learner's perspective: Consideration for coach development administrators. In P. Potrac, W.
- 4319 Gilbert, & J. Denison (Eds.), *Routledge Handbook of Sports Coaching* (pp. 375–387).
- 4320 Routledge.
- 4321 Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In D. Kirk, D. Macdonald, & M.
- 4322 O'Sullivan (Eds.), *Handbook of Physical Education* (pp. 516–539). SAGE.
- 4323 <https://doi.org/10.4135/9781848608009.n29>
- 4324 Van Woezik, R. A., McLaren, C. D., Côté, J., Erickson, K., Law, B., Lafrance Horning, D.,
- 4325 Callary, B., & Bruner, M. W. (2021). Real versus ideal: Understanding how coaches gain
- 4326 knowledge. *International Sport Coaching Journal*, 9(2), 189–202.
- 4327 <https://doi.org/10.1123/iscj.2021-0010>
- 4328 Walker, L. F., Thomas, R., & Driska, A. P. (2018). Informal and nonformal learning for sport
- 4329 coaches: A systematic review. *International Journal of Sports Science and Coaching*, 13(5),
- 4330 694–707. <https://doi.org/10.1177/1747954118791522>
- 4331 Walsh, D., McCartney, G., Smith, M., & Armour, G. (2019). Relationship between childhood
- 4332 socioeconomic position and adverse childhood experiences (ACEs): A systematic review.
- 4333 *Journal of Epidemiology and Community Health*, 73(12), 1087–1093.
- 4334 <https://doi.org/10.1136/jech-2019-212738>
- 4335 Wenger-Trayner, E., & Wenger-Trayner, B. (2020). *Learning to make a difference: Value creation*
- 4336 *in social learning spaces*. Cambridge University Press.
- 4337 <https://doi.org/10.1017/9781108677431>
- 4338 Whitley, M. A., Massey, W. V., & Wilkison, M. (2018). A systems theory of development through

4339 sport for traumatised and disadvantaged youth. *Psychology of Sport and Exercise*, 38, 116–
4340 125. <https://doi.org/10.1016/j.psychsport.2018.06.004>
4341

Article 5: Delivering a Trauma-sensitive Sport Model for Youth Programming

Majidullah Shaikh¹, Melanie Bouchard¹, Tanya Forneris², Diane M. Culver¹

1 - School of Human Kinetics, University of Ottawa

2 - The University of British Columbia

Manuscript to be submitted to the Journal of Applied Sport Psychology

Abstract

The implementation of a trauma-sensitive sport model to programming may promote high-quality program environments that are responsive to underserved youth's needs for safety, choice, and control, while also enhancing their development and life skill building. The purpose of this study was to examine how leaders apply a trauma-sensitive sport model within a community out-of-school program. The promising practices criteria were used to categorise key strategies and practices used by leaders in facilitating their programming. A multi-site mixed-methods research design was carried out with 11 clubs who ran a program using a trauma-sensitive sport model, known as Bounce Back League (7/11 programs were ran by trained leaders). Data were generated through observations of program sessions (i.e., field notes, audio-video recordings, and completion of the Promising Practices Rating System), focus group interviews with leaders on their program practices, and leader-reported logbooks of their perceptions of successes and challenges of the program session. All data were interpreted using a deductive-inductive thematic analysis to understand patterns in leaders' practices aligned with the promising practices. The results showed: (a) evidence of supportive relationships with adults and peers across programs, (b) programs led by trained leaders were stronger than untrained coaches in maintaining appropriate structure, maximising engagement, and providing opportunities for cognitive growth (i.e., discussing life skills), (c) trained leaders may have compromised mastery orientation opportunities in favour of other program components. Implications were discussed related to successes and challenges of delivering a trauma-sensitive sport model in this community setting, and the value of training in leaders' facilitation of high-quality programming.

Introduction

Exposure to adverse childhood experiences (e.g., maltreatment, neglect, family discord, oppression) can lead to dysregulation in youth's cognitive and emotional capacities, impair their ability to create relationships, and lead to long-term mental health issues and low quality of life (Kimberg & Wheeler, 2019; Leitch, 2017). Youth sport programs, when facilitated by trained leaders and intentionally structured with opportunities to immerse in engaging activities and build various skills, can help support trauma-exposed youth's needs and orient them on pathways of healing and resilience (Henley et al., 2007; Massey & Whitley, 2016). However, little investigation has been conducted on the nature and extent to which trained leaders implement these programs in line with recommendations for quality programming to support youth development. As such, the current study is focused on how leaders implement a program based on a trauma-sensitive sport model to facilitate positive youth developmental contexts within BGC Canada, a non-profit, community organization that delivers out-of-school programming to youth within underserved communities across Canada.

Sport programs that are designed with trauma-sensitive and positive youth development (PYD) approaches may be conducive to positive developmental benefits for youth. A trauma-sensitive lens to youth programming involves structuring the environment and leaders' practices to be more responsive to the needs of trauma-exposed youth, and prioritising their sense of safety, choice, and control (Kimberg & Wheeler, 2019; Leitch, 2017). These programs are designed and facilitated by leaders equipped with knowledge of: (a) the widespread nature of trauma and how it impacts youth's brains, bodies, and behaviours, (b) how environments and interactions may trigger and re-produce trauma symptoms, (c) how to respond to trauma by integrating trauma-sensitive principles into program policies and procedures, and (d) how to actively resist re-traumatization of youth in their programs (SAMHSA, 2014). A PYD program involves

structuring the environment and leaders' practices to emphasise youth's strengths and help them fulfill their potential through offering opportunities to build skills and positive connections with adults, peers, and their communities (Shek et al., 2019).

Taken together, several scholars have suggested that a program based on a *trauma-sensitive sport model* involves: (a) positive adult-youth relationships that emphasise safety, value for youth, and connections with peers, (b) ongoing relevant and contextualised development opportunities for leaders who work with youth, (c) adaptable program design (e.g., changing rules of traditional activities) to meet youth's needs, (d) individualised attention to each youth member to ensure the program is meeting their strengths and needs, (e) use of invitational language and the promoting of youth's autonomy, (f) appropriate structure with established and consistent rules and expectations, and (g) intentional programming that fosters holistic development of youth's sport and life skills (Bergholz et al., 2016; Whitley et al., 2018).

Particular to sport, some initial evidence has pointed to the effectiveness of programs based on a trauma-sensitive sport model, delivered by mental health professionals, on reductions in trauma symptomology (e.g., D'Andrea et al., 2013). Yet, to the authors' knowledge, limited evaluations have been conducted on the use of trauma-sensitive approaches in sport (Shaikh et al., 2021). Reviews of sport-based PYD programs have noted the varied effects of these programs on PYD outcomes (e.g., competence, confidence, life skills), with many only noting small to moderate effects (Bruner et al., 2021; Eime et al., 2013; Holt et al., 2017; Whitley et al., 2019). Part of this result may due to poor implementation, such as deviations from program structure and procedures. In addition, much of the evaluation literature in sport and physical activity has neglected examining how programs are implemented (Bruner et al., 2021; Holt et al., 2016; Iachini et al., 2014).

Process evaluations are a means to gain insights on program implementation and can help

understand whether a program is delivered as intended (fidelity), and how well that program is delivered (quality) to facilitate youth outcomes. Several factors can influence program fidelity and quality (e.g., administrative support, adaptability of programming, leaders' qualities and beliefs; Durlak & DuPre, 2008; Fixsen et al., 2009). Thus, process evaluations could generate insights into how program implementation may vary from one program to another. Adult leaders as the primary agents of change in structuring and facilitating environments that protect against the effects of risk factors in youth's environments, fostering connections with youth, and identifying and strengthening youth's resilience (Anthony et al., 2009; Catalano et al., 2004), and are recognised in sport as primary agents in promoting youth development outcomes (Camiré et al., 2011; Vella et al., 2011). As such, the current study will focus directly on leaders' practices in program delivery. Investigating leaders' planning and facilitation of program activities can help build insights of how leaders apply a trauma-sensitive sport model in their programming, and what key features are most salient in the effective facilitation of these programs.

The present study will focus on core criteria developed for assessing high-quality out-of-school program practices known as the *promising practices*, developed by Policy Studies Associates Inc., (2005) for the Study of Promising After-School Programs (Vandell et al., 2005). Eight research-based criteria were proposed which included: (a) supportive relations with adults: facilitating caring interactions and supporting youth with their conflicts and issues; (b) supportive relations with peers: promotion of positive, respectful interactions between youth and good conflict resolution; (c) level of engagement: implementing activities and discussions that engage youth's attention and interests, (d) opportunities for cognitive growth: engaging youth in activities that promote thinking, asking questions to solicit reflection and critical thinking, providing instructions, and helping youth build various skills in planning, decision-making, and problem solving; (e) appropriate structure: organising a program with a consistent schedule and

clear expectations; (f) over-control: allowing youth to make their own decisions and choices without imposing; (g) chaos: managing disruptive behaviours and facilitating a productive level of participation; and (h) mastery orientation: engaging youth in activities that promote skill-building, creating challenges, and demonstrating/modeling concepts or skills. See Table 1 for a list of indicators of favourable and unfavourable practices under each criterion.

An important factor that may moderate the extent to which leaders apply quality program practices is training. Trauma-sensitive research has shown that trained leaders in child- and youth-serving sectors show elevated levels of trauma-sensitive knowledge, attitudes, behaviours, and practices compared to untrained leaders (Lowenthal, 2020; Purtle, 2020). Similarly, in sport, leaders' training experiences can factor into the extent that they intentionally promote PYD (Camiré et al., 2012; Santos et al., 2017), where trained leaders may have a better understanding of youth's experiences and principles and strategies for facilitating PYD, than untrained leaders (Camiré et al., 2014; Kramers et al., 2020). Thus, this study also explored how differences in training may contribute to differences in quality in leaders' program practices.

The purpose of this study was to explore the leaders' application of a trauma-sensitive sport model to programming in BGC Canada, through the implementation of the Bounce Back League (BBL). The promising practices criteria were used to guide and categorise leaders' facilitation of BBL programming.

4460 Table 1. *Promising Practices Rating System Criteria*

Dimension	High levels	Low levels
Supportive relationships with adults	Leaders are warm and approachable Leaders use positive behaviour management techniques to address behavioural issues Leaders use encouragement, and praise youth's efforts and progress Leaders pay attention to youth, engage with them, start conversations	Leaders do not acknowledge youth Leaders do not use positive behaviour management techniques Leaders are flat or negative Leaders-youth interactions are infrequent or one-sided Leaders are not engaged with youth
Supportive relationships with peers	Leaders communicate expectations for positive norms Leaders create peer-to-peer and group opportunities Youth interact well with peers, and use respectful language Youth provide one another support Youth negotiate conflicts positively and come up with solutions	Peer interactions are negative Youth do not work well together Youth seem withdrawn or fearful
Level of engagement	Activities are designed to maximise youth' engagement Leaders create ways for youth to contribute to discussions Youth appear engaged, focused, interested in activities Youth contribute to discussions	Youth appear bored, disinterested, distracted Youth not participating in discussions Youth not engaging in the manner intended by activity
Opportunities for cognitive growth	Activities promote higher-order thinking Leaders ask questions that require complex answers Leaders provide instruction for activity Youth engage in problem solving, planning, or decision-making	Activities do not promote higher-level thinking Leaders do not question youth Leaders provide no instruction, or unclear expectations Youth not engaged in problem solving, planning, or decision-making
Appropriate structure	Transitions between activities are orderly and efficient Instructions for activities are clear and appropriate Leaders members are coordinated and support each other There are no safety hazards, and external distractions are minimised	Transitions are chaotic Instructions are unclear Leaders are uncoordinated, give conflicting information Activity area is cluttered/hazardous External distractions interfere with youth's participation
Over-control	Leaders are highly over-controlling Youth do not get to make own choices Leaders impose solutions to youth's problems/conflicts	Leaders only step-in when necessary (e.g., when asked for help) Leaders help youth develop their own solutions Youth have opportunities to make choices
Chaos	Youth are engaged in inappropriate, disruptive, or rude behaviours Leaders' control tactics are ineffective	Youth are engaged in productive level of talk/movement Leaders use effective group management techniques
Mastery orientation	Activities enable skill-building opportunities Activities are developmentally appropriate and challenge youth Leaders encourage youth to try new activities Leaders demonstrate or model concepts or skills	Activities do not build skills Activities are not challenging Leaders do not encourage youth Leaders do not provide instruction or feedback

4461 Adapted from Promising Practices Rating System developed by Policy Studies Associates, Inc. (2005) for *Wisconsin Center for Education Research*

Methodology

Context

With funding from the Public Health Agency of Canada in 2016, BGC Canada set out to develop and implement the BBL to directly meet the physical and mental health needs of their youth members over the next five years. A long-term goal of this project was to mold and adapt the project over time to the BGC Canada context, developing materials, resources, and a trained workforce to sustain and expand the BBL program to clubs across Canada. The project was led by an interdisciplinary partnership comprised of an evaluation team (including **MS** and **TF**), sport-based trauma-sensitive expert consultants (master trainers) from [Edgework Consulting](#), and administrators from BGC Canada. This team collaborated on all aspects of project development. The master trainers primarily led: the design of the training curriculum and program; the facilitation of training; the mentoring of leaders in their program implementation; and the adaptation of programming (with input from partnership members).

Positionality

MS and **TF** possessed shared expertise in sport-based youth development, program planning and evaluation, and interests in trauma-sensitive programming. **MS** was involved as an evaluation coordinator for this project, and brought experience in community-based sport and recreation programming as a participant, a facilitator, a programmer, and an evaluator. **TF** was **MS**'s graduate supervisor and the project's evaluation lead. Both authors carried the assumption that sport programs that are intentionally structured with youth development principles will result in greater quality programming and benefits for youth than non-purposeful programming (Holt et al., 2020). The authors were both invested in the project's contribution to positive social change for BGC Canada's clubs, leaders, and members. **MS** developed close and trusting relationships with the leaders, which served advantageous in soliciting honest feedback and adherence to

evaluation activities. **MB** was an undergraduate trainee under **MS**'s supervision; she carried on-the-ground experience as an out-of-school youth program facilitator, a youth swimming instructor, and assisting **MS** with sport-based PYD evaluation. **MB** familiarised herself with the content of the BBL through reading program manuals, annual reports, and relevant literature (e.g., Bergholz et al., 2016; McCarthy et al., 2016). **DMC** contributed to the interpretations presented in this study and offered her expertise in coaching practice and ongoing learning.

Procedures

This study was an intrinsic case study (Stake, 2005) to understand the quality of implementation and program practices in multiple clubs running the BBL program. A pragmatic worldview was adopted by the authors, where the authors took liberty in choosing and adapting methods that best aligned with and addressed the research question of the study (Cherryholmes, 1992; Creswell & Creswell, 2018). A multi-site process evaluation design was used to collect data through observations, leaders' self-reported logbooks, and individual and focus group interviews. These methods enabled multiple perspectives to be generated on the nature of program quality from the evaluators (external) and the leaders (internal). This study was approved by the University of Ottawa's Office of Research Ethics and Integrity (#H-09-19-4960; see Appendix B).

Clubs and Participants

MS solicited consent for research activities through providing information in-person to leaders at a training workshop and through email (See Appendices A.5 and A.6 for consent forms). For the observations, consent was received from club managers by email and in-person to observe and video-record on site (Appendix A.7). Information letters were provided to all attendees in-person highlighting what the observer's role was, the purpose of the project, and what data were being collected (Appendix A.8). In this study, data were gathered from 11 clubs.

4510 Programs were operated in southern British Columbia ($n = 1$), central Alberta ($n = 3$), southern
4511 Manitoba ($n = 1$), southwestern Ontario ($n = 1$), New Brunswick ($n = 2$), and Prince Edward
4512 Island ($n = 1$). Logbook data were collected from 10 programs, observation data from 7
4513 programs, and interview data from 8 programs. See Table 2 for more details of club composition.

4514 Table 2. *Composition of BGC Canada clubs' and Involvement in Data Collection Activities*

4515

Club	Population Density	Coaches' Training	<i>M</i> Youth Attendance per session	<i>n</i> Total sessions	<i>n</i> Logbooks	Observed?	Interviewed?
A	Large city	Trained	10.9 ± .99	10	11	Yes	Yes
B	Large city	Trained	14.14 ± 1.77	7	8	Yes	Yes
C	Large city	Untrained	23.25 ± 1.04	8	8	No	Yes
D	Small town	Untrained	5.63 ± .95	10	9	Yes	Yes
E	Small town	Trained	5.29 ± 2.93	14	14	Yes	Yes
F	Large city	Trained	15.67 ± 3.98	12	14	Yes	Yes
G	Medium city	Trained	-	4	-	Yes	Yes
H	Medium city	Untrained	-	10	5	Yes	Yes
I	Large city	Untrained	15.5 ± 2.62	8	5	No	No
J	Large city	Trained	14.43 ± 2.76	10	6	No	No
K	Medium city	Trained	18.5 ± 3.99	6	2	No	No

4516 - indicates missing data.

4517 Population density categories: small town = <50,000, medium city = 50,000 – 150,000, large city = >150,000

The participants were purposefully sampled from leaders who participated in structuring or facilitating BBL at their club, from September 2019 to March 2020. The leaders had different roles in the program, comprised of coaches ($n = 14$, responsible for designing workout sessions and delivering the program), supervisors ($n = 3$, responsible for supporting leaders in their delivery, and administrative duties such as marketing, recruiting, parent interaction), and supervisor-coaches ($n = 2$, responsible for both coaching and supervision). All leaders held BGC club-specific training on topics such as program planning and leadership, crisis intervention, and group management. Eight leaders were novices with <2 years of experience in youth work, and most leaders had limited or no training in sports coaching. Almost all BBL leaders facilitated other activities in their clubs (e.g., homework clubs, arts programs, community outreach, administration, etc.), and thus interacted with BBL members across multiple settings.

Training Workshop

In September 2019, an intensive training workshop was facilitated by master trainers from Edgework Consulting and in-house trainers that they trained. The workshop included lectures and group activities (e.g., discussions, reflections, presentations, team-building exercises, physical activities and games). The curriculum of the workshop can be seen in Table 3. Topics were: knowledge of the prevalence and impact of trauma, supporting youth's healing, individual and group management strategies, helping youth in times of dysregulation, an introduction to the BBL and its curriculum, integrating a workout structure (described in Table 4), integrating the teaching of three BBL skills related to resilience-building (i.e. *Come To Play*, *Build My Team*, and *Play On*, described in Table 4), integrating opportunities for transfer of these skills (e.g., through one-on-one exchanges with youth or during explicit debrief sessions), and strategies for coaching sport. The relationships between the curriculum components and the promising practices they were expected to influence are visualised in Figure 1. Only 10 of the 19 leaders attended the

4542 initial training workshop.

4543 Table 3. *Description of BGC Canada-adapted BBL Training Modules*

#	Module	Description
1	Understanding trauma	Understanding the parts of the brain, the stress-response system and defining trauma.
2	How trauma shapes behaviour	Understanding adverse childhood experiences (ACEs) and their link to negative consequences, the impact of trauma on a child's behaviour, and how children's behaviour can push us away.
3	How healing happens	Four steps of healing: participation, regulation, daily functioning, and better place. Identifying mechanisms in clubs and leader's interactions that promote healing. Becoming trauma-sensitive.
4	Good group management	Principles and strategies for group management to support children to participate effectively.
5	Stepping in during times of dysregulation (Part I)	Identifying when a child needs more help, understanding the difference between skill and will, and helping participants develop the skill of self-regulation, through deep breathing, taking timeouts, timed practice, individualised schedules, focusing on one skill, leveraging social support in regulation, redirected questioning, and developmentally-appropriate challenges.
6	Stepping in during times of dysregulation (Part II)	Connecting with the dysregulated participant using the SEPR system of stabilise, explore, plan, and return. Understanding what the child is going through at each stage and what they need.
7	Introduction to the BBL	How sport can heal through several elements: home field advantage, seasons of play, competence, physical activity, team and community focus, immersion and engagement, organization and structure, decision-making, and real-stakes. Introduction to BBL as a trauma-sensitive sport experience, leveraging competency, competition, team-orientation, caring coaches, physical activity, and core principles of positive youth development.
8	The BBL Workout (Part I)	Introducing and describing the intent behind each component of the BBL structure: Arrival, Warm-Up, Skill Play, Transition Time, Game Time, Cool Down, Team Time, and Departure.
9	The BBL Workout (Part II)	Goals and strategies for coaching each BBL component and designing a full workout. Planning a season of play across several workouts, setting rules and expectations, coordinating coaching in pairs, and evaluating the workouts and seasons of play.
10	Coaching sport	Understanding how to be a caring coach, and matching different coaching styles (guided discovery, command style) to different situations.
11	The BBL skills	Understanding the BBL (Come To Play, Build My Team, and Play On), their intentions, and how to integrate them into coaching.
12	Championing trauma-sensitive approaches	How to share the BBL with others and build the BBL skills across programs, leader, and clubs. Using a resilience-building, strength-based focus in communications, and avoiding stigmatization.

4544 Table re-published from Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a
 4545 sport-based trauma-sensitive program in a national youth-serving organization. *Child and Adolescent Social Work*
 4546 *Journal*, 38, 449–461. <https://doi.org/10.1007/s10560-021-00776-7>

4547 Table 4. *Description and Suggested Duration of BBL workout structure and the BBL Skills*

BBL Workout			
Activity	Description		Timing
Arrival	A welcoming sport environment where coaches connect with players as they transition into the sport session. Coaches reinforce feelings of belonging (e.g., greet players individually and by name), and identify players who may be entering in a tough place and consider pulling them aside for a check-in.		5 min
Warm-Up	A structured sequence of activities to help players tune-in and centre themselves in the present, elevate their heart rates, and prepare their bodies and brains to fully participate. Coaches leverage activities like practicing pulse checks, deep breathing, body scan stretches, player-led warmups, and paired activities.		5 min
Skill Play	1-2 specific games that prioritise: (a) <i>engagement</i> - maximise movement and fun, minimise instruction; (b) <i>repetition</i> – facilitate rhythm, rehearsal, and skill progression; (c) <i>choice</i> – players decide own pace/challenge. Coaches monitor Skill Play and engage in coachable moments (e.g., demonstrate a skill, reinforce praise, adjust task difficulty).		10-20 min
Transition Time	Time for players to take a structured break and hydrate. Coaches can organise players into teams for Game Time.		5 min
Game Time	A competitive environment that exposes players to test sport and life skills under dynamic circumstances and real stress/stakes (i.e., keeping score). Sport is re-designed to optimise engagement and skill-building opportunities (e.g., small-sized playing spaces, unlimited timeouts, non-punitive referee as a coach). Coaches seek parity in team composition, enable fair playing time for all players, provide specific praise to players in gameplay while only instructing players on the bench, and intervene one-on-one with players during challenging situations.		30-35 min
Cool Down	A structured sequence of activities to help players regulate their breathing and heart rates and begin preparation to transition out of BBL. Coaches revisit Warm-Up activities (e.g., heart rate) and asks players to assess any changes.		5 min
Team Time	A carefully and creatively facilitated conversation with players and coaches intended to draw out key learnings, promote reflection and connection and help players apply what they are learning in sport to their lives. Coaches probe players to share highs and lows, give praise to one another, revisit specific in-game moments, discuss most significant learnings, ask burning questions, identify specific BBL skills used in the session or season, and discuss examples where players can use (or have used) skills with their peers, at home, at school, or in their communities.		5-10 min
Departure	How we help players transition out of the sport session safely and successfully. Coaches create informal time with players, remind players how they can transfer skills to life, and check-in with players who may be in a tough place.		5 min
BBL Skills			
Skill	Description	Domains	Coaching strategy
Come to Play	Knowing myself and preparing to make the most of the opportunities and challenges in front of me.	Engagement and readiness	Promotion of willingness, preparation, and full immersion in activities.
Build My Team	Investing in people to form a system for support and skill-building together.	Interpersonal effectiveness	Promotion of teamwork, leadership, prosocial behaviours, interpersonal effectiveness, respect for others, peer support, and seeking support.
Play On	Persisting and adapting when faced with adversity and staying on my positive path.	Emotional awareness and regulation	Promotion of awareness of self, valuing rest, perseverance, overcoming challenges.

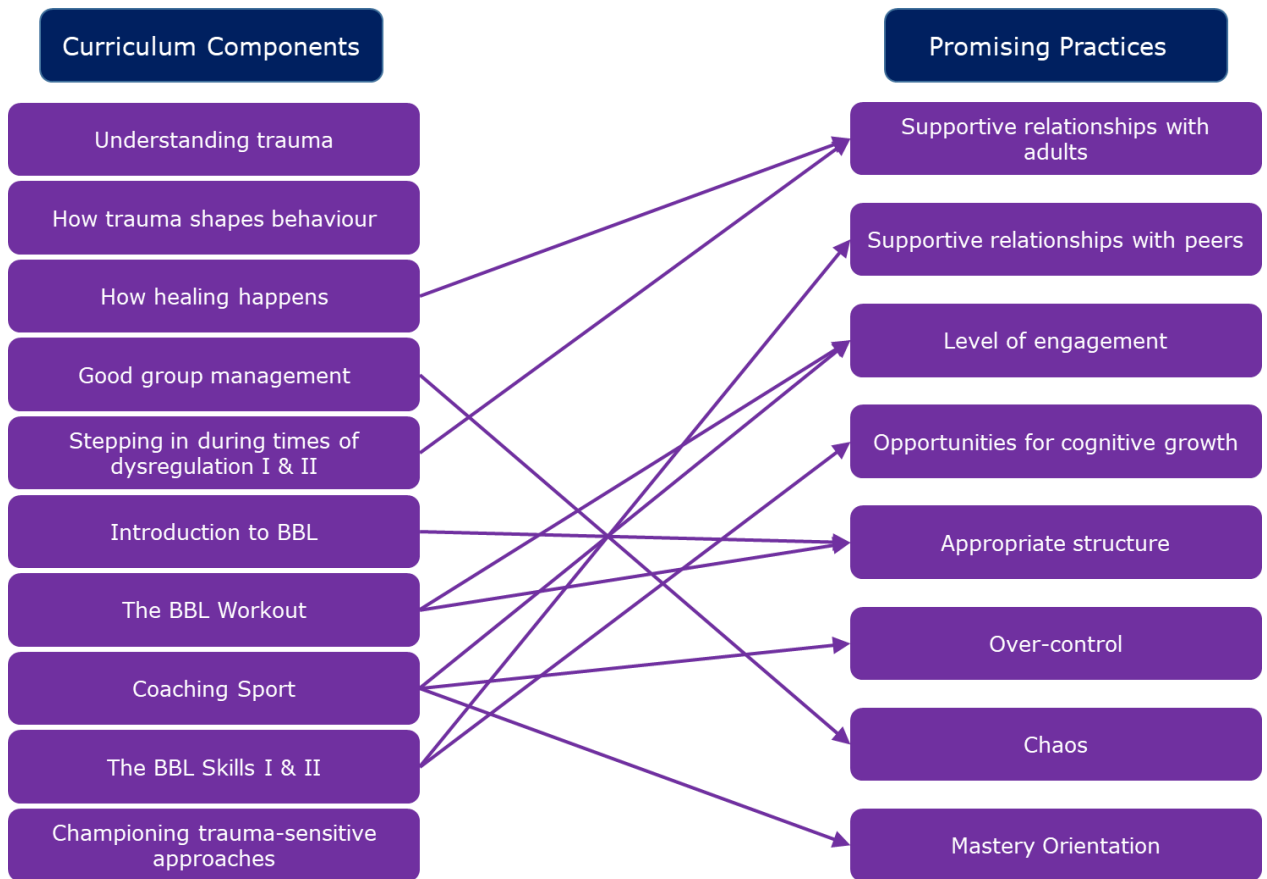
4548 Table re-published from Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a sport-based trauma-sensitive program in a
 4549 national youth-serving organization. *Child and Adolescent Social Work Journal*, 38, 449–461. <https://doi.org/10.1007/s10560-021-00776-7>
 4550
 4551

4552 Table 5. *Descriptive Statistics of Promising Practices Rating System Data*

Club	Supportive relationships with adults	Supportive relationships with peers	Level of engagement	Opportunities for cognitive growth	Appropriate structure	Over- control*	Chaos*	Mastery Orientation	Mean	Standard Deviation
Programs run by trained leaders										
A	4	3	4	4	4	3	2	3	3.38	0.74
A	4	3	3	2	3	4	3	2	3.00	0.76
B	4	4	4	4	4	3	3	2	3.50	0.76
B	4	3	4	3	4	4	2	2	3.25	0.89
G	4	4	3	2	2	2	3	4	3.00	0.93
G	4	4	4	2	1	3	3	3	3.00	1.07
F	4	4	4	3	4	4	3	3	3.63	0.52
E	3	3	3	3	4	3	3	3	3.13	0.35
E	3	3	2	4	3	4	3	2	3.00	0.76
Mean	3.78	3.44	3.44	3.00	3.22	3.33	2.78	2.67		
Standard Deviation	.44	.53	.73	.87	1.09	.71	.44	.71		
Programs run by untrained leaders										
D	3	3	4	2	3	4	4	3	3.25	0.71
D	3	3	4	2	3	4	4	4	3.38	0.74
H	2	3	2	2	2	3	3	3	2.50	0.53
H	3	3	3	2	2	3	3	3	2.75	0.46
Mean	2.75	3.00	3.25	2.00	2.50	3.50	3.50	3.25		
Standard Deviation	.50	.00	.96	.00	.58	.58	.58	.50		
All clubs										
Mean	3.46	3.31	3.38	2.69	3.00	3.38	3.00	2.85		
Standard Deviation	.66	.48	.77	.85	1.00	.65	.58	.69		

Note: Ratings on over-control and chaos were reverse-scored.

4554 Figure 1. *Relationship Between Curriculum Components and Promising Practices*



4555
4556

4557

4558 ***Program Design and Delivery***

4559 After the training workshop, the leaders returned to their respective sites to implement
 4560 BBL. Each club planned to host three seasons of BBL (e.g., fall, winter, spring, lasting 6-10
 4561 weeks each) with one program session per week, lasting 1-1.5 hours. However, the program year
 4562 was cut short due to the COVID-19 pandemic in March 2020, and several clubs only hosted one
 4563 season and/or a partial second season. Seven of eleven programs were led by trained leaders; the
 4564 other three programs were led by leaders who learned the program philosophy and components
 4565 through manuals and guidebooks.

4566 All clubs were expected to have at least two leaders facilitating each session. In the design
 4567 process, leaders had the liberty of choosing the sport (or designing a new sport). Youth who were
 4568 current or new members of BGC Canada were eligible to enroll in the BBL program and clubs
 4569 were tasked to recruit between 20 to 25 youth per site ranging from 8 to 12 years old.

4570 **Data Collection**

4571 ***Observations***

4572 A subset of clubs' program sessions was observed to understand how well leaders were
 4573 implementing BBL, through the lens of the promising practices criteria. **MS** observed seven
 4574 sessions in-person and took detailed field notes of leaders' practices (e.g., noting how well they
 4575 interact with youth, manage activities, work with other leaders, etc.). Immediately after observing
 4576 each session, **MS** completed the Promising Practices Rating System (PPRS) instrument, where he
 4577 filled out a written response of evidence of high and/or low-quality practices under each of the
 4578 eight criteria, and then provided a rating for each criterion from '1' (highly uncharacteristic) to '4'
 4579 (highly characteristic), using his field notes to help guide responses (See Appendix E). All
 4580 sessions were video recorded. The second author observed the video recordings, wrote down
 4581 detailed field notes of their observations, and completed the PPRS.

The PPRS leaves some room for inference on the behalf of the observer, in that the presence or absence of specific behaviours are used as guidance rather than as metrics for how high or low a score should be. The PPRS has been advocated for as a relevant instrument for assessing out-of-school program quality (Granger et al., 2007; Vandell, Pierce, et al., 2005; Vandell et al., 2006), and has strong predictive validity in that the scores on the instrument successfully predict relevant youth outcomes (Oh et al., 2016). Inter-rater reliability in this study was 76%, indicating a substantial level of agreement between the observers.

Logbooks

For each program, the leaders collectively completed logbooks after each BBL session (See Appendix F). The logbooks prompted leaders to describe successes and challenges encountered to implementing program components including the workout structure, group management, BBL skills, life skill transfer, and their goals for the next session. Once all the logbooks were collected, all responses were aggregated in an Excel spreadsheet.

Individual and Group Interviews

Individual and group interviews were held with 8 clubs prior to and/or after an observed program session ($M_{\text{duration/club}} = 67.25 \pm 24.5$ mins). The leaders were asked to share their implementation experiences such as the facilitators and barriers in the design and delivery of the program, strategies for youth engagement, the perceived influence of the program on youth participants, and the extent to which the leader fulfilled their goals. All interviews were audio-recorded, transcribed using automated software ([Otter.ai](#)), and edited for accuracy by research volunteers.

Data Analysis

The quantitative data from the PPRS were organised in Excel. Given the small sample, comparative analyses were not conducted, but rather, the descriptive statistics were calculated

and displayed to allow the reader to infer potential comparisons. The qualitative data from the PPRS, logbooks, and interview transcripts were analysed together using thematic analysis, a process of interpreting patterns of meaning from qualitative data (Braun et al., 2016). First, the data were imported into NVivo, a qualitative data management and analysis software (QSR International, 2020). The first author, **MS**, reviewed all data and read them multiple times. He then worked closely with **MB** and another undergraduate student in sport psychology (**GR**, see Statement of Contributions) to analyse the transcripts together. Each reviewer took a set of transcripts and went through a process of labeling passages under representative codes, with multiple, similar passages being labeled under the same code. An initial set of themes corresponding to the promising practices was created, and passages that aligned with these criteria were coded under those themes. Some codes were generated inductively, if they were interpreted as important and relevant to the research question (e.g., passages related to the organizational context). Codes could be modified, merged, moved across themes, and/or removed based on their relevancy and contents. Once the initial coding process was completed, the reviewers then met to discuss their interpretations, generating summaries of the ideas shared in each theme, and plan for further analysis. The resulting thematic map was then modified based on its alignment to the research question and from discussions with **TF** and **DMC**. The thematic map is presented in the results with supporting passages and the authors' interpretations.

Trustworthiness

Several strategies were used to enhance the trustworthiness of the research and data presented in this study. First, **MS** had prolonged engagement with the organization, leaders, and their clubs, through helping develop the program with the project's leadership team, interacting with leaders through attendance at in-person training workshops, by email, and in an online social learning space. The use of different sources of data offered rich insights, collectively considering

researcher's perspectives, leaders' perspectives, and co-constructed perspectives in the interpretation of the results. As well, having multiple researchers who were either connected (MS) or external (MB) to the participants offered a diversity of perspectives, helping to offset bias that may have resulted from MS conducting the observations alone.

Results

The results were categorised under the PPRS dimensions, and the authors' interpretations were discussed with regards to what strategies were used by leader, what barriers were encountered, and how successfully each dimension was implemented. Relevant passages and excerpts from the logbook, interview, and observational data were used to support these interpretations. R1 and R2 were used to indicate researcher #1 and #2's observational field notes, respectively. In Table 5, descriptive statistics of the differences in PPRS ratings across the programs are shown.

Supportive Relations With Adults

In their observations, the observers recognised the clear existence of supportive adult relationships. Most of the leaders were observed to be warm and respectful to members: "Leaders are warm to club members (giving hugs, positive feedback), leaders are always engaging with club members" (R2, Club B).

Differences in support were seen in trained versus untrained leaders. Support from untrained leaders tended to be informational, where leaders intervened when members were struggling with a task: "The leader noticed when club member was having difficulty with a hockey stick and taught them how to hold it." (R2, Club H). Sometimes the untrained leaders provided emotional support, in effort to cheer up members and distract them from the activity:

If they make a mistake, you're joking with them. You're not being all "You did that wrong? You got to do it this way." You talk to them and say "Hey, don't worry about it.

4654 You made a mistake. You did it wrong. Don't worry about it. You're all there for fun.”

4655 (Peter, Club H)

4656 However, while these leaders were well-intentioned, this strategy may be viewed as an attempt to
4657 override members' feelings of anxiety, apprehension, or lack of confidence. A leader using a
4658 trauma-sensitive lens would instead acknowledge what the members may claim they are feeling,
4659 emphasising that 'it's okay to not be okay'.

4660 Trained leaders tended to offer emotional support more often than untrained leaders. They
4661 were able to recognise when youth were feeling stressed, needed extra support, and offered
4662 support for regulation or alternative activities:

4663 Being able to do a lot of de-escalation with them and have those conversations like
4664 “Okay, let's get them stable. Let's chat with them, figure it out, resolve that, and get back
4665 in.” It's gotten smoother with those kids as they've gotten to know us better and gotten to
4666 know the program better. And even when we're doing the activities, they've gotten a lot
4667 better about taking breaks when they need it. (Alice, Club A)

4668 An example of such support was seen in Club A in leaders responding to a member's stress
4669 moment:

4670 A child ran out of the room during Team Time due to a trigger in the conversation. All
4671 members noticed, confused. A leader immediately went to follow the member and help
4672 support them. Other staff member re-focused Team Time conversation away from child
4673 and back to the huddle. Eventually, member was able to return to the group. (R1)

4674 The trained leaders provided insights into how the program enabled them to be more
4675 responsive – by being patient with club members, listening, and helping them come up with
4676 solutions, so that ultimately they could rejoin programming.

4677 Being there to actually walk someone through a problem, whether that be in BBL or

4678 outside BBL. The information in the program has taught leaders to be that very
 4679 empathetic and understanding person, to give them the time of day to voice their thoughts
 4680 or voice their frustrations and have someone listen to them and possibly help them come
 4681 up with a solution. (Michael, Club B)

4682 The leaders reported that members felt comfortable enough to approach the leaders
 4683 whenever they needed to, to discuss any issues: “Every child here is expressive, [with] whatever
 4684 they’re feeling or whatever they want to talk about. That’s been my observation that kids feel safe
 4685 enough to talk to any leader about anything.” (Anjali, Club B). Many leaders felt that this was
 4686 due to the multi-faceted nature of their clubs, in that members and leaders would be involved in
 4687 more programs than just the sport program:

4688 I think it’s the natural consequence of being together in the club setting; some of the kids I
 4689 had in other days of the week, I’ve also had relationships growing with them... in other
 4690 programs, we’ve seen growth in them. (Alice, Club A)

4691 This relationship-building carried into BBL, where leaders could understand members’ needs and
 4692 meet them where they were: “We know most of the kids personally as well... So we understand
 4693 different children and how competitive they are, how they feel; we kind of know them so it
 4694 makes it easier.” (Anjali, Club B).

4695 **Supportive Relations With Peers**

4696 The researchers’ observed predominantly positive and respectful behaviours between
 4697 peers, and within some programs, prosocial and helping behaviours as well: “Peer interactions are
 4698 positive, club members are helping each other out when learning how to hold, throw and catch a
 4699 ball during the Skill Play time.” (R2, Club G). The leaders also commonly reported on their
 4700 members’ prosocial participation, such as members’ use of Build My Team skills: “Friends were a
 4701 lot more vocal (with) cheering each other and showed sportsmanship towards each other and the

4702 other teams” (Club O, logbook).

4703 The leaders described strategies to promote Build My Team skills for youth with one
 4704 another (e.g., sharing names, team chants, passing games): “[We] focused on everyone mastering
 4705 names during Skill Play using a passing game and many of the kids seemed to know everyone’s
 4706 names.” (Club A, logbook) The leaders also used their Team Time as an opportunity for members
 4707 to pass praise to one another: “During our Team Time, we had a good discussion about what each
 4708 member did well which made them all feel really positive about themselves. We also asked if
 4709 anyone had anything to say about anybody else in the group and there were a lot of nice things
 4710 said.” (Club E, logbook)

4711 At times, when challenging behaviours came up (e.g., frustrations, peer conflicts), leaders
 4712 would leverage these situations as opportunities to discuss BBL skills, as teachable moments:

4713 Our challenge this week was a fight breaking out during the Game Time. We ended the
 4714 game as soon as it happened and both players involved were spoken to about the situation.

4715 A very tight and intense game, understandably why emotions were running high. Used it
 4716 as an opportunity to integrate the BBL skills. (Club I, logbook)

4717 **Level of Engagement**

4718 All leaders facilitated high engagement through opportunities to solicit youth voices and
 4719 feedback. The Team Time component was used most often to invite input: “In Team Time they
 4720 solicited feedback using a ball – whoever holds the ball gets to speak. Leaders asked youth what
 4721 they liked about today’s activities.” (R1, Club G). Three leaders shared how they incorporated
 4722 opportunities for members to lead conversations and choose activities: “We improved on our
 4723 approach to Team Time. Allowing the members to speak more and having them lead the
 4724 conversation.”; (Club I, logbook) “This week was kids’ choice, so they had the freedom to decide
 4725 which activities they wanted to participate in which got them more excited to join into the

4726 activities.” (Club E, logbook); and: “We planned the activities with the kids to get their buy-in
 4727 which worked very well. It familiarised them with our structure, why we choose certain activities,
 4728 and then they got to choose at least one portion of the day.” (Club A, logbook).

4729 When comparing trained and untrained leaders, it was evident that trained leaders ran
 4730 sessions that incorporated more movement and activity than their counterparts. It was common to
 4731 see untrained leaders relying on laps, lines, and lectures in their sessions: “Youth are engaged in
 4732 activities when they are happening, but because they are standing in line a lot they tend to not be
 4733 doing anything.” (R2, Club H). This was contrasted to trained leaders who facilitated more
 4734 games-based warmups and minimised lining up/idle time:

4735 Leaders involved members in the activity right away. Entered the program straight into a
 4736 large unstructured dodgeball game. For warmup, they played a game in a circle “Clap and
 4737 Catch”, and changed the rules of the game throughout the activity to switch up the
 4738 challenge and enhance the fun factor. (R1, Club F)

4739 The trained leaders were also seen engaging with youth outside of the main activities,
 4740 such as using moments of idle time to interact with youth. For instance, Michael (Club B) made
 4741 sure to involve youth sitting on the bench, rather than only focusing on the game:

4742 All these kids are on the bench, and [the leaders] are all with them and talking with them,
 4743 interacting with them so that the kids not only are paying attention a little bit to the game,
 4744 but they’re also not phasing out and being bored... and so there was a lot of “coach the
 4745 bench, praise the play”, where you’re coaching the bench and they’re having good
 4746 interactions... And then the kids on the floor are playing the game, and they’re not getting
 4747 criticised or anything. They’re just being praised.

4748 In contrast, untrained leaders were often seen to be distant during game play, either chatting with
 4749 other leaders or focusing on youth playing in the activities rather than those sitting on the bench

4750 or in idle time.

4751 **Opportunities for Cognitive Growth**

4752 In BBL, opportunities for cognitive growth primarily occurred through conversations
 4753 around life skills. Trained leaders were observed more often facilitating these opportunities than
 4754 untrained leaders, explicitly discussing and having members reflect on the value and importance
 4755 of different life skills. Leaders at one club were observed discussing self-regulation strategies:
 4756 “The leaders offered opportunities for discussion, including the difference between good and bad
 4757 stress. They recapped last week's session and BBL discussion, then asked strategies to improve or
 4758 manage stress. Some kids said ‘walk away’, ‘breathing’, and ‘yelling’” (R1, Club A). Many
 4759 leaders also reported about teaching self-regulation strategies: “We discussed that sometimes we
 4760 may get frustrated if things aren’t going the way we wish them to and that it’s okay if we need to
 4761 take a break once in a while.” (Club E, logbook). Other leaders integrated the topic of what it
 4762 means to be part of a team, within and beyond BBL: “Today we connected supporting our
 4763 teammates, with supporting our community, and advocating for those that need it.” (Club A,
 4764 logbook). Michael (Club B) discussed his strategy of getting members to specifically focus on
 4765 moving their experiences within BBL to beyond:

4766 I try and pick something out of the workout, like “hey, I noticed that you're having a
 4767 really frustrating time at the beginning of this drill, but you carried on and then you
 4768 finished it great. Can you give me an example of how you did that outside of sport, or
 4769 something that you did at home?”

4770 In sessions led by untrained leaders, Team Time was often only used to check-in with
 4771 youth and solicit feedback. However, these sessions were useful for incorporating feedback to
 4772 improve their coaching practices to meet the needs and wants of their members: “I'd say it's a
 4773 reflection on what they enjoyed. But it's also a reflection on what did we do wrong? Okay, did we

4774 [meet] what they were thinking? And if they grasped it all, then we know we did it right.” (Peter,
 4775 Club H). In observing these sessions, no untrained leaders made any mention of life skills or
 4776 personal learning with their members: “Staff aren't necessarily asking students any cognitive
 4777 questions. Just providing instructions and having youth do things.” (R2, Club H).

4778 Given their integration of life skills teaching, many trained leaders reported on members’
 4779 successful use of life skills in their programs: “We had one member get frustrated a couple of
 4780 times during our Skill Play and would leave the gym but returned both times after he had cooled
 4781 down and continued to Play On.” (Club E, logbook). Another club reported how a member
 4782 learned how to handle frustrations in sport and how to apply adaptive coping strategies in life:

4783 Initially he answered he would punch people to deal with it, but then said he can take a
 4784 drink of water, take deep breaths. He said that he can do that in his life when people
 4785 bother him too. [I] started to see students drawing connections to everyday life instead of
 4786 the leader initiating that connection. (Club A, logbook).

4787 **Appropriate Structure**

4788 Programs with trained leaders integrated components of the BBL workout structure to a
 4789 greater extent than untrained leaders. These leaders used the workout template to plan their
 4790 sessions in advance: “We’ll tend to use the workout template weekly. Just to structure a plan and
 4791 get that documented. I think we’ve been sticking to it pretty well. The kids need that warm up
 4792 and they need the routine.” (Alice, Club A). Untrained leaders tended to follow typical,
 4793 traditional sport structures with a warmup, drills, and scrimmages: “For the most part there is a
 4794 clear structure. Although it is not a BBL workout, members seem to know what is coming next.”
 4795 (R1, Club G).

4796 Trained leaders did not necessarily adhere to the workout structure outright; rather, they
 4797 were flexible with adapting program activities: “The leader moved some components of the

4798 structure around to facilitate a check-in discussion at the front-end, which proved valuable for
4799 getting members engaged both physically and cognitively.” Alice (Club A) felt that the workout
4800 structure offered inherent flexibility and choice in activities:

4801 The recommended structure is flexible enough that we can adapt it, it's not like you have
4802 to do this and you have to do that. Skill play can be basically anything, and the game can
4803 be basically anything. So long as we're warming up and talking about things after we're
4804 hitting it off. (Alice, Club A).

4805 Regardless of training, the use of structure benefitted all clubs. Traditionally, sport
4806 programs at BGC Canada would otherwise be unstructured and done with large groups, with
4807 leaders acting as safe and supportive supervisors. In BBL, the leaders reported more
4808 intentionality in splitting members into smaller groups to facilitate more opportunities for
4809 positive leader-member interactions. One leader reported how these smaller groups allowed for
4810 enhanced monitoring and support for children in moments of dysregulation: “We found that
4811 having a smaller group allowed us to catch children while they were getting frustrated and help
4812 them use some coping skills before they got overly angry”. (Club E, logbook). However,
4813 grouping was challenged by the age differences between members. The 8–12-year-old members
4814 comprised a wide range of interests and skill levels, which made it challenging for diverse
4815 groupings that also led to balanced, motivating, and challenging activities: “During Game Time it
4816 was a challenge to divide the teams for hockey bench ball because of the gap in the age group.
4817 Younger members did not want to be on [older] teams.” (Club I, logbook)

4818 Finally, all clubs encountered some challenges with transitions between and within
4819 activities. Part of this challenge was due to the freedom for members to move in and out of the
4820 program spaces at the club. Sometimes, disruptions were caused by members of other programs
4821 entering the BBL space. However, clubs with trained leaders were particularly effective at

4822 coordinating between activities, part of which may have been a result of pre-planning their
 4823 workouts and activities: “Started with a good warm up and Skill Play. Kept them active with very
 4824 quick transitions and instructions that made for no time for muscles to tighten up.” (R2, Club B),
 4825 and “Transitions were short and effective, kids were attentive and ready for the next activity.
 4826 Instructions were clear, members knew what to do.” (R2, Club E). Clubs with untrained leaders,
 4827 on the other hand, seemed to think up activities on the fly: “Leaders huddled to discuss what
 4828 drills to do next, didn’t seem to already be prepared.” (R2, Club H).

4829 **Over-control and Chaos**

4830 Regardless of training, all clubs observed seemed to promote lack of over-control. This
 4831 observation may be a result of the typical nature of members’ participation in the club, in being
 4832 offered free choice in their participation. In line with promoting self-regulation, members were
 4833 free to enter and exit activities within the space: “Members were given the opportunity to take
 4834 more breaks during the Game Time (sitting on the bench) or stay in line and continue playing.”
 4835 (R2, Club B). Leaders made sure to offer plenty of choices for participation rather than force
 4836 members to participate: “Staff met conflict with engagement opportunities. When a child said “I
 4837 don’t want to” the leader offered choices, and compromised on activities. Then, the leader played
 4838 together with the youth member.” (R2, Club A). The leaders also made sure to only step in and
 4839 help members when necessary, or ask members if they would like assistance – allowing members
 4840 to make mistakes and learn on their own: “Instructions were given when club members needed it
 4841 (using their wrists to hit the puck rather than their full arms)” (R2, Club D).

4842 However, while a lack of over-control was witnessed with clubs, most clubs encountered
 4843 some difficulties with managing chaos. Some leaders felt this was due to factors out of their
 4844 control, such as when members encountered conflicts in other programs prior to entering BBL:

4845 They go to school together every single day, so they are with each other all day pushing

4846 each other's buttons. They come here, and we have rules, but we're definitely not school.
 4847 And our goal is that you come here to be *out* of school. So they know they can poke a
 4848 little harder, not get in so much trouble... (Jennifer, Club E)

4849 **Mastery Orientation**

4850 In this category, untrained leaders were observed to facilitate more opportunities for
 4851 mastery orientation than trained leaders. Here, as mentioned in the Appropriate Structure
 4852 category, untrained leaders often resorted to typical sport structures that prioritise sport and
 4853 physical skill development opportunities:

4854 The program seemed very sport skill focused. Leaders were demonstrating (showing ball
 4855 and what they should know about the ball, and how to hold the ball). The leaders offered
 4856 good, clear instructions. They were being specific with form in technical instruction. (R1,
 4857 Club G)

4858 Peter (Club H) spoke to his approach in helping individual members build physical and sport-
 4859 related skills:

4860 I'll roam around and [observe]. I'm going to use [member] as an example. So he's not
 4861 holding the stick properly, and he goes to take a shot. And in my role, I'll walk up and say,
 4862 "hey, hold the side, hold your stick this way. Try to not roll with your wrist, just follow
 4863 serve." And if we see a youth doing something wrong, we'll pull away from the rest of the
 4864 group and [help them].

4865 While Peter may be well intentioned, part of his approach compromised the BBL values by over-
 4866 focusing on mistake correction and singling out members who do not meet skill standards, with
 4867 less focus on prioritising encouragement and positive feedback.

4868 Trained leaders were observed to incorporate limited or no mastery focus: "Members
 4869 didn't seem to engage in activities that promote [sport] skill development nor were questions

asked about it.” (R2, Club E). When trained leaders did offer mastery opportunities, this was often done in reaction to a situation, rather than intentionally planned and facilitated in advance: “Developmentally appropriate assistance (e.g., leader stepped in during a game to help a member complete a shot). Because there is a culture established of loose rules, the leader offered more opportunities to build more skills, to accommodate this.” (R1, Club E). Thus, it was otherwise common to see trained leaders focusing their programs on facilitating enjoyment (along with managing chaos), coming at the cost of any planning for skill development.

Discussion

The purpose of this study was to evaluate the fidelity and quality of applying a trauma-sensitive sport model in programming using the promising practices criteria. The extent and nature of program quality was captured across all eight promising practices, based on data generated from observations, interviews, and logbooks. There was also variability in program implementation, where programs run by trained leaders were perceived to implement a trauma-sensitive sport model to a higher fidelity and engaged in higher quality promising practices than untrained leaders. This discussion highlights some of these differences with references to the literature on quality youth sport and out-of-school programming.

All clubs offered safe environments for members to engage in healthy supportive adult and peer relationships. This result may stem from all BGC Canada leaders’ basic training in youth work practices, as well as experience in engaging and building supportive relationships with youth in multiple contexts within club programming – promoting relationship continuity from program to program. It was also clear that leaders commonly used strategies to help members feel valued, such as soliciting their input on activities and offering choices. Research has suggested that implementing PYD climates has higher fidelity than other features (Newman et al., 2021). Leaders working with youth ages 4-14 years old tend to value facilitating enjoyment, respect, and

inclusiveness in their coaching (Santos et al., 2017). Youth development studies have noted positive associations between leaders' engagement strategies and youth's positive perceptions of programming – in that, members are receptive to these opportunities, find leaders more caring and interested in their involvement, and help them to create stronger and respectful relationships (McDavid & McDonough, 2020). Finally, in trauma-sensitive practice research, leaders' provision of choices enabled participants to create their own experiences and feel liberated from the helplessness associated with trauma (Oosterbroek & Dirk, 2021). Overall, facilitating choice and a sense of mattering in youth is an existing and important high-quality practice for leaders of BBL programs.

Connections and overlaps across the promising practices were seen as well, where the nature of one practice may have influenced how other practices manifested. For instance, a lack of control over transitions (a component of appropriate structure), can result in greater idle time and/or more disorder for youth members (indicating a low level of engagement and high levels of chaos). Similarly, more opportunities for cognitive growth in discussing the benefits of teamwork in and outside of the program, may result in more supportive peer relationships, and higher levels of engagement in activities. Finally, scholars have suggested that the presence of supportive adult-youth relationships and positive emotional climates are necessary for higher level development (e.g., sport and life skills) to occur (Bean et al., 2018; Gould & Carson, 2008; Holt et al., 2017). The interconnectedness of these factors may be useful to learn how leaders may leverage multi-faceted strategies to facilitate multiple high-quality program practices and interactions, and navigate challenges that may otherwise compromise multiple promising practices (Bean et al., 2020; Eccles & Gootman, 2002).

There were also differences across dimensions with programs run by trained leaders versus untrained leaders. It was clear that leaders trained with a trauma-sensitive lens were

equipped to provide strong emotional support to members, respond to members in times of dysregulation, and offer strategies to help them manage their current and future stress. As well, the training curriculum recognised the importance of prioritising enjoyment in BBL; for example, the coaching sport component taught leaders to minimise use of “laps, lines, and lectures”, and instead promote game-based activities. Such foci may have influenced the high levels of engagement seen in programs run by trained leaders. Trained leaders also used more BBL-related language to facilitate opportunities for cognitive growth, whether through facilitating structured discussions on skill-use in sport and in life, encouraging skill use within the programs, and bringing skill discussions into teachable moments to promote peer connection and emotional regulation. The differences seen here highlight the importance of training emphasised in previous literature as a significant implementation factor (Durlak & DuPre, 2008; Fixsen et al., 2009; Purtle, 2020).

Youth development scholars have posited that when programs facilitate both a positive climate along with an explicit focus on integrating and teaching life skills, they can promote optimal youth development (e.g., benefits across personal, social, and physical domains; Bean et al., 2018; Holt et al., 2017). To a large extent, the BBL programs achieved this in facilitating caring, supportive adult and peer relationships, and – for programs ran by trained leaders – an explicit focus on discussing BBL skills and encouraging their use. However, for trained leaders, while an explicit pathway may have been evident for promoting life skill development, sport and physical skill development seemed to have been more implicitly facilitated. In contrast, leaders without training tended to refer back to traditional notions of sport programming, putting greater emphasis on goals of development and competition (Trudel & Gilbert, 2006). Thus, an imbalance was seen in what domains of skill-building were being facilitated by the differently trained leaders. Scholars in youth development have emphasised the necessity to consider holistic

approaches to facilitating programming that balance and prioritise the physical domains as much as the personal and social domains (Camiré et al., 2011; Holt et al., 2017; Newman et al., 2018). BGC Canada could support leaders to take up beginner level coaching training or national accreditation beyond BBL training alone (e.g., [National Coaching Certification Program](#)), as well as expanding the BBL training to include a more explicit focus on developing leaders' skills in creating progressive skill-building activities and accommodating age groups (desired by some leaders in this study).

Another factor of program quality that may need to be considered is the flexibility of leaders. Trained leaders with more knowledge of facilitating the program were more agile in their ability to adapt programming based on new situations and members' needs. Adaptability of trauma-sensitive content is valued by leaders, given the dynamic needs of youth in group settings; an ability which demands reflexivity (Oosterbroek & Dirk, 2021). Enabling such adaptations may help maximise youth outcomes through supporting their engagement, without compromising youth outcomes (Iachini et al., 2014). Without such flexibility, leaders may be susceptible to rigidity and 'by-the-book' programming, failing to adequately contextualise programming to fully meet the individual and group participant needs and demands of the setting. As such, future research should examine how adaptability may facilitate program delivery, and BGC Canada and similar organizations should consider monitoring and evaluating these adaptations to inform program improvements (Dusenbury et al., 2003; Søvik et al., 2016).

With regards to training, the BBL leadership team's original intention was to train all leaders responsible for designing and facilitating BBL to implement the program. However, due to funding limitations and miscommunications, clubs differed in who they sent to training; some clubs only sent their frontline staff (coaches), while others only sent their supervisors. Given that the training workshop was largely geared toward the philosophies towards youth work and

4966 facilitation of programming, leaders who attended the workshop were likely trained as coaches
4967 than as supervisors. In the future, it would be ideal for training workshops to set expectations for
4968 clubs to send both coaches and managers to support (rather than one or the other), and cater
4969 content to the different roles/backgrounds of leaders attending (Morgan et al., 2013; Stodter &
4970 Cushion, 2016).

4971 Leader turnover is an inevitable reality of non-profit community programming and a
4972 common challenge the clubs had to navigate. In the training workshop, the leaders were trained in
4973 learning how to facilitate programming itself, and the underlying philosophies of their practice,
4974 but were not trained in how to translate this learning to their fellow leaders and parents/
4975 caregivers. Thus, BGC Canada should consider preparing training resources that leaders can take
4976 back to their clubs to use in developing trauma-sensitive leadership in programs, as well as
4977 setting expectations that programs must be run with at least one trauma-sensitive trained leader
4978 on the ground. As well, knowledge sharing can be supported beyond the workshop alone, through
4979 opportunities for leaders to engage in knowledge sharing in discussion forums, communities of
4980 practice, shadowing leaders, or training leaders to become in-house trainers (Culver & Duarte,
4981 2022; Werner & Dickson, 2018).

4982 This study was advantageous in being able to capture the nature of BBL programming
4983 across a wide variety of contexts, differing in populations, resources, and coaching. From these
4984 data, some conclusions were drawn related to the differences in practices of trained versus
4985 untrained leaders. These results aligned with claims of the importance of training, as a lack of
4986 training may otherwise result in ineffective life skills teaching (Webb & Karlis, 2021). However,
4987 these interpretations should be taken with caution. Beyond leaders' practices and training alone,
4988 the context and demands of the setting (e.g., characteristics of leaders, youth members,
4989 resources), likely also contributed to the variances in practices that were seen (Vandell, Reisner,

et al., 2005). For instance, smaller clubs may have lower youth-to-leader ratios which may result in stronger relationships. Similarly, strong links to developmental benefits have been seen in programs where the leaders identify with youth's experiences (e.g., through culture, similar backgrounds; Kuperminc et al., 2019). Thus, training alone may not be the only indicator of high to low quality differences. As such, future research involving repeated observations with multiple settings, capturing factors beyond coaching practice, could enlighten the degree to which BBL, under different conditions, can be associated with positive developmental climates.

This study benefitted from using multiple data measures to understand the nature of programming and quality from a diversity of perspectives. Observations offered an external lens to programming, the interviews offered a co-constructed lens to programming, and the logbooks helped provide an internal, self-report lens to programming. However, while each data collection strategy was generally relevant to the evaluation of sport-based PYD program implementation, greater consistency in the program features assessed in these measures may enhance the study's conclusions around fidelity and quality of implementing a trauma-sensitive sport model.

Additionally, in the absence of external parties, the logbooks offered an easily accessible tool for evaluating program implementation and quality from session-to-session (Newman et al., 2021). The logbooks also doubled as a learning tool, in helping staff reflect on their program successes and challenges and identify areas of improvement that they can action immediately in their subsequent program sessions and potentially their broader practices (Boutet et al., 2017; Gilbert & Trudel, 2001). As such, future work in evaluating BBL and similar programs should consider incorporating logbooks as a cost-effective means of documenting program processes.

Conclusions

Overall, this study offered a look into how sport-based trauma-sensitive programming was actioned in BGC Canada, and how well this programming aligned with promising practices

5014 to promote youth development. Some insights were generated on the difference that leaders'
5015 training may have on the quality of these programs, in addressing barriers to participation for
5016 trauma-exposed youth, exhibiting supportive responses to youth in times of stress, and helping
5017 equip these youth with skills to manage stress and emotional regulation. More work is needed to
5018 understand broader factors that may contribute to program quality beyond leaders' practices, and
5019 investigating links between these practices and youth's developmental outcomes. The
5020 implications of this study can inform BGC Canada's future work on improving this program in
5021 terms of leaders' training, as well as in the monitoring and evaluation of such programs to
5022 improve youth's experiences.

5023

References

- Anthony, E. K., Alter, C. F., & Jenson, J. M. (2009). Development of a risk and resilience-based out-of-school time program for children and youths. *Social Work, 54*(1), 45–55.
<https://doi.org/10.1093/sw/54.1.45>
- Bean, C., Kramers, S., Forneris, T., & Camiré, M. (2018). The implicit/explicit continuum of life skills development and transfer. *Quest, 70*(4), 456–470.
<https://doi.org/10.1080/00336297.2018.1451348>
- Bean, C., Shaikh, M., & Forneris, T. (2020). Coaching strategies used to deliver quality youth sport programming. *International Sport Coaching Journal, 7*(1), 39–51.
<https://doi.org/10.1123/iscj.2018-0044>
- Bergholz, L., Stafford, E., & D’Andrea, W. (2016). Creating trauma-informed sports programming for traumatised youth: Core principles for an adjunctive therapeutic approach. *Journal of Infant, Child, and Adolescent Psychotherapy, 15*(3), 244–253.
<https://doi.org/10.1080/15289168.2016.1211836>
- Boutet, I., Vandette, M.-P., & Valiquette-Tessier, S.-C. (2017). Evaluating the implementation and effectiveness of reflection writing. *The Canadian Journal for the Scholarship of Teaching and Learning, 8*(1), Article 8. <https://doi.org/10.5206/cjsotl-rcacea.2017.1.8>
- Braun, V., Clarke, V., & Weate, P. (2016). Using thematic analysis in sport and exercise research. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 191–205). Routledge.
- Brendtro, L. K., Brokenleg, M., & Bockern, S. Van. (2002). *Reclaiming youth at risk: Our hope for the future*. Solution Tree Press.
- Bruner, M. W., McLaren, C. D., Sutcliffe, J. T., Gardner, L. A., Lubans, D. R., Smith, J. J., & Vella, S. A. (2021). The effect of sport-based interventions on positive youth development: A

- 5048 systematic review and meta-analysis. *International Review of Sport and Exercise*
 5049 *Psychology*. <https://doi.org/10.1080/1750984X.2021.1875496>
- 5050 Camiré, M., Forneris, T., Trudel, P., & Bernard, D. (2011). Strategies for helping coaches
 5051 facilitate positive youth development through sport. *Journal of Sport Psychology in Action*,
 5052 2(2), 92–99. <https://doi.org/10.1080/21520704.2011.584246>
- 5053 Camiré, M., Trudel, P., & Forneris, T. (2012). Coaching and transferring life skills: Philosophies
 5054 and strategies used by model high school coaches. *The Sport Psychologist*, 26, 243–260.
- 5055 Camiré, M., Trudel, P., & Forneris, T. (2014). Examining how model youth sport coaches learn to
 5056 facilitate positive youth development. *Physical Education and Sport Pedagogy*, 19(1), 1–17.
 5057 <https://doi.org/10.1080/17408989.2012.726975>
- 5058 Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004).
 5059 Positive youth development in the United States: Research findings on evaluations of
 5060 positive youth development programs. *The Annals of the American Academy of Political and*
 5061 *Social Science*, 591(1), 98–124. <https://doi.org/10.1177/0002716203260102>
- 5062 Cherryholmes, C. H. (1992). Notes on pragmatism and scientific realism. *Educational*
 5063 *Researcher*, 21(6), 13–17. <https://doi.org/10.2307/1176502>
- 5064 Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed*
 5065 *methods approaches* (5th ed.). SAGE.
- 5066 Culver, D. M., & Duarte, T. (2022). Communities of practice and social learning spaces for sport
 5067 coach learning: What and how. In *Practical Sports Coaching* (2nd ed., pp. 187–198).
 5068 Routledge.
- 5069 D’Andrea, W., Bergholz, L., Fortunato, A., & Spinazzola, J. (2013). Play to the whistle: A pilot
 5070 investigation of a sports-based intervention for traumatised girls in residential treatment.
 5071 *Journal of Family Violence*, 28(7), 739–749. <https://doi.org/10.1007/s10896-013-9533-x>

- 5072 Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the
 5073 influence of implementation on program outcomes and the factors affecting implementation.
 5074 *American Journal of Community Psychology*, 41(3–4), 327–350.
 5075 <https://doi.org/10.1007/s10464-008-9165-0>
- 5076 Dusenbury, L., Brannigan, R., Falco, M., & Hansen, W. B. (2003). A review of research on
 5077 fidelity of implementation: Implications for drug abuse prevention in school settings. *Health*
 5078 *Education Research*, 18(2), 237–256. <https://doi.org/10.1093/her/18.2.237>
- 5079 Eccles, J., & Gootman, J. A. (2002). *Community programs to promote youth development*.
 5080 National Academies Press. <https://doi.org/10.1177/0044118X06288912>
- 5081 Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic
 5082 review of the psychological and social benefits of participation in sport for children and
 5083 adolescents: Informing development of a conceptual model of health through sport.
 5084 *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 98.
 5085 <https://doi.org/10.1186/1479-5868-10-135>
- 5086 Fixsen, D., Blase, K., Naoom, S., & Wallace, F. (2009). Core implementation components.
 5087 *Research on Social Work Practice*, 19(5), 531–540.
 5088 <https://doi.org/10.1177/1049731509335549>
- 5089 Gilbert, W., & Trudel, P. (2001). Learning to coach through experience: Reflection in model
 5090 youth sport coaches. *Journal of Teaching in Physical Education*, 21, 16–34.
- 5091 Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future
 5092 directions. *International Review of Sport and Exercise Psychology*, 1(1), 58–78.
 5093 <https://doi.org/10.1080/17509840701834573>
- 5094 Granger, R. C., Durlak, J. a., Yohalem, N., & Reisner, E. (2007). *Improving after-school program*
 5095 *quality*. <https://www.wtgrantfoundation.org>

- 5096 Henley, R., Schweizer, I., de Gara, F., & Vetter, S. (2007). How psychosocial sport & play
 5097 programs help youth manage adversity: A review of what we know & what we should
 5098 research. *International Journal of Psychosocial Rehabilitation*, 12(1), 2.
 5099 <https://doi.org/10.5167/uzh-9849>
- 5100 Holt, N. L., Deal, C. J., & Pankow, K. (2020). Positive youth development through sport. In G.
 5101 Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (4th ed., Vol. 1, pp. 429–
 5102 446). John Wiley & Sons, Inc. <https://doi.org/10.4324/9780203944783>
- 5103 Holt, N. L., Deal, C., & Smyth, C. (2016). Future directions for positive youth development
 5104 through sport. In N. L. Holt (Ed.), *Positive youth development through sport* (2nd ed., pp.
 5105 229–240). Routledge.
- 5106 Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D.
 5107 J., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth
 5108 development through sport based on results from a qualitative meta-study. *International*
 5109 *Review of Sport and Exercise Psychology*, 10(1), 1–49.
 5110 <https://doi.org/10.1080/1750984X.2016.1180704>
- 5111 Iachini, A. L., Beets, M. W., Ball, A., & Lohman, M. (2014). Process evaluation of “Girls on the
 5112 Run”: Exploring implementation in a physical activity-based positive youth development
 5113 program. *Evaluation and Program Planning*, 46, 1–9.
 5114 <https://doi.org/10.1016/j.evalprogplan.2014.05.001>
- 5115 Kimberg, L., & Wheeler, M. (2019). Trauma and trauma-informed care. In M. R. Gerber (Ed.),
 5116 *Trauma-Informed Healthcare Approaches* (pp. 25–56). Springer Nature Switzerland.
 5117 https://doi.org/10.1007/978-3-030-04342-1_2
- 5118 Kramers, S., Turgeon, S., Bean, C., Sabourin, C., & Camiré, M. (2020). Examining the roles of
 5119 coaching experience and coach training on coaches’ perceived life skills teaching.

- 5120 *International Journal of Sports Science and Coaching*, 15(4), 576–583.
 5121 <https://doi.org/10.1177/1747954120922367>
- 5122 Kuperminc, G. P., Seitz, S., Joseph, H., Khatib, N., Wilson, C., Collins, K., & Guessous, O.
 5123 (2019). Enhancing program quality in a national sample of after-school settings: The role of
 5124 youth–staff interactions and staff/organizational functioning. *American Journal of*
 5125 *Community Psychology*, 63(3–4), 391–404. <https://doi.org/10.1002/ajcp.12329>
- 5126 Leitch, L. (2017). Action steps using ACEs and trauma-informed care: A resilience model. *Health*
 5127 *& Justice*, 5(5), 1–10. <https://doi.org/10.1186/s40352-017-0050-5>
- 5128 Lowenthal, A. (2020). Trauma-informed care implementation in the child- and youth-serving
 5129 sectors: A scoping review. *International Journal of Child and Adolescent Resilience*, 7(1),
 5130 178–194.
- 5131 Massey, W. V., & Whitley, M. A. (2016). The role of sport for youth amidst trauma and chaos.
 5132 *Qualitative Research in Sport, Exercise and Health*, 8(5), 487–504.
 5133 <https://doi.org/10.1080/2159676X.2016.1204351>
- 5134 Matheson, K., Foster, M. D., Bombay, A., McQuaid, R. J., & Anisman, H. (2019). Traumatic
 5135 experiences, perceived discrimination, and psychological distress among members of
 5136 various socially marginalised groups. *Frontiers in Psychology*, 10, 1–16.
 5137 <https://doi.org/10.3389/fpsyg.2019.00416>
- 5138 McCarthy, J., Bergholz, L., & Bartlett, M. (2016). *Re-designing youth sport: Change the game*.
 5139 Routledge.
- 5140 McDavid, L., & McDonough, M. H. (2020). Observed staff engagement predicts positive
 5141 relationships and well-being in a physical activity-based program for low-income youth.
 5142 *Psychology of Sport and Exercise*, 49(June 2019), Article: 101705.
 5143 <https://doi.org/10.1016/j.psychsport.2020.101705>

- 5144 Morgan, K., Jones, R. L., Gilbourne, D., & Llewellyn, D. (2013). Innovative approaches to coach
5145 education pedagogy. *Nuances: Estudos Sobre Educação*, 24(1), 218–234.
5146 <https://doi.org/10.14572/nuances.v24i1.2170>
- 5147 Newman, T. J., Kim, M., Alvarez, M. A. G., & Tucker, A. R. (2018). Facilitative coaching: A
5148 guide for youth sport leaders. *Leisure/ Loisir*, 42(2), 129–148.
5149 <https://doi.org/10.1080/14927713.2017.1415165>
- 5150 Newman, T. J., Lower-Hoppe, L., Anderson-Butcher, D., & Paluta, L. M. (2021). Process
5151 evaluation examining the implementation of a sport-based positive youth development
5152 program. *Journal of Youth Development*, 15(6), 70–90.
5153 <https://doi.org/10.5195/JYD.2020.890>
- 5154 Oh, Y., Osgood, D. W., & Smith, E. P. (2016). Measuring afterschool program quality using
5155 setting-level observational approaches. *Journal of Early Adolescence*, 35(5–6), 681–713.
5156 <https://doi.org/10.1177/0272431614561261>
- 5157 Oosterbroek, T., & Dirk, B. (2021). The experience of Trauma Center-Trauma Sensitive Yoga
5158 training on professional practice of mental health professionals and yoga instructors.
5159 *Complementary Therapies in Clinical Practice*, 43(April 2020), Article: 101365.
5160 <https://doi.org/10.1016/j.ctcp.2021.101365>
- 5161 Policy Studies Associates Inc. (2005). *Promising Practices Rating System*.
- 5162 Purtle, J. (2020). Systematic review of evaluations of trauma-informed organizational
5163 interventions that include staff trainings. *Trauma, Violence, and Abuse*, 21(4), 725–740.
5164 <https://doi.org/10.1177/1524838018791304>
- 5165 QSR International. (2020). *NVivo R1 [Computer software]*. QSR International Pty Ltd.
- 5166 SAMHSA. (2014). SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed
5167 Approach. *HHS Publication*, July, 27.

- 5168 Santos, F., Camiré, M., MacDonald, D. J., Campos, H., Conceição, M., & Silva, P. (2017). Youth
 5169 sport coaches' perspective on positive youth development and its worth in mainstream coach
 5170 education courses. *International Sport Coaching Journal*, 4(1), 38–46.
 5171 <https://doi.org/10.1123/iscj.2016-0092>
- 5172 Shaikh, M., Bean, C., Bergholz, L., Rojas, M., Ali, M., & Forneris, T. (2021). Integrating a sport-
 5173 based trauma-sensitive program in a national youth-serving organization. *Child and*
 5174 *Adolescent Social Work Journal*, 38, 449–461. <https://doi.org/10.1007/s10560-021-00776-7>
- 5175 Shek, D. T., Dou, D., Zhu, X., & Chai, W. (2019). Positive youth development: Current
 5176 perspectives. *Adolescent Health, Medicine and Therapeutics*, 10, 131–141.
- 5177 Sieving, R. E., McRee, A. L., McMorris, B. J., Shlafer, R. J., Gower, A. L., Kapa, H. M.,
 5178 Beckman, K. J., Doty, J. L., Plowman, S. L., & Resnick, M. D. (2017). Youth–adult
 5179 connectedness: A key protective factor for adolescent health. *American Journal of*
 5180 *Preventive Medicine*, 52(3), S275–S278. <https://doi.org/10.1016/j.amepre.2016.07.037>
- 5181 Søvik, M. L., Larsen, T., Tjomsland, H., & Samdal, O. (2016). Evaluating the implementation of
 5182 the Empowering CoachingTM programme: Balancing fidelity and adaptation. *Health*
 5183 *Education*, 116(3), 238–258. <https://doi.org/10.1108/HE-07-2014-0077>
- 5184 Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage*
 5185 *handbook of qualitative research* (3rd ed., pp. 443–466). SAGE Publications.
- 5186 Stodter, A., & Cushion, C. J. (2016). Effective coach learning and processes of coaches'
 5187 knowledge development: What works? In *The Psychology of Effective Coaching and*
 5188 *Management* (pp. 35–51).
- 5189 Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In D. Kirk, D. Macdonald, & M.
 5190 O'Sullivan (Eds.), *Handbook of Physical Education* (pp. 516–539). SAGE.
 5191 <https://doi.org/10.4135/9781848608009.n29>

- 5192 Vandell, D. L., Pierce, K. M., & Dadisman, K. (2005). Out-of-school settings as a developmental
 5193 context for children and youth. In R. Kail (Ed.), *Advances in Child Development and*
 5194 *Behavior* (pp. 43–77). Elsevier.
- 5195 Vandell, D. L., Reisner, E. R., Brown, B. B., Dadisman, K., Pierce, K. M., Lee, D., & Pechman,
 5196 E. M. (2005). *The study of promising after-school programs: Examination of intermediate*
 5197 *outcomes in Year 2*. <https://www.researchconnections.org/childcare/resources/8077>
- 5198 Vandell, D. L., Reisner, E. R., Pierce, K. M., Brown, B. B., Lee, D., Bolt, D., & Pechman, E. M.
 5199 (2006). *The study of promising after-school programs: Examination of longer term outcomes*
 5200 *after two years of program experiences*.
 5201 <https://www.researchconnections.org/childcare/resources/13440>
- 5202 Vella, S. A., Oades, L., & Crowe, T. (2011). The role of the coach in facilitating positive youth
 5203 development: Moving from theory to practice. *Journal of Applied Sport Psychology*, 23(1),
 5204 33–48. <https://doi.org/10.1080/10413200.2010.511423>
- 5205 Walsh, D. S. (2008). Helping youth in underserved communities envision possible futures: An
 5206 extension of the teaching personal and social responsibility model. *Research Quarterly for*
 5207 *Exercise and Sport*, 79(2), 209–221. <https://doi.org/10.1080/02701367.2008.10599484>
- 5208 Werner, K., & Dickson, G. (2018). Coworker knowledge sharing and peer learning among elite
 5209 footballers: Insights from German Bundesliga players. *Sport Management Review*, 21(5),
 5210 596–611. <https://doi.org/10.1016/j.smr.2018.02.001>
- 5211 Whitley, M. A., Massey, W. V., & Wilkison, M. (2018). A systems theory of development through
 5212 sport for traumatised and disadvantaged youth. *Psychology of Sport and Exercise*, 38, 116–
 5213 125. <https://doi.org/10.1016/j.psychsport.2018.06.004>
- 5214 Whitley, M. A., Massey, W. V., Camiré, M., Blom, L. C., Chawansky, M., Forde, S., Boutet, M.,
 5215 Borbee, A., & Simon, C. (2019). A systematic review of sport for development interventions

5216 across six global cities. *Sport Management Review*, 22(2), 181–193.

5217 <https://doi.org/10.1016/j.smr.2018.06.013>

5218

CHAPTER IV

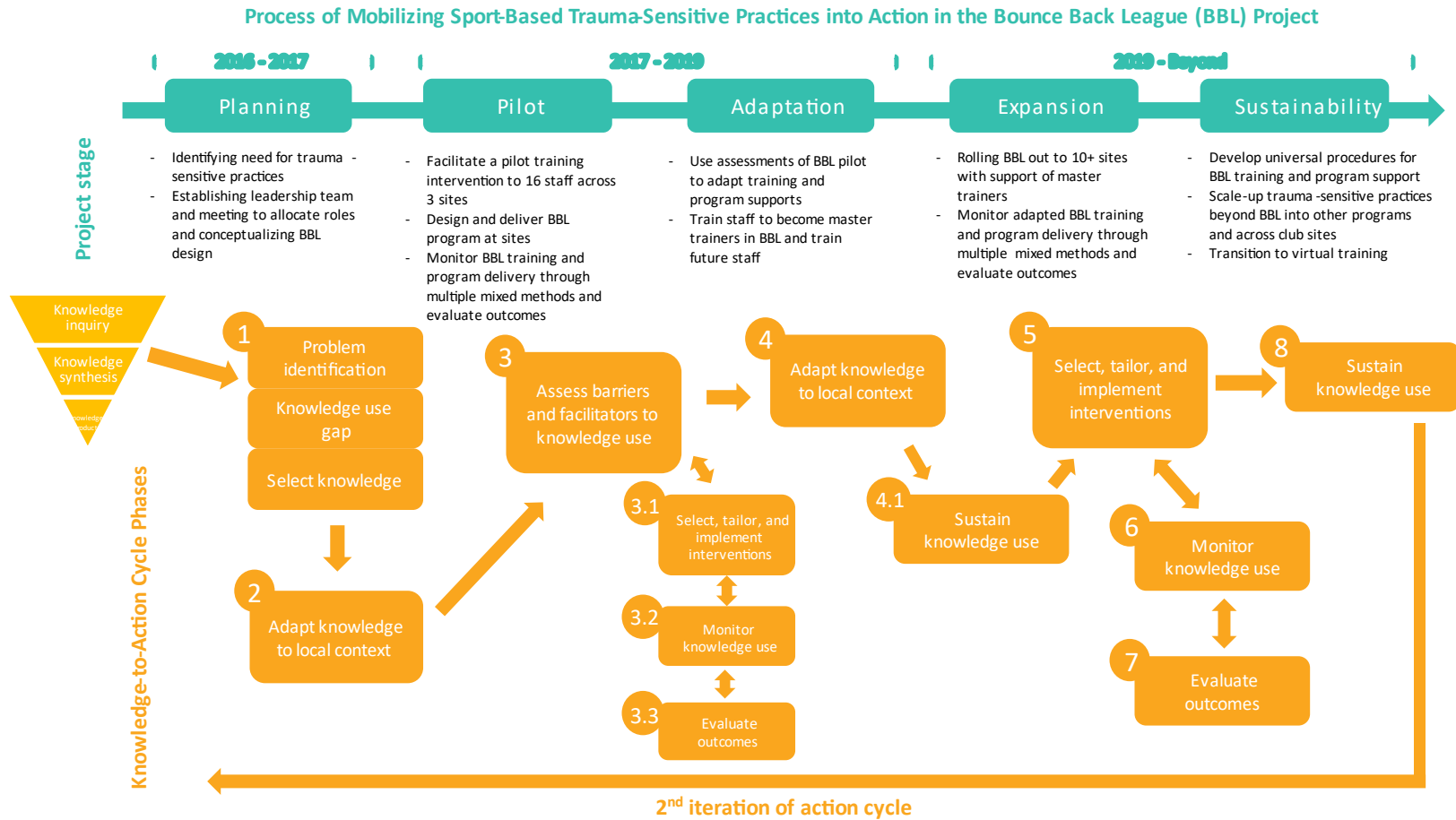
General Discussion

This dissertation explored the processes and outcomes of translating a trauma-sensitive sport model within a community organization. The empirical studies comprised in this PhD involved the monitoring and evaluation of implementing the BBL initiative, as it related to training and development (T&D), program design and delivery, and outcomes. In the next section a summary of the articles is described, and their interconnections based on the knowledge-to-action cycle (KTAC, Bowen & Graham, 2013; Graham et al., 2006).

Summary of Articles

Article 1 described how the BBL initiative was carried out, using the KTAC as a process model to conceptually guide the evaluation studies offered in this dissertation (See Figure 3, re-included below). Starting from the knowledge creation phase, to help address the *problem* of the BGC context (i.e., the prevalence of underserved youth who face traumatic exposure who participate in BGC Canada clubs), and to fulfill an existing *knowledge gap* (i.e., programs lack the support needed to assist trauma-exposed youth in their healing), the *relevant knowledge selected* was the trauma-sensitive sport model. The action cycle was then leveraged to action the trauma-sensitive sport model, where initiative development and implementation spanned several stages: (a) planning: collaboratively planning the program; (b) pilot: piloting the program to three clubs; (c) adaptation: adapting the program using pilot insights; (d) expansion: expanding the adapted program to ten clubs; and (e) sustainability: creating opportunities to maintain, sustain, and scale-out practices throughout the grant duration and beyond. The planning, adaptation, and sustainability phases, while presented linearly, also carried several processes across the initiative, such as collaborative decision-making, knowledge sharing, soliciting feedback, adapting training and implementation supports, and co-developing program materials and knowledge products.

5243 Figure 3. *Process of Mobilising Sport-Based Trauma-Sensitive Practices Into Action in the Bounce Back League (BBL) Project*



Article 2 provided an overview of a two-year evaluation of the pilot stage of the program. The purpose of this article with respect to the KTAC model was to *assess barriers and facilitators to knowledge use*. Three clubs participated in training, implementation, and evaluation of the program, and data were collected through leaders' self-report measures and interviews, attendance and demographic forms, and leaders' assessments of youth's participation. The RE-AIM framework (Glasgow et al., 1999, 2019) was used to categorise the various processes and outcomes involved in program implementation. The results showed that programs reached many youth but struggled with year-to-year retention. Staff perceived the intentional structure of the program, opportunities to practice self-regulation, relationship focus, and life skill focus, were linked to positive participation in youth members. Components of staff training and program delivery were noted as successful, but the sustained benefits of these successes were challenged by staff turnover and funding limitations. Referring to Article 1, the results of the pilot were used to adapt programming, aligning with the KTAC phase of *adapt knowledge to the local context*. Some of these adaptations included modifying training modules and resources to include more BGC-relevant language and contextual considerations, more training on individual and group management, bi-monthly check-ins with clubs, recommendations for addressing staff turnover, and promotion of materials.

Articles 3 and 4 further examined processes of knowledge translation and implementation with an in-depth look at leaders' training, learning, and application experiences. Both articles paralleled the *select, tailor, and implement interventions* phase of the KTAC model to examine the processes and outcomes of participating in T&D activities, as well as the different personal and social activities in which leaders learn. Data were collected through observations of training workshops, self-report questionnaires, communications on an online messaging platform, and interviews with leaders to capture different aspects of learning. The *evaluate outcomes* phase of

the KTAC model was also focused on here, where it was explored how T&D activities influenced leaders' relevant knowledge, attitudes, confidence, intentions, and behaviour change. In addition, the value-creation framework (Wenger-Trayner & Wenger-Trayner, 2020; Wenger et al., 2011) was used to explore learning experiences based on the interactions and values that leaders discussed. *Orienting value* was constructed in the alignment seen between leaders' biographies/experiences with their intentions for participating in a trauma-sensitive sport model to better meet the needs of their contexts. Subsequently, *immediate value* was derived in leaders' engagement in relevant, useful, and enjoyable learning activities applicable to their roles and contexts (and this value was absent when content did not align with their roles), as well as through connections to peers with diverse perspectives. *Enabling value* for the leaders was generated through the facilitation of the space by credible and strong facilitators, who facilitated a variety of interactive and learner-centred activities. *Potential value* was generated through leaders' linking their T&D experiences and knowledge with their past experiences and the realities of their current contexts, while also re-conceptualising their practices. *Applied value* was generated in leaders applying novel program practices and understanding their use, as well as adapting program knowledge to meet the demands of their contexts, their coaching styles, and the needs of their participants. *Realised value* was generated through members' receptivity to programming, and their behaviour change in terms of growing comfort with leaders and development of life skills. Finally, *transformative value* was generated in leaders transferring their training knowledge to practices and ways of thinking beyond the BBL initiative.

Finally, Article 5 examined the extent and quality to which the trauma-sensitive sport model was applied by leaders, through the lens of *promising practices* in youth development programming (Vandell et al., 2004). This article paralleled the *monitor knowledge use* phase of the KTAC model. Observations of leaders' practices, pre-and-post-session interviews, and self-

reported logbooks were used to examine program quality. The results of the thematic analysis showed: (a) evidence of supportive relationships with adults and peers across all observed sessions, (b) programs led by trained leaders were stronger than untrained leaders in maintaining appropriate structure, maximising engagement, and providing opportunities for cognitive growth (i.e., discussing life skills), (c) all leaders encountered difficulty with managing large groups of youth, and (d) limited evidence of mastery-oriented practices from trained leaders.

The following sections offer an integrated discussion and interpretation of these results with respect to the relevant literature and the realities of the BGC Canada context. Suggested directions for current and future research and practice on the BBL initiative are also offered. These sections are divided into: (a) training and development, (b) program planning delivery, (c) intervention planning, and (d) partnership and management.

Training and Development

Examinations of the learning experiences of leaders helped generate understandings of the existing capacities of leaders in BGC Canada, the factors that facilitate or constrain their learning, what they gained from their participation in T&D activities, how their participation contributed to knowledge application, and how their knowledge application contributed to individual development, the program environment, and organizational learning.

Leaders' biographies, cognitive structures, and contexts guided what they sought to learn, what they learned, how they interacted in T&D activities, and how this learning influenced changes to their practices and overall identities (Cushion et al., 2003; Stodter & Cushion, 2017; Trudel et al., 2013). Thus, it is important that the content and delivery of T&D opportunities are tailored to meet the needs of different learners based on their biographies and the realities of their contexts. To an extent, BBL accomplished this, in that the leadership team worked together to inform the T&D content, incorporating knowledge about the realities of leaders' roles and the

5317 BGC club contexts. The master trainers, as members of Edgework Consulting, held practice-
 5318 based knowledge that informed the relevance of training content and their facilitation. As well,
 5319 T&D facilitation methods helped leaders (co-)construct, reflect on, and negotiate how the
 5320 knowledge can meet the needs of their own practice, their youth members, and contextual
 5321 demands. The following sections describe the processes and outcomes involved in leaders'
 5322 learning in BBL, within and across non-formal and informal learning settings.

5323 **Non-formal learning settings.** The primary ways to purposefully train leaders in BBL
 5324 was through multiple initial and refresher training workshops. These workshops were facilitated
 5325 by master and in-house trainers, who used a variety of different teaching methods (e.g., didactic
 5326 methods, discussions, brainstorming, role play, problem-based learning, experiential learning) to
 5327 train leaders on BBL philosophies and practices. This mixture of teacher-centred and learner-
 5328 centred methods created flexible learning opportunities to accommodate the diversity of ways in
 5329 which people learn, with each person deriving a different experience despite being part of the
 5330 same learning setting (Jarvis, 2009; Moon, 2001, 2004; Stodter & Cushion, 2017; Trudel et al.,
 5331 2010). This use of mixed teaching aligned with recommendations for fostering effective learning
 5332 (Guest, 2001; Shirani Bidabadi et al., 2016). Additionally, given the plethora of formal T&D
 5333 opportunities focused primarily on teacher-centred learning (Gilbert et al., 2009; Trudel &
 5334 Gilbert, 2006), the use of learner-centred teaching strategies has become increasingly favourable
 5335 in sport leaders' T&D (Deek et al., 2013; Morgan et al., 2013b; Paquette & Trudel, 2018). More
 5336 specifically, experiential learning (e.g., role play, movement-based activities), and problem-based
 5337 learning (e.g., working together to solve relevant problems/issues) were favoured in helping
 5338 leaders learn in the doing, engage in reflection-in-action, and work with context-specific issues.
 5339 These learning methods have been increasingly recognised as a source of knowledge for sport
 5340 leaders (Erickson et al., 2008; Van Woezik et al., 2021), and useful for facilitating knowledge

application in practice (Gilbert & Trudel, 2001; Mesquita et al., 2015; Newman et al., 2017). The social nature of learning was also vital in helping leaders (co-)construct meaning that can be effectively applied (Griffo et al., 2019). In BBL, leaders learned through several social interactions such as group discussions and games in training workshops, and interactions with peers in their coaching practice. These social learning activities helped expose individuals to different perspectives than their own, share knowledge with one another, and engage in reflection processes (Bertram et al., 2017; Nelson et al., 2013).

At the same time, some leaders still found that the T&D content was not aligned with their roles (i.e., content being designed for front-line personnel/coaches more than supervising leaders). Thus, it is vital to understand leaders' existing biographies and contexts to help tailor environments and facilitation strategies to meet these needs and demands (Nelson & Cushion, 2006; Stodter & Cushion, 2016). In BBL, the use of evaluation activities helped address this, in using feedback from leaders to adapt subsequent T&D opportunities.

The effectiveness of learner-centred activities is dependent on the skills of trainers (Morgan et al., 2013a), and the profile of the trainer can determine the influence they have on others, along with their presentation of authentic selves (Dohme et al., 2019; Horgan & Daly, 2015). In this initiative, the master trainers were seen as credible, strong, and able to share context-relevant stories from their own experiences in on-the-ground work in designing and facilitating programming (Horgan & Daly, 2015). The in-house trainers, while not necessarily experts in the manner the master trainers were, may have offered a different form of credibility in having deep familiarization with the realities of the BGC context given their lived experiences (Orfaly et al., 2005). This is important in that expertise may be limited by 'what works' in the experts' contexts, and not necessarily contextualised to a BGC context the same way local knowledge of the in-house trainers was. As a result, the use of facilitation strategies that fostered

collaboration and problem-based learning was paramount to shifting from a primarily teaching-centred environment – which may otherwise prioritise the trainers’ biographies and contextual knowledge – to a learner-centred environment that enables leaders to co-construct knowledge based on their own needs and contexts (Paquette & Trudel, 2018).

With regards to content of T&D opportunities, leaders valued being introduced to activities that helped build foundational knowledge (explicit knowledge) and practical skills (tacit knowledge). Reflecting on Côté and Gilbert’s categorizations of knowledge for effective coaching practices, the T&D content paralleled these categories, in covering aspects of professional knowledge (e.g., BBL program characteristics, sport coaching strategies), interpersonal knowledge (e.g., fostering caring relationships, supporting youth in times of stress), and intrapersonal knowledge (e.g., realising the prevalence and impact of trauma on youth, and adopting trauma-aware philosophies to youth work; Côté & Gilbert, 2009; Gilbert & Côté, 2013). Given the differences in programs run by trained leaders versus untrained leaders, this may suggest a strong connection between the workshop knowledge and situated action, suggesting leaders built deep learning around the philosophies/theories underlying their practice (Moon, 2004).

In terms of learning outcomes from the initial training workshops, the leaders developed a greater awareness of the prevalence and impact of trauma on the brain, body, and behaviour, and their roles in supporting youth’s trauma healing through sport. The leaders also demonstrated shifts in attitudes towards valuing training knowledge in offering a new lens and skillset to their existing youth work practice. In related literature, initial training workshops helped leaders develop knowledge, attitudes, and behaviours favourable to sport-based PYD (Falcão et al., 2012; Macdonald et al., 2020; Santos, Camiré, et al., 2019) and trauma-sensitive practice (Purtle, 2020) after initial training.

Informal T&D Processes and Outcomes.

Given that it can be challenging to change deep-seated philosophies and subsequent practices based on short courses and workshops alone (Stodter & Cushion, 2019), offering post-workshop and training opportunities has been suggested to help maintain leaders' learning (Moon, 2001). In both youth sport and trauma-sensitive contexts, such opportunities have been demonstrated to be effective in helping leaders maintain their knowledge and facilitate their knowledge application (Fixsen et al., 2009; Macdonald et al., 2020; Raymond & Lappin, 2017; Santos, Gould, et al., 2019).

Informal learning settings occurred in and outside of BBL programming, and included T&D activities provided purposefully by the leadership team (e.g., mentoring from trainers, monthly meetings, creating and facilitating discussions on Slack) and unanticipated or naturally-occurring activities (e.g., learning in the doing, interactions with peers, participating in evaluation activities, seeking online resources). Again, the same processes of facilitating social, experiential, and problem-based learning were seen to help engage leaders in reflection and thinking about the relevance of knowledge and knowledge application to their contexts (Knowles et al., 2001). Additionally, there were real opportunities to apply knowledge in the form of new strategies, observe and reflect on strategy use in the moment, and then actively adapt one's strategy based on these reflections (Gilbert & Trudel, 2001; Knowles et al., 2001; Stodter & Cushion, 2017). Similarly, the social nature of learning, in terms of peer interactions and knowledge sharing, enabled leaders' reflection on individual and group learning, practice, and contextual realities (Knowles et al., 2006), which research has shown to be associated with individual and organizational development (Amayah, 2013; Ipe, 2003; N. B. Jones et al., 2003; Kim & Yun, 2015). Collectively, these informal learning processes were promoted by the BBL leadership team, who encouraged leaders to take a trial-and-error approach to their work, interpret their mistakes as learning moments, and share their successes and challenges with peers.

5413 Knowledge was also shared purposefully through the development of program materials
5414 that contained explicit knowledge related to BBL philosophies and program practices.
5415 Standardised manuals and curricula help to provide clear frameworks of program models,
5416 curricula, and staff roles and responsibilities. The leaders reported using these materials to share
5417 knowledge with fellow leaders (see Article 4). Thus, such manuals can help augment the
5418 consistency of delivering program practices, transferring practices from one site to another,
5419 development of leaders, and evaluation and adaptation of activities (Coatsworth & Conroy, 2007;
5420 Greenberg et al., 2003).

5421 Evaluation activities (i.e., interviews and logbooks) have been linked to learning through
5422 reflection (Banerjee & Pawley, 2011; Stodter & Cushion, 2019); in BBL, leaders engaged in
5423 reflection-on-action implicitly in sharing their practice-based experiences, but also explicitly in
5424 offering feedback on how to improve programming and the BBL initiative overall. Similarly, the
5425 logbooks offered a structured means of a written reflection-on-action process, by asking leaders
5426 to report on their successes and challenges. Reflective writing can help leaders to consolidate
5427 their learning from different sources and re-think their approaches to practice (Alexandrache,
5428 2014; Boutet et al., 2017).

5429 Beyond the training workshops, leaders continued to retain knowledge, and found that
5430 T&D knowledge was applicable to youth interactions across the sport and non-sport activities
5431 they led, beyond BBL. That is, the leaders re-conceptualised and applied new ways for policies,
5432 procedures, and practices to be supportive to youth who may have experienced trauma. Some of
5433 the BBL knowledge was explicit – in that it offered perspectives and philosophies towards how
5434 youth experience trauma, and how programs and practices can be structured to support these
5435 youth. As such, this BBL knowledge was widely applicable and operated on a common lexicon
5436 that enabled its application across contexts (Kitson et al., 2013). As well, BBL knowledge may

5437 have been adapted well enough to align with the leaders' biographies and with the BGC club
5438 context, which helped to facilitate its transfer. Finally, continued involvement in practical,
5439 experiential, and problem-based T&D opportunities may have enabled opportunities for
5440 knowledge retention, testing and application of strategies in different contexts, and reflecting on
5441 knowledge use in and out of the context, facilitating knowledge transfer (Dolmans et al., 2005;
5442 Iachini et al., 2014; Yew & Goh, 2016).

5443 Participation in BBL also facilitated leaders' identity development. The pilot leaders
5444 sought to become advocates for the programming and realised their role in championing the
5445 approaches. Such identity development may have been facilitated through the constructivist
5446 nature of the workshop in discussing how leaders' roles and use of practices may have impact
5447 both within their own club, but also as part of the initiative as a whole (Dohme et al., 2019). This
5448 strategy was reflective of systems thinking (Stroh, 2015), in facilitating leaders' appreciation of
5449 the diversity of their roles and their contribution to a system as a whole. Facilitating such
5450 thinking may further contribute to transformative value (Wenger-Trayner & Wenger-Trayner,
5451 2020), where leaders in this initiative took it upon themselves to share knowledge with peers,
5452 train others, volunteer their time for elevated mentoring roles, and develop training content,
5453 contributing to shifts from individual learning towards organizational learning (Eisenhardt &
5454 Santos, 2002; Senge, 2006).

5455 Overall, the evaluations of leaders' participation in T&D activities, and through
5456 implementing the BBL, helped to understand how knowledge was translated through leaders'
5457 non-formal learning, informal learning, and knowledge application. Purposefully creating
5458 opportunities that maximise leaders' engagement in social interactions, practical and experiential
5459 learning, and reflection, can result in leaders' use of practices in the context, resulting in benefits
5460 to their own development as leaders and advocates for BBL programming.

5461 **Program Design and Delivery**

5462 To optimise the link between sport-based PYD programs and PYD outcomes, it is
 5463 necessary for programs to: (a) foster PYD climates characterised by caring and supportive
 5464 relationships between adults and peers, and facilitation of safe environments; and (b) provide an
 5465 explicit and intentional learning structure, characterised by a structured program/curriculum
 5466 model that emphasises the integration and teaching of sport-related skills and life skills (Holt et
 5467 al., 2017; Newman, Lower-Hoppe, et al., 2021). Integrating a trauma-sensitive lens, these PYD
 5468 climates need to foster environments that help youth feel a sense of safety and escape from re-
 5469 traumatization, feel accepted and a sense of belongingness despite the barriers they may face in
 5470 managing their emotions, and develop positive social connections and receive the support they
 5471 need to self-regulate in times of stress (Bergholz et al., 2016; Massey & Whitley, 2016; Whitley
 5472 et al., 2018). Thus, the learning structure needs to emphasise opportunities to learn and practice
 5473 self-regulation skills that involve help youth develop mindful awareness of the way their bodies
 5474 feel in times of stability and stress, seek support when they need it, build feelings of control, and
 5475 develop strategies to stabilise, rest, evaluate, and return to play, as important steps in the healing
 5476 process (Bergholz et al., 2016; Whitley et al., 2017). In BBL, it was recognised that leaders who
 5477 took part in training opportunities offered enhanced trauma-sensitive PYD climates and learning-
 5478 centred foci, across a variety of promising practices associated with youth development.

5479 Generally, in BBL, all programs facilitated good PYD climates. This may be due to the
 5480 existing capacities that leaders had to build relationships with youth, and strategies for
 5481 encouragement and support that aligned with their strength-focused values as an organization
 5482 (Koh et al., 2017). However, programs run by trained leaders were observed to foster stronger
 5483 PYD climates that were more aligned with the tenants of trauma-sensitive sport model, which
 5484 suggested that the training workshops were successful in promoting leaders' knowledge

application (behaviour change). In Articles 2 and 4, positive interactions and relationships between adults and youth were associated with youth's comfort in the program and approaching leaders to seek support, a process commonly reported in PYD-related literature (Rhodes, 2004; Rhodes et al., 2006). However, in Article 2 it was also noted that while some youth were drawn to sport and receptive to programming, not all youth derived benefits from their participation, which may be due to youth's differences in motivations (e.g., disinterest in sporting activities, not having enough friends). Perhaps, stronger links need to be established between how BBL programming and leaders' use of the trauma-sensitive model can meet youth's specific motivational needs (i.e., autonomy, competence, and relatedness; Deci & Ryan, 2002), and whether there are gaps in leaders' T&D in strategies to foster positive motivational climates. Such gaps may be addressed by incorporating existing strategies for fostering autonomy-supportive environments (e.g., Reeve & Jang, 2006; Reinboth & Duda, 2006), as well as integrating conceptual frameworks for needs-supportive coaching (e.g., Berntsen & Kristiansen, 2019; Hodge et al., 2013) into BBL T&D.

With regards to the learning structure, programs run by trained leaders tended to apply the workout structure and integrate life skills more consistently and effectively than the untrained leaders. This result showed that trained leaders used a more explicit approach to life skill development in their programs compared to untrained leaders, where more implicit pathways were fostered (Bean et al., 2018; Turnnidge et al., 2014). The trained leaders also noted that members showed evidence of increased prosocial behaviours and life skill development over time, which may have been due to their explicit life skill teaching, especially in that youth were using BBL-related language.

On the other hand, programs with trained leaders were seen to foster less explicit opportunities for sport and physical skill development. Such skill development is important to

5509 foster in trauma-sensitive programming as sport can offer an avenue for trauma-exposed youth to
 5510 build a variety of competencies through natural feedback mechanisms, and being able to see
 5511 one's progress through progressive task structures (Dye, 2018; Whitley et al., 2018). At a
 5512 relational and socio-environmental level, physical literacy development via sport skills may also
 5513 be important as a function of social capital, where more skilled players are more desired and
 5514 protected by those in their communities, while less skilled players are more subject to
 5515 disengagement (rejection, shame; Massey & Whitley, 2021).

5516 While leaders may have intended for members to develop physical and sport skills
 5517 through their programming (e.g., through exposure to different games, promoting high levels of
 5518 activity), several factors may have challenged their inclusion of explicit instruction and teaching
 5519 of sport and physical skills. For instance, BBL's emphasis on maximising enjoyment for all youth
 5520 may have influenced leaders to promote skill-building as elevating youth's perceptions of self-
 5521 competence and efficacy to *participate* in sport, rather than for physical skill development and
 5522 performance-related goals (Bean et al., 2021). As well, emphasis on building skills in one domain
 5523 may have resulted in fewer resources and capacities to facilitate skills in another domain, given
 5524 the multi-dimensional nature of the program and leaders' demanding roles (in having to manage
 5525 the structure and dynamic groups of members, facilitating highly engaging activities, and
 5526 incorporating diverse skill-building opportunities; Newman et al., 2016). Several scholars have
 5527 proposed strategies for leaders to integrate the promotion of both sport and life skill-building,
 5528 such as activities that demand the use of group problem solving to complete progressive
 5529 movement-related tasks (Bean et al., 2020; Camiré et al., 2011; Newman et al., 2018). The
 5530 integration of such strategies may ease leaders' burden in addressing multiple skill-building
 5531 domains at once, as opposed to planning separate activities to facilitate sport and/or life skills.

5532 In Article 4, the leaders spoke to challenges of integrating life skill transfer in

programming, finding that youth were not transferring skills the way they intended, or that they did not spend enough time with the members to facilitate or perceive transfer. Given that the extent to which youth applied skills beyond BBL was not examined, future research could examine whether youth applied these skills by asking long-term members or BBL alumni to speak about their participation experiences and how some of their experiences may or may not have been applicable to their skills beyond the program.

Since the leaders in BBL found life skill transfer challenging, suggestions are offered for the improvement of this transfer. Researchers have pressed that the integration of life skills transfer can be complex (Bean et al., 2018). To facilitate youth's learning beyond the program environment, it is important to advance from the discussion and practice of life skills within the program, to the discussion and transfer of life skills in contexts beyond the program (Bean et al., 2018; Camiré et al., 2011; S. Pierce et al., 2017). To some extent, leaders in BBL facilitated discussions around these topics (e.g., asking members how they can apply life skills at home, in schools, with friends). However, the leaders were not explicitly equipped with T&D focused on ways to facilitate youth's life skills transfer. Getting leaders to familiarise themselves with conceptual models of life skills development and transfer (e.g., Bean et al., 2018; S. Pierce et al., 2017), and integrating these models in T&D opportunities should be considered in future program development work.

Beyond leaders' practices alone, BBL's program model also needs to adopt an explicit focus on life skills transfer as a core component and outcome (Gould & Carson, 2008b; Turnnidge et al., 2014). For instance, long-term evaluations of Weiss and colleagues' golf-based life skills program, which took an intentional approach to incorporating life skills transfer in the structure of their programming, reported long-term benefits to youth's learning and transfer of self-management skills (Weiss, 2005; Weiss et al., 2016). Optimal transfer of life skills beyond

the sport domain in other life domains requires intentional support and opportunities for youth to practice life skills and develop identities in those domains (G. Allen et al., 2015; Bean et al., 2018; S. Pierce et al., 2017; Whitley et al., 2018).

Beyond the program practices corresponding to PYD climates and learning-focused environments, *adaptability* was also a key feature of trained leaders' facilitation of programming. Adaptation is a principle of the trauma-sensitive sport model, in that program activities can be re-designed based on rules, space, equipment, and peoples' roles; all with the intent to maximise other trauma-sensitive and youth development principles such as safety, control, participation, immersion, and choice (McCarthy et al., 2016). The leadership team helped promote such adaptability through the emphasis on a developmental, trial-and-error approach to programming. That is, while leaders were encouraged to promote core features of the program model (i.e., the workout structure, integrating life skills), they had flexibility in testing different games and strategies to what works best for their facilitation, their participants, and their overall contexts. Effective coaching has been suggested to be a combination of balancing the characteristics and needs of participants, leaders, and the context (i.e., organizational priorities and resources; Côté & Gilbert, 2009). This was observed when BBL leaders discussed adapting programming based on monitoring youth's receptivity to activities and inviting their input. Overall, adaptation is important to encourage to accommodate the different unique structures, limitations, and constraints of the context, while at the same time balancing the idea that certain program features needed to be essential (i.e., creating of positive climate, implementation of program model, and facilitation of learning-related teaching) to facilitate impact (Newman, Lower-Hoppe, et al., 2021; Petitpas et al., 2007).

Intervention Planning

The BBL was successfully implemented for over 4 years, reaching 18 clubs across

Canada, with 50+ leaders involved in T&D activities or implementing BBL, and serving 600+ youth. In Article 1, some strategies for success in BBL intervention planning were discussed, which included rolling out the program developmentally (piloting) to understand successes and challenges of knowledge use. The results were then used to inform evaluation questions, program adaptations and supports needed to optimise T&D and programming. This developmental approach carried forward beyond the pilot as monitoring and evaluation continued with the goal to use the results to inform continuous program adaptations.

A challenge encountered in BBL implementation was varying levels of human and instrumental resources from club to club. Primarily, clubs were challenged by leader turnover, which resulted in loss of BBL-related knowledge, and disruption of program consistency and relationship-building efforts that are necessary for promoting program effectiveness (Hirsch et al., 2000; O'Connor & Bennie, 2006; Rhodes, 2004; Vandell, Pierce, et al., 2005). Several factors can contribute to leader turnover in multi-site, non-profit organizations, such as inconsistent funding streams, part-time or voluntary nature of leaders' roles, low wages, and many people taking up these positions in transition stages of their lives (e.g., moving from a student to pursuing a full-time career; Petitpas et al., 2007). Retention of qualified, experienced staff is important help carry forward and sustain program knowledge, ensure program consistency in delivery, and adult-youth relationship building, which collectively help to augment program quality, effectiveness, and sustainability (K. M. Pierce et al., 2010; Rhodes, 2004; Vandell, Pierce, et al., 2005).

While sport programming may result in some benefits to youth's participation, including receiving positive supports, interacting with peers, and building skills, these programs operate as a micro-system within larger and broader systems (Bengoechea, 2002; Holt et al., 2017). Particularly, out-of-school community organizations offer another layer that influences the

structures and processes within the sport microsystem, as well as being microsystems in and of themselves. For instance, when members in BGC leave the BBL program, they enter the broader club environment, either interacting in regular unstructured activity spaces, or moving to different specialised activities (e.g., arts and crafts). The leaders as well, also shift from leading BBL programs to supervising unstructured spaces, managing other programs, interacting with youth, connecting with peers, and/or performing administrative tasks. Some BBL practices also carry over across these systems; many leaders noted that they used BBL philosophies and program practices while leading non-BBL activities in their respective clubhouses, extending and scaling out the use of this knowledge. Given that learning can occur through youth's interactions within and across multiple contexts (Bronfenbrenner, 1995; Lee & Martinek, 2013), organizations like BGC Canada offer a lot of potential to facilitate multiple different environments that build youth's interests, participation, and competencies in multiple domains, as well as sustaining existing relationships with peers and leaders. As such, scholars have posited that these out-of-school organizations need to provide greater infrastructure designed to promote connections amongst leaders, build capacity to learn about and implement best practices, and find ways of embedding sustainability of best practices in their systems (Coatsworth & Conroy, 2007).

BGC Canada needs to consider how to maximise the retention of leaders and reduce leader turnover through workforce support and development opportunities (Rhodes & Lowe, 2008). At an individual level, leaders should be reminded of the benefits of what they are doing which can influence their sense of purpose, intrinsic motivation to continue their learning, and commitment to learning (Dohme et al., 2019; Webb & Karlis, 2021). As well, BGC Canada should continue to bring awareness to leaders of the importance of learning and sharing BBL-related knowledge to build individual and organizational capacity, and leaders should consistently be made aware of the activities afforded to them to promote their learning (Senge, 2006).

In BBL, there has been increased awareness and desire for more T&D opportunities in trauma-sensitive and youth development approaches in their work, which is reflective of broader trends of service sectors that work with trauma-exposed youth (Becker-Blease, 2017), and in youth sport (Newman et al., 2016; Santos et al., 2017). Therefore, at an organization level, BGC Canada needs to foster a *culture of learning*. In the BBL initiative, this learning culture was promoted through the variety of T&D opportunities offered for leaders to learn and share knowledge of the trauma-sensitive sport model. Thus, BGC Canada should continue to maintain and expand these opportunities post-funding. Additionally, taking a *landscape of practice* perspective may help contribute to an organization's learning culture; a landscape of practice involves recognising the boundaries and interconnections of multiple networks and settings in which leaders learn (Wenger-Trayner & Wenger-Trayner, 2015). This strategy would involve BGC Canada recognising that leaders learn through personal and social T&D activities across the club settings – not solely within BBL and the immediate practice context they engage in; thus, shifting towards consistency and affordance of T&D activities across each individual club and the organization at large, can enable leaders to connect with other leaders inside and outside their immediate practice contexts, and be introduced to different perspectives and ways of applying relevant knowledge.

Not all leaders who were involved in BBL were able to attend the initial in-person training workshops. The findings from this research indicated that the programs ran by the leaders who missed the intensive in-person training were facilitated to a lower quality than their counterparts, despite the continued provision of ongoing informal T&D opportunities. Given the effectiveness of in-person training workshops in terms of leaders' satisfaction and individual knowledge outcomes, BGC Canada should consider strategies to maximise the number of leaders who can receive in-person, intensive training. In planning, the organization should consider

optimising scheduling, such as hosting workshops during off-seasons when leaders have more time to attend, rather than at the start of the program year when leaders are managing several demands (Horgan & Daly, 2015). Given that coaching is largely a social profession and many leaders construct their knowledge of sport and coaching through social interactions (e.g., observations of peers, mentoring, discussions with peers and athletes; Cushion et al., 2003, 2010), it is imperative to continue to leverage ways that consider the social aspect of learning. For instance, Culver and colleagues have advocated for using communities of practices in sport to help learners co-generate knowledge in meaningful and practical ways that can lead to more effective applications in practice (Culver et al., 2009; Culver & Duarte, 2022; Culver & Trudel, 2006).

Moving formal training content to online platforms can also help expand the reach of T&D opportunities, which is valuable for BGC Canada given their wide geographical reach. Such work has already been initiated, such as hosting program materials and videos describing the components of the BBL program on BGC Canada's staff members site, and scaling out BBL training through the design of e-learning workshops on trauma-sensitive youth development practices broadly. Online methods of training in sport-based PYD have been effective in enhancing accessibility of content and offering dynamic facilitation of learning activities (Santos, Camiré, et al., 2019; Strachan et al., 2016); similarly, online communities of practice in sport have been reported to enhance opportunities to share resources and maintain relationships with peers (Bertram et al., 2015). However, these methods should be seen as a supplement to – rather than a replacement for – practical learning opportunities and the support of trainers, which are necessary for optimising leaders' behaviour change (Santos, Gould, et al., 2019).

The use of the train-the-trainer model (Orfaly et al., 2005) was initially planned to maintain and sustain BBL T&D beyond the grant-funding period. In BBL, a selection of pilot

leaders undertook training to become in-house trainers (described in Article 1), and some of those trainers went on to facilitate the expansion training workshops. The intention of this model was to build the organizational capacity of BGC Canada to offer local, in-house training of BBL, on a regular basis. Such a model is beneficial for an organization with as large a reach as BGC Canada, which requires more funding and resources to bring leaders together for training workshops held at one location. Thus, the model can be cost-effective in training in-house leaders – with existing familiarity of BGC policies, procedures, and practices – to train leaders locally or regionally (Assemi et al., 2007; Yarber et al., 2015). Train-the-trainer initiatives can also foster organizational champions who facilitate the learning and sharing of knowledge in the organization and further contribute to sustainability of knowledge use. However, monitoring and support for the train-the-trainer model was not planned internally nor were resources allocated to its maintenance. Thus, future work in sustaining a train-the-trainer model needs to plan for sustainability in multiple ways such as in their budgeting, internal oversight, and support for its development, implementation, and adaptation via monitoring and evaluation (Kirkpatrick, 1994).

Taken together, it is necessary for BGC Canada to incorporate the development of trauma-sensitive sport models as well as trauma-sensitive approaches broadly in their strategic priorities, and allocate resources (i.e., time, funding, human supports) to these priorities. Such organizational commitment may promote the enhanced maintenance, sustainability, and impact of this intervention.

Partnership Processes and Outcomes

The partnership overall was successful in carrying out the major phases of the initiative. Part of this was through effective and meaningful collaboration, where leadership team members leveraged the diversity of their perspectives on an issue to co-construct a shared vision, goals, and solutions that go beyond each individual's limited vision of possibilities (Gray, 1989; Johnson et

al., 2009; Malone et al., 2013). Despite these successes, the BBL leadership team encountered both internal and external challenges to carrying out the partnership. The next sections describe the internal and external factors that facilitated or constrained BBL partnership and initiative implementation, and suggestions for improving the effectiveness of partnerships in future work on BBL and in similar initiatives.

Building Relationships and Trust

Building strong relationships between leadership team members was key in maintaining the initiative and orienting to its sustainability (Brush et al., 2020; Frisby et al., 2005; Israel et al., 1998; Jagosh et al., 2015). Several aspects related to leadership team members' commitment to the partnership. The leadership team met in-person on several occasions over the course of the year, in both task-related and social-related settings to build strong professional relationships with one another. As well, communication between team members on their progress on various tasks was relatively consistent; for instance, evaluation insights generated from the evaluation team were shared on an ongoing basis to other leadership team members and participating BBL leaders through emails, in-person and online presentations, reports, and informal discussions.

Relationships were sustained by having collective objectives and commitment of the group to make a difference in the context (Baines & Regan de Bere, 2018; Cyril et al., 2015). As a result, many members of the leadership team continue to actively collaborate on extending and scaling out BBL activities, and pursuing and applying for funding to continue BBL-related initiatives.

Establishing a Partnership Philosophy

Team members' perspectives can vary in terms of philosophies, decision-making styles, values, beliefs, assumptions, priorities, and use of language (Israel et al., 1998). Such differences can enhance the diversity of partnerships, which can result in more openness in planning and implementation considerations, with more considerations of how programs may work in different

conditions, for different populations (Brush et al., 2020). However, misalignment of perspectives can also result in conflicts. Thus, it is important for partners to work together on establishing operating norms and procedures on principles and strategies for their collaboration (Brush et al., 2020; Coughlin et al., 2017; Israel et al., 1998). In BBL, this was initially carried out through well structured meetings that the leadership team held at the start of the project to establish shared vision, priorities, values, and goals related to the initiative, and setting action plans and team members' responsibilities. Such meetings can help establish processes for effective decision-making, mutual engagement, openness, caring, inclusivity, and negotiation (Drahota et al., 2016).

However, given the ever-changing nature of contexts, relationships, and individual and organizational priorities and values over time, partnerships need to be flexible to adapt and react to these changing circumstances (Armstrong et al., 2022; Baquet, 2012; Brush et al., 2020; Frisby et al., 2005). Existing capacity for flexibility and adaptability was evident with the BBL leadership team, in their response to the pandemic to meet community needs (e.g., assessing participating clubs and leaders needs through surveys, providing online T&D opportunities, and adapting program and evaluation methods for virtual contexts). Partnerships that exhibit such flexibility are better able to respond to the needs of partners, researchers, and changing realities (Johnson-Shelton et al., 2015; Tajik & Minkler, 2006). The flexibility of a partnership can also be enhanced with explicit, planned approaches to address changing circumstances (Baines & Regan de Bere, 2018; Wine et al., 2017). Partnerships need to plan to re-visit their partnership philosophy on an ongoing basis, and re-negotiate shared visions, operating norms and procedures, to address changing circumstances (Wine et al., 2017). As well, conflicts in partnership are inevitable and part of a team's growth, and thus conflict resolution strategies should be embedded into partnership planning and can contribute to partnership sustainability

(M. L. Allen et al., 2013). Thus, future work in similar partnerships should consider hosting regular meetings to discuss the partnership itself, and offer opportunities to invite re-negotiations of partnership philosophies, and strategies for decision-making and conflict resolution.

Organizational Commitment

Organizational capacity is the extent to which organizations can effectively lead, communicate, allocate resources, maintain formalised procedures, and foster a culture of learning and advancement (Foster-Fishman et al., 2001). BGC Canada was in a period of transition in their organizational leadership during the initiative, and the pandemic resulted in additional limited capacity with closure of clubs and offices and further unstable staffing and funding streams. Long-term engagement and consistent financial supports for collaboration and program implementation are essential given the time it takes to implement interventions and the need to adapt to changing circumstances (Matlin et al., 2019).

BBL was quite intensive compared to other national programs typically managed by BGC Canada, requiring oversight over T&D, program planning, implementation, monitoring, evaluation, adaptation, maintenance, and sustainability. While the leadership team attempted to divide and conquer these various tasks, without internal capacity to provide oversight to the collaboration and each of these activities, much of the program had to be directed by external members (Edgework Consulting and the evaluation team). In this manner, BGC Canada's role was limited to setting boundaries for direction (i.e., setting parameters based on initial budgeting, resource allocation). Related literature in implementation science has posited that collaboration activities need to derive from within the organization to be most effective (P. L. Bush et al., 2017). Thus, it is recommended in future intensive interventions that internal capacity be built in from the start of the initiative and maintained throughout. This can be established through allocating specific funding to support the hiring and retention of a program manager that can

direct and lead all initiative activities. This manager also needs to be responsible for managing the accountability of the partnership as well, in continually making sure that the goals, priorities, and values of different team members are balanced and that a culture of respect, openness, transparency, and mutual engagement is maintained (Goold et al., 2016; Johnson et al., 2009).

Evaluation

A strength of this initiative was the holistic nature of evaluation, conceptualising questions to explore program-, leader-, and youth-level processes and outcomes, and using a myriad of different evaluation activities across a diversity of data sources. Evaluation is key for understanding the benefits of programming to youth and clubs, can promote sustained adoption of program practices (for leaders and stakeholders who see the value of the enhanced service offerings), and enhanced credibility and funding eligibility, which is needed for sustaining and scaling out programming (Ko et al., 2008; Shaikh et al., 2020).

Evaluation questions and activities were initially co-constructed with leadership team members, which helped to increase the relevance of the activities and results. However, as the project carried on, much of the evaluation process was directed by the evaluation team alone. This shift was another consequence of the leadership team's limited long-term planning for collaboration as a component of partnership management (Foster-Fishman et al., 2001; Frisby et al., 2004). Instead of collaboration being a process of co-learning and co-decision-making around evaluation, the limited internal capacity and expertise to support and co-direct evaluation activities over time resulted in BGC Canada leaning on the direction of the evaluation team alone (Cousins et al., 2014). Allocation of funding toward monitoring and evaluation efforts was also limited, and more focused on ensuring program implementation, an issue common in interventions run by non-profit organizations with limited funding streams (Peachey & Cohen, 2016). Monitoring and evaluation may have been seen as a necessity for fulfilling funding

requirements, rather than as a means of supporting program improvement or leaders' learning. Without BGC Canada's active involvement in evaluation decision-making and support, it was less likely for these team members to derive value from conducting evaluation, the evaluation results risked having low relevancy to the community needs, and evaluation activities risked being unmaintained beyond the grant period (Schinke & Blodgett, 2016). In future work, to promote effective evaluation, leadership team members need to work together to discuss how evaluation decision-making will be carried out over time, and how resources for evaluation can be allocated fairly to ensure that they meet the needs of partners, and result in the use of evaluation processes and outcomes to enhance program implementation and sustainability (Goold et al., 2016).

Evaluation maintenance and sustainability may have been facilitated in BBL through evaluation capacity-building activities. These activities included training leaders in conducting evaluation at their clubs, and inviting their feedback at workshops and interviews on the value, successes, and challenges that they encountered in evaluation, and further questions they wanted answered (Garst et al., 2021). Such insights were used to inform improvements to the choices, language, and methods used in evaluation over time. These feedback loops enabled ongoing reflection about evaluation which is a best practice to augment the relevancy of evaluation in meeting community needs and priorities (Strachan et al., 2020; Viswanathan et al., 2004), aligning well with the utilisation-focused principles adopted for this dissertation (Patton, 2008, 2012). Such capacity-building activities also contributed to building leaders' understandings of the purpose and value of evaluation, the use of evaluation findings in practice, and trust in the evaluation team (Hills et al., 2014; Wilson et al., 2018). This trust and relationship-building resulted in reciprocal benefits to the evaluation team, in gaining more access to evaluators to observe programs, being included in conversations with members, and feeling comfortable to

provide their feedback about challenges without fear of performance assessment or reprimanding (Peachey & Cohen, 2016). Thus, it is important to raise professional development opportunities focused on monitoring and evaluation for all team members, especially community members, to generate shared understandings of the value of evaluation and similar terms of reference (Schenkels & Jacobs, 2018). Such practices may also contribute to greater organizational capacity to conduct evaluation that can be sustained beyond the funding period (Garst et al., 2021; K. Harris, 2018).

Reflections on Theory

The use of theory is important to help understand and explain how KT and/or interventions may succeed or fail, in identifying factors that predict the likelihood of program success and develop better strategies for program improvement (Bartholomew & Mullen, 2011; Nilsen, 2015). As such, the use of theoretical approaches throughout the studies carried out in this dissertation helped to guide explorations of how translating the trauma-sensitive sport model was facilitated or constrained in the BGC Canada community settings, what factors contributed to these successes and challenges, and what strategies were used to improve programming. This dissertation answered calls from researchers for use of theoretical approaches in guiding research in sport-based youth development (Holt et al., 2017) and in understanding stakeholders' implementation perceptions and experiences (Field et al., 2014).

The KTAC was used to help determine key phases of KT that were relevant or significant to explore in this dissertation, helping guide the evaluation questions presented for each study. Using the KTAC for this particular work was advantageous given its predominant use in evaluating KT initiatives in healthcare (Field et al., 2014), researchers' advocacy for its use in community-based work and in sport (Kosmenko et al., 2019) as well as MS's familiarity with the model through his participation in an accredited Knowledge Transfer and Exchange course.

Graham et al. (2006) also posited that the model accounts for flexibility in how interventions are carried out, in that many of the phases can happen out of the order they are presented, can be repeated, and have overlap between stages. This flexibility was clearly evident in BBL. Starting with the pilot stage of this initiative, an entire knowledge cycle was embedded within this stage alone; this cycle involved planning and facilitating a training intervention (*select, tailor, and implement intervention*), exploring leaders' experiences of learning in the intervention (*assess barriers and facilitators of knowledge use*), collecting data on leaders' planning and facilitation of BBL (*monitor knowledge use*), and collecting data on youth's participation and life skill development experiences, and leaders' learning outcomes (*evaluate outcomes*). Collectively, the collection of process and outcome data across BBL initiative stages helped to understand what worked and what did not in facilitating the intervention (*assess barriers and facilitators to knowledge use*), a form of knowledge creation (*knowledge inquiry*). Findings across the different studies were then compiled and amalgamated into recommendations (*knowledge synthesis*) that the leadership team used to adapt the existing trauma-sensitive sport model (*knowledge tool/product*) and action the model to inform program improvement (*adapt knowledge to the local context*). This process then led to another cycle of testing, monitoring, and evaluating the translation of the model in the expansion stage. Thus, the phases of KTAC were useful in helping to categorise several essential phases to implementation of a trauma-sensitive sport model.

The use of the KTAC model in this dissertation also generated insights of where the model was lacking, and what could be considered in potential re-workings of the model. An important component of enabling knowledge to action was relationship and trust building, to enhance team members' commitment to the initiative and its maintenance. The importance of these processes has also been recognised in youth sport interventions that have used KTAC (Kosmenko et al., 2019), and as such, the inclusion of an action phase dedicated to relationship-

building would be beneficial for KT planning. Similarly, another missing component of the KTAC model was a phase dedicated to defining and selecting outcomes, indicators, and knowledge use measures (Field et al., 2014). Such a phase is important to prompt intervention planners in defining what data will be collected to assess the intervention and knowledge use, and how these data will be collected.

The KTAC itself does not offer an explanation behind the nature of KT processes across its phases, which is why the RE-AIM framework, the value-creation cycle, and the promising practices were each used as evaluation frameworks to understand knowledge-to-action processes. Strengths and limitations of using these approaches as evaluation frameworks were discussed in the respective studies. Taken together, these approaches were valuable in offering key indicators to evaluate in program T&D, program design and delivery, and program outcomes. However, all these approaches were used in evaluation only; future work should consider also using these approaches in the planning of programs – not only in evaluation – working with partners on defining outcomes of interest, and being flexible with adapting indicators and outcomes to best fit changing contextual demands and needs (Kwan et al., 2019; Wenger-Trayner & Wenger-Trayner, 2020). Evaluation, overall, should be considered in conjunction with (and interlaced with) conversations about program planning. That is, components of program theories, logic models, and evaluation frameworks, should be generated together, to augment the coherency across planning, implementation, and evaluation activities.

Despite the advantages of using a variety of approaches in understanding KT processes within these community settings, engagement with these approaches was inevitably messy. The adoption of a pragmatic worldview enabled the use of several approaches for their utility over their commensurability; however, it was still challenging to navigate the mixing of different approaches and maintaining methodological rigour, while dwelling in an ever-evolving context.

Thus, a balanced approach was necessary, in leveraging a variety of methods to capture the different changing nuances of the phenomena and contexts, while using the KTAC as an overarching model to frame the dissertation in a logical, holistic manner.

Strengths, Limitations, and Future Directions

The studies offered in this dissertation were pioneering works on the implementation of sport-based, trauma-sensitive, PYD approaches in community-based settings. Given that research evaluating the learning, delivery, and impact of a trauma-sensitive sport model is in its infancy, these studies helped support previous works (e.g., D'Andrea et al., 2013) to advance both research and practice in this area. The use of methods for assessing both processes and outcomes helped shed light on the 'black box' of coach learning and sport-based PYD programming, in examining what works, for whom, and in what circumstances (Cushion, 2011; Holt et al., 2016; Lyle, 2018a; Massey & Whitley, 2021). Given that KT work within youth sport was limited, this dissertation recognised the parallels that KT processes and outcomes have with related literature in community-based participatory research, coach learning and development, and broadly, the fields of learning theories, program evaluation, and implementation science. As well, the use of a mixed methods design balanced breadth with depth in illustrating a holistic picture of the phenomena of study (Nastasi et al., 2007).

Concurrently, **MS** found it challenging to balance multiple roles in his engagement in this initiative; shifting between an external perspective as a researcher/evaluator, so as to not compromise how participants constructed their experiences, while at the same time being apart of the context itself and influencing it as a program co-developer. **MS's** engagement in journaling his experiences, and ongoing conversations with his supervisors and peers helped **MS** be mindful of his assumptions, values, beliefs, and power in these different roles, and how they influenced his work and interactions with participants. It is recommended that future researchers embarking

on community-engaged research projects to not only familiarise themselves with recommendations for meaningful engagement in partnership and intervention (e.g., Israel et al., 1998; Schinke & Blodgett, 2016), but also familiarise themselves with partnership stories, to understand the different manifestations of successes, challenges, and strategies that may be encountered in community-engaged work.

Methods

Learning was viewed as a personal and social process of negotiating, applying, and reflecting on knowledge, based on one's biographies and contexts, rather than strictly from a lens of acquiring knowledge that is seamlessly assimilated and transferred (Cushion, 2010; Gilbert et al., 2009). Thus, multiple methods (e.g., knowledge and attitude questionnaires, self-reported and observed program delivery, interviews) were used to understand both the experiences of T&D, and the application of learning into practice. Alone, these measures are prone to several biases and limitations, that are mitigated through their combined use. For instance, self-report alone can be limited in that research has shown that leaders in sport demonstrate poor self-awareness and reports of practice do not correlate with actual behaviours (Millar et al., 2011; Partington & Cushion, 2013). Similarly, interviews can be subject to social desirability bias on the parts of participants, to appease the interviewer who maintained professional relationships with several interviewees. As such, the use of behavioural observations helped supplement these results, in helping measure learning as behaviour change from an external perspective, bringing greater understandings to how leaders translate and implement knowledge (Cope et al., 2017).

The longitudinal nature of this study also helped to generate data at multiple time points. Interviews and surveys were conducted at several points (e.g., post-training, mid-implementation, post-funding), and use of logbooks helped to generate data throughout the initiative. The convergence of these data helped to evaluate the nature and extent of KT efforts over a long

period of time. However, with regards to observations, only one BBL session per club was observed. It is important to evaluate sessions at multiple time points, given that behaviour change is temporal, and contextual conditions can also dictate the nature of any given program. Given the large geographical coverage of BGC Canada, it was not feasible to visit all clubs multiple times. Thus, future research should look at examining multiple sessions over time, as well as considering baseline and comparison groups to capture meaningful change (Cope et al., 2017; Stodter & Cushion, 2019).

Many of the measures implemented were specific to the program itself, which was a highlight of the use of utilisation-focused evaluation to ensure context-specific results. However, a limitation in the use of such measures is the generalizability and conclusions that can be drawn as they relate to the implementation of similar programs that use sport-based, trauma-sensitive, youth development approaches. Given that the knowledge base on the effectiveness of these programs is limited, future research would benefit from the use of measures that have been tested for validity and reliability of constructs at multiple levels of intervention (e.g., individual, relational, organizational; Champine et al., 2019; Purtle, 2020).

Training and Development

Future work should directly explore the effects of participation in different T&D opportunities and their subsequent links to program implementation quality, to observe whether there are unique effects of different T&D activities on knowledge gains and application, and to learn what combinations of T&D activities may be ideal to promote learning in this context. As well, master and in-house trainers were recognised as key social actors in the facilitation of leaders' learning. However, the extent to which trainers were aware of these factors in influencing learning, as well as insights into their facilitation strategies were not examined in this dissertation. Future work can explore these phenomena through interviews with both master and

in-house trainers, which may help generate important insights into key leader characteristics and strategies used to facilitate effective learning environments (Horgan & Daly, 2015). Finally, the extent to which leaders retained BBL-related knowledge after the intervention period was not investigated. Follow-up studies can offer insights into the sustainability of trauma-sensitive practice (e.g., Kenny et al., 2017; Lang et al., 2016) and sport-based PYD (e.g., Koh et al., 2017).

The realities of community settings in having limited resources, funding, and facing high leader attrition rates, made it difficult to conduct this program and evaluation design as planned, and these challenges were exacerbated by the COVID-19 pandemic. At a programming level, the nature of T&D and program activities had to be altered with loss of key personnel and temporary closures of club programming, mid-way through the program expansion stage. For the evaluation, much of this dissertation was focused on learning at an individual, and parts of the research design had to be re-conceptualised mid-way through the data collection phase. As such, future work in KT should consider learning and knowledge sharing beyond the roles of leaders. For instance, given that organizations (e.g., administrators, managers, program planners) are responsible for several learning processes in that they strategically develop, organise, action, and transfer knowledge, and have the power to constrain/facilitate individual level-learning processes, it is warranted to further examine their roles in learning (Werner & Dickson, 2018; Wiig, 1994). Translating individual learning to organizational learning is also not an automatic process and requires specific strategies, which implementation science research has recognised as challenging to foster (Durlak & DuPre, 2008; Kessler et al., 2012). Such explorations could be conducted through soliciting perspectives of administrative leaders on their perceptions of promoting and maintaining learning at the organizational level, as well as through descriptively analysing documentation such as annual reports to understand how BGC Canada values and markets their BBL program successes, challenges, and advancements.

5989 *Program Processes and Outcomes*

5990 Future research could examine how programs that adopt a trauma-sensitive sport model
 5991 may differ from those that do not. It can be argued that many of the features that define a trauma-
 5992 sensitive sport model, in practice, may be no different from predominant recommendations of
 5993 best practices in domains such as social work, crime prevention, and safe sport, which often
 5994 involve the intentional provision of good support systems that emphasise safety, trustworthiness,
 5995 collaboration and mutuality, empowerment, voice, and choice (Berliner & Kolko, 2016). Thus,
 5996 future research is needed to examine the additional or unique value that a trauma-sensitive sport
 5997 model may (or may not) have in community-based sport programming.

5998 Implementation of youth sport programs can vary based on several characteristics of the
 5999 individual and the context. For the individual, their backgrounds and experience in youth work
 6000 can contribute to how they learn and apply knowledge, which was recognised in this dissertation.
 6001 However, further exploration is warranted as to how leaders' characteristics (e.g., other training
 6002 and experience with sport and youth work, coaching philosophies, years of experience) factored
 6003 into how leaders learned and applied knowledge. Such characteristics may have contributed to
 6004 the variation seen in program quality (e.g., leaders who have more experience in BGC club
 6005 programming may have a better handle over managing groups and building adult-youth
 6006 relationships. As well, contextual factors were also only recognised to a limited extent. In
 6007 studying BBL, all clubs shared the characteristic of being part of BGC, running programs weekly,
 6008 for 1-1.5 hours, with at least two leaders, offering recreational levels of competition. Contextual
 6009 characteristics where clubs differed were gathered for descriptive purposes, such as the club
 6010 location's existing resources, population density (e.g., small town, large city), the number of
 6011 leaders, and average BBL attendance; however, these characteristics were not further analysed to
 6012 see whether they influenced the quality of programming or youth outcomes. Additionally,

program characteristics such as available resources (e.g., equipment, indoor or outdoor facilities), sports (e.g., team or individual, level of contact), may also be factors that influence the nature of programming that can be tracked and analysed.

Advancing Youth Development Approaches Using a Social Justice Lens

Scholars have recognised how the discourses around sport and life skill development have operated under a neoliberal lens, such as the notion that sport automatically leads to the development of an individual's life skills, and subsequently, those individuals will automatically contribute to society and create social change (Coakley, 2011, 2015, 2016). Similarly, much of trauma education literature has also focused on the individual biomedical model (Petrone & Stanton, 2021; Thomas et al., 2019); that is, trauma is an experience that exists within an individual, and treatments are primarily focused on promoting healing and asset building on an individual level for them to apply in their daily lives. This narrow view may overemphasise the individuals' authority over their access to opportunities and healthy development, while neglecting to recognise the constraints that existing environmental, sociocultural, historical, and economic factors pose on the individual, in the experiences of trauma and oppression, life skills development and application, and trauma healing.

For instance, while interventions may help promote life skill building for youth members, a failure of life skill transfer, in these cases, may narrowly focus on a failure at the individual level of accumulating and applying life skills. In addition, the notion of life skills needs to be broadened. Commonly, life skills development has been conceptualised with a neoliberal lens, emphasising youth's compliance with existing systems (e.g., being 'well behaved', disciplined), and acquisition of individual assets that enhance their 'economic productivity (e.g., work ethic; Camiré et al., 2021; Ronkainen et al., 2021). These life skills focus on underserved youth being responsible for assimilating and fitting their lives and value systems with current existing societal

systems, norms, and values that may oppress their development and well-being. If these interventions do not support youth to address the nature of these systems, as well promoting supports for their families'/caregivers' and their broader community's positive involvement in youth members' lives, those youth members may still be returning to contexts (beyond sport) that contribute to re-traumatization and further negative consequences to their development.

As such, future research and practice in youth sport needs to acknowledge how oppressive systems, and sociocultural factors such as racism and intergenerational trauma can shape the traumas carried by people, groups, and communities (Camiré et al., 2021; Petrone & Stanton, 2021; Whitley et al., 2021). The development of programming should consider how to incorporate equity, diversity, and inclusion, and social justice lenses in their program and organizational approaches. Researchers in the school context have called for sociohistorical trauma-reducing approaches (Blitz et al., 2020; Petrone & Stanton, 2021) that consider communities' contexts and youth's identities in recognising the impacts of various trauma on their participation and living. In addition, an emphasis on building youth's social justice life skills should be considered; these skills refer to actions and behaviours (e.g., allyship, advocacy, activism, antiracism) that can equip youth to directly confront and disrupt the existing systems of oppression (that perpetuate racism, ableism, patriarchy) that they encounter in their lives (Camiré et al., 2021; Newman et al., 2022).

Implications

The results of this dissertation offered multiple implications for researchers and evaluators. First, insights were generated on the variety of processes that are involved in training and development as well as program planning and delivery related to actioning a trauma-sensitive sport model, which can help guide future monitoring and evaluation of similar KT interventions. Second, insights were generated on how different contextual factors (i.e., funding and human

supports), can facilitate or constrain these KT efforts in this community-based setting. Third, insights were generated on the benefits and challenges of using different theoretical approaches to map and assess KT processes and outcomes.

Practically, the results of this dissertation were actively used to inform program decision-making. **MS** was committed to engaging and immersing himself with BGC Canada and its members through visiting sites virtually and in-person, reporting on progress, obtaining feedback, involving stakeholders in key evaluation decisions, co-hosting bi-monthly meetings with program leaders, and contributing to funding applications. A key component of this partnership has and will continue to involve compiling evaluation results into detailed yet easy-to-understand reports, infographics, video summaries, and actionable recommendations.

A major contribution of each article was the provision of actionable, evidence-based recommendations for organizations and leaders to consider taking up to inform program policies, procedures, and practices (Lawrason et al., 2020; Patton, 2008). These recommendations included: (a) ways to improve coach training environments to promote learning (e.g., through planning training content to meet leaders' biographical needs and contexts); (b) enhancing implementation support to promote knowledge use (e.g., personal and social opportunities for leaders to reflect on their own coaching practices, maintain social connections, and reinforce their subject matter expertise); (c) monitoring and evaluating how programming is adapted to help generate understandings of how knowledge is translated into practice.

For leaders in community settings, this dissertation offered perspectives for using sporting activities in trauma healing and youth development, how trauma-sensitive and youth development approaches can be leveraged to achieve these outcomes, and strategies to consider when implementing such approaches, with respect to the environmental constraints of these settings. The implementation of these studies has led to positive impacts on participating leaders'

practices, along with positive contributions to the development and well-being of youth participants who may have experienced trauma.

Conclusions

Overall, this doctoral research shed light on a novel and emerging area of study – the use of a trauma-sensitive sport model to youth programming. This research helped to enlighten the processes and outcomes involved in translating this model to a community out-of-school youth programming context. In taking a KT lens to examine a multi-level intervention, this work contributed to bridging existing science-to-practice gaps in youth sport. Looking at the role of BGC Canada leaders in implementing the BBL initiative, this dissertation helped understand what can facilitate or constrain leaders' learning and application of a trauma-sensitive sport model, and the contributions of leaders' participation, learning, and knowledge use to their identities, club programming, and youth outcomes. The evaluation activities conducted in this work helped to generate results that were actionable in guiding initiative decision-making and adaptations to training and development activities and program design and facilitation. The collaborative process involved in the development, implementation, and evaluation of this initiative promoted meaningful engagement with community members, enhancing their sense of empowerment and shared ownership of the project, as well enhancing the relevancy and applicability of evaluation results. Taken together, this research actively contributed to positive impacts in improving BGC Canada's policies, procedures, and practices around the BBL program, and to the positive development of program leaders and youth participants. The evaluation results broadly supported the notion that the use of such interventions has potential benefits for enhancing the capacities of lay workers – who largely make up the workforce that deliver out-of-school activities – to be in stronger positions to support the unique needs of trauma-exposed youth. The processes of carrying out this dissertation have generated insights to

6109 the successes and challenges that researchers and program planners may consider as they
6110 implement multi-level approaches to intervention planning and evaluation, and to respond to
6111 trauma as a population health issue. As such, more research and practice on using a trauma-
6112 sensitive sport model for youth programming can contribute to the differences between dark and
6113 bright futures for underserved youth.
6114

References

- 6115
- 6116 Abraham, A., & Collins, D. (1998). Examining and extending research in coach development.
- 6117 *Quest*, 50(1), 59–79. <https://doi.org/10.1080/00336297.1998.10484264>
- 6118 Abraham, A., & Collins, D. (2011). Taking the next step: Ways forward for coaching science.
- 6119 *Quest*, 63(4), 366–384. <https://doi.org/10.1080/00336297.2011.10483687>
- 6120 Alexandrache, C. (2014). Journal reflexive, an instrument for student preparation in the teaching
- 6121 profession. *Procedia - Social and Behavioral Sciences*, 149, 20–24.
- 6122 <https://doi.org/10.1016/j.sbspro.2014.08.172>
- 6123 Allen, G., Rhind, D., & Koshy, V. (2015). Enablers and barriers for male students transferring life
- 6124 skills from the sports hall into the classroom from the sports hall into the classroom.
- 6125 *Qualitative Research in Sport, Exercise and Health*, 7(1), 53–67.
- 6126 <https://doi.org/10.1080/2159676X.2014.893898>
- 6127 Allen, M. L., Svetaz, A. V., Hurtado, G. A., Linares, R., Garcia-Huidobro, D., & Hurtado, M.
- 6128 (2013). The developmental stages of a community-university partnership: the experience of
- 6129 Padres Informados/Jovenes Preparados. *Progress in Community Health Partnerships:*
- 6130 *Research, Education, and Action*, 7(3), 271–279. <https://doi.org/10.1353/cpr.2013.0029>
- 6131 Alvarez, A. (2020). Seeing race in the research on youth trauma and education: A critical review.
- 6132 *Review of Educational Research*, 90(5), 583–626.
- 6133 <https://doi.org/10.3102/0034654320938131>
- 6134 Amayah, A. T. (2013). *Determinants of knowledge sharing in a public sector organization*. 17(3),
- 6135 454–471. <https://doi.org/10.1108/JKM-11-2012-0369>
- 6136 Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S. R., &
- 6137 Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in
- 6138 childhood: A convergence of evidence from neurobiology and epidemiology. *European*

- 6139 *Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174–186.
- 6140 <https://doi.org/10.1007/s00406-005-0624-4>
- 6141 Anderson-Butcher, D., Riley, A., Amorose, A., Iachini, A., & Wade-Mdivanian, R. (2014).
- 6142 Maximizing youth experiences in community sport settings: The design and impact of the
- 6143 LiFE Sports Camp. *Journal of Sport Management*, 28(2), 236–249.
- 6144 <https://doi.org/10.1123/jsm.2012-0237>
- 6145 Armstrong, A., Flynn, E., Salt, K., Briggs, J., Clarke, R., Vines, J., & MacDonald, A. (2022).
- 6146 Trust and temporality in participatory research [OnlineFirst]. *Qualitative Research*.
- 6147 <https://doi.org/10.1177/14687941211065163>
- 6148 Arvidson, J., Kinniburgh, K., Howard, K., Spinazzola, J., Strothers, H., Evans, M., Andres, B.,
- 6149 Cohen, C., & Blaustein, M. E. (2011). Treatment of complex trauma in young children:
- 6150 Developmental and cultural considerations in application of the ARC intervention model.
- 6151 *Journal of Child & Adolescent Trauma*, 4(1), 34–51.
- 6152 <https://doi.org/10.1080/19361521.2011.545046>
- 6153 Assemi, M., Mutha, S., & Hudmon, K. S. (2007). Evaluation of a train-the-trainer program for
- 6154 cultural competence. *American Journal of Pharmaceutical Education*, 71(6).
- 6155 <https://doi.org/10.5688/aj7106110>
- 6156 Baines, R. L., & Regan de Bere, S. (2018). Optimizing patient and public involvement (PPI):
- 6157 Identifying its “essential” and “desirable” principles using a systematic review and modified
- 6158 Delphi methodology. *Health Expectations*, 21(1), 327–335.
- 6159 <https://doi.org/10.1111/hex.12618>
- 6160 Banerjee, D., & Pawley, A. L. (2011). Learning and social change: Using interviews as tools to
- 6161 prompt reflection on practice. *Reflective Practice*, 12(4), 441–455.
- 6162 <https://doi.org/10.1080/14623943.2011.591599>

- 6163 Baquet, C. R. (2012). A model for bidirectional community-academic engagement (CAE):
 6164 Overview of partnered research, capacity enhancement, systems transformation, and public
 6165 trust in research. *Journal of Health Care for the Poor and Underserved*, 23(4), 1806–1824.
 6166 <https://doi.org/10.1353/hpu.2012.0155>
- 6167 Barnett, E. R., Yackley, C. R., & Licht, E. S. (2018). Developing, implementing, and evaluating a
 6168 trauma-informed care program within a youth residential treatment center and special needs
 6169 school. *Residential Treatment for Children and Youth*, 35(2), 95–113.
 6170 <https://doi.org/10.1080/0886571X.2018.1455559>
- 6171 Barrows, H. S., & Tamblyn, R. M. (1980). *Problem-based learning: An approach to medical*
 6172 *education* (Vol. 1). Springer Publishing Company.
- 6173 Bartholomew, L. K., & Mullen, P. D. (2011). Five roles for using theory and evidence in the
 6174 design and testing of behaviour change interventions. *Journal of Public Health Dentistry*,
 6175 71(SUPPL. 1). <https://doi.org/10.1111/j.1752-7325.2011.00223.x>
- 6176 Bean, C., & Forneris, T. (2016). Examining the importance of intentionally structuring the youth
 6177 sport context to facilitate positive youth development. *Journal of Applied Sport Psychology*,
 6178 28(4), 410–425. <https://doi.org/10.1080/10413200.2016.1164764>
- 6179 Bean, C., Fortier, M., Post, C., & Chima, K. (2014). Understanding how organised youth sport
 6180 may be harming individual players within the family unit: A literature review. *International*
 6181 *Journal of Environmental Research and Public Health*, 11(10), 10226–10268.
 6182 <https://doi.org/10.3390/ijerph111010226>
- 6183 Bean, C., Kramers, S., Forneris, T., & Camiré, M. (2018). The implicit/explicit continuum of life
 6184 skills development and transfer. *Quest*, 70(4), 456–470.
 6185 <https://doi.org/10.1080/00336297.2018.1451348>
- 6186 Bean, C., Shaikh, M., & Forneris, T. (2020). Coaching strategies used to deliver quality youth

- 6187 sport programming. *International Sport Coaching Journal*, 7(1), 39–51.
- 6188 <https://doi.org/10.1123/iscj.2018-0044>
- 6189 Bean, C., Shaikh, M., Kramers, S., & Forneris, T. (2021). Does context matter? Unpacking
 6190 differences in program quality and developmental experiences across competitive and
 6191 recreational youth sport. *International Journal of Sports Science & Coaching*, 16(5), 1204–
 6192 1213. <https://doi.org/10.1177/17479541211001879>
- 6193 Becker-Blease, K. A. (2017). As the world becomes trauma-informed, work to do. *Journal of*
 6194 *Trauma & Dissociation*, 18(2), 131–138. <https://doi.org/10.1080/15299732.2017.1253401>
- 6195 Beckett, D., & Hager, P. (2005). *Life, work and learning*. Routledge.
- 6196 Benammar, K. (2004). *Conscious action through conscious thinking: Reflection tools in*
 6197 *experiential learning*. HvA Publicaties.
- 6198 Bengoechea, E. G. (2002). Integrating knowledge and expanding horizons in developmental sport
 6199 psychology: A 'bioecological perspective. *Quest*, 54, 1–20.
- 6200 <https://doi.org/10.1080/00336297.2002.10491763>
- 6201 Berger, E. (2019). Multi-tiered approaches to trauma-informed care in schools: A systematic
 6202 review. *School Mental Health*, 11, 650–664. <https://doi.org/10.1007/s12310-019-09326-0>
- 6203 Bergholz, L., Stafford, E., & D'Andrea, W. (2016). Creating trauma-informed sports
 6204 programming for traumatised youth: Core principles for an adjunctive therapeutic approach.
 6205 *Journal of Infant, Child, and Adolescent Psychotherapy*, 15(3), 244–253.
- 6206 <https://doi.org/10.1080/15289168.2016.1211836>
- 6207 Berkel, C., Mauricio, A. M., Schoenfelder, E., & Sandler, I. N. (2011). Putting the pieces
 6208 together: An integrated model of program implementation. *Prevention Science*, 12(1), 23–
 6209 33. <https://doi.org/10.1007/s11121-010-0186-1>
- 6210 Berliner, L., & Kolko, D. J. (2016). Trauma informed care: A commentary and critique. *Child*

- 6211 *Maltreatment*, 21(2), 168–172. <https://doi.org/10.1177/1077559516643785>
- 6212 Berntsen, H., & Kristiansen, E. (2019). Guidelines for need-supportive coach development: The
 6213 Motivation Activation Program in Sports (MAPS). *International Sport Coaching Journal*,
 6214 6(1), 88–97. <https://doi.org/10.1123/iscj.2018-0066>
- 6215 Bertram, R., Culver, D. M., & Gilbert, W. (2015). Creating value in a sport coach community of
 6216 practice: A collaborative inquiry. *International Sport Coaching Journal*, 3(1), 2–16.
 6217 <https://doi.org/10.1123/iscj.2014-0122>
- 6218 Bertram, R., Culver, D. M., & Gilbert, W. (2017). A university sport coach community of
 6219 practice: Using a value creation framework to explore learning and social interactions.
 6220 *International Journal of Sports Science and Coaching*, 12(3), 287–302.
 6221 <https://doi.org/10.1177/1747954117710503>
- 6222 BGC Canada. (2022). *Who We Are | Boys and Girls Clubs of Canada*. <https://www.bgccan.com>
- 6223 Bishop, D. (2008). An applied research model for the sport sciences. *Sports Medicine*, 38(3),
 6224 253–263.
- 6225 Black, P. J., Woodworth, M., Tremblay, M., & Carpenter, T. (2012). A review of trauma-informed
 6226 treatment for adolescents. *Canadian Psychology/Psychologie Canadienne*, 53(3), 192–203.
 6227 <https://doi.org/10.1037/a0028441>
- 6228 Blendon, R. J., & Casey, L. S. (2019). Discrimination in the United States: Perspectives for the
 6229 future. *Health Services Research*, 54(S2), 1467–1471. [https://doi.org/10.1111/1475-](https://doi.org/10.1111/1475-6773.13218)
 6230 [6773.13218](https://doi.org/10.1111/1475-6773.13218)
- 6231 Bligh, D. (1972). *What's the use of lectures?* Penguin.
- 6232 Blitz, L. V, Yull, D., & Clauhs, M. (2020). Bringing sanctuary to climate as a foundation for
 6233 culturally responsive approaches for urban schools. *Urban Education*, 55(1), 95–124.
 6234 <https://doi.org/10.1177/0042085916651323>

- 6235 Bloom, S. L. (2016). Advancing a national cradle-to-grave-to-cradle public health agenda.
 6236 *Journal of Trauma & Dissociation*, 17(4), 383–396.
 6237 <https://doi.org/10.1080/15299732.2016.1164025>
- 6238 Blumberg, P. (2009). *Developing learner-centred teaching: A practical guide for faculty*. 24,
 6239 175–177.
- 6240 Boutet, I., Vandette, M.-P., & Valiquette-Tessier, S.-C. (2017). Evaluating the implementation and
 6241 effectiveness of reflection writing. *The Canadian Journal for the Scholarship of Teaching*
 6242 *and Learning*, 8(1), Article 8. <https://doi.org/10.5206/cjsotl-rcacea.2017.1.8>
- 6243 Bowen, S., & Graham, I. D. (2013). Integrated knowledge translation. In S. Straus, J. Tetroe, & I.
 6244 D. Graham (Eds.), *Knowledge translation in health care: Moving from evidence to practice*
 6245 (pp. 14–23). John Wiley & Sons.
- 6246 Bowes, I., & Jones, R. L. (2006). Working at the edge of chaos: Understanding coaching as a
 6247 complex, interpersonal system. *The Sport Psychologist*, 20, 235–245.
 6248 <https://doi.org/10.1123/tsp.20.2.235>
- 6249 Bowles, R., & Dwyer, A. O. (2021). Identifying learning in a coaching community of practice: A
 6250 collaborative self-study a collaborative self-study. *European Journal for Sport and Society*,
 6251 19(3), 214–231. <https://doi.org/10.1080/16138171.2021.1930943>
- 6252 Brannen, J., & O’Connell, R. (2015). Data analysis I: Overview of data analysis strategies. In S.
 6253 N. Hesse-Biber & R. B. Johnson (Eds.), *The Oxford handbook of multimethod and mixed*
 6254 *methods research inquiry* (pp. 257–274). Oxford University Press.
- 6255 Branson, C. E., Baetz, C. L., Horwitz, S. M. C., & Hoagwood, K. E. (2017). Trauma-informed
 6256 juvenile justice systems: A systematic review of definitions and core components.
 6257 *Psychological Trauma: Theory, Research, Practice, and Policy*, 9(6), 635–646.
 6258 <https://doi.org/10.1037/tra0000255>

- 6259 Brauner, E., & Becker, A. (2006). Beyond knowledge sharing: The management of transactive
 6260 knowledge systems. *Knowledge and Process Management*, 13(1), 62–71.
 6261 <https://doi.org/10.1002/kpm.240>
- 6262 Breslau, N., Wilcox, H. C., Storr, C. L., Lucia, V. C., & Anthony, J. C. (2004). Trauma exposure
 6263 and posttraumatic stress disorder: A study of youths in urban America. *Journal of Urban*
 6264 *Health*, 81(4), 530–544. <https://doi.org/10.1093/jurban/jth138>
- 6265 Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective.
 6266 In P. Moen, G. H. Elder Jr., & K. Luscher (Eds.), *Examining lives in context: Perspectives*
 6267 *on the ecology of human development* (pp. 619–647). American Psychological Association.
- 6268 Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualised in developmental
 6269 perspective: A bioecological model. *Psychological Review*, 101(4), 568–586.
- 6270 Brown, J. C., Verhagen, E., Van Mechelen, W., Lambert, M. I., & Draper, C. E. (2016). Coaches’
 6271 and referees’ perceptions of the BokSmart injury prevention programme. *International*
 6272 *Journal of Sports Science & Coaching*, 11(5), 637–647.
 6273 <https://doi.org/10.1177/1747954116667100>
- 6274 Brown, S. M., Baker, C. N., & Wilcox, P. (2012). Risking connection trauma training: A pathway
 6275 toward trauma-informed care in child congregate care settings. *Psychological Trauma:*
 6276 *Theory, Research, Practice, and Policy*, 4(5), 507–515. <https://doi.org/10.1037/a0025269>
- 6277 Brush, B. L., Mentz, G., Jensen, M., Jacobs, B., Saylor, K. M., Rowe, Z., Israel, B. A., &
 6278 Lachance, L. (2020). Success in long-standing community-based participatory research
 6279 (CBPR) partnerships: A scoping literature review. *Health Education and Behavior*, 47(4),
 6280 556–568. <https://doi.org/10.1177/1090198119882989>
- 6281 Buka, S. L., Stichick, T. L., Birdthistle, I., & Earls, F. J. (2001). Youth exposure to violence:
 6282 Prevalence, risks, and consequences. *American Journal of Orthopsychiatry*, 71(3), 298–310.

- 6283 <https://doi.org/10.1037/0002-9432.71.3.298>
- 6284 Bulanda, J. J., & Byro Johnson, T. (2016). A trauma-informed model for empowerment programs
6285 targeting vulnerable youth. *Child and Adolescent Social Work Journal*, 33(4), 303–312.
6286 <https://doi.org/10.1007/s10560-015-0427-z>
- 6287 Burczycka, M. (2015). Family violence in Canada: Profile of Canadian adults who experienced
6288 childhood maltreatment. In *Statistics Canada*. [https://www150.statcan.gc.ca/n1/pub/85-002-](https://www150.statcan.gc.ca/n1/pub/85-002-x/2017001/article/14698/01-eng.htm)
6289 [x/2017001/article/14698/01-eng.htm](https://www150.statcan.gc.ca/n1/pub/85-002-x/2017001/article/14698/01-eng.htm)
- 6290 Bush, A. J., Silk, M. L., Andrews, D. L., & Lauder, H. (2013). *Sports coaching research: Context,*
6291 *consequences and consciousness*. Routledge. <https://doi.org/10.4324/9780203079225>
- 6292 Bush, P. L., Pluye, P., Loignon, C., Granikov, V., Wright, M. T., Pelletier, J. F., Bartlett-Esquilant,
6293 G., Macaulay, A. C., Haggerty, J., Parry, S., & Repchinsky, C. (2017). Organizational
6294 participatory research: A systematic mixed studies review exposing its extra benefits and the
6295 key factors associated with them. *Implementation Science*, 12(1), 1–15.
6296 <https://doi.org/10.1186/s13012-017-0648-y>
- 6297 Butler, J. A. (1992). Use of teaching methods within the lecture format. *Medical Teacher*, 14(1),
6298 11–25. <https://doi.org/10.3109/01421599209044010>
- 6299 Camiré, M. (2015). Reconciling competition and positive youth development in sport. *Staps*,
6300 109(3), 25–39. <https://doi.org/10.3917/sta.109.0025>
- 6301 Camiré, M., Forneris, T., Trudel, P., & Bernard, D. (2011). Strategies for helping coaches
6302 facilitate positive youth development through sport. *Journal of Sport Psychology in Action*,
6303 2(2), 92–99. <https://doi.org/10.1080/21520704.2011.584246>
- 6304 Camiré, M., Newman, T. J., Bean, C., & Strachan, L. (2021). Reimagining positive youth
6305 development and life skills in sport through a social justice lens. *Journal of Applied Sport*
6306 *Psychology*. <https://doi.org/10.1080/10413200.2021.1958954>

- 6307 Canadian Institutes for Health Research. (2016). *Knowledge translation*. [http://www.cihr-](http://www.cihr-irsc.gc.ca/e/29418.html)
- 6308 [irsc.gc.ca/e/29418.html](http://www.cihr-irsc.gc.ca/e/29418.html)
- 6309 Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004).
6310 Positive youth development in the United States: Research findings on evaluations of
6311 positive youth development programs. *The Annals of the American Academy of Political and*
6312 *Social Science*, 591(1), 98–124. <https://doi.org/10.1177/0002716203260102>
- 6313 Catalano, R. F., Hawkins, J. D., Berglund, M. L., Pollard, J. A., & Arthur, M. W. (2002).
6314 Prevention science and positive youth development: Competitive or cooperative
6315 frameworks? *Journal of Adolescent Health*, 31(6), 230–239. [https://doi.org/10.1016/S1054-](https://doi.org/10.1016/S1054-139X(02)00496-2)
- 6316 [139X\(02\)00496-2](https://doi.org/10.1016/S1054-139X(02)00496-2)
- 6317 Centers for Disease Control and Prevention. (2016). *Adverse childhood experiences (ACEs)*.
6318 Violence Prevention. <https://www.cdc.gov/violenceprevention/acestudy/index.html>
- 6319 Champine, R. B., Lang, J. M., Nelson, A. M., Hanson, R. F., & Tebes, J. K. (2019). Systems
6320 measures of a trauma-informed approach: A systematic review. *American Journal of Comm*,
6321 64, 418–437. <https://doi.org/10.1002/ajcp.12388>
- 6322 Chanchlani, N., Buchanan, F., & Gill, P. J. (2020). Addressing the indirect effects of COVID-19
6323 on the health of children and young people. *Canadian Medical Association Journal*,
6324 192(32), E921–E927. <https://doi.org/10.1503/cmaj.201008>
- 6325 Cloitre, M., Stolbach, B. C., Herman, J. L., Van Der Kolk, B., Pynoos, R., Wang, J., & Petkova,
6326 E. (2009). A developmental approach to complex PTSD: Childhood and adult cumulative
6327 trauma as predictors of symptom complexity. *Journal of Traumatic Stress*, 22(5), 399–408.
6328 <https://doi.org/10.1002/jts.20444>
- 6329 Coakley, J. (2011). Youth sports: What counts as “positive development?” *Journal of Sport &*
6330 *Social Issues*, 35(3), 306–324. <https://doi.org/10.1177/0193723511417311>

- 6331 Coakley, J. (2015). Assessing the sociology of sport: On cultural sensibilities and the great sport
 6332 myth. *International Review for the Sociology of Sport*, 50(4–5), 402–406.
 6333 <https://doi.org/10.1177/1012690214538864>
- 6334 Coakley, J. (2016). Positive youth development through sport: Myths, beliefs, and realities. In N.
 6335 L. Holt (Ed.), *Positive youth development through sport* (pp. 21–33). Routledge.
- 6336 Coatsworth, J. D., & Conroy, D. E. (2007). Youth sport as a component of organised afterschool
 6337 programs. *New Directions for Youth Development*, 2007(115), 57–74.
 6338 <https://doi.org/10.1002/yd.223>
- 6339 Coatsworth, J. D., & Conroy, D. E. (2009). The effects of autonomy-supportive coaching, need
 6340 satisfaction, and self-perceptions on initiative and identity in youth swimmers.
 6341 *Developmental Psychology*, 45(2), 320–328. <https://doi.org/10.1037/a0014027>
- 6342 Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., DeRosa, R., Hubbard,
 6343 R., Kagan, R., Liautaud, J., Mallah, K., Olafson, E., & van der Kolk, B. (2005). Complex
 6344 trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390–398.
 6345 <https://doi.org/10.3928/00485713-20050501-05>
- 6346 Coombs, P. H., & Ahmed, M. (1974). *Attacking rural poverty: How nonformal education can*
 6347 *help*. John Hopkins University Press.
- 6348 Cope, E., Partington, M., & Harvey, S. (2017). A review of the use of a systematic observation
 6349 method in coaching research between 1997 and 2016. *Journal of Sports Sciences*, 35(20),
 6350 2042–2050. <https://doi.org/10.1080/02640414.2016.1252463>
- 6351 Côté, J., & Gilbert, W. (2009). An integrative definition of coaching effectiveness and expertise.
 6352 *International Journal of Sports Science & Coaching*, 4(3), 307–323.
 6353 <https://doi.org/10.1260/174795409789623892>
- 6354 Côté, J., & Mallett, C. J. (2013). *Review of junior sport framework briefing paper: Positive youth*

- 6355 *development through sport*. Australian Sports Commission.
- 6356 Côté, J., Turnnidge, J., & Evans, M. B. (2014). The dynamic process of development through
6357 sport. *Kinesiology Slovenica*, 20(3), 14–26.
- 6358 Coughlin, S. S., Smith, S. A., & Fernandez, M. E. (2017). *Handbook of Community-Based*
6359 *Participatory Research*. Oxford University Press.
- 6360 Cousins, J. B., Goh, S. C., Elliott, C. J., & Bourgeois, I. (2014). Framing the capacity to do and
6361 use evaluation. *New Directions for Evaluation*, 2014(141), 7–23.
6362 <https://doi.org/10.1002/ev.20076>
- 6363 Cronin, C. J., & Lowes, J. (2016). Embedding experiential learning in HE sport coaching
6364 courses: An action research study. *Journal of Hospitality, Leisure, Sport & Tourism*
6365 *Education*, 18, 1–8. <https://doi.org/10.1016/j.jhlste.2016.02.001>
- 6366 Culver, D. M., & Duarte, T. (2022). Communities of practice and social learning spaces for sport
6367 coach learning: What and how. In *Practical Sports Coaching* (2nd ed., pp. 187–198).
6368 Routledge.
- 6369 Culver, D. M., & Trudel, P. (2006). Cultivating coaches' communities of practice: Developing the
6370 potential for learning through interactions. In R. L. Jones (Ed.), *The sports coach as*
6371 *educator* (pp. 97–112). Routledge. <https://doi.org/10.4324/9780203020074>
- 6372 Culver, D. M., Trudel, P., & Werthner, P. (2009). A sport leaders' attempt to foster a coaches'
6373 community of practice. *International Journal of Sports Science & Coaching*, 4(3), 365–383.
6374 <https://doi.org/10.1260/174795409789623900>
- 6375 Cushion, C. J. (2010). Coach and athlete learning: A social approach. *The Sociology of Sports*
6376 *Coaching*, 166–178. <https://doi.org/10.4324/9780203865545-20>
- 6377 Cushion, C. J. (2011). Coach and athlete learning. In R. L. Jones, P. Potrac, C. Cushion, & L. T.
6378 Ronglan (Eds.), *The sociology of sports coaching* (pp. 166–178). Routledge.

- 6379 Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing
 6380 professional development: Experience and learning to coach. *Quest*, 55(3), 215–230.
 6381 <https://doi.org/10.1080/00336297.2003.10491800>
- 6382 Cushion, C. J., & Lyle, J. (2010). Conceptual development in sports coaching. In C. J. Cushion &
 6383 J. Lyle (Eds.), *Sports coaching: Professionalism and practice* (pp. 1–13). Churchill
 6384 Livingstone.
- 6385 Cushion, C. J., Nelson, L. J., Armour, K., Lyle, J., Jones, R., Sandford, R., & Callaghan, C. O.
 6386 (2010). *Coach learning and development: A review of literature*.
- 6387 Cyril, S., Smith, B. J., Possamai-Inesedy, A., & Renzaho, A. M. N. (2015). Exploring the role of
 6388 community engagement in improving the health of disadvantaged populations: A systematic
 6389 review. *Global Health Action*, 8. <https://doi.org/10.3402/gha.v8.29842>
- 6390 D’Andrea, W., Bergholz, L., Fortunato, A., & Spinazzola, J. (2013). Play to the whistle: A pilot
 6391 investigation of a sports-based intervention for traumatised girls in residential treatment.
 6392 *Journal of Family Violence*, 28(7), 739–749. <https://doi.org/10.1007/s10896-013-9533-x>
- 6393 Damon, W. (2004). What is positive youth development? *The Annals of the American Academy of*
 6394 *Political and Social Science*, 591(1), 13–24. <https://doi.org/10.1177/0002716203260092>
- 6395 Danish, S. J. (1997). Going for the goal: A life skills program for adolescents. *Primary*
 6396 *Prevention Works: Issues in Children’s and Families’ Lives*, 291–313.
- 6397 Danish, S. J., Fazio, R. J., Nellen, V. C., & Owens, S. S. (2002). *Teaching life skills through*
 6398 *sport: Community-based programs to enhance adolescent development*.
- 6399 Danish, S. J., Forneris, T., Hodge, K., & Heke, I. (2004). Enhancing youth development through
 6400 sport. *World Leisure Journal*, 46(3), 38–49. <https://doi.org/10.1080/04419057.2004.9674365>
- 6401 Danish, S. J., Meyer, A., Mash, J., Howard, C., Curl, S., Brunelle, J., & Owens, S. (1998). Going
 6402 for the goal: Leader manual and student activity book. *Richmond, VA: Life Skills Center*.

- 6403 Danish, S. J., Nellen, V. C., & Owens, S. S. (1996). Teaching life skills through sport:
 6404 Community-based programs for adolescents. In J. L. Van Raalte & B. W. Brewer (Eds.),
 6405 *Exploring sport and exercise psychology* (pp. 205–225). American Psychological
 6406 Association. <https://doi.org/10.1037/10186-009>
- 6407 Darroch, F. E., Roett, C., Varcoe, C., Oliffe, J. L., & Gonzalez Montaner, G. (2020). Trauma-
 6408 informed approaches to physical activity: A scoping study. *Complementary Therapies in*
 6409 *Clinical Practice*, 41(101224), 1–10. <https://doi.org/10.1016/j.ctcp.2020.101224>
- 6410 Deci, E. L., & Ryan, R. M. (2002). Overview of self-determination theory: An organismic
 6411 dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination*
 6412 *research* (pp. 3–33). University of Rochester Press.
- 6413 Deek, D., Werthner, P., Paquette, K. J., & Culver, D. M. (2013). Impact of a large-scale coach
 6414 education program from a lifelong-learning perspective. *Journal of Coaching Education*,
 6415 6(1), 23–42. <https://doi.org/10.1123/jce.6.1.23>
- 6416 Delgado, M., & Staples, L. (2007). *Youth-led community organizing: Theory and action*. Oxford
 6417 University Press.
- 6418 Denison, E., Bevan, N., & Jeanes, R. (2021). Reviewing evidence of LGBTQ+ discrimination
 6419 and exclusion in sport. *Sport Management Review*, 24(3), 389–409.
 6420 <https://doi.org/10.1016/j.smr.2020.09.003>
- 6421 Denzin, N. K., Lincoln, Y. S., & Guba, E. G. (2018). Paradigmatic controversies, contradictions,
 6422 and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE*
 6423 *Handbook of Qualitative Research* (5th ed., pp. 213–263). SAGE Publications.
- 6424 Dewey, J. (1910). *How we think*. Dover.
- 6425 Dochy, F., Segers, M., & Bossche, P. Van Den. (2003). Effects of problem-based learning: A
 6426 meta-analysis. *Learning and Instruction*, 13, 533–568. <https://doi.org/10.1016/S0959->

- 6427 4752(02)00025-7
- 6428 Dohme, L.-C., Rankin-Wright, A. J., & Lara-Bercial, S. (2019). Beyond knowledge transfer: The
 6429 role of coach developers as motivators for lifelong learning. *International Sport Coaching*
 6430 *Journal*, 6(3), 317–328. <https://doi.org/10.1123/iscj.2019-0034>
- 6431 Dolmans, D. H. J. M., Grave, W. De, Wolfhagen, I. H. A. P., & Vleuten, C. P. M. Van Der. (2005).
 6432 Problem-based learning: Future challenges for educational practice and research. *Medical*
 6433 *Education*, 39, 732–741. <https://doi.org/10.1111/j.1365-2929.2005.02205.x>
- 6434 Drahota, A., Meza, R. D., Brikho, B., Naaf, M., Estabillo, J. A., Gomez, E. D., Vejnaska, S. F.,
 6435 Dufek, S., Stahmer, A. C., & Aarons, G. A. (2016). Community-academic partnerships: A
 6436 systematic review of the state of the literature and recommendations for future research.
 6437 *Milbank Quarterly*, 94(1), 163–214. <https://doi.org/10.1111/1468-0009.12184>
- 6438 Duarte, T., Culver, D. M., & Paquette, K. (2021). Assessing the value created in a social learning
 6439 space intervention: Four vignettes of parasport coaches. *International Sport Coaching*
 6440 *Journal*, 8(3), 348–361. <https://doi.org/10.1123/iscj.2020-0006>
- 6441 Durlak, J. A., & DuPre, E. P. (2008). Implementation matters: A review of research on the
 6442 influence of implementation on program outcomes and the factors affecting implementation.
 6443 *American Journal of Community Psychology*, 41(3–4), 327–350.
 6444 <https://doi.org/10.1007/s10464-008-9165-0>
- 6445 Dye, H. (2018). The impact and long-term effects of childhood trauma. *Journal of Human*
 6446 *Behavior in the Social Environment*, 28(3), 381–392.
 6447 <https://doi.org/10.1080/10911359.2018.1435328>
- 6448 Eccles, J., & Gootman, J. A. (2002). *Community programs to promote youth development*.
 6449 National Academies Press. <https://doi.org/10.1177/0044118X06288912>
- 6450 Eime, R. M., Young, J. A., Harvey, J. T., Charity, M. J., & Payne, W. R. (2013). A systematic

- 6451 review of the psychological and social benefits of participation in sport for children and
 6452 adolescents: Informing development of a conceptual model of health through sport.
 6453 *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 98.
 6454 <https://doi.org/10.1186/1479-5868-10-135>
- 6455 Eisenhardt, K. M., & Santos, F. M. (2002). Knowledge-based view: A new theory of strategy. In
 6456 A. M. Pettigrew, H. Thomas, & R. Whittington (Eds.), *Handbook of strategy and*
 6457 *management* (pp. 139–164). SAGE.
- 6458 Eklund, R. C., & DeFreese, J. D. (2020). Athlete burnout. In G. Tenenbaum & R. C. Eklund
 6459 (Eds.), *Handbook of Sport Psychology* (pp. 1220–1240). Wiley.
 6460 <https://doi.org/https://doi.org/10.1002/9781119568124.ch60>
- 6461 Elliott, D. E., Bjelajac, P., Fallot, R. D., Markoff, L. S., & Reed, B. G. (2005). Trauma-informed
 6462 or trauma-denied: Principles and implementation of trauma-informed services for women.
 6463 *Journal of Community Psychology*, 33(4), 461–477. <https://doi.org/10.1002/jcop.20063>
- 6464 Emerson, D., Sharma, R., Chaudhry, S., & Turner, J. (2009). Trauma-sensitive yoga: Principles,
 6465 practice, and research. *International Journal of Yoga Therapy*, 19(1), 123–128.
 6466 <https://doi.org/10.17761/ijyt.19.1.h6476p8084l22160>
- 6467 Eraut, M. (1994). *Developing professional knowledge and competence*. Falmer Press.
- 6468 Eraut, M. (2000). Non-formal learning and tacit knowledge in professional work. *British Journal*
 6469 *of Educational Psychology*, 70, 113–136. <https://doi.org/10.1348/000709900158001>
- 6470 Erickson, K., Bruner, M., MacDonald, D. J., & Côté, J. (2008). Gaining insight into actual and
 6471 preferred sources of coaching knowledge. *International Journal of Sports Science and*
 6472 *Coaching*, 3(4), 527–538. <https://doi.org/10.1260/174795408787186468>
- 6473 Evans, G. W. (2004). The environment of childhood poverty. *American Psychologist*, 59(2), 77–
 6474 92. <https://doi.org/10.1037/0003-066X.59.2.77>

- 6475 Falcão, W. R., Bloom, G. A., & Gilbert, W. (2012). Coaches' perceptions of a coach training
 6476 program designed to promote youth developmental outcomes. *Journal of Applied Sport*
 6477 *Psychology*, 24(4), 429–444. <https://doi.org/10.1080/10413200.2012.692452>
- 6478 Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the
 6479 Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A
 6480 narrative review to highlight clinical and research needs in the acute phase and the long
 6481 return to normality. *Child and Adolescent Psychiatry and Mental Health*, 14(1), 1–11.
 6482 <https://doi.org/10.1186/s13034-020-00329-3>
- 6483 Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M.
 6484 P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to
 6485 many of the leading causes of death in adults. *American Journal of Preventive Medicine*,
 6486 14(4), 245–258. [https://doi.org/10.1016/S0749-3797\(98\)00017-8](https://doi.org/10.1016/S0749-3797(98)00017-8)
- 6487 Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M.
 6488 P., & Marks, J. S. (2019). Relationship of childhood abuse and household dysfunction to
 6489 many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE)
 6490 Study. *American Journal of Preventive Medicine*, 56(6), 774–786.
 6491 <https://doi.org/10.1016/j.amepre.2019.04.001>
- 6492 Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods
 6493 designs: Principles and practices. *Health Services Research*, 48, 2134–2156.
 6494 <https://doi.org/10.1111/1475-6773.12117>
- 6495 Field, B., Booth, A., Ilott, I., & Gerrish, K. (2014). Using the knowledge to action framework in
 6496 practice: A citation analysis and systematic review. *Implementation Science*, 9(1), 172.
 6497 <https://doi.org/10.1186/s13012-014-0172-2>
- 6498 Finch, C. F., & Donaldson, A. (2010). A sports setting matrix for understanding the

- 6499 implementation context for community sport. *British Journal of Sports Medicine*, 44(13),
 6500 973–978. <https://doi.org/10.1136/bjism.2008.056069>
- 6501 Fixsen, D., Blase, K., Naoom, S., & Wallace, F. (2009). Core implementation components.
 6502 *Research on Social Work Practice*, 19(5), 531–540.
 6503 <https://doi.org/10.1177/1049731509335549>
- 6504 Forneris, T., Camiré, M., & Williamson, R. (2015). Extracurricular activity participation and the
 6505 acquisition of developmental assets: Differences between involved and noninvolved
 6506 Canadian high school students. *Applied Developmental Science*, 19(1), 47–55.
 6507 <https://doi.org/10.1080/10888691.2014.980580>
- 6508 Foster-Fishman, P. G., Berkowitz, S. L., Lounsbury, D. W., Jacobson, S., & Allen, N. A. (2001).
 6509 Building collaborative capacity in community coalitions: A review and integrative
 6510 framework. *American Journal of Community Psychology*, 29(2), 241–261.
 6511 <https://doi.org/10.1023/A:1010378613583>
- 6512 Fraser-Thomas, J., & Côté, J. (2009). Understanding adolescents' positive and negative
 6513 developmental experiences in sport. *The Sport Psychologist*, 23, 3–23.
 6514 <https://doi.org/10.1123/tsp.23.1.3>
- 6515 Fraser-Thomas, J., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster
 6516 positive youth development. *Physical Education & Sport Pedagogy*, 10(1), 19–40.
 6517 <https://doi.org/10.1080/1740898042000334890>
- 6518 Frisby, W., Reid, C. J., Millar, S., & Hoeber, L. (2005). Putting “participatory” into participatory
 6519 forms of action research. *Journal of Sport Management*, 19(4), 367–386.
 6520 <https://doi.org/10.1123/jsm.19.4.367>
- 6521 Frisby, W., Thibault, L., Kikulis, L., Frisby, W., Thibault, L., & Kikulis, L. (2004). The
 6522 organizational dynamics of under-managed partnerships in leisure service departments.

- 6523 *Leisure Studies*, 23(2), 109–126. <https://doi.org/10.1080/0261436042000224482>
- 6524 Galvin, E., Morris, H., Mousa, A., O'Donnell, R., Halfpenny, N., & Skouteris, H. (2021).
 6525 Implementation of The Sanctuary Model in residential out-of-home care: Enablers, barriers,
 6526 successes and challenges. *Children and Youth Services Review*, 121(December 2020),
 6527 105901. <https://doi.org/10.1016/j.childyouth.2020.105901>
- 6528 Garst, B. A., Pann, J., Berry, T., Biesecker, G., Spector, J., & Jones, C. (2021). Building
 6529 evaluation capacity in youth-serving organizations through evaluation advisory boards.
 6530 *Journal of Youth Development*, 16(4), 52–69. <https://doi.org/10.5195/jyd.2021.1077>
- 6531 Gibbs, G. (1988). Learning by doing: A guide to teaching and learning methods. *Further*
 6532 *Education Unit*.
- 6533 Gilbert, W., & Côté, J. (2013). Defining coaching effectiveness: A focus on coaches' knowledge.
 6534 In W. Gilbert (Ed.), *Handbook of sports coaching* (pp. 147–159). Routledge.
- 6535 Gilbert, W., Gallimore, R., & Trudel, P. (2009). A learning community approach to coach
 6536 development in youth sport. *Journal of Coaching Education*, 2(2), 3–23.
 6537 <https://doi.org/10.1123/jce.2.2.3>
- 6538 Gilbert, W., & Trudel, P. (2001). Learning to coach through experience: Reflection in model
 6539 youth sport coaches. *Journal of Teaching in Physical Education*, 21, 16–34.
 6540 <https://doi.org/10.1123/jtpe.21.1.16>
- 6541 Glaser, D. (2000). Child abuse and neglect and the brain - A review. *Journal of Child Psychology*
 6542 *and Psychiatry*, 41(1), 97–116. <https://doi.org/10.1111/1469-7610.00551>
- 6543 Glasgow, R. E., Harden, S. M., Gaglio, B., Rabin, B., Smith, M. L., Porter, G. C., Ory, M. G., &
 6544 Estabrooks, P. A. (2019). RE-AIM planning and evaluation framework: Adapting to new
 6545 science and practice with a 20-year review. *Frontiers in Public Health*, 7(64), 1–9.
 6546 <https://doi.org/10.3389/fpubh.2019.00064>

- 6547 Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). Evaluating the public health impact of health
 6548 promotion interventions: The RE-AIM framework. *American Journal of Public Health*,
 6549 89(9), 1322–1327. <https://doi.org/10.2105/AJPH.89.9.1322>
- 6550 Goold, S., Rowe, Z., Calhoun, K., Campbell, T., Danis, M., Hammad, A., Salman, C., Szymecko,
 6551 L., & Coombe, C. (2016). The state as community in community-based participatory
 6552 research. *Progress in Community Health Partnerships: Research, Education, and Action*,
 6553 10(4), 515–522. <https://doi.org/10.1353/cpr.2016.0059>
- 6554 Gould, D. (2016). Conducting impactful coaching science research: The forgotten role of
 6555 knowledge integration and dissemination. *International Sport Coaching Journal*, 3(2), 197–
 6556 203. <https://doi.org/10.1123/iscj.2015-0113>
- 6557 Gould, D. (2019). The current youth sport landscape: Identifying critical research issues youth
 6558 sport today. *Kinesiology Review*, 8, 150–161. <https://doi.org/10.1123/kr.2019-0034>
- 6559 Gould, D., & Carson, S. (2008a). Personal development through sport. In *The young athlete* (pp.
 6560 287–301). Blackwell Publishing Ltd. <https://doi.org/10.1002/9780470696255.ch22>
- 6561 Gould, D., & Carson, S. (2008b). Life skills development through sport: Current status and future
 6562 directions. *International Review of Sport and Exercise Psychology*, 1(1), 58–78.
 6563 <https://doi.org/10.1080/17509840701834573>
- 6564 Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N.
 6565 (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in*
 6566 *the Health Professions*, 26(1), 13–24. <https://doi.org/10.1002/chp.47>
- 6567 Gray, B. (1989). *Collaborating: Finding common ground for multi-party problems*. Jossey-Bass.
- 6568 Greenberg, M. T., Weissberg, R. P., Brien, M. U. O., Zins, J. E., Fredericks, L., Resnik, H., &
 6569 Elias, M. J. (2003). Enhancing school-based prevention and youth development through
 6570 coordinated social, emotional, and academic learning. *American Psychologist*, 58(6), 466–

- 6571 474. <https://doi.org/10.1037/0003-066X.58.6-7.466>
- 6572 Griffo, J. M., Jensen, M., Anthony, C. C., Baghurst, T., & Kulinna, P. H. (2019). A decade of
 6573 research literature in sport coaching (2005–2015). *International Journal of Sports Science*
 6574 *and Coaching*, 14(2), 205–215. <https://doi.org/10.1177/1747954118825058>
- 6575 Grimshaw, J. M., Eccles, M. P., Lavis, J. N., Hill, S. J., & Squires, J. E. (2012). Knowledge
 6576 translation of research findings. *Implementation Science*, 7(1), 50.
 6577 <https://doi.org/10.1186/1748-5908-7-50>
- 6578 Guest, R. (2001). The instructor's optimal mix of teaching methods. *Education Economics*, 9(3),
 6579 313–326. <https://doi.org/10.1080/09645290110086162>
- 6580 Guyadeen, D., & Seasons, M. (2018). Evaluation theory and practice: Comparing program
 6581 evaluation and evaluation in planning. *Journal of Planning Education and Research*, 31(1),
 6582 98–110. <https://doi.org/10.1177/0739456X16675930>
- 6583 Halpern, R. (2002). A different kind of child development institution: The history of after-school
 6584 programs for low-income children. *Teachers College Record*, 104(2), 178–211.
 6585 <https://doi.org/10.1111/1467-9620.00160>
- 6586 Han, H. R., Miller, H. N., Nkimbeng, M., Budhathoki, C., Mikhael, T., Rivers, E., Gray, J.,
 6587 Trimble, K., Chow, S., & Wilson, P. (2021). Trauma-informed interventions: A systematic
 6588 review. *PLoS ONE*, 16(6 June), 1–28. <https://doi.org/10.1371/journal.pone.0252747>
- 6589 Hansen, D. M., Larson, R. W., & Dworkin, J. B. (2003). What adolescents learn in organised
 6590 youth activities: A survey of self-reported developmental experiences. *Journal of Research*
 6591 *on Adolescence*, 13(1), 25–55. <https://doi.org/10.1111/1532-7795.1301006>
- 6592 Hanson, R. F., & Lang, J. (2016). A critical look at trauma-informed care among agencies and
 6593 systems serving maltreated youth and their families. *Child Maltreatment*, 21(2), 95–100.
 6594 <https://doi.org/10.1177/1077559516635274>

- 6595 Harris, K. (2018). Building sport for development practitioners' capacity for undertaking
 6596 monitoring and evaluation – reflections on a training programme building capacity in realist
 6597 evaluation. *International Journal of Sport Policy and Politics*, 10(4), 795–814.
 6598 <https://doi.org/10.1080/19406940.2018.1442870>
- 6599 Harris, M., & Fallot, R. D. (2001). *Using trauma theory to design service systems*. Jossey-Bass.
- 6600 Hartmann, D. (2003). Theorizing sport as social intervention: A view from the grassroots. *Quest*,
 6601 55(2), 118–140. <https://doi.org/10.1080/00336297.2003.10491795>
- 6602 Haudenhuyse, R. P., Theeboom, M., & Skille, E. A. (2014). Towards understanding the potential
 6603 of sports-based practices for socially vulnerable youth. In *Sport in Society* (Vol. 17, Issue 2,
 6604 pp. 139–156). Taylor & Francis. <https://doi.org/10.1080/17430437.2013.790897>
- 6605 Hellison, D. R. (2011). *Teaching personal and social responsibility through physical activity* (3rd
 6606 ed.). Human Kinetics.
- 6607 Hellison, D. R., Silverman, S. J., & Ennis, C. D. (2003). Teaching personal and social
 6608 responsibility in physical education. In S. J. Silverman & C. D. Ennis (Eds.), *Student*
 6609 *learning in physical education: Applying research to enhance instruction* (pp. 241–254).
 6610 Human Kinetics.
- 6611 Hesse-Biber, S. N., & Johnson, R. B. (2015). *The Oxford handbook of multimethod and mixed*
 6612 *methods research inquiry*. Oxford University Press.
- 6613 Hillis, S., Mercy, J., Amobi, A., & Kress, H. (2016). Global prevalence of past-year violence
 6614 against children: A systematic review and minimum estimates. *Pediatrics*, 137(3),
 6615 e20154079. <https://doi.org/10.1542/peds.2015-4079>
- 6616 Hills, L., Maitland, A., Hills, L., & Maitland, A. (2014). Research-based knowledge utilisation in
 6617 a community sport evaluation: A case study. *International Journal of Public Sector*
 6618 *Management*, 27(2), 165–172. <https://doi.org/10.1108/IJPSM-04-2013-0051>

- 6619 Hirsch, B. J., Roffman, J. G., Deutsch, N. L., Flynn, C. A., Loder, T. L., & Pagano, M. E. (2000).
 6620 Inner-city youth development organizations: Strengthening programs for adolescent girls.
 6621 *The Journal of Early Adolescence*, 20(2), 210–230.
 6622 <https://doi.org/10.1177/0272431600020002005>
- 6623 Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn?
 6624 *Educational Psychology Review*, 16(3), 235–266.
 6625 <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>
- 6626 Hodge, K., Danish, S. J., & Martin, J. (2013). Developing a conceptual framework for life skills
 6627 interventions. *The Counseling Psychologist*, 41(8), 1125–1152.
 6628 <https://doi.org/10.1177/0011000012462073>
- 6629 Holt, N. L., Camiré, M., Tamminen, K. A., Pankow, K., Pynn, S. R., Strachan, L., MacDonald, D.
 6630 J., & Fraser-Thomas, J. (2018). PYDSportNET: A knowledge translation project bridging
 6631 gaps between research and practice in youth sport. *Journal of Sport Psychology in Action*,
 6632 9(2), 132–146. <https://doi.org/10.1080/21520704.2017.1388893>
- 6633 Holt, N. L., Deal, C. J., & Pankow, K. (2020). Positive youth development through sport. In G.
 6634 Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (4th ed., Vol. 1, pp. 429–
 6635 446). John Wiley & Sons, Inc. <https://doi.org/10.4324/9780203944783>
- 6636 Holt, N. L., Deal, C., & Smyth, C. (2016). Future directions for positive youth development
 6637 through sport. In N. L. Holt (Ed.), *Positive youth development through sport* (2nd ed., pp.
 6638 229–240). Routledge.
- 6639 Holt, N. L., & Knight, C. (2014). *Parenting in youth sport: From research to practice*. Routledge.
- 6640 Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D.
 6641 J., Strachan, L., & Tamminen, K. A. (2017). A grounded theory of positive youth
 6642 development through sport based on results from a qualitative meta-study. *International*

- 6643 *Review of Sport and Exercise Psychology*, 10(1), 1–49.
- 6644 <https://doi.org/10.1080/1750984X.2016.1180704>
- 6645 Holt, N. L., Pankow, K., Tamminen, K. A., Strachan, L., MacDonald, D. J., Fraser-Thomas, J.,
- 6646 Côté, J., & Camiré, M. (2018). A qualitative study of research priorities among
- 6647 representatives of Canadian Provincial Sport Organizations. *Psychology of Sport and*
- 6648 *Exercise*, 36, 8–16. <https://doi.org/10.1016/j.psychsport.2018.01.002>
- 6649 Horgan, P., & Daly, P. (2015). The role of the coach developer in supporting and guiding coach
- 6650 learning. A commentary. *International Sport Coaching Journal*, 2, 354–356.
- 6651 <https://doi.org/10.1123/iscj.2015-0077>
- 6652 Horn, T. S. (2011). Multiple pathways to knowledge generation: Qualitative and quantitative
- 6653 research approaches in sport and exercise psychology. *Qualitative Research in Sport,*
- 6654 *Exercise and Health*, 3(3), 291–304. <https://doi.org/10.1080/2159676X.2011.607181>
- 6655 Howe, L. D., Lukacs, S. L., Pastor, P. N., Reuben, C. A., & Mendola, P. (2010). Participation in
- 6656 activities outside of school hours in relation to problem behavior and social skills in middle
- 6657 childhood. *Journal of School Health*, 80(3), 119–125. [https://doi.org/10.1111/j.1746-](https://doi.org/10.1111/j.1746-1561.2009.00475.x)
- 6658 [1561.2009.00475.x](https://doi.org/10.1111/j.1746-1561.2009.00475.x)
- 6659 Hummer, V. L., Dollard, N., Robst, J., & Armstrong, M. I. (2010). Innovations in implementation
- 6660 of trauma-informed care practices in youth residential treatment: A curriculum for
- 6661 organizational change. *Child Welfare*, 89(2), 79.
- 6662 Hussey, K. (2021). *The experiences of trauma-informed sport leaders: Context-specific features*
- 6663 *and common components of trauma-informed youth sport settings* (Issue July). Ball State
- 6664 University, Muncie, Indiana, USA.
- 6665 Iachini, A. L., Beets, M. W., Ball, A., & Lohman, M. (2014). Process evaluation of “Girls on the
- 6666 Run”: Exploring implementation in a physical activity-based positive youth development

- 6667 program. *Evaluation and Program Planning*, 46, 1–9.
- 6668 <https://doi.org/10.1016/j.evalprogplan.2014.05.001>
- 6669 Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *University of*
- 6670 *Minnesota*, 2(4), 337–359. <https://doi.org/10.1177/1534484303257985>
- 6671 Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). Review of community-based
- 6672 research: Assessing partnership approaches to improve public health. *Annual Review of*
- 6673 *Public Health*, 19, 173–202. <https://doi.org/10.1146/annurev.publhealth.19.1.173>
- 6674 Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (2001). Community-based participatory
- 6675 research: Policy recommendations for promoting a partnership approach in health research.
- 6676 *Education for Health*, 14(2), 182—197. <https://doi.org/10.1080/13576280110051055>
- 6677 Israel, B. A., Schulz, A. J., Parker, E. A., Becker, A. B., Allen, A. J., Guzman, J. R., &
- 6678 Lichtenstein, R. (2017). Critical issues in developing and following CBPR principles.
- 6679 *Community-Based Participatory Research for Health: Advancing Social and Health Equity*,
- 6680 3, 32–35.
- 6681 Jagosh, J., Bush, P. L., Salsberg, J., Macaulay, A. C., Greenhalgh, T., Wong, G., Cargo, M.,
- 6682 Green, L. W., Herbert, C. P., & Pluye, P. (2015). A realist evaluation of community-based
- 6683 participatory research: Partnership synergy, trust building and related ripple effects. *BMC*
- 6684 *Public Health*, 15(1), 1–11. <https://doi.org/10.1186/s12889-015-1949-1>
- 6685 James, S., Thompson, R. W., & Ringle, J. L. (2017). The implementation of evidence-based
- 6686 practices in residential care: Outcomes, processes, and barriers. *Journal of Emotional and*
- 6687 *Behavioral Disorders*, 25(1), 4–18. <https://doi.org/10.1177/1063426616687083>
- 6688 Janssen, M., Toussaint, H. M., Mechelen, W. Van, & Verhagen, E. A. L. M. (2013). Translating
- 6689 the PLAYgrounds program into practice: A process evaluation using the RE-AIM
- 6690 framework. *Journal of Science and Medicine in Sport*, 16(3), 211–216.

- 6691 <https://doi.org/10.1016/j.jsams.2012.06.009>
- 6692 Jarvis, P. (2006). *Towards a comprehensive theory of human learning*. Routledge.
- 6693 Jarvis, P. (2009). *The Routledge international handbook of lifelong learning*. Routledge.
- 6694 Johnson-Shelton, D., Moreno-Black, G., Evers, C., & Zwink, N. (2015). A community-based
 6695 participatory research approach for preventing childhood obesity: The communities and
 6696 schools together project. *Progress in Community Health Partnerships: Research, Education,*
 6697 *and Action*, 9(3), 351–361. <https://doi.org/10.1353/cpr.2015.0056>
- 6698 Johnson, J. C., Hayden, U. T., Thomas, N., Groce-Martin, J., Henry, T., Guerra, T., Walker, A.,
 6699 West, W., Barnett, M., & Kumanyika, S. (2009). Building community participatory research
 6700 coalitions from the ground up: The Philadelphia area research community coalition.
 6701 *Progress in Community Health Partnerships: Research, Education, and Action*, 3(1), 61–72.
 6702 <https://doi.org/10.1353/cpr.0.0052>
- 6703 Jones, G. J., Edwards, M. B., Bocarro, J. N., Bunds, K. S., & Smith, J. W. (2017). An integrative
 6704 review of sport-based youth development literature. *Sport in Society*, 20(1), 161–179.
 6705 <https://doi.org/10.1080/17430437.2015.1124569>
- 6706 Jones, N. B., Herschel, R. T., & Moesel, D. D. (2003). Using “knowledge champions” to
 6707 facilitate knowledge management.” *Journal of Knowledge Management*, 7(1), 49–63.
 6708 <https://doi.org/10.1108/13673270310463617>
- 6709 Jones, R. L. (2011). Introduction. In R. L. Jones, P. Potrac, C. J. Cushion, & L. T. Ronglan (Eds.),
 6710 *Sociology of sports coaching* (pp. 3–11). Routledge.
- 6711 Jones, R. L., & Wallace, M. (2005). Another bad day at the training ground: Coping with
 6712 ambiguity in the coaching context. *Sport, Education and Society*, 10(1), 119–134.
 6713 <https://doi.org/10.1080/1357332052000308792>
- 6714 Jull, J., Giles, A., & Graham, I. D. (2017). Community-based participatory research and

- integrated knowledge translation: Advancing the co-creation of knowledge. *Implementation Science*, 12(1), 1–9. <https://doi.org/10.1186/s13012-017-0696-3>
- Kenny, M. C., Vazquez, A., Long, H., & Thompson, D. (2017). Implementation and program evaluation of trauma-informed care training across state child advocacy centers: An exploratory study. *Children and Youth Services Review*, 73, 15–23. <https://doi.org/10.1016/j.childyouth.2016.11.030>
- Kerr, G., Battaglia, A., & Stirling, A. (2019). Maltreatment in youth sport: A systemic issue. *Kinesiology Review*, 8, 237–243. <https://doi.org/10.1123/kr.2019-0016>
- Kessler, R. S., Purcell, E. P., Glasgow, R. E., Klesges, L. M., Benkeser, R. M., & Peek, C. J. (2012). What does it mean to “Employ” the RE-AIM Model? *Evaluation and the Health Professions*, 36(1), 44–66. <https://doi.org/10.1177/0163278712446066>
- Kim, S. L., & Yun, S. (2015). The effect of coworker knowledge sharing on performance and its boundary conditions: An interactional perspective. *Journal of Applied Psychology*, 100(2), 575–582. <https://doi.org/10.1037/a0037834>
- Kimber, M., McTavish, J. R., Couturier, J., Boven, A., Gill, S., Dimitropoulos, G., & MacMillan, H. L. (2017). Consequences of child emotional abuse, emotional neglect and exposure to intimate partner violence for eating disorders: A systematic critical review. *BMC Psychology*, 5(1), 1–18. <https://doi.org/10.1186/s40359-017-0202-3>
- Kimberg, L., & Wheeler, M. (2019). Trauma and trauma-informed care. In M. R. Gerber (Ed.), *Trauma-Informed Healthcare Approaches* (pp. 25–56). Springer Nature Switzerland. https://doi.org/10.1007/978-3-030-04342-1_2
- Kirkpatrick, D. L. (1994). *Evaluating training programs: The four levels*. Berrett-Koehler.
- Kisiel, C., Fehrenbach, T., Small, L., & Lyons, J. S. (2009). Assessment of complex trauma exposure, responses, and service needs among children and adolescents in child welfare.

- 6739 *Journal of Child & Adolescent Trauma*, 2(3), 143–160.
 6740 <https://doi.org/10.1080/19361520903120467>
- 6741 Kitson, A., Powell, K., Hoon, E., Newbury, J., Wilson, A., & Beilby, J. (2013). Knowledge
 6742 translation within a population health study: How do you do it? *Implementation Science*,
 6743 8(1), 1–9. <https://doi.org/10.1186/1748-5908-8-54>
- 6744 Knight, C. (2015). Trauma-informed social work practice: Practice considerations and challenges.
 6745 *Clinical Social Work Journal*, 43(1), 25–37. <https://doi.org/10.1007/s10615-014-0481-6>
- 6746 Knight, C. (2019). Trauma informed practice and care: Implications for field instruction. *Clinical*
 6747 *Social Work Journal*, 47(1), 79–89. <https://doi.org/10.1007/s10615-018-0661-x>
- 6748 Knowles, Z., Gilbourne, D., Borrie, A., & Nevill, A. (2001). Developing the reflective sports
 6749 coach: A study exploring the processes of reflective practice with a higher education
 6750 coaching programme. *Reflective Practice*, 2(2), 185–207.
 6751 <https://doi.org/10.1080/14623940123820>
- 6752 Knowles, Z., Tyler, G., Gilbourne, D., Eubank, M. (2006). Reflecting on reflection: Exploring the
 6753 practice of sports coaching graduates. *Reflective Practice*, 7(2), 163–179.
 6754 <https://doi.org/10.1080/14623940600688423>
- 6755 Ko, S. J., Ford, J. D., Kassam-Adams, N., Berkowitz, S. J., Wilson, C., Wong, M., Brymer, M. J.,
 6756 & Layne, C. M. (2008). Creating trauma-informed systems: Child welfare, education, first
 6757 responders, health care, juvenile justice. *Professional Psychology: Research and Practice*,
 6758 39(4), 396–404. <https://doi.org/10.1037/0735-7028.39.4.396>
- 6759 Koh, K. T., Camiré, M., Lim Regina, S. H., & Soon, W. S. (2017). Implementation of a values
 6760 training program in physical education and sport: A follow-up study. *Physical Education and*
 6761 *Sport Pedagogy*, 22(2), 197–211. <https://doi.org/10.1080/17408989.2016.1165194>
- 6762 Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*.

- 6763 FT press.
- 6764 Koorts, H., & Gillison, F. (2015). Mixed method evaluation of a community-based physical
 6765 activity program using the RE-AIM framework: Practical application in a real-world setting
 6766 Energy balance-related behaviours. *BMC Public Health*, *15*(1), 1–10.
 6767 <https://doi.org/10.1186/s12889-015-2466-y>
- 6768 Kosmenko, N. J., Boulé, K. L., Mason, C. W., McHugh, T.-L. F., & Strachan, L. (2019).
 6769 Relevance of an existing knowledge-to-action model to research involving urban indigenous
 6770 youth. *Revue PhénEPS/PHEnex Journal*, *10*(3), 1–14.
 6771 <https://doi.org/10.1017/CBO9781107415324.004>
- 6772 Kwan, B. M., McGinnes, H. L., Ory, M. G., Estabrooks, P. A., Waxmonsky, J. A., & Glasgow, R.
 6773 E. (2019). RE-AIM in the real world: Use of the RE-AIM framework for program planning
 6774 and evaluation in clinical and community settings. *Frontiers in Public Health*, *7*(345), 1–10.
 6775 <https://doi.org/10.3389/fpubh.2019.00345>
- 6776 Lang, J. M., Campbell, K., Shanley, P., Crusto, C. A., & Connell, C. M. (2016). Building capacity
 6777 for trauma-informed care in the child welfare system: Initial results of a statewide
 6778 implementation. *Child Maltreatment*, *21*(2), 113–124.
 6779 <https://doi.org/10.1177/1077559516635273>
- 6780 Larson, R. W. (2000). Toward a psychology of positive youth development. *American*
 6781 *Psychologist*, *55*(1), 170–183. <https://doi.org/10.1037/0003-066X.55.1.170>
- 6782 Larson, R. W., Hansen, D. M., & Moneta, G. (2006). Differing profiles of developmental
 6783 experiences across types of organised youth activities. *Developmental Psychology*, *42*(5),
 6784 849–863. <https://doi.org/10.1037/0012-1649.42.5.849>
- 6785 Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge
 6786 University Press.

- 6787 Lawrason, S., Turnnidge, J., Tomasone, J., Allan, V., Dawson, K., Martin, L. J. (2020).
 6788 Employing the RE-AIM framework to evaluate multisport service organization initiatives.
 6789 *Journal of Sport Psychology in Action*, 12(2), 87–100.
 6790 <https://doi.org/10.1080/21520704.2020.1773592>
- 6791 Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and*
 6792 *community-based participatory research approaches*. The Guilford Press.
- 6793 Lee, O., & Martinek, T. (2013). Understanding the transfer of values-based youth sport program
 6794 goals from a bioecological perspective. *Quest*, 65, 300–312.
 6795 <https://doi.org/10.1080/00336297.2013.791871>
- 6796 Leeder, T. M., Warburton, V. E., & Beaumont, L. C. (2021). Coaches' dispositions and non-
 6797 formal learning situations: An analysis of the 'coach talent programme.' *Sport in Society*,
 6798 24(3), 356–372. <https://doi.org/10.1080/17430437.2019.1672154>
- 6799 Lei, D., Slocum, J. W., & Pitts, R. A. (1997). Building cooperative advantage: Managing strategic
 6800 alliances to promote organizational learning. *Journal of World Business*, 32(3), 203–223.
 6801 [https://doi.org/10.1016/S1090-9516\(97\)90008-0](https://doi.org/10.1016/S1090-9516(97)90008-0)
- 6802 Leitch, L. (2017). Action steps using ACEs and trauma-informed care: A resilience model. *Health*
 6803 *& Justice*, 5(5), 1–10. <https://doi.org/10.1186/s40352-017-0050-5>
- 6804 Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to coach. *The*
 6805 *Sport Psychologist*, 21, 191–209. <https://doi.org/10.1123/tsp.21.2.191>
- 6806 Lerner, R. M. (2004). *Liberty: Thriving and civic engagement among American youth*. Sage.
- 6807 Lerner, R. M., Almerigi, J. B., Theokas, C., & Lerner, J. V. (2005). Positive youth development: A
 6808 view of the issues. *The Journal of Early Adolescence*, 25(1), 10–16.
 6809 <https://doi.org/10.1177/0272431604273211>
- 6810 Lerner, R. M., & Castellino, D. R. (2002). Contemporary developmental theory and adolescence:

- 6811 Developmental systems and applied developmental science. *Journal of Adolescent Health*,
 6812 31, 122–135. [https://doi.org/10.1016/S1054-139X\(02\)00495-0](https://doi.org/10.1016/S1054-139X(02)00495-0)
- 6813 Lerner, R. M., Napolitano, C. M., Boyd, M. J., Mueller, M. K., & Callina, K. S. (2014).
 6814 Mentoring and positive youth development. In D. L. DuBois & M. J. Karcher (Eds.),
 6815 *Handbook of Youth Mentoring* (2nd ed.). SAGE Publications.
 6816 <https://doi.org/10.4135/9781412996907.n2>
- 6817 Lerner, J. V, Bowers, E. P., Minor, K., Boyd, M. J., Mueller, M. K., Schmid, K. L., Napolitano, C.
 6818 M., Lewin-Bizan, S., & Lerner, R. M. (2013). Positive youth development: Processes,
 6819 philosophies, and programs. In R. M. Lerner, M. A. Easterbrooks, J. Mistry, & I. B. Weiner
 6820 (Eds.), *Handbook of psychology: Developmental psychology* (pp. 365–392). John Wiley &
 6821 Sons.
- 6822 Ley, C., Krammer, J., Lippert, D., & Rato Barrio, M. (2017). Exploring flow in sport and exercise
 6823 therapy with war and torture survivors. *Mental Health and Physical Activity*, 12, 83–93.
 6824 <https://doi.org/10.1016/j.mhpa.2017.03.002>
- 6825 Linnan, L., & Steckler, A. (2002). *Process evaluation for public health interventions and*
 6826 *research: An overview*. Jossey-Bass.
- 6827 Linver, M. R., Roth, J. L., & Brooks-Gunn, J. (2009). Patterns of adolescents' participation in
 6828 organised activities: Are sports best when combined with other activities? *Developmental*
 6829 *Psychology*, 45(2), 354–367. <https://doi.org/10.1037/a0014133>
- 6830 Ludy-Dobson, C. R., & Perry, B. D. (2010). The role of healthy relational interactions in
 6831 buffering the impact of childhood trauma. In E. Gil (Ed.), *Working with Children to Heal*
 6832 *Interpersonal Trauma: The Power of Play* (pp. 26–43). The Guilford Press.
- 6833 Lyle, J. (2018a). Reflecting on the development of a conceptual framework for sport coaching.
 6834 *International Sport Coaching Journal*, 5(1), 90–98. <https://doi.org/iscj.2017-0085>

- 6835 Lyle, J. (2018b). The transferability of sport coaching research: A critical commentary. *Quest*,
 6836 70(4), 419–437. <https://doi.org/10.1080/00336297.2018.1453846>
- 6837 Macdonald, D. J., Camiré, M., Erickson, K., & Santos, F. (2020). Positive youth development
 6838 related athlete experiences and coach behaviours following a targeted coach education
 6839 course. *International Journal of Sports Science & Coaching*, 15(5–6), 621–630.
 6840 <https://doi.org/10.1177/1747954120942017>
- 6841 Macdonald, D. J., Côté, J., & Deakin, J. (2010). The impact of informal coach training on the
 6842 personal development of youth sport athletes. *International Journal of Sports Science &*
 6843 *Coaching*, 5(3), 363–372. <https://doi.org/10.1260/1747-9541.5.3.363>
- 6844 Mahoney, J. L., Eccles, J., & Larson, R. (2004). Processes of adjustment in organised out-of-
 6845 school activities. *New Directions for Youth Development*, 2004(101), 115–144.
 6846 <https://doi.org/10.1002/yd.74>
- 6847 Mahoney, J. L., Parente, M. E., & Zigler, E. F. (2009). Afterschool programs in America: Origins,
 6848 growth, popularity, and politics. *Journal of Youth Development*, 4(3), 23–42.
 6849 <https://doi.org/10.5195/jyd.2009.250>
- 6850 Mallett, C. J., Trudel, P., Lyle, J., & Rynne, S. B. (2009). Formal vs. informal coach education.
 6851 *International Journal of Sports Science & Coaching*, 4(3), 325–364.
 6852 <https://doi.org/10.1260/174795409789623883>
- 6853 Malone, R. E., McGruder, C., Froelicher, E. S., & Yerger, V. B. (2013). Being part of something:
 6854 Transformative outcomes of a community-based participatory study. *Health Promotion*
 6855 *Practice*, 14(2), 205–212. <https://doi.org/10.1177/1524839912443242>
- 6856 Martin, S. L., Ashley, O. S., White, L., Axelson, S., Clark, M., & Burrus, B. (2017). Incorporating
 6857 trauma-informed care into school-based programs. *Journal of School Health*, 87(12), 958.
 6858 <https://doi.org/10.1111/josh.12568>

- 6859 Martindale, R. J., Collins, D., & Daubney, J. (2005). Talent development: A guide for practice
6860 and research within sport. *Quest*, 57(4), 353–375.
6861 <https://doi.org/10.1080/00336297.2005.10491862>
- 6862 Massey, W. V., & Whitley, M. A. (2016). The role of sport for youth amidst trauma and chaos.
6863 *Qualitative Research in Sport, Exercise and Health*, 8(5), 487–504.
6864 <https://doi.org/10.1080/2159676X.2016.1204351>
- 6865 Massey, W. V, & Whitley, M. A. (2021). The talent paradox: Disenchantment, disengagement,
6866 and damage through sport. *Sociology of Sport Journal*, 38, 167–177.
6867 <https://doi.org/10.1123/ssj.2019-0159>
- 6868 Massey, W. V, & Williams, T. L. (2020). Sporting activities for individuals who experienced
6869 trauma during their youth: A meta-study. *Qualitative Health Research*, 30(1), 73–87.
6870 <https://doi.org/10.1177/1049732319849563>
- 6871 Matlin, S. L., Champine, R. B., Strambler, M. J., Brien, C. O., Hoffman, E., Whitson, M., Kolka,
6872 L., & Tebes, J. K. (2019). A community's response to adverse childhood experiences:
6873 Building a resilient, trauma-informed community. *American Journal of Community*
6874 *Psychology*, 64, 451–466. <https://doi.org/10.1002/ajcp.12386>
- 6875 Mawson, R., Creech, M. J., Peterson, D. C., Farrokhyar, F., & Ayeni, O. R. (2018). Lower limb
6876 injury prevention programs in youth soccer: A survey of coach knowledge, usage, and
6877 barriers. *Journal of Experimental Orthopaedics*, 5(1). [https://doi.org/10.1186/s40634-018-](https://doi.org/10.1186/s40634-018-0160-6)
6878 0160-6
- 6879 McCarthy, J., Bergholz, L., & Bartlett, M. (2016). *Re-designing youth sport: Change the game*.
6880 Routledge.
- 6881 McKibbin, K. A., Lokker, C., Wilczynski, N. L., Ciliska, D., Dobbins, M., Davis, D. A., Haynes,
6882 R. B., & Straus, S. E. (2010). A cross-sectional study of the number and frequency of terms

- 6883 used to refer to knowledge translation in a body of health literature in 2006: A Tower of
6884 Babel? *Implementation Science*, 5(1), 1–11. <https://doi.org/10.1186/1748-5908-5-16>
- 6885 Mersky, J. P., Topitzes, J., & Britz, L. (2019). Promoting evidence-based, trauma-informed social
6886 work practice. *Journal of Social Work Education*, 55(4), 645–657.
6887 <https://doi.org/10.1080/10437797.2019.1627261>
- 6888 Mesquita, I., Coutinho, P., De Martin-Silva, L., Parente, B., Faria, M., & Afonso, J. (2015). The
6889 value of indirect teaching strategies in enhancing student-coaches' learning engagement.
6890 *Journal of Sports Science and Medicine*, 14(3), 657–668.
6891 <https://www.jssm.org/researchjssm-14-657.xml.xml>
- 6892 Millar, S. K., Oldham, A., & Donovan, M. (2011). Coaches' self-awareness of timing, nature and
6893 intent of verbal instructions to athletes. *International Journal of Sports Science and*
6894 *Coaching*, 6(4), 503–513. <https://doi.org/10.1260/1747-9541.6.4.503>
- 6895 Milot Travers, A. S., & Mahalik, J. R. (2021). Positive youth development as a protective factor
6896 for adolescents at risk for depression and alcohol use. *Applied Developmental Science*,
6897 25(4), 322–331. <https://doi.org/10.1080/10888691.2019.1634569>
- 6898 Misztal, B. A. (2011). *The challenges of vulnerability: In search of strategies for a less*
6899 *vulnerable social life*. Palgrave Macmillan. <https://doi.org/10.1057/9780230316690>
- 6900 Monaco, A. P. (2020). An epigenetic, transgenerational model of increased mental health
6901 disorders in children, adolescents and young adults. *European Journal of Human Genetics*.
6902 <https://doi.org/10.1038/s41431-020-00726-4>
- 6903 Moon, J. A. (2001). *Short courses & workshops: Improving the impact of learning, training &*
6904 *professional development*. Kogan Page Limited.
- 6905 Moon, J. A. (2004). *A handbook of reflective and experiential learning – theory and practice*.
6906 Routledge.

- 6907 Moreau, N., Lévesque, J. T., Molgat, M., Jaimes, A., Chanteau, O., & Plante, C. (2018). Opening
 6908 the black box of a sports-based programme for vulnerable youth: The crucial role of social
 6909 bonds. *Qualitative Research in Sport, Exercise and Health*, 10(3), 291-305.
 6910 <https://doi.org/10.1080/2159676X.2018.1430060>
- 6911 Morgan, K., Jones, R. L., Gilbourne, D., & Llewellyn, D. (2013a). Changing the face of coach
 6912 education: Using ethno-drama to depict lived realities. *Physical Education and Sport
 6913 Pedagogy*, 18(5), 520–533. <https://doi.org/10.1080/17408989.2012.690863>
- 6914 Morgan, K., Jones, R. L., Gilbourne, D., & Llewellyn, D. (2013b). Innovative approaches to
 6915 coach education pedagogy. *Nuances: Estudos Sobre Educação*, 24(1), 218–234.
 6916 <https://doi.org/10.14572/nuances.v24i1.2170>
- 6917 Nastasi, B. K., Hitchcock, J., Burkholder, G., & Varjas, K. (2007). Mixed methods in intervention
 6918 research: Theory to adaptation. *Journal of Mixed Methods Research*, 1(2), 164–182.
 6919 <https://doi.org/10.1177/1558689806298181>
- 6920 Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Seybolt, D., Morrissey-Kane, E., &
 6921 Davino, K. (2003). What works in prevention: Principles of effective prevention programs.
 6922 *American Psychologist*, 58(6–7), 449–456. <https://doi.org/10.1037/0003-066X.58.6-7.449>
- 6923 National Centre for Trauma-Informed Care. (2011). *Trauma-informed approach and trauma-
 6924 specific interventions*. <https://www.samhsa.gov/nctic/trauma-interventions>
- 6925 Nelson, L. J., & Cushion, C. J. (2006). Reflection in coach education: The case of the national
 6926 governing body coaching certificate. *Sport Psychologist*, 20(2), 174–183.
 6927 <https://doi.org/10.1123/tsp.20.2.174>
- 6928 Nelson, L. J., Cushion, C. J., & Potrac, P. (2006). Formal, nonformal and informal coach
 6929 learning: A holistic conceptualisation. *International Journal of Sports Science & Coaching*,
 6930 1(3), 247–259. <https://doi.org/10.1260/174795406778604627>

- 6931 Nelson, L. J., Cushion, C. J., & Potrac, P. (2013). Enhancing the provision of coach education:
 6932 The recommendations of UK coaching practitioners. *Physical Education and Sport*
 6933 *Pedagogy*, 18(2), 204–218. <https://doi.org/10.1080/17408989.2011.649725>
- 6934 Newman, T. J., Alvarez, M. A. G., & Kim, M. (2017). An experiential approach to sport for youth
 6935 development. *Journal of Experiential Education*, 40(3), 308–322.
 6936 <https://doi.org/10.1177/1053825917696833>
- 6937 Newman, T. J., Kim, M., Alvarez, M. A. G., & Tucker, A. R. (2018). Facilitative coaching: A
 6938 guide for youth sport leaders. *Leisure/Loisir*, 42(2), 129–148.
 6939 <https://doi.org/10.1080/14927713.2017.1415165>
- 6940 Newman, T. J., Lower-Hoppe, L., Anderson-Butcher, D., & Paluta, L. M. (2021). Process
 6941 evaluation examining the implementation of a sport-based positive youth development
 6942 program. *Journal of Youth Development*, 15(6), 70–90.
 6943 <https://doi.org/10.5195/JYD.2020.890>
- 6944 Newman, T. J., Ortega, R. M., Lower, L. M., & Paluta, L. M. (2016). Informing priorities for
 6945 coaching education: Perspectives from youth sport leaders. *International Journal of Sports*
 6946 *Science and Coaching*, 11(3), 436–445. <https://doi.org/10.1177/1747954116645207>
- 6947 Newman, T. J., Santos, F., Black, S., & Bostick, K. (2021). Learning life skills through
 6948 challenging and negative experiences. *Child and Adolescent Social Work Journal*, 39(4),
 6949 455–469. <https://doi.org/10.1007/s10560-021-00739-y>
- 6950 Newman, T. J., Santos, F., Pierce, S., Collins, K., & Mercier, V. (2022). Coach education and
 6951 coach development within a contemporary social justice society: Implications for future
 6952 research and potential pitfalls. *Quest*, 74(3), 234–250.
 6953 <https://doi.org/10.1080/00336297.2022.2080082>
- 6954 Nilsen, P. (2015). Making sense of implementation theories, models and frameworks.

- 6955 *Implementation Science*, 10(1), 1–13. <https://doi.org/10.1186/s13012-015-0242-0>
- 6956 Norman, G., & Schmidt, H. G. (1992). The psychological basis of problem- based learning - a
6957 review of the evidence. *Academic Medicine*, 67(9), 557–565.
- 6958 O'Connor, D., & Bennie, A. (2006). The retention of youth sport coaches. *Change:*
6959 *Transformations in Education*, 9(1), 27–38. <https://doi.org/http://hdl.handle.net/2123/4534>
- 6960 Olaussen, A., Reddy, P., Irvine, S., & Williams, B. (2016). Peer-assisted learning: Time for
6961 nomenclature clarification. *Medical Education Online*, 21(1), Article: 30974.
6962 <https://doi.org/10.3402/meo.v21.30974>
- 6963 Orfaly, R. A., Frances, J. C., Campbell, P., Whittemore, B., Joly, B., & Koh, H. (2005). Train-the-
6964 trainer as an educational model in public health preparedness. *Journal of Public Health*
6965 *Management Practice*, 6(Suppl), 123–127.
- 6966 Papacharisis, V., Goudas, M., Danish, S. J., & Theodorakis, Y. (2005). The effectiveness of
6967 teaching a life skills program in a sport context. *Journal of Applied Sport Psychology*, 17(3),
6968 247–254. <https://doi.org/10.1080/10413200591010139>
- 6969 Paquette, K., & Trudel, P. (2018). Learner-centred coach education: Practical recommendations
6970 for coach development administrators. *International Sport Coaching Journal*, 5(2), 169–
6971 175. <https://doi.org/10.1123/iscj.2017-0084>
- 6972 Partington, M., & Cushion, C. J. (2013). An investigation of the practice activities and coaching
6973 behaviours of professional top-level youth soccer coaches. *Scandinavian Journal of*
6974 *Medicine and Science in Sports*, 23(3), 374–382. [https://doi.org/10.1111/j.1600-](https://doi.org/10.1111/j.1600-0838.2011.01383.x)
6975 0838.2011.01383.x
- 6976 Patton, M. Q. (2008). *Utilisation-focused evaluation* (4th ed.). SAGE.
- 6977 Patton, M. Q. (2012). *Essentials of utilisation-focused evaluation*. SAGE.
- 6978 Pawson, R., & Tilley, N. (2012). *Realistic evaluation*. SAGE.

- 6979 <https://doi.org/10.4135/9781412950596.n473>
- 6980 Peachey, J. W., & Cohen, A. (2016). Research partnerships in sport for development and peace:
 6981 Challenges, barriers, and strategies. *Journal of Sport Management*, 30(3), 282–297.
 6982 <https://doi.org/10.1123/jsm.2014-0288>
- 6983 Perkins, D. F., & Borden, L. M. (2003). Key elements of community youth development
 6984 programs. In F. A. Villarruel, D. F. Perkins, L. M. Borden, & J. G. Keith (Eds.), *Community*
 6985 *youth development: Programs, policies, and practices* (pp. 327–340). SAGE Publications.
- 6986 Petitpas, A. J., Cornelius, A. E., Van Raalte, J. L., & Jones, T. (2005). A framework for planning
 6987 youth sport programs that foster psychosocial development. *Sport Psychologist*, 19(1), 63–
 6988 80. <https://doi.org/10.1123/tsp.19.1.63>
- 6989 Petitpas, A. J., Cornelius, A., & Van Raalte, J. (2007). Youth development through sport: It's all
 6990 about relationships. In N. L. Holt (Ed.), *Positive youth development through sport* (pp. 75–
 6991 84). Routledge.
- 6992 Petitpas, A. J., Van Raalte, J. L., Cornelius, A. E., & Presbrey, J. (2003). A life skills development
 6993 program for high school student-athletes. *The Journal of Primary Prevention*, 24(3), 325–
 6994 334. <https://doi.org/10.1023/B:JOPP.0000018053.94080.f3>
- 6995 Petrone, R., & Stanton, C. R. (2021). From producing to reducing trauma: A call for “trauma-
 6996 informed” research(ers) to interrogate how schools harm students. *Educational Researcher*,
 6997 50(8), 537–545. <https://doi.org/10.3102/0013189X211014850>
- 6998 Pierce, K. M., Bolt, D. M., & Vandell, D. L. (2010). Specific features of after-school program
 6999 quality: Associations with children's functioning in middle childhood. *American Journal of*
 7000 *Community Psychology*, 45(3–4), 381–393. <https://doi.org/10.1007/s10464-010-9304-2>
- 7001 Pierce, S., Gould, D., & Camiré, M. (2017). Definition and model of life skills transfer.
 7002 *International Review of Sport and Exercise Psychology*, 10(1), 186–211.

- 7003 <https://doi.org/10.1080/1750984X.2016.1199727>
- 7004 Pinheiro, P. S. (2006). *World report on violence against children*. UNICEF.
- 7005 <https://digitallibrary.un.org/record/587334>
- 7006 Pizzirani, B., Green, R., O'Donnell, R., & Skouteris, H. (2020). Healthy lifestyle programs in
7007 out-of-home care: Implementing preventative trauma-informed approaches at scale.
7008 *Australian Social Work*, 75(1), 5–18. <https://doi.org/10.1080/0312407X.2020.1716260>
- 7009 Poell, R. F. (2013). Workplace learning theories and practices. *Human Resource Development:
7010 Practices and Orthodoxies*, 19–32.
- 7011 Policy Studies Associates Inc. (2005). *Promising Practices Rating System*.
- 7012 Ponc, P., Varcoe, C., & Smutylo, T. (2021). *Trauma- (and violence-) informed approaches to
7013 supporting victims of violence: Policy and practice considerations*. Victims of Crime
7014 Research Digest No. 9. <https://www.justice.gc.ca/eng/rp-pr/cj-jp/victim/rd9-rr9/p2.html>
- 7015 Purtle, J. (2020). Systematic review of evaluations of trauma-informed organizational
7016 interventions that include staff trainings. *Trauma, Violence, and Abuse*, 21(4), 725–740.
7017 <https://doi.org/10.1177/1524838018791304>
- 7018 Quarmby, T., Sandford, R., Green, R., Hooper, O., & Avery, J. (2022). Developing evidence-
7019 informed principles for trauma-aware pedagogies in physical education. *Physical Education
7020 and Sport Pedagogy*, 27(4), 440–454. <https://doi.org/10.1080/17408989.2021.1891214>
- 7021 Raymond, I. (2019). *Trauma-informed residential programming: We know ‘what’ we need to
7022 focus on..... but ‘how’ do we implement this? A case for intentional practice*.
- 7023 Raymond, I., & Lappin, S. (2017). *EIYBC Program implementation review (2013-2016) and
7024 future directions*. Life Bouyancy Institute - Connect Self.
- 7025 RE-AIM. (2022). *RE-AIM - Reach Effectiveness Adoption Implementation Maintenance*.
7026 <https://re-aim.org>

- 7027 Reeve, J., & Jang, H. (2006). What teachers say and do to support students' autonomy during a
 7028 learning activity. *Journal of Educational Psychology*, 98(1), 209–218.
 7029 <https://doi.org/10.1037/0022-0663.98.1.209>
- 7030 Reinboth, M., & Duda, J. L. (2006). Perceived motivational climate, need satisfaction and indices
 7031 of well-being in team sports: A longitudinal perspective. *Psychology of Sport and Exercise*,
 7032 7(3), 269–286. <https://doi.org/10.1016/j.psychsport.2005.06.002>
- 7033 Rhodes, J. E. (2004). The critical ingredient: Caring youth-staff relationships in after-school
 7034 settings. *New Directions for Youth Development*, 2004(101), 145–161.
 7035 <https://doi.org/10.1002/yd.75>
- 7036 Rhodes, J. E., & Lowe, S. R. (2008). Youth mentoring and resilience: Implications for practice.
 7037 *Child Care in Practice*, 14(1), 9–17. <https://doi.org/10.1080/13575270701733666>
- 7038 Rhodes, J. E., Spencer, R., Keller, T. E., Liang, B., & Noam, G. G. (2006). A model for the
 7039 influence of mentoring relationships on youth development. *Journal of Community*
 7040 *Psychology*, 34(6), 691–707. <https://doi.org/10.1002/jcop.20124>
- 7041 Richmond, S. A., Bruin, S., Black, A. M., Pike, I., & Babul, S. (2021). Active & Safe Central:
 7042 Using a mixed-methods design and the RE-AIM framework to evaluate a sport and
 7043 recreational injury prevention resource for practitioners in Canada. *BMJ Open*, 11(e039070),
 7044 1–9. <https://doi.org/10.1136/bmjopen-2020-039070>
- 7045 Ronkainen, N. J., Aggerholm, K., Ryba, T. V., & Allen-, J. (2021). Learning in sport: From life
 7046 skills to existential learning. *Sport, Education and Society*, 26(2), 214–227.
 7047 <https://doi.org/10.1080/13573322.2020.1712655>
- 7048 Roth, J. L., & Brooks-Gunn, J. (2003). What exactly is a youth development program? Answers
 7049 from research and practice. *Applied Developmental Science*, 7(2), 94–111.
 7050 https://doi.org/10.1207/S1532480XADS0702_6

- 7051 Roth, J. L., & Brooks-Gunn, J. (2016). Evaluating youth development programs: Progress and
 7052 promise. *Applied Developmental Science*, 20(3), 188–202.
 7053 <https://doi.org/10.1080/10888691.2015.1113879>
- 7054 Russel, J., Jamieson, A., Rathgeber, M., Bryson, S. A., Davidson, J., Bell, S., Gauvin, E.,
 7055 Faulkner-Gibson, L., & Burke, S. (2017). What are effective strategies for implementing
 7056 trauma-informed care in youth inpatient psychiatric and residential treatment settings? A
 7057 realist systematic review. *International Journal of Mental Health Systems*, 11(1), 1–16.
 7058 <https://doi.org/10.1186/s13033-017-0137-3>
- 7059 Ryan, L., Harris, K., & Henderson, S. (2022). Introducing realist evaluation within sport and
 7060 leisure: A realist evaluation case study of the Youth Sport Trust Young Ambassador
 7061 Programme. In A. Adams & K. Harris (Eds.), *Evaluation in Sport and Leisure* (pp. 115–
 7062 135). Routledge. <https://doi.org/10.4324/9781003000204>
- 7063 SAMHSA. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach*.
 7064 <https://nicic.gov/samhsas-concept-trauma-and-guidance-trauma-informed-approach>
- 7065 Sampson, R., & Gifford, S. M. (2010). Place-making, settlement and well-being: The therapeutic
 7066 landscapes of recently arrived youth with refugee backgrounds. *Health and Place*, 16(1),
 7067 116–131. <https://doi.org/10.1016/j.healthplace.2009.09.004>
- 7068 Sanders, J., Munford, R., Thimasarn-Anwar, T., Liebenberg, L., & Ungar, M. (2015). The role of
 7069 positive youth development practices in building resilience and enhancing wellbeing for at-
 7070 risk youth. *Child Abuse & Neglect*, 42, 40–53.
 7071 <https://doi.org/https://doi.org/10.1016/j.chiabu.2015.02.006>
- 7072 Santos, F., Camiré, M., & Campos, P. H. da F. (2018). Youth sport coaches' role in facilitating
 7073 positive youth development in Portuguese field hockey. *International Journal of Sport and*
 7074 *Exercise Psychology*, 16(3), 221–234. <https://doi.org/10.1080/1612197X.2016.1187655>

- 7075 Santos, F., Camiré, M., MacDonald, D. J., Campos, H., Conceição, M., & Silva, A. (2019).
 7076 Process and outcome evaluation of a positive youth development-focused online coach
 7077 education course. *International Sport Coaching Journal*, 6(1), 1–12.
 7078 <https://doi.org/10.1123/iscj.2017-0101>
- 7079 Santos, F., Camiré, M., MacDonald, D. J., Campos, H., Conceição, M., & Silva, P. (2017). Youth
 7080 sport coaches' perspective on positive youth development and its worth in mainstream coach
 7081 education courses. *International Sport Coaching Journal*, 4(1), 38–46.
 7082 <https://doi.org/10.1123/iscj.2016-0092>
- 7083 Santos, F., Gould, D., & Strachan, L. (2019). Research on positive youth development-focused
 7084 coach education programs: Future pathways and applications. *International Sport Coaching*
 7085 *Journal*, 6(1), 132–138. <https://doi.org/10.1123/iscj.2018-0013>
- 7086 Saylor, C. R. (1990). Reflection and professional education: art, science, and competency. *Nurse*
 7087 *Educator*, 15(2), 8–11.
- 7088 Schenkels, A., & Jacobs, G. (2018). 'Designing the plane while flying it': concept co-
 7089 construction in a collaborative action research project. *Educational Action Research*, 26(5),
 7090 697–715. <https://doi.org/10.1080/09650792.2018.1429286>
- 7091 Schinke, R. J., & Blodgett, A. T. (2016). Embarking on community-based participatory action
 7092 research: A methodology that emerges from (and in) communities. In B. Smith & A. C.
 7093 Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 88–
 7094 99). Routledge. <https://doi.org/10.4324/9781315762012>
- 7095 Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Jossey-Bass.
- 7096 Schwartz, S. J., Pantin, H., Coatsworth, J. D., & Szapocznik, J. (2007). Addressing the challenges
 7097 and opportunities for today's youth: Toward an integrative model and its implications for
 7098 research and intervention. *Journal of Primary Prevention*, 28(2), 117–144.

- 7099 <https://doi.org/10.1007/s10935-007-0084-x>
- 7100 Scott, N., & Laws, E. (2006). Knowledge sharing in tourism and hospitality. In N. Scott & E.
- 7101 Laws (Eds.), *Knowledge Sharing and Quality Assurance in Hospitality and Tourism* (pp. 1–
- 7102 12). The Haworth Hospitality Press. https://doi.org/10.1300/J162v07n01_01
- 7103 Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organization*
- 7104 (Revised). Broadway Business.
- 7105 Shaikh, M., Bean, C., & Forneris, T. (2020). Six recommendations for youth sport stakeholders
- 7106 when evaluating their programs. *Journal of Sport Psychology in Action*, 11(3), 165–182.
- 7107 <https://doi.org/10.1080/21520704.2020.1746709>
- 7108 Shirani Bidabadi, N., Nasr Isfahani, A., Rouhollahi, A., & Khalili, R. (2016). Effective teaching
- 7109 methods in higher education: Requirements and barriers. *Journal of Advances in Medical*
- 7110 *Education & Professionalism*, 4(4), 170–178. <https://doi.org/10.1123/iscj.2017-0101>
- 7111 Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, molecular biology, and the
- 7112 childhood roots of health disparities. *Jama*, 301(21), 2252.
- 7113 <https://doi.org/10.1001/jama.2009.754>
- 7114 Smith, B., Williams, O., Bone, L., & Collective, the M. S. W. C. (2022). Co-production: A
- 7115 resource to guide co-producing research in the sport, exercise, and health sciences.
- 7116 *Qualitative Research in Sport, Exercise and Health*.
- 7117 <https://doi.org/10.1080/2159676x.2022.2052946>
- 7118 Smith, R. E., & Smoll, F. L. (1997). Coaching the coaches: Youth sports as a scientific and
- 7119 applied behavioural setting. *Current Directions in Psychological Science*, 6(1), 16–21.
- 7120 <https://doi.org/10.1111/1467-8721.ep11512606>
- 7121 Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage*
- 7122 *handbook of qualitative research* (3rd ed., pp. 443–466). SAGE Publications.

- 7123 Steele, W., & Malchiodi, C. A. (2012). *Trauma-informed practices with children and adolescents*.
 7124 Routledge. <https://doi.org/10.15713/ins.mmj.3>
- 7125 Stodter, A., & Cushion, C. J. (2016). Effective coach learning and processes of coaches’
 7126 knowledge development: What works? In P. A. Davis (Ed.), *The Psychology of Effective*
 7127 *Coaching and Management* (pp. 35–51). Nova Science Publishers, Inc.
- 7128 Stodter, A., & Cushion, C. J. (2017). What works in coach learning, how, and for whom? A
 7129 grounded process of soccer coaches’ professional learning. *Qualitative Research in Sport,*
 7130 *Exercise and Health*, 9(3), 321–338. <https://doi.org/10.1080/2159676X.2017.1283358>
- 7131 Stodter, A., & Cushion, C. J. (2019). Evidencing the impact of coaches’ learning: Changes in
 7132 coaching knowledge and practice over time. *Journal of Sports Sciences*, 37(18), 2086–2093.
 7133 <https://doi.org/10.1080/02640414.2019.1621045>
- 7134 Stoszkowski, J., & Collins, D. (2016). Sources, topics and use of knowledge by coaches. *Journal*
 7135 *of Sports Sciences*, 34(9), 794–802. <https://doi.org/10.1080/02640414.2015.1072279>
- 7136 Strachan, L., MacDonald, D. J., & Côté, J. (2016). Project SCORE! Coaches’ perceptions of an
 7137 online tool to promote positive youth development in sport. *International Journal of Sports*
 7138 *Science & Coaching*, 11(1), 108–115. <https://doi.org/10.1177/1747954115624827>
- 7139 Strachan, L., Santos, F., & MacDonald, D. J. (2020). Insights into creating and implementing
 7140 Project SCORE!: Lessons learned and future pathways. *Journal of Sport Psychology in*
 7141 *Action*, 12(2), 114–126. <https://doi.org/10.1080/21520704.2020.1798574>
- 7142 Strand, V. C., Abramovitz, R., Layne, C. M., Robinson, H., & Way, I. (2014). Meeting the critical
 7143 need for trauma education in social work: A problem-based learning approach. *Journal of*
 7144 *Social Work Education*, 50(1), 120–135. <https://doi.org/10.1080/10437797.2014.856235>
- 7145 Strobel, J., & van Barneveld, A. (2012). When is PBL more effective? A meta-synthesis of meta-
 7146 analyses comparing PBL to conventional classrooms. *Interdisciplinary Journal of Problem-*

- 7147 *Based Learning*, 3(1). <https://doi.org/10.7771/1541-5015.1046>
- 7148 Stroh, D. P. (2015). *Systems thinking for social change: A practical guide to solving complex*
 7149 *problems, avoiding unintended consequences, and achieving lasting results*. Chelsea Green
 7150 Publishing.
- 7151 Tajik, M., & Minkler, M. (2006). Environmental justice research and action: A case study in
 7152 political economy and community-academic collaboration. *International Quarterly of*
 7153 *Community Health Education*, 26(3), 213–231. <https://doi.org/10.2190/IQ.26.3.b>
- 7154 Tebes, J. K., Champine, R. B., Matlin, S. L., & Strambler, M. J. (2019). Population health and
 7155 trauma-informed practice: Implications for programs, systems, and policies. *American*
 7156 *Journal of Community Psychology*, 64, 494–508. <https://doi.org/10.1002/ajcp.12382>
- 7157 Theokas, C., & Lerner, R. M. (2006). Observed ecological assets in families, schools, and
 7158 neighborhoods: Conceptualization, measurement, and relations with positive and negative
 7159 developmental outcomes. *Applied Developmental Science*, 10(2), 61–74.
 7160 https://doi.org/10.1207/s1532480xads1002_2
- 7161 Thomas, M. S., Crosby, S., & Vanderhaar, J. (2019). Trauma-informed practices in schools across
 7162 two decades: An interdisciplinary review of research. *Review of Research in Education*,
 7163 43(1), 422–452. <https://doi.org/10.3102/0091732X18821123>
- 7164 Trudel, P., Culver, D. M., & Werthner, P. (2013). Looking at coach development from the coach-
 7165 learner's perspective: Consideration for coach development administrators. In P. Potrac, W.
 7166 Gilbert, & J. Denison (Eds.), *Routledge Handbook of Sports Coaching* (pp. 375–387).
 7167 Routledge.
- 7168 Trudel, P., & Gilbert, W. (2006). Coaching and coach education. In D. Kirk, D. Macdonald, & M.
 7169 O'Sullivan (Eds.), *Handbook of Physical Education* (pp. 516–539). SAGE.
 7170 <https://doi.org/10.4135/9781848608009.n29>

- 7171 Trudel, P., Gilbert, W., & Werthner, P. (2010). Coach education effectiveness. In J. Lyle & C.
 7172 Cushion (Eds.), *Sport coaching: Professionalisation and practice* (pp. 135–152). Churchill
 7173 Livingstone.
- 7174 Turnnidge, J., Côté, J., & Hancock, D. J. (2014). Positive youth development from sport to life:
 7175 Explicit or implicit transfer? *Quest*, 66(2), 203–217.
 7176 <https://doi.org/10.1080/00336297.2013.867275>
- 7177 Ullrich-French, S., McDonough, M. H., & Smith, A. L. (2012). Social connection and
 7178 psychological outcomes in a physical activity-based youth development setting. *Research*
 7179 *Quarterly for Exercise and Sport*, 83(3), 431–441.
 7180 <https://doi.org/10.5641/027013612802573049>
- 7181 UNICEF Canada. (2020). *The impact of COVID-19 on children in Canada: Short, medium and*
 7182 *long-term mitigation strategies*. [https://www.unicef.ca/en/press-release/impact-covid-19-](https://www.unicef.ca/en/press-release/impact-covid-19-children-canada-short-medium-and-long-term-mitigation-strategies)
 7183 [children-canada-short-medium-and-long-term-mitigation-strategies](https://www.unicef.ca/en/press-release/impact-covid-19-children-canada-short-medium-and-long-term-mitigation-strategies)
- 7184 Van Der Veken, K., Lauwerier, E., & Willems, S. J. (2020). How community sport programs may
 7185 improve the health of vulnerable population groups: A program theory. *International*
 7186 *Journal for Equity in Health*, 19(1), 1–12. <https://doi.org/10.1186/s12939-020-01177-5>
- 7187 Van Hoya, A., Larsen, T., Sovik, M., Wold, B., Heuzé, J. P., Samdal, O., Ommundsen, Y., &
 7188 Sarrazin, P. (2015). Evaluation of the Coaches Educators training implementation of the
 7189 PAPA project: A comparison between Norway and France. *Scandinavian Journal of*
 7190 *Medicine and Science in Sports*, 25(5), e539–e546. <https://doi.org/10.1111/sms.12352>
- 7191 Van Woezik, R. A., McLaren, C. D., Côté, J., Erickson, K., Law, B., Lafrance Horning, D.,
 7192 Callary, B., & Bruner, M. W. (2021). Real versus ideal: Understanding how coaches gain
 7193 knowledge. *International Sport Coaching Journal*, 9(2), 189–202.
 7194 <https://doi.org/10.1123/iscj.2021-0010>

- 7195 Vandell, D. L., Larson, R. W., Mahoney, J. L., & Watts, T. W. (2015). Children's organised
 7196 activities. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science:*
 7197 *Ecological Settings and Processes* (7th ed., pp. 1–40). John Wiley & Sons.
- 7198 Vandell, D. L., Pierce, K. M., & Dadisman, K. (2005). Out-of-school settings as a developmental
 7199 context for children and youth. In R. Kail (Ed.), *Advances in Child Development and*
 7200 *Behavior* (pp. 43–77). Elsevier.
- 7201 Vandell, D. L., Reisner, E. R., Brown, B. B., Dadisman, K., Pierce, K. M., Lee, D., & Pechman,
 7202 E. M. (2005). *The study of promising after-school programs: Examination of intermediate*
 7203 *outcomes in Year 2*. <https://www.researchconnections.org/childcare/resources/8077>
- 7204 Vandell, D. L., Reisner, E. R., Brown, B. B., Pierce, K. M., & Pechman, E. M. (2004). *The study*
 7205 *of promising after-school programs descriptive report of the promising programs* (Issue
 7206 February).
- 7207 Vandell, D. L., Reisner, E. R., Pierce, K. M., Brown, B. B., Lee, D., Bolt, D., & Pechman, E. M.
 7208 (2006). *The study of promising after-school programs: Examination of longer term outcomes*
 7209 *after two years of program experiences*.
 7210 <https://www.researchconnections.org/childcare/resources/13440>
- 7211 Vandell, D. L., Simpkins, S. D., Pierce, K. M., Brown, B. B., Bolt, D., & Reisner, E. (2020).
 7212 Afterschool programs, extracurricular activities, and unsupervised time: Are patterns of
 7213 participation linked to children's academic and social well-being? *Applied Developmental*
 7214 *Science*, 26(3), 426–442. <https://doi.org/10.1080/10888691.2020.1843460>
- 7215 Vella, S. A., Crowe, T., & Oades, L. (2013). Increasing the effectiveness of formal coach
 7216 education: Evidence of a parallel process. *International Journal of Sports Science &*
 7217 *Coaching*, 8(2), 417–430. <https://doi.org/10.1260/1747-9541.8.2.417>
- 7218 Vella, S. A., Oades, L., & Crowe, T. (2011). The role of the coach in facilitating positive youth

- 7219 development: Moving from theory to practice. *Journal of Applied Sport Psychology*, 23(1),
 7220 33–48. <https://doi.org/10.1080/10413200.2010.511423>
- 7221 Viswanathan, M., Ammerman, A., Eng, E., Garlehner, G., Lohr, K. N., Griffith, D., Rhodes, S.,
 7222 Samuel-Hodge, C., Maty, S., Lux, L., Webb, L., Sutton, S. F., Swinson, T., Jackman, A., &
 7223 Whitener, L. (2004). Community-based participatory research: Assessing the evidence.
 7224 *Evidence Report/Technology Assessment (Summary)*, 99, 1–8.
 7225 <https://www.ncbi.nlm.nih.gov/sites/books/NBK11852/>
- 7226 Walkley, M., & Cox, T. L. (2013). Building trauma-informed schools and communities. *Children*
 7227 *and Schools*, 35(2), 123–126. <https://doi.org/10.1093/cs/cdt007>
- 7228 Ward, M. (2020, March 20). Increase in child abuse a big concern during COVID-19 pandemic.
 7229 *The Globe and Mail*. [https://www.theglobeandmail.com/canada/article-increase-in-child-](https://www.theglobeandmail.com/canada/article-increase-in-child-abuse-a-big-concern-during-covid-19-pandemic/)
 7230 [abuse-a-big-concern-during-covid-19-pandemic/](https://www.theglobeandmail.com/canada/article-increase-in-child-abuse-a-big-concern-during-covid-19-pandemic/)
- 7231 Ward, S., & Parker, M. (2013). The voice of youth: Atmosphere in positive youth development
 7232 program. *Physical Education & Sport Pedagogy*, 18(5), 534–548.
 7233 <https://doi.org/10.1080/17408989.2012.726974>
- 7234 Webb, E., & Karlis, G. (2021). Positive youth development programs in not-for-profit recreation:
 7235 Dilemmas and recommendations. *Loisir et Société / Society and Leisure*, 43(3), 281–291.
 7236 <https://doi.org/10.1080/07053436.2020.1849162>
- 7237 Weimer, M. (2002). *Learner-centred teaching: Five key changes to practice*. John Wiley & Sons.
- 7238 Weimer, M. (2013). *Learner-centred teaching: Five key changes to practice* (2nd ed.). Jossey-
 7239 Bass.
- 7240 Weiss, M. R. (2005). *The First Tee 2005 research summary: Longitudinal effects of the First Tee*
 7241 *Life skills educational program on positive youth development*.
- 7242 Weiss, M. R., Bolter, N. D., & Kipp, L. E. (2016). Evaluation of The First Tee in promoting

- 7243 positive youth development: Group comparisons and longitudinal trends. *Research*
 7244 *Quarterly for Exercise and Sport*, 87(3), 271–283.
 7245 <https://doi.org/10.1080/02701367.2016.1172698>
- 7246 Wenger-Trayner, E., & Wenger-Trayner, B. (2015). Learning in a landscape of practice. In E.
 7247 Wenger-Trayner, M. Fenton- O’Creevy, & S. Hutchinson (Eds.), *Learning in a landscape of*
 7248 *practice: Boundaries, identity, and knowledgeability in practice-based learning*. (pp. 13–
 7249 29). Routledge.
- 7250 Wenger-Trayner, E., & Wenger-Trayner, B. (2020). *Learning to make a difference: Value creation*
 7251 *in social learning spaces*. Cambridge University Press.
 7252 <https://doi.org/10.1017/9781108677431>
- 7253 Wenger, E. (1998). *Communities of practice: Learning meaning and identity*. Cambridge
 7254 University Press.
- 7255 Wenger, E., Trayner, B., & De Laat, M. (2011). *Promoting and assessing value creation in*
 7256 *communities and networks: A conceptual framework [Report]*.
- 7257 Werner, K., & Dickson, G. (2018). Coworker knowledge sharing and peer learning among elite
 7258 footballers: Insights from German Bundesliga players. *Sport Management Review*, 21(5),
 7259 596–611. <https://doi.org/10.1016/j.smr.2018.02.001>
- 7260 Werthner, P., & Trudel, P. (2006). A new theoretical perspective for understanding how coaches
 7261 learn to coach. *The Sport Psychologist*, 20(2), 198–212. <https://doi.org/10.1123/tsp.20.2.198>
- 7262 Whitley, M. A., Donnelly, J. A., Cowan, D. T., McLaughlin, S., Whitley, M. A., Donnelly, J. A.,
 7263 Cowan, D. T., McLaughlin, S., & Whitley, M. A. (2022). Narratives of trauma and resilience
 7264 from Street Soccer players. *Qualitative Research in Sport, Exercise and Health*, 14(1), 101–
 7265 118. <https://doi.org/10.1080/2159676X.2021.1879919>
- 7266 Whitley, M. A., Massey, W. V., & Wilkison, M. (2018). A systems theory of development through

- 7267 sport for traumatised and disadvantaged youth. *Psychology of Sport and Exercise*, 38, 116–
 7268 125. <https://doi.org/10.1016/j.psychsport.2018.06.004>
- 7269 Whitley, M. A., Massey, W. V., & Farrell, K. (2017). A programme evaluation of ‘Exploring Our
 7270 Strengths and Our Future’: Making sport relevant to the educational, social, and emotional
 7271 needs of youth. *Journal of Sport for Development*, 5(9), 21–35.
 7272 [https://jsfd.org/2017/09/01/a-programme-evaluation-of-exploring-our-strengths-and-our-](https://jsfd.org/2017/09/01/a-programme-evaluation-of-exploring-our-strengths-and-our-future-making-sport-relevant-to-the-educational-social-and-emotional-needs-of-youth/)
 7273 [future-making-sport-relevant-to-the-educational-social-and-emotional-needs-of-youth/](https://jsfd.org/2017/09/01/a-programme-evaluation-of-exploring-our-strengths-and-our-future-making-sport-relevant-to-the-educational-social-and-emotional-needs-of-youth/)
- 7274 Whitley, M. A., Smith, A. L., Dorsch, T. E., Bowers, M. T., Centeio, E. E., & Board, N. S. (2021).
 7275 Re-envisioning post-pandemic youth sport to meet young people’s mental, emotional, and
 7276 social needs. *Translational Journal of the ACSM*, 6(4), 1–7.
 7277 <https://doi.org/10.1249/TJX.0000000000000177>
- 7278 Wiig, K. M. (1994). *Knowledge management foundations: Thinking about thinking-how people*
 7279 *and organizations represent, create, and use knowledge*. Schema Press, Limited.
- 7280 Wilkes, S., & Côté, J. (2010). The developmental experiences of adolescent females in structured
 7281 basketball programs. *Revue PhénEPS / PHEnex Journal*, 2(2), 1–21.
- 7282 Wilson, E., Kenny, A., & Dickson-Swift, V. (2018). Ethical challenges of community based
 7283 participatory research: Exploring researchers’ experience. *International Journal of Social*
 7284 *Research Methodology*, 21(1), 7–24. <https://doi.org/10.1080/13645579.2017.1296714>
- 7285 Wine, O., Ambrose, S., Campbell, S., Villeneuve, P. J., Kovacs Burns, K., & Osornio Vargas, A.
 7286 (2017). Key components of collaborative research in the context of environmental health: A
 7287 scoping review. *Journal of Research Practice*, 13(2), 1.
- 7288 Wolfe, D. E., & Byrne, E. T. (1975). Research on experiential learning: Enhancing the process.
 7289 *Business Games and Experiential Learning in Action*, 2, 325–336.
- 7290 Wood, D. F. (2003). Problem based learning. *BMJ*, 326, 328–330.

- 7291 <https://doi.org/10.1136/bmj.326.7384.328>
- 7292 Wright, T., Trudel, P., & Culver, D. M. (2007). Learning how to coach: The different learning
 7293 situations reported by youth ice hockey coaches. *Physical Education & Sport Pedagogy*,
 7294 12(2), 127–144. <https://doi.org/10.1080/17408980701282019>
- 7295 Wynard, T., Benes, S., & Lorson, K. (2020). Trauma-sensitive practices in health education.
 7296 *Journal of Physical Education, Recreation and Dance*, 91(9), 22–29.
 7297 <https://doi.org/10.1080/07303084.2020.1811622>
- 7298 Yarber, L., Brownson, C. A., Jacob, R. R., Baker, E. A., Jones, E., Baumann, C., Deshpande, A.
 7299 D., Gillespie, K. N., Scharff, D. P., & Brownson, R. C. (2015). Evaluating a train-the-trainer
 7300 approach for improving capacity for evidence-based decision making in public health. *BMC*
 7301 *Health Services Research*, 15(1), 1–10. <https://doi.org/10.1186/s12913-015-1224-2>
- 7302 Yew, E. H. J., & Goh, K. (2016). Problem-based learning: An overview of its process and impact
 7303 on learning. *Health Professions Education*, 2(2), 75–79.
 7304 <https://doi.org/10.1016/j.hpe.2016.01.004>
- 7305 Yohalem, N., & Wilson-Ahlstrom, A. (2010). Inside the black box: Assessing and improving
 7306 quality in youth programs. *American Journal of Community Psychology*, 45(3–4), 350–357.
 7307 <https://doi.org/10.1007/s10464-010-9311-3>
- 7308 Zarrett, N., Abraczinskas, M., Skiles Cook, B., Wilson, D. K., & Ragaban, F. (2018). Promoting
 7309 physical activity within under-resourced afterschool programs: A qualitative investigation of
 7310 staff experiences and motivational strategies for engaging youth. *Applied Developmental*
 7311 *Science*, 22(1), 58–73. <https://doi.org/10.1080/10888691.2016.1211482>
- 7312
- 7313

7314
7315
7316

Appendices

Appendix A. Recruitment Letters and Consent Forms

Appendix A.1. Pilot – Leader Consent Form



uOttawa

Université d'Ottawa
Faculté des sciences
de la santé

University of Ottawa
Faculty of Health
Sciences

☎ 613-562-5432
📠 613-562-5437

451 Smyth (3028)
Ottawa ON K1H 8M5 Canada
www.uOttawa.ca

LEADER CONSENT FORM

TITLE: Play On: The evaluation of trauma-informed youth sport programs

Principal Investigator: Dr. Tanya Forneris, School of Human Kinetics, University of Ottawa [info redacted]

Co-Investigator: Corliss Bean, PhD (Sport Psychology), University of Ottawa [info redacted]

Funding: Funding for this project was supported by the Public Health Agency of Canada.

Purpose of the Study: The purpose of this study is to conduct a utilization-focused process and outcome evaluation of a trauma-informed youth development program. Specifically, this study will explore if the program was implemented as it was intended to be and assess both the physical and psychosocial developmental outcomes of youth. This trauma-informed sport program will help youth from marginalized populations develop life skills.

Participation: There are two copies of this form: one of which is for you to keep for your reference and one for you to return to us. If you consent to be in this study, you will be asked to fill out four questionnaires and participate in two interviews over the course of your involvement. The questionnaires will take no longer than 30 minutes to complete and can be done at different time points throughout the study. The first questionnaire is around your perceptions of trauma-informed practices and will be completed immediately after the training program you participate in. Additionally, once you learn about these practices, you will be integrating them into a sport-based youth program at Boys and Girls Club [name of clubhouse]. The second and third questionnaires will ask you to assess physical literacy of youth participants and coach/staff-athlete relationships. The fourth questionnaire will have questions related to program quality. This will be done on one occasion during your time as a staff of the trauma-informed sport program at the Boys and Girls Club of [name of clubhouse]. The first interview will be after the training you were involved within regarding trauma-informed practices to better understand your experiences in the training. The second interview will take place at the end of program delivery of the sport program at your clubhouse. The purpose of the interview is to gain a more in-depth understanding of your involvement as a leader in the Boys and Girls Club of [name of clubhouse]. The interviews will last between 30-40 minutes and will be audio-recorded. However, if you prefer not to have the interview recorded, handwritten notes will be taken. You do not have to answer any question you do not want to answer and can stop the assessment, interview, or observations at any time. If you choose to withdraw, you will also be given the opportunity to withdraw your data, which means you can choose to remove your responses from the study and your responses will be destroyed. You will also be given the opportunity to review their transcripts if you wish, via email. This will occur through a process of receiving two emails. The first will include a password and the second email will contain the transcript in a password protected email. Finally, 3 to 5 observations of the Boys and Girls Club of [name of clubhouse] will take place by researchers to gain an understanding of what strategies are used to implement the trauma-informed sport program. The timing of these observational sessions will be decided on by you and the purpose is to gain a comprehensive understanding of what actually occurs in the program at a practical level. If you agree, video recording will be used to assess program quality during these observations. These observations will focus on strictly the coach's behaviour, yet it is important to note that data will be used

7317
7318

7319

7320

strictly for analysis and training purposes within the research lab and the identity of the leader will never be revealed publically at conferences or presentations.

Risks: I do not anticipate any negative effects during or following participation in this project. However, it may be possible that you have had negative experiences leading the program. If so, and you would like to discuss your concerns with someone other than the interviewer we will discuss with you different options (e.g., counselor, organizational director, colleague) and will help support youth by connecting you with the person you believe would be most helpful.

Benefits: Your participation in this project will help contribute to scientific knowledge. In particular, this project will help us better understand how this program was implemented and how it influences positive youth outcomes, such as life skill development. Participation in this study will help provide an internal evaluation report to the program organization to work to improve the youths' experiences within the program in the future, as well as contribute to the larger body of academic research.

Confidentiality and Anonymity: Your confidentiality will be protected. Apart from the consent form your name will not be written on any documents. Your responses from the questionnaires and the interview will be grouped with responses from other program leaders from a variety of programs and therefore, all responses will remain completely confidential. Program directors will receive a specialized report that will include the findings from all clubhouses combined; therefore, confidentiality will be maintained and no responses specific to your program will be identified.

This consent form will be placed in a locked filing cabinet within a locked office and filed separately from the questionnaires and interviews. The audio and video recordings will also be placed on a computer in a locked office. At the end of the project the data will be kept secure for a period of five years, after which all of the data will be destroyed.

Voluntary Participation and Withdrawal: Your participation is completely voluntary. You may withdraw from the project at any time without penalty. Also, your decision to withdraw will not impact your involvement in the Boys and Girls Club in any way. If you choose to withdraw, you will be given the opportunity to withdraw your data, which means you can choose to remove your responses from the study and your responses will be destroyed.

If you have any questions regarding this research project you can contact Tanya Forneris [info redacted].

For any questions regarding the ethical conduct of this project, you can contact the Office of Research Ethics and Integrity at the University of Ottawa in person at 550 rue Cumberland, Room 154, Ottawa, ON, K1N 6N5, by phone (613) 562-5387 or by email ethics@uottawa.ca

Consent:

I have read this consent form and I understand the procedures of this research project. Also, I understand that my participation is completely voluntary and I may withdraw from the study at any time without penalty. My signature indicates my consent to participate.

- ☐ I agree to participate in this project
- ☐ I agree to participate in this project **but do not permit the observations to be video recorded.**
- ☐ I agree to participate in this project **but do not permit the interview to be audio-taped.**

Name	Date
Signature of person conducting informed consent	Date

7323

Appendix A.2. Pilot - Youth Assent Form



Université d'Ottawa
Faculté des sciences
de la santé

University of Ottawa
Faculty of Health
Sciences

YOUTH ASSENT FORM

TITLE: The evaluation of the Bounce Back League

There are two copies of this form, one of which is for the participant to keep. This form may have some words that you do not know. Please ask the researcher or your leaders to explain any words that you do not know.

What is this study about?

The purpose of this study is to understand your experiences in the sport program you participated in at Boys and Girls Club.

What happens to me if I choose to be in this study?

If you are in this study, the program you participate in at Boys and Girls Club (name of clubhouse) may be observed and video recordings may be used to assess program quality during. The observations will focus only on the program staff and will not be used outside of the research lab. You will also be asked to complete five different questionnaires about your involvement in Boys and Girls Club program. The questionnaires will take about 20 minutes to complete.

Participation is voluntary which means you can stop at any time that you want and you do not have to answer any question you do not want to. If you choose to stop completing the questionnaires, you can also choose to remove your responses from the study and your responses will be destroyed.

Will you tell anyone what I say?

We will not tell anyone the answers you give us. We will not share your answers with your parents, teachers, friends, or anyone else. Also, when talking about or writing about this research, we will never use your name.

Questions?

If you have any questions about being in this study, you, or your parent, can contact Tanya Forneris [info redacted].

For any questions about this project, you can contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland, Room 159, Ottawa, ON, K1N 6N5, (613)-562-5387 or ethics@uottawa.ca

Consent:

I have read this form and I understand the information about this study. I am willing to be in this study.

Youth name printed	Youth signature	Date
--------------------	-----------------	------

Signature of person conducting informed consent	Date
---	------

☎ 613-562-5432
📠 613-562-5437

451 Smyth (3028)
Ottawa ON K1H 8M5 Canada
www.uOttawa.ca

7324

7325

7326

Appendix A.3. Pilot - Parent Information Letter



Boys & Girls Clubs of Canada
Repaires jeunesse du Canada

Dear parents,

The Boys and Girls Club of Canada is partnering with the University of Ottawa to implement and evaluate a new sport-based youth development program called **Play-On** for children at the (name of clubhouse). The researchers from the University of Ottawa will work with us to conduct a process and outcome evaluation of this program. The researchers will work with program staff and youth to explore if the program was implemented as it was intended to be and assess both the physical and psychosocial developmental outcomes of youth.

As part of the study, the researchers will observe some of the program sessions, ask youth and staff to complete questionnaires, and ask some participants to participate in an interview to discuss their experiences in the program (e.g., their likes, dislikes, what they learned). The questionnaires will ask questions about the types of skills being taught in the program as well as the type of support she/her receives from the leaders/coaches. If youth volunteer for an interview, it will be audio-recorded if you agree and will take place at the location in which Boys and Girls Club of [name of clubhouse] occurs and will be approximately 20-30 minutes in length. Your child does not have to answer any questions he/she does not want to answer and can stop the interview at any time.

Your child's participation in this project will help contribute to improving the **Play-On** program, with the goal of having a sustainable sport-based program at this clubhouse. This project will also help contribute to academic research related to youth development within community-based sport programming. Participation in this study is completely voluntary and if your child chooses not to participate in the project, her/she is still welcome to engage in the **Play-On** program; involvement in the research does not influence program participation at all. Additionally, he/she may withdraw from the project at any time without penalty. Should you allow your child to participate, his/her participation in the study will be completely confidential and anonymous.

If you have any questions regarding this research project, you can contact Corliss Bean at [info redacted] or Tanya Forneris [info redacted]

For any questions regarding the ethical conduct of this project, you can contact the Office of Research Ethics and Integrity at the University of Ottawa in person at 550 rue Cumberland, Room 154, Ottawa, ON, K1N 6N5, by phone (613) 562-5387 or by email ethics@uottawa.ca

Thank for your consideration.

Corliss Bean

Tanya Forneris

Version 1 29-01-17

7327
7328

7329

Appendix A.4. Expansion - Leader Invitation Letter

Dear Bounce Back League staff,

My doctoral thesis involves exploring the experiences of BBL coaches and supervisors in participating in the BBL training intervention and program implementation at your clubhouses. I am conducting this doctoral thesis in partnership with the Boys and Girls Clubs, who also invited me to conduct a program evaluation on the implementation of the BBL. For this thesis, I want to help generate an understanding of your personal learning experiences, what successes and challenges you encountered from facilitating the BBL, and what outcomes you perceive from participation towards you, your fellow staff, your youth, the club, and the broader community. It is my hope that we can use this information to directly improve upon BBL and trauma-informed sport programming that the BGC offers, such as improvements to staff training and program supports.

If you are interested in participating in this study, we will send you a consent form, outlining the details of the project and the measures we'll use, the voluntary nature of this study, and how we will handle your data with respect to confidentiality. This research is completely voluntary, and you may withdraw your participation and your data at any point throughout the project. We ask that you participate in two interviews, a focus group, and at least three questionnaires throughout the program year. We also ask for access to your logbook data and your discussions/responses on Slack.

Your acceptance or refusal of participation in this study will not negatively impact your involvement as a BBL/BGC staff member in any way.

If you have any further questions about this research please contact me [info redacted].

I look forward to hearing from you,

All the best,

Maji Shaikh
Principal Investigator for the BBL project
PhD Candidate
School of Human Kinetics
University of Ottawa

7330

7331

7332 Appendix A.5. Expansion - Leader Consent Form – Questionnaires, Observations, and

7333 Interviews



Université d'Ottawa
Faculté des sciences
de la santé

University of Ottawa
Faculty of Health
Sciences

☎ 613-562-5432
📠 613-562-5437

451 Smyth (3028)
Ottawa ON K1H 8M5 Canada
www.uOttawa.ca

LEADER CONSENT FORM

TITLE: Knowledge-to-Action Processes in the Implementation of a Trauma-Informed Sport Model in Community Settings - An Evaluation of the Bounce Back League (BBL)

Principal Investigator: Majidullah Shaikh, School of Human Kinetics, University of Ottawa [info redacted]

Project Co-Supervisor: Dr. Tanya Forneris, The University of British Columbia [info redacted]

Project Co-Supervisor: Dr. Diane Culver, University of Ottawa [info redacted]

Purpose of the Study. This is a doctoral thesis project. The purpose of this project is to conduct an evaluation of knowledge-to-action processes involved in implementing a trauma-informed sport model in the Boys and Girls Clubs of Canada (BGCC). Specifically, we will explore how the knowledge related to trauma-informed sport was learned by BGCC staff and applied in the implementation of the Bounce Back League.

Participation. There are two copies of this form: one of which is for you to keep for your reference and one for you to return to us. As part of your responsibilities as a BBL staff member, you will be participating in a training intervention, delivering a trauma-informed sport program (the BBL), completing logbooks each BBL session, and participating in an online community of practice (on Slack). In addition to these responsibilities, if you consent to be in this study, you will be asked to fill out three questionnaires at each of three different time points and participate in two interviews. As well, you will also be permitting the use of your responses and discussions on Slack, and the completed logbooks as data for this project.

Questionnaires. The purposes of these questionnaires are:

1. Knowledge quiz: A quiz of your concrete knowledge related to the trauma-informed sport model.
2. Knowledge perceptions questionnaire: A self-assessment of your perceptions of knowledge around topics related to the trauma-informed sport model.
3. Attitudes questionnaire: A self-assessment of your attitudes around trauma-informed care.

The three questionnaires will take no longer than 30 minutes to complete. They will be completed before the training workshop, after the training workshop, and at the end of the program year.

Observations: The researchers will be observing some of the clubhouses involved for some of their implemented BBL sessions. The specific locations and times will be based on both the availability of financial resources for travel to the clubhouses, as well as calendar availability of the researchers. Therefore, it is possible – but not guaranteed – that you and your program will be observed. These observations will help to understand how strategies learned from the training intervention overall are being applied in the BBL. If you are selected, the timing of these observational sessions will be decided in conjunction with you and the purpose is to gain a comprehensive understanding of what actually occurs in the program at a practical level. The researchers will be writing field notes during these observations. If you agree, video and audio recordings will be used during these observations, which will be used to help assist the researchers in corroborating their field notes.

Interviews: The interviews will take place at the end of the training workshop and at the end of the program year. The purpose of the interviews are to understand

your experiences in participating the training workshop, and your experiences of participating in the BBL implementation and overall training intervention. The interviews will last between 45-60 minutes each and will be audio-recorded.

Voluntary Participation and Withdrawal: Your participation is completely voluntary. As well, you do not have to take part in every research activity to have your data analyzed. For all participation, you do not have to answer any questions you do not want to, and may stop the questionnaires or interviews at any time. You may also choose to withdraw consent for any access to data involved in your responsibilities as BBL staff (i.e., logbook and Slack data). For participation in interviews, you may choose to not be recorded, and hand-written notes will be taken instead. You will also be given the opportunity to review the transcripts and the researcher's interpretations if you wish, via email. This will occur through a process of receiving two emails. The first will include a password and the second will contain the transcript in a password-protected email. You may also withdraw from the project at any time without penalty. Your decision to withdraw will not impact your involvement in the BGCC in any way. If you choose to withdraw, you will be given the opportunity to withdraw your data, which means you can choose to remove your responses from the study and your responses will be destroyed.

Confidentiality: Apart from the consent form your name will not be written on any documents. Any identifying information tied to you or the identities of others mentioned by you in any form of data collection will be removed and replaced with pseudonyms and codes to protect your identities. For reporting purposes, your responses and discussions will be grouped together (e.g., by clubhouse). The clubhouses will also be labeled with pseudonyms to protect the clubs' identities. All responses you provide in your questionnaires and interviews will remain completely confidential.

The paper version of this consent form will be placed in a locked filing cabinet within a locked office and filed separately from the data that are collected. A digital version – if applicable – will be kept on a password-protected secure and encrypted Canadian server, again, separately from the rest of your data. The audio and video recordings will also be placed on a computer in a locked office and on the password-protected secure and encrypted server. At the end of the project, the data will be kept secure for a period of five years, after which all of the data will be destroyed.

Risks: I do not anticipate any negative effects during or following participation in this project.

Benefits: Your participation in this project will help contribute to scientific knowledge. In particular, this project will help us better understand how the training intervention was experienced, how the BBL program was implemented, and what outcomes you perceived from your participation in the project. Participation in this study will help provide an internal evaluation report to the program organization to work to improve the program staff's experiences within the program in the future, as well as contribute to the larger body of academic research.

If you have any questions regarding this research project you can contact me [info redacted].

For any questions regarding the ethical conduct of this project, you can contact the Office of Research Ethics and Integrity at the University of Ottawa in person at 550 rue Cumberland, Room 154, Ottawa, ON, K1N 6N5, by phone (613) 562-5387 or by email ethics@uottawa.ca

Consent: I have read this consent form and I understand the procedures of this research project. Also, I understand that my participation is completely voluntary and I may withdraw from the study at any time without penalty. My signature indicates my consent to participate.

Please select one of the options below:

☐ I agree to participate in this project

I agree to participate in this project **but do not consent to (check all that are applicable):**

☐ Audio-taped interviews	☐ Use of my logbook data	☐ Use of my Slack data
☐ Audio-taped observations	☐ Video-taped observations	

Name

Date

Signature of person conducting informed consent

Date

Appendix A.6. Expansion - Leader Consent Form – Focus Group



Université d'Ottawa
Faculté des sciences
de la santé

University of Ottawa
Faculty of Health
Sciences

☎ 613-562-5432
📠 613-562-5437

451 Smyth (3028)
Ottawa ON K1H 8M5 Canada
www.uOttawa.ca

LEADER CONSENT FORM

TITLE: Knowledge-to-Action Processes in the Implementation of a Trauma-Informed Sport Model in Community Settings - An Evaluation of the Bounce Back League (BBL)

Principal Investigator: Majidullah Shaikh, School of Human Kinetics, University of Ottawa [info redacted]

Project Co-Supervisor: Dr. Tanya Forneris, The University of British Columbia [info redacted]

Project Co-Supervisor: Dr. Diane Culver, University of Ottawa [info redacted]

Purpose of the Study. This is a doctoral thesis project. The purpose of this project is to conduct an evaluation of knowledge-to-action processes involved in implementing a trauma-informed sport model in the Boys and Girls Clubs of Canada (BGCC). Specifically, we will explore how the knowledge related to trauma-informed sport was learned by BGCC staff and applied in the implementation of the Bounce Back League.

Participation. There are two copies of this form: one of which is for you to keep for your reference and one for you to return to us. If you consent to be in this study, you will be asked participate in a focus group. The focus groups will take place at the end of the program year and involve your clubhouse together. The purpose of the focus group is to understand the successes and challenges your clubhouse experienced in their implementation of the BBL. The focus groups will last between 45-60 minutes each and will be audio-recorded.

Voluntary Participation and Withdrawal: Your participation is completely voluntary. For all participation, you do not have to answer any questions you do not want to and may leave the focus groups at any time. You do not have to take part in focus groups to have your data from other research activities analyzed. If you participate in the focus group, your data cannot be withdrawn, as withdrawal can make it difficult to identify what each participant shared in the focus group, and can interfere with interpretation of other participants' data. However every effort will be made by the research team to protect your identity throughout the research process (e.g., while writing notes, while analyzing data, when presenting results).

Confidentiality: Apart from the consent form your name will not be written on any documents. Any identifying information tied to you or the identities of others mentioned by you in any form of data collection will be removed and replaced with pseudonyms and codes to protect your identities. For reporting purposes, your responses and discussions will be grouped together (e.g., by clubhouse). The clubhouses will also be labeled with pseudonyms to protect the clubs' identities. In the focus group, as you are participating with others from your clubhouses, anonymity or confidentiality cannot be guaranteed. All participants will be encouraged to exercise discretion, and refrain from sharing or discussing the focus group outside of the focus group.

The paper version of this consent form will be placed in a locked filing cabinet within a locked office and filed separately from the data that are collected. A digital version – if applicable – will be kept on a password-protected secure and encrypted Canadian server (sync.com), again, separately from the rest of your data. The audio and video recordings will also be placed on a computer in a locked office and on the password-protected secure and encrypted server. At the end of the project, the data

will be kept secure for a period of five years, after which all of the data will be destroyed.

Risks: I do not anticipate any negative effects during or following participation in this project.

Benefits: Your participation in this project will help contribute to scientific knowledge. In particular, this project will help us better understand how the training intervention was experienced, how the BBL program was implemented, and what outcomes you perceived from your participation in the project. Participation in this study will help provide an internal evaluation report to the program organization to work to improve the program staff's experiences within the program in the future, as well as contribute to the larger body of academic research.

If you have any questions regarding this research project you can contact me [info redacted].

For any questions regarding the ethical conduct of this project, you can contact the Office of Research Ethics and Integrity at the University of Ottawa in person at 550 rue Cumberland, Room 154, Ottawa, ON, K1N 6N5, by phone (613) 562-5387 or by email ethics@uottawa.ca

Consent: I have read this consent form and I understand the procedures of this research project. Also, I understand that my participation is completely voluntary and I may withdraw from the study at any time without penalty. My signature indicates my consent to participate.

Please select one of the options below:

☐ I agree to participate in this project

Name

Date

Signature of person conducting informed consent

Date

7340

7341

7342

Appendix A.7. Expansion - Program Manager Consent Form



Université d'Ottawa
Faculté des sciences
de la santé

University of Ottawa
Faculty of Health
Sciences

☎ 613-562-5432
📠 613-562-5437

451 Smyth (3028)
Ottawa ON K1H 8M5 Canada
www.uOttawa.ca

PROGRAM MANAGER CONSENT FORM

TITLE: Knowledge-to-Action Processes in the Implementation of a Trauma-Informed Sport Model in Community Settings - An Evaluation of the Bounce Back League (BBL)

Principal Investigator: Majidullah Shaikh, School of Human Kinetics, University of Ottawa [info redacted]

Project Co-Supervisor: Dr. Tanya Forneris, The University of British Columbia [info redacted]

Project Co-Supervisor: Dr. Diane Culver, University of Ottawa [info redacted]

Purpose of the Study. This is a doctoral thesis project. The purpose of this project is to conduct an evaluation of knowledge-to-action processes involved in implementing a trauma-informed sport model in the Boys and Girls Clubs of Canada (BGCC). Specifically, this study will explore how the knowledge related to trauma-informed sport was learned by BGCC staff and applied in the implementation of the Bounce Back League.

Participation. There are two copies of this form: one of which is for you to keep for your reference and one for you to return to us. The researchers will be observing some of the clubhouses involved for some of their implemented BBL sessions. The specific locations and times will be based on both the availability of financial resources for travel to the clubhouses, as well as calendar availability of the researchers. Therefore, it is possible – but not guaranteed – that you and your program will be observed. These observations will help to understand how strategies learned from the training intervention overall are being applied in the BBL. If your clubhouse is selected, the timing of these observational sessions will be decided in conjunction with you and the purpose is to gain a comprehensive understanding of what actually occurs in the program at a practical level. The researchers will be writing field notes during these observations. These field notes will focus only on the consenting coaches' and their behaviours, and not on the club members or any non-consenting people in the program area. If you agree, video and audio recordings will be used during these observations, which will be used to help assist the researchers in corroborating their field notes. The cameras will be strategically placed so that only the coaches' behaviours are focused on, and not on any non-consenting people in the program area. We will provide information letters to all people in the program area of what we are doing, why these activities are being observed, what data are being collected, and the use of video-recording. The observations would not disrupt regular program functioning.

Voluntary Participation and Withdrawal: Your participation is completely voluntary. You may withdraw from the project at any time without penalty. Your decision to withdraw will not impact your involvement in the BGCC in any way.

Confidentiality: Apart from the consent form your name will not be written on any documents. Pseudonyms and codes used to mask and protect any identifying information that emerges through the observations. The clubhouses will also be labeled with pseudonyms to protect the clubs' identities.

The paper version of this consent form will be placed in a locked filing cabinet within a locked office and filed separately from the data that are collected. A digital version – if applicable – will be kept on a password-protected secure and encrypted Canadian server (sync.com), again, separately from the rest of your data. The audio and video recordings will also be placed on a computer in a locked office and on the password-

protected secure and encrypted server. At the end of the project, the data will be kept secure for a period of five years, after which all of the data will be destroyed.

Risks: I do not anticipate any negative effects during or following participation in this project.

Benefits: Your participation in this project will help contribute to scientific knowledge. In particular, this project will help us better understand how the training intervention was experienced, how the BBL program was implemented, and what outcomes you perceived from your participation in the project. Participation in this study will help provide an internal evaluation report to the program organization to work to improve the program staff's experiences within the program in the future, as well as contribute to the larger body of academic research.

If you have any questions regarding this research project you can contact me [info redacted].

For any questions regarding the ethical conduct of this project, you can contact the Office of Research Ethics and Integrity at the University of Ottawa in person at 550 rue Cumberland, Room 154, Ottawa, ON, K1N 6N5, by phone (613) 562-5387 or by email ethics@uottawa.ca

Consent: I have read this consent form and I understand the procedures of this research project. Also, I understand that my participation is completely voluntary and I may withdraw from the study at any time without penalty. My signature indicates my consent to participate.

Please select one of the options below:

☐

I agree to participate in this project

I agree to participate in this project **but do not consent to (check all that are applicable):**

☐

Audio-taped
observations

☐

Video-taped
observations

Name

Date

Signature of person conducting informed consent

Date

7347

Appendix A.8. Expansion - Information Letter for BBL Observers

Who are you?

My name is Maji Shaikh. I am a PhD student from the University of Ottawa.

Why are you here?

I am here to watch and evaluate the BBL program at your club. I want to learn about what the coaches are doing, and how well they are coaching BBL. To do this, I am writing down notes of what I see coaches doing in the BBL. At the same time, I am also video-recording their actions. This is so that I can double-check later to see if there was anything I missed in my observation.

Will I also be video-recorded?

Because I am recording the coaches as they coach BBL, you, as a participant or an observer in the area, may be video-recorded as a result. However, I am going to place the camera in the best position to record the coaches' behaviours, while not focusing on any club members or other people in the area. As well, any notes I take down will not identify or name you, and will only be focussing on the coaches' behaviours.

What if I have more questions?

Please approach me anytime before, during, or after this BBL session if you have any questions. You can also contact me at [info redacted].

Maji Shaikh
Principal Investigator for the BBL project
PhD Candidate
School of Human Kinetics
University of Ottawa



7348
7349

Appendix B. Ethics Approvals

Appendix B.1. Ethics Approval – Pilot

File Number: H03-17-23

Date (mm/dd/yyyy): 03/28/2017



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

Ethics Approval Notice

Health Sciences and Science REB

Principal Investigator / Supervisor / Co-investigator(s) / Student(s)

<u>First Name</u>	<u>Last Name</u>	<u>Affiliation</u>	<u>Role</u>
Tanya	Fornieris	Health Sciences / Human Kinetics	Principal Investigator
Majidullah	Shaikh	Health Sciences / Human Kinetics	Research Assistant
Corliss	Bean	Health Sciences / Human Kinetics	Project Coordinator

File Number: H03-17-23

Type of Project: Professor

Title: Evaluation of the Play-On program: Understanding processes and outcomes

Approval Date (mm/dd/yyyy)	Expiry Date (mm/dd/yyyy)	Approval Type
03/27/2017	03/26/2018	Approval

Special Conditions / Comments:

N/A

7350
7351
7352

7353

File Number: H03-17-23

Date (mm/dd/yyyy): 03/28/2017



Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

This is to confirm that the University of Ottawa Research Ethics Board identified above, which operates in accordance with the Tri-Council Policy Statement (2010) and other applicable laws and regulations in Ontario, has examined and approved the ethics application for the above named research project. Ethics approval is valid for the period indicated above and subject to the conditions listed in the section entitled "Special Conditions / Comments".

During the course of the project, the protocol may not be modified without prior written approval from the REB except when necessary to remove participants from immediate endangerment or when the modification(s) pertain to only administrative or logistical components of the project (e.g., change of telephone number). Investigators must also promptly alert the REB of any changes which increase the risk to participant(s), any changes which considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project and safety of the participant(s). Modifications to the project, including consent and recruitment documentation, should be submitted to the Ethics Office for approval using the "Modification to research project" form available at: <https://research.uottawa.ca/ethics/forms>

Please submit an annual report to the Ethics Office four weeks before the above-referenced expiry date to request a renewal of this ethics approval. To close the file, a final report must be submitted. These documents can be found at: <https://research.uottawa.ca/ethics/forms>.

If you have any questions, please do not hesitate to contact the Ethics Office at extension 5387 or by e-mail at: ethics@uottawa.ca

Signature:

Gabriel Petitti
Protocol Officer for Ethics in Research
For Daniel Lagarec, Chair of the Health Sciences and Sciences REB

Appendix B.2. Ethics Approval – Pilot

28/10/2019

Université d'Ottawa

Bureau d'éthique et d'intégrité de la recherche

University of Ottawa

Office of Research Ethics and Integrity

CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number

H-09-19-4960

Titre du projet / Project Title

Knowledge-to-Action Processes
in the Implementation of a
Trauma-Informed Sport Model in
Community Settings

Type de projet / Project Type

Thèse de doctorat / Doctoral
thesis

Statut du projet / Project Status

Approuvé / Approved

Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)

28/10/2019

Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)

27/10/2020

Équipe de recherche / Research Team

**Chercheur /
Researcher**

Affiliation

Role

Majidullah SHAIKH

École des sciences de l'activité physique / School of Human
Kinetics

Chercheur Principal / Principal
Investigator

Diane CULVER

École des sciences de l'activité physique / School of Human
Kinetics

Superviseur / Supervisor

Tanya FORNERIS

UBC

Co-superviseur / Co-supervisor

Conditions spéciales ou commentaires / Special conditions or comments

550, rue Cumberland, pièce 154 550 Cumberland Street, Room 154
Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca
www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

28/10/2019

Université d'Ottawa

Bureau d'éthique et d'intégrité de la recherche

University of Ottawa

Office of Research Ethics and Integrity

Le Comité d'éthique de la recherche (CÉR) de l'Université d'Ottawa, opérant conformément à l'*Énoncé de politique des Trois conseils* (2014) et toutes autres lois et tous règlements applicables, a examiné et approuvé la demande d'éthique du projet de recherche ci-nommé.

L'approbation est valide pour la durée indiquée plus haut et est sujette aux conditions énumérées dans la section intitulée "Conditions Spéciales ou Commentaires". Le formulaire « Renouvellement ou Fermeture de Projet » doit être complété quatre semaines avant la date d'échéance indiquée ci-haut afin de demander un renouvellement de cette approbation éthique ou afin de fermer le dossier.

Toutes modifications apportées au projet doivent être approuvées par le CÉR avant leur mise en place, sauf si le participant doit être retiré en raison d'un danger immédiat ou s'il s'agit d'un changement ayant trait à des éléments administratifs ou logistiques du projet. Les chercheurs doivent aviser le CÉR dans les plus brefs délais de tout changement pouvant augmenter le niveau de risque aux participants ou pouvant affecter considérablement le déroulement du projet, rapporter tout événement imprévu ou indésirable et soumettre toute nouvelle information pouvant nuire à la conduite du projet ou à la sécurité des participants.

The University of Ottawa Research Ethics Board, which operates in accordance with the *Tri-Council Policy Statement* (2014) and other applicable laws and regulations, has examined and approved the ethics application for the above-named research project.

Ethics approval is valid for the period indicated above and is subject to the conditions listed in the section entitled "Special Conditions or Comments". The "Renewal/Project Closure" form must be completed four weeks before the above-referenced expiry date to request a renewal of this ethics approval or closure of the file.

Any changes made to the project must be approved by the REB before being implemented, except when necessary to remove participants from immediate endangerment or when the modification(s) only pertain to administrative or logistical components of the project. Investigators must also promptly alert the REB of any changes that increase the risk to participant(s), any changes that considerably affect the conduct of the project, all unanticipated and harmful events that occur, and new information that may negatively affect the conduct of the project or the safety of the participant(s).

Germain ZONGO

Responsable d'éthique en recherche / Protocol Officer

Pour/For **Daniel LAGAREC** Président(e) du/ Chair of the **Comité d'éthique de la recherche en sciences de la santé et sciences / Health Sciences and Sciences Research Ethics Board**

550, rue Cumberland, pièce 154 550 Cumberland Street, Room 154
Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca
www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

7358

7359

Appendix C. Interview Guides

Appendix C.1. Pilot Interview Guide – Pre-training

Phase 1: Program Staff Interview Guide Pre-Training

Section A: Introduction, review of purpose of interview, assurance of confidentiality
(Demographics will be obtained from forms)

Section B: Interview Questions

1. Tell me about yourself?
 - a. What is your role at the Boys and Girls Club?
2. Can you describe your previous experiences working (or coaching) in (youth) sport?
3. How would you describe your general approach to working with youth?
4. Have you had any training as a coach/youth leader? Can you describe these trainings?
 - a. What did you learn? Were the trainings useful? What made them useful?
 - b. Did you enjoy these trainings? What made them enjoyable?
 - c. What would you improve about them?
5. What from these trainings have you incorporated into your work with youth? in sport? in other contexts?
6. Tell me what your own ideas are or perceptions of what the overall goal of the Bounce Back program is?
7. What types of skills do you believe this program will help youth develop?
8. Do you have experience working with youth who have experienced trauma?
 - a. Can you tell me about this experiences/these roles?
9. Tell me what you believe or have heard is meant by a “trauma-informed” approach?
10. Based on what you know at this point what do you think are some trauma informed principles or practices?
11. How confident are you at this moment in being able to use a trauma-informed approach?
12. What role do you see sport playing for youth who have experienced trauma?
 - a. Do you believe sport can be useful in healing individuals who have experience trauma? Why/why not? How?
 - b. Do you perceive there to be a difference between competitive and recreational sport participation in this?
13. What do you expect to attain (or learn) from this training?
14. What do you think would be valuable in evaluating in the Play On program?
 - a. What do you perceive your role to be in evaluation of the Bounce Back program? Do you have any past experience with program evaluation? If so, provide details? - What role did you have?
 - b. Gauge evaluation capacity?
15. What are you hoping to learn from being involved in this project?
16. Anything you would like to add?

7365

Appendix C.2. Pilot Interview Guide – Post-training

PILOT Interview Guides

Phase 1: Program Staff Interview Guide Post-Training

Section A: Introduction, review of purpose of interview, assurance of confidentiality

Section B: Demographics – Age, gender, length of involvement, etc...

Section C: Interview Questions

1. Overall how did you find the training you just participated in?
2. Did you enjoy the training program? What did you like?
3. What did you learn from engaging in this training?
4. What would you consider to be your biggest take home from this training?
5. What would you consider to be the main goal of the program that you will be delivering?
6. Did your knowledge change from participating in this training? In what ways?
7. Did your attitudes about what trauma-informed practices change from participating in this training?
8. What strategies did you learn in the training that you believe will be effective in working with youth?
9. How will what you have learned in this training inform your practices as a BGC staff in general?
10. How will this training influence the delivery of the sport program you will be delivering at your clubhouse?
11. What did you dislike?
12. Can you comment on the logistics of the training? Did you feel there was enough time to learn about trauma-informed practices in a practical way? Level of engagement? Number of staff in training? Etc.
13. How would you improve the training program? Is there anything you would change?

7366

7367

7368

Appendix C.3. Pilot Focus Group Guide – Mid-year-one

Focus Group-Interview Guide Questions

Reflection on Season 1

- What were your general experiences as you were **designing** the program?
 - What are some challenges that arose? What are some facilitators?
 - What did you learn from this? Did you learn/expand upon any new skills, knowledge, strategies?
 - What is the value you gained from designing the program?
 - What are your goals in regards to season 2/3 program design? Why?
 - How will you go through with these goals? What steps need to be taken?
- What were your general experiences as you were **implementing** the program?
- What are some challenges that arose? What are some facilitators?
- What did you learn from this? Did you learn/expand upon any new skills, knowledge, strategies?
- What is the value you gained from implementing the program?
- How do you feel the youth are responding to the program?
- What impact do you think this program will have on the youth?
- What impact do you find YOU will have on the youth?
- What are your goals in regards to season 2/3 program implementation? Why?
- How will you go through with these goals? What steps need to be taken?
- **Overall, big picture—how did you have to adapt programming? Why did you need to adapt?**
- Can you provide examples of times you witnessed features and behaviours of psychological trauma?
- Did you handle or address these behaviours directly? How?
- Were these in line with trauma-informed practices you were taught in training? If so, how? If different, explain why or how?
- What did you learn from these situations?

Looking Forward to Season 2

- **Based on those experiences, what would you change going into the next season**
- **Goals for next Season**

Evaluation

- What were your experiences with the **evaluation** components?
- What are some challenges that arose?
- What are some facilitators?
- What did you learn from this?
- How can we improve evaluation?
- What value do you find from incorporating evaluation?

7369

7370

7371

Appendix C.4. Pilot Interview Guide – Post-year-one

PILOT Interview Guides

Phase 2: Program Staff Interview Guide Post-Program Delivery

Section A: Introduction, review of purpose of interview, assurance of confidentiality

Section B: Demographics – Age, gender, length of involvement, etc...

Section C: Interview Questions

Program Quality

1. Overall what was your experience as a program leader of Play-On?
2. What would you consider to be the main goal of the Play-On program?
3. What is your philosophy as a youth program leader? Has this changed since being involved in Play-On? In what ways?
4. Would you say that the staff within Play-On intentionally taught/fostered life skill development to youth participants? In what ways? Can you provide specific examples within your program?
5. How did you try to implement the Play-On program so that it would lead to positive outcomes for the youth (e.g., safety, supportive environment, interaction, engagement, youth-centred, relationship building, skill building high expectations for youth and staff)? (use results from individual YPQA self-report tool to probe)
 - a. How do you ensure a safe and supportive environment for the youth?
 - b. How do you encourage youth engagement?
 - c. Is the program youth-driven? How so?
6. What strategies did you use to keep the youth engaged? Which strategies did you find were the most effective?
7. Were there activities that you used to foster relationships with youth?
8. What strategies or activities did you use to help the youth manage their emotions?
9. Did you feel that providing the youth with voice was an important component of this program? Why/Why not?

Reflecting on Training

Now that you've been able to put what you learned in the training into practice...

10. What are your initial thoughts?
11. Did you feel prepared/adequate skill set?
12. What strategies did you feel were the most useful?
13. Did your attitudes or knowledge about trauma-informed practices change since we last talked?
14. How would you improve the training program? Is there anything you would change?

Outcomes

15. How do you believe Play-On was perceived by the youth?
16. How do you believe Play-On had an effect on the youth? In what ways? Physical abilities? Mental health? Examples.
17. Did you see any changes in the youth over the course of the program?
18. Have you been impacted by being a leader of the Play-On this program? How?
19. Given what we have discussed today is there anything else you would like to say?

7372

7373

7374

Appendix C.5. Expansion Interview Guide – Post-training

EXPANSION: Interview Guides

Interview Guide: Post-Training Workshop

Section A: Introduction, review of purpose of interview, assurance of confidentiality

Section B: Interview Questions

1. Tell me about your experience with the training for BBL?
2. Overall, were you satisfied with the training? In what ways? If not, why not?
3. Did you enjoy the training program?
 - a. What did you like? Dislike? Any suggestions for improvement?
4. Do you have a better understanding of what the BBL program is designed to be? In what ways?
5. What role will you be in regarding the BBL program? Coach? Supervisor? Director
6. Did the training help you better understand what your role and responsibilities are in relation to the BBL program? In what ways?

Probes

 - How do you plan on supporting your staff throughout the planning process?
 - How do you plan on supporting your staff throughout the delivery process?
 - What did you learn from the training that will help with this?
 - How will what you learned from the training affect your day-to-day work at the BGC?
7. Remind me of what other training you have been involved in besides this one?
 - b. How does this compare? Similarities or differences from your previous trainings?
8. What would you consider to be your biggest take home from this training?
9. What would you consider to be the main goal of the Bounce Back program?
10. What do you take away from this training about trauma-informed practices?
 - a. Did your **knowledge** about trauma-informed practices (e.g., brain on trauma, behaviour signs of trauma, trauma-sensitive workout, context coaching, etc.) change from practicing in this training?
 - b. Did your **attitudes** about trauma-informed practices change from this training?
 - c. Do you feel more equipped regarding **skills** with regards to trauma-informed practices change from this training?
11. Are you confident that you can apply what you learned about trauma-informed approaches in practice?

SCALE FROM 1 to 10
12. How will this training influence the delivery of the sport program you will be delivering at your clubhouse?
13. What do you think it means to *come to play*?
14. What do you think it means to *build my team*?
15. What do you think it means to *play on*?
16. What were the key messages you took away from this training related to youth development and programming?
17. Anything else you would like to add?

7375

7376

Appendix C.6. Expansion Interview Guide – Post-program

EXPANSION: Interview Guides

Interview Guide: Post-Program Delivery

Section A: Introduction, review of purpose of interview, assurance of confidentiality

Section B: Interview Questions

General Learning Experiences

- Overall what was your experience of delivering BBL?
- What was your role in this program?
- Did you feel that you've learned anything from this pilot year? Like what?
 - Do you feel your knowledge has changed? If so, in what ways?
 - Do you feel that your skills have changed? If so, in what ways?
 - Do you feel your attitudes have changed? If so, in what ways?
- Can you describe the different ways in which you enhanced your learning regarding trauma-informed sport approaches?
 - Primary ways of learning? (through training, through experience, through interactions with coaches/youth, through other resources)
- Did you consult any resources during your practice to help enhance your delivery? What are those resources?
 - How did you consult these sources?
 - Which sources - your manual? Edgework? Training notes? Slack? Asking around? Flash cards? Previous logbooks, workout plans? Others?
 - How often did you consult these sources: Before/after program sessions? During program sessions? On an ongoing basis? On an as-needed basis?

Value-Creation Framework

Immediate value:

- What value did the trainings bring you in terms of design and delivery of programming?

Applied value:

- Tell me about your experiences in supporting and facilitating the program's *design and structure*?
 - Examples of design?
 - Examples of addressing trauma-exposed behaviours?
- What value do you perceive from actually applying what you learned in the program?

Realized value:

- What value did your implementing of BBL bring to you and your practice?
- What value did your implementing of BBL bring to your staff?
- What value did your implementing of BBL bring to the club members?
 - Probes:
 - How do you believe BBL was perceived by the youth?
 - How do you believe BBL had an effect on the youth? In what ways? Examples.
 - Did you see any changes in the youth over the course of the program?
- Do you think your implementing of BBL has made a difference? How?
 - To you and your identity?
 - To the staff, club members,
 - To the organisation, programming, etc.?

Transformative value:

- Have you been impacted by this project and being a leader in this program? How?
 - How do you feel your identity has developed through implementing this program? How?
- How do you feel the participants have been impacted (e.g., over time, in the long run), from your delivery of the program? From overall participation?
- How has this program implementation impacted the BGC as an organisation so far?

Strategic value:

- Describe your conversations with parents? stakeholders?
- What knowledge have you shared so far about your program implementation experiences to others?
- How would you suggest program training, design, and delivery could be improved?
 - How would this be done? Who needs to be involved?

Enabling value:

- Have any of the experiences you've shared resulted in any change facilitated by the BGC, higher ups, etc.?
- Any challenges that you've brought up at a higher level (organization, admins)? How were those addressed?

7379

7380

7381

Appendix C.7. Expansion Focus Group Guide – Post-program

EXPANSION: Interview Guide

Focus Group Guide: Post-Program Delivery

Section A: Introduction, review of purpose of focus group, assurance of confidentiality

Section B: Focus Group Questions

1. What were your general experiences as you were **designing** the program?
 - a. What were your roles?
 - b. What went well?
 - c. What were some challenges?
2. What were your general experiences as you were **implementing** the program?
 - a. What were your roles?
 - b. What went well?
 - c. What were some challenges?
3. Were there any resources that you used to help you with design and implementation?
 - a. The training workshop, ongoing implementation, participation in Slack?
4. How do you feel the youth are responding to the program?
5. What impact do you think this program will have on the youth?
6. What were your goals with regards to this past season?
7. How well do you feel you were able to reach your goals? Why or why not?
8. What are your goals with regards to next season?
9. How will you go through with these goals? What steps need to be taken?

7382

7383

Appendix D. Leader Questionnaires

Appendix D.1. Demographics and Experience Questionnaire

Demographics and Experience Questionnaire

Please be honest in answering these questions, as it will be important for us in providing you with support as the program progresses. In addition, we will not share your individual results with anyone – the results of all staff will be combined into a group. In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study.

Club site: _____

Age: _____

Gender: _____

How would you classify yourself? (Check one)

- ☐ Aboriginal (First Nations, Métis, Inuit)
- ☐ Asian (e.g., Korean, Japanese, Chinese)
- ☐ Black (e.g., African, Caribbean, North American)
- ☐ Latin American
- ☐ Middle Eastern (e.g., Arab, Iranian, Syrian, Iraqi, Lebanese)
- ☐ South Asian (e.g., Afghan, Indian, Pakistani, Sri Lankan)
- ☐ Southeast Asian (e.g., Filipino, Vietnamese, Cambodian, Malaysian, Laotian, Indonesian)
- ☐ White/ Caucasian
- ☐ Unknown
- ☐ Other: _____
- ☐ Prefer not to disclose

PROGRAM INFORMATION

Number of years you've been involved in Boys and Girls Club: _____

On average how often do you attend Boys and Girls Club per week? _____

What is your role at the Boys and Girls Club? _____

What activities do you participate/coach/lead **at** the Boys and Girls Club (Check all that apply)?

☐ Arts (music, drama, art, band, choir) ☐ Clubs (e.g., chess, computer, debate) ☐ Church/Religious	☐ Leadership (e.g., student council) ☐ Sports ☐ Volunteer ☐ Other
---	--

Please list all that you are involved in:

Are you involved in **OTHER** coaching/leading activities ☐ Yes ☐ No

Please list all that you are involved in:

Appendix D.2. Knowledge Quiz

Knowledge Quiz

Please be honest in answering these questions, as it will be important for us in providing you with support as the program progresses. In addition, we will not share your individual results with anyone – the results of all staff will be combined into a group. In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study.

1. Symptoms of traumatic exposure can include
 - a. avoiding thoughts, places, and objects associated with traumatic event
 - b. feelings of emotional numbness
 - c. avoiding or losing interest in activities
 - d. A and C
 - e. All of the above

2. Which part(s) of the brain is/are responsible for one's **primary** stress response?
 - a. Frontal lobe
 - b. Cerebellum
 - c. Amygdala
 - d. Prefrontal cortex
 - e. Brain stem

3. Which of these statements is an example of '**good**' stress?
 - a. Unemployment and money problems
 - b. Conflict in interpersonal relationships
 - c. Pre-performance jitters
 - d. Death of a family member
 - e. Sleep issues

4. What is the order of the typical stress response system?
 - a. Engaging in a response
 - > Encountering a stressful stimulus
 - > Returning to a stable emotional state
 - > Coping mechanisms activate
 - b. Encountering a stressful stimulus
 - > Engaging in a response
 - > Coping mechanisms activate
 - > Returning to a stable emotional state
 - c. Encountering a stressful stimulus
 - > Engaging in a response
 - > Returning to a stable emotional state
 - > Coping mechanisms activate
 - d. Engaging in a response
 - > Encountering a stressful stimulus
 - > Coping mechanisms activate
 - > Returning to a stable emotional state
 - e. Coping mechanisms activate
 - > Engaging in a response
 - > Encountering a stressful stimulus
 - > Returning to a stable emotional state

5. Which of these statements below about trauma is **most** true?
- a. Trauma is not characterised as a frightening or distressful event that can severely impact and pose a threat to the physical and psychological well being of an individual
 - b. Traumatic experiences simplify a person's capacity to make sense of their lives and to create meaningful, consistent relationships in their families and communities
 - c. Healing from trauma is possible for only children
 - d. Trauma is an event more devastating than a person normally would be expected to experience
 - e. Traumatic exposure is less common than we think
6. What is the order of a youth worker's dysregulated interactions with a trauma-exposed participant?
- a. Participant exhibiting a dysregulated behaviour
-> youth worker engaging in a maladaptive response
-> youth worker distancing from the participant
-> youth worker hardening and withholding extra effort into a relationship
 - b. Participant exhibiting a dysregulated behaviour
-> youth worker hardening and withholding extra effort into a relationship
-> youth worker engaging in a maladaptive response
-> youth worker distancing from the participant
 - c. Youth worker engaging in a maladaptive response
-> participant exhibiting a dysregulated behaviour
-> youth worker hardening and withholding extra effort into a relationship
-> youth worker distancing from the participant
 - d. Participant exhibiting a dysregulated behaviour
-> youth worker distancing from the participant
-> youth worker engaging in a maladaptive response
-> youth worker hardening and withholding extra effort into a relationship
 - e. Participant exhibiting a dysregulated behaviour
-> youth worker engaging in a maladaptive response
-> youth worker hardening and withholding extra effort into a relationship
-> youth worker distancing from the participant
7. Which of these statements is **false**?
- a. As a result of trauma, the brain becomes re-wired into a jumbled state
 - b. As a result of trauma, the brain becomes rigid, unable to change
 - c. The brain is plastic, in that it can grow and change as one works on regulating themselves better
 - d. Traumatic exposure can have lasting effects on the brain
 - e. None of the above
8. Which of these is **not** one of the 4 C's of how participants can regulate their healing from trauma:
- a. Forming positive connections with peers and staff
 - b. Making meaningful contributions to the community
 - c. Ensuring effective coordination of staff efforts in delivering trauma-informed care
 - d. Working on feeling in control of emotions, bodies, and choices
 - e. Building competence in various skills

9. Which of these strategies is **most** effective in group management?
- Drop everything when addressing or speaking to participants – there is no time to manage equipment
 - When interacting with participants, stand in the middle and have them all sit around you so that all participants can see and hear you
 - Make sure to speak as much as possible in order to make sure participants understand everything right away
 - Never ignore participants no matter what, to ensure that you do not marginalize them
 - When speaking to participants, form a strong circle so that you are facing all the participants and no participants are standing in front of behind anyone
10. Which of these strategies is **most** effective in supporting individuals to participate?
- Establish rules for participation that tell participants how they must participate
 - Offering a reward or incentive for participation
 - Telling participants in advance that if they do not participate in the current activity, they will not be allowed to participate in the next one
 - Getting closer to participants and standing proximate to them to encourage more one-on-one interactions
 - Starting the activity without the participant and convincing the participant to join the activity while it's already running
11. When a participant is acting out and distracting others, his or her behaviour is best described as:
- Attempts to disrupt programming
 - Attempts to bring attention toward his or herself
 - Attempts to cope with his or her state of mind
 - Attempts to ruin the youth worker's day
 - Attempts to bring the session under his or her own control
12. You encounter a participant that seems to be having trouble focusing, listening, and participating respectfully with others. In this situation, which of these strategies would be most effective?
- Take the participant aside and ask him to detail what is wrong
 - Have the participant perform an alternative activity that will get him/her moving and increase the participant's heart rate
 - Invite the participant to focus on something different through re-directed questioning
 - Put the participant in a time out to take a break and re-focus
 - Remind the participant to respect the rules of participation and warn that further breaking of the rules will result in punishment
13. What is the process in helping a participant self-regulate when he or she is experiencing a dysregulated state?
- Plan to create options to resolve the issue, help the participant stabilize and arrive at a calm emotional state, explore with the participant what the issue is, and return to transition back to program activities in a way that respects the participant's emotional safety and works for staff
 - Help the participant to stabilize and arrive to a calm emotional state, explore with the participant what the issue is, plan to create options to resolve the issue, and return to transition back to program activities in a way that respects the participant's emotional safety and works for staff
 - Explore with the participant what the issue is, plan to create options to resolve the issue, help participant to stabilize and arrive to a calm emotional state, and return to transition back to program activities in a way that respects the participant's emotional safety and works for staff
 - Plan to create options to resolve the issue, explore with the participant what the issue is, help the participant stabilize and arrive at a calm emotional state, and return to transition back to program activities in a way that respects the participant's emotional safety and works for staff

- e. Explore with the participant what the issue is, help participant to stabilize and arrive to a calm emotional state, plan to create options to resolve the issue, and return to transition back to program activities in a way that respects the participant's emotional safety and works for staff

14. Which of these is **not** an example of a question one should ask in the process of helping a participant self-regulate?

- a. Can you walk me through what happened?
- b. Why are you behaving like this?
- c. Has anything like this happened before?
- d. On a scale from 1 to 10, how upset are you right now?
- e. What kinds of feelings do you have right now?

15. Which of these is **not** an example of a unique healing element of sport?

- a. Time outs in basketball allow players to calm down, regulate, and regroup for the next challenge in the game
- b. In ultimate frisbee, there is no referee. Players are responsible for enforcing rules violations. Control and decisions about fair play rely on communication between teams
- c. In baseball, you have a first and third base coach, both ready to stand by your side, offering you advice and support as you make decisions about your base running
- d. Rock climbing's safety system that involves the equipment and a support person (belay person). This involves trusting that both the equipment and your belayer will keep you from falling
- e. All of the above are appropriate examples of healing elements of sport

16. What different components of sport can be re-designed to be trauma-informed:

- a. Playing space
- b. Equipment
- c. Roles of players, coaches, referees
- d. Rules of the game
- e. All of the above

17. Which of these statements is most true when designing a season of play?

- a. The workouts progress throughout the season, with an emphasis on helping players improve key sport-specific skills as well as their ability to play competitively in a game-like situation
- b. The season of play should only focus on one sport at a time to enhance stability and familiarity
- c. All seasons must culminate in a final event (e.g., a tournament, sport festival) that participants can work and develop competence towards
- d. More than one of the above
- e. All of the above

18. What does a command style approach involve?

- a. The process of setting up a game or activity wherein the players figure out the way to play the activity without the coach telling them the answer
- b. Coach stops play, recreates the action by walking players through it, and then have players try to correct it in live play
- c. Giving most of your coaching instruction from the sideline to players who are not active in the play
- d. More than one of the above
- e. All of the above

19. What does a guided discovery approach involve?

- a. Coach asks questions and the players must figure out the correct response
- b. Coach explains the activity, demonstrates how to do it, and players replicate what they've been shown
- c. Involves the element of choice and decision-making so that players can experience self-efficacy
- d. More than one of the above
- e. All of the above

20. Which of these statements is not true regarding trauma-informed sport?

- a. Trauma-informed sport takes into account knowledge about trauma and the healing aspects of sport into all aspects of program delivery
- b. The BBL is about what the individual (rather than the organization) can do to respond to someone who has experienced trauma
- c. Trauma-informed sport can be thought of as an engagement tool, in that it is delivered in the most approachable and least re-traumatizing way
- d. Trauma-informed sport is intended for survivors but is also welcomed by those without a trauma history
- e. Trauma-informed sport is a means towards an end, in that the goal is to expand trauma-informed capacities across clubs

21. Which of these statements below is most aligned with the objectives of the BBL?

- a. Directly address the impact of trauma on an individual's life and facilitate trauma recovery—they are designed to treat the actual symptoms of trauma.
- b. Help players understand their own internal resilience and ability to manage the ups and downs of life
- c. Re-designing competition to facilitate the promotion of healing
- d. More than one of the above
- e. All of the above

22. The Cool Down component of the BBL Workout involves:

- a. A structured sequence of activities intended to help a player to center themselves in the present, get their heart rate elevated, and prepare their body and brain for the transition to the next session
- b. One or two specific games intended to be engaging, fun and to help players develop their competency in some aspect of the sport
- c. A structured sequence of activities intended to help a player regulate their breathing and heart rate and begin the calming process to prepare to transition to the next session
- d. Time for players to get water, and time for the coaches to divide players into teams and organize them for the next session
- e. None of the above

23. The Warmup component of the BBL Workout involves:

- a. A structured sequence of activities intended to help a player regulate their breathing and heart rate and begin the calming process to prepare to transition to the next session
- b. How we make the sport environment welcoming and connect with players as they transition into the sport session
- c. Time for players to get water, and time for the coaches to divide players into teams and organize them for the next session
- d. A structured sequence of activities intended to help a player to center themselves in the present, get their heart rate elevated, and prepare their body and brain for the transition to the next session
- e. None of the above

24. The purpose of Team Time component of the BBL Workout is to:

- a. Promote and teach the importance of reflection
- b. Engage players in a calming period to help with regulation and stabilization before departure
- c. To strengthen social connections
- d. More than one of the above
- e. All of the above

25. Come to play, in the context of BBL, means

- a. Knowing myself and preparing myself to make the most out of opportunities and challenges in front of me
- b. Persisting through the ups and downs of life
- c. Entering a BBL session ready to interact with other players
- d. A and B
- e. A and C

26. Play on, in the context of BBL, means

- a. Leaving the sport experience on the field and persist or come back for another workout
- b. Remembering that no matter what happens, players need to keep finding ways to carry on
- c. Persisting and adapting when faced with adversity and staying on my positive path no matter what
- d. B and C
- e. All of the above

27. Which of these statements is not true regarding the Bounce Back League?

- a. The BBL takes into account knowledge about trauma and the healing aspects of sport into all aspects of program delivery
- b. The BBL is about what the individual (rather than the organization) can do to respond to someone who has experienced trauma
- c. The BBL can be thought of as an engagement tool, in that it is delivered in the most approachable and least re-traumatizing way
- d. The BBL is critical for survivors but is also welcomed by those without a trauma history
- e. The BBL is a means towards an end, in that the goal is to expand trauma-informed capacities across clubs

Appendix D.3. Attitudes Related to Trauma-informed Care Scale (ARTIC)

Please be honest in answering these questions, as it will be important for us in providing you with support as the program progresses. In addition, we will not share your individual results with anyone – the results of all staff will be combined into a group. In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study.

ARTIC

Attitudes Related to Trauma-Informed Care Scale
VERSION: ARTIC-45 HUMAN SERVICES



TRAUMATIC STRESS
INSTITUTE

People who work in human services, health care, education, and related fields have a wide variety of beliefs about their clients, their jobs, and themselves. The term “client” is interchangeable with “student,” “person,” “resident,” “patient,” or other terms to describe the person being served in a particular setting.

Trauma-informed care is an approach to engaging people with trauma histories in human services, education, and related fields that recognizes and acknowledges the impact of trauma on their lives.

INSTRUCTIONS

For each item, select the circle along the dimension between the two options that best represents your personal belief during the past two months at your job.

Sample

1 2 3 4 5 6 7

Ice cream is delicious ○ ● ○ ○ ○ ○ ○ Ice cream is disgusting.

👁️ **Note:** In this SAMPLE ITEM, the respondent is reporting that he/she believes that ice cream is much more delicious than disgusting.

I believe that...

1 2 3 4 5 6 7

1	Clients' learning and behavior problems are rooted in their behavioral or mental health condition.	○ ○ ○ ○ ○ ○ ○	Clients' learning and behavior problems are rooted in their history of difficult life events.
2	Focusing on developing healthy, healing relationships is the best approach when working with people with trauma histories.	○ ○ ○ ○ ○ ○ ○	Rules and consequences are the best approach when working with people with trauma histories.
3	Being very upset is normal for many of the clients I serve.	○ ○ ○ ○ ○ ○ ○	It reflects badly on me if my clients are very upset.
4	I don't have what it takes to help my clients.	○ ○ ○ ○ ○ ○ ○	I have what it takes to help my clients.
5	It's best not to tell others if I have strong feelings about the work because they will think I am not cut out for this job.	○ ○ ○ ○ ○ ○ ○	It's best if I talk with others about my strong feelings about the work so I don't have to hold it alone.
6	The clients were raised this way, so there's not much I can do about it now.	○ ○ ○ ○ ○ ○ ○	The clients were raised this way, so they don't yet know how to do what I'm asking them to do.
7	Clients need to experience real life consequences in order to function in the real world.	○ ○ ○ ○ ○ ○ ○	Clients need to experience healing relationships in order to function in the real world.
8	If clients say or do disrespectful things to me, it makes me look like a fool in front of others.	○ ○ ○ ○ ○ ○ ○	If clients say or do disrespectful things to me, it doesn't reflect badly on me.
9	I have the skills to help my clients.	○ ○ ○ ○ ○ ○ ○	I do not have the skills to help my clients.
10	The best way to deal with feeling burnt out at work is to seek support.	○ ○ ○ ○ ○ ○ ○	The best way to deal with feeling burnt out at work is not to dwell on it and it will pass.
11	Many clients just don't want to change or learn.	○ ○ ○ ○ ○ ○ ○	All clients want to change or learn.

CONTINUED →



Developed and copyrighted by the Traumatic Stress Institute of Klingberg Family Centers in partnership with Dr. Courtney N. Baker, Tulane University.
370 Linwood Street, New Britain, Connecticut 06052 | (860) 832-5562 | artic@klingberg.org | www.traumaticstressinstitute.org

***I believe that...***

	1	2	3	4	5	6	7	
12 Clients often are not yet able or ready to take responsibility for their actions. They need to be treated flexibly and as individuals.	☐	☐	☐	☐	☐	☐	☐	Clients need to be held accountable for their actions.
13 I realize that clients may not be able to apologize to me after they act out.	☐	☐	☐	☐	☐	☐	☐	If clients don't apologize to me after they act out, I look like a fool in front of others.
14 Each day is uniquely stressful in this job.	☐	☐	☐	☐	☐	☐	☐	Each day is new and interesting in this job.
15 The fact that I'm impacted by my work means that I care.	☐	☐	☐	☐	☐	☐	☐	Sometimes I think I'm too sensitive to do this kind of work.
16 Clients have had to learn how to trick or mislead others to get their needs met.	☐	☐	☐	☐	☐	☐	☐	Clients are manipulative so you need to always question what they say.
17 Helping a client feel safe and cared about is the best way to eliminate undesirable behaviors.	☐	☐	☐	☐	☐	☐	☐	Administering punitive consequences is the best way to eliminate undesirable behaviors.
18 When I make mistakes with clients, it is best to move on and pretend it didn't happen.	☐	☐	☐	☐	☐	☐	☐	When I make mistakes with clients, it is best to own up to my mistakes.
19 The ups and downs are part of the work so I don't take it personally.	☐	☐	☐	☐	☐	☐	☐	The unpredictability and intensity of work makes me think I'm not fit for this job.
20 The most effective helpers find ways to toughen up – to screen out the pain – and not care so much about the work.	☐	☐	☐	☐	☐	☐	☐	The most effective helpers allow themselves to be affected by the work – to feel and manage the pain – and to keep caring about the work.
21 Clients could act better if they really wanted to.	☐	☐	☐	☐	☐	☐	☐	Clients are doing the best they can with the skills they have.
22 It's best to treat clients with respect and kindness from the start so they know I care.	☐	☐	☐	☐	☐	☐	☐	It's best to be very strict at first so clients learn they can't take advantage of me.
23 Healthy relationships with clients are the way to good client outcomes.	☐	☐	☐	☐	☐	☐	☐	People will think I have poor boundaries if I build relationships with my clients.
24 I feel able to do my best each day to help my clients.	☐	☐	☐	☐	☐	☐	☐	I'm just not up to helping my clients anymore.
25 It is because I am good at my job that the work is affecting me so much.	☐	☐	☐	☐	☐	☐	☐	If I were better at my job, the work wouldn't affect me so much.
26 Clients do the right thing one day but not the next. This shows that they are doing the best they can at any particular time.	☐	☐	☐	☐	☐	☐	☐	Clients do the right thing one day but not the next. This shows that they could control their behavior if they really wanted to.
27 When managing a crisis, enforcement of rules is the most important thing.	☐	☐	☐	☐	☐	☐	☐	When managing a crisis, flexibility is the most important thing.
28 If I don't control clients' behavior, bad things will happen to property.	☐	☐	☐	☐	☐	☐	☐	As long as everyone is safe, it is ok for clients to become really upset, even if they cause some property damage.
29 I dread going to my job because it's just too hard and intense.	☐	☐	☐	☐	☐	☐	☐	Even when my job is hard and intense, I know it's part of the work and it's ok.

CONTINUED →
 Developed and copyrighted by the Traumatic Stress Institute of Klingberg Family Centers in partnership with Dr. Courtney N. Baker, Tulane University.
 370 Linwood Street, New Britain, Connecticut 06052 | (860) 832-5562 | artic@klingberg.org | www.traumaticstressinstitute.org

ARTIC

Attitudes Related to Trauma-Informed Care Scale
VERSION: ARTIC-45 HUMAN SERVICES



**TRAUMATIC STRESS
INSTITUTE**

I believe that...

	1	2	3	4	5	6	7	
30 How I am doing personally is unrelated to whether I can help my clients.	☐	☐	☐	☐	☐	☐	☐	I have to take care of myself personally in order to take care of my clients.
31 If things aren't going well, it is because the clients are not doing what they need to do.	☐	☐	☐	☐	☐	☐	☐	If things aren't going well, it is because I need to shift what I'm doing.
32 I am most effective as a helper when I focus on a client's strengths.	☐	☐	☐	☐	☐	☐	☐	I am most effective as a helper when I focus on a client's problem behaviors.
33 Being upset doesn't mean that clients will hurt others.	☐	☐	☐	☐	☐	☐	☐	If I don't control clients' behavior, other clients will get hurt.
34 If I told my colleagues how hard my job is, they would support me.	☐	☐	☐	☐	☐	☐	☐	If I told my colleagues how hard my job is, they would think I wasn't cut out for the job.
35 When I feel myself "taking my work home," it's best to bring it up with my colleagues and/or supervisor(s).	☐	☐	☐	☐	☐	☐	☐	When I feel myself "taking my work home," it's best to keep it to myself.

Thank you for your participation.



Developed and copyrighted by the Traumatic Stress Institute of Klingberg Family Centers in partnership with Dr. Courtney N. Baker, Tulane University.
370 Linwood Street, New Britain, Connecticut 06052 | (860) 832-5562 | artic@klingberg.org | www.traumaticstressinstitute.org

3

7400

7401

7402

Appendix D.4. Knowledge Questionnaire

Knowledge Questionnaire

The questions below assess your familiarity with concepts that will be, in part, addressed at the training as well as at other points in the project. Please be honest in answering these questions, as it will be important for us in providing you with support as the program progresses. In addition, we will not share your individual results with anyone – the results of all staff will be combined into a group. In order to minimize the risk of security breaches and to help ensure your confidentiality we recommend that you use standard safety measures such as signing out of your account, closing your browser and locking your screen or device when you are no longer using them / when you have completed the study.

On a scale from 1 (not at all familiar) to 10 (very familiar) please circle your rating of your knowledge on each item:

Measure	Rating																			
	Previous Time Point:										Current Time Point (Now)									
	Not at all familiar					Very Familiar					Not at all familiar					Very Familiar				
1. Leading a youth program	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
2. Principles of positive youth development	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
3. Coaching youth within a sport context	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
4. The foundational elements of trauma	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
5. Trauma-informed practices	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
6. How sport can be used to heal individuals who have experienced trauma	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
7. How competition in sport can be used to heal individuals who have experienced trauma	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
8. "Context coaching" and its associated coaching techniques	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
9. Why Context Coaching is important	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
10. Being able to support the evaluation of a youth program	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10

7403

7404

7405 **Appendix D.5. Training Satisfaction Questionnaires**

7406

7407 **Pilot: Training Satisfaction Questionnaire**

7408 **1-5 STRONGLY DISAGREE TO STRONGLY AGREE**

- 7409 1. The training met my expectations
- 7410 2. This training was relevant to my role
- 7411 3. I was engaged in the training
- 7412 4. The training (e.g., timing) was well-organised
- 7413 5. The content was well-organised
- 7414 6. The material presented was comprehensive
- 7415 7. The length of training was sufficient
- 7416 8. The training was a good use of my time
- 7417 9. The mediums used to convey the information was beneficial.
- 7418 10. The trainers understand the nuances of our particular context
- 7419 11. The trainers were engaging
- 7420 12. I feel the training will have a positive impact on my daily work
- 7421 13. I felt there was enough time to learn about trauma-informed practices in a practical way
- 7422 14. Now that I have completed the training, I feel confident about implementing trauma-
- 7423 informed practices

7424

7425 **Expansion: Training Satisfaction Questionnaire**

7426 **1-5 STRONGLY DISAGREE TO STRONGLY AGREE**

- 7427 1. The training content was relevant to me
- 7428 2. The trainers were engaging
- 7429 3. I developed connections with other attendees
- 7430 4. The training workshop sufficiently prepared me to implement BBL at my club
- 7431 5. I am confident in my ability to implement BBL at my club

7432

7433

Appendix E. Promising Practices Rating System

Program Promising Practices Ratings & Overall Program Quality

Overall Program Quality Rating

OBSERVER ID		
PROGRAM ID		
DATE		
PROMISING PRACTICES	Rating	JUSTIFICATION/NOTES
Supportive Relations with Adult		
Supportive Relations with Peers		
Level of Engagement		
Opportunities for Cognitive Growth		
Appropriate Structure		
Over-control		
Chaos		
Mastery Orientation		

7434

7435

7436

7437
7438

Appendix F. Logbook

[Print Version](#)

Coach Logbook

POST-SESSION DEBRIEF



Please answer each question. We encourage you to complete this form together as a clubhouse with your fellow BBL staff (coaches and supervisors) after each BBL session.

Club: _____ How many club members were in attendance for this BBL session? _____	Date of Program Session: ____ / ____ / ____ DD MM YYYY Time of Program Session: ____ : ____ AM / PM HOUR MINUTE
---	--

1. What successes and/or challenges did you experience with Club Members' behaviour?

I feel we were able to effectively manage the group during this session	1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
---	--

2. What were the successes and/or challenges with maintaining the structure (including welcome, warm-up, skill play, game time, team time and departure)?

I feel we were able to maintain the structure of this session	1 Strongly Disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly Agree
---	--

7439

3. What were the successes and/or challenges with integrating the BBL skills (Come to Play, Build my Team, Play On)?

I feel we were able to integrate the BBL skills successfully in this session



4. What were the successes and/or challenges in helping Club Members understand how to apply what they learned in the BBL to their lives (at home, at school, with friends, with family, in the community)?

I feel like we were able to help Club Members understand how to transfer what they learned in the BBL to outside of the BBL.



5. What are your goals for the next session?

7441

Appendix G. Report Card

Report Card //

DEGREE OF CHANGE DURING THE BBL SEASON

Please rate the BBL member's ability to perform the listed tasks, and then answer both questions in writing. Each question refers to your perception of the BBL member. There are no right or wrong answers, simply give your best estimate.

BBL Member's Full Name

BBL Coach's Name

	Low	Start of Season										High	Low	End of Season (Now)										High
1. Willingness to engage in BBL activities		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
2. Ability to put energy into an activity (e.g., demonstrating effort)		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
3. Ability to understand how their attitudes and emotions affect others		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
4. Ability to develop positive relationships (e.g., cooperate, be respectful)		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
5. Ability to push themselves (e.g., keep trying when tired)		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
6. Ability to choose to take breaks when needed		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
7. Ability to deal with their own emotions (e.g., calm down when upset)		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		
8. Overall physical and sport ability		1	2	3	4	5	6	7	8	9	10		1	2	3	4	5	6	7	8	9	10		

Please comment on the BBL member's overall participation.

How has the program impacted this BBL member?

7442

7443

Appendix H. Example of Slack Workspace

Slack - Bounce Back League

Bounce Back Le...

• Maji

Jump to...

All Unreads

All Threads

Channels

- # bgc- Club 1
- # bgc- Club 2
- # bgc- Club 3
- # coaches**
- # evaluation
- # general
- # random
- # resources

Direct Messages

Apps

- Google Drive

#coaches

☆ | 18 | 0 | Add a topic

November 8th, 2018

I am curious what each of you are doing for your welcon. I'd like to have half of the group welcome the other with highfives on the way in but our dynamics have changed and now have kids filtering in more slowly. Any ideas on how to make our welcome have more excitement?

November 11th, 2018

10:45 AM [redacted] Hello [redacted], we have always had arrivals staggered as we do BBL as an evening program. We start our night just before warm up with a BBL cheer. We gather everyone and put our hands in together, this session we are repeating the BBL skills, Come to Play, Build my Team, Play On. We do it three times, starting quietly and building to a roar on the third time, accompanied by all hands rising together on the last Play On.

November 23rd, 2018

11:20 AM [redacted] Hi all, we have always struggled to get any use of "The Zone" it just sat there vacant all the time. We are in a new venue, a local high school, not our club, for this season and something has happened. For the last two weeks kids have started to use the zone. They are just going there to play with the stuff, prior to the game, during the game when they are between shifts, and so are younger siblings who are in the gym watching their older siblings. I sure don't want to discourage use of the zone but am not sure if this is a good thing or not. I meant to bring this up last Wednesday when everyone was here but forgot too. Any thoughts, how is The Zone working for you?

November 26th, 2018

December 4th, 2018

12:31 PM [redacted] Coaches - great job so far with updating Slack!! And the sessions are looking great, good job! I sent an email about the question [redacted] listed above - here was what I had written: I think allowing kids to use the zone in the way they want is fantastic - between shifts, or even if other siblings are engaging in it. The stuff is there to just play with, and the more comfortable they feel going there, the more likely they will go there when they need to. The only caveat with kids 'outside' the BBL is that you want stuff available for your kids to use if they need it. There may be a need to have non-BBL participants stop playing in the zone DURING your session, but I think the before and after are alright. You might have to message that at some point, but I wouldn't think it would have to be a huge deal. If it's only 1 or 2 non-BBL participants DURING session using it, then the question to ask ourselves is "is this a distraction? Do we have enough stuff in there for our BBL participants AND the 1-2 non-BBLers? Is it a safety issue for the non-BBLers if we are not watching what's happening in there?" Answers to those questions will dictate what you let non-BBLers do there.

Any insight or input to add regarding this? Experiments?

+ Message #coaches