



EDU 5199 – SYNTHESIS IN EDUCATION

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Indigenous Affirmation

This volume is part of EDU 5199, a graduate course at the University of Ottawa. We acknowledge that the University of Ottawa is located on unceded Algonquin territory.

Ni manàdjiyànàinig Màmìwininì Anishinàbeg, ogog kà nàgadawàbandadjig iyo akì eko weshkad. Ako nongom ega wìkàd kì mìgiwewàdj.

Ni manàdjiyànàinig kakina Anishinàbeg ondaje kaye ogog kakina eniyagizidjig enigokamigàg Kanadàng eji ondàpinangig endàwàdjìn Odàwàng.

Ninisidawinawànàinig kenawendamòdjig kije kikenindamàwin; weshkinìgidjig kaye kejeyàdizidjig.

Nigijeweninmànàinig ogog kà nìgànì sòngideyedjig; weshkad, nongom; kaye àyànikàdj.

We pay respect to the Algonquin people, who are the traditional guardians of this land. We acknowledge their longstanding relationship with this territory, which remains unceded.

We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home.

We acknowledge the traditional knowledge keepers, both young and old.

And we honour their courageous leaders: past, present, and future.

Editor's Note

This volume presents a collection of graduate student literature review papers, completed in partial fulfillment of the Master of Education program at the University of Ottawa. EDU 5199 is the final course in these students' academic careers; the papers included here are a reflection of their passion and dedication for education.

Each student comes from their own personal, cultural, and social background, and this publication serves as a means for showcasing their voices. It was difficult to choose a cover photo for this volume, since despite the old adage, a *picture is worth a thousand words*, there is no one photo that can summarize the collection of works as presented; so, we have chosen an image of a brick path, leading to a set of doors. In front of this path, stand two wooden barriers. The barriers serve as a reminder that even though the path to education is paved, it is not always accessible.

The topic of barriers to education is strongly reflected within this collection of papers. Beginning with "Teaching Methods and Strategies", this volume quickly delves into the topics of "Culture and Representation", as well as "Mental Health". Language can also pose a barrier, a topic to which various solutions are explored in "Language Learning and Teaching English". The next section, "Treatment and Care", is followed by "Trauma and Substance Abuse" – acknowledging the path to recovery is not always linear and final. The authors of these papers are individuals. They speak of their own unique learning journey, in ways that demonstrate how personal history, as well as physical, emotional, and mental experiences affect education.

Teaching Methods and Strategies

The compatibility between interdisciplinary education and collaborative learning: A cognitive perspective

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Abstract

When it comes to the education system, the priority should always be the student experience. In the present era, students are heading towards uncertain futures with many possibilities. This means that they require appropriate knowledge and skills to help them succeed well beyond their years in formal education. There are multiple ways to ensure a positive experience that will also meet these needs, one of which is through the use of interdisciplinary education. This type of learning can provide students with the ability to make connections between fields, expand their worldview, and have a more well-rounded educational experience. As current education systems tend towards monodisciplinary frameworks, one way to transition into better incorporated interdisciplinary learning is to make use of collaborative learning. These pedagogical strategies can be especially effective when supported by cognitive perspectives, which can have significant implications on teaching and learning. In order to best facilitate this type of learning, and highlight its cognitive and practical importance, scholars from multiple areas have been exploring the intersection between these areas. The literature reviewed in this article features research undertaken predominantly in North America in the twenty-first century. It revolves largely around interdisciplinary education and collaborative learning, but also includes perspectives relating to cognition. Although this field is growing, there is currently limited information available. Therefore, suggestions for future research include exploring interdisciplinarity across the field of education, how to effectively facilitate and evaluate this type of pedagogy, and the role of creativity as these transitions become more encouraged. Overall, in order to meet the needs of students as they contribute to the future of their societies, the field of education should examine how interdisciplinary education is compatible with collaborative learning, and how cognitive perspectives can inform the future of these avenues.

Keywords: Interdisciplinary Education; Collaborative Learning; Cognitive Perspectives

Introduction

As society places new demands on students, students place new demands upon the education system to keep up with modern needs, as well as offer a greater variety of options for educational experiences. Within my own student experience, an aspect that was of utmost importance was pursuing a well-rounded background. To me, this would be comprised of both knowledge and skills with which to successfully move into the professional realm. This desire led me to actively take on opportunities for interdisciplinary education, especially during my secondary and post-secondary years. At my high school, I was a vocalist in a Regional Arts Program (Mayfield Arts, n.d.) while equally dedicated to studies in science-related subjects. Afterwards, I chose to complete a Bachelor of Arts and Sciences undergraduate degree (University of Guelph, n.d.) specializing in both music and neuroscience. These programs allowed me to interact with other students who were passionate about more than one subject area, and not only converse about the knowledge we had in common, but also share ideas and expose one another to concepts that were unique to our interests. Being immersed in such diversity throughout my educational experiences truly scaffolded my ability to explore different areas and make connections between various concepts. Plenty of students with similar educational intentions to me may feel inclined to undertake interdisciplinary studies because we recognize its value, but such opportunities may not be integrated or encouraged within existing educational frameworks (Cinar et al., 2016; Minnis & John-Steiner, 2005; Quigley et al., 2019). One way that this can be overcome is by pursuing collaborative learning, as it allows even students with singular interests to come together around interdisciplinary concepts, and understand how various areas of study can converge to progress the production of knowledge for a given topic of inquiry. This type of learning has unique benefits, which assessment through a cognitive lens can open possibilities for, specifically as they relate to usage in the modern education system. Over the following pages, I strive to demonstrate how interdisciplinary education is compatible with collaborative learning, and how these practices can be informed by cognitive perspectives.

Interdisciplinary Education

Historically, structures for education have tended towards monodisciplinary learning. This involves a strict division of subject areas, resulting in increasingly narrow interests and specializations as levels of schooling advance, and has been established for so long that it

can be difficult to open room for other types of pedagogy (Berasategi, et al., 2020; Davies & Devlin, 2007). This type of learning certainly has its benefits, such as increasing expertise and building a larger knowledge base in a given discipline, but such a strict system can cause students to miss out on the advantages of other varieties. Part of why monodisciplinarity has become so entrenched in schooling is because it has unnecessarily been posed as oppositional, or hierarchically superior, to other forms (Davis, 2017; Singleton & Green-Hernandez, 1998). In order to meet the needs of students in modern society, it may be more effective to be open to a variety of methods with unique benefits to take advantage of, and the interdisciplinary form is actually quite compatible with existing educational goals (Helmane & Briška, 2017; Holt et al., 2017; Nicolescu, 2018).

There is plenty of evidence that these ideas are already being recognized within school systems, as interdisciplinary schooling options are becoming more widely available (e.g. aforementioned secondary and post-secondary school programs). For instance, a well-known combination of disciplines has given rise to STEM (i.e. science, technology, engineering, mathematics) studies, and the arts have recently been added, to create STEAM programs (Cinar, et al. 2016; Quigley et al. 2019). As more students with broad interest pursue these learning opportunities, the benefits of bringing arts and sciences together are becoming better known. This includes the ability to expand methods of content expression, or fill knowledge and skill gaps through better-rounded learning (Ansari, 2011; Davies & Devlin, 2007; Marmon, 2019; Sundquist, 2019). In fact, this is why this paper, as well as many works in the literature referenced here, are interdisciplinary in nature. They draw together concepts from education, cognition, neuropsychology, climate science, biological health, social work, and more.

As the importance of interdisciplinary education becomes more widely recognized, the question then becomes how to find spaces for it. One way is to directly combine disciplines—especially those not traditionally thought of being together—to explore ideas that lie somewhere between them (Lindvig et al., 2019; Nikitina, 2005). This is already influencing education at the university level, as it is being recognized within the discourse—thus transforming the post-secondary experience, and becoming more important in academia (Davis, 2017; Hannon et al., 2018; Lindvig et al., 2019). Additionally, this has also been demonstrated in the realm of research, affecting university knowledge production, cultures, and paradigms (Carr et al., 2018; Hannon et al., 2018; Klein, 2005; Nicolescu, 2018).

One of the most valuable aspects of interdisciplinary education is its emergent properties, which are linked to curricular and intellectual elevation, as well as long-term academic success (Amey & Brown, 2005; Botterill & De La Harpe, 2010; Marmon, 2019; Scott, 2017). Interdisciplinary education helps students recognize that important analytical issues do not fall neatly into a certain discipline, so their solutions should also involve integrated concepts for effective decision-making (Brown, 2018; McGregor, 2017; Wilson, 2007). After all, each person's lived experiences are already intersectional, so allowing this to influence academics will increase the coherence between how we live and how we learn (Clark & Ashhurts, 2018; Helmane & Briška, 2017, Wilson, 2007).

Collaborative Learning

In light of using learning techniques to elevate each other, one way to scaffold productive interdisciplinary education is through collaborative learning (Bronstein, 2003; Derry, et al., 1998; Wilson, 2007). Even if students coming together have monodisciplinary backgrounds, their combination of expertise can lend itself to constructive interdisciplinary learning. It has also been suggested that well-rounded interdisciplinary viewpoints can enhance the collaborative learning experience, allowing groups of students to focus on or expand their perspectives, while working to examine various concepts as a team (Berasategi et al., 2020; Bruer, 2005; Sundquist, 2019). In these kinds of collaborative environments, students can learn to value and appreciate all disciplines, and develop an openness to concepts outside their field of interest (Brown, 2018; Petri, 2010). Their knowledge, skills, and attitudes towards interdisciplinary problem solving can improve as they work to address problems together, as well as acknowledge that each person's disciplinary background brings unique strengths to the group (Cooper et al., 2001; Davis, 2017, McMurtry et al., 2012).

This is also necessary in professional scholarly settings—such as the workshops held at Cold Spring Harbor Laboratory—as detailed by Daniel Levitin's 2006 book entitled *This is Your Brain on Music*. Levitin explains how the Cold Spring Harbor workshops provide a space for experts in a variety of fields to collaborate—thus working to progress knowledge production around an issue that concerns all of them. Another example of this being implemented in academia is demonstrated in Cheney's 2018 film called *The Most Unknown*, where experts from a variety of (mostly scientific) fields invite each other to spend some time gaining insight into a discipline outside of their own domain. In the end, each participant gains a greater understanding of the others' work, and thus begins to ponder the possibilities that

could arise through working jointly. An interesting point about this film is that in itself it is an interdisciplinary and collaborative endeavour, since in addition to academic scholars, several experts with arts backgrounds came together to bring the project to fruition. These types of opportunities make plain the true strength of having diverse backgrounds to draw from, in a variety of situations.

When it comes to student-centered learning, incorporating knowledge and skills from multiple domains supports their comprehension of complex problems, and aids the creation of solutions with integrated perspectives (Hannon et al., 2018; Klein, 2005; Klein, 2006; McGregor, 2017). However, there are some important considerations to be made regarding the implementation of such opportunities. Some that are prominently recognized are the need for clear concepts and goals for all collaborators to investigate, and the nuanced comprehension of problems which are designed to require the backgrounds of all those involved (Davies & Devlin, 2007; Klassen, 2018; MacLeod & van der Veen, 2020; Moirano et al., 2020). Just as important are the skills required for this work, which include various cognitive abilities, introspection, critical thinking, patience with ambiguity, motivation, and responsibility (Botterill et al., 2010; Brown, 2018; Klein, 2006; Moirano et al., 2020; Petri, 2010). Unsurprisingly, a specific category of essential skills are identified as interpersonal abilities, which can include conversational aptitude, active involvement, and leadership competences (Derry et al. 1998; Holt et al. 2017). Essentially, understanding how to function as a team is crucial, so interdisciplinary work can in turn scaffold the enhancement of these skills (Amey & Brown, 2005; Edelenbos et al., 2017; Weaver & Hall, 2001).

These are all requirements of collaborative learning that come from the participants themselves, but another issue prominent in the literature pertains to the effective and effortful facilitation of such experiences (Botterill & De La Harpe, 2010; Bronstein, 2003; Klein, 2006). So far, most schooling unfortunately takes place within systems that pose inherent barriers to collaborative learning, thus causing significant tensions and challenges (Clark & Ashhurts, 2018; Hannon et al., 2018; McMurtry et al, 2012). One of the best ways to contend with this is to advocate for educational frameworks that support expanded perspectives of learning at multiple levels of the system, which can mean individual and organizational contributions towards planning, reinforcement, and resources (Cooper et al., 2001; Harris, 2010; Petri, 2010). Implementing and adjusting structures for collaborative interdisciplinary education requires work, due to the often conflicting practices that are currently established. These

realities must be thoroughly examined if the goal is to expand options for student-centered learning (Carr et al., 2018; Summers et al. 2007).

Notably, of the reasons this type learning is especially valuable is that it can be pragmatic, as well as practical in everyday life; recognizing this can allow collaborative learning to become more prominent in societal systems (Brown, 2018; Carr et al., 2018; Harris, 2010). Although not every iteration of these strategies will be equally effective, it can support significant improvements for those affected by the solutions to the challenges explored by interdisciplinary collaborators (Singleton & Green-Hernandez, 1998; Wells et al., 1998). Another thing many scholars exploring these concepts seem to agree on is that it is necessary for the future of students who are in our school systems today. As mentioned earlier, we live in an increasingly complex world that can lead to uncertain futures requiring adaptability, and the education system plays a role in helping students face these modern challenges (Clark & Ashhurts, 2018; Helmane & Briška, 2017; Moirano et al. 2020). Providing opportunities for collaborative interdisciplinary learning can really be thought of as a long-term investment into the futures of current students, who will continue to use what is learned in these environments well after they are no longer in school, and see the associated advantages detailed here be sustained through their work (Botterill & De La Harpe, 2010; Cerone et al., 2020; McGregor, 2017).

Cognitive Perspectives

The fields of cognition and education are inherently connected, and can have great influence on each other. For instance, in order to strengthen our understanding of educational concepts, analyses can be done through a cognitive lens to develop neuropsychological models of various practices (Ansari et al., 2011, Beurer, 2005; Klein, 2005). This field also has a particularly close connection to the two previously mentioned topics, as it is itself interdisciplinary and collaborative in nature. Cognition is a field that predominantly lies between the branches of neuroscience and psychology, although it can help bridge other disciplines and scaffold new ones through its interactions with various areas of study (Bruer, 2005; Cerone et al., 2020; Ramirez, 1997; Schunn et al. 2005).

By participating in cognitive explorations, researchers have come to understand the underlying mechanisms of learning and collaboration, as well as motivation and metacognition (Nikitina, 2005; Wood, 2018). It has also been suggested that interdisciplinary and collaborative learning show similar neural compositions, which would further substantiate

their compatibility, and that the emotional connection required for collaborative learning has cognitive impacts on learning and agency (Nikitina, 2005; Robinson, 2013). However, investigating related ideas has not been a matter of priority within the fields of cognition and education, so implications for further research will be covered in the following section.

Discussion and Further Research

In order to improve the student experience, the education system needs to more closely meet the demands of modern society. One of the ways that is beginning to be explored within the field is through its relation to interdisciplinary education, which can be significantly supported by the inclusion of collaborative learning. Plenty can be learned about these concepts through the field of cognition, but these connections are lacking in the literature to date.

One of the reasons for this may be that interdisciplinary education seems to largely be examined by scholars within other fields, who are looking to draw from additional areas, or by those who are interested in a particular set of clearly interconnected disciplines. To progress the research detailed in this paper, more scholars in the field of education would need to examine the overarching effects in question, and cognitive studies can aid in corroborating the positive impacts that collaborative interdisciplinary learning could provide to the current education system. In fact, by coming together to conduct collaborative research, scholars in both fields can work to learn more about how the two fields can support each other, and produce literature that is of a more teleological nature, by placing a greater focus on ontology instead of just on relevant epistemology (Ansari, 2011; Scott, 2017). Academics exploring these concepts have already noticed that there are not enough psychological theories about student-centered teaching and learning of this nature, even though this would be an ideal way to connect the fields of cognition and education (Cerone et al., 2020; Cooper et al. 2001).

There are a few other important cognitive concepts that should be explored in future research. As mentioned before, facilitation of more novel learning techniques—when so many existing ones seem to be entrenched in schools—can be difficult, so more is needed to be known about how to effectively go about altering the system. A related area that educational scholars are interested in is the evaluation of interdisciplinary and collaborative learning, as this would allow both students—and the programs that provide them these opportunities—to continue improving over time (Daives & Devlin, 2007; Wood, 2018). Related inquiries could cover ideas such as what reasonable expectations students participating in such programs

would have, and what procedures can be used to evaluate their effectiveness. Furthermore, scholars interested in this area could benefit from further exploration of the long-term benefits of these methods of learning, especially as the availability of student experiences to conduct such primary studies increases (Ansari et al, 2001; McGregor, 2017). This could also serve to answer questions like what practices are allowing institutions to carry out these pedagogical techniques effectively, or what barriers exist to doing so, as well as how they may be removed. It should be noted here that in addition to the student experience, observations from instructors of interdisciplinary education, supported by collaborative learning, could offer valuable insights as well.

An additional area that can be influential on many other fields, including education, is that of creativity. This is a crucial concept to consider with this type of learning, as it is required for effectively increasing its implementation. For instance, concepts linked to creativity can inform educators on how to open spaces to attend to modern student needs, how to innovatively create such programs, and how to increase interdisciplinary opportunities within existing ones (Davis, 2017; Marmon, 2019; Moirano et al., 2020). Additionally, creativity can be useful for facilitators to understand how to be adaptable through these pedagogical changes, and imagine new ways to reap the benefits of these learning techniques, through what is known about associated cognitive processes (Bruer, 2005; Wood, 2018).

Overall, the intersection between interdisciplinary education, collaborative learning, and cognitive perspectives seems to be a burgeoning area of interest, especially as educational opportunities in this vein increase along with societal demands placed on modern students.

Conclusion

The aim of this paper was to explore the intersectionality between interdisciplinary education, collaborative learning, and cognitive perspectives. Through taking on a constructivist approach and drawing from a wide array of available literature, evidence has been collected that suggests implementing these approaches would be beneficial for the future of education. There is plenty of work to be done in relation to these topics, and it will be interesting to see both how research and pedagogy change in the future as they are given more attention. Truly, this article is an interdisciplinary work in and of itself, and through the collaboration of many fields such as education and cognition, the knowledge production in this area can continue to progress.

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Blended learning and vocational education

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Abstract

A blended learning model provides many benefits to education. The focus of this literature review is to explore what factors have proven to produce successful outcomes, and how they can be incorporated into vocational education. This paper considers, on a global scale, relationships, and connections between empirical research: 1) blended learning; 2) vocational education; and 3) the incorporation of blended learning into vocational education. My research findings demonstrate that while blended learning may not be possible for every vocational stream, many of the methods employed in successfully incorporating blended learning, include the effective use of multi-modality; access to course materials whenever students wish; and a student participatory culture. My research findings also suggest that blended learning in vocational education may have not just its own issues, but some of the same issues that plague students in academic courses. These issues include a lack of motivation, access to technology, and the value of social interaction on student learning. In addition, my findings suggest that limited teacher education be addressed to successfully incorporate the blended model into vocational education. Implications and suggestions are discussed.

Keywords: Blended Learning; Vocational Education; Student Success; Student Achievement

Introduction

In the spring of 2020, the Covid–19 pandemic commenced, and something new happened within education in Canada; the bulk of secondary academic students were moved to distance education. For academic teachers, this meant switching all courses and theory from in-person teaching to an online environment.

But, before continuing, a definition of vocational education is in order. According to Ferm (2021), “vocational education refers to ... secondary programmes that prepare students for working in specific vocations, while academic education refers to preparatory programmes for higher education or post–secondary academic education” (p. 3). Classroom.com expands on this definition by adding that the fundamental difference between the two is “theory versus practice. An academic school generally teaches theoretical knowledge and broad-based

research skills, while a vocational school teaches hands-on, applied skills such as carpentry, auto mechanics and hairdressing” (Grover, n.d.). Traditionally, vocational education is around 20-30% theory, with the rest of the time being spent doing hands-on applications. With the arrival of the pandemic in the spring of 2020, vocational education was switched to an online model along with all other teaching streams. As a result, teachers were now tasked with making vocational education 100% theory for the rest of the year. Most of the outcomes for vocation courses are demonstrable, how can you demonstrate proficiency in something tangible without in-person demonstrations?

When school in Manitoba restarted in September of 2020, there were a few caveats in some school divisions, one of them being social distancing. This led to a limitation of the number of students gathered in the classroom, which led to multiple cohorts. To achieve this, teachers were required to alternate half the class at home engaging in remote learning, while the other half were at school engaging in hands-on class activities. To accomplish this, some teachers were looking at the flipped classroom, and others were looking at the blended model. There is often confusion between the two. In the flipped classroom “instructors pre-record lectures and post them online for students to watch on their own, so that class time can be dedicated to student-centered learning activities, like problem-based learning, and inquiry-oriented strategies” (McLaughlin et al., 2014, p. 237). The blended classroom is defined as “learning that happens in an instructional context which is characterized by a deliberate combination of online and classroom-based interventions to instigate and support learning. Learning happening in purely online or purely classroom-based instructional settings is excluded” (Boelens et al., 2015, para. 4). Although the difference may seem minute, and both methods have some overlapping components, as well as a common objectives, they are each unique in their execution. For blended learning, the online component of the learning experience usually consists of exercises, or complimentary materials that work in tandem with in-class lessons; there is no new material. With the flipped classroom, students are introduced to new instructional and curricular material outside of the class, usually in the form of an online presentation, or some other form of modality. When the student attends class in a brick-and-mortar setting, class time is used to “apply the material in the form of problem-solving and discussion” (“Blended learning, flipped classroom - What's the difference?”, 2019, para. 6).

Most vocational courses are niche, and the bulk of online learning is catered to academic courses. This has led me to a pragmatic approach for exploring the following

questions: What issues are academic teachers experiencing with blended learning? What are the successful parts of blended learning from these academic courses? This has segued me into more questions: How have they incorporated blended learning into vocational education? How effective is blended learning at helping students achieve successful outcomes in vocational education? What strategies are helping students achieve success in blended learning and vocational education? How do these factors play out with students? Considering the nature of these different questions, it seems fitting that I segue into a research question that is a combination of all: What factors have proven to produce successful outcomes in the blended learning model, and how can we incorporate them into vocational education?

Success in Blended Learning

Most of the research for blended learning extols the virtues. Studies have shown that it has a positive effect on students' academic achievement (Chang et al., 2014; Moskal, 2013; Utami, 2018), including those with disabilities (Alvarado-Alcantar et al., 2018). The relationship between student success and blended learning is complicated, with many factors being contributed to this success. A mixed method survey undertaken by Grover et al. (2015), contributed success to having students see a "broader relevance" to their learning through seeing real life relevance in their work, which comes down to designing relevant course materials. Johnson (2016) states that the pedagogical design must be authentic, with authentic tasks associated with it. Having material be authentic and relevant should be part of any teachers' repertoire, regardless of the delivery or modality of it. When students read or watch a video, they refer to a dynamic network of their own lived experiences, where meaning making can be made by relating what they are reading or watching with their own experiences. This is just Piaget's basic tenet of constructivist learning—but with a digital focus. George-Walker and Keefe's study showed students found an advantage of blended learning regarding the ability to review materials. According to George-Walker and Keefe (2010), some advantages that students liked about blended learning was having content online to help review, with one student saying "having online lectures was good. If you missed something or couldn't understand it in class, one could fall back on the lectures and listen again" (p. 10). For these students, it helped to control the tempo of their learning, whether working ahead, or "revising materials for understanding" (George-Walker & Keefe 2010, p. 10).

Jacobs (2016) also noted during interviews with students that “if they didn’t understand something, they couldn’t get their questions answered right away. Teachers with a whole class to manage couldn’t slow the pace to deal with one student’s confusion. Now they can” (p. 46). For other students, the pace was too slow, and the opportunity to try to learn ahead through blended learning was a reprieve. According to Principal Ken Grover: “For someone who’s confused, or already knows the material, those 90-minute classes could be “painful”, I think it’s one of the primary reasons students walk away from school” (Jacobs, 2016, p. 46).

Accordingly, the success of blended learning presents a multitude of mixed factors; universal design for learning, relevant course materials, and the ability to review and reassess course materials as needed are crucial for its success.

Vocational Education and Blended Learning

Most of the research on blended learning and vocational education has blended learning being incorporated into courses that are technology-heavy to start with, like computer science and computer aided design (CAD). The blended learning model has shown great promise in these areas. According to Mursid et al. (2019), there were increases “in average student learning outcomes using learning models based on blended learning” (p. 10). Viljoen and Van Schoor’s (2015) action research mixed methods design found that a blended learning environment was very conducive to enhancing the learning process for CAD work. For mechanical engineering and machining, it has shown great promise as well, with the forward-thinking Mechanical Engineering of Technical Science College, Selcuk University, in Konya (Turkey), establishing the “Virtual Training Center for CNC” in 2009. Employing a qualitative research study, Sahin (2010), noted several advantages in the blended model: “learning materials are easily accessible; different techniques can be utilized by maximizing different technologies” (p. 250), among others.

It has shown to be a boon to vocations that are already tech heavy. A study on vocational high school students by Chang et al. (2014) noted: “there was a significant difference on self-assessment scores... The explanation for it is that blended e-learning provides both a traditional learning and an e-learning environment at the same time, which enables students to review the material repeatedly and discuss with peers online” (p. 226). Respondents in other open-ended research questions found the incorporation of blended learning in vocational education to be a positive “alternate way of reaching otherwise

unreachable people” (Bliuc et al., 2012, p. 243). Although this answer suggests a positive correlation because of the multi-modality blended learning is capable of, it is more pragmatic; the students, according to Bluic et al. (2012), could access the course materials anytime, regardless of the “tyranny of distance” (p. 243).

Very little research of blended learning has it being incorporated into traditional hands-on vocational education courses—like Automotive, Welding, Carpentry, and such. This brings up obvious questions, as these courses have demonstrable outcomes. How does a student demonstrate them if they are not in class for specific periods of time to learn how to be proficient in them? Given that there is only so much theory to cover in these classes, should time spent in online learning be on par with the theory that should be allocated to it?

Professional development is another factor. Another study shows that the decisive factor for the successful implementation of blended learning in vocational education depends on the “teacher's ability in mastering the pedagogical knowledge of designing instructional models” (Dewi et al., 2018, p. 5). Dharma (2019) echoed the same sentiments, saying for vocational teachers to be effective, they should have 21st century skills incorporated into professional development, to help with teacher competence. Therefore, professional development is needed for teachers to successfully implement the blended model.

Limitations in Blended Learning

Moskal et al. (2013), raises a valid question in their research: How do you measure success when research shows that there is not even a definition of what the parameters are for something to even be called blended learning? There seems to be a consensus on the differences between blended learning and the flipped classroom, but no general agreement as to the amount of time there would have to be to constitute a blended environment. As Moskal et al. (2013), proclaims: “what arbitrary mix of face-to-face and online learning would constitute blended learning (60–40, 70–30, 50–50)?” (p. 15). There are an infinite number of combinations, each one arbitrarily worth the same value as the previous one. Without that distinction, can it be a small amount of work, perhaps 30 minutes, and in that case, is it not just homework? Therefore, this issue needs clarification, and one that is relevant to each vocation.

Another limitation, and one that should harbor more attention, is the limited access some students have to technology. Not just access, but there seems to be an assumption that people are inherently proficient with technology. According to Safford and Stinton (2016),

“online course design, module activities and assessment tasks can assume that students are “digital natives” who will be competent users of technologies” (p. 135). The equality of access can be remedied by providing learners with technology to take home, but there are still issues of connectivity to the Internet, and is an unconnected device still considered equality of access? In theory, affording people the same digital equality, which would include the equality of access, should level the playing field. It still does not address any issues of equity, and, as Gorski (2005) calls it, the “fraudulency of the supremacy of equal access” is amplified (p. 4). A lack of self-management skills was another limiting factor to success that was reiterated in multiple articles. Dosen et al. (2012), noted that “online learning requires students to be highly motivated and self-disciplined and may not be the easiest way of learning for everyone” (p. 4). According to George-Walker and Keeffe (2010), even students were cognizant of these issues, with some students noting, commenting on, and expressing frustration with “the lack of self-management that some students displayed” (p. 11). Jacobs (2016), noted that almost one third of the students in the program she looked at will need significant help to make the transition to blended learning. This raises questions as to what the bar is for the success of implementation, if one third of the students are struggling with implementing it.

The limitations to blended learning are not just specific to academic or vocational education, most are shared between the two groups. One limitation that shows up multiple times in the research is the notion that blended learning will never replace in-person learning. Education does not happen in a vacuum. The online learning aspect of blended learning limits the amount of face-to-face time that students have; there is a lack of social presence. Utami (2018) notes that “face to face learning provides the social interaction which is needed for learning. In other words, face-to-face processes are important and it should not be left behind in learning” (p. 2). Other studies validate this claim, including So and Brush (2008): “a learning environment can be characterized as active interactions between learner and instructor or between learner and other learners” (p. 1). Among other skills, Hurst et al. (2013) noted in their study that in-person learning improves student comprehension; makes the classroom a positive learning environment; helps students become more comfortable and confident in themselves; makes students want to come to class; helps students develop social skills; and also helps teachers get to know students better. In blended learning, these interactions are limited.

Only a few studies disagreed with the notion that a lack of face-to-face interaction with other students was negative. One was a study of grad students by So and Brush (2008).

Regarding students' perceived levels of collaborative learning, social presence, and satisfaction, they had anticipated that they were going to hear some “negative voices”, but the “student comments were highly positive, indicating their high satisfaction with the overall learning experience” (So & Brush, 2008, p. 330). Given their proclivity and affinity for education, it would make sense to surmise that grad students enjoy education and would thrive in a collaborative online learning environment. The other study was by Kholifah et al. (2020), who noted during their research that motivation in vocational students was increased—thanks to the blended learning model.

Discussion of the Research Gaps

There are some overlapping factors that have been attributed to the success of blended learning. Limperos et al. (2015) attribute the greatest impact on student success with blended learning to the use of multi-modality. Video, audio, pictures, and texts can be plentiful in the digital e-learning environment. This success is attributed to “the cognitive differences in the way that information is processed via multiple modalities versus a single modality” (Limperos et al., 2015, p. 3). In addition, Jacobs (2016), found that students enjoyed the simple fact that, given multi-modality and work being put on a Learning Management System (LMS), students could not only work at their own pace, but they also found it easier to work ahead if needed. Jacobs found that understanding knowledge was clearer, as students could reread assignments, or pause and rewind videos if needed. These factors are reminiscent of best teaching practices and Universal Design for Learning (UDL), but with a modern digital twist. Therefore, when designing for the blended learning model, the incorporation of multi-modality should be considered.

As blended learning becomes more mainstream, it begs the question: is blended learning even possible with vocational courses? According to Oliver and Stalling (2014): Caution should be exercised when trying to incorporate the blended classroom with some vocational streams, Hofmann (2006) reminds teachers that not every topic is well-suited for an asynchronous blended environment, and that part of the design process involves identifying those elements of a course for which a traditional, face-to-face approach or a synchronous online approach may be best. For example, Delialioglu and Yildirim (2008) caution that courses that cover technical terminology and procedures can be disorienting to students in hybrid environments, and often require that students first gain adequate prior knowledge through a planned orientation process (p. 61).

There should be a needs assessment as to what vocational streams it can be successfully incorporated into. For those courses that are deemed fit for the blended model, teacher education and professional development should be paramount for the successful implementation of the blended learning model (Johnson, 2016; Hockly, 2014; Oliver & Staller, 2014). Not just the blended model, but for both streams—academic and vocational. Teachers will have to develop new technological, and pedagogical skills, to align with this new learning. According to Oliver and Stallings (2014), effective teacher preparation for blended instruction must integrate three broad components: contextual, instructional, and technological. With the exclusion of technology, the first two design processes should be familiar to teachers. For the inclusion of technology, it is highly recommended that “pedagogy primarily should drive the choice of specific modes and resources, with those that provide for interaction, feedback, and collaboration” (Oliver & Stalling, 2014, p. 70). According to Oliver and Staller (2014), some suggestions, among others, include formative online quizzes, that can be formulated to include feedback, and forum use to help ensure a collaborative lecture. The incorporation of digital technology will require teachers to be proficient, and to have the technological skills needed to incorporate this e-learning into their blended learning environments as well as their professional repertoire. According to Hockly (2014), “training is key for the successful implementation of a blended approach, to ensure that teachers understand the underlying principles, and are able to implement the blend effectively” (p. 100). It is difficult to implement technology when you lack the efficacy to do so effectively. Therefore, it would seem to reason that advocacy for teacher training should not be overlooked, and should be encouraged.

A few common themes in the discursive literature about a lack of success with blended learning included social interaction, and students having a lack of time management skills. Utami (2018) boldly states that “face to face learning provides the social interaction which is needed for learning. In other words, face-to-face processes are important and it should not be left behind in learning” (p. 2). There must be a sense of belonging to a learning community. No number of online chats will replace the social interaction that a good learning environment has, which so many learners require to be successful.

What is a learning environment? According to So and Brush (2008), “a learning environment can be characterized as active interactions between learner and instructor or between learner and other learners” (p. 318). This helps support a social constructivist view that, according to So and Brush (2008), can be characterized as when “an individual person

constructs his or her knowledge through the process of negotiating meanings with others” (p. 320).

It would stand to reason, then, that what cannot be understated is the importance of having chat functions, or a discussion board, and the positives that having social interaction can bring to the table (Wegmann & Thompson, 2014). According to Dewey (1963), learning is primarily a social activity. Hurst et al. (2013) define social interaction as “meaningful dialogue among learners” (p. 277), and in their study, they contributed an increase in student learning to the use of social interaction among students. The classroom community plays a great part in helping students achieve success, since “several researchers suggest a social and constructivist approach to learning” (Harris et al., 2009, p. 4). Thus, the classroom community has “been identified as a relevant variable in the design and implementation of blended learning” (Harris et al., 2009, p. 4). In addition, according to Wegmann and Thompson (2014), “interactions are such an important part of online courses that researchers have suggested that they need to be an intentional part of the instructional design” (p. 77). Therefore, online interactions can indeed enhance content engagement, and lead to a deeper understanding of content.

Allen Johnson (2016) suggests that creating a student participatory culture, with the incorporation of alternate digital learning environments, can “allow them to perceive new connections between content material and lead to helpful collateral and serendipitous learning which can contribute to final module assessment and professional development” (p. 11). He advocates for the inclusion of social media—not just a Learning Management System (LMS)—for blended learning. His study states that content understanding was improved, along with student engagement, overall making it a positive experience for learners. Johnson (2016) found that group collaboration and class communication increased, once students were given a more relevant platform, one they used outside of school. Therefore, given the advantages, why not use social media to help with student chats or discussions?

Regarding a lack of self-management skills, numerous studies have all indicated the same thing: some students struggle with the freedom afforded them by online education, and some never overcome it; they must take ownership of their education. Hopefully, this can be remedied, as Macdonald and others point out: “some learners will arrive equipped to make appropriate selections for learning whereas others will drown in a sea of possibilities—thus when offering options it is vital to assist students to make appropriate choices” (George-Walker & Keeffe, 2010, p. 3).

To help remedy a lack of self-management skills, teachers can bolster students' understanding in what it is they are anticipated to learn, as well as the choices they have accessible to them when learning; they can also help them create the essential abilities needed for reflection, self-direction, and self-administration—basically self-management. As George-Walker and Keeffe (2010) have pointed out, “therein lays the potential for blended learning to provide the flexibility, independence and responsibility, plus metacognitive processes, necessary for the development of the self-determined learner” (p. 3).

Conclusion

With the rapid proliferation of technology in recent years, electronic and online training—notably blended learning—has become more and more mainstream in modern education. Research has shown that some aspects of it have proven to be effective with academic courses. Given that success, what are the elements that have been incorporated into blended learning with positive results, and how might we fuse them into the vocational model? One of the successes of the blended learning model is that it has the potential to transform a didactic mode of teaching into a largely interactive one. Learning occurs among students in different ways. With blended learning, teachers can design lessons that are multi-modal, as well as lessons that are interactive and appeal to all auditory, sensory, and visual learners. These are common themes in Universal Design for Learning (UDL) and have proven successful.

Blended learning might not be a positive fit for all vocational classes, including those that have an abundance of technical terminology, in fact, it may make students confused. If a vocational class is an effective candidate for blended learning, professional development for teachers focusing on technology is recommended—to successfully incorporate the technology that is available into their programs. Such training can help teachers overcome common issues in blended learning, including incorporating chat functions, and discussion boards, which can alleviate issues regarding a lack of social interaction where a lack of a brick-and-mortar classroom may result. Issues of equity and access to technology are also evident, along with the lack of self-management skills some students may possess. Students must take ownership of their learning if the model is to be successful, which will require guidance from teachers. Some students will need very clear pathways that they can follow to guide themselves through to self reflection and self-management.

As Selwyn (2016) highlights, the use of technology in the classroom can be a great addition, however, too often it is seen as a simple, magical fix. If educators use blended learning as another tool in their vocational toolbox, ensuring a balance of use, and ensuring student motivation and relevance through Universal Design Principles, blended learning has the potential to be an incredibly powerful teaching tool. As research has shown, without a purposeful, teacher-led approach, and a chance for equity, blended learning may become just another “new” ed-tech device that fails to create real, continuous change in education.

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Making fiction real: Using contemporary young adult fiction novels to guide students through meaningful social justice issues

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Abstract

This paper aims to focus on the importance of engaging in critical conversations around social justice issues in the classroom. Having conversations like these are essential—and required—in order to build understanding, relationships, and empathy in the classroom as well as among peers. In this paper I discuss student benefits of these conversations, as well as barriers for educators, and ways of enabling educators to feel more confident in engaging in critical conversations. A theoretical literature review was undertaken, and gaps were found in the differences in language used; lack of research undertaken with regard to preparing educators for these conversations; and understanding the benefits associated with using young adult fiction as a vessel for discussion. Although some gaps represent areas that may never be able to change, I conclude that they do not negate the importance behind working to build critical conversations around social justice issues within schools and classrooms.

Keywords: Social Justice; Student Benefit; Teacher Support; Young Adult Fiction

Introduction

The idea of working with students in a classroom with conversations about social justice issues can be intimidating and controversial. The idea of challenging students' personal ideas and conceptions is the perfect situation where a teacher can quickly lose control of their classroom authority. Social justice issues such as racial injustice, income gaps, gun violence, equity, and many more, are thought of as risky, due to the wide range of student experiences within the classroom. Students, and often teachers, concern themselves with saying the wrong thing, so would rather keep their opinions quiet rather than voicing and discussing their feelings. The problem with this thought is that it is difficult to learn from others and question your beliefs, if you are not willing to voice them and hear opposing beliefs from others.

Throughout the book, *Transforming Historical Trauma Through Dialogue*, David S. Derezotes focuses on how to use dialogue to work through difficult situations. In Chapter 7, entitled *Cognitive-Behavioural Dialogue: Exploring Attitudes and Behaviours*, Derezotes (2014) looks at two different types of cognitive conversation. The first being “in our heads” where the depth is low. The second, which he works to expand on in this chapter, is cognitive conversation where he states:

Cognitive conversation is more courageous when people uncover and share the underlying attitudes we have about ourselves, each other, and the world. In such conversations, we not only engage in 'critical thinking' about conventional memes but also explore cognitions that may be viewed as unusual, politically incorrect, or even 'crazy' by others. For example, although most people probably have some racist, sexist, or ageist beliefs, today we often tend to hide them from ourselves and others. (Derezotes, 2014, p. 2)

Different students are coming from different experiences and beliefs, and may have opposite views from their classmates. There is a fine line between students expressing themselves, and potentially offending someone else. There is also a fine line between discussing a book, and teaching students about the real world. When done right, teachers are able to have a productive conversation, involving students of different backgrounds and experiences in the hopes of expanding students' knowledge. For a lot of these students, they may have more experience with such issues than the teacher at the front of the room; so allowing them to take more control is important. As Paula Ghey (2008) in *Assembling Postmodernism: Experience, Meaning, and the Space In-Between* states, “while professors of literature and culture often see postmodernist configurations in conceptual and categorical terms, our students in fact live postmodernism and/in its complexities. They live it, I would argue, in ways that are quite different from those of us whose modes of thought and perceptions were shaped in earlier eras” (p. 9). The more that we as teachers are able to allow expansion of personal thoughts, the more open students can be to opinions and situations that are different from their own. The idea of taking a situation and looking at it from numerous different perspectives and lenses is a teacher's job.

There is an importance in the development of non judgemental awareness through exposing students to alternate views and also working on their communication skills. Derezotes (2014) sums this idea up best when stated, “when participants share difficult material about themselves, they can also deepen their cognitive intimacy, which is a form of

relationship building” (p. 3). When engaged in discussions with topics that are personal and relatable, students are able to learn new things about their classmates, and make connections that they might have otherwise missed. A new understanding is given and often could help explain why a classmate might act or think in a certain way. When walls are let down and stereotypes are broken, the bond that exists is undeniable.

Judith P. Robertson discusses the idea of risky texts in her article *Teaching about Worlds of Hurt through Encounters with Literature: Reflections on Pedagogy*. She explains the idea of risky texts being fictional novels that address difficult situations in the hopes of exploring topics that students can relate to in a personal way—thus learning and discussing relevant things that are happening around them right now. I propose that using contemporary young adult fiction in classrooms is an essential way to help support students in dealing with relevant social justice issues happening around them in the real world. In this paper I explore the following research questions: What are the benefits to students of discussing social justice issues in the classroom? What are some barriers preventing these discussions from happening now? How can teachers be supported through the process of having difficult conversations in the classroom?

For this paper I will be using a constructivist lens while conducting a literature review. The hope is to focus on exploring what is being said by other researchers and minds around this topic, and also to use my personal experiences and perspectives from my work in using young adult fiction novels to spark discussions with students in the classroom. I will be looking at the students' realities and benefits of doing this, while also looking at some of the issues that may hold teachers back from doing this type of work in their own classrooms.

Literature Review

Although there are more than enough reasons why educators should engage in critical conversation around social justice issues, there are also some limitations to the work that is cited.

Social Justice in Discourse

It is generally believed that within society, the make-up of any population involves more and more numbers of cultures, races, religions, sexual identities, etc. than ever before. According

to Keddie (2019), based on these contexts “unprecedented diversity, transient populations and shifting concentrations of group and community identities are associated with heightened social polarisation and xenophobia towards minority groups” (p. 1). With the amount of change in societal makeup, the tensions and potential volatile feelings and actions that could present itself has grown tremendously. This is why critical conversations are more important than ever. Vetter et al. (2018) describe critical conversations as “conversations [that] involve tensions in perspective and aim to critique how power affects people’s social, material, and psychological lives” (p. 257). The only way to address issues of difference, empathy, and acceptance of others, is to work to be comfortable having these critical conversations. For students, there is no better time to have these conversations than in school. School is where students are beginning to build their identities and understandings, so being exposed to numerous different views and perspectives can be beneficial. As educators, we are helping to shape students' social consciousness, and “schools have a responsibility to help students make sense of their identities, to build the confidence of all students, and remove the fear of conforming to lowered expectations” (Dei, 2003, p. 1). By engaging students in these critical conversations, we are doing what is expected of us as educators.

Student Benefits of Discussing Social Justice Issues

When building the argument of the importance of critical conversations in schools, there are many different forms of benefits that are cited in literature. According to theorists such as Derezotes (2014), Gay (2002), Dei (1993, 1999 & 2003), and Freire (2018), the ability to use discourse and critical conversation in the classroom allow for better understanding of others, building empathy, finding identity, and building relationships. By learning from other perspectives—whether it be based on race, gender, religion, culture etc.—students are encouraged to view the world in a way other than they are used to. In discourse, we are pulling out new ideas for them to consider. Through these new understandings, students are able to better empathize with people who are going through things that they potentially may never experience. We are also challenging them as individuals to consider who they are as people, and who they want to become. Discourse encourages building values that could help shape who they decide to become as adults. One of the most important benefits for students is that by opening up and sharing personal experiences or opinions we are allowing for vulnerability—and making true connections within the classroom. According to Derezotes (2014), “the intent in sharing unhelpful attitudes in a dialogue is to ultimately transform them

into more helpful attitudes" (p. 3). By challenging students to engage in these critical conversations, educators can truly impact their lives.

Supporting Teachers in Discussing Social Justice Issues

For educators, the idea of diving into a critical conversation around social justice issues may seem intimidating and scary. Educators are concerned with the approval of administrators and parents, and by engaging in potentially controversial issues, educators may shy away from it instead of run towards it. Educators should be empowered in becoming a culturally responsive teacher by focusing on the five essential elements as outlined by Gay (2002):

The five essential elements of culturally responsive teaching are examined: developing a knowledge base about cultural diversity, including ethnic and cultural diversity content in the curriculum, demonstrating caring and building learning communities, communicating with ethnically diverse students, and responding to ethnic diversity in the delivery of instruction. (p. 106)

Educators should feel empowered, and understand that it is their responsibility to become comfortable in having these discussions. Theorists such as Picower (2009), Derezotes (2014), and Freire (2018) encourage—almost demand—that educators change their teaching styles, and that the content they teach be more culturally relevant. Educators should “develop this awareness, or critical consciousness, around issues of race, privilege, power, and oppression in order to be successful with students from diverse settings” (Picower, 2009, p. 198). Through better awareness, and looking at the opportunities to engage in this work in teacher education programs, the shift in schools can work to empower students instead of continuing to oppress them.

Discussion of the Research Gaps

Although there are more than enough reasons why educators should engage in critical conversation around social justice issues, there are also some limitations to the work that is cited.

Language

One of the large limitations is the ambiguity around the definition of culturally responsive teaching, or culturally critical conversations. Although a strong definition is given within each of the works, they differ in some of the content. While Vetter et. al. (2018), focus on addressing power and power structures within the conversations had with students, Gay

(2002) takes a more whole community approach, looking at the content and manner of which these issues are being spoken. I believe that one of the main reasons why there may exist a less centered approach, is that the terms being used are very fluid. Words such as “culture”, “religion”, “race”, “values”, etc. are all terms that can mean different things to different individuals. They are also terms that range in value of importance across individuals. I believe that there will never be one solid definition of these words, and I believe that that is one of the reasons why educators may feel uncomfortable addressing them. While one student may agree with an idea around religion, at the same time, another student could be offended.

In order for teachers to engage in these conversations they need to be willing to do a few things. One idea that I employ in my own classrooms is the idea of setting up a “brave space”. A lot of educators rely on working within a “safe space”, but I believe that that is not a correct term to use. While working with the word “safe”, you are implying that no harm will come to students and, as stated above—working with fluid terms—is something that cannot be guaranteed. When working with the word “brave”, for example, you are asking students to be open to hearing opinions and ideas that they might not necessarily agree with—to thus understand that perspectives are different, and it is important to be able to listen to and discuss them in a respectful manner. I believe that Derezotes (2014) explains it best when he states: “safety means simply that people do not make each other wrong in the group but do protect each other's right to confidentiality. Safety does not mean that everyone has to agree, but we agree to disagree with respect” (p. 3). Although language and words have power and impact, that is not a reason to stay away from these important conversations. If anything, it solidifies the importance that educators help students navigate these ideas in a constructive way.

Lack of Research

Another limitation to the literature is that there is a lack of qualitative research undertaken on the benefits of critical conversations with students. I believe that this lack of inquiry has a lot to do with the fluidity of the language, as well as interpretations of the words and emotions students feel, which results in more research being undertaken in a quantitative manner. Sometimes there can be a lack of validity around quantitative research, as it is difficult to bring forth numbers and visual representations of the issues at hand. I find that importance and focus is often given to research that can provide concrete evidence of an issue at hand. More empirical research is required in this area.

Teacher Education

In order for large changes to take place within the school system, I believe that the best place to start is to look at how teachers are being educated in their education programs across universities and colleges. I agree with Derezotes (2014), when he states that “schools have a responsibility to help students make sense of their identities, to build the confidence of all students, and remove the fear of conforming to lowered expectations” (p. 3). With this being an educator's role, educators need to be informed themselves. One way to help support this is to incorporate a course around critical conversation and building empathy into the teacher programs. Giving new teachers not only the information required, but also introducing them to new activities that can help them teach these ideas is essential. When I was doing my bachelor's of education, the most impactful classes were ones where professors treated future teachers like students, running them through activities and exercises that we could bring into our own classrooms. A lot of teachers can be well versed in the information that they need, but have difficulty translating that into an activity that can convey ideas such as understanding and acceptance. By engaging like this, we are able to “note that there are differences but to ask about what it means to respond to these differences. Responding to differences may mean acting to address inequities” (Derezotes, 2014, p. 5).

Using Literature

From personal experience, one of the best manners of discussing social issues in a classroom setting has been using fictional young adult novels. I have used the following novels to discuss the included issues:

- *13 Reasons Why* by Jay Asher – focus on online bullying and suicide
- *This is Where it Ends* by Marieke Nijkamp – focus on school shootings and mental health
- *The Hate U Give* by Angie Thomas – focus on racism
- *Beartown* Fredrik Backman – focus on sexual assault and mental health

From each of these novels has come insightful conversation and activities that have impacted the students in a large way. Some students felt as if it was the first time they could relate to a book and that the things that were bothering them were being discussed in class. They enjoyed having a place where they could speak and learn from others about their experiences, and to be able to connect it to their everyday lives. One of the main reasons that fictional young adult novels are a strong vessel for conversation, is that because it is fictional although possible, students feel more comfortable and brave to speak about these issues. If

you ask a student who is dealing with mental health issues a question about seeking help, there is a chance that they may be very uncomfortable answering questions. If you ask that same student the same question about a fictional character dealing with mental health issues, there is a safety in answering because it is not about them personally.

Through focusing on language, lack of focus, and teacher education, there are some obvious worries when it comes to discussing social justice issues in the classroom. A few good ways to negate these issues are: being open to different interpretations of words; focusing on the importance of developing students' feelings and empathy; and making critical conversations a key component in teacher education programs. With this, there can be a large shift in how often such conversations can happen in schools. Although some of these limitations are something that we may never be able to change, that does not negate the importance behind working to build critical conversation around social justice issues within schools and classrooms.

Conclusion

Through focusing on language, lack of focus, and teacher education, there are some obvious worries when it comes to discussing social justice issues in the classroom. A few good ways to negate these issues include being open to different interpretations of words; focusing on the importance of developing students' feelings and empathy; and making critical conversations a key component in teacher education programs. With these actions, there can be a large shift in how often such conversations can happen in schools. Although limitations exist that we may never be able to change, that does not negate the importance behind working to build critical conversations around social justice issues within schools and classrooms.

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An exploration on the advantages and disadvantages of Waldorf education

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Abstract

This paper aims to accurately portray Waldorf education and all it has to offer, as well as to acknowledge the paradox of an open curriculum philosophy that enforces unproven ideologies, which seem otherworldly to a mainly white upper class demographic.

This paper poses the question: What are the advantages and disadvantages of Waldorf education? The literature review consists of 20 articles written between the years 2014 to 2020 that explored various aspects of Steiner education and the impact it had on early childhood development. My research also seeks to assess the unique pedagogical teaching strategies upheld by the Waldorf curriculum. My findings discuss Waldorf's controversial science curriculum; a school with a greater population of unvaccinated children; the higher performance outcomes of Waldorf students compared to learners at traditional schools; and the effectiveness of a scaffolded design curriculum. The data collected is then synthesized and categorized into three main sections.

Keywords: Waldorf Education; Early Childhood Development; Teaching Strategies

Introduction

In a globalizing society sponsored by capitalism, we are led to believe that growth and an expansion of knowledge come from developing the ideology of a neoliberalism society. There is an expectation to connect with others and oneself in a standardized manner, that reflects the behaviours and expectations conditioned into an individual by the conglomerate, capitalist-driven policy makers. By doing so, the *self* within education loses its individualization, and autonomy of identity, to the melting pot of systemic oppression (Freire, 2018). However, with years of reformation, many philosophers of education have come forward to challenge this modal way of thinking. One of the most notable minds being Rudolf Steiner.

Steiner has been a philosopher, psychiatrist, and advocate for creating a system of education that advocates for a natural development of learning, curriculum flexibility, and

transient relationships among teachers, parents, and students. In 1919, Steiner opened up the first Waldorf school to a small group of children, in which he provided an education that focused on integrating arts, music, and practical skills with traditional academic subject matter. In 2013 there were approximately 1,056 Waldorf schools in over 60 countries.

Steiner's approach is quite a controversial topic for many academics and practical theorists. Much of the research and ideologies held by this institution have limited factual arguments, and are quite 'new aged'—although not actively taught in schools. When exploring Anthroposophy¹, there is a significant disconnect for many, since spirituality plays a deep role in the development of Waldorf education. Because of this, the rest of Steiner's architectural design in education becomes elusive and slips through the crevices into intangible territory. Many argue that this curriculum is dated and needs to be reformed. In contrast, others believe the current design is progressive and is more necessary than ever for the fast-paced technocratic 21st century. This paper aims to accurately portray Waldorf education and all it has to offer, as well acknowledge the paradox of their philosophy of an open curriculum that enforces certain ideologies which remain unproven and otherworldly to a mainly white upper class demographic. This research poses the question: What are the advantages and disadvantages of Waldorf education? The articles selected for review explore the benefits and downfall of Waldorf education for early childhood development.

Literature Review

Waldorf Education

As previously discussed, Waldorf's alternative and, at times radical approach, has led some to wonder if Steiner's school and teachings are still relevant to current times, and whether there are any benefits to this curriculum design. The theory and philosophy of Waldorf schools are to teach the child as a whole being, and acknowledge the individual (Carmody, 2019; Dorfman, 2019; Martzog et al., 2016). Many academics have noted a higher performance level from Waldorf students, versus students who follow the mainstream curriculum (Dorfman, 2019; Friedlaender et al., 2015; Jelinek & Sun, 2003; Martzog et al., 2016; McDermott, 1996; Rose et al., 2016). Not only are students achieving higher scores on standardized tests to which they have no experience—since summative assessments are not the focus of Waldorf

¹ a philosophy based on the teachings of Rudolf Steiner (1861–1925) which maintains that, by virtue of a prescribed method of self-discipline, cognitional experience of the spiritual world can be achieved (Merriam - Webster, 2021).

education—but they are also demonstrating higher levels of empathy: "Waldorf students scored significantly higher on three of the four empathy dimensions - perspective-taking, empathic concern and fantasy" (Martzog et al., 2016, p. 74).

Results from the same study demonstrated students achieving at a higher rate, with greater excitability for learning, as well as assurance in their physical bodies—both intellectually and emotionally: "Waldorf students (Alice Birney Public School) significantly outperform their peers on standardized tests at the end of their middle school curriculum (8th grade) even though the students do not have a history of taking standardized tests" (Friedlaender et al., 2015, p. 57). In other words, although Waldorf education intentionally avoids a standardized approach to learning and assessment, students were still able to effectively demonstrate their knowledge on a platform they were not accustomed to; which leads one to wonder if this is due to their self assurance and confidence in their abilities. Furthermore, a teacher in the research shared: "It brings the arts in various ways to develop the whole student, and along with that music and language. Moreover, in building this base, you build a whole learner, and you build someone who loves learning and someone who is going to pursue knowledge rather than having it poured down their throats" (Friedlaender et al., 2015, p. 58). This observation reflects Freire's (2007) pedagogical belief of having a problem-based approach that allows students to be active and autonomous individuals (Stanciu, 2017).

When looking at the disadvantages, one must question if these aspects of Steiner's education have remained stagnant in the 20th century. Lange de Souza (2012) and Paschen (2014) echo similar sentiments, as they look deeper into Waldorf's Literacy and Science. In reading and writing, the curriculum is designed so that students are not permitted to learn to read until grade one, or write until the second grade. This comes from the pedagogical belief that a rigorous focus solely on intellectual development impairs the healthy and balanced development of children's emotional, physical, social, aesthetic, and spiritual natures (Lange de Souza, 2012). Moreover, Lange de Souza (2012) questions the validity and effectiveness of such methodology, stating that this century-old curriculum had been initially developed for children who did not have as much contact with the written word. By remaining static to altering Waldorf's curriculum, and unyielding to the current times, this approach could hold students back who spontaneously develop reading and writing skills independently. However, with immediate access to technology and media, children are consistently exposed to reading and writing much earlier in their developmental stage.

Science classes are also introduced later in the program compared to traditional schools.

In a study conducted by Jelinek and Sun (2003), Waldorf's education for science held a vastly spiritual and scientific philosophy that was not based on "mainstream" evidence being taught in traditional schools. Although the monograph shared a highly sophisticated level of inference from grade four students, the later years were focused on hydraulics, aerodynamics, and motors, in connection with the developments of the industrial age—even organic chemistry with a focus on the chemistry of food (Friedlaender et al., 2015). A notable observation made by Jelinek and Sun (2003) was the lack of modern science on the five "Big Ideas" of Physics, Chemistry, Astronomy, Geology, and Biology. They believe that Waldorf teachers held fixed ideas on Steiner's science that does not lend well to open curriculum concepts. With this in mind, it seems counterintuitive that teachers hold on firmly to not changing the integrity of the curriculum, when one of the main principles focuses on the idea that curriculum is fluid (Dorfman & Fortus, 2019; Oberski et al., 2008).

With this in mind, there has been concern that Waldorf's steadfast beliefs on modern science in turn impact the perception that Waldorf students, parents, and teachers have regarding vaccinations. Sobo (2017) discusses that although Steiner never stood against vaccination, anthroposophical physicians believe that fevers and inflammation such as childhood diseases help the body break down and expel old matter to make room for cell renewal, strengthening the body's immune system. With this in mind, Sobo (2015) goes on to share how in California Waldorf schools, 57.2 % of parents signed personal belief exemptions (PBE's) so that their children were not obligated to conform to immunization. With the current pandemic we are facing with the COVID-19 virus, this raises flags of concern, as it is essential for mass immunization to beat this virus and the many variants. This poor reflection and scientific illiteracy on the part of parents and educators creates a problematic environment of social acceptance when refusing to immunize families. Although no one should ever feel forced to vaccinate, there should still be a deeper level of understanding about this global issue that goes beyond the Waldorf and anthroposophical community.

A Focus on Early Childhood Development

Steiner sincerely believed that the early stages of development in a child were a sacred period, where youth needed to navigate their physical and spiritual selves. Waldorf educators follow the idea that children develop in cycles of approximately seven years. Throughout each of these cycles, they have specific characteristics which need to be respected if we want to promote the full development of their different potentials. They also believe that, during this stage, children's actions are moved by their will, as well as their sense of freedom and self (Ashley,

2008; Cormody, 2019; Lange de Souza, 2012). As Ashley (2008, p.67) mentioned, "This freedom arises, not out of a declaration of the rights of the child, but out of the teacher as an authority figure undertaking the sacred task of guiding the child's spirit on its journey". By placing faith in the child's self-knowledge, we acknowledge that the child is an individual already whole within themselves; this belief matches Dewey's philosophy of the self-actualized self.

Steiner holds a deep rooted belief that children's imagination should be preserved until the age of seven, without any exploration to reading or writing. All storytelling is done through oral or visual narrative. Shank (2016) discusses how a child's ability to conceptualize binary opposites, and then mediate between them, enables them to make sense of stories very far removed from their own concrete experiences. This can also be used as an invaluable resource in the teaching and learning of any curriculum content. Through stories, children can empathize and deepen their understanding of the world around them (Friedlaender et al., 2015; Mavrellos et al., 2020; Martzog et al., 2016; Wison, 2017). However, does this replace real-life experiences when coming face-to-face with the reality of our society? Lange de Souza (2012) shares concerns about whether or not this concept of protecting the child only causes children to become more sheltered from reality, which could later cause a more profound impact on their connection with the world and surrounding communities.

Teaching Strategies

It should be noted that Waldorf teachers also have the freedom to educate in a way that does not inhibit their self-knowledge and intuition. When training Waldorf teachers, the facility program provides new educators with essential tools needed to help support students safely and efficiently, while not imposing personal standards and biases (Sobo, 2014). In other words, "Each teacher should be permeated by a living comprehension of the human being so that he understands that the heart does not simply pump blood through the organism, but that the human being is living, and the movements of the fluids and the heart result from that aliveness" (Steiner, 2001, p. 86). The objective is to teach the child as a whole being, and build on a relationship of mutual transaction, and a willingness to listen and engage: "What's good in this school is that the teachers never come with the attitude of 'it's hard'—but rather, try and try, they explain it to you as much as necessary and do not give up" (Woodard, 2015, p. 85). Rather than teaching to teach, educators are making learning an emergent experience that is sustainable for later development and learning (Friedlander et al., 2015; Sobo, 2015). This positive mentality and commitment to the students are carried through for the first eight

years of students' education. Within those eight years, students work with one teacher, who will see them through (Carmody, 2019; Dorfman, 2019; McDermott, 1996). This lends itself to teachers developing meaningful relationships with their students that benefits each individual, and allows them to feel stable and supported (Friedlander et al., 2015).

Alternatively, the transpersonal approach to education lends itself to ask the opposite question, by creating a safe space of fantasy and imagination. Wilson (2017) argues that a "child-centred" program does not mean the liberation of the child from regulatory discourses and practices, but rather challenges the fact that child-centeredness can often function to shape children in specific, adult-sanctioned ways. In some ways, the child can still be influenced by the unconscious biases of a teacher who was taught with an anthroposophical foundation. In other words, Waldorf is not that different from the standardized public system and requires revamping in the areas of science and literacy. Furthermore, there appears to be a gap of marginalization taking place in the field of anthroposophical education. According to the Rudolf Steiner College Canada Website (2021), to receive training as a Waldorf teacher takes a year to complete, and costs approximately 12,300 Canadian dollars. Thus leading one to believe that not only is there a marginalized gap in the privatized schooling for families, but also with educators as well.

Research Gap Discussion

To find appropriate material concerning Waldorf education is quite challenging, when attempting to find relevant peer-reviewed journals that hold validity. As Waldorf's origins are germanic, many of the texts and references available are un-translated German texts, which limits the resource pool for non-germanic speakers (Stehlik, 2019). It should also be noted that North America has drawn away from researching Waldorf education; why this is, is still uncertain. In my personal opinion, Waldorf education does not seem to be of great interest to academics, since it carries spiritual and holistic perspectives that make it more difficult for a researcher or academic to quantify. Moreover, those who have looked to explore Waldorf education, and have conducted research, have had many positive experiences to share. On many occasions, this appears to be due to previous biases held by the authors, whether from lived experiences as students or educators, or a general fascination for alternative forms of education. A personally challenging limitation that I encountered quite often in this research paper was the lack of peer-reviewed articles that were current and in English. The lack of translated sources demonstrates how under the radar Waldorf schools are, leading one to

question Lange de Souza's (2012) concern about whether or not the Waldorf curriculum is still relevant and in line with our current education system.

Much of the literature considered for this inquiry is limited to what has been published, since my inclusion criterion focused only on English-language articles (which we already know to be limited), as well as sources that seem to hold limited credibility. An example of this is Bo Dahlin's articles, which are quite often cited in Waldorf related articles (Friedlander et al., 2015; Mavrelos et al., 2020; Shank, 2016; Stehlik, 2019). Dahlin is recognized for his writing in the *RoSE* (Research on Steiner Education) journal. This academic journal is transparently in support of Waldorf schools, which lends itself to some biased perspectives. Much of the literature holds apparent bias and is also more philosophical, as opposed to empirical. As mentioned earlier, when it comes to spiritual and holistic pedagogy as espoused by Waldorf education, it is difficult to quantify; those who are not interested stay away from the subject matter altogether.

A recurring pattern in the articles reviewed for this paper is that the findings discussed a high level of self-assurance and confidence in students, but shared that it was unclear if this would translate to the current mainstream education (Jelinek et al., 2003; McDermott, 1996). Going forward, if we wish to gather more precise and up-to-date data regarding Waldorf education, more studies must be conducted in North America that observe the statistical demographic of students from various ethnicities and socioeconomic backgrounds. It would also be beneficial to research alumni, and the long-term impact Waldorf schools have had on student populations, particularly with regards to their immersion and growth within society- both locally and globally. Moreover, regarding how essential is it that we continue to explore and research these statistics, and observe the outcome of Steiner's approach in multiple public schools, to gather precise and unbiased data (Dorfman, 2019; Friedlaender et al., 2015; Jelinek and Sun, 2003; Martzog et al., 2016; McDermott, 1996; Rose et al., 2016). Supposing that the results are as positive as these articles suggest, it may be beneficial for researchers to inquire more into how we could apply these findings on a public scale, and thus cultivate provincial curricula on an impactful level.

Conclusion

Although there are many interesting articles that can be found on the development and history of Waldorf education, there is still a limited amount of credible resources on which to form appropriate conclusions. There is still so much to research and navigate with regards to what

the next steps should be; or rather, should there still be Waldorf education? Based on my review, many of the articles emphasize the success Waldorf teaching has had on early childhood development. The academic achievements in this privatized system have far exceeded those in the "mainstream" public system.

While there are many positive qualities to Waldorf education, with the emphasis on play and emergent-based learning, there are also disadvantages that question whether or not Waldorf's curriculum is outdated. With this in mind, we must remember that curriculum is not meant to remain static, but rather flow and expand to reflect and compliment the same development of consciousness. I do believe that there is merit to what Steiner argues about teaching the whole child. It is now up to us to navigate how these teachings fit in our current climate.

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Research Problem: Problematizing Approach to Teaching Algebra

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Abstract

In this paper, I seek to explore how Algebra knowledge amongst high school students would change if a more problematized approach was taken instead of the traditional approach of mathematics as a given or fixed acquisition. In exploring this topic, this paper seeks to answer the question of how problematized mathematics pedagogy compares to traditional pedagogy with regards to student learning. Drawing from previous scholarly works, this paper attempts to understand how students can experience mathematics as a form of problematization in the average classroom. In addition to classroom practices, I also examine assessment strategies that were suggested by previous scholarly studies, in order to promote the movement from traditional mathematics education towards a more problematized approach. Lastly, I examine the role that ethnomathematics has had on the shift from traditional pedagogy towards a more problematized approach. I later conclude that while many scholars have had several suggestions, and large volumes of research has been undertaken on comparing traditional and problematized approaches, there's little harmony that exists between the various studies. This results in various gaps in the research, revolving around what strategies are effective in various contexts.

Keywords: Ethnomathematics; Making Sense; Sense Making

Introduction

Between the years of 2003 and 2012, there have been significant declines in Canada's math scores based on the results of international mathematics exams (Stokke, 2015). Almost annually, math and science teachers across the country hold meetings about math discrepancies that they see in their students (Stokke, 2015). Many teachers describe their students as having difficulty with moving variables from one side of the equation to the other, getting rid of exponents, and how to assess what variables they are actually looking for in a question. When equations have more than one variable, this only compounds the

problem with many students, as they have a hard time understanding how to deal with multiple movements of variables.

In more recent STEM education research, numerous suggestions have been made for math teachers to use a problematized approach in mathematics (Schoenfield, 2016). The problematization of mathematics is a learning process by which the intention behind math, who discovered it, who benefited from the discovery, and why the mathematical statement was being made at that particular time, are all taken into consideration (Mendes et al., 2018). In problematizing mathematics, we can dig deeper into the context and the way mathematics is used—or is useful in the first place. Thus the aim of this literature review is to investigate how problematized math education compares to traditional mathematical pedagogy when it comes to student learning.

The overarching research problem for this paper is “how would Algebra knowledge amongst high school students change if a *problematized* approach was taken, instead of the traditional approach of mathematics as a *given* or *fixed* acquisition. In exploring this question, the hope is that as a STEM educator we may uncover an alternative approach to learning algebra that may prove more effective than the traditional approach. This may then lead to less students closing doors to futures in science, technology, and mathematics, because of their lack of knowledge and skill in algebra.

The research question that would most effectively give insight to this problem is “How does problematized math pedagogy compare to traditional math pedagogy in regards to student learning?”. Given that this question centers around problematizing mathematics, the following keywords have been identified to aid in the research process: sense making, making sense, and ethnomathematics. The keyword “sense making” refers to presenting mathematics to students in a way that is intuitive and expressive, much like our five sense. The second keyword “making sense” refers to the practice of understanding mathematics conceptually, as opposed to just as a process or pattern.

The context of this research demands a mixed research approach between pragmatism and post-positivism. Pragmatic approaches are ideal for when the research aims to impact or understand a particular issue. When the research question at hand looks to explore practical, non-complex solutions to a problem, the development of knowledge relies on the actions and interactions of people. For this reason, this paper looks at specific strategies that could be used in a classroom to transform traditional pedagogical approaches in mathematics into more problematized approaches. Accordingly, the actions taken by

teachers to modify their lesson plans is also of particular interest to this study. Using such lesson plans (actions), it is assumed that the interactions between teachers and students will incidentally be modified as well, and the two together (actions and interactions) will yield a measurable result.

Literature Review: From Traditional Pedagogy to Problematization

This paper is a literature review of peer reviewed literature directly or indirectly related to the subject of problematizing mathematics education. While this research topic is more than two decades old (Mendes et al., 2018), the research angles and approaches are rather disjointed, and has led to the emergence of several non-harmonious themes. That being said, this paper focuses on the most common themes that have emerged in the research literature, and the contributions that have been made to each common theme. These themes can be summarized as follows: 1) experiencing mathematics as problematized themes; 2) classroom environments that promote problematized approaches; and 3) problematization of mathematics in classrooms using ethnomathematics.

Experiencing Mathematics by Problematizing Themes (Making Sense)

Perhaps one of the larger emerging themes in this research was the suggestions of classroom strategies that can be used in order to problematize mathematics education. The article by Yepling et al.(2019) attempts to shift the focus of mathematics educator in two ways. The first is to teach mathematics in a way that *problematizes* themes. The second shift aims at redefining the way mathematics is taught so that students “experience” the discipline—or disciplinary sense making—as opposed to just the content and practices. In addition, this article discusses how students need to be exposed to mathematics in four different 'faces': computation and formal reasoning, a way of knowing, a creative medium, and applications. If students are exposed to these faces of mathematics, then the narrative that mathematics represents a single school of thought will not govern and influence our teaching as much.

While the article by Yepling focuses more on redefining mathematics into a sense making subject, the article entitled "Reframing Teacher Knowledge" coauthored by Schoenfield (2016), discusses design and design thinking in mathematics. This article looks at design activities that allow students to use mathematics to solve real life problems. It serves as an exemplar for activities that could be attempted to problematize mathematics under the dimension of establishing a climate of inquiry. In light of using mathematics to have students solve real life problems, Abtahi et al.(2017) describe how mathematics could be incorporated

into having students assess climate change in both the scientific and social dimensions. She asks a great question: “Do we have a responsibility to act?” (Abtahi, 2017, p.1). This really cuts to the core of education—and specifically, mathematics: “Mathematics plays a central role in describing, predicting and communicating climate change”(Abtahi, 2017, p. 2). However, too often, mathematics is viewed as a neutral subject, and even though the concepts of mathematics can broach different areas, mathematics itself is free from having to either take a stand or even approach a controversial topic.

In another article by Schoenfield (2014), entitled “What Makes Powerful classrooms”, the author expands upon the five dimensions of creating powerful classrooms, by focussing on how these dimensions specifically promote teaching for problematizing mathematics (Schoenfield, 2014). In this article, Schoenfield states how ‘powerful classroom technique’ is compatible with a problematization strategy in mathematics education. While this article does not provide any specific classroom examples or case studies, it does draw from past research to justify much of its claims. It also takes time to explain each connection clearly.

Classrooms that Promote Problematized Approaches (Sense Making)

A study undertaken by Akkurd and Hand (2007) focuses entirely on the types of dialogue between teachers and students in the classroom environment. This study reveals that there are certain types of dialogue that improve pedagogical practice, and these in turn improved student scores. This article relates to the topic at hand, because it reveals the types of discussions that can lead to establishing a climate of inquiry; therefore providing teaching strategies for creating learning dimensions mentioned in the problematization of mathematics article.

The second sub-theme that keeps recurring is assessment strategies of teachers that can promote problematizing mathematics. The article by Merve et al.(2011) examines how secondary school mathematics teachers approach students possible mistakes in math. This article centers around a test that was given to several different mathematics teachers with mistakes in the solutions. The mistakes were based purely on mathematical errors, and the teachers were expected to do two things: 1) point out the mistakes in the process; and 2) explain why the mistakes were actually mistakes. The initial assumption was that teachers that are well versed in particular mathematical concepts affiliated with questions on the test will be able to explain the mistakes adequately. The study revealed that regardless of “adequate knowledge”, many mathematics teachers had difficulties in explaining why certain mistakes were actual mistakes (Merve et al., 2011). This essentially went against the initial

assumption made, and suggested something larger at hand. Most math teachers resorted back to just an “error in the steps” but couldn’t explain conceptually why that was actually a mistake (Merve et al., 2011). Even those that were able to state conceptually why a mistake was indeed a mistake expressed a hesitation to do so. This perhaps uncovers, like the article listed above, that the problem with only learning one face of math is that it trickles down into being able to explain mistakes, because math teachers likely only mastered that “one face” of math.

In a similar study undertaken by Rittle-Johnston and Star (2007), they examined the effects of comparing solution methods in mathematics with procedural and conceptual knowledge. This study was directed towards 70 seventh-graders, and found that at post-test, students who compared methods and solutions with their peers showed higher results and confidence in their knowledge (Johnston, 2007). The author goes on to suggest that teachers can model “comparing methods”, by evaluating students' work in a comparative manner and less *evaluative* (Johnston, 2007). This way the students and the teacher can compare solutions to help build conceptual understanding. In a slightly earlier study by Star and Seifert (2006), they looked at how flexibility in solving math problems can be promoted in the classroom, recognizing that this was an asset to their learning. While several methods are discussed, the study concluded that the most effective way to promote flexibility in a classroom is by the evaluative methods of the teacher (Seifer et al., 2006). If the teacher evaluated mistakes in a manner that demonstrated flexibility in approaches, the students themselves would likely have that same outlook in mathematics (Seifert et al., 2006).

The third sub-theme that emerges under ideal classroom environments is the “appropriate age” of learning algebra and how traditionally it is taught to adolescents. The reason for this rests on what age faculties of education deem students mentally mature and capable of understanding algebraic concepts. To test this notion, David et al. (2006) undertook a study within four public school classrooms in Boston, Massachusetts. Students aged 9-10 years old (grades 2 to 4) were introduced to algebraic concepts that were typically absent from the curriculum. This inquiry focused on conditions like problematizing mathematics, and making mathematics approachable to everyday lives by having students use it to solve “their” everyday problems. The study showed that given the correct experiences (meaning those that students can draw out themselves) students can grow comfortable with substituting “unknowns” with letters. As the authors state: “we have found that eight- and nine-year-old children can not only understand additive functions but also

meaningfully use algebraic expressions such as ' $n - n + 3$ and ' $y = x + 3$ ' (David et al., 2006 p. 109).

Another study by Brizuela et al. (2015) looked at the development of mathematical thinking in first-grade students. The study suggests that given the opportunity, students can learn conventional variable notation and application, to solve real-world math problems. It also suggests that if students become familiar with variable notation and application at a young age, it will increase their ability for conventional use in the higher grades (Brizuela et al., 2015). This study supports the ideas presented in the *Arithmetic and Algebra in Early Mathematics Education* (2006) article, but takes these ideas a step further by presenting the idea that not only can younger students learn algebraic skills, but *should* learn algebraic skills, as it is helpful in later academic years. Later in 2018, Brizuela teamed up with another team of mathematics researchers to create a framework for developing algebraic skills in elementary students systematically. This article also aims at discussing strategies that can enable students to apply these skills towards rational functions and inequalities (Brizuela et al., 2018). The strength of this article is that it provides usable strategies that can be adopted by teachers for any curriculum. The limitations of this article is that it cites very few examples of when each strategy was used, and so doesn't fully reveal an evidence-based approach.

The fourth sub-theme that emerges focuses specifically on teaching strategies that are not curriculum-specific but have been found to generally enhance the algebra skills and confidence levels of students in junior high to high school. Using an evidence-based approach, the authors list and explain three recommendations that teachers can use to effectively relay algebraic knowledge. Each recommendation is also accompanied with 3-5 examples of problems and tasks that show the recommendation in action. The first recommendation is to use solved problems to engage students in analyzing algebraic reasoning. Within this recommendation, there are examples of whole-class discussions that teachers can have with their students, as well as how to "map" a problem out that showcases common errors. The second recommendation was to "teach students to utilize the structure of algebraic representations". This recommendation demonstrates how to encourage students to use reflective questioning in their process to single out algebraic structures as they solve problems. The third recommendation is to teach students the flexibility and intentionality of choosing between different algebraic methods to solve problems. This recommendation aims at having students evaluate and compare different strategies that all lead to the same answer. The main question the student should be able to answer when applying this recommendation

is “why would you prefer this way of solving the problem when this other way also gets you the answer”?

With respect to the first recommendation, Booth, Lange, and Koedinger (2013) examine how showing students examples of correct and incorrect problems improves student learning. As anticipated by the first recommendation, their study reveals that as students work through examples that are already solved, there is merit in examining both correct and incorrect examples (Booth et al., 2013). Both worked problems allow students to examine why a solution is incorrect, and how to map out a problem using algebraic reasoning. In light of the third recommendation made in the previous study, Schneider, Star, and Rittle-Johnson (2008) consider how the classroom can be used to facilitate flexibility in problem-solving among students. By looking at 132 sixth-graders, their study found “causal” evidence that suggests when students are exposed to multiple methods of solving the same problems, they are more likely to adopt flexibility and intentionality (Schneider et al., 2008).

Ethnomathematics and the Need for Mathematics Grouping

One of the central ideas presented in D’Ambrosio’s article (1985) is that as different cultural practices and environments shape behaviour and ways of thought (anthropologically speaking), so too may they shape the mathematics that grow within them (D’Ambrosio, 1985). This article centres around the consequences of not incorporating ethnological contexts behind mathematics. Although this article is short, it is important in providing the proper context for seeking out different approaches to mathematics education.

In a more recent study, D’Ambrosio’s sentiments towards practicing ethnomathematics is echoed in Mendes et. al. (2018), where the researchers describe the practice of ethnomathematics as perhaps one of the strongest forms of problematization in mathematics (Mendes et al., 2018). This article reads much more like a proposition of how mathematics should be grounded in cultural and social cognition. It argues that true mathematics should incorporate different social realities experienced by local communities, and not be dominated by one worldview. It then makes recommendations for good mathematical education practices, and how to use ethnomathematics to problematize lesson plans.

"Violence in Un-rooted Mathematics" by Yasmine Abtahi and David Wagner (2016) depicts a conversation between the two authors, in which they express their thoughts on violence in the study of mathematics. Abtahi believes that a *good* type of mathematics would require it to be embedded in culture, history, and belief (Abtahi et al., 2016). This article

is profound in the sense that it provides insight into the possible reasons as to why some communities are disadvantaged in mathematics education. Much like D'Ambrosio's article, it contributes to the research question well, by outlining the reasons as to why traditional mathematics education needs to be reformed.

In an attempt to incorporate and examine the practice of ethnomathematics, Karssenberg (2014) centers around an activity, where the mathematical concepts of mosaics were taught in conjunction with the cultural roots from which they stemmed. The designed activity hoped to allow Muslim students to connect more deeply with the topics of geometry, by using Islamic Persian mosaic designs as the basis for teaching (Karssenberg, 2014). As a result Karssenberg notes that students learned to globally and structurally analyze complex geometrical figures, and applied their knowledge in actively designing and producing mosaics themselves (Karssenberg, 2014). This article greatly contributes to my research question by providing a specific case study of problematizing mathematics in a classroom setting.

The article by Davis (1995) centers around the "why" we need math. It looks into the questions of whether mathematics is meant to be in here (what I think a logical system looks like) or out there (objective truth and sought out in the world). Just like the nature of our bodies separate us and connect us to each other (with respect to the world), the knowledge of each student and their understanding also separates and connects them at the same time (Davis, 1995). This article is a short read, but provides a tremendous amount of insight. While it may not give strategies towards problematizing mathematics, it provides the researcher with reasons why students may not see why they need mathematics.

Gaps in Research

There's not necessarily a debate between what qualifies as allowing students to experience, but there's a lack of consolidation between the scholars themselves. While the ideas on how to have students experience mathematics as a sense making subject are plenty, there's little to no critique or examination of each idea. Before implementing any strategy into the classroom, it is imperative that at least the rationale is examined by a few recognized scholars in the field. The studies that do exist are very isolated, and more time and focus is needed to explore these strategies in different contexts. If a strategy was successful for seventh-graders, it may not be successful for tenth-graders in an entirely different curriculum. Therefore, examinations and critiques of proposed strategies need to be

had, so that the effectiveness of a strategy has the appropriate context. As an initial start, I propose that problematization of mathematics be categorized according to curriculum levels. Each set of scholars should focus on different levels of the curriculum, as it isn't reasonable to assume that problematization of mathematics can be applied or streamlined to all sub-topics. For example, problematizing linear algebra looks different than non-linear algebra (i.e., quadratics), and so it would make sense to branch this research off into different categories.

In contrast to the findings presented in the Akkurd et al. (2007) article, Keller (2017) examines calculus classrooms, where dialogue and student participation are facilitated and encouraged. The results of this study shows that there are no particular conversations or levels of participation that contribute to heightened levels of student achievement (Keller et al., 2017). Furthermore, the study determines that there are weak correlations between student engagement and students' mathematical knowledge and abilities (Keller et al., 2017). Here I would reiterate that appropriate dialogue needs context, and like problematizing mathematics, should be sectioned off into levels. The same dialogical strategies could not be applied to both elementary algebra classes and secondary classes, so I would suggest a comparison study to isolate what is effective for high school, and what is effective for elementary. Another idea that is worth exploring in connection with dialogical strategies, is how do we determine what a "fruitful" conversation looks like for secondary students? Do we use the same indicators that were used for the younger grades, or do we disregard those entirely and formulate new metrics?

In response to Karssenberg's article (2014) on the application of ethnomathematics inside a classroom using Islamic mosaics in geometry, Patricia Rogers (2015) offers two potential dangers: 1) a simplistic understanding of Persian and Islamic history as unilinear; and 2) assuming diverse Islamic backgrounds and experiences into a homogenous group (Rogers, 2015, p. 26). Rogers' (2015) article is an excellent resource because it reveals a debate amongst the scholars of this research topic, and in that regard uncovers some of the current unanswered questions in problematizing mathematics education through ethnomathematics. Such a research contention brings up an extraordinary point about who becomes the actors—and the acted upon—in problematizing mathematics and mathematics education. While the practice in Karssenberg (2014) may be deemed as attempting to incorporate social/cultural perspectives into mathematics (ie practicing ethnomathematics), the incorporation is still enacted by a dominant worldview. That is, the "actor" or hegemony in mathematics education ultimately decides on what this incorporation looks like, and in turn

gets some associations wrong. Depending on the need and necessary angle, each stakeholder can be portrayed as an actor, or an acted-on, which establishes the role they will play within the environment of algebra/mathematics education. If we are not careful, simply just discussing ideas (knowledge) in repeated forms, or in specific contexts, can make things seem true or appear correct. This indirectly imposes a worldview from the dominant narrative, on a population that due to the repetition of an idea, would no longer think to even question it. This is often how inaccurate stereotypes are born, and it is this type of mathematical abstraction that can often lead one worldview to dominate another, even in the form of mathematics (Abtahi, 2020). In the end, what such a scenario is likely to do is not necessarily problematize algebraic education, but instead place certain communities who are boxed into these assumptions at a disadvantage in learning algebra (Abtahi, 2020). For this reason, I would like to see some form of cultural advisory board established of many different worldviews, to ensure that diverse cultural perspectives are part of the conversation on how ethnomathematics should be attempted. This would ensure that less inaccurate stereotypes and assumptions are made, when introducing cultural perspectives into mathematics education.

Conclusion

While there's little doubt that many scholars see merit in moving away from the traditional approach to a more problematized one in mathematics education, there's very little consensus on how to do so. Much of the research is disjointed and very little criticism has yet to follow much of the suggestions made by scholars considered in this review. It might serve the field of study well, if time was allocated to investigating the suggestions in a wider scope and context, so that the suggestions and data may be understood more holistically. I suppose the greatest contribution that can be made to this research is to have a focus point, where the scope of this research can be narrowed down. As a high school teacher, my experience and resources would make it only logical that I pursue problematizing strategies to algebra instruction that are deemed appropriate for high school students. In addition to this, the results of my findings would then be geared towards secondary algebra education exclusively, and an emphasis could be placed on the fact that these are not curriculum-wide applicable strategies.

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Culture and Representation

Invisible role models: The lack of representation and its impact on marginalized youth

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Abstract

Representation is not the same for everyone; certain groups oftentimes receive the short end of the stick, and are prejudged because of how they look. The impacts of these stereotypes and harmful assumptions can begin at a young age, enabling lifelong trauma and impacting their lives. The purpose of this literature review is to understand the ways in which a lack of representation can affect today's marginalized youth populations. A deeper analysis will look at how language is used to define representation, it will also be considered through interpretations generated by the media and subsequent implications in educational facilities. A theoretical approach will be used to synthesize these viewpoints. Work from scholars such as Stuart Hall, Marshall McLuhan, Noam Chomsky and many more will serve as the guiding framework to better understand. Although their theories hold much significance, a gap in their research can be expanded on because of today's integrations of new technologies; the use of the Internet, for example, has reshaped how representation is seen in various domains. Today, we see how the language around representation has shifted meaning, how the power of the media is now shared, and how the use of computer algorithms can affect how learning takes place.

Keywords: Representation; Media; Education

Introduction

Growing up in Canada as a young Black boy meant that navigating through difficult western ideologies was part of a standard routine. This framework provided many obstacles to overcome, and though I had many questions to ask, few of them were ever answered. I oftentimes pondered about my place in society, I would look for inspiration around me, and would question if people who looked like me can be placed in certain roles. This way of thinking was perpetuated by the lack of diversity that I saw in professional settings. The irony behind this, is that many of my white classmates growing up did not have to think about such

things, because they were well represented in each domain. Nonetheless, despite such limited representation, today I am a teacher—a role I once thought did not belong to me. In today's social climate, values and ways of living have shift over time, and with time have brought new opportunities to evoke changes within the inequalities of society's traditional structure. In the case of representation, several steps have already been taken to magnify minority groups within social settings. Such examples are hiring policies such as affirmative action, which promotes diversity among workers in companies (Kurtulus, 2016). While this is surely a demonstration of good effort, one can argue that these methods are seen as treatments to symptoms—and not a cure that is focused on the root problem. This root problem is centred around why there's still such a lack of representation, given these times we are in, and what deeper reasons may be the causes that still enable such great gaps in support and social identity for BIPOC populations. Factors that contribute to this root problem are important to know, in order to provide youth with marginalized backgrounds better opportunities to excel and move forward in life.

The foundation of this literature review is based on the following question: *How is the lack of representation affecting today's marginalized youth?* To better analyze this question, three keywords were used. The first term is representation; it served as the backbone of this inquiry, since understanding the implications and framework it embodies will allow for a deeper insight of its importance in relation to youth. Media is the second keyword adopted for this inquiry, because with it brings the notion of how negative stereotypes and generalizations can be fabricated and delivered to the masses. Lastly, my third keyword, education, sets the tone that allows us to figure out what's missing in our school sector and thus ways to ameliorate the situation.

The theoretical approach I decided to adopt for this research is an advocacy/participatory method. I decided on this viewpoint because my research is rooted in bringing awareness to marginalized groups. Being part of this group myself, I understand the injustices, as well as the trials and tribulations that one must go through. Taking a social justice stance, by providing an understanding of these obstacles, allows for the collective empowerment of individuals as a whole. In essence, my hopes to bring about positive change are what steered me to adopt this approach.

Representation

As already mentioned, the language around representation is crucial to understand how diversity is portrayed in the media and in education. Recognizing its implications within these parameters will give better insights into comprehending the impacts on marginalized youth. Stuart Hall's (1997) chapter on "The Work of Representation" brings light to how we perceive and interact with the world. He builds on the research of Saussure's semiotic approach that deals with interpreting the meaning of signs (Saussure, 1966), as well as Michael Foucault's work on the discursive approach and its power of language (Foucault, 1972). Through these renditions, we learn that language is a system of representation that gives meaning to concepts that shape our world (Hall, 1997). It is important to note, that language is not fixed, and that representation has no real meaning until given value/meaning too. Being familiar with this notion creates the stage to better grasp how representation is seen in different areas.

Media

Hall's work on representation in the media debunks the old views that depict media outlets as reflections of reality. He challenges this by once again saying that meaning is fabricated by those in power and that generalizations can be created without factual justification of the event or person being displayed (Hall, 1980). Hall goes into great detail about this when referring to his work on the theory of reception, which looks at how audiences decode media's messages. Roland Barthes and Umberto Eco, two scholars with a semiotician background, share the same views about how media is produced and shared (Scannell, 2007). This analysis of the media and its fabrication of reality also sits well with the views of Noam Chomsky and Edward Herman's (1988) work entitled "Manufacturing Consent". Their work looks at media as a medium that allows impressions to be conveyed to others. They see media as a filter of reality, in which it is given meaning by those in power who represent the white hegemonic male ideologies. Those in power create propaganda and have the ability to control the parameters of our everyday lives (Chomsky, 1988). One of their methods is using fear as a distraction, by creating common enemies out of immigrants and enforcing negative stereotypes to keep them at bay. In these cases, the messages that the media convey play a huge part in shaping our society. However, though these implications are real, the conclusion drawn from these theories does somewhat oppose the well-supported viewpoint of the famous Marshall McLuhan.

Marshall McLuhan is a well-known Canadian scholar who has contributed an extensive amount of work dedicated to the field of communication media/ media theory. His

book entitled *Understanding Media: The Extension of Man* looks at media as an extension of ourselves that creates change in the way we live (McLuhan, 1973). His famous line “the medium is the message” has created a solid understanding for some, but has also raised controversy for others. In this statement, he explains that the way we send and receive information (the medium) is more important than the information itself (Federman, 2004). Some scholars such as Brian Winston, Raymond Williams and James Carey say that McLuhan’s theory is narrowly viewed, that it takes a technological deterministic approach, which implies that he assumes that everything is determined and revolves around technology’s advancement (Mullen, 2006; Winston, 1986). Others such as Umberto Eco and Régis Debray critique his use of the term “medium” and say that its description is too ambiguous and causes complications in the way it can be interpreted (Debray, 1996). However, despite these divergent views, McLuhan’s theory is still very relevant in regard to representation and its effect on society.

Education

Diversity in education is important, because it allows for cultural interactions to occur. Kenneth Cushner (1992) explains that it is crucial that teachers represent such diversity in order to properly integrate students into society. Many academics such as Jessica Enyioha, Patricia Guerra, and Analeasa Lopez also stress this, because it allows educators the ability to better accommodate and understand the various needs of marginalized students (Cotman, 2019). Such displays can be referred to as ‘cultural matching’, a term used to describe the pairing of students and teachers of the same backgrounds to encourage better communication and success (Shudak, 2010). Though it does have its benefits, minority students can also find success through the way things are managed and not due to the cultural aspect of things. In certain case studies, administrators from white backgrounds that operated in predominantly minority-based schools were able to positively change their school’s success rate by employing various leadership strategies, such as transformative and culturally responsive leadership practices (Cotman, 2019; Watson, 2016). This of course doesn’t change the fact that having more staff diversity can be beneficial, but it does add an extra valuable insight in understanding the role of representation in education.

Discussion of the Research Gaps

It is quite apparent that the lack of representation is influenced by the language we use, the media we consume, and its presence in our education system. This literature review

serves as a solid framework for this understanding; however, it is important to understand that societies constantly evolve, and data from one era can completely change over time; for example, the pace at which technology is impacting our lives. It is said that half of what is known today, wasn't known 10 years ago (Siemens, 2005). In this case, Marshall McLuhan's statement holds much value, that due to the integration of new forms of mediums (technology), societies are completely affected (McLuhan, 1964). This impact ripples across every domain; children now growing up can be seen as digital-natives, a term used to describe those that were born during the digital technology era and who are now subjected to globalized online communities (Buckingham, 2014). The long-term effects of this are still unknown, yet we already see impacts on representation. Youths in general now experience education much differently, the language used around marginalized groups has changed as well, and the media has now shifted according to how it influences the masses.

Taking this into account, we can easily observe how technology allows for a collective community shift in beliefs and meanings attributed to the language that a society uses. What I mean by this is that I feel that technology facilitates communications around what norms still remain, and what representations should change. Social media platforms do this by bringing awareness and giving voices to marginalized groups (Buckingham, 2014). When these groups' voices are amplified, people are able to recognize that the negative stereotypes that were once fed to them weren't necessarily true. Even the language around jokes change, take certain old comedic racial references that were once supported then, and that are no longer tolerable now. Technology has also given light to new terms such as the context of cancel-culture. This movement holds individuals accountable for what they say and do, and therefore ostracizes those that spread hatred towards misrepresented groups of society (Ng, 2020). Although there's good attention here, I feel that this initiative may force the way people view representation because of the fear of being cancelled. This brings up an interesting point, because now the language people use online may differ from how a person truly uses language in person, therefore creating a false narrative of how one truly feels about how groups are represented. Such a premise is important to consider, because marginalized youth who start to navigate these digital communities may come across people that show compassion online, however in real life may still uphold negative biases and stereotypes.

When we take media into account, today's technology has drastically changed the way it is consumed. As previously mentioned, the government had a stronghold on the mediums that deliver information to the mass (Herman, 1988). Now, with the rise of the Internet and

various social media platforms, power is now given to the people, and a diverse set of interpretations can now travel and transcend borders effortlessly (Buckingham, 2014). This means that individuals who weren't represented in traditional forms of media (e.g., tv, radio, newspapers), can now hold a tremendous amount of power and influence on their followers, especially the youth that resemble them. Now, one can say that this is a stride in the right direction, I definitely agree, however, it is apparent to me that underlined issues emerge because of this. The thing is that representation is not fixed, and with so many new interpretations out there, online information is getting harder and harder to cipher through, and distinguish credible sources. Fake news is becoming normalized, so much so that people are often left in limbo on deciding what to believe. This means that hateful groups can start news stories based on groups of people they do not like, and therefore have a similar effect as how governments use the media. In the case of marginalized youth, their peers may still be given misinformation that supports false ideologies. Understanding how to deal with such confusion is something I feel is important, and can remedy tensions that can be caused by it.

In education, we saw how the lack of representation amongst teaching staff can play a significant role in marginalized student's success (Cotman, 2019). With the implementation of today's technology, a diversity of teachers can now be called upon with just one click. Now, teachers are not limited to just showcasing their viewpoints, they can find resources online that better cater to the crowd they are set to teach. To the best of my knowledge, this will allow for an increase in engagement from the students who can better identify with the material that is being taught to them. This of course does have its downside as well, because computer programs are supposed to be made neutral, yet their algorithms are still influenced by their makers (Wachter-Boettcher, 2018). For example, many of the computer engineers for popular search engines like Google come from white male backgrounds, which implies that they may unconsciously have racial biases when programming computer algorithms (Wachter-Boettcher, 2017). These marginalized students, who then utilize search engines, then find results that don't typically represent them, and if they do, then the interpretation can be misleading. Take for example using Google's search tab to find images of Indigenous Canadian women. A student that identifies with this background might be curious to learn more about their people's culture, however, the search engine mostly presents images of the unfortunate kidnapping and killing of Indigenous women. Another example can be seen in the word 'angels', in which the results show various images of younger-looking white women. In this case, the computer's algorithm implies that angels are only represented by that group of

people. As you can see, this can have some huge implications with regards to how marginalized students see themselves.

Conclusion

That being said, a lack of representation can have various effects on marginalized youth. In my research, we see how a system of languages can alter the meaning of how a group is perceived; we also learn that through today's adaptation of technology, individuals can ascribe to one meaning online—but in person have different thoughts. Media plays a huge part in influencing these behaviours, so although students today are quite versed in navigating the online domain, they can still be subjected to misinformation, and fall victim to negative stereotypes. As my research reveals, representation in education allows students from marginalized groups to be more engaged; however, with the addition of technology use in the classrooms, it is important to look further into how computer algorithms can perpetuate misrepresentation and affect learning.

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The effects of culturally relevant and responsive inquiry-based learning on students' bicultural identity integration

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Abstract

Learning is not “one size fits all”. As our world continues to globalize, there is an increasing number of students that identify as being bicultural. The aim of this paper is to examine how a mandated Eurocentric curriculum can affect the academic success and well-being of bicultural students, as well as the benefits and challenges of implementing Culturally Relevant and Responsive Inquiry-Based Learning (CRRIBL) on students' bicultural identity integration. This paper consists of empirical research published since 1995. Drawing from previous scholars, current research highlights two major findings. First, majority group attitudes, school culture, and curriculum can positively or negatively impact students' Bicultural Identity Integration. Secondly, the complementary nature of Culturally Relevant and Responsive Pedagogy in alliance with Inquiry-Based Learning promotes inclusion, student autonomy, and engagement—particularly for students of colour. Further research on the direct implications of CRRIBL as well as the cross-discipline application of these pedagogies is required to validate current theoretical findings. I conclude that the adoption of CRRIBL has the potential to promote inclusion, make learning relevant for all students, and foster cosmopolitanism within schools.

Key words: Inquiry-based Learning; Bicultural Identity Integration; Culturally Responsive Pedagogy; Culturally Relevant Pedagogy

Introduction

Growing up as a Chinese-Canadian at an international school in Hong Kong, I always felt that my identity was hyphenated and I quickly adopted a bicultural identity. Bicultural identity is defined as those who “tend to identify, at least to some extent, with both cultures involved” (Oppenheim-Weller & Kurman, 2017, p. 268). Although international schools were initially intended for children of expatriates working in a foreign country, the hierarchy of English proficiency around the world has led to a shift in international schools targeting local

students to gain cultural capital through obtaining an international education. Therefore, at most international schools, a western curriculum (usually from the United Kingdom, United States, or Australia) is adopted. In my experience, I found that although my international school was deemed to be “multicultural” and “inclusive”, I felt my own cultural deprivation as I rarely learned about my own cultural history and politics; instead there were many eurocentric undertones within the mandated curriculum and culture at my school. This “hidden” eurocentric curriculum, which was implicitly and explicitly imposed on me by the culture and curriculum at the school, caused a higher level of bicultural stress growing up. Bicultural stress is defined by Romero et al. (2007) as “the perception of stress due to everyday life stressors that result from pressure to adopt the majority culture as well as pressure to adopt minority cultures” (p. 530). These stressors may include “discrimination, negative stereo-types, intergenerational acculturation gaps, and pressure to speak more than one language” (Romero et al., 2007, p. 530). Therefore, this bicultural stress made me constantly re-examine and negotiate my bicultural identity in order to fit in. Cheng and Lee (2013) found that ones’ bicultural identity integration (BII), which is a “biculturals’ perceived compatibility between their two identities” (p. 1235), can affect their self-esteem, psychological well being, decision making, social adjustments etc. Individuals who have high BII tend to see both their cultural identities as “compatible and complementary” and those with lower BII tend to find their cultural affiliations to be “oppositional and contradictory” (Benet-Martinez et al., 2002, p. 493). Further, findings from Cheng and Lee’s (2013) study show that an individual’s BII is malleable depending on their view of their own bicultural upbringing and lived experiences. Hence “ones’ “BII was higher (or their two cultural identities were viewed as more compatible) when recalling positive bicultural experiences than negative bicultural experiences” (Cheng & Lee, 2013, p. 1238).

Not only is there a positive correlation between higher bicultural stress and increased depressive symptoms (Romero et al., 2007), but also negative majority group attitudes and negative public esteem can effectively lower an individual's BII (Huff et al., 2020). Therefore, it is essential for teachers to foster an inclusive environment through enforcing, and promoting a cosmopolitan school culture and adopting culturally relevant and responsive practices to enhance students’ BII.

As our world continues to globalise, the prevalence of biculturals continues to increase; however, the current mandated curriculum that tends to eurocentric knowledge fails to be culturally responsive and relevant to such a diverse student base. Newcomer (2020) states

that “learning is a fundamental aspect of identity construction” (p. 193); they have also found that ethnic, cultural, and linguistic identity formation directly effects ones’ “academic motivation, academic achievement, self esteem, and self-efficacy among culturally and linguistically diverse (CLD) students” (p. 193). Therefore, it is essential that schools employ culturally responsive and relevant pedagogy that reflects students’ personal experiences in an inclusive environment, and mindfully places students’ unique identities at the core of the education system.

Ladson-Billings (1995) defines Culturally Relevant Pedagogy as pedagogy aimed at educating students in terms of “critical, democratic, emotional, intellectual and social competencies, considering the cultural values and references that affect the knowledge, skills and attitudes of students” (Kotluk & Aydin, 2021, p. 3). Further, Ladson-Billings (1995) emphasizes that all children should be academically successful, culturally competent, and critical conscious, through the critical examination of “discimination, inequalities and social justice... while preserving their own cultures” (Kotluk & Aydin, 2021, p. 3). It is important to note that in Ladson-Billings’ (2014) revisitation of the term Culturally Relevant Pedagogy years later, they stress their frustration with the “static conception of what it means to be culturally relevant” (p. 77). Due to the complex and fluid nature of culture and curriculum relevance, culturally relevant practices can not be reduced to simply adding “diverse” books and celebrating different holidays (Ladson-Billings, 2014). Instead, Culturally responsive teaching and learning includes designing “culturally relevant curricula and culturally responsive instruction to make learning more relevant and effective” (Abacioglo et al., 2020, p. 738). Hence, straying away from implying the monotone mainstream perspective by challenging hegemonic systems, as well as acknowledging the fluidity and uniqueness of each individual cultural identity.

Inquiry-Based Learning (IBL) has been increasingly emphasized as best practice in the education field, as a way to transition from traditional ways of learning (Levy et al., 2013). Due to the focus on analysis, critical thinking, posing questions, backwards planning, and exploration, when implementing IBL teachers can tailor learning strategies and activities to the interests and capabilities of their students; thus making learning culturally relevant and responsive to all students. Further, Geier (2007) has found evidence that inquiry-based experiences can in fact improve the academic achievement of students of colour, who have been historically underserved.

Although there has been a plethora of research on the effects of a student's BII on their mental, social, and academic well-being—as well as the positive effects of culturally relevant pedagogy and inquiry-based learning on students identity formation—there is currently no research bridging the gap between all fields of study. With the understanding that BII can be malleable depending on external factors and experiences, educators have the duty to provide culturally relevant and responsive teaching that celebrates all students, and gives everyone an equal chance to succeed. Hence the combination of “Culturally Relevant and Responsive Inquiry-Based Learning” (CRRIBL) can be the key to delivering the mandated curriculum meaningfully.

The theoretical perspective adopted for this research paper is through an advocacy worldview. With the tentative hypothesis and exploration research purpose of CRRIBL being beneficial to students with bicultural identities, my goal is to advocate for a culturally relevant curriculum, to thus engage and empower bicultural students and students of colour. Hence, the aim of this paper is to examine the question, “How can the mandated eurocentric curriculum affect the academic success and well-being of bicultural students, and what are the benefits and challenges of implementing Culturally Responsive and Relevant Inquiry-Based Learning on students' bicultural identity integration?”.

Literature Review

In this part of the paper, I will synthesize findings from current research on factors impacting ones' BII and the implementation of CRRIBL.

School Impact on Students' Bicultural Identity Integration

Schools play a major role in students' identity formation (Riekie et al., 2016). Particularly for bicultural students, these are pivotal years that can affect their self-esteem and academic success for years to come. The Social Identity Theory proposed by Tajfel and Turner (1979) states that “individuals define and evaluate themselves in terms of social groups” (Aikhoje, 2011, p. 8), furthermore, Cheng and Lee (2013) as well as Benet-Martinez et al. (2002) found that ones' BII can be malleable depending on their bicultural experience. Therefore, since school-aged students spend a majority of their time within the confines of a school, the school culture, acceptance from peers, and curriculum, can make a significant impact on a students' BII. Many studies have found correlations between the effects of support and public esteem, as well as the institutionalized linguistic hierarchy implicitly promoted by the mandated Eurocentric curriculum on students' BII.

A growing body of scholarly research suggests that majority group attitudes are central to the development of one's BII. Bae (2019) and Aikhoje (2011) propose that most bicultural students struggle with the dilemma of competing motivations; the motivation to maintain their home culture and the motivation of adopting to the majority culture in order to fit in. Such identity negotiation and pressure due to bicultural stress can often negatively affect one's self-esteem and psychological well-being (Kim et al., 2014). Huff et al. (2020) states that majority group perceptions, attitudes, and intergroup relationships towards bicultural individuals often dictate how bicultural students view their own cultural identities, as well as how they interact with majority group members. Therefore, when students experience negative majority attitudes at school towards their culture, they tend to push their heritage culture away to fit in—consequently lowering their BII.

Previous studies (Crocker and Major, 1989; Kibria, 2002) suggest that the support of parents, peers, teachers, and community members empowers minority students to foster their social integration and self esteem, hence leading them to develop their bicultural ethnic identity. However, Aikhoje (2011) found that positive social support from friends and family leads to the development of their heritage identity instead. Interestingly, regardless of the level of BII, all biculturals “engaged in cultural frame switching in response to external cues” (Benet-Martinez et al., 2002, p. 509). Findings from Benet-Martinez et al. (2002) show that participants with high BII exhibit ‘prime consistent behaviour’, where their behaviour correlates more to the cultural prime to which they are exposed; whereas, biculturals with lower BII show a ‘contrast or prime-resistant effect’, where they tend to lean towards the culture opposite of the cultural prime to which they are exposed (Benet-Martinez et al., 2002). Thus, these studies showcase the impacts of external cues, and highlight the opportunity for schools to increase their student's BII.

The promotion of cosmopolitanism in schools can make learning more inclusive, foster social engagement, and build a sense of belonging among all students (Metro-Roland, 2018). While multiculturalism refers to the co-existence of diverse cultures, Hansen (2014) describes cosmopolitanism as the “cross-cultural interaction” and the “move beyond tolerance of difference to reimagining, appreciating, and learning with it” (p. 1)—whilst celebrating an individual's unique viewpoint. However, the monotone promotion of anglo-western identities and knowledge within a school's mandated curriculum, are stress factors that can cause students' “own cultural deprivation” and the “clouding of their own cultural identity” (Grimshaw & Sears, 2008, p. 262); thus steering them away from cosmopolitanism and lowering their BII.

Westernized curriculum has also proved to threaten the development of home languages and cultural identities of bicultural individuals, by enforcing English as the primary language (Grimshaw & Sears, 2008). When comparing the experience of biculturals of different ethnicities, Romero et al. (2007) found that although European-American youth reported experiencing bicultural stressors, their number of stressors and intensity was relatively lower, compared to bicultural minority group members. Thus, the current research suggests that there is a positive correlation between the mandated eurocentric curriculum and majority group attitudes and culture at school, with a student's BII.

The Promotion of Inclusion Through Adopting CRRIBL

Learning is not 'one size fits all', however, as a result of neoliberal reforms, our education models are "driven increasingly by standardised testing, school league tables, market competition and individualism, and in the process negating the central importance of context and culture" (Hoque, 2018, p. 183). Specifically for students with bicultural identities, the implicit promotion of the eurocentric curriculum can intensify assimilation and devalue ethnic cultures, which can be detrimental to biculturals' self esteem and academic abilities (Chen, 2004). The meaningful adoption of Culturally Relevant Pedagogy (CRP) aims to make schools a place where "complex cultural, linguistic, ethnic, gender and religious identities... are explored within the curriculum" (Hoque, 2018, p. 183). Culturally responsive teaching recognizes a direct correlation between student engagement, and increased educational achievement of minority students who have been historically overlooked (Aronson & Laughter, 2016).

Inclusive culturally-relevant practices, such as the incorporation of perspective-taking experiences, exercises in teacher professional development, and in-class teaching, can benefit all students (Abacioglu et al., 2020). Thus, instead of simply memorizing and regurgitating curricular content, Inquiry-Based Learning (in alliance with CRP) meaningfully integrates students' unique lived experiences in the learning process. Through the generation of questions, and examination of meaning, teachers are able to encourage student autonomy and self regulation, by positioning themselves as a reactive guide—rather than a shepherd leading students through a unified way of learning (Correia & Harrison, 2020). Cuevas et al. (2005), as well as Geier et al. (2008) add that IBL can not only increase meaningful understanding of curricular content, but also enhance the ability for all students. Furthermore, many studies have indicated the correlation between students' interest in their learning with their achievement and knowledge acquisition (Kang & Keinonen, 2018), though in order for

successful implementation, Wu and Hsieh (2006) emphasize the teacher's role in an IBL classroom. While teachers should provide ongoing and timely scaffolds, they should also involve themselves in “probing for reasoning, asking for elaboration, and fostering ownership of students” (Wu & Hsieh, 2006, p. 1311).

In this paper, the term ‘Culturally Relevant and Responsive Inquiry-Based Learning’ (CRRIBL) is explored as the combination of both pedagogies mentioned above. Though this term is not specifically used, Brown (2017), Treagust et al. (2020), and Brown et al. (2019), etc. demonstrate the benefits of CRRIBL in their research. Brown (2017) examined 52 empirical articles on CRRIBL in science based education in K-12 setting and found that there were “clear patterns of complementarity” particularly for students of colour, English Language Learners and low-income students, as the combination of Culturally Responsive and Inquiry-Based education was “empowering, validating, and relevant to their lives” (p. 1166). Other benefits of the implementation of CRRIBL include bridging cultural and linguistic backgrounds (Treagust et al., 2020), and increased student engagement (Kucan et al., 2019).

Though most researchers agree that the proper implementation of CRRIBL is beneficial, concerns regarding the difficulty for teacher application and student achievement are notable for both IBL and CRP. Kotluk and Aydin (2021) have conducted a study on teachers who attempted to adopt a culturally relevant/sustaining pedagogy to “improve the cultural competencies and enhance their sociopolitical consciousness” (p. 1) for Syrian students. However, findings show that their attempts were “limited and inadequate” (Kotluk & Aydin, 2021, p. 1), because although they had intentions to sustain the Syrian culture and make learning culturally relevant to them, they did not know how to do so. Therefore, due to the lack of skill and knowledge of the practicalities of multicultural education, the teachers were not able to make appropriate revisions to the curriculum, or carry out an effective instructional process for the Syrian students.

Similarly, a study by Young (2010) found deep structural issues related to teachers' cultural bias and the absence of support from leaders, to adequately implement CRP theories into practice. Furthermore, the adoption of IBL requires intensive scaffolding, preparation time, and teacher training, to be beneficial for all students (Abels, 2014). When delving into the interdisciplinary nature of IBL, Younker and Bracken (2015) have found that one of the main challenges for implementing integrated curriculum is to “mobilize people to implement and facilitate immersive learning opportunities” (p. 45). The theoretical nature of IBL makes implementation more difficult for teachers, especially since researchers have not agreed upon

a single definition. In addition, Kang and Keinonen (2018) highlight that even if teachers are able to implement IBL, not all types of inquiries are beneficial for students: whilst guided IBL is a strong positive predictor for student achievement and interest, open IBL can be a negative predictor (Kang & Keinonen, 2018). Other challenges in implementing IBL include the difficulty of fostering self-motivation in students; accessibility of investigation techniques; skills and background knowledge necessary to carry out an inquiry; as well as required organization and self-regulation; and the practical constraints of the learning context—all of which continue to be challenges prevalent today (Edelson et al., 1999). Overall then, whilst there are benefits to the adoption of CRRIBL, limitations of transferring theory to practice is notable.

Discussion on Research Gaps

This paper examines the impact of implementing Culturally Relevant and Responsive Inquiry-Based Learning on students with bicultural identities. It also identifies gaps in current studies, regarding cross-disciplinary applications of CRRIBL designed to combat eurocentric mandated curriculum. Literature review findings discussed thus far highlight the impact of external cues, such as the attitude of majority group members and support from community members, on ones' BII. Similarly to my own experience as a bicultural individual, current research emphasizes the negative impact eurocentric curriculum can have on bicultural students. Due to the promotion of western knowledge through neoliberal standardised testing and learning, eurocentric elitism becomes a hidden curriculum that can cause 'other' students of bicultural and diverse identities to experience cultural deprivation.

Whilst synthesizing findings on the implementation of Culturally Relevant and Responsive Pedagogies with the addition of Inquiry-Based Learning, current research suggests that there are many opportunities to promote inclusion in schools. The possibilities of implementing CRRIBL into teaching practices and curriculum development includes focusing on making meaning through ones' own cultural lens—rather than more traditional forms of learning, such as memorization and regurgitation of the mandated curricular content. The implementation of CRP and IBL has been found to make learning more inclusive and engaging for students of colour, which directly affects their well-being and narrows their academic achievement gap.

Through the examination of CRP and IBL benefits, there is a notable similarity with practices promoting cosmopolitanism from scholars such as Vasudevan (2014), and Ng-A-Fook et al. (2012). As explained by Ladson-Billings (1995), CRP confronts important social issues such as “discrimination, inequality and social justice from a critical point of view while perserving their own cultures,...[as] they will also be able to value other cultures by knowing each other’s cultures” (Kotluk & Aydin, 2021, p. 3).

Similarly, Tarc’s (2013) analogy of the “blind men and the elephant” suggests that to reach cosmopolitanism we must recognise that we are limited to our own perceptions and understandings of truth—as well as our inability to “perceive the whole or sense what another sees from his or her vantage point” (p. 21). Therefore, in order to move towards cosmopolitan embodiment, we must create opportunities to find our path to knowledge, with openness to learn and respond to others in ways that move beyond tolerance (Tarc, 2013).

Thus, rather than simply teaching about acceptance, true cosmopolitanism requires a deliberate space that allows the intermixing of worlds, which is free from the constraints of mainstream society. Vasudevan’s (2014) article mentions the oppressive nature of neoliberal agendas such as grades, restrictions, and competitions in mainstream schools, and highlights the need to provide a space for students to explore their identities and learn from others. In addition, Vasudevan (2014) states the importance of nurturing a sense of belonging and citizenship in students, in order to achieve cosmopolitanism through everyday moments. In Vasudevan's study, students embody cosmopolitanism through a theatre initiative by engaging in storytelling and listening, as well as receiving encouragement from their teachers to “make the familiar strange...[and] consider a perspective other than one’s own” (Vasudevan, 2014, p. 56). These purposeful interactions become entry points to different perspectives, which allow students to explore narrative possibilities, intrinsically “dismantle deeply held beliefs” (Vasudevan, 2014, p. 61), and provide space for reinterpretation. Similarly, Ng-A-Fook et al. (2012) explore the promotion of cosmopolitanism through the use of the (quantum) “Third- Space” in an online social network site. This virtual “third space” allows all students—particularly marginalised students—to reveal their intricate lived experiences and identities, free from alienation and appropriation, across continents. The disembodiment of the “third space” allows for students to explore differences without traditional conventions and confinements of a school. As seen in both articles, teachers must provide deliberate spaces and multimodal opportunities for students to achieve cosmopolitanism through guided inquiry

and exploration. Therefore, with CRRIBL, schools have the possibility to embody cosmopolitanism and inclusivity within their teaching practices. Whilst these possibilities are encouraging, future research is required to validate the benefits of CRRIBL on bicultural students. Although current studies on BII examine bicultural stress factors from many ethnic majority and minority subgroups (Hoque et al., 2017; Huff, 2019; Newcomer, 2020; Romero et al., 2007), research of bicultural students who affiliate with other intersectionalities such as disabilities, LGBTQ2+ communities, or lower socioeconomic status, remain unexamined. This gap should be considered when researching the bicultural community.

Though the term CRRIBL, is not currently used in academic research, some scholars have highlighted the complementary nature of the combination of both pedagogies (Brown, 2016; Davis, 2021; Kucan et al., 2018; Roehrig et al., 2011; Treagust et al., 2018). Guided by student interest, IBL is beneficial to student autonomy and engagement. Additionally, the focus on culturally responsive and relevant practices provides a consciousness for teachers to reconsider their pedagogy and prioritize each students' unique lived experiences and identities, when planning each lesson. With the understanding that all students, particularly students of colour, benefit from culturally relevant teaching—academically and mentally—this paper advocates for the need to implement both harmoniously. Further research on the application of CRRIBL in various grades and classrooms around the world will be beneficial to prove the validity of this pedagogy.

Currently, most studies on culturally relevant, culturally responsive, or inquiry-based learning are focused on science curriculum (Brown, 2017; Edelson et al., 1999; Roehrig et al., 2011; Treagust et al., 2018; Wu & Hsieh, 2006). This is due to the movement from simply learning about science to “doing” science. Although research on other fields of study are scarce, Levy (2013) showcases the possibility and benefits of adopting IBL across disciplines. Therefore, CRP and IBL should be implemented together and should not be exclusive to one discipline. Rather than just a teaching practice, CRRIBL should be an attitude and common practice that every teacher adopts in order to prioritize inclusion for all their students—in every subject. With the awareness of the correlation between CRP and IBL, as well as effects on students' BII, this paper aims to advocate for further research in this field of study, to promote a future where all students are empowered by teaching practices and curricula that is relevant to their unique identities.

Conclusion

The current mandated curriculum in many parts of the world has eurocentric undertones that marginalizes bicultural students' identities, causing cultural deprivation, lowering self-esteem, and hindering academic success. With increasing diversity in each classroom, it is essential for educators to challenge the oppressive and monotone eurocentric curriculum, in order to make their teaching practices meaningful for all, and to create relevant learning opportunities that close the achievement gap for students with diverse identities. With the implementation of CRRIBL, bicultural students can engage in knowledge construction with their lived experiences, bridge the achievement gap, and promote inclusion of different cultures and perspectives. Furthermore, the focus on embracing their own identities, whilst learning from others', allows students to embody cosmopolitanism and lower bicultural stress. Currently, there are clear obstacles in transferring CRRIBL from theory to practice. Future research on the cross-disciplinary implementation of CRRIBL in schools, as well as a more extensive body of research on diverse bicultural students may validate this pedagogy.

Rather than allowing students to assimilate within the melting pot, educators must provide opportunities that guide students to sustain their culture. Only by validating students' unique identities within our everyday teaching practices and curriculum, will schools have the potential to create an inclusive environment that embodies cosmopolitanism.

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Mental Health

Treatment of psychological trauma in refugee students through creative arts therapy

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Abstract

This paper examines the effective use of creative arts therapy as a tool that creates a welcoming and therapeutic environment for refugee students. The sudden change of environment for refugee children and youth can create anxiety, and fear of being accepted for who they are, specifically in a school setting. Therefore, how does creative arts therapy programs address the psychological needs of students from refugee backgrounds? In this paper, I focus on the background of refugee students, by introducing who they are, the obstacles they have lived, and the new challenges they are encountering. Second, I emphasize the psychological distress of refugee students; and third, I further research, how creative arts therapy interventions create an educational setting that fosters students' *conscientization*. This allows students to understand the diversity and complications of different political challenges around the world, to understand their own identity, and how it contributes to the society they live within. Here creative arts plays an important role in allowing one's identity to be shaped, through participation in knowledge systems and by creating and delivering critical analysis of their artwork. Additionally, I conclude that creative arts therapy includes many techniques that are fundamental for teaching practices, where it allows to capture the interests of struggling students in a classroom, by producing and presenting projects through any type of creative arts, such as music, dance, and visual arts, with which they can relate to and identify. However, it is important to further research the importance of incorporating creative arts therapy in education, and how this field can be an effective tool in assisting with the development of self-confidence and better well-being for refugee students.

Key words: Refugee Students; Mental Health; Creative Arts Therapy

Introduction

There is no sufficient research today that undertakes the role of creative arts programs for refugee background students (Sonn, 2018). This is significant, because global forced displacement is still very common in today's society, where war remains the dominant cause.

Among refugee people arriving in a fortunate country, there are young children and adolescents seeking a safe place to live; but after obtaining their safe refuge, many social aspects they encounter can cause an instability of identity and mental health. In juggling the new society that they have joined, there's pressure of fitting in with their own beliefs. Young refugees can develop confusion, and also feel similar pressure to fit it in. It is important to recognize that psychological problems are highly prevalent among children and adolescents from refugee backgrounds. These psychological problems can severely interfere with everyday functioning activities, and increase the risk of poorer academic performance in an educational setting. Therefore, it is important to further explore how art-based intervention therapy could facilitate the well-being and settlement of recently arrived young children and youth of refugee background.

Who Are Refugees?

According to *The UN Refugee Agency* (2021), refugees are people that fled war, violence, political conflict, or persecution and have crossed international borders to find safety in a country other than their homeland. In particular, refugees are people that fear being persecuted for reasons of race, religion, nationality, or for being a member of a certain social group that has certain political opinions. Among world refugees are children and adolescents who are still trying to find themselves in society. Refugee children that immigrate to a Western country often find themselves juggling two identities. In a study conducted by Tecle and James (2014) student refugees who migrate to Canada, arrive with an assured identity, yet once they start their education, they fall between two different identities, because they now have to fit into the new community they have joined. Therefore, they 'must' change who they are for the Canadian society. The concept of identity is not a simple notion, it can become complicated for younger refugee students to try and balance what they should be, and how they can commit to another ideology (Asadi, 2014). Further more, based on *The UN Refugee Agency* (2010), refugee services are an international issue for schools. Refugee children are particularly vulnerable and a victimized group. Compared to adults, they are at high risk of developing mental health problems due to war-induced trauma (Sullivan & Simonson, 2016). Here, refugees in a foreign country, and people of a different race than the dominant culture of society, endure harsh realities in their daily lives and in Western societies. They leave their countries because of a hard life, yet arrive in a different country to find themselves in new struggles (Tecle & James, 2014).

Refugee Students' Psychological Distress

Refugee Students identify obstacles faced, as challenges that differentiate them from other immigrants including post-traumatic stress, an ongoing sense of fear, and a precarious residence status. An exploratory study undertaken by Kovinthan (2016), indicates that student refugees tend to feel that they are displaced people who are living on a psychological border, feeling that they do not belong in the new society they have joined. Mental health is a lived concept for many people, where it can affect daily living, relationships, and physical health (Felman, 2020). In particular, according to a study conducted by Tsar (2011), mental health has been identified as a key issue in schools, where this disorder is associated with significant distress and impairment across multiple domains, such as social, cognitive, behavioral, and emotional well-being of a person. Further studies place the focus on foreign-born children, where mental health is affecting refugee children, without them knowing that they are suffering from a mental illness. This is because of the lack of knowledge they have on psychological problems and needs (McNeely et al., 2020). Many factors can lead individuals to flee their home countries, but most refugees experience some level of trauma before making the decision to flee their homeland. Prior to the new obstacles experienced by refugees in a new society, their mental health is affected by significant psychological distress, due to direct or indirect exposure to trauma, such as witnessing violence, or the loss of a parent or a family member (Sullivan & Simonson, 2016). Specifically, refugee children and youth carry that distress with them on their new journey in the new society they have joined.

Most mental health services that foster resilience in students for a better well-being are provided by school systems, where school might be the only provider of mental health services for refugee students (Rowe et al., 2017). However, according to Beehler et al. (2011) and Rowe et al. (2017), there are many barriers in treating mental health within certain populations, due of stigma associated with mental health. Therefore, school plays an important role in providing school-based mental health services for refugee children, where in school interventions can help with prevention, early identification, and treatment of mental health (Beehler et al., 2011). Roxas (2011) insists on community building in a classroom, where he suggests establishing a safe space for refugee students, by creating a welcoming community. According to Sonn et al. (2013) as well as Georgiades et al. (2007), entering a new space is difficult for refugee students, because they need to build trust with their new surroundings in order to fit in. According to Georgiades et al. (2007), further research should focus on policy development of the inclusion of refugees in communities and schools, using

rehabilitation programs to help children dealing with differences in their learning environment to regulate their mental health needs.

Creative Therapy Interventions for Refugee Students

Literature on the effectiveness of creative arts therapy is emerging slowly. Creative arts therapy programs using different art mediums such as art, music, dance and drama, are all considered to be effective, based on research conducted by Gilroy (2006), where he provided evidence of positive effect in art therapy, including children and adolescents in educational and mental health services settings. Positive effects, according to the research, prove to alleviate stress, facilitating communication and interaction, as well as allowing students to have the ability to reduce depression and negative behavior symptoms (Ball, 2002; Case, 2003; Vandiver & Carr, 2003). A systematic literature review by Dunphy et al. (2013) about expressive arts, demonstrates that allowing freedom of creativity within the different disciplines of the arts, result in benefits towards physical and psychological conditions, including improving self-esteem, Post Traumatic Stress Disorder (PTSD), depression, stress, and anxiety. Further, a review on classroom-based creative therapies conducted by Koch and Weidinger-von der Recke (2009), reveals that art and music therapy is a way to reconstruct meaning and identity for students who have endured hardship and trauma in their lives. Creative art therapies can engage children and adolescent in conversations about their psychological needs, where it can discourse lived stories, address grief and loss, as well as rebuild social connections (Quinlan et al., 2015).

Through the research lens of art therapists, Akthar and Lovell (2018) have collected experiences and stories from refugee children. They also provided art therapy interventions, as tools to create a safe space, where refugee children could heal and discover their new *self* through creative expression. Another study, by Fazel et al. (2009) examined school-based mental health services for refugee students, and found a significant reduction in behavioral difficulties towards others in the classroom. Creative art therapy interventions in school systems have been proven to reduce stigma of mental health, in a flexible and direct way—thus facilitating the inclusion of refugee students in the classroom, as well as ensuring their academic success (Fazel et al., 2009; Georgiades et al. 2007). Moreover, when teachers have the right training to include creative practice in their lessons, creative activities become

a way for teachers and learners to better understand what refugee students endured before arriving to the country where they now call home (Andrews, 2004; Brown & Bousalis, 2007).

Overcoming obstacles is a necessity in every human life, refugee students deserve to move on from tough experiences to a better life, here, art can offer the opportunity to discover themselves and be heard.

Psychological Support for Refugee Students

This literature review set out to examine the impact of art therapy programs on mental health outcomes among refugee children and adolescents in school, as well as to identify gaps in current methods of evaluating the effects of trauma in refugee students. Findings show that many of the refugees fleeing their country arrive with a large number of children and youth, who must continue their education in a new environment and include themselves in a new society. Refugee students have to learn to adjust to the new setting, while handling the stress and anxiety of lived trauma and current challenges of fitting in. Examined research on the mental health of refugee students has proven that mental health interventions help better understand the needs of children that have experienced trauma (Bosgraaf et al. 2020). Therefore, further research on creative arts interventions must be undertaken, in order to better understand the needs of students, as well to better identify a variety of strategies of art materials and techniques that could be used by therapists and teachers (Bosgraaf et al. 2020; Gilroy, 2006).

Follow up analysis shows that art therapy interventions lead to positive results for psychological problems (McNeely et al., 2020, Sullivan & Simonson, 2016, Tsar, 2011,). Furthermore, results indicate that art therapy is a good tool to help include refugee students in a classroom (Tsar, 2011). However, further research, adopting a consistent method of creative arts therapy, might reveal more effective strategies for mental health and inclusion of minority students in educational settings (Ball, 2002; Case, 2003). Here, the concept of organising the education system becomes a crucial part in allowing students to feel accepted by their surroundings (Akhtar & Lovell, 2018; Fazel et al. 2009).

A Sense of Belonging Through Art

As a former learner that experienced displacement due to war, developing an interest in visual arts was a way to cope with the subject of colonialism happening in my country of origin. Creating and analyzing art helped me better understand the higher power, exercising control over people, to change their values. Being young, and understanding the political

issues around me, allowed me to use my art to represent these issues and share them with others. Some of these issues represent political entities that occupy lands and nations, causing lack of security and peace for the targeted nation, and causing them to flee their homeland to find a safe space (The UN Refugee Agency, 2021). According to Tcecle and James (2014), as well as Sullivan and Simonson (2016), one of the most affecting aspects on mental health is the concept of finding oneself in society, therefore the identity of a student newly arrived in a country, living in psychological distress, becomes a necessity to “survive” in their new community. Here, my personal journey with visual arts investigated and highlighted my individual thoughts and feelings, which shaped my identity as a learner, by selecting a real vision of the world around me, and turning it into a drawing of shapes and colors.

Based on my own experience of displacement as a young child due to war in my home country of Lebanon and arriving in Canada, art was always a way to express my feelings, since my language barrier did not allow me to find the right words to explain myself in the new society I had joined—specifically in school. The school system played a major role for me in introducing creative arts as a tool for freedom of expression. As proven in research conducted by Beehler et al.(2011), as well as Rowe et al. (2017), certain populations are surrounded by stigma towards mental health, and education becomes a necessary tool for acquiring knowledge and sharing knowledge with others. Further methods need to be introduced, however, to help train teachers in including creative arts in their curriculum.

By preparing teachers, and building their confidence, as well as introducing different strategies that differentiate art methods for use in their classrooms, teachers will be able to better accommodate the mental health of refugee students who arrive in their classrooms (Andrews, 2004; Brown & Bousalis, 2007). Many teachers are afraid, or rather avoid, addressing subject matters such as the danger of immigration, substandard housing, exhausting and unhealthy conditions, and—most importantly—inequity that refugees must confront. Considering the results of psychological distress that refugee students have experienced, it is more important than ever to include these subject matters in a classroom specifically for younger children, who grow by finding themselves in a society where they are trying to belong. This not only would help with their inclusion, but teachers would be able to confront and encounter the negative stereotypes regarding immigrants, ethnicities, and religions. There are many tools that educators can use to address these matters, such as journal writing, literature, and creative arts methods. By adding subject matters that allow for

critical discussions, through inclusive activities that have visuals to describe the lives of diverse cultures and race, in an accurate, aesthetically pleasing, culturally, and politically progressive method, teachers will be able to deliver the message in an easy and effective way (Sullivan & Simonson, 2016; Tcecle & James, 2014).

Conclusion

As a refugee student displaced as a young child from Lebanon and arriving in Canada, creative arts became an important way for me to express who I was. Growing up in a Canadian education system provided me with many opportunities to pursue arts as my field of study. My undergrad consisted of a bachelor's in fine arts and a minor in psychology. Combining both subjects was thus a way to prove to myself how creative arts could help me cope with my mental health as an immigrant in a foreign country. Combining these interdisciplinary subjects together to construct rehabilitation programs, where art becomes an expressive form of communication, and refugee students are enabled to share ideas with others through visual representation, can help students like myself feel included (Fazel et al., 2009). For this reason, it is important that more research be undertaken, regarding the importance of creative arts in education, as an effective teaching strategy for the better well-being of refugee students.

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eLearning during COVID-19: The impact on undergraduate students' mental health

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Abstract

The COVID-19 pandemic quickly changed the delivery method of the education system from in-person learning to eLearning. This shift was sudden, warranting further investigation into the impacts of eLearning on students. This research paper focuses on the impact that this shift to eLearning has had on undergraduate students' mental health, through a synthesis of previously conducted research. The literature review conducted assessed empirical research taken from all over the world on undergraduate students since 2020. Findings indicate that factors of eLearning like technology, lack of socialization, educational aspects, and environment of eLearning were all factors that negatively impacted undergraduate students' mental health. Limitations discussed in this paper include the pandemic as a confounding variable, concerns with generalizability of research findings, and the grouping of second-entry undergraduate programs and programs with clinicals in research involving other undergraduate students. Therefore, further research should be conducted by individual countries to assess the impact the shift to eLearning has had on undergraduate students' mental health.

Keywords: ELearning; Undergraduate; Mental Health; COVID-19

Introduction

The COVID-19 pandemic was a shock that quickly impacted the world. A notable response to the pandemic in many countries was the closure of schools and a shift to online learning, also known as eLearning (Fawaz & Samaha, 2020). This change was forced by the pandemic, rather than by a well-researched change that would otherwise be slowly implemented, which left stakeholders unsure of the potential impact on students. This immediate response to COVID-19 has led to new research emerging on the use of eLearning during the pandemic and its impact on students. As it is currently developing, this research

can provide invaluable guidance to educators, policymakers, and other relevant stakeholders on ways of improving eLearning.

A first step in improving eLearning is to assess and understand the mental health impacts on students, as well as contributing factors. This research has been explored in various populations of students; however, to the best of my knowledge, it appears that there is a lack of research on undergraduate student populations. Since less research has been conducted with undergraduate students, I opted to investigate this specific population. This paper aims to synthesize the current literature, and discuss research gaps on the topic of how the shift to eLearning has impacted undergraduate students' mental health. The research question that guided my literature review is: What impact did the shift to eLearning due to the COVID-19 pandemic have on undergraduate students' mental health? As the research question spans two large fields, health, and education, prominent databases in these fields were selected.

In addressing this research question, PubMed, Education Source, and ERIC were all searched using the following search terms: online learning or e-learning or eLearning or distance learning, AND mental health or mental illness or mental disorder or psychiatric illness or psychological, AND covid-19 or coronavirus or 2019-ncov or sars-cov-2 or cov-19, AND undergraduate students or college students or higher education or university students. The variations of each term were determined using the Education Source's recommended term variations while entering the search terms. All articles selected were empirical research articles published from various locations in the world during 2020 or 2021. Analysis of the literature revealed common themes associated with why students' mental health has been impacted by the shift to eLearning. This included characteristics of eLearning like technology, environment, education, and socialization. Characteristics of eLearning that contributed to negatively impacted mental health are discussed below. Moreover, research that contradicts these findings are also discussed below.

Technology

Technology was a commonly identified barrier that contributed to the anxiety and stress of undergraduate students. Not having stable, and reliable Internet access largely contributed to students' stress and anxiety associated with eLearning (Fesol & Arshad, 2020; Gillis & Krull, 2020; Gonzalez-Ramirez et al., 2020; Hussein et al., 2020; Mukherjee & Hasan, 2020; Palmer et al. 2020; Sundarasen et al., 2020). In addition, issues with the technology

malfunctioning (Hussein et al., 2020), and not having access to proper technology like laptops and printers (Gillis & Krull, 2020) were also identified as issues with technology and eLearning that contributed to increased stress and anxiety. Therefore, these factors negatively impacted undergraduate students' mental health. It is important to note that due to the COVID-19 pandemic students were limited in locations from which they could access the internet, due to the closure of libraries, businesses, and other services. Therefore, most students would have heavily relied on their Internet access at home to participate in eLearning.

Güven Özdemir and Sonmez (2020) found that student attitudes towards technology can impact their eLearning experience. Students with negative attitudes toward technology are less likely to have a positive experience with eLearning (Güven Özdemir & Sonmez, 2020). However, increasing the digital competence of students, and ensuring that technologies students must access are running as intended, can reduce negative experiences (Heidari et al., 2021). Nevertheless, the majority of research concludes that technology is a common barrier, negatively impacting undergraduate students' mental health through increased feelings of stress and anxiety.

Environmental

Since eLearning takes place off-campus, students often participate in learning from home. In addition, due to the closure of many businesses and services as a result of COVID-19, students had limited options regarding where they were able to study, or participate in lectures. Learning taking place in the home environment was a factor identified in relation to eLearning that negatively impacted undergraduate students' mental health (Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; Gonzalez-Ramirez et al., 2020; Mukherjee & Hasan, 2020; Palmer et al. 2020; Sundarasan et al., 2020). Students expressed increased stress, and anxiety around having to learn from home, as they often described the home environment as noisy, distracting, and unfavorable for studying health (Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; Gonzalez-Ramirez et al., 2020; Mukherjee & Hasan, 2020; Palmer et al. 2020; Sundarasan et al., 2020). Therefore, eLearning was unfavourable and contributed to undergraduates' stress and anxiety negatively impacting their mental health.

Education

Educational aspects of eLearning were also identified as contributing factors to increased stress and anxiety among undergraduate students. Heavy workloads, insufficient support from instructors, and no flexibility in due dates were associated with undergraduate

students' diminished mental health (Fitzgerald & Konrad, 2021; Hasan & Bao, 2020; Hussein et al., 2020; Sundarassen et al., 2020). Moreover, unclear explanations and expectations from educators contributed to students' stress and anxiety associated with eLearning (Hasan & Bao, 2020; Sundarassen et al., 2020). Additionally, students who were in their final year of study, and those who felt the need to perform exceptionally well reported higher levels of stress and anxiety associated with eLearning than the average student (Fitzgerald & Konrad, 2021; García-González et al., 2021). Therefore, a significant amount of the research identifies the structure of education for eLearning as a factor negatively impacting undergraduate students' mental health, through increasing stress and anxiety levels.

Socialization

The lack of socialization involved in eLearning was the only factor associated with feelings of depression among undergraduate students. Students reported that a lack of socialization within the academic environment, as well as lack of connections with peers and professors, increased feelings of depression and sadness (Besser et al., 2020; García-González et al., 2021; Palmer et al. 2020; Potra et al., 2021). Therefore, the lack of socialization within eLearning negatively impacted undergraduate students' mental health.

Opposition to the Majority of Findings

As previously mentioned, the majority of findings suggest that the shift to eLearning in response to the COVID-19 pandemic negatively impacted undergraduate students' mental health. However, three research articles' findings did not support the same conclusion. Dwivedi et al. (2020), Malkawi et al. (2020), and Shahzad et al. (2021) all found that the shift to eLearning positively impacted undergraduate students' learning and attitudes, and did not have a negative impact on their mental health. However, these articles contained some key differences and explanations for why their results were positive compared to the majority of research in the field.

First, Dwivedi et al. (2020) compared students who were participating in eLearning during the pandemic, to those students who were not given an eLearning option. Their findings suggest that students who participated in eLearning had more positive attitudes and experiences than those who were not given an option to participate in eLearning and continue their education. A key limitation in this finding is that they did not collect data on the same set of students' experiences prior to eLearning and during eLearning—rather they compared two different groups in two different situations.

Malkawi et al. (2020) found that students were very positive toward eLearning, and were highly satisfied with their experience. However, it was noted that this study was conducted in the United Arab Emirates in which there was strong technological infrastructure to support eLearning, including a strong bandwidth and stable and reliable Internet (Malkawi et al., 2020). Finally, Shahzad et al. (2021) found that students had positive experiences with eLearning; however, their study also noted that students in the study did not experience a lack of access to technologies or reliable Internet (Shahzad et al., 2021). As previously discussed, a lack of quality technology was strongly associated with increased stress and anxiety. Therefore, undergraduate students in the studies conducted by Malkawi et al. (2020) and Shahzad et al. (2021) did not face this additional barrier, nor experience the negative mental health impacts with which other studies associated.

Discussion of the Research Gaps

A large portion of the literature reviewed thus far addresses a common limitation in their research. These studies reported a potential confounding variable. As the pandemic has placed added stress on individuals, most studies reported that their findings on the negative impact of eLearning on mental health, could also have a confounder, because the pandemic, in general, has caused worsened mental health among the general population (Aguilera-Hermida, 2020; Besser et al., 2020; Fawaz & Samaha, 2020; Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; García-González et al., 2021; Gillis & Krull, 2020; Gonzalez-Ramirez et al., 2020; Hasan & Bao, 2020; Hussein et al., 2020; Kochuvilayil et al., 2021; Mukherjee & Hasan, 2020; Palmer et al. 2020; Potra et al., 2021; Sundarassen et al., 2020). Students may be associating their worsened mental health with their eLearning experience; however, the main contributor could be aspects of the pandemic, with social distancing and concerns of health being the main factors influencing diminished mental health.

A few studies took a very constructivist approach, and attempted to control for this confounder by allowing students to talk and share their experiences, and identify their own factors associated with worsened mental health. They identified general concerns associated with the pandemic as the primary factor influencing worsened mental health, and issues with eLearning as secondary (Fitzgerald & Konrad, 2021; Gonzalez-Ramirez et al., 2020; Guven Ozdemir & Sonmez, 2020; Palmer et al. 2020). This suggests that the extent to what negative impact eLearning had on undergraduate students may be overestimated, and may be more

closely associated with the effects of the pandemic. Nevertheless, these studies still concluded that eLearning had a negative impact on undergraduate students' mental health.

Given that the pandemic is recent, and has rapidly caused a major shift in the education system, few best practice recommendations have been made. A few factors, however, have been identified as contributing to worsened mental health, and therefore, looking into potential solutions to these issues may reduce the negative mental health impact. First, not having access to proper technology like laptops has been identified as a technological issue that is contributing to worsened mental health (Gillis & Krull, 2020). A potential solution for this is creating programs that can help students by supplementing the cost of buying technology, or have students be able to access donated laptops and other technologies they require for eLearning. Moreover, heavy workloads, insufficient support from instructors, and no flexibility in due dates were associated with undergraduate students' diminished mental health (Fitzgerald & Konrad, 2021; Hasan & Bao, 2020; Hussein et al., 2020; Sundarasan et al., 2020). Instructors providing more flexibility in due dates, more office hours, and revising their content to ensure only the most relevant information is included could help reduce the negative mental health impact associated with eLearning. These are potential recommendations for educators based on my research findings.

Shahzad et al. (2021), found that there is a positive relationship between user satisfaction and quality eLearning portals. Therefore, educators should select eLearning technology that is accessible and user-friendly to improve student experiences. Finally, increasing students' digital competence, and ensuring that technologies students must access are running as intended, can reduce the negative experience with eLearning (Heidari et al., 2021). These are the few recommendations that have emerged from research on eLearning and its impact on undergraduate students' mental health. Overall, the field is calling for continued research to fully understand the impact eLearning has had on students to make informed decisions and provide recommendations for best practices.

While evaluating the research within this field, a few potential recommendations could be made. First, research should define who they have used as the undergraduate population. Moreover, it may be beneficial to evaluate those in second-entry undergraduate programs or those in undergraduate programs requiring clinicals separately. This is because the cancellation of student clinicals has been associated with an extremely large impact on mental health, and identified as the main stressor due to the nature of the programs (Agarwal, 2020; Fitzgerald & Konrad, 2021; Guven Ozdemir & Sonmez, 2020). Therefore, these

students, if grouped with other undergraduate students who do not have this added stress, may influence the findings. This is because higher levels of negative mental health impact have been reported, and could impact how strongly eLearning and the negative impact on mental health are associated, while conducting statistical analysis of their findings. This is possible as students with this added stress may deviate from the norm, but can still highly influence the average mean of negative impact reported.

Additionally, I would urge researchers in various countries to conduct their own research on the impact of eLearning during the COVID-19 pandemic on undergraduate students' mental health. As demonstrated in the literature education systems, the approach each country took varies highly from country to country (Aguilera-Hermida, 2020; Besser et al., 2020; Fawaz & Samaha, 2020; Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; García-González et al., 2021; Gillis & Krull, 2020; Gonzalez-Ramirez et al., 2020; Hasan & Bao, 2020; Hussein et al., 2020; Kochuvilayil et al., 2021; Malkawi et al., 2020; Mukherjee & Hasan, 2020; Palmer et al. 2020; Potra et al., 2021; Sundarassen et al., 2020). Moreover, some countries like the United Arab Emirates have strong technological infrastructure, and had eLearning procedures already in place before the pandemic (Malkawi et al., 2020). Therefore, their undergraduate students were less affected by the shift to eLearning, and experienced no reported negative mental health impacts (Malkawi et al., 2020). These variations from country to country make the research less generalizable, and therefore each country should research their own student populations, building on the research from other countries. This would create a larger body of knowledge, and improve eLearning experiences for undergraduate students in their respective locations.

Conclusion

Findings from the majority of studies that focused on mental health indicate a negative psychological impact on students associated with eLearning during the pandemic (Aguilera -Hermida, 2020; Besser et al., 2020; Fawaz & Samaha, 2020; Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; García-González et al., 2021; Gillis & Krull, 2020; Gonzalez-Ramirez et al., 2020; Hasan & Bao, 2020; Hussein et al., 2020; Kochuvilayil et al., 2021; Mukherjee & Hasan, 2020; Palmer et al. 2020; Potra et al., 2021; Sundarassen et al., 2020). Three common mental health factors were identified in the literature and these were: 1) stress (Fawaz & Samaha, 2020; Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; Hussein et al., 2020; Palmer et al. 2020; Sundarassen et al., 2020); 2) anxiety (Besser et al.,

2020; Fawaz & Samaha, 2020; Fesol & Arshad, 2020; Fitzgerald & Konrad, 2021; García-González et al., 2021; Gillis & Krull, 2020; Gonzalez-Ramirez et al., 2020; Hasan & Bao, 2020; Hussein et al., 2020; Kochuvilayil et al., 2021; Mukherjee & Hasan, 2020; Sundarassen et al., 2020); and 3) depression (Fawaz & Samaha, 2020; Mukherjee & Hasan, 2020). Aspects of eLearning associated with negative impacts on mental health were: 1) being at home; 2) internet connection; 3) technology access; and 4) a lack of social connection. Moreover, the educational aspect of eLearning such as workload, limited flexibility in due dates, and lack of educator support were also factors identified as contributing to the decline in undergraduate students' mental health. By comparison, a small number of studies found that eLearning positively impacted undergraduate student experiences, and therefore did not negatively impact mental health (Dwivedi et al., 2020; Malkawi et al., 2020; Shahzad et al., 2021); these studies, however, presented key differences like access to reliable technology for all students and previously developed eLearning curricula.

A review of the literature reveals key limitations, and areas for further research. One limitation identifies as a potential confounder is that the COVID-10 pandemic, in general, could be contributing to reduced mental health, so students may be inaccurately associating negative mental health impacts of the pandemic with their eLearning experiences. Moreover, given that each country has a unique education system and student environment, generalizations from other countries' studies should not be made. Countries can use previous research as a guide, but should investigate their own student population, to assess the impact eLearning has had on mental health. Finally, it is encouraged that future research studies define their undergraduate population, and separate students in programs that require clinicals. This is because students whose programs required clinical requirements experienced the added stress of not being able to meet their program requirements, and thus, reported higher levels of stress and anxiety. Given that the COVID-19 pandemic and shift to eLearning is a novel situation research on this topic is limited. Therefore, more research is required to better understand the impacts on education systems in the interest of further informing policymakers, educators, and other relevant stakeholders on improving student experiences.

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Teacher's mental health during the COVID-19 pandemic

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Abstract

The COVID-19 pandemic has affected every single person in the world in some shape or form. Teacher mental health has taken a clear effect during the pandemic, and it seems that teachers have been left out of the mental health conversation. This paper seeks to answer the question, what supports have affected teachers' mental health during the COVID-19 pandemic? Research has shown that workload, lack of support, lack of resources, and lack of conversations have all been factors to the detriment of teachers' mental health during the COVID-19 pandemic. This paper brings to light how different teachers of different grade ranges have suffered during this pandemic, and what has been done to help them. For those teachers who have not been supported, I have looked at the gaps where teachers have been given some form of support to help with their mental health; as well as, conversations on the fact that teachers and their administration are not yet properly trained to deal with and handle mental health conversations. The COVID-19 pandemic did not leave anyone behind when it came to testing their mental health, and affected everyone. Teachers were no different.

Keywords: COVID-19; Education Supports; Mental Health

Introduction

The Covid-19 pandemic is new to a lot of us, and it is something we have never gone through before. There are so many major debates when it comes to the pandemic and how it is affecting our education system and our students. I have personally seen the effects it has taken on my students, peers, and co-workers who have taught all year, or even had to take sick leave. While thinking about this topic, there are so many debates that relate to hybrid, in-class, and virtual learning, and how it affects our student's mental health. However, there is not a lot written about their teachers. This paper is seeking to answer, what supports have affected teachers mental health during the COVID-19 pandemic? Darling- Hammond

(2020), along with many other researchers and authors have written many articles, and conducted research focusing on education for both teachers and students. However, a lot of Darling-Hammond's writing does not focus on the well-being of teachers. This pandemic is fresh and new, therefore it is still a work in progress for many researchers. What I have found in other research from school boards, is that teachers need resources, and are said to be offered this; research however, surveys, and their results show that teachers do not feel supported by certain groups both in and outside the education system.

Teachers Mental Health versus COVID-19

Similar to many of the other articles mentioned below, Courtney et al. (2021) surveyed 454 New Orleans charter school teachers. They completed their survey during the first few months of the pandemic. Their results showed that on average the teachers they questioned experienced seven stressors out of the eighteen provided on the survey. Teachers who experience more stressors reported worse mental health, and found it harder to cope and teach. Something interesting found in this study was that in comparison to white teachers, Black teachers reported better mental health. In conclusion, the result of the COVID-19 pandemic was related to teacher's poor mental health, coping, and teaching. Their research also concludes that supporting teacher's well-being is critical to preventing these types of consequences.

Moving on to earlier in the pandemic, there were situations where people did not know what was going to happen. Allen et al. (2020) completed research that looked at how the early stages of the COVID-19 pandemic affected teacher well-being. Even earlier on in this pandemic, the participants they selected through the 2019/2020 school year, expressed how lock-downs and uncertainty affected their mental health tremendously. The researchers brought up a good point, comparing teachers who taught in private schools to those who taught in public schools. Their results showed that teachers who taught in private schools had a lower stress level and mental health worries, than those who taught in public schools. Therefore, looking at the difference between public and private schools does provide a limitation, as well as looking at different resources the two different schools were provided. As well, how supporting the different sectors made a difference with their mental health; in this situation we also have to remember similar employees within the sectors, such as bus drivers and custodians.

Just like Richard et al.(2020), Spadafora et al.(2021), Jain et al.(2020), and Beams et al. (2021), all mention how teachers are affected differently. Whether kindergarten teachers, primary, or high school teachers, COVID-19 affected everyone in different ways—no matter if you were new to the profession or had been teaching for years. Unfortunately some teachers were left behind, and that resulted in poor mental health as these articles conclude. Some of these articles were similar because they question who is responsible for teachers' mental health, or who is responsible for the support to help their mental health. That question then leads into differences, and limitations in the research, and articles that I have seen.

Teachers Mental Health versus Education Supports

While the majority of the research concludes that teachers need more support to help their mental health, as the pandemic has been going on for over a year, it is still very new to us. We are all still trying to figure out how to deal with everything going on, so finding the differences and arguments regarding teachers' mental health is challenging. Articles from Lahey (2016), Providence Health Team (2020), EdSource (2015) and others write that administrators and teachers are not properly trained to deal with mental health. These articles were written personally, which does mean it is their opinion and has not yet been investigated empirically.

Matiz et al. (2020) undertook their research with 66 Italian female teachers, to investigate a support called mindfulness-oriented meditation (MOM). They found that these teachers reported higher stress and anxiety than men. The MOM program was 8 weeks long with video lessons, meetings, and group discussions, and was found to be extremely helpful for the teachers who participated; they found that they were actively engaged in the activities and the lessons that were provided helped them incredibly. Something interesting they also found was that younger teachers were reacting to teaching during the pandemic differently than the older teachers. MOM is a great support for teachers, however, when reading this article, I question how MOM is actually helping train teachers to deal with their mental health?

These articles come to an agreement that teachers and administrators are not well trained and equipped to deal with the mental health issues in their schools, and need to have proper support as mentioned in the first few articles. Foulis (2020) goes into further detail, calling the current situation for teachers grim and utterly unreasonable. COVID-19 has taken a toll on everyone and has not left any teacher unaffected; over 14,000 teachers spoken to called their situations unbearable. With these teaching conditions, and the lack of support and

resources, teachers feel overwhelmed, stressed, anxious, and so much more. This is what Santamaría et al. (2021) mentioned in their article, as well as Kim et al. (2021), Gewertz (2021), and Matute-Castillo et al. (2020) all conclude.

Teachers Mental Health

Roman's (2020) article focused more on supporting mental health, yet came to a similar conclusion as Baker et al. (2021). They gave a questionnaire to 15 pre-service teachers as well as 15 students. This research concluded that formative assessment tools can also be used to help teachers and their mental health. At the end of their research, a big takeaway is that K-12 administration must be prepared to support their staff when it comes to their mental health. This point will come up again when we look at some of the debates with teachers about mental health during this pandemic. Moving forward, this research starts looking into the future to see how they can identify some of the stressors, and strategies to help teachers better handle mental health. These two articles both look at the importance and lack of support from administration, and its effects on teachers who experienced the COVID-19 pandemic.

Just like Roman's (2020), Aperribai et al. (2020) also conducted a questionnaire survey with a greater number of participants (n=345 teachers). Aperribai et al., however, focused more on teachers' physical activity and their mental health. Their results show that indoor physical activity did not affect these teachers' mental health. Just like Baker et al. (2021) and Roman (2020), Aperribai et al. (2020) conclude how having support for their teachers is important. These findings confirm how having supports and resources in place for teachers will work in their favour. Later on in this paper, we will see just how the burnout takes a toll on the teachers, and how it affects their work.

The research of Asha et al. (2021) and Alves et al. (2020) focuses on mental health and wellness. Both were completed earlier on during the pandemic, and found that all adults in the school—from teachers to early childhood educators, custodians, and bus drivers—were struggling to keep a work-life balance. The increased amount of work, with a lack of time, and

support definitely affected them in ways they did not imagine. Both groups mentioned the importance of having a work-life balance, which can be hard especially during a pandemic. Both inquiries conclude that making sure support is made available to everyone and anyone who needs it, is very important and helps curve of their mental health. Different teachers may need different supports, and a popular support that has been brought up is meditation.

Discussion of the Research Gaps

Because the pandemic is so new to us, to discuss research gaps with this specific research question is difficult, because we do not have enough research available to come up with any final conclusions. We have an idea of what is going on, and what is affecting teacher's mental health, however, more research needs to be conducted for us to gain a deeper understanding. Matute-Castillo et al. (2020) present the argument that technology is playing a huge role in the mental health of teachers. This leads to a gap, because with the COVID-19 pandemic some teachers have had no choice but to use all the old and new technology to help teach their classes, in order to help their students. With that being said, Kim et al. (2021) quotes right in their title that teachers feel like they have 100 tabs open at once (p. 1). In a position where your job is in demand, there is a lack of resources, support, and time, teachers cannot function with so many demands on their plate. This article highlights that teachers require more resources, and support to help them, especially with the back and forth between in-person and online learning. However, who is responsible for these resources and supports? Should these teachers not be going to their administrators Should they be going to other teachers The board office Ministry of Education? Santamaría (2021) mentions how teachers' stress, anxiety, and mental health as a whole was affected earlier on during the pandemic; a gap would be to consider whether teachers had mental health issues prior to the pandemic. Why are we only looking for the resources and support now, rather than before? With that being said, Santamar a's findings point to the gaps in support that were out there for teachers during the pandemic.

Another good point to bring up is that not a lot of academic papers have been written to focus on COVID-19 and the mental health of teachers. Foulis (2020) wrote an article where she calls the current situations for teachers grim and unreasonable. As mentioned earlier,

teachers are making it clear, and trying to get themselves heard—for resources and support. Yet, the gap comes in knowing where to direct such demands, and who is responsible for providing these supports and resources. Foulis (2020) adds a quote in her article: “COVID-19 takes a toll and leaves no one behind” (p. 1). Unfortunately, teachers have been left out of this conversation. As mentioned earlier, the pandemic is still very new to all of us, so there has not been time for many researchers to collect data, or even write academic pieces of writing. That does leave a lot of articles from the writer's own perspective, which is not any concrete evidence, but they usually do leave suggestions that could be taken into consideration.

There have been so many articles written about students' mental health, and yet teachers seem to be left out of the conversation, which is very unfortunate. Teachers, and other educators, are the adults in the room, and spend most of their time with their students; if they are not physically and/ or mentally well, that will impact the learning environment for their students. Many of the articles discuss how teachers are unfortunately going through a burnout due to their workload, the transition from in-person to virtual learning, and communication with parents and administrators. They do not feel supported in any shape or form.

Spadafora et al. (2020) specifically discuss the mental health of Ontario kindergarten teachers during the pandemic. Teachers who participated revealed that their mental health symptoms felt like they had a greater responsibility, taking care of more than their own children. In a situation where kindergarten teachers feel this way, other grade-level teachers should be interviewed, with adequate time undertaken to conduct research, since their mental health issues may not be the same as teachers at kindergarten level. Long before the pandemic started, Adams (2015) wrote an article that pushed for mental health training for teachers and principals. At that time it was clear that there needed to be training in order for teachers and principals to feel equipped to handle these situations. Likewise, Lahey (2016) poses an important question that, if teachers are the first-person students turn to when they are struggling with their mental health, where are the teachers supposed to turn when it comes to their own mental health. In addition, how are teachers supposed to support their students when they are looking for support for themselves? With teachers begging for support and resources, it speaks to itself that this training has not yet been implemented. How can teachers, and principals be able to support themselves and their staff if they do not know how?

Conclusion

The COVID-19 pandemic has affected us in more ways than we could ever have imagined. This paper digs deep to answer the question: what supports have affected teachers' mental health during the COVID-19 pandemic? Through research and reading articles, we see that almost no support has been provided to teachers to help support them. Most of the articles discussed came to the same conclusion—teachers are burnt out, stressed, and feeling isolated. With such a lack of resources and support, it has affected teachers work-life balance, which is said to be so important. Of course, some education systems have taken it upon themselves to bring in supports like meditation and mindfulness moments for their staff, to help them cope. However, for the teachers who were not as lucky and were not provided with these coping tools, who do they go to in order to receive some type of support or guidance in the right direction?

It is unfortunate to see these essential workers ask for support and resources, and be given very little to nothing at all. Some authors came to the conclusion that teachers and administrators are just not trained or capable of handling such situations. I find it interesting that teachers are expected to handle similar situations for their students, so how can they do that for themselves? The COVID-19 pandemic has brought to light many issues, in many many different fields. The mental health of all teachers is just one of many issues that should be taken into serious consideration. Not only do these adults have to hold themselves together, but they have to hold a classroom full of students together, and they cannot do that if they are falling apart.

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The need for a holistic approach to nursing students' education and ways mindfulness activities can be implemented to enhance nursing students' mental health

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Abstract

There is a growing body of evidence in the literature that nursing students experience a high level of stress and morale distress during their education. This professional stress and emotional burnout have been associated with decreased empathy, as well as having a negative impact on critical thinking and wellbeing of licensed nurses. The literature demonstrates that mindfulness activities have a positive impact on nursing students' mental health and reduces stress levels. This paper aims to explore how mindfulness activities can be implemented in the existing nursing program to help students manage their professional stress and emotions. A theoretical research approach was used to explore the current literature surrounding nursing students' major stressors, emotional demands, and mindfulness activities that have been proven to be beneficial. Some research gaps were noted: 1) that students do not always participate in mindfulness training due to their already busy schedules; 2) the need to incorporate mindfulness and stress management techniques in nursing curricula is not a new topic, yet we continue to see high level of stress in nursing students; and) there is a lack of research surrounding long-term effects of mindfulness training in nursing students' mental health. I conclude that further research needs to be conducted to identify the barriers to successfully incorporating mindfulness awareness and training within nursing curricula, in order to provide universities with desirable solutions.

Keywords: Nursing Students; Mindfulness; Emotion and Physical Stress

Introduction

The nursing profession can evoke strong emotions as well as stress, often transforming itself into an emotional burden that no one talks about. During my nursing studies, I was not given tools to manage the stress, and emotions associated with my profession. It is not always easy to separate your work from your personal life. The academic

curriculum nurses undertake is very intensive. In my experience, although many teaching strategies such as simulation and case studies were used to help us develop our critical thinking skills, the anxiety, and stress related to our experiences were never addressed. Through my role as a nursing student preceptor, I have noticed that this is still the case for students from different universities. I think that there is value in providing nursing students with coping tools to help them process the emotions that can emerge from the work and experiences that nurses encounter.

A growing body of evidence in the literature suggests that nursing students experience a high level of stress and morale distress during their education. This professional stress and emotional burnout is also present in working nurses, and can be contributing factors to decreased empathy, impact on critical thinking, and wellbeing (Walker & Mann, 2016). Establishing a therapeutic nurse-client relationship is one of the practice standards for nurses working in Ontario (College of Nurses of Ontario, 2006). Creating a therapeutic relationship requires the nurse's own emotional engagement. Unfortunately, research has shown that this can have a severe impact on nurses' mental health (Austin et al., 2009; Drury et al., 2014; Foureur et al., 2013; Missouridou, 2017) and effect their capacity to provide sensitive care (Walker & Mann, 2016). Professional stress and emotional exhaustion begins during a nurses' training. Research is showing that nursing students experience higher levels of stress compared to other health professional students (Jimenez et al., 2010; van der Riet et al., 2015). Mindfulness practices have been identified as an effective way to decrease stress and enhance a sense of well-being. Mindfulness activities can provide nursing students with tools to reduce stress, and enhance ability to attend to self and others in both personal and profession settings (Pulido-Martos et al., 2012). Therefore, mindfulness can be a way to support students' emotional learning. As Schwind et al. (2017) state: "despite current evidence, mindfulness practices have yet to be fully integrated within the undergraduate and graduate curricula at most higher education institutions" (p. 92).

The purpose of this paper is to explore how a holistic approach to education using mindfulness activities can be implemented in nursing curricula to help students maintain self-awareness, reduce stress, and avoid morale distress. A constructivism worldview was adapted in order to collect data for this research. It was important for me to take into consideration students' experiences to ensure that the mindfulness activities presented are effective, and meet students' needs. A constructivism worldview was the most suited, as it allowed for an understanding of how mindfulness can be implemented to support nursing students.

The key words that were used to search the literature are mindfulness, nursing students, professional stress, and emotions. My research question that directed the content of this paper was: how can mindfulness activities be implemented in the existing nursing program to help students manage their professional stress and emotions?

Literature Review

The following section will explore the impacts of stress, and emotional demands on nursing students; furthermore, how mindfulness practices can be used to decrease stress, and enhance a sense of well-being.

The Impact of Stress on Nursing Students

Stress is a well-known body response for most individuals, as it is our body's way to respond to pressure. Everyone experiences stress in different ways, and our abilities to cope can be impacted by multiple factors (Mental Health Foundation, 2021). Although small amounts of stress can increase excitement and motivation (Labrague et al., 2017), some individuals are more at risk of chronic stress and its negative impacts (Mental Health Foundation, 2021; Roberts & Grubb, 2014). There is a growing body of evidence that nursing students experience a higher level of stress compare to other health professional students (Bartlett et al., 2016; Jimenez et al., 2010; Manocchi, 2017; van der Riet et al., 2015). Bartlett et al.'s (2016) study revealed that 52.3% of the nursing students who participated in their research experienced above-average stress, and 17.6% experienced tremendous stress. This is in correlation with the fact that the nursing profession has been identified as one of the occupations that reports the highest level of stress (Roberts & Grubb, 2014). The National Institute for Occupational Safety and Health (1999) defines job stress "as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker" (para. 9). Several researchers around the world have conducted studies to identify nursing student's sources of stress, in the hopes of addressing such stress and decreasing negative impacts on physical and emotional health.

The major stressors for nursing students identified in the literature are clinical stress (fear of making a mistake, patient suffering or death, handling clinical emergencies); academic stress (evaluations, fear of failure, workload); and external stress (balance between school/social life, financial problems) (Jimenez et al., 2010; Pulido-Martos et al., 2012; Sun et al., 2016). In most universities, the nursing curriculum combines a mix of clinical experience, and theory classes in the same week. Therefore, nursing students experience multiple

sources of stress at the same time. Although clinical placements are an essential part of nursing education, the environment and experiences encountered can contribute to students' stress and emotional distress.

Nursing Students' Emotional Demands

In my own lived experiences, I have observed that nursing students are exposed to the same encounters as practicing nurses, and are not immune to the emotional engagement that is required in building a therapeutic nurse client relationship. Research has shown that nurses' emotional engagement can lead to post-traumatic stress disorder (Missouridou, 2017), compassion fatigue, secondary traumatic stress, and vicarious traumatization (Austin et al., 2009; Drury et al., 2014; Foureur et al., 2013). This emotional cost can impact level of stress, strain, weariness, mental health, and ongoing capacity to provide sensitive care (Foureur et al., 2013; Walker & Mann, 2016). This professional stress and emotional burnout can be contributing factors to decrease empathy, impact on critical thinking, and well-being of both nurses (Davies, 2008; Walker & Mann, 2016) and nursing students (Beanlands et al., 2019; Song & Lindquist, 2015). In order to provide quality care and ensure patient safety, nurses and nursing students need to be able to manage their emotions while making clinical decisions, and performing patient care (Dubert et al., 2016). Thus, it is important to ensure nursing students are equipped with the appropriate tools to manage the stress, and emotional demands they may experience in order to maintain a sense of well-being. Unfortunately, learning how to manage and cope with the emotional demands and stress associated with the nursing profession is not routinely taught in nursing programs (Dubert et al., 2016; Schwind et al., 2017). Therefore, some scholars have explored how to enhance nursing students' physical and mental well-being.

The Benefits of Mindfulness

Mindfulness practices have been identified as an effective way to decrease stress and enhance a sense of well-being. Mindfulness is described as "a mental state achieved by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations, used as a therapeutic technique" (Lexico, 2021, para. 2). Mindfulness activities can provide nursing students with tools to reduce stress, and enhance the ability to attend to self and others in both personal and profession settings (Pulido-Martos et al., 2012). Therefore, mindfulness can be a way to support students emotional learning. Some scholars have conducted studies to evaluate the impact of mindfulness approaches and activities on nursing student's level of stress. A common

approach that has been studied is the mindfulness-based stress reduction (MBST) program that consists of 8 weekly sessions, when participants are guided through activities such as body scan, sitting meditation, walking meditation, mindful breathing, and Hatha yoga (Amutio et al., 2015; Asuero et al., 2014; Beddoe & Murphy, 2004; Song & Lindquist, 2015; Spadaro & Hunker, 2016). Findings indicate that MBST program promotes self-awareness (Asuero et al., 2014), improves coping skills, significantly reduces anxiety and stress (Beddoe & Murphy, 2004; Song & Lindquist, 2015; Spadaro & Hunker, 2016), and also reduces emotional exhaustion (Poulin et al., 2008). Overall, MBST weekly sessions have proven to improve nursing student's physical and emotional well-being. These findings mirror the ones obtained by similar studies that implemented innovative activities such as laughter therapy (Kanji et al., 2006), self-Reiki (Cuneo et al., 2011), and co-meditation (Malinski & Franceschi, 2011), to enhance nursing student's mindfulness and reduce stress. An increase in a sense of well-being and mindfulness state in nursing students can enhance clinical performance and patient care. A study conducted by Raingruber and Robinson (2007) assessed the effectiveness of a self-care program consisting of Yoga, Tai Chi, Meditation classes, and Reiki healing. Raingruber and Robinson (2007) findings reveal that registered nurses who participated in one or more of the classes over the period of several weeks felt more present when working with patients, and experienced an increase in their problem-solving skills as well as self-awareness.

Discussion of the Research Gaps

Although the research surrounding mindfulness programs and activities have proven to be effective methods to help nursing students manage stress, maintain self-awareness, and avoid morale distress, a common limitation that has been identified is that students don't always participate in these additional optional courses. As Noble et al. (2019) have observed, a major challenge for nursing students rests in "maintaining mindfulness practice, including finding time to practice regularly and prioritising the activity" (p. 800). Despite the fact that nursing students acknowledge the need for mindfulness training, in the studies where they had the opportunity to share their feedback, they expressed the importance of time management. In particular, feedback obtained during such studies indicate that the timing and scheduling of mindfulness programs was stressful in itself, since it was not offered at a convenient time (van der Riet et al., 2015); the term 'homework' was perceived as 'off-putting', and busy semesters did not allow students to devote time to the activities (Schwind et al., 2017), while the

added homework was too stringent (Poulin et al., 2008). Nursing student feedback provided during the Poulin et al. (2008) study suggests that mindfulness training should be part of compulsory training. Thus, it could be assumed that having mindfulness training integrated within the nursing curriculum, instead of as an extra course, would compel the nursing faculties to allow adequate time within the academic schedule. Although some scholars think that mindfulness activities should be based on voluntary participation (Guillaumie et al., 2017), as noted by Beanlands et al. (2019), further research is required to explore optimal approaches to delivering mindfulness interventions in conjunction with nursing curricula.

The need to incorporate mindfulness and stress management techniques in nursing curricula is not a new topic (Charlesworth et al., 1981; Grossman & Wheeler, 1999; Heaman, 1995). In 1999, Grossman and Wheeler stated that nursing students experienced higher stress levels compared to other health professional students, and that there was a need to incorporate 'self-care' within nursing curricula. They stated, "stress management strategies should be an integral part of a nurse's educational experience, self-care being elaborated and refined as the students progresses through the program" (Grossman & Wheeler, 1999, p. 27). Yet, recent research is still identifying the need to incorporate mindfulness training in nursing programs, as nursing students experience high levels of stress (Beanlands et al., 2019; Manocchi, 2017; Noble et al., 2019; Schwind et al., 2017; Walker & Mann, 2016). It would be possible to come to the conclusion that most universities have not adequately addressed this issue or failed to incorporate mindfulness training within their nursing curriculum. Thus, further research needs to be conducted to evaluate what are the barriers to integrate mindfulness awareness and training within nursing curricula.

It has been observed that there is a lack of research surrounding long-term effects of mindfulness training in nursing students' mental health. A study conducted by Solhaug et al. (2019) analyzed the long-term mental health effects of mindfulness on medical and clinical psychology students. The 4-year follow-up study demonstrated an increase in both student's mindfulness state and their use of mindfulness exercises (Solhaug et al., 2019). They concluded that there is value in using an abridged MBSR intervention in promoting coping skills for future professional challenges (Solhang et al., 2019). In the literature, nursing students and medical students are often paired up in studies; based on this knowledge, it would be possible to assume that nursing students that also participated in MBSR training would potentially demonstrate long-term positive mental health effects. Further research is needed to evaluate the long-term effectiveness of mindfulness and stress reduction

techniques in nursing students. Furthermore, research should be conducted to determine if nursing students who participated in mindfulness training continue to maintain, practice, and carry over their learned skills in their professional role.

One can speculate that if mindfulness training has long-term effects, and that mindfulness awareness is introduced in nursing curricula, it might have a positive impact on nursing workplace culture. Parker et al. (2014) have found that 93% of new graduate nurses who participated in their inquiry described their work emotionally challenging, and only 30% rated the nursing morale in their workplace as good. In addition, a study conducted by Drury et al. (2014) revealed that nurses did not access counselling services available to them, and spoke 'disparagingly' of such services. Nonetheless, studies have shown that having peer support through informal debriefing, and social networks, play an important role in managing the daily stressors in both nursing students (Grossman & Wheeler, 1999; McCarty et al., 2018) and nurses (Drury et al., 2014; Parker et al., 2014). Further research should be conducted to evaluate the external supports in place for nurses and nursing students in Ontario, and if any access barriers exist.

Conclusion

Mindfulness has been proven to be an effective holistic intervention that has a significant positive impact on nursing student's mental health (Asuero et al., 2014; Beddoe & Murphy, 2004; Cuneo et al., 2011; Grossman & Wheeler, 1999; Malinski & Todaro-Franceschi, 2011; Kanji et al., 2006; Poulin et al., 2008; Pulido-Martos et al., 2012; Song & Lindquist, 2015; Spadaro & Hunker, 2016). In order to provide universities with desirable solutions, more attention should be given to this important topic, and further research should be undertaken to evaluate what are the barriers for successfully incorporating mindfulness awareness and training within nursing curricula.

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Language Learning and Teaching English

ESL classroom strategies for refugee youth in Canada

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Abstract

There is a need for bottom-to-top classroom strategies for compassionate and empathetic education for refugee students. This is due to a lack of an English second language (ESL) curriculum specifically tailored for an increasing number of asylum seekers enrolled in the Canadian school system. My research question is how can educators provide refugee youth with a more compassionate integration into Canadian society? In addressing this question, I explore, through the lens of advocacy, empirical research undertaken in Canada since 2000 on the current best practices in ESL classroom strategies for refugee students in Canada. My literature review draws attention to gaps in current research: 1 a lack of language policy implementation for refugees students in Canadian ESL and English literacy development (ELD classrooms; 2 a lack of a universal teaching strategies to assist teachers with tools to adapt their classrooms to the needs of refugees and; 3 a lack of top-to-bottom efforts to support teachers in program planning and adapting their teaching strategies to suit refugees, such as access to social workers, time management, academic resources, financial support, and more. I conclude that by exploring successful bottom-to-top teaching and planning strategies, more opportunities for collaboration will open up between bottom-to-top and top-to-bottom interventions. This collaboration could potentially lead to the implementation of future ESL and ELD curricula, designed specifically for the needs of refugee youth, and the execution of provincial policies for refugee youth designed to ensure that adequate resources are provided—inside and outside of the classroom—for refugees in Canada.

Keywords: Refugee Youth; ESL Courses; Bottom-to-top Teaching Strategies

Introduction

Second language education is an essential part of cultural and societal integration for newly arrived immigrants and refugees coming to Canada. As Adesope et al. (2011) and others have noted, Immigration has become very important since, “in the face of shrinking birth rates, many Western countries have come to rely on immigration for population growth and to maintain a skilled workforce” (p. 630). While immigration is on the rise, the number of

asylum seekers has also risen significantly. Between 2011 and 2016, a reported 1.2 million new immigrants permanently settled in Canada, with 11.6% of this population admitted as refugees (Statistics Canada, 2016). Since 2017, the number of asylum seekers has surpassed 50,000 and is increasing each year (Statistics Canada, 2019). Refugees seeking asylum in Canada are fleeing conflicts such as war, persecution, or even natural disasters, making their home countries inhospitable. There is a lot of trauma associated with seeking asylum, especially when children are involved. A high number of claimants in 2017 were children aged 0 to 14 years, representing over 26% of the total amount of asylum seekers, which is a significant contrast to 16% of the same refugee age group already living in Canada that year (Statistics Canada, 2019). These children integrate into the Canadian school system, with some having their education interrupted in their home countries.

The current ESL (English Second Language) and ELD (English Literacy Development) curricula in Canada are intended to ensure the rapid integration of immigrant and refugee youth into a mainstream Canadian school system. Currently, there is no curriculum specifically designed to meet the needs of refugee students. Each province develops their own curricula and policies regarding education and integration. Ratković et al. (2017) found that “teachers, resettlement officers, and policymakers often lack cross-cultural competencies, a social justice focus, and transformative leadership skills when working with refugee students” (p. 1). Therefore, with the increasing number of asylum seekers entering Canada, and a significant portion of them being children, it is important to take a look at some of the bottom-to-top teaching strategies developed by teachers in direct contact with these students, in order to gain a better understanding of what teaching strategies best suit the needs of these specific learners. Bottom-to-top efforts can provide a first-hand perspective into what works, to ensure the successful integration of refugee youth into the Canadian educational system and society in an empathetic and compassionate manner. Indeed, the responsibility of academic success falls on the shoulders of teachers who may not be equipped with necessary resources or skills to provide the best classroom environment for refugee youth. Therefore, it is important to take into consideration the efforts of researchers and teachers who have devised teaching methods to ensure the academic success of these students, and thus speed up their integration into Canadian society. This paper examines bottom-to-top ESL classroom strategies for refugee students in Canada, and how they can assist with compassionate integration. To this end, this paper focuses on refugee youth, ESL courses, and bottom-to-top teaching strategies specifically designed to help refugee students feel

comfortable—both in and out of the classroom—as they adapt to life in a new country, process their own trauma, and learn English, in order to join their peers in mainstream classes as quickly as possible.

This literature review adopts an explorative approach, through the lens of advocacy, in order to bring attention to the diverse efforts of teachers using bottom-to-top classroom strategies. The purpose of this theoretical perspective is to highlight the creative and empathetic teaching strategies that have been successful in helping refugee youth integrate into their new society while also being aware and mindful of the trauma associated with the integration process and prior events that led to the seeking of asylum. By examining how individuals are attempting to make a positive difference in easing integration in an empathetic and compassionate way, it is possible to demonstrate how these efforts could be implemented on a larger scale, and thus cater to the needs of all refugees in Canada. By exploring the successful strategies of bottom-to-top efforts, this literature review seeks to open up the discussion for collaboration between bottom-to-top and top-to-bottom efforts with the objective of implementing future ESL and ELD curricula designed specifically for the needs of refugee youth, and the execution of provincial policies that will secure success both inside and outside of the classroom.

Refugee Youth in Western School Systems

When exploring what teaching strategies best suit the needs of refugee youth in the Canadian school system, it is important to acknowledge the trauma that these students carry with them to their new host countries, and the challenges they now face. Selimos and Daniel (2017) have expressed that immigrant and refugee students placed in ESL and ELD are essentially having to catch up to a moving target in terms of their integration into mainstream classes, by first attending language classes. Their study found that students in these programs both benefited by having the ability to connect and make friends with students from similar backgrounds, but also experienced feelings of exclusion and “otherness” in their new society from non-refugee/immigrant schoolmates, teachers, and administrators. Indeed, both Duran (2019) and Devine (2015) have examined teachers’ responsibilities in terms of responding to discrimination and ensuring that they, as authority figures, address any xenophobia or discrimination, and stop it in its tracks (Duran, 2019); they have also examined how teachers should respond to having refugee students in their classrooms

(Devine, 2015).

Some researchers have suggested that providing the best care for refugee students goes beyond what's in the ESL and ELD classrooms. Mendenhall and Bartlett (2018) propose the use of critical extracurricular support to refugee students, to facilitate their integration into mainstream courses. Moreover, Paradis et al. (2020) explore how larger and more involved networks, such as the Child and Youth Refugee Research Coalition, can pull together the help and resources of researchers, policy makers, educators, and service providers, to provide an intensive analysis of the educational needs of refugee children. While involved networks seem to provide a well-rounded approach to providing the adequate educational needs for refugee students, Ratković et al. (2017) have stressed that there is a lack of infrastructure and language policy planning in Canada designed to assist teachers in teaching refugee students who have been traumatized or have gaps in their education due to war conflicts, persecution, or natural disasters.

Canadian ESL Programs for Immigrants and Refugees

While immigration and asylum seeking are global phenomena, Canada has been a leader in developing comprehensive ESL programs since 1899 (Derwing, 2017). Although the development of such programs is still ongoing, there remains many challenges that students and staff face, in terms of satisfying the educational needs of refugee students. These include a lack of proper distribution of resources in rural settings (Karanja, 2007); teacher preparedness and training in dealing with children carrying trauma (MacNevin, 2012; Miller et al., 2014); adequate resources to encourage refugee students to pursue higher education (Duff, 2005); and a lack of proper scaffolding by administrators and teachers to prepare students for success when they enter mainstream classrooms (Dooley & Thangaperumal, 2011; Selimos & Daniel, 2017).

Due to the fact that there is no curriculum specifically designed to promote the educational success of refugees, teachers must follow the available ESL and ELD curricula, designed to ensure a rapid integration of students with limited English proficiency into mainstream classes, and to ultimately achieve a secondary school diploma. Cray and Currie (2004), state that access to the majority language for newcomers is an important issue, as it allows for success in their lives outside of school, in finding work, building communities, and adjusting to their new homes. However, Tadayon and Khodi (2017) and Paradis et al. (2020), suggest that the current ESL programs for refugees and immigrants act as a double-edged sword in terms of how they may empower newcomers through rapid integration, yet

also impede them in terms of loss of heritage, language, and culture, in pursuit of the majority language. Despite these criticisms of current ESL and ELD programs in Canada, there are researchers and teachers who have tried to alleviate such issues regarding a lack of top-to-bottom efforts, by ensuring that their refugee students receive the education that they need, in the way that they need it, by developing various teaching strategies to ensure the success of their students.

Bottom-to-top ESL Classroom Strategies

It is generally accepted that there are no one-size-fits-all approaches towards creating lesson plans and classroom strategies designed to academically and emotionally support refugee students, since lived experiences, cultural differences, and personalities play a role in how one responds to what and how one is taught (Wrigley, 1993). As such, it is reasonable to accept that certain classroom strategies will work for some students, but fail with others. One major component to providing refugee students with educational tools to succeed rests with adaptability of teachers. To that effect, when examining how to apply the ESL and ELD curricula to refugee students, Tweedie et al. (2017) suggest that teachers should emphasize the resilience and hope of refugee students through trauma-informed teaching practice, rather than focusing on what they are lacking in comparison to mainstream expectations.

Adesope et al. (2011) conducted a meta-analysis on various pedagogical strategies such as cooperative, guided, and assisted reading, systematic phonics instruction, and free and structured writing, among others, with positive results. This analysis provides teachers with a multitude of teaching strategies for them to adapt to the needs of their own classrooms. While some researchers, such as Adesope et al. (2011) and Al Janaideh's et al. (2020) have explored the SVR (Simple View of Reading) method of bilingual Arabic English language retention in Syrian refugee children, other researchers such as Ogilvie and Fuller (2016), Roxas (2011), Kovinthan (2016), Burke and Hardware (2015), and Ntelioglou (2011) have looked at more learner-centered methods, focusing on the teacher-student relationship to inform which teaching strategy will best suit individual student needs. Indeed, Ogilvie and Fuller (2016) have proposed the use of restorative justice pedagogy, through task-based activities and community-based activities, as also suggested by Roxas (2011), to thus focus less on grammatical perfection and language proficiency, but instead consider the emotional and academic needs of each student through relationship-building.

The ability to connect and build relationships with refugee students with classroom activities has also been suggested by Kovinthan (2016), through the use of the narrative inquiry strategy of personal history storytelling, in order to break down stereotypes that may be held by peers and teachers. This strategy can be difficult, however, with students who do not feel comfortable sharing their trauma publicly; despite this, personal storytelling has been used successfully by other means in ESL classrooms. Through multiliteracies pedagogy such as digital storytelling (Burke & Hardware, 2015), by which language comprehension is measured, as well as how students interpret their lessons, through lived experiences and theatre (Ntelioglou, 2011), students can use different forms of expression such as body movement, facial expression, art, and language to tell their stories. These teaching strategies have been success stories in their own classrooms, but no one method will work across the board. Varied teaching strategies require teachers to have the proper support in terms of resources, time, and training to ensure that refugee students will succeed in a safe and welcoming educational environment.

Discussion of the Research Gaps

This literature review highlights some of the many ways in which teachers are approaching teaching refugee students in an empathetic and compassionate way, in order to recognize their trauma and ensure their successful integration into Canadian society. It also brings attention to some of the constraints in the implementation of bottom-to-top teaching strategies for refugees in ESL and ELD classrooms such as: time management, resources and funding (Duff, 2015; Karanja, 2007; Ratković et al. 2017), scaffolding (Dooley & Thangaperumal, 2011; Selimos & Daniel, 2017), and lack of proper training for educators to prepare themselves for the needs of refugee students (MacNevin, 2012; Miller et al., 2014).

However, this literature review also draws attention to certain gaps in current research such as: 1) a lack of language policy implementation for refugees students in Canadian ESL and ELD classrooms; 2) a lack of a universal teaching strategy to help teachers and provide them with the tools to adapt their classrooms to the needs of refugees; and 3) a lack of top-to-bottom efforts to support teachers with regard to program planning and adapting their teaching strategies to suit the needs of refugees such as: assistance from social workers, time management, academic resources, financial support, and more. Indeed, it is apparent at this point in time that the literature examined thus far lacks any comprehensive approach in

incorporating the teaching strategies of individuals, and applying them on a larger scale, in order to provide educators with a template to build upon for the specific needs of their own classrooms.

While Paradis et al. (2020) explored the success of a larger scale community effort for refugee student educational research, they do not provide a way in which to help teachers in their classrooms to deliver compassionate and empathetic ESL and ELD education. Moreover, due to the fact that the Canadian ESL and ELD curricula are designed to fast track students into mainstream classes (Selimos & Daniel, 2017), the ultimate goal is for students to obtain proficiency rapidly. There is an enormous amount of pressure that currently rests on the shoulders of teachers to adapt the rigid ESL and ELD curricula to the specific needs of students who have experienced trauma, cultural shock, and educational setbacks (MacNevin, 2012; Miller et al., 2014; Wrigley, 1993). Furthermore, Ogilvie and Fuller (2016) put forward that the current Canadian ESL and ELD curricula are based on a third-party determination of students' "assumed needs" (Noddings, 2012, as cited in Ogilvie & Fuller, 2016, p. 90) and consequently viewing students as deficient instead of resilient (Roxas, 2011; Tweedie et al., 2017). These assumptions can affect the way in which teaching material is delivered, if educators are not properly prepared to handle anything more than the academic needs of students in their classrooms. Therefore, it is reasonable to assume that current ESL and ELD educators in Canada must find a way to balance the juxtaposition of the rigidity of ESL and ELD courses, in which the goal is acquiring proficiency rapidly, with the flexibility of being mindful of refugee student's lived experiences and how they need to be taught (Devine, 2015).

To the best of my knowledge, all of the teaching strategies discussed this far in this paper have had lasting success within the context of their own ESL and ELD classrooms. However, further research within this topic could expand on how providing ESL and ELD teachers with a comprehensive teaching strategy template that offers suggestions and more guidance on refugee student needs for teachers, could allow them to try certain strategies and get a better feel for what works and what doesn't within their own classrooms. Indeed, this could allow the teachers to have some room to breathe within the curriculum, in order to adapt it to the needs of their students, and adjust accordingly by asking them "what do you need to learn and how can we help you learn it?" (Devine, 2015, p. 1376). To be sure, teachers, as unique individuals, have their own way of delivering curriculum material to their classrooms. While the teaching strategies examined in this paper have been successful, one

can reasonably expect that sticking to a single teaching strategy, as discussed, and applying it as a universal template for larger scale compassionate ESL and ELD education, would not be successful, since it would diminish the strategy into another “assumed need” (Noddings, 2012, as cited in Ogilvie & Fuller, 2016, p. 90) for all refugee students in Canada. Therefore, although each strategy in this paper responded to the needs of refugee students, there is still a need for more flexibility within ESL and ELD curricula. Furthermore, there is a need for more resources to prepare educators with the necessary tools to provide a more personalized educational framework to the students of ESL and ELD programs; indeed, more room for flexibility and additional resources that would allow the classroom lessons and teachers to go beyond language benchmark goals and proficiency. Adapting elements of the teaching strategies discussed, through an open teaching template for refugee students, could allow teachers the ability to create their own blended methods and teaching strategies. This could potentially grant teachers the means to try and attempt different styles and methods that would best work for themselves and their students.

Conclusion

This research paper draws attention to the importance of developing teaching styles and methods that are best suited in ensuring the integration and educational growth of refugee students in Canada. It emphasizes the great responsibility that weighs on the shoulders of teachers in providing emotional and educational support; it also highlights the need for further development in language policy and resource distribution among ESL educators and institutions across Canada.

Due to the growing number of asylum seekers in Canadian school systems, it is important to prepare and support the efforts of teachers, by providing them with educational tools that will ensure the success of their students once they leave ESL classrooms. While the teaching strategies discussed in this paper have been successful in individual classrooms, it is important to note that not all strategies can be applied universally across all Canadian ESL and ELD classrooms. Therefore, as this paper has highlighted, it is important to allow educators room to be creative within the curriculum—to adapt it to the specific needs of their own students. Indeed, these classroom strategies may serve as a template and starting point for educators wishing to build upon and adapt—through trial and error and

collaboration with their students. As Devine (2015) states, educators have a responsibility to work with students and to ask them what it is they need from educators and educational institutions. This form of collaboration will enable educators to foster academic and social growth of their students, in their new home and community.

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Identification of plurilingual approaches in EAP programs in Canadian universities from learners' views

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Abstract

As many international students enroll in English for Academic Purposes (EAP programs in Canada to improve their English for academic success, it is important to focus on English teaching approaches. This study will identify the plurilingual approaches in EAP programs from learners' perspectives. It will also focus on how to improve plurilingual approaches to better learning outcomes, based on information collected from learners. The results identify three research gaps: 1) a lack of research in criticisms against plurilingualism through real cases; 2) a lack of studies on plurilingualism from learners' perspectives; and 3) a lack of EAP program studies in Canadian universities. This inquiry aims to pay attention to practices in the classroom setting in Canadian universities, in order to gain research results that are more suitably helpful to improve EAP programs and develop learners' language skills.

Keywords: Definition of Plurilingualism; Implications of Plurilingualism; EAP Programs

Introduction

Canada is a popular choice for international students to study abroad. As of 2020, Canada has 344,430 international students enrolling in postsecondary programs (Government of Canada, 2020). As more and more international students arrive for study, schools are creating English enhancement programs for international students, which are normally called English for Academic Purposes (EAP) programs. EAP programs are designed for international students before their enrollment in high school, undergraduate programs, or graduate programs. EAP programs aim at bridging the cultural gap between international students and academic programs, by improving learners' English skills. International students are required to enroll in language programs for several common reasons. All international students are required to obtain an English proficiency score when they apply for studying abroad. If their scores do not meet the minimum requirement, students are required to take EAP programs before formal enrollment. In addition, there are students who do not have any English proficiency scores. Programs are accepting these students if they finish a

corresponding EAP program. The length of EAP programs is variable based on the scores, and the length of EAP programs varies from two months up to one year. EAP programs aim to improve academic English skills so that learners can successfully complete degree-destinated programs. Therefore, EAP programs play an important part in academic success. More importantly, most international students start their new lives in Canada from EAP programs. As a result, EAP programs shoulder the responsibility of introducing the new culture, while bridging the cultural gap at the same time.

Regarding the area of second language acquisition, the concept of plurilingualism has become popular, since the Council of Europe adopted it as the core concept to develop language policies for second language education in the Europe in 2007 (CoE, 2007). North America has also adopted this framework with regard to language learning and teaching. Current research focuses on theoretical discussion regarding plurilingualism, as well as its application at elementary school, and universities. Plurilingual approaches have been proven to be helpful for language learners to develop language and establish cultural identity (CoE, 2007). This study explores whether plurilingualism or plurilingual approaches are used in the EAP programs in Canadian universities. In particular, this study will adopt an approach from learners' perspective, aiming to find insights for further development and improvement in EAP programs in Canadian universities. This research also identifies research gaps and offers insight with regard to plurilingualism in the EAP programs in Canadian universities from learners' perspectives.

Research Problems and Key Words

The key words for this research include defining plurilingualism, implications of plurilingualism, and EAP programs. A definition of plurilingualism is included because the concepts of plurilingualism and multilingualism are rather similar. As many schools adopt the idea of multilingualism as part of the school language policy for EAP, they are likely to reject a change to plurilingualism when two concepts are similar. As a result, this study aims to focus on the differences between multilingualism and plurilingualism, based on the definition of plurilingualism, in order to offer insights for schools to choose whether to change to plurilingualism. The key word "implications of plurilingualism" is chosen because this study will investigate implications of plurilingualism in the classroom. Also, the last key word "EAP programs" is selected because this study will focus on EAP programs. My research problem

focuses on the identification of plurilingualism or plurilingual approaches in the EAP programs in Canadian universities.

Research Purposes and Significances

This study mainly aims at understanding plurilingual approaches in EAP programs in Canadian Universities from learners' perspectives, which will shed light on several aspects. The main purpose of this study is to offer in-depth insights from learners' perspectives. Plurilingual approaches have been studied from theoretical lenses, as well as classroom settings from instructors' and researchers' views. The study from learners' view to explore the plurilingual approaches in the EAP programs can be helpful to complete the picture of plurilingualism from different angles.

Research Questions

Based on the research context, this study focuses on three research questions. The first research question is to identify the plurilingual approaches in the EAP programs from learners' perspective. The second research question is to study how to improve plurilingual approaches to better learning outcomes based on information collected from learners. These two research questions are focused on actual classroom settings in Canadian universities, to gain research results that are more suitably helpful to improve EAP programs and develop learners' language skills.

Literature Review

Definition of Plurilingualism

Plurilingualism's definition was firstly proposed by the Common European Framework of Reference (2001). Plurilingualism is defined as the ability to use languages for the purpose of communicating and conducting social interactions. Also, the social agent is competent to use several languages with several cultural backgrounds. Plurilingualism includes language competences of first language and mother tongue. Plurilingualism is aiming to use first language (L1) to help learners' build cultural identity and confidence to help learners develop second language (L2) (CoE, 2018). Similarly, scholars consider plurilingualism as a process of dynamic, creative language across several languages and cultural backgrounds (Piccardo, 2019; Marshall & Moore, 2016). Beacco et al. (2016) define plurilingualism as the ability to utilize a plural repertoire of cultural and linguistic resources to meet needs for communicating or interacting with people who share different backgrounds and contexts, and enriching that repertoire while doing so. Moreover, Marshall and Moore (2016) point out the fluidity of

plurilingualism and address the fact that it changes over time, based on one's lived experiences. Except for definition of plurilingualism, scholars focus on the differences among plurilingualism, multilingualism, and bilingualism (CoE, 2007; Marshall & Moore, 2016; Piccado, 2013; Piccado, 2019). It is believed that every individual is potentially plurilingual, and an individual does not need to know multiple languages to become plurilingual (Council of Europe, 2007). Similarly, Piccado (2013) addresses the fact that one language contains multiple dialects, and socialites, which makes people who speak one language to become plurilingual. Piccado (2016) points out that multilingualism is a term of rejecting monolingualism, while plurilingualism builds on embedded differences. In addition, the clear boundaries representing at multilingualism blur at the definition of plurilingualism (Piccado, 2016). On the other hand, Marshall and Moore (2016) state similarities between multilingualism and plurilingualism by focusing on issues regarding social practice and constraint, individual agency, and identity. Regarding criticism about plurilingualism, it can be concluded into three aspects. The first criticism refers to the static binary between individual and social level (Piccado, 2013). The second criticism is that plurilingualism is an over-agentive view of individuals' language practices (Marshall & Moore, 2016). The third criticism refers to the view that plurilingualism is considered as reinforcing inequities in a neoliberal world order (Kubota, 2014; May, 2017). I agree that plurilingualism is a process of dynamic, creative language across boundaries of multiple languages and cultural contexts (Piccado, 2019), while rejecting the idea of seeing it as an integration within an individual's linguistic repertoire (Stilie & Cummins, 2013). In addition, I consider plurilingualism as an ever-changing process depending on lived experiences (Marshall & Moore, 2016). Studies regarding criticisms of plurilingualism stays at the theoretical stages, so that there is a need to explore the criticisms from practical practices.

Implications of Plurilingualism

In addition to theoretical exploration of plurilingualism, there are studies focusing on the implication and application of plurilingualism in the classroom (Stilie & Cummins, 2013; Marshall & Moore, 2013; Marshall & Moore, 2016; Galante, et, al., 2019). Stilie and Cummins (2013) focus on students from the age of 8 to 10 years, and how plurilingualism can be helpful for newcomers and Canadian-born students. Their findings reveal that practices through plurilingual pedagogy is flexible, and highlight wide ranges of learners' cultural, linguistic, and representational capabilities, as a foundation for the development of L2 (Stilie & Cummins, 2013). Except for studies of elementary schools, plurilingual approaches and

practices are examined at the university level (Marshall & Moore, 2013; Marshall & Moore, 2016; Galante, et al., 2019). Marshall and Moore (2013) examine the practice of transnational students at a university in Canada, and find that participants present a considerable degree of fluidity in their languages and literacy practices. Also, this study explores that plurilingualism can be a lens to bring features including agency, creativity, hybridity, learning, and meaning-making, while recognizing context, social factors, and instructional constraints at the same time, by analyzing plurilingual pedagogy and practice from a university in Vancouver (Marshall & Moore, 2016). Galante (2018) compares adult students in plurilingual instruction and same aged students in monolingual instruction, and identifies plurilingual instructions such as enhanced plurilingual and pluricultural awareness, cognitive development, empathy, and relatability. In addition, it is pointed out that plurilingual instructions are helpful to develop L2 learners, which are also favored by teachers (Galante, 2019). Galante et al. (2019) use instructors' perspective to find out whether plurilingual approaches are beneficial for the development of L2 in EAP setting. Their study results in four key factors for the implementation of plurilingualism, including administrative support, instructors' openness to the use of languages other than English in class, weekly cooperation checks, and learner-centered tasks (Galante et al., 2019). Three other recommendations are proposed, including using CEFR-Council of Europe as a guide for language teaching, learning and assessment, gradually introducing plurilingual tasks, and using exited materials and contents (Galante et al., 2019). The implications of plurilingualism are explored through researchers' perspectives as well as instructors' perspectives. There is a need to look into implications of plurilingualism from others' perspectives such as learners' angle.

EAP Programs

English for Academic Purposes (EAP) programs are designed for learners who want to improve their academic English, which is popular for studying abroad at the university level (Cushner, 2004). Most students enroll in EAP programs before their academic program, which makes the EAP programs as their initial experience of life in the country (Ward et al., 2001). The EAP programs have been studied to evaluate the effectiveness, and requirements setting, and sociocultural interactions outside of the classroom (Brown, 2009; Chang & Strauss, 2009; Copland & Garton, 2011; Lovitt, 2008; Pearson, 2020). Pearson (2020) studies the phenomenon of EAP programs' tendency of boosting the supply of international higher education and meeting the needs for enrollment to set a cut-off score. Brown (2009) adopts an ethnographic study of postgraduate international students for social interactions in

EAP programs in the UK. Similarly, Chang and Strauss (2010) use student's perspective to evaluate the writing instructions in EAP programs. Self-report of English language speaking experience on a EAP program is studied to explore social interactions outside of the classroom (2011). Lovitt (2008) identifies the importance of identity in EAP programs from a sociocultural perspective. Studies regarding EAP programs from learners' perspectives are mostly conducted in countries and areas outside of Canada. As a result, it is required to study EAP programs from learners' perspectives.

Discussion of the Research Gaps

Regarding the first key word: the definition of plurilingualism, studies focus on three aspects of definitions including how to define plurilingualism, how to differentiate plurilingualism from multilingualism, as well as criticisms against plurilingualism. There have been theoretical discussions regarding these three aspects. However, practices to manifest the differences between plurilingualism and multilingualism, and criticisms against plurilingualism remain unclear. It is required that these practices are tested in a classroom setting and offer insights for teachers and instructors. More importantly, there are a few significances aligned with research gap.

The first significance refers to offer clear options for instructors, schools, and administrators. Currently, some schools are using bilingualism or multilingualism as their language policies. As a result, courses materials, and teaching techniques in the classroom are aligned with the written language policy. Discussions regarding differences between multilingualism and plurilingualism can provide insights for schools, so that school boards can understand how plurilingualism is different from multilingualism. A clear vision of differences can provide information for schools to choose the most suitable language policy considering their situation. The other significance is in regard to three criticisms against plurilingualism. Explorations of criticisms against plurilingualism can offer a detailed description about each criticism. More importantly, it can be helpful for instructors, as well as teachers, to avoid the negative part of plurilingualism. Currently, the discussion regarding criticisms against plurilingualism remains at the stage of theoretical investigations. Practical cases are required to manifest these criticisms, and offer further information to teachers and instructors for a better implementation of plurilingualism in a classroom setting or in a school. Therefore, the practices to manifest differences between multilingualism and plurilingualism, and criticisms

against plurilingualism are required in the field of second language acquisition.

Regarding the second key word: implications of plurilingualism, there are studies focusing on the plurilingual approaches applied in different settings. For example, Stille and Cummins (2013) focus on students ranging in ages from 8 to 10 years, and how plurilingualism can be helpful for newcomers and Canadian-born students. Except for studies of elementary schools, plurilingual approaches and practices are examined in the university setting (Marshall & Moore, 2013; Marshall & Moore, 2016; Galante, 2018; Galante, et al., 2019). However, previous studies focus on the perspectives of instructors and researchers. Studies regarding plurilingualism have not been approached from learners' angle, which is the second research gap identified by this study.

It is important to study plurilingual approaches from learners' perspectives. Firstly, learners' perspectives are indispensable when it comes to second language acquisition. Learners' feedbacks as well as feelings regarding plurilingual approaches can be useful information with regard to improving plurilingual approaches. Learners can offer views that are different from instructors, and open new possibilities of exploration in plurilingualism. Secondly, plurilingual approaches have been proven to be helpful to improve English skills efficiently. However, the fact whether majority of learners feel positive about plurilingual approaches remains unclear. Even if there are several cases in the studies indicating that learners gain cultural confidence in plurilingual approaches, there is a lack of studies that investigate learners' views regarding plurilingualism. To conclude, it is important to shed light on plurilingual approaches from learners' perspective because it can provide more information to improve plurilingual approaches used in the classroom, and it can reveal learners' overall feelings about plurilingualism.

The third research gap refers to the studying EAP programs in Canadian universities from learners' perspective. The studies of EAP programs from learners' views are mostly conducted in the United Kingdom (UK) because there are more EAP programs in the UK than in Canada. From a perspective of studying abroad, there are more universities in the UK than in Canada, and the admission process is easier in the UK, so that studies regarding EAP programs in the UK have been conducted. It is important to adopt similar approaches to studying EAP programs in Canadian Universities.

There are three significant impacts of studying EAP programs in Canadian universities. Firstly, EAP programs are aligned with language policies of the school and province, which

can be different from research results conducted in the UK. Therefore, research results in the UK are likely to be unapplicable to tackle language issues in Canada. The second impact is that studies of EAP programs in Canadian universities can shed light on current issues. Especially, focusing on a school or one EAP programs can be helpful to understand the local issues, which can be paid attention to for further solutions as follow-up studies. The third impact refers to the development of EAP programs for international students. There are a considerable number of international students who enroll in EAP programs every year. EAP programs aim to bridge the cultural gaps as well as prepare their academic English for further studies. Focusing on EAP programs in Canadian universities can be beneficial to improve and develop EAP programs towards a welcoming and well-structured training session for international students. To conclude three gaps, it is important to study EAP programs in Canadian universities because previous research results that came from EAP programs in the UK might not be applicable. Also, focusing on EAP programs in Canadian universities can be helpful to identify local issues, and develop EAP programs for international students. The examination of plurilingual approaches and practices in EAP programs has never been studied from learners' perspective. Similar research has focused on the perspective from instructors and researchers.

Conclusion

This research explores three key words including definition of plurilingualism, implications of plurilingualism, and EAP programs. It identifies three research gaps, which are studying plurilingualism/plurilingual approaches through differences between plurilingualism and multilingualism, and criticisms against plurilingualism, as well as exploration of plurilingualism from learners' perspective, and investigating above mentioned issues in EAP programs in Canadian universities. The research results shed light on the need to study plurilingual approaches from learners' perspectives, because it can provide more potential information to improve plurilingual approaches used in the classroom, and it can reveal

learners' overall feelings about plurilingualism. Focusing on EAP programs in Canadian universities will be helpful in identifying local issues and developing future EAP programs for international students.

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Removing barriers for students learning English as their second language

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Abstract

Colonization and the advancement of technology have given rise to opportunities for multi-cultural learning and integration. Today, we can see more international students registered in educational institutes all over the world than ever before. This means, that there are currently more L2 (a person's second language learners than L1 learners (a person's first language. The purpose of this paper is to conduct a literature review identifying the types of biases that exist and hinder students with English as their second language. When equal opportunities are not provided for these learners, their expected outcome can also vary drastically. Gaps are identified in the literature, and additional research solutions are proposed to bridge these gaps. I adopt a theoretical perspective of constructivism to conduct my research, which looks at social and historical aspects, specifically aligned with literacy and language education in this case. Using this approach, I focus my literature review on biases that exist within the education system, as a result of colonialism, learning experiences, and teaching methods for students with English as their second language.

Keywords: English as a Second Language; Colonialism; Learning Experiences; Teaching Methods; Biases

Introduction

The impact of sociopolitical and sociocultural approaches has been evident in our world for many years. Part of this is why literacy is not just a tool for communication, but can also serve to enforce power and influence on a society. Power can determine who has access to what in a country, and it can also influence the particular society to believe what the author has written—as the ultimate truth. Literacy has the ability to educate and expose people to information. On the contrary, it also has the power to extinguish languages and cultures. According to Piccardo (2013) languages are dynamic and flexible, so social and cultural aspects facilitate the ever-changing process. As Piccardo (2013) notes:

even those who learn only one language learn several layers of that language— regional and social variations, as well as “technical” language which they will continue to expand later in life, the unique plurilingualism of each individual being a yield of his or her life journey. (p. 605)

This illustrates that L1 students can also go through similar challenges as L2 students, when learning a language.

Today, we can see more international students registered in educational institutes all over the world. According to ICEF (2015), “an estimated five million students choose to study outside their home countries in 2014” (para. 1). As much as this is beneficial to humanity, it still has its limitations due to biases. Therefore, it does not benefit all international students in the same way. As per Baker (2005), education seems to be the strongest predictor of success; as Baker (2005) notes, “Education, at all levels, opens routes to achieve higher incomes, status advancement, and upward social mobility” (p. 1). We have created a borderless education system, providing accessible education to almost everyone. English medium schools are perceived to be more dominant, and economically beneficial in some parts of the world, where English is not the first language (Futao, 2007). This is why many students try to learn English in their home countries, but migrating to an English-speaking country and being forced to learn all subjects in English can be quite challenging for newcomers. Teaching and evaluation methods, as well as types of supports available for international students can make a huge impact on both their motivation to learn and their progress. It is important to note that there seems to be many different biases embedded in teaching students learning English as second language. As much as we now have access to online education and other technological sources for teaching, educators and the education system still have a long way to go before being able to establish authentic multiculturalism in schools. In this paper, I explore the impact of cultural biases in education, specifically focusing on students learning English as their second language (L2). I will also examine the types of biases observed in curriculum design for students with English as a second language, and how this can be mitigated. In so doing, I will specifically focus on the impact of colonialism, learning experiences, and teaching methods for students learning English as their second language.

Impact of Colonialism

Firstly, I want to begin with how this all started—colonization. According to Asher (2009), “colonization refers to the occupation, control, and economic exploitation of one nation by another” (p. 395). Colonization alters people’s way of living—physically, emotionally, and mentally. Colonization interferes with their beliefs, and livelihood, making them lose their identity, and feel inferior. The cultural biases we have can arise from the untold stories—lack of awareness. Then, there are the stories that are told, but are half-true, altered to blindfold the impact it had on the people. A significant example of this is the Canadian history of colonization. The effect of colonization still exists in our school systems today. As Donald (2009) notes, “the stories told to children in schools about Aboriginal peoples have been largely based on a Euro-western theory of primitivism that unilaterally places Indigenous-ness outside comprehension and acknowledgment” (p. 18). Using white history as an example, another author talks in depth about a similar issue. According to Baker (2005), dominant cultures have used schools as a means to “transmit the culture required for entrance into the (White) middle class” (p. 253). Both examples show the pressure students experience—to adapt and fit in—rather than being accepted for who they are, and being acknowledged for what their ancestors have truly experienced. As Banks (2017) states: “educators must acknowledge that to exclude students of color, and those with disabilities from accessing the general education curriculum due to pedagogical procedures that target only mainstream, middle-class students is parallel to exclusion from an establishment based on race/ethnicity, gender, or sexual orientation” (p. 11). This illustrates that there are biases not only in teaching, but also in accessibility to education as well.

Learning Experiences

Learning experiences for L2 students in a new country can be varied depending on their cultural knowledge, belief systems, and customs. As early as 1985, Kelleen Toohey conducted a study to look at the proficiency of English for L1 students versus L2, and found a noticeable gap between the two groups. Similarly, Davila Perez, and Marta Julia (2013) looked at students' motivation to learn, and the result of learning English. The results showed that the higher the motivation, the less anxiety students had in speaking English as their second language. If the learning is made fun, relatable, and supportive, then students will have higher motivation to learn. According to Baker (2015), African American students are powerless in the American schools. For this reason, the suggestion was made to be more

inclusive in enabling students to see similarities among diversified populations, rather than making them feel invisible.

Moreover, Park (2014), examined lives of North Korean trans-migrants with little or no L2 learning experience learning English in South Korea, to find the relationship between identity and language. She specifically linked her research to refugees and migrants within certain countries who have been socially marginalized and who would have limited power and access to learn English. Park (2014) strongly believes: “considering that the sociopolitical, sociocultural, and sociolinguistic climates of the countries where English is used and learned are unique, each nation will have a different sized gap in English competence between various groups of citizens” (p. 10). Park explains that people constantly revise who they are, and who they might become, especially while handling a personal predicament during crises or transitions. This indicates that not only language is dynamic and evolving, but learners are always evolving as well. The best way to adapt to these changes is to make sure students are included in the process of their learning plan. This was seen in plenty of interprofessional education and curriculum development research (Mady, Muhling, 2017; Arnett, 2010). It is evident that when a learning plan is made inclusively—all parties involved are part of the learning plan development—then the learning experience becomes seamless (Smith, 2011). This motivates students to learn more, and be more active in their learning process. This is not only helpful for students learning English as their second language, but for all students, including L1 students and students with special needs (Lindsay, Gaskell, 2010). It was also noted that providing self-regulating opportunities for students can empower students to take more actions toward their own learning process, which can in turn enhance the learning experience.

Teaching Methods

According to Piccardo (2013), languages are dynamic and flexible. Social and cultural aspects facilitate the ever-changing process. As per Piccardo (2013): “even those who learn only one language learn several layers of that language—regional and social variations, as well as “technical” language which they will continue to expand later in life, the unique plurilingualism of each individual being a yield of his or her life journey” (p. 605). When language is so complex, teaching L2 students can be multifarious. The difference in culture and language can thus affect student’s ability to learn in school. Reading or listening to someone in English, and translating directly into one’s L1 language then can result in varied

meanings. Therefore, evaluating someone's knowledge can be challenging. For example, there might be differences in the students understanding of the questions asked, versus knowledge about the subject. These are things to consider when teaching or evaluating people of different cultures and languages. Teachers should be taught to use various methods to make sure students understand. For example, the use of pictures, diagrams, and technology, can be used to enable the understanding in different methods. According to Moss and Brookhart (2009), goal setting increases students' motivation when it is followed by having a strategy to assess performance. I believe if this is co-created with the students, then it will more likely resonate with them, and motivate them to follow through to meet their goals. Additionally, a multilingual approach should be embedded as part of the teaching technique for L2 students. A study undertaken in Norway by Ingrid Rodrick Beiler (2020) also supported a multilingual approach in teaching, allowing students to use both languages to express and write. According to Lisbeth M. Brevik (2019): "teachers should make comprehension strategy use part of daily life in English L2 classrooms, and that this is more critical than explicit strategy instruction" (p. 2307). It is evident that when incorporating plurilingualism and multilingualism in teaching methods, L2 students have a better learning experience (Guth, Helm, 2012). Allowing students to use their mother tongue to express and write can enable students to be more themselves, allowing them to feel accepted rather than feeling forced to fit in.

It is also evident that our own biases, based on our upbringings, belief systems, and knowledge, sometimes intervene in our teaching abilities. In addition, the labeling or judging of certain groups can interfere with the actual evaluation and learning process. According to Banks (2017), students of colour are treated unfairly, as they are often mislabeled as special needs, when they are not. Ferri (2005) also mentions the existence of something similar about stereotypes within the school system regarding specific cultures, and perceiving them to be children with special needs.

Discussion of the Research Gaps

The three main foci of the literature reviewed indicate that there are biases in the teachings for students with English as a second language. First, I looked at the impact of colonialism as hindering the learning journey of students with English as their second language. Many researchers identified the impact of colonialism in education system (Baker 2005; Banks 2017; Donald 2009). It was evident that there was room for improvements in

creating an inclusive learning environment for L2 Students. However, there needs to be more research conducted on how to change the curriculum within schoolboards across a country. I believe awareness and acknowledgement of the history of colonialization, and the impact it had on lived experience, is important, and is a starting point. However, more research needs to be done, in order to provide guidance in how one can change the whole curriculum: acknowledging the truth that a textbook might not be providing upfront. More research needs to be conducted in policy changes as well as program changes to accommodate these needs. Schools, teachers, and administrators need to be trained in these changes as well. I see this as a chain effect, where one change will require more changes to follow through on the whole process. I don't see this as a quick fix, however, I do see it as something that needs to be considered to move in the right direction.

Secondly, I looked at learning experiences. It was evident, based on my literature review, that different people learn differently and therefore, need to be evaluated differently as well (Baker 2015; Davila and Marta, 2013; Toohey, 1985). It was also noted by these authors that L2 students were easily labeled into specific groups, such as special needs students or students considering to be powerless. We all have biases based on our upbringings, belief systems, and exposures. Even AI has bias according to Hauser (2017). In her TedTalk, she mentioned that AI has been built with bias since it is built by humans. When one types in google "grandma", for example, the first few lines of images are white elderly women. This is also seen in education systems. Certain groups are automatically categorized or labeled and therefore have different expectations among students with English as second language, compared to students speaking English as their first language (Baker 2015; Park 2014). Ehrke et al. (2020) conducted a study regarding a brief diversity training activity designed to bring awareness and to improve attitudes toward disadvantaged groups. The study showed more awareness regarding different groups of peoples over a short period of time; however, when training was conducted for longer periods of time, the training triggered more labeling of groups. Based on this research, it is evident to me that there is not much research undertaken that shows greater improvement in diversity training, which has a huge impact in teaching. I believe—through my own years of training different cohorts and obtaining feedback both from teachers and students—that there needs to be more time spent on this specific research gap.

Thirdly, I looked into teaching methods for students with English as their second language. It was evident, based on the literature reviewed, that L2 students benefit the most

when they are allowed to express themselves using their language as well. The evaluation and teaching methods should be modified, based on the needs of students. Multiple teaching methods should be used, such as diagrams, pictures, and stories, to enable student understandings and self-expression. The research gap I found in this section is the evidence of training for such different methods; the methods exist, however, there's little research in knowing how much training and time teachers require, based on resources. This can differ from province to province, as well as based upon policies and procedures of school boards and ministries of education. It is also noted that it is beneficial to co-create learning plans with students. I would suggest to do more observations in this area, to see how we can improve with this method.

Limitations

There are limitations to this paper. Although, an extensive literature review was conducted, there is far more information to be validated across the globe. It is unreasonable to think one size fits all when looking at the education system as a whole. Due to time limitations, I could not conduct any actual observations in schools, nor obtain direct feedback from students and teachers. Further study is needed to validate the techniques as outlined, to bridge the gaps identified.

Conclusion

English language learning has been perceived to be essential to increase one's economic status across many countries around the world. It is evident that more and more, students across the globe are trying to learn English to advance in their life. For this reason, it is critical to observe how English is being taught and evaluated for international students. For those learning English as their second language, there's more than language barriers to overcome; the challenges are far greater than that. International students are dealing with different learning experiences, evaluation techniques, and social norms. As an education system, it is important to make sure that access to education is inclusive for all students. The impact of colonialism, learning experiences, and teaching methods, can establish barriers for inclusiveness and accessible education. It is important to empower students in making decisions for their own learning plan and evaluation plan; thereby elevating students' capacity to make bolder choices in life. I suggest we start by allowing students to be themselves, and express themselves for who they are; that is how one can truly grow.

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Treatment and Care

An exploration of dementia care strategies in acute care

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Abstract

Older adults living with dementia in Canada have a higher rate of hospitalization and extended length of stay than their peers, who do not have dementia (Canadian Institute for Health Information [CIHI], 2018). They also experience more instances of hospital harm than older adults without dementia (CIHI, 2018). It is imperative that acute care settings improve the care they provide to this vulnerable population, and so the following question must be answered: what are the factors that impact dementia care in acute care hospitals? My literature review of empirical studies conducted in acute care settings since 2010 reveals three components that affect dementia care in hospitals: organizational philosophies, human resources, and a lack of standardization in dementia care. It would be important for future studies to examine the elements that allow these systemic factors to take place, in order to identify efficient ways to improve the care of hospitalized older adults with dementia.

Keywords: Dementia; Acute Care; Dementia Care

Introduction

In Canada, adults over the age of 65 are a rapidly growing demographic and it is estimated that by 2030, they will account for 23% of the population (Employment and Social Development Canada, 2014). Dementia is a neurodegenerative disorder that is most prevalent among older adults, and it is expected that this rate will increase as the senior population expands (Public Health Agency of Canada, 2017). It has been shown that in Canada, older adults living with dementia have a higher rate of hospitalization, an extended hospital length of stay, and are at an increased risk of incurring harm in hospital, than their peers, who do not have dementia (Canadian Institute for Health Information [CIHI], 2018). As seniors living with dementia are a vulnerable population, we must improve the healthcare system to ensure their safety and wellness. To this end, we must ask ourselves the following question: what are the factors that impact dementia care in acute care hospitals? By responding to this question, we may uncover the various elements that have a negative

impact on the care of people with dementia, and discover strategies to improve the healthcare system.

Literature Review

Through this literature review, three factors were identified as impacting dementia care in acute care settings: organizational philosophies, human resources, and a lack of standardized dementia care framework.

Dementia Care: Organisational Philosophies

Pizzacalla et al. (2015) and Schindel Martin et al. (2016) have investigated the usefulness of Gentle Persuasive Approaches (GPA) training for healthcare providers working in acute care settings. They have found an increase in staff confidence in their ability to care for seniors with dementia-related behaviours, and a decreased use of chemical and physical restraints, after staff have received GPA training. Similarly, Hung et al. (2019) and Yous et al. (2019) explored GPA training effects in acute care, and found that healthcare providers feel the need for increased leadership support in order to apply the person-centred care that patients with dementia require. In parallel, McConnell and Karel (2016) have implemented a dementia care person-centred curriculum in acute care, known as Staff Training in Assisted living Residences-Veterans Health Administration (STAR-VA), and thus argue that the key to a successful practice-changing curriculum is to empower staff members at the bedside—as well as interprofessional team—and to ensure support from management. Houghton et al. (2016) have further explained that organizational philosophies surrounding patient safety can cause nurses to provide care in a depersonalized manner to people with dementia, as they focus on physical safety instead of patients' psychosocial needs. These studies demonstrate that although staff members can experience increased self-confidence after receiving dementia care training, the environment in which they work needs to change, in order to allow staff to implement the knowledge they have acquired.

Dementia Care: Human Resources

Spencer et al. (2014) have developed a Medical and Mental Health Unit for older adults experiencing confusion in acute care. In their study they trained staff members and obtained organizational buy-in, but despite having leadership endorsement, they identified that healthcare workers were still having difficulties implementing dementia care interventions due to a lack of time. More specifically, the workload did not allow staff

members to spend the amount of time required to completely understand their patient's needs, and thus concerns about staff shortages were raised. White et al. (2018) have added that a lack of communication between staff members, in conjunction with a lack of time, impact the care patients with dementia receive. In contrast to this, Scerri et al. (2020) have found that it is staff's attitudes that influence their approach to dementia care; Handley et al. (2019) have concurred, noting that dementia care initiatives cannot be beneficial without nurses' wholehearted participation. Mitchell et al. (2016) and Fitzpatrick (2018) offer some strategies to tackle these issues, by recommending that healthcare providers clearly communicate regarding which patients have dementia, and ensuring that these patients' plan of care is personalized. In addition to knowing which patient has dementia, Yevchack et al. (2017) highlight the importance of a person-centred approach to dementia that clearly defines the patient's baseline function prior to their admission to the hospital. This would alert acute care workers of any changes in the patient's functional status if a decline is noted in hospital. It is unclear whether this patient-centred approach would bring about long-lasting change on inpatient wards; however, what is clear is that all dementia care initiatives implemented in acute care settings need to take into consideration staff shortage, workload, and staff attitudes.

Dementia Care: Standardized Practice

More recently, Aldridge et al. (2020) have found that the inclusion of Admiral Nurses specializing in dementia care, can provide healthcare workers with peer support, as well as workload relief, by connecting with patients and their families. Additionally, a Dementia Care Mapping strategy is also noted to be helpful, as Page et al. (2016) have found, in shifting hospital culture through promotion of empathy and compassion for people living with dementia. Yates et al. (2017) have investigated the effectiveness of a Cognitive Impairment Identifier (CII) that is meant to screen all adults over the age of 65 admitted to hospital. Those with cognitive impairment would thus receive a CII label that would indicate to all staff members to involve the patient's family, and to adapt their communication style accordingly. Yates et al. (2017) have demonstrated that these interventions are successful in reducing the harm older adults with dementia incur while in hospital. Likewise, Sampson et al. (2017) have developed a community of practice and a train-the-trainer model to improve the level of dementia care competency among staff. They note an increase in self-competency following the training, but once again, the long-term effect of such intervention

is unknown. This lack of certainty regarding the sustainability of dementia care interventions is also noted by Harwood et al. (2018), following a communication skills training program that showed an increase in staff knowledge, confidence, and communication with patients living with dementia. Teichmann et al. (2019) further add that a lack of mandatory interventions and guidelines about dementia in acute care are contributing to the lack of longevity of dementia care initiatives; while Sullivan et al. (2017) argue that if integrated care pathways were instituted in acute care, they could provide a standardized framework to guide the care of older adults with dementia. This standardization could bring about a cohesive and sustainable dementia care strategy in the acute care sector, and potentially improve the care of older adults.

Discussion of the Research Gaps

The care of people with dementia demands specialized knowledge, in order to avoid preventable complications in hospital. As previously mentioned, older adults are a growing population in Canada that are at risk of developing dementia, and thus the healthcare system must be ready to provide them with quality of care. At this time, it seems that organizational philosophies, human resources and a lack of standardized dementia care intervention impact the effectiveness of dementia care initiatives in acute care settings (Houghton et al., 2016; Spencer et al., 2014; Teichmann et al., 2019).

Specifically, organizational philosophies that are task-oriented are in direct opposition to a patient-centred approach, which is the basis of dementia care philosophy (Schindel Martin et al., 2016). This creates a culture where healthcare professionals are forced to choose between fulfilling the demands of their organization, and providing dementia-friendly care to their vulnerable patients. Human resources also play a role in the effectiveness of dementia care strategies in hospital, as workload and staffing shortages on inpatient units can impede staff's ability to spend extended time with patients living with dementia (Spencer et al., 2014). Also, as with any initiative, staff attitudes contribute to the success or failure of dementia care training; obtaining their support is an initial step that cannot be bypassed, as no change will take place without the participation of the people who constitute the healthcare system. Lastly, there currently exists no evidence-based dementia care program that is carried out in a standardized fashion across all acute care hospitals, and this appears to deprive staff of a clear framework from which they can operate in a sustainable manner (Sullivan et al., 2017).

All these elements amount to heterogeneity in dementia care actions that may cause uncertainty as to what exactly are the needs of older adults with dementia in acute care. Further studies are needed to expand on the hierarchies that are most influential on acute care culture: factors that lead to increased workload and staff negative attitudes toward dementia care, as well as a standardized dementia care strategy that can be implemented in acute care settings.

It would be helpful for these studies to encompass the various healthcare professionals that care for older adults, such as personal care workers, nurses, physicians, and allied healthcare professionals—to name only a few. Most studies included in this literature review appear to operate in a practical manner, by focusing on one profession at a time, but this is not representative of the reality, and limits the applicability of the results across the acute care sector. It would be interesting to further inquire into personalized dementia care interventions for different healthcare providers as we have personalized dementia care interventions for patients. This may lead to promising results that could translate into practice-changing policies in acute care, and better health outcomes for older adults living with dementia.

Conclusion

This brief literature review shows that factors that impact dementia care in acute care hospitals relate to organizational philosophies, human resources, and a lack of standardized dementia care frameworks. Further research is required to further delineate each of these factors and to improve the care of seniors admitted to hospital in Canada.

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Bright light therapy: Potential tool in education

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Abstract

Many children are greatly affected by Seasonal Affective Disorder, but with today's treatments, can find relief in many forms. It has been observed, that after Bright Light Therapy, children return to class with greater focus and attention to their academic endeavors. This study asks the question of "why does Bright Light Therapy affect elementary school children's attention and focus in academics?" A literature review was conducted, primarily involving in empirical research, using scholarly articles published since 2010, and utilizing roughly 20 to 30 currently available data sources. These studies found that bright light therapy affects a child by increasing levels of dopamine, serotonin, and pregnenolone, which are the hormones that affect happiness, focus, and attention—which shows itself in the academic classroom. Current studies do not: 1) expand beyond a hospital setting; 2) consider long term effects; or 3) cross over into other categories to determine why bright lights affect academic performance. nevertheless, the results of the research to date demonstrate a potential for classroom use for sharpening student focus, and preventing seasonal affective disorder symptoms in diagnosed and undiagnosed elementary school children.

Keywords: Bright Light Therapy; Children; Seasonal Affective Disorder; Hormones; Classroom

Introduction

Seasonal Affective Disorder (SAD), also referred to as Seasonal Depression, is a physical, mental, and emotional disorder that occurs during a seasonal pattern, and leaves a person feeling sadness/tearfulness/emptiness/hopelessness, anger/irritability/frustration, loss of interest, pleasure, sleep disturbances, tiredness/lack of energy, reduced appetite/weight loss, cravings, anxiety/agitation/restlessness, slower thinking/speaking/body movements, trouble thinking/concentrating/making decisions, suicidal thoughts, and/or unexplained physical problems (The Mayo Clinic, 2018). During the winter months, SAD affects four-to-six percent of men, women, and children—or 47.4 billion people. It is suspected that ten-to-fifteen percent additional cases are unreported or misdiagnosed. Of these, six percent of children are found to suffer from seasonal affective disorder (American Family Physician

oundation, 2000; Nemours Children's Health System, 2021). Children show similar symptoms as their adult counterparts; however, they are also prone to hysterias and hyperactivity. Additionally, they are often not diagnosed, due to an inability to communicate what's wrong, and may have atypical symptoms. Children may experience "crashing" (when chemical reactions in the body occur all at once), causing them to have all symptoms at once in quick succession spanning a couple of days, or weeks, or at one time (Nemours Children's Health System, 2021). Normally, for adults this would be countered with the use of behavioral therapy, pharmaceuticals, and self-care regimens (The Mayo Clinic, 2018). For children, behavioural therapy involving Individual Education Plans and self-care regimens are often forgotten, or are not quick enough to stop a crash. In addition, pharmaceuticals normally possess dangerous side effects and are reserved for the most severe cases (Hazell, 2015). In order to combat this, medical researchers have turned to a field called Chronological Light Therapy, specifically, Bright Light Therapy.

Research Problem and Key Words

Bright Light Therapy is a natural alternative therapy that emulates the rays of the sun in safe dosages, and is used to combat depression, skin issues, jaundice, and some early forms of cancer (The Mayo Clinic, 2017). In the 1980s, you would go to the hospital and the therapy was usually given while you were in your swimsuit or naked (the nurse would often give you a warm towel if you forgot your swimsuit). You were given a special set of goggles before they sat you on a stool in front of a bright light (and later you would step inside a box) for twenty minutes. Today, clinics and universities across the country use much smaller versions of these lights that can sit on a small side table, or are attached to a chair like a hair dresser's dryer. These lights allow for much less restricted actions, and can be implemented anywhere, paving the way for potential use in classrooms—to combat undiagnosed seasonal affective disorders, and its' much weaker cousin, the winter blahs. Can we use this therapy in the classroom with predictable results and educational gains?

To find out, I adopted three key phrases or words to discover more information as to why Bright Light Therapy seems to work so well for children. The first phrase is, Bright Light Therapy. Bright Light Therapy is a subcategory of Chronological therapeutics, but has shown to be the most widely referred to of the subcategory, known for its prevalence is combating jaundice in newborns, or postpartum and peripartum depression in pregnant and new mothers (Ajiboye, 2020; The Mayo Clinic, 2017). Due to the known safe treatment of these

particular populations, medical specialists recommend their use, noting minor side effects in adults that dissipate in less than eight hours, while the benefits last for weeks. Other forms of chronological therapeutics must be taken in moderation, and are only recommended for older children, teens, and adults, due to their potential for more harmful side effects such as skin lesions and cancers (Pniewski, 2015).

The next set of phrases that I adopted for this inquiry is “Seasonal Affective Disorder”. Seasonal Affective Disorder, or SADs, is a category of depression that is affected by outside factors, but commonly seen in the classroom. Often referred to by teachers as “the winter blahs”, this form of depression is usually temporary, and has immediate “recovery” during springtime, when attention and focus seems to return (Sheftall, 2020). Although SAD is formally undiagnosed, it has been included in the depression index that affects roughly 73% of children (The Center for Disease Control and Prevention, 2020). As a teacher, I am the most curious about this type of depression.

The third phrase I adopted for this inquiry is more of a general term: children. Depending on the location and timing of the study, children can refer to anyone under the age of 21 in the form of youth, adolescent, child, teen, toddler, and many more vernaculars. For our purposes, we will be using the term “child” to refer to those under the age of 18, according to the North American standard. While focusing on the entire group, we must note that most studies focus on children between the ages of 13 and 18. While there is very little research available for children below this age group, there are recent studies on elementary school children facing depression, which can be inferred to include SADs.

Research Question and Rationale for Chosen Theoretical Perspective

These three search terms guided me in following my postpositivist-based research question, which is: Why does Bright Light Therapy affect elementary school children's attention and focus in academics? I chose this question to explore and explain why children are affected by Bright Light Therapy, and to determine future investigations as to how BLT can be utilized to increase our productive academic season. This is a foundational study suggestion, since there is currently no study out there that entertains the idea of using BLT in the classroom; traditional studies are usually focused on hospital settings, and severe cases of depression only. By analyzing “why” BLT affects children with Seasonal Affective Disorder, we can discover why children's attention and focus in the classroom seems to increase after known treatments.

Literature Review

One of the most common forms of depression is that found in seasonal affective disorder (The Mayo Clinic, 2018). Seasonal affective disorder (SAD) is a form of depression that results in cycles where depressive symptoms are prevalent between late fall and early spring (The Mayo Clinic, 2018; Sappol, 2016; Schimelpfening, 2020). Children are prone to this form of depression, referred to as the “Winter Blahs” in teaching circles (The Center for Disease Control and 2020; The National Institute for Mental Health, 2019). Due to how quickly a child can mentally and physically progress through stages and levels of depression, called “crashing”, research in this field must be specially designed to prevent further deterioration and trauma. Luckily, medical researchers have created a number of effective treatments, but one of the most effective procedures with the smallest number of side effects is that of Bright Light Therapy (BLT). Children affected by SAD can now sit under special lamps during Bright Light Therapy in a number of places, such as schools, hospitals, workplaces, and even in their own homes (Ajiboye, 2020; Bogen et al., 2013; Bulwig & Fink, 2009; D'Agostino et al., 2020; Sappol, 2016). These children who return to the classroom after BLT, seem more alert, focused, and energetic. That begs the question, why does Bright Light Therapy affect elementary school children's attention and focus academically?

Pivotal Studies

Bright Light Therapy studies have traditionally been confined to adults or young adults, although in the last decade, numerous studies have emerged that focus on older children: those 1 and above. Research demonstrates that this age group react favorably to this form of therapy, both as primary treatment, and as an add-on to other treatments. Below are a few specialists in the fields of psychiatry and psychology that understand what is occurring. Their articles can be found in multiple places, but further information can be obtained from journals focusing on pediatric psychology and psychiatry.

Stephanie Gest and her cohort are key investigators in the field of chronotherapeutics. Searching to discover alternative treatments for childhood depression at LWL-University Hospital for Child and Adolescent Psychiatry and Psychotherapy in Hamm, Germany, Gest and her allies have been investigating the effects of BLT, and have produced a plethora of information on the subject. In their main case, “Chronotherapeutics treatments for depression in youth” (2014), the team states that chronotherapeutics provides a positive impact, but emphasizes that, “Bright light therapy seems to stabilize and further enhance reduction of

depressive symptoms during follow-up.” Their research in this subject has opened the doors to safe alternatives for children, and allowed the usage of BLT to spread into schools and colleges, as well as to be prescribed as at-home treatments (Gest et al., 2014; Kirchbaum et al., 2017; Kirchbaum et al., 2018; Pniewski et al., 2017).

Another major researcher in this field is Martin Holtmann (2019), also at the University Hospital for Child and Adolescent Psychiatry and Psychotherapy. Dr. Holtmann, in his study protocol titled, “Adolescent depression: Study protocol for a randomized, controlled, double-blind multicenter parallel group trial of Bright Light Therapy in a naturalistic inpatient setting,” performed a double-blind, multicenter group treatment with three goals: 1) to assess whether it was BLT or regular light that caused a decrease in depressive symptoms; 2) to examine the effects on patient habits (sleep activity, etc.), as well as chemical responses, in accordance to depressive symptoms; and 3) to determine whether this is a long term viable option for children. This study gives a measurement for future studies to follow, in order to chemically note effective levels of therapy (Bogens et al., 2013; Gest et al., 2014; Holtmann et al., 2019; Kirchbaum et al., 2017; Kirchbaum et al., 2018; Pniewski et al., 2017).

Last is Dr. Peter Hauser (1997), a lead researcher in child biochemistry at the University of Maryland’s School of Medicine and Psychiatry Services. Dr. Hauser outlines how the thyroid produces serotonin, and the level of serotonin correlates with focus issues, such as hyperactivity and memory lapses (but oddly enough, not inattention). This is a result of the question about the differences between hyperactivity disorder and attention deficit disorder, which is often lumped into the same subclass for elementary school children. Hauser’s research opens the door to other investigations into the human child’s biochemistry (Hauser, 1997; Kaur, 2018).

Synthesis

According to various studies, Bright Light Therapy is used to treat severe forms of depression, and many recent studies show that the treatment provides positive results in children with depression. This is due to the increase of the body’s natural production of melatonin, through the increased intake of vitamin D (Bogens et al., 2013; D’Agostino et al., 2020; Gest et al., 2014; Hazell, 2015; Holtmann et al., 2019; Kirchbaum et al., 2017; Kirchbaum et al., 2018; Niederhofer, & von Klitzing, 2011; Pniewski et al., 2017; Sheftall et al., 2020; Swedo, et al., 1997). According to Geermeet Kaur (2018), melatonin in turn increases serotonin, pregnenolone, and dopamine (Kaur, 2018). Dopamine is the hormone in a child’s brain [the hypothalamus] that helps a child focus, and is the neurotransmitter to create

additional serotonin. Serotonin is the hormone responsible for “happiness” (high levels) and “sadness” (low levels). Serotonin, dopamine, and pregnenolone, which is the hormone that boosts mood and reduces cortisol (the stress hormone), function to increase focus, attentiveness, and memory (Hauser, 1997; Heathline, 2019; Kaur, 2018). Additional studies find that in the winter months, pregnenolone, dopamine, and serotonin levels drop, due to a lack of vitamin D (Sappol, 2016; Schimelpfening, 2020; Wirz-Justice et al., 2010). While there have been several research studies on the effects of SAD in hospital settings, few researchers have ventured beyond the hospital, and even fewer have researched elementary school students. There are currently no studies involving BLT that is prescribed for home use. Further research is necessary.

Critical Evaluation and Theory

Each study gleams a new bit of information into different parts of a child’s chemical make-up, and offer an option—yet none connect together to provide a whole picture for a potential solution. Some theorist view BLT as a non-viable longer-term option, but this opinion is based on older technology with many recorded side effects (Bogen et al., 2013; Rare Historical Photos, 2019; Tipton, 2014). Bright Light Therapy is currently designed to be received under low dosage—no more than twenty minutes a day—but has no ill effects with the current bulb spectrum—unlike its predecessor, which resulted in forms of cancer over long exposure periods (Bogen et al., 2013; Holtmann et al., 2019). I urge caution with regard to long term effects, however, since Gest (2014) and Ajiboye (2020) have noted that no study has been recorded to be longer than eight weeks. Additionally, it has been pointed out that BLT does not cure depression, although there are several benefits, as indicated by those who advocate for BLT treatment: 1) it reduces cortisol (stress hormone); 2) it raises certain hormones to manage the depression with longer term effects than pharmaceutical alternatives; 3) is the least invasive; 4) and is easily monitored through hormone tests. It is reported that 1) children have little to no side effects; 2) feel increased positive effects quicker than their adult counterparts, while experiencing lasting positive side effects, since the melatonin does not leave the child’s system immediately; and 3) serotonin, dopamine, as well as other hormones (i.e., “Happiness” hormones) are continued to be produced (Bogens et al., 2013; D’Agostino et al., 2020; Gest et al., 2014; Hazell, 2015; Holtmann et al., 2019; Kirchbaum et al., 2017; Kirchbaum et al., 2018; Niederhofer, & von Klitzing, 2011; Pniewski et al., 2017; Sheftall et al., 2020; Swedo, et al., 1997). Why not, then, just give children more outside time and longer recess periods, particularly in the morning sunlight, which

chronotherapeutics mimic Educators, and educational specialists have been debating whether to let kids have more recess time for decades, but few know the exact science. As for why not use recess to combat SAD, the reason is simple and agreed upon by experts: SAD is a depression that takes most effect during the cold, dark winter months, and affects communities that have longer periods of darkness (Sappol, 2016; Tipton, 2014). It is simply too cold to expose children to the elements to gain the needed vitamin D—by-product of sunlight that increases melatonin. Hence, this is why researchers have turned to BLT.

My theory focuses on the connection between these studies. I believe that the hormones that are utilized in BLT can be naturally transferred into the classroom. Based on Gest's studies of BLT and children, the melatonin produced by the exposure to the light would increase antidepressant hormones (Gest et al., 2014; Kirchbaum et al., 2017; Kirchbaum et al., 2018; Pniewski et al., 2017). These antidepressant hormones are the exact same hormones listed by Dr. Hauser and Gurmeet Kauras as the ones that are responsible for focus, attention, and engagement (Hauser, 1997; Heathline, 2019; Kaur, 2018). If this is true, could BLT be utilized in the classroom for not only combating depressive symptoms, but for naturally increasing attention, while combating the [supposed and controversial] depletion of melatonin that has been suggested in the argument about fluorescent lighting (Baxendale, 2011; Mandimoore, 2009; Schimelpfening, 2020; Simoes, 2015)?

These theories provide a potential area of study both within academia and medical science, allowing for an expansion therapies from hospital settings to combat SAD, and providing for a potential point of reference. However, there are currently no long-term studies available on the effects of BLT on children—only on adults. Implementation and permissions will need to be thoughtfully considered and obtained. Further study is necessary.

Discussion of the Research Gaps

While this literature review is more postpositive in nature, seeking the connection between therapy, improved focus, and academic engagement, most studies in both Bright Light Therapy and children are postpositivist for another reason. The studies to this point have already answered the question “Will this work?” and have moved on to “How well does it work?” They cover a vast amount of data reduced to a single answer, to determine a particular outcome or question that needs verification. Additionally, these studies provide empirical observation, and a standard of measurement for further studies. These can be seen in the studies by Gest and colleagues (2014), as well as Holtmann (2019), in their

various studies on the subject (Bogens et al., 2011 ; Gest et al., 2014; Holtmann et al., 2019; Kirchbaum et al., 2011 ; Kirchbaum et al., 2018; Pniewski et al., 2011).

Limitations

Gaps are present in the current Bright Light Therapy models. Bright Light Therapy is apparently slow to expand beyond hospital use, due to several factors: 1) children are prone to “crashes” (hence the preference to perform the studies in hospitals); 2) the limitation of exposure time has resulted in no long-term studies; 3) studies to date only focus on the most severe cases; and 4) children themselves are an at-risk population prone to pleasing members of authority. These limitations make further investigation difficult, and have resulted in a cycle of studies that re-affirms the basic philosophy that Bright Light Therapy is beneficial overall. However, there is little to no connecting material as to why BLT works to improve elementary school students' attention and focus. Other studies currently offer an explanation as to what hormones affect focus, but provide no explanation for maintaining said levels necessary to hold focus, especially for depressive individuals. None of the studies to date make connections to suggest a possible solution, nor do they focus on elementary school students, which, as has recently been found by Seeley et. al (2002), has become an issue in depression.

Best Practices

Despite these limitations, there are some studies that have demonstrated positive practices that could be useful in future studies. One positive, or “best” practice, is the utilization of mixed methods, combining both surveys, and hormonal chemical tests to balance, as well as produce, results involving an individual. A chemical test alone can tell a researcher what hormones are involved, or increasing/decreasing; although it cannot tell a researcher the overall effect or issue behind the feeling. In the reverse, a survey can produce bias in not only interpretation, but also in manipulation of demand characteristics, which is when a research participant interprets the meaning of a study and subconsciously changes their behavior to fit the study's believed interpretation. While chemical testing can identify these outliers and give a more solid picture, combining the two reduces or eliminates conflicting data in such circumstances. Another best practice is the limitation of exposure to young children. The practice of only performing procedures that benefit the child should continue, though it does enforce the limitation of long term research (Bogen et al., 2013; D'Agostino et al., 2020; Gest et al., 2014). To date, the longest study is only eight weeks long,

despite the fact that BLT has been prescribed to children for years (The Mayo Clinic, 2017; The Mayo Clinic, 2018; Rare Historical Photos, 2019;). This should be addressed in future studies.

Possibilities

Future studies will need to consider a constructivist, pragmatist, or advocacy/participatory format to explore “What happens if...?” in order to evolve beyond the current hospital-only studies found in scholarly journals. Researchers should choose one of these approaches to promote additional understanding, since all of these formats promote exploration. For the constructivist, we would look into understanding and applying BLT to elementary students directly, with multiple participant meanings being gleaned from results—that would promote new theories, instead of relying on the fall-back of “primary treatment versus add-on treatment”. An advocacy/participatory approach would develop a focus on personal empowerment in a change-oriented field, designed to promote personal wellness without medication—though this may cause political debate on the collaborative nature of schools and treatments such as “teachers as doctors”. A pragmatist approach would be more problem-centered (the “winter blahs”), while allowing for pluralistic results in a real-world scenario.

Based on current studies, it is feasible to monitor and record this already in-process trend, allowing researchers in biochemistry to further analyze data in real life situations. Children who are already receiving BLT treatments could take a litmus test, as suggested in protocol studies, with no invasive medical exams or procedures (Gest et al., 2014; Kirchbaum et al., 2017; Kirchbaum et al., 2018; Pniewski et al., 2017). Attention and focus in schools could be monitored throughout the time period, in conjunction with hormone tests, to note if there is an increase in dopamine, serotonin, and pregnenolone—and whether this correlates with focus, as well as children's attitudes. Additionally, this could be done either through a home study of children prescribed to Bright Light Therapy box use (“Sun” or “Smile” lamps), or done through the use of a school official, such as a counselor or school nurse, and the child's teacher.

Original Contribution and Knowledge Expansion

My observations note that the hormones are the same in these two categories of studies. As a teacher, I have observed that students returning from BLT therapies thrive, are alert, and focused. Through basic study, I have been able to connect why these

children are in such a state, and now know that they experience an increase of dopamine, serotonin, and pregnenolone, which increase focus, memory, attention, and happiness. These hormones assist students in becoming more engaged and thrive in school. At this current time, however, it is unknown as to the effect on children who do not suffer from seasonal affective disorder. I would like to expand on this knowledge through continued research in the field, focusing on studies that address the above-mentioned limitations of this current time frame. Additionally, I plan to monitor and continue to synthesize data from these categories to better understand the hormonal systems. Future researchers should endeavor to see if studies in schools, and long-term studies, will show new data associated with these hormones. Perhaps, one day, even undiagnosed children can benefit from such a therapy.

Conclusion

The literature review in this study was based primarily on empirical work performed after 2010. By analyzing the systematic investigations of Bright Light Therapy and seasonal affective disorder, this paper has shown that Bright Light Therapy increases the production of melatonin, which in turn, increases dopamine, serotonin, and pregnenolone (the hormones that regulate focus, memory, happiness, and attention). These increases in hormones are why Bright Light Therapy affects elementary students' attention and focus in the classroom. Research findings demonstrate the potential for use in the classroom to sharpen focus, as well as to prevent seasonal affective disorder symptoms in diagnosed and undiagnosed elementary school children. As Bright Light Therapy is still young in the field of exploration, further investigations that explore beyond the hospital settings will be necessary. It is hopeful that with time and research, we will be able to address the inefficiencies of focus and possibly address other issues, such as the "winter blahs" that plague teachers and students during reduced daylight hours. We can only know if we try to move outside our comfort zone.

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Environmental enrichment therapies: Exploring their accessibility and effects on youth with autism spectrum disorders

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Abstract

In recent years there has been a noticeable increase in the number of families seeking Complementary and Alternatives Medicine (CAM) treatments for their children with autism spectrum disorder (ASD). According to literature, these therapies are often considered a more accessible, yet still effective non-pharmaceutical alternative to typical behavioural attention medications such as Adderall and second-generation antipsychotics (Gattino et al., 2010). Considering pandemic accessibility, ‘green’ trends and the sensory calming connections of environmental enrichment, this review looks to identify the benefits of environmental enrichment therapies on the function of anxiety and sensory stimulation in youth with autism spectrum disorders. It also aims to establish a cause-and-effect relationship between the success of this form of alternative therapy and means of accessibility for participating families. The texts examined are all peer-reviewed and produced after the year 2006, and up until 2020. The studies range from reviews of literature to non current single subject designs, and quasi-experimental pre-test and post test designs. This literature review illustrates that with alternative therapies—specifically environmental—there are limitations to designing a safe and controlled environment in which to interact, as well as dependency on caregiver/parent facilitation. The findings thus far overwhelmingly support implementation of environmental enrichment and nature exposure as a therapeutic form of autism spectrum disorder early intervention and support.

Keywords: Environmental Enrichment; Family-centered; Accessibility

Introduction

In recent years there has been a noticeable increase in the number of families seeking Complementary and Alternatives Medicine (CAM) treatments for their children with autism spectrum disorder (ASD). According to the literature, these therapies are often considered a

more accessible, yet still effective, non-pharmaceutical alternative to typical behavioural attention medications such as Adderall and second-generation antipsychotics (Gattino et al., 2010). As the range of symptoms that individuals on the spectrum may experience is so vast, oftentimes these alternative therapies struggle to quantify their results—although observations still seem to be overwhelmingly positive (Willyard, 2016). With current global lockdowns in response to the coronavirus disease-2019 pandemic (COVID-19), many families of children with ASD are unable to access typical supports (schools, community programs, camps, etc.). These profound consequences of COVID-19 have shown significant effects on the stress and overall mental health status of both youth and adults worldwide (Green et al., 2020). In addition, as the social climate shifts to an increased conversation surrounding climate science and ‘green’ ways of living, access to nature has been viewed as a cost-effective and beneficial means of buffering life stress. For example, in their 2003 study, Wells and Evans concluded that the impacts of life stress were significantly lower among children with high levels of nearby nature, compared to those with little. Considering pandemic accessibility, ‘green’ trends, and the sensory calming connections of environmental enrichment, this review looks to identify the benefits of environmental enrichment therapies on the function of anxiety and sensory stimulation in youth with autism spectrum disorders.

The articles selected for this review were chosen with the intention to support establishing a cause-and-effect relationship, between the successful implementation of environmental enrichment therapies, and sensory processing of youth with ASD. Due to the current COVID-19 pandemic restrictions, combined with the time frame of this course, I gathered primarily descriptive secondary data, since observations could not be made without physical interaction within the allotted time frame. By using a systematic literature review approach, as utilized in Martin (2011), as well as Schweizer, Knorth, & Spreen (2014), I completed a content analysis. Through this analysis, I was able to categorize and discuss previous data, as well as the meaning, in relation to the context of ASD therapy. Through this methodology, I was able to conclude that alternative therapies, such as nature/environmental enrichment may enable improved social-communicative skills, as well as improved self-image, and decreased restricted/repetitive behaviour patterns in children with ASD.

Accessibility of Therapies

In previous research, exposure to nature has typically been viewed as a beneficial practice for youth with attention deficit hyperactivity disorder. After utilizing a 22 person, semi-

structured interview process, Li et al. (2019) stated that exposure to nature provided children with ASD to see improvements in emotional, social, and motor-sensory competencies. However, even with these benefits, many caregivers identified a wide range of obstacles to exposing their children to nature. Among these were inappropriate behaviours/outbursts in public settings, safety concerns, and overall phobias and issues with certain outdoor characteristics (Li et al., 2019). This study however had several limitations, since observations were made by caregivers or parents who completed the interview, which left gaps in observatory notes, since not all participants would have the same prior knowledge. Similarly, utilizing two randomized clinical trials, Aronoff et al. (2016), asked caregivers/parents to provide 1002 children with at-home daily environmental sensory enrichment therapy. Participants noted improvements in sensory processing, communication, and social skills, as well as hyperactivity, and overall behaviours (Aronoff et al., 2016). As stated by the researchers, families who were more dedicated to the program seemed to note greater results—this functions as a study limitation however as the researchers could not control the ways in which caregivers disseminated/committed to the directed programming. This study also indirectly confirmed potential barriers of accessibility, as mentioned in Martin (2011), since not all families have the same means to commit, contribute, and facilitate at-home alternative therapies. During a randomized control trial over a six-month environmental enrichment program, participants aged three to 6 were noted to have increased IQ scores, improvements in receptive language skills, and an overall decline in atypical sensory responses (Woo et al., 2015). In the same study, researchers noted that 21% of the participants who initially were diagnosed with autism through the Diagnostic Observation Schedule, improved to the level that they no longer met the criteria for ‘classic autism’—meaning they would not need specialized programming or academic and social modifications (Woo et al., 2015). This controlled trial also concluded that the potential advantages of environmental enrichment therapy do not require initiation at a young age, which necessitates an early diagnosis of autism. It appears as though environmental enrichment presents benefits for youth with ASD of all ages, and there is no correlation between age and outcome (Woo et al., 2015).

Family Centered

Similar to the ‘do-it-at-home’ themes of the studies above, many researchers seem to amalgamate nature with an increased focus on family-centered therapy for youth with ASD. In

a quasi-experimental study, with a pretest and post-test design and control group, Ramshini et al. (2018) found that family-centered nature therapy was not only effective in improving the symptoms of ASD in participating youth (aged three to), but also in bettering parent-child relationships. Increased parent participation, also enabled Hardwood et al (2018) to investigate the role of canine companions on children with ASD. Their interview-based research concluded that much of the benefits from canine companions were also related to an increased family presence surrounding the dog and child (Hardwood et al., 2018). Although this study did not directly relate to nature therapy as a method to combat ASD symptoms, it did identify the significance of family-centered approaches on the effectiveness of alternative autism therapies.

Unfortunately, many current studies on the impacts of nature therapy on ASD are dependent on caregiver facilitation and observations. Essentially, this refers to parents of youth with ASD, both facilitating the alternative therapy practices, and also recording and sharing their personal observations with researchers. Although this allows for direct correlation and primary data collection of the benefits of environmental enrichment therapy, often than not, parents/caregivers do not have professional or academic training in observing, collecting, and analysis of said data. Therefore this leaves great room for subjective ideologies, error, and lack of efficiency in the observations and anecdotal notes shared with researchers. Nevertheless, obvious benefits can still be detected throughout this process. A 2006 controlled laboratory study (Schneider et al., 2006), pushed this age correlation one step further, by completing an experiment to determine the effect of enriched environment on aberrations observed in male rats exposed to valproic acid on day 12.5 of gestation (VPA rats) that replicated, on the basis of etiological, anatomical, and behavioural data, an animal model of autism. Researchers thus found that environmental enrichment therapy reversed almost all behavioural alterations observed in the model Schneider et al., 2006). In fact, similar differences in social behaviour and anxiety were observed between control rats exposed to environmental enrichment (Con-E) and control groups reared in standard conditions (Schneider et al., 2006). This study is further related to Annderstedt and Wahrborg's (2011) meta-analysis of previous literature. Although they authors did not discussion any direct links to autism, they did conclude that environmental enrichment created significant improvements in many diverse diagnoses—namely: obesity, anxiety, stress, Alzheimer's, and schizophrenia—thus showcasing the therapy's overall benefit to public health (Anderstedt & Wahrborg, 2011).

Gaps in the Literature

The texts examined are all peer-reviewed and produced after the year 2006, and until 2020. These studies range from reviews of existing literature, to non-current single-subject designs, and quasi-experimental pre-test and post test designs. Researchers have yet to fully understand the neural circuitry of ASD, and therefore many of the treatment drugs, therapies, and other activities have a great ambiguity in their effectiveness (Willyard, 2016). As autism is so diverse, it can be difficult to navigate proper tools to track and facilitate therapies. After comparing and contrasting the results of multiple studies with regards to the impacts of environmental enrichment therapy on youth with ASD, it appears as though the results are overwhelmingly positive. Although much of the literature seems to have gaps in quantitative data, as well as design flaws that have high error margins (caregivers submitting results, small sample sizes, etc.), there were never any negative results documented. The research did show however that with alternative therapies, specifically environmental, oftentimes designing a safe and controlled environment in which to interact is the greatest limitation (Shahmahomadian, 2020).

There have also been a few limitations to previous studies and the furthering of this alternative therapy. For example in their 2019 study, Li et al. (2019) noted that even with the benefits of nature exposure, many caregivers identified a wide range of obstacles to exposing their children to nature. Among these were inappropriate behaviours/outbursts in public settings, safety concerns, and overall phobias and issues with certain outdoor characteristics (Li et al., 2019). Similarly, utilizing two randomized clinical trials, Aronoff et al (2016) found that families who were more dedicated to the program seemed to note greater results; this functions as a study limitation however, since the researchers could not control ways in which caregivers disseminated/committed to the directed programming. This study also indirectly confirmed the potential barrier of accessibility, mentioned in Martin (2011), as not all families have the means to commit, contribute, and facilitate at-home alternative therapies. Do families have the financial means to support alternative therapies, as well as transportation privilege to attend specific centers, etc.? Unfortunately, many current studies on the impacts of nature therapy on ASD are dependent on caregiver facilitation and observations, enabling a lack of quantitative data, and increasing ambiguity in results.

There are, however, a few academic studies thus far, that have touched upon more primary data and quantitative impacts of environmental enrichment on autism. Although many

of these 'at home' or parent-based observation studies' seem to function with many limitations, there is a part of me that believes in the benefit of such studies. As stated time and time again, researchers have yet to fully understand the neural circuitry of ASD, and therefore many of the treatment drugs, therapies, and other activities have a great ambiguity in their effectiveness (Willyard, 2016). The reason this is so is that ASD is a spectrum and therefore extremely specific to each individual. Therefore, it makes me wonder if at home, family-based, and personalized forms of alternative therapy, regardless of their ambiguity in results, really are the most beneficial actions for youth with ASD. Personalized therapy and sensory enrichment as a whole, have been deemed effective across a wide range of youth. There has been notable progress in males, females, paid vs. free programs, and across a wide range of countries (Arnoff et al., 2016). Since the range of symptoms individuals on the spectrum may experience is so vast, oftentimes these alternative therapies struggle to quantify results, although the observations still seem to be overwhelmingly positive (Willyard, 2016).

Conclusion

Regardless of minimal quantitative data, there have been no documented negative effects of environmental enrichment therapy on youth with autism spectrum disorder or their families. After synthesizing the presented data, there are a few research questions that should be considered in this field: 1) how can equitable access to alternative therapies be managed; 2) can alternative therapies be considered intervention strategies; and 3) how effective would the creation of online/free resources be in supporting families in facilitating alternative ASD therapies at home. As many of the studies reviewed in this paper were inconclusive in terms of quantitative results, I believe alternative therapies, specifically environmental enrichment, should be utilized as complementary actions to support children with ASD. As ASD symptoms are so vast, it seems as though at home, family-based, and personalized forms of alternative therapy, regardless of their ambiguity in results, really are the most beneficial actions for youth with ASD. Personalized therapy and sensory enrichment as a whole, has been deemed effective across a wide range of youth; there has been notable progress in males, females, paid vs. free programs, and across a wide range of countries (Arnoff, Hillyer, & Leon, 2016). For this reason, it is safe to conclude that environmental enrichment and other alternative therapies are positive, simple, and beneficial actions to support the lives of children with ASD.

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Trauma and Substance Abuse

Addressing trauma in the school system: What is trauma and how can we help?

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Abstract

Students who have experienced trauma may experience a variety of social, academic, and behavioural challenges in the classroom and broader school community. While teachers are expected to meet the needs of all students, they are often not provided with the training or information needed to do so. This literature review examines empirical and theoretical research published since 2005 on the effects of trauma in the classroom, and how these effects can be mitigated using a variety of teaching methods, expert intervention, and school-wide culture change. I conclude that while there is research available about trauma-informed practice in the classroom, there is a gap in research about the effects of trauma on other students in the classroom; as well as the effects on teachers of teaching students who have experienced trauma; and the most effective way to disseminate information and training to teachers and school administrators. While reaching all students can be challenging, the prevalence of trauma in our society demands that teachers and schools be proactive about creating safe and effective learning environments for students who have experienced trauma and the debilitating effects.

Keywords: Trauma; Trauma-Informed Practice; Teaching Strategies; Teacher Training; School Culture

Introduction

I knelt on the dusty classroom floor in front of a child who had just been removed from an abusive home and put into emergency foster care. She sobbed into her hands, little drops flitting off the crinkles in her palms and dotting the math equations in front of her. There was something visceral about her pain that I could recognize, but had never experienced. While this was my first job, I learned quickly that teaching was a deeply relational work, and it required me to reach students who live in circumstances of which I had no personal knowledge. After all the time I had spent in university, I felt woefully unprepared to reach students who were struggling to process trauma right in front of me.

Teachers often feel unprepared to teach students who have experienced trauma (Anderson et al., 2015; Blitz et al., 2019; Cavanaugh, 2016; Stokes 2019, and formal teacher training often neglects trauma-informed practice (Ko et al., 2008; Thomas et al., 2019. However, there have been several studies that have examined various approaches to improve or implement trauma informed school practices (Anderson et al., 2015; Brunzell et al., 2015; Jaycox et al., 2012; Kim et al., 2021; Mendelson et al., 2015; Wolpow et al., 2009. Therefore, while there are a lot of studies with potentially helpful information for teachers, it has not been widely distributed to or adopted by teachers, possibly because the information is not synthesized or easy to access. My research focuses on gathering information about trauma informed practice from a wide variety of sources and studies, synthesizing it, analyzing commonalities in the research, and presenting strategies that will empower educators in an attempt to answer the question: how can teachers create a safe and effective learning environment in their classrooms for students who have experienced trauma?

Conceptualizing Adverse Childhood Experiences and Trauma

Adverse Childhood Experiences (ACEs) are defined as potentially traumatic events such as emotional, physical, or sexual abuse, experienced in the first 18 years of life (Carsley & Oei, 2020). In some but not all cases, ACEs result in traumatization, which occurs when a person experiences or witnesses an external threat that triggers an acute alarm reaction in the body's stress response, resulting in long-term damage to key neurological and psychological systems (Brunzell et al., 2015). Therefore, trauma is not an event itself, but rather the body's response to the event and the continuing effects on stress-related physiological systems, including neuroimmune, neuroendocrine, autonomic, and central nervous systems (Ungar & Perry, 2012).

The prevalence of ACEs and resulting trauma is astonishingly high among school-aged children. In a review of ACEs, Public Health Ontario found that 52% of the Canadian adult population has experienced one or more ACE when they were children, and estimates that currently half to two-thirds of children have experienced a potentially traumatic event (Carsley & Oei, 2020). However, some estimates are much higher. When 769 students were sampled in the Los Angeles Unified School District, 76% of students had experienced or witnessed violence involving a gun or knife, and the average number of violent events experienced in the previous year was 2.8, with the average number of witnessed events 5.9 (Stein et al., 2003). It is important to note that the prevalence of trauma is not equally distributed; Canada's

marginalized communities including Aboriginal peoples, rural populations, people with mental illness, and people living in poverty are all at greater risk of having children who experience trauma compared to the national average (Bloom et al., 2006; Ungar & Perry, 2012).

Effects of Trauma in the Classroom

The effects of trauma have far reaching consequences, including a range of academic, social, and behavioral difficulties in classrooms (Brunzell, 2015; Delaney-Black et al., 2002; Jaycox et al., 2012; Ko et al., 2008; Stein et al., 2003; Ungar & Perry, 2012). However, often in the school system the symptoms of traumatic experiences are misunderstood as defiant or a lack of respect, and children are often mislabeled as “difficult children” rather than being offered the help they require (Anderson et al., 2015, p. 115). Therefore, it is important for teachers to understand the possible effects of trauma so that they can recognize and support vulnerable students, rather than become frustrated or punish students for variables beyond their control.

In the classroom context, students who experience trauma have an increased risk of low academic performance (Jaycox et al., 2012; Ko et al., 2008; Stein et al., 2003), including specific symptoms like reduced cognitive capacity, difficulties with memory and concentration, language delays (Brunzell, 2015), as well as decreased IQ and reading ability (Delaney-Black et al., 2002). Socially, students may struggle in their interactions with peers and authority figures like teachers, due to trauma’s effect on psychobiological development and their inability to relate to their peers (Ko et al., 2008). Behaviourally, students may be disruptive or withdrawn because trauma interferes with a child’s ability to self-regulate their emotions (Anderson et al., 2015). This can result in outbursts or withdrawal behaviours that are not conscious acts of defiance, but rather social-emotional responses to overwhelming stress or anxiety (Ko et al., 2008). In addition, students may feel prolonged and intense anxiety resulting in hypervigilance, numbness, and inattentiveness, which may ultimately affect a student’s ability to be successful in all aspects of academic, social, and behavioural norms (Stein et al., 2003).

Teacher Training

While trauma is prevalent in the student population, teachers often feel unprepared to teach students who have experienced trauma. In a study that surveyed teachers working in urban schools with a low socio-economic and high trauma population, teachers reported feeling overwhelmed and ill-equipped in trauma response strategies (Blitz et al., 2019). This is logical, because teachers typically do not receive formal training about the impacts of trauma on students or the ways they can intervene to create better outcomes (Ko et al., 2008;

Thomas et al., 2019). This lack of teacher confidence and training is confirmed in several studies, and across different socio-economic contexts, teaching age groups, and geographical locations (Anderson et al., 2015; Cavanaugh, 2016; Ko et al., 2008; Stokes 2019; Thomas et al., 2019). Even more disturbingly, in some cases this effect is multiplied when the policies teachers have been given by the school or school district are ineffective and harmful. For example, out of school suspension, expulsion, and zero-tolerance policies have been proven to be counterproductive in addressing children's challenging behaviors (Skiba et al., 2014), and can escalate confrontations because these discipline methods can trigger internalized responses to trauma (Anderson et al., 2015). Conversely, in studies where teachers are given effective trauma-informed training and the opportunity to co-design their pedagogies with trauma-informed professionals, they report understanding challenging behaviour in a new way and feeling empowered to meet the needs of their vulnerable students (Brunzell et al., 2019).

Research in the Classroom

In response to the gap in trauma-informed teacher training and corresponding hesitancy from teachers, several researchers have focused on classroom based strategies to help teachers reach traumatized students. These interventions largely focus on repairing dysregulated stress responses and disrupted attachment styles (Brunzell et al., 2015). Self-regulation is the ability to maintain and regulate impulses. This can be challenging for students who have experienced trauma because the integrated neurophysiological response to trauma results in students preparing to fight, flee, or mentally dissociate, when faced with high stress situations or traumatic triggers (Shonkoff & Garner, 2012). Paired with disruptive attachment styles and social impairment, this can create difficult relationships that may be misinterpreted as defiant (Ko et al., 2008). While teachers often feel they need to use "an aggressive tone or strong words" for effective discipline (Anderson et. al, 2015, p.123), this approach is counterproductive and more likely to trigger challenging behaviours due to students' dysregulated stress responses and damage the crucial relationship between the teacher and student. Rather, student behaviour and school attachments are heavily influenced by developing positive relationships between students and teachers, and creating safe, caring classroom environments (Day et al., 2015).

There have been several studies of these principles when they are implemented in classrooms. In one study, 11 pilot schools in Washington were given a set of compassionate

teaching guidelines to implement in their classroom and around the school, coined the *Compassionate School* approach. They included 1) always empower, never disempower; 2) provide unconditional positive regard; 3) maintain high expectations; 4) check assumptions, observe, and question; 5) be a relationship coach; and 6) provide guided opportunities for helpful participation (Wolpaw et al., 2009). All eleven schools that implemented the program reported positive results (Hertel et al., 2009). Similarly, Bloom (2006) created the *Sanctuary Model*, which relies upon creating a culture of seven dominant characteristics: 1) non violence; 2) emotional intelligence; 3) social learning; 4) shared governance; 5) open communication; 6) social responsibility; and 7) growth and change. In several studies this method resulted in “reduction of physical restraint and aggression, improved staff morale, lower staff turnover, fewer injuries to staff and clients, improved collaboration, and improved clinical outcomes for children” (Bloom, 2006, p. 49).

Beyond the Classroom

While implementing classroom strategies is important, there are also factors beyond individual teachers’ control that are crucial to trauma-informed education. Ungar and Perry (2012) emphasize the importance of early intervention; as well as fostering positive long term relationships with safe adults; tailoring intervention to individual children’s needs; and coordinating consistently between multiple systems (for example, school, mental health professionals, and foster care system working together). This requires multiple levels within the education system to work in tandem with broader community services, to provide comprehensive care for children in need. In addition, studies have shown that children are more likely to access mental health services in the community through schools than via any other path (Ko et al., 2008)—giving schools the responsibility of creating a pathway for students to access the broader network of services.

In addition, in several successful intervention strategies, while intervention occurs at the school, it takes place outside of the classroom. In one such study, researchers screened 879 students for exposure to violence, post traumatic stress, and depressive symptoms, to create a focus group that implemented a *Cognitive Behavioral Intervention for Trauma in Schools* program, resulting in a reduction of traumatic stress and depression symptoms, and an increase in grade point average of traumatized students (Jaycox et al., 2012). Similarly, in a study where 7th and 8th-graders who had experienced trauma attended a 12-session school-based trauma group intervention pilot study, students who received the training

showed significantly improved emotion regulation, social and academic competence, classroom behavior, and discipline (Mendelson et al., 2015). These findings are crucial to understanding support for children who have experienced trauma—as a multi-tier system that must work together in several capacities, within the classroom, the school, and the community as a whole.

Research Gaps: Effects of Trauma on Classroom Community

When reading about the effects of trauma on the classroom, I noted that existing research largely focuses on the effects for the individual student who has experienced trauma. However, in my experience, classrooms are a mini social ecosystem, and therefore those effects are felt by peers and teachers as well. For example, in some cases the behaviour of a traumatized student may present in a challenging way, including violent outbursts (Anderson et al., 2015; Ko et al., 2008). While this is not the fault of the child who has been traumatized, their actions may result in peers or teachers feeling scared, angry, frustrated, or unsafe. In my experience of teaching a student who was verbally and physically abusive to staff and students because of the student's own past trauma, it was extremely difficult to manage the classroom, while also ensuring all students felt safe, answer parent concerns, and process my own emotions. While I knew it was not the child's fault, I still felt scared going to work, anxious about the safety of the other children, helpless in answering parent concerns, and lonely in my experience.

More research on disruption of the classroom ecosystem could explore several avenues. When researching peers of a student who has experienced trauma, research could study whether or not there is a discernible short-term or long-term impact on these children, what strategies teachers can use to successfully manage these peer interactions in a supportive way for all students involved, or exploring what age appropriate conversations could assist children in understanding why something is happening. When researching teachers of students who have experienced trauma, research could focus on schools that serve marginalized communities who have a higher risk of experiencing trauma (Bloom et al., 2006; Ungar & Perry, 2012) and address the effects on teacher's mental health, a possible link to burn-out rates, or what resources are most effective at making teachers feel supported. While it is possible there has been some research done in the areas above, to the best of my knowledge they are largely unstudied and extraordinarily important to the conversation about the effects of trauma on a classroom community.

Research Gaps Information and Training Accessibility

Educating an entire profession about anything is a daunting task, but one that cannot be overlooked in the quest for progress. Several studies address the lack of formal teacher training and the resulting lack of teacher confidence in their ability to address students who are struggling to process trauma (Blitz et al., 2019; Brunzell, 2015; Ko et al., 2008; Thomas et al., 2019). However, to my knowledge there has been very little research conducted about what the most effective, realistic way to disperse information or training across the teaching profession.

In some studies with promising results, experts lead intervention teams to address trauma in either small groups of students, or the whole class (Jaycox et al., 2012; Mendelson et al., 2015). This creates a financial and logistical barrier to large scale implementation, because it requires professionals to come into the school and associated costs. If an attempt was made to implement these studies on a larger scale, there would be many questions that would need to be answered first: would these experts be paid by the school, district, province or federal government? How would these experts be vetted or chosen, and by who? Would this happen every year to every cohort of students, or to targeted groups? Would it be an ongoing initiative like sex education, or would it be a “one off” event?

In other approaches, frameworks are offered that teachers or schools could potentially implement on their own if they were educated about them (Bloom, 2006; Brunzell et al., 2015; Wolpow et al., 2009). While this eliminates the barrier that relying on experts pose, it creates a new barrier: How can we get information to teachers or administrators? What is the most effective scope for the dissemination of information: federal, provincial, school district or school by school? Would reading the information be voluntary or mandatory? How would one test whether or not the information was absorbed by the teaching community? Would in-school training sessions or professional development days be more appropriate for mastery of concepts than asking teachers to research on their own time?

An extension of this discussion is whether Trauma Informed Practice can be incorporated into teacher's college consistently. Although that does not necessarily fix the current issue in our education system, it will create a new wave of understanding as those teachers graduate and ideally pass their knowledge on within their schools when they get hired. Again, the question of implementation, including the scope, whether it is voluntary or mandatory, and whether there will be follow up, is a crucial one moving forward.

Conclusion

Reaching all students in a classroom is a monumental task, and one that requires teachers to constantly adapt and add new skills to their repertoire. Given the prevalence of students struggling to process trauma in the classroom and the lack of teacher training and information on trauma-informed practice, both the students and teachers are in a difficult position, as trauma can have a large effect on every aspect of classroom life. Many studies over the past 15 years have examined various approaches to improve or implement trauma-informed school practices, but the information has not been widely distributed or adopted by teachers. In some cases, the studies are inaccessible or unrealistic to implement on a large scale, and in other cases, it has not been prioritized in the education sphere. Therefore, the next step is to synthesize the information and make it easily available to all educators, so that no teacher ever has to wonder how they can create a safe and effective learning environment in their classrooms for students who have experienced trauma.

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Addressing barriers for individuals seeking substance use disorder care: A review of Canadian programs and services

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Abstract

One in five Canadians aged 15 years and older experience substance use disorder in their lifetime; this also varies on the type of substance being consumed (Statistics Canada, 2013). Stigmatizing people with substance use disorder (SUD) discourages these individuals from seeking the help they need, decreases the access to and the availability of quality health care services, and promotes biased ineffective programs and policies (CCSA & CAPSA, 2021). The purpose of this research is to review the current literature on present programs and services addressing barriers to access care for those individuals living with substance use disorder within the Canadian context. My review of research on present programs and services addressing these barriers found six common themes: lack of hope and adequate care, intersectional considerations, impact of policy and police, socioeconomic instabilities, harm reduction services, and best care practices and recommendations. The gaps found in the scope of this review include lack of positive stories of recovery from individuals with SUD, a need to further investigate the efficacy and effectiveness of integrated services and their implementation, including harm reduction services and safe consumption programming, and a lack of documentation and evaluation of new plans and services that have been implemented across Canada. Efforts to address substance use stigma may have the potential to positively impact the wellbeing of people with SUD. This is especially relevant to ensure that people who use drugs do not face stigma-related barriers to accessing expanded treatment and harm reduction services available as part of Canada's response to the opioid crisis.

Keywords: Substance Use; Services; Addressing Barriers

Introduction

In Canada, one in five individuals aged 15 years and older experience substance use disorder in their lifetime; this also varies on the type of substance being consumed (Statistics

Canada, 2013). In 2017, the general Canadian population reported their use of alcohol (78.2%), cannabis (14.8%), cocaine/crack (2.5%), hallucinogens and salvia (1.5%), and problematic prescription drugs (1.2%) (CCSA, 2021). Substance use disorder (SUD) is a disease which affects the brain and behaviour of a person, and consequently results in an inability to control the use of substances such as alcohol, methamphetamines, opioids, and cannabis, despite the negative consequences (Sher, 2016). The use of substances can be described as a spectrum where many people use substances for a variety of reasons, and identifying a person's relationship with the substance by their position on the spectrum can be crucial in providing the appropriate care for the individual (CMHA, 2021).

The spectrum ranges from beneficial use, casual/non-problematic use, high-risk/problematic use, and chronic dependence. Beneficial use of substances refers to that which has positive health, spiritual, or social effects, such as using prescribed medication or consuming a glass of wine. Casual/non-problematic use includes recreational use of substance that has minor health or social effects for the individual. High-risk/problematic use of substances is when the person who uses substances starts having negative outcomes for the individual, society, and/or their family and friends, such as binge consumption (CMHA, 2021).

The stigma around substance use disorder often takes the form of disparaging language that belittles the individual (PHAC, 2020). Stigma refers to the negative attitudes and beliefs about a group of people because of their circumstances in life (CMHA, 2021). There are three types of stigma associated with substance use disorder, namely: self-stigma, social stigma, and structural stigma. Self-stigma refers to the internalized negative attitudes caused by the social and structural stigma that a person with a substance use disorder experiences when they start accepting negative messages towards themselves. Social stigma refers to the negative attitudes and beliefs towards people who use substances and includes stigma towards friends and family. It also includes using stigmatizing language or images when communicating with people with substance use disorders (Health Canada, 2020). Structural stigma refers to social stigma from people applied in the public and private sectors who offer services, including first responders, healthcare professionals, customer service workers, and government representatives.

Stigmatizing people with substance use disorder discourages these individuals from seeking the help they need, decreases access to and availability of quality health care services, and promotes biased ineffective programs and policies (CCSA & CAPSA, 2021).

Research has shown that people with substance use disorder are less likely to be offered help, compared to those individuals living with a physical disability or mental illness (Corrigan, O' Shaughnessy, Kuwabara, 2019). A study by van Boekel et al. (201) found that negative attitudes exhibited by health professionals diminished patients' feelings of empowerment and subsequent treatment outcomes. Another study of people seeking healthcare for a common complication of injecting drugs, found that a majority left the hospital against medical advice—partially driven by the stigma they experienced from healthcare providers (Summers et al., 2018). In addition, individuals prescribed opioids for chronic non-cancer pain, who were also at-risk for opioid use disorder, described concern that opioid treatment would be discontinued as a key barrier to seeking pain treatment (Larance et al., 2018). Furthermore, funding for evidence-based treatments for substance use disorder has been found to be below what would be expected on the basis of the burden of disease—an effect which may be partially driven by stigma (Cummings et al., 2013).

Additionally, development of compensation models that incentivize healthcare providers to take on patients with substance use disorders has been challenging, which may lead to limited availability of care (Durbin et al., 2016). Opioid agonist therapy, the current evidence-based treatment recommendation for opioid use disorder, is also subject to significant stigma. People who access opioid agonist therapy report that they often experience stigma from healthcare providers, and restrictive treatment structures (Fischer et al., 2002). In some cases, this stigma can be sufficient enough to cause individuals with substance use disorder to discontinue treatment (Fischer, et al., 2002; Gronnestad & Sagvaag, 2016). Hence, negative attitudes, as well as discontinuing certain treatments, lack of funding, and difficulties developing compensation models for healthcare providers, along with stigma, pose a barrier for individuals seeking treatment for substance use disorder. The purpose of this research paper is to review the current literature on present programs and services, addressing these accessing care barriers for those individuals who are living with substance use disorder within the Canadian context.

Literature Review

The research on present programs and services addressing barriers to access care for those individuals who are living with substance use disorder within the Canadian context found six common themes: 1) lack of hope and adequate care; 2) intersectional

considerations; 3) impact of policy and police; 4) socioeconomic instabilities; 5) harm reduction services; and 6) best care practices and recommendations.

Lack of Hope and Adequate Care

SUDs may not be seen as a treatable condition where recovery is possible, hence framing it as such may be a helpful mechanism for decreasing stigma, and influencing help-seeking from those living with SUD (McGinty et al., 2015). In a sample of people who use drugs and access outpatient health care services, a study observed low rates of drug use disclosure—particularly for Indigenous respondents—and reduced quality of care for those who disclosed their drug use (Pearce et al., 2020). Similarly, there is evidence of negative associations between access to adequate dental care, substance use, and social structural vulnerability (Jaffe et al., 2021).

Multiple studies found barriers to accessing care, regardless of treatments/services in place for SUD support (Hyshka et al., 2019; Jaffee et al., 2021). For example, addiction medical consultation teams were not fully integrated into the healthcare setting—due to the actions of other hospital staff, and informal prohibitions on substance use—which was inconsistent with the team’s harm reduction approach (Hyshka et al., 2019). This could be due to the lack of positive stories from individuals in recovery from SUD; by highlighting achievements, however, as well as illustrating survey results (McQuiad et al., 2018) and stories of long-term recovery (Livingston et al., 2012), there can be hope to guide improvements in services and supports, which may also be beneficial for SUD outcomes (May et al., 2015; McQuiad et al., 2018).

Intersectional Considerations

Stigma can be compounded by experiences of stigma across multiple identities, which varies by sociodemographic group. Studies have reported on disparities at the intersection between substance use and HIV, as well as ageing (Chayama et al., 2020), pain management services within drug treatment programs (Clark et al., 2020), youth who use illicit and non-medical prescription drugs (Russell et al., 2019), and in-service staff training and education (Black et al., 2020). Furthermore, care and services must be tailored to meet the needs of an increasingly ageing population. Studies suggest understanding the issues faced by older adults living with HIV, who use drugs, as necessary to inform the development and implementation of strategies of care (Chayama et al., 2020). Another study argues that the high prevalence and negative impact of chronic pain, where pain management services exist, should be integrated into drug treatment programs, and adapted to patients' needs

for more intensive treatment (Clark et al., 2020).

For youth care, community-based implementation of services, such as drop-in centers/emergency shelters tailored specifically to youth—available and open around the clock—that provide education about the benefits of treatment, as well as service system navigation and activities, are suggested as beneficial (Russel et al., 2019). Similarly, Black et al. (2020) suggest that clinics create in-service training, mapping tools, and communication channels that would allow sexual health clinicians to readily identify mental health and substance use issues. In general, it is important to note that lessons from one target group should not be overgeneralized to other groups, because each may have different needs (Thornicroft et al., 2016).

Impact of Policy and Police

Overt structural stigma—such as disqualification from public housing, shelters, or food banks—and covert stigma—such as law enforcement officials attending overdose calls, and heavily policing areas where treatment and harm reduction services exists—may lead to negative effects in individuals with SUD (Bennet & Larkin, 2018; NAS, 2016). Several studies noted their understandings of how street-based policing practices can create a space that subjects people who use drugs to harmful or positive experiences (Bardwell et al., 2020; Collins et al., 2019; Karamouzian et al., 2019). Bardwell et al. (2020) found that neighbourhood context, laws, and policies, as well as SCS/police relationships, play important roles in shaping access to safe consumption sites. Additionally, awareness of the *Good Samaritan Overdose Act*, and police non-attendance, within both law enforcement and the community of people who use drugs, may help encourage people to call 9-1-1 without negative repercussions (Karamouzian et al., 2019).

Socioeconomic Instabilities

Existing studies highlight strong links among multiple social determinants of health—such as socioeconomic status, education, and housing—and trauma-related to substance use and SUD (Addorisio et al., 2021; Collins et al., 2020; Greaves et al., 2006; Marcellus, 2017). Lifetime pathways showcase the importance of early and sustained health, as well as social, economic, educational, and employment support for women and families (Marcellus, 2017). For women who use drugs, complexities of housing-based overdose prevention sites—such as housing instability, risk of violence, and overdose vulnerability—have been reported as presenting gendered barriers to women’s engagement with such services (Collins et al., 2020). While Greaves et al. (2006) suggest that shelters do provide great

assistance for women who use drugs and experience violence, further training efforts are needed for service providers, that include integration of tobacco interventions into addictions treatment and violence services (Greaves et al., 2006). Therefore, it is crucial to incorporate trauma-informed approaches into interventions to address stigma wherever possible (Nathoo et al., 2018).

Harm Reduction Services

As aforementioned, SUD is associated with significant structural, social, and self-stigma, which negatively impacts the lives of people who use drugs, and creates barriers to accessing services—including treatment and harm reduction programs. Several studies touched on the dynamics of harm reduction services—such as safer crack use kits (SCUK) (Ivins et al., 2011), overdose prevention sites (Oudsoorn et al., 2021), and safe supply programs (Mason et al., 2015). In Victoria, the distribution of SCUK presents tangible benefits for those who need them—and are particularly valuable in the absence of other solidly effective and presently available targeted health interventions (Ivins et al., 2011). Furthermore, Mason et al. (2015) demonstrate that safe supply programs are a feasible public health intervention to address the current overdose crisis.

Building a caring relationship with staff has also been noted to increase stability in the lives of people who use drugs—and enhances their relationship with peers in the community (Oudshoorn et al., 2021). However, the same study has highlighted that when people who use drugs re-enter the community, they are confronted with oppressive systemic issues that continue to place stigma on them, and thus create barriers to achieving overall wellness (Oudshoorn et al., 2021). Overall, normalizing access to harm reduction services, in order to ensure that people with SUD feel empowered to access them, may help reduce the structural stigma within such settings (Stuart, 2018).

Best Practices and Recommendations

Multiple studies have concurred on the need for multidisciplinary, collaborative, evidence-based, and community-based practices and services for individuals who are living with SUD (Anderson & Larke, 2009; Henderson et al., 2017; Khenti et al., 2019; Leece et al., 2019; Maclean, 2018; Mason et al., 2015; Olding et al., 2018). Other studies have brought forth the crucial component of partnering with individuals who have lived/are living with substance use disorder (Olding et al., 2018), to ensure that service/program efforts are responsive and relevant (Leece et al., 2019)—thus ensuring their needs, priorities, and input are placed at the forefront of decision-making (Henderson et al., 2017; Leece et al., 2019;

Mason et al., 2015; Stuart, 2018). Particularly in contexts where individuals who use drugs have organized into peer-led and democratic organizations, a workshop-based model can facilitate meaningful participation from a diverse network of drug users in questionnaire design (Olding et al., 2018).

Pilot projects have demonstrated that evidence-based, user-friendly, and culturally safe resources—incorporated into training workshops—can be effective in improving service provider capacity to reduce stigma (Maclean, 2018). In addition, community health centres can improve staff knowledge and attitudes toward people with SUD (Khenti et al., 2019). One study created the role of a *Navigator service model*, to introduce some of the responsiveness, flexibility, and client support missing from the currently fragmented mental health system, and found that such models benefited patients, physicians, and other community service providers, by providing enhanced connection, information, support, and service linkages (Anderson & Larke, 2009).

Research Gaps

The literature reveals common themes expressed on the topic of SUD and services/programs, addressing barriers such as lack of hope and adequate care, intersectional considerations, impact of policy and police, socioeconomic instabilities, harm reduction services, and best care practices and recommendations. Stigma has multiple and serious negative impacts on the lives of people with SUD, including lack of adequate quality of care and poor health outcomes, which may be due to reduced access to treatment and services. To address these issues, there is a need for further research on the aforementioned themes, as part of Canada's response to the opioid crisis.

Gap 1: Lack of Hope and Adequate Care

Correlations have been reported between the experiences of people who use drugs and access dental care. It is thus imperative to undertake an in-depth analysis regarding oral health needs, in order to integrate novel policies and develop strategies for referring individuals who use drugs to providers who are able to provide compassionate trauma-informed approaches in dental care (Jaffe et al., 2021). Additionally, as Indigenous individuals have been identified as a highly stigmatized population regarding SUD, there exists a knowledge gap in service provision; there is a need to improve the cultural safety of services accessed by Indigenous people who use drugs, as well as to create addiction medicine consult teams that are aware of contextual differences (Hyshka et al., 2019; Pearce et al., 2020). As research evolves, it is important to include positive stories of recovery from

individuals with SUD, as well as capture stories from target populations and investments, in order to improve the wellbeing of people with SUD—as they begin and maintain their wellness journey (McQuiad et al., 2018).

Gap 2: Intersectional Considerations

Older adults living with HIV may experience comorbidities along with SUD; hence, in order to ensure equitable access to service, it is critical to optimize care management and explore the adoption of harm reduction and case manager approaches in care facilities (Black et al., 2020). What is also evident from this literature review, there is a need to further understand barriers to high-quality palliative care—in order to enhance the quality of life among older adults living with HIV and who use drugs (Chayama et al., 2020). Further research is needed to investigate the efficacy and effectiveness of integrated services; their implementation for youth who use illicit drugs; and patients with both chronic pain and SUD—in order to address their previously reported articulated needs respectively (Clark et al., 2020; Rusell et al., 2019).

Gap 3: Impact of Policy and Police

A study conducted in British Columbia by Karamouzian et al. (2019) has examined a community of individuals who use drugs, along with the roles and perceptions of law enforcement in the area, and have identified a significant gap in research regarding how the *Good Samaritan Overdose Act* is interpreted and understood by the greater community and police. On the same topic of surveillance and policing, it has been noted that harm reduction services and safe consumption programming require further exploration—as to the additional risks that urban control strategies may have on the effectiveness of evidence-based interventions, such as drug scene surveillance, and other contextual domains—e.g., ethical, socio-cultural, and socioeconomic (Bardwell et al., 2020; Collins et al., 2019).

Gap 4: Socioeconomic Instabilities

Women and their families have also been explored in the literature during their life courses—yet there is room for further improvements in the support available for beneficial continued recovery from SUD (Marcellus, 2017). One form of continued support that requires further exploration is the types of stressors women typically encounter after leaving shelters. Suggestions for addressing such stressors, in the scope of this literature review, include subsidies for safe affordable housing with childcare, education, and employment training opportunities (Greaves et al., 2006). Additionally, those who may be struggling with SUD and lack an adequate home, may need comprehensive and specific health care needs, which needs to be further identified through research (Addorisio et al., 2021; Collins et al., 2020). As the literature suggests, a good start is to engage with individuals with SUD and/or those who

use drugs—on their own terms—in order to develop services that resonate and are attuned to the various needs of drug use modalities—as a way of improving access to overdose prevention sites (Addorisio et al., 2021; Collins et al., 2020).

Gap 5: Harm Reduction Services

The Canadian community of research has reported numerous experiences from participants using safe supply programs and services (Ivsins et al., 2011; Mason et al., 2015; Oudshoorn et al., 2021). There is a call to action among researchers to include caring relationships, as well as increasing stability, community engagement—as a way to collectively building new and meaningful ways of creating a better future for all stakeholders involved in harm reduction services (Oudshoorn et al., 2021). One of the gaps in existing services is the need to scale up safe supply programs across Canada, since they have been well received among program participants—given current reports and waitlist numbers (Mason et al., 2015). Furthermore, researchers should explore long-term programming and policy decisions regarding safer crack use kits, along with their impact(s) and barrier(s) (Ivsins et al., 2011).

Gap 6: Best Care Practices and Recommendations

Public health decision-making regarding programs and services—addressing barriers to care for individuals with SUD—requires a complex, multi-siloed approach. To the extent of this literature review scope, there is a lack of documentation and evaluation of new plans and services that have been implemented across Canada (Leece et al., 2019). The implementation of new programs may be a costly investment, and may also require strict adherence on behalf of individuals with SUD, in order to obtain maximal benefit. There is a need to create a comprehensive and supportive service model, not only for those who are socially and economically marginalized, but also tailored to every individual's needs and preferences (Mason et al., 2015). Hence, it may be worthwhile to expand the research on system capacity and feasibility for early identification and interventions for this population, along with studies on the awareness and skills of those treating patients with SUD—e.g. nurses, primary care providers, and first responders (Henderson et al., 2017).

Patient-reported experience measures, such as surveys, may be time-consuming to develop; however, a gap in health services and clinical research may be due to the lack of representation from individuals who use drugs or have a SUD, in design and development of questionnaires (Olding et al., 2018). Stigma reduction requires services within community health settings, with implement strategies that are meaningful and compassionate in their approach (Anderson & Larke, 2009; Khenti et al., 2019).

Conclusion

Substance use stigma has multiple and serious negative impacts on the lives of people with SUDs, including poorer mental health and quality of life, reduced access to treatment and other services, and negative outcomes. Efforts, such as those noted above that address substance use stigma, may have the potential to positively impact the wellbeing of individuals with SUD. The existing literature suggests that there is a strong willingness among service and program providers in Canada to engage in opportunities to improve the health and overall wellness of individuals with SUD (Maclean, 2018). However, promising results may not occur until research expands on the effective supports available for those living with SUD, and key stakeholders raise awareness on the need for their continued professional development on stigmatizing attitudes and practices. This is especially relevant to ensure that individuals who use drugs do not face stigma-related barriers to accessing expanded treatment and harm reduction services, as part of Canada's response to the opioid crisis.

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Childhood trauma and its effect on adults' years after adversity

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Abstract

Where public health and social justice have a morbid love affair, we introduce children. As unimaginable as it seems, many researchers have studied the effects of early childhood adversity, and its connection to adult substance abuse, homelessness, and mental health issues. Empirical research conducted since the mid 1980s would show long-term effects of child abuse in various forms, short-term effects of these same adversities, and the processes of rehabilitation for children. The scope of this literature review is to discuss varying outcomes around childhood adversity. The literature supports concerns that childhood adversity can manifest in adulthood in ways such as homelessness, substance abuse of various kinds, and growing mental health concerns stemming from adolescence. The research gap findings suggest that transparency from caregivers, memory loss of adults, ethics, and generational trauma are all limitations in conducting research and creating a trauma-informed care facility for individuals of any age. This paper has the ability to inform practice for care in an environment that supports trauma victims to the best of their ability. My suggestion would be to encourage longevity in the form of informed-practice, and empower individuals to become educated on their rehabilitation journey. This would also empower early childhood practitioners to become agents of change, and thus undertake research in order to manifest a practice which caters to a growing community.

Keywords: Trauma; Childhood Adversity; Substance Abuse; Rehabilitation

Introduction

Living a transparent life is transformational. Almost three years ago, I realized that my journey in being a functional alcoholic (of 19 years) was not what I wanted as my legacy. For two years, I remained sober, and for the past year I have had a few relapses. Because of my lived experiences, I chose the field of Childhood Trauma and its effect on adults' years after

adversity. I am invested in this area of study for the relevance of mental health, substance abuse, and choices that are made by adults—as a result of the choices made for them as children. Dr. Gabor Mate (physician) has worked with people who have suffered with addictions, and he philosophizes that early childhood trauma, with various areas related to lack of attachment, is linked to addiction in adults. He associates brain development and the release of endorphins that would ordinarily correlate with a comforting, satisfactory relation to an empathetic caregiver—as addiction and disease. Dr. Mate’s work has informed my intellectual study thus far, as I would like to inspire a curriculum in early education that allows for children to link to their inner instincts, thus giving them an opportunity to embrace an informed approach to their lived experiences. Informing children of the tools to connect with their inner power gives them the knowledge of how to manage emotions effectively in the future, when anxiety, and depression, etc. are beginning to blossom. Mate (2012) directly links addiction to early childhood brain development in his research stating:

Studies of drug addicts find high percentages patients have experienced childhood trauma of various sorts, including physical, sexual and emotional abuse. [...] The three dominant brain systems in all addictions—the opioid attachment-reward system, the dopamine-based incentive-motivation apparatus and the self-regulation areas of the prefrontal cortex—are all exquisitely fine-tuned by the environment. (p. 56)

Mate's (2012) research article “explores the relationship between childhood emotional loss or trauma and addiction, demonstrating a fourth brain-body system implicated in addiction: the stress-response mechanism” (p. 56). In the context of graduate studies, I am at odds with myself for not utilizing my studies to further the research in an active setting. I say this because, when we are children, we do not know what words and experiences are sculpting our future, and we openly seek guidance and support. As adults, we may be more reluctant to open up; subsequently, we may use drugs or alcohol to diffuse/repress the uncomfortable emotions, rather than confronting them and living a transparent and intuitive lifestyle. Triumph over adversity, rather than being consumed by addiction, will hopefully empower the choices of youth in our community—and in turn empower individuals and families with the supports necessary for ongoing trauma relief. The research question that this literature review explores is the origins of adversity, and the efficacy of current methods of substance abuse and trauma rehabilitation programs. What future practices can be implemented for children who experience childhood adversity? As a single mother and educator, my belief is that the children of today have power over my future. I can influence them today to make better

choices than I did—ultimately helping to guide the future of adversity awareness from a community point of view; after all it takes a village to raise a child.

Literature Review

Based on Danielson et al's (2009) study, exposure to traumatic events increases the risk for Substance Use Disorders (SUDs) through Post Traumatic Stress Disorder. Gordon (2002), and Mate (2012) would agree, through various studies, that early childhood exposure to stress results in a 'vulnerability' to substance or drug abuse in adulthood. With the ongoing rise of substance and opioid concerns in different countries across the world, studies show that, among other things, causes can be directly linked to childhood adversity. Identifying the source is a gainful advancement to the research, but the longevity of a research study is equally important—in order to find creative solutions and suggestions community support systems.

Similar to the effects of healthy environmental interactions for children in the early stages of development, chronic stress and harsh conditions can severely impact the lives of children in the onset of generational adversity (Kim et al., 2010). Kim et al. (2010) agree with Mate (2012) in showing evidence that preventative measures in support after adverse occurrences can benefit a person, in avoiding homelessness and addiction in adult years. Mate (2012) discusses a range of early intervention tools that can derail the onset of "socio-economic adversity (as cited in North, Smith, & Spitznagel, 1994)" (Kim et al., 2010, p.40). Children who thrive in environments that are not supportive with positive interactions may adapt to unsavory behaviors associated with post-traumatic experiences. For example, as Kim et al. (2010) state, "family dysfunction (that is, divorce, family psychopathology, or conflict) (as cited in Fischer & Breakey, 1991; Morrell-Bellai, Goering, & Boydell, 2000; Snow & Anderson, 1993)" (p. 40), can adhere an individual to behaviors through which they have lived. Ongoing results of post-traumatic stress disorders can be a variable in itself; however without resources that uncover the benefits of ongoing early childhood intervention, the field of education—and our community of children—suffer from uninformed practices.

Rehabilitation

The United States has established a galvanizing effect in this regard, where institutions and policy makers who focus on child welfare make a greater effort to develop more helpful responses to the affected children and their families entering service systems. Inclusive research from Berliner et al. (2016), as well as Mate (2012), discuss the long-term

effects of childhood adversity; however, there are limitations in research relating to rehabilitation supports and policies for children who have experience recent events, due to the need for consent. The formality of consent may hinder the process of informed care, thus suggested treatment—such as informed education—may be impacted as well. This ultimately represents a gap in research—with understandable cause.

Enriching the lives of children in all walks of life is especially lucrative to society, especially in the “science-informed innovation in the early childhood arena” (Shonkoff, 2016, p. 1003). Mate (2012), and Garner et al. (2012) agree that neural development is critically affected by childhood adversity. According to Garner et al. (2012), “early identification of developmental concerns with a greater focus on those interventions and community investments that reduce external threats to healthy brain growth” (p. 224). This includes the importance of community engagement in the early stages of trauma relief. Communities are well versed in removing a child from an adverse experience—but the damage has been done—and the steps that follow are important to the design of the child’s thinking as they develop into adulthood. A study conducted in Burundi, East Africa, “aimed to develop a research strategy to make informed decisions for intervention selection, especially for low- and middle-income countries, as a response to the urgent need to scale-up mental health care for children globally” (Jordans et al., 2011, p. 456). According to Jordans et al. (2013), as well as Mate (2012) and Cavanaugh et al. (2011), there exists an aspect of systematic literature along with generalized evidence-based studies. Educators have the tools and opportunity to be active observers in the growth of mental health issues. Educators also play an immense role in their own self-regulation, where they can influence educational practice by becoming better advocates—and thus direct agents of change.

Substance Abuse

Based on research undertaken by Blom Nilsson (2020), Grella et al. (2005), and Dube et al. (2006) psychological distress, alcohol consumption, and mental health issues are linked to self-reported accounts of post traumatic adversity. These authors support the theory presented by Dr. Mate in defining the impact of early childhood traumatic adversity, and how adversity becomes a gateway to the long-term effects of substance abuse. The conviction presented by these authors provide insight into the cause of some adult addictive behavior—without giving precedence to the resourcefulness of early childhood intervention. Without discussing the

results of early childhood adversity, the research presented by Dr. Mate to resolve traumatic events in individuals' lives becomes weak and questionable.

In alignment with the work of Mate (2012), Wu et al. (2010), as well as Pietrek (2013) present through substantial research studies that exposure to adversity at a young age can lead to destructive effects in mental health. Both Mate (2012) and Wu et al. (2010) have reported that several adverse outcomes may include poorer lifestyle quality, as well as substance addictions of various kinds, and establish direct relevance to several levels of exposure. Pietrek (2013) alludes to the specific moment of adversity, and what specific developmental stage has been affected. Such research may strengthen the claim that early intervention should be through educational practice rather than medical treatment.

Childhood Adversity

According to the research, "cumulative trauma in childhood and adolescence is related to depressive symptoms in young adults" (Turner et al., 2003, p. 89). Turner et al. 's (2003) findings support Mate (2012) and alignment directly with what treatments can be implied in the early stages of depressive behavior. Both research studies speak of the behaviors present in the lives of an individual who has unresolved experiences with adversity. Ackerman et al. (1998) supports this research by discussing the relationship between adult exposure to childhood adversity, and the repeat of occurrences in adulthood towards children in the adult's care. According to Fava et al. (2012), "childhood adversity increases risk of psychological and physical disorders" (p. 35). Mate (2012), and Elder (1985) both raise conviction to the parental role in manifesting addictive behaviors in adulthood. Provided that the research may be rather distant in years of relevance, it brings the awareness of how long the effects have been noted, and that not many changes have been made to resolve the concerns for mental health concerns in society today. From the lens of a researcher, the main issue is finding a new avenue to address and support families, especially children, in finding the peace within themselves, and the intuitiveness to strive after adversity by activating a healthy "stress-response mechanism" (Mate, 2012, p. 56).

For the rationale of creating "more sensitive tools for assessing adversity exposure" (Murphey et al., 2019, p. 2) in young children is a necessity for all communities. Having an insightful mention of policy recommendations will maintain the research benefits for children of adverse background. Policy recommendations will also ensure that various avenues to recovery are held responsible in the rehabilitation of each child, in a case-by-case manner. According to Mate (2012), individuals with exposure to adverse experiences have a reactive

sensitivity to their environment, especially in times of stressful encounters. Without doubt, the responsiveness to emotional stress can lead to poor judgment, greater policies can outline preventative measures to the responsiveness of traumatic experiences, and provide individuals with the intuitive tools to cope before the onset of mental health concerns arise.

Research Gap

For such a research study, it would be valuable to obtain reliable and transparent, quality interviews, providing insight and sensitivity towards participants. For example, involving parents/caregivers who are openly expressing that their child has experienced trauma. The information that caregivers could obtain would be imperative to the use of trauma-informed care. With reliable information from parents and caregivers, care and rehabilitation can be best useful. These concerns should be a factor to consider during the recruitment and screening phase of the study. The recruitment and screening phase of the study would ensure that researchers make use of appropriately sensitive questions during the research, and that consent is obtained throughout the inquiry; meaning, the participant is able to withdraw from the study if they are not comfortable with the questions being asked. It is important for the interview to be conducted this way, so that if the child is present, they do not relive the experience, thus furthering any damage that has been caused by trauma. The purpose of the questions would be to determine a baseline for informed care, and would provide a substantial scope for where/when progress is being made. Generally, a mixed methodology would apply well here. According to *Educational Research*, “early research in education and the social sciences, investigators today are sensitive to the potential harm that participants may experience because of research” (Creswell, 2015, p. 146).

Regarding research evolving with the effect of childhood trauma in the adult years, many limitations and gaps are also evident. For instance, Maughan and Rutter (1997) have conducted research around the questionable validity of participants' memory after years of oppressing memories of adversity. This debate is valid, recognizing that participants may not have all of the facts, although, de-validating any individual of a trauma that they may have endured would defeat the purpose of rehabilitation. For individuals who are cognizant of their childhood trauma, the essence of care must be determined by the

impact of their disparity, and not by the act of adversity itself. Many individuals in North America suffer from adversity in many different ways; the results are showing more and more in the rise of mental health issues across the nation.

For studies with children as the participants, the concern for ethics can also arise. In alignment with consent for a child to enter rehabilitation, “relatively little theoretically-driven psychological work has been devoted to exploring the issue of children's rights in classrooms and schools (as cited in Urinboyev, Wickenberg, & Leo, 2016)” (Leighton, 2020, p. 164). Ethics and consent—given by parents/caregivers—for children to participate in a research study can further damage a child in discussing the adversity that they may be living with at the moment. In addition, a child could be led by a caregiver that is manipulating answers in order to save their own accountability. The best way to assure that a child's answers are authentic would be creating an online, double blinded study, where the child is able to focus on the questions—and indicate if they are not alone or if there is any possible threat in answering the questions with honesty. The benefit of this approach would be having the child address their own authentic concerns, and thus arriving at a family intervention rather than an individual intervention. If the family is willing to seek rehabilitation for any negative generational methods of child rearing, the child would be able to stay in the home, rather than being removed based on the severity of the trauma they are experiencing. A study undertaken in South Africa states, “children in many instances are both direct and indirect victims of trauma and are frequently witness to violence enacted between adults in their environment” (Kaminer, 2010, p. 122). Children who suffer accounts of violence have a likelihood of repeating the nature of these violent acts in their own adult relationships. When adults have unresolved issues in their formative years, they are likely to make choices such as indulging in substance abuse and acts of violence, or they may suffer from severe mental health strains.

Aspects of consent, memory loss, and rehabilitation can arise from many variables that act as liabilities and are particularly sensitive to the topic of child adversity. In order to promote change, the educational system must be invited to integrate informed care into the curriculum—educational practices—where early childhood practitioners can use the tools that they have been trained to use in observing, and providing care, guidance, and instruction. Switching gears to trauma-informed care would thus provide the field

of early childhood education—and the children—a recognized chance to advance the fight against mental illness for families and the community at large.

Conclusion

The reality is that verbal, physical, sexual abuse, and neglect have lasting effects on the lives of our most impressionable people: the children. In light of our knowledge of what we know about mental health and social justice, the collective solution rests in establishing a community of support for children who have suffered from adversity. At an age where minds are most impressionable (0-6 years old), it is best to resolve issues that can impact the mental health of children much later when they are in their adulthood. Providing a consistent form of care and rehabilitation can help children experience an ongoing source of safety, where they can blossom, and establish a healthy relationship with stress. Children can be empowered by understanding their rights—bringing forth their ability to understand and uphold social justice—thus building peace of mind and foresight to stand up for oneself. Understanding our rights as humans—where it is not categorized by age, class, race, sexual orientation, etc.

Mental health has become a stigma to discuss in social circles. Speaking about trauma, and the adversity that we face, is even more of a stigma for open forum discussions. As a community, it would be empowering for us all to speak about our mental health issues, from which adversities arise. As victims, the burden of hiding should not be on our shoulders. The offender should hold the burden, along with shame and discontent of themselves. Once our society can move into an informed manner of helping children, adolescents, and young adults can deal with their experiences with adversity, and the community can better hold the offenders accountable for their actions.

In conclusion, where public health meets social justice, we the adults are capable of creating a wholesome society for the next generation. We have the tools, the professionals, and a willingness to provide a better use for the resources that are already available. To achieve best results, it is simply a matter of rearranging our priorities in the field of education, and making use of that time to enlighten children to their power—and their growing responsibilities in society—to care for one another—and for us all to act as a community that enriches one another's lives.

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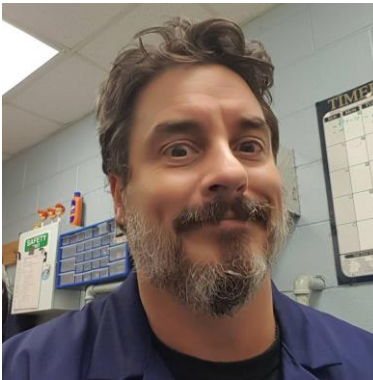
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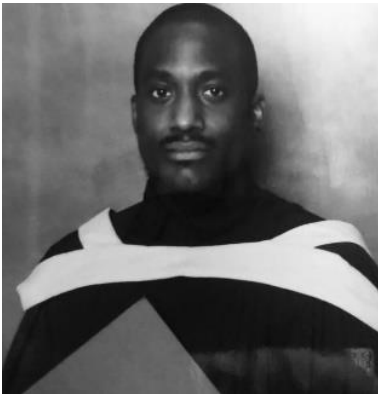
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I can't think of any better representation of beauty than someone who is unafraid to be herself.

—
Emma Stone

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