Communication Adaptation and Relationship Development in Virtual Groups for Youth and Families

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Abstract

Virtual group therapy offers multiple unique advantages to improving access to mental health care for Canadian youth and families. However, virtual environments may hinder the development of the type of relationships within groups that promote positive treatment outcomes. The present study explores the extent to, and ways in which, service providers working in the youth and family mental health sector in Eastern Ontario adapt to the unique characteristics of virtual environments in order to communicate effectively and develop therapeutic relationships. Secondary quantitative and qualitative data were analyzed using a mixed-methods design. Survey responses (n = 58) and interview recordings (n =12) collected from service providers involved in the delivery of virtual groups for youth and families in response to COVID-19 were analyzed using a concurrent triangulation design. Descriptive statistics indicate service providers achieved moderate satisfaction regarding their ability to communicate and develop relationships within virtual groups, and that this ability was perceived as approximating in-person processes. Thematic analysis suggests that while virtual group environments involve unique challenges and and elevated complexity, facilitators adapt to virtual delivery by both employing diverse strategies and accepting certain limitations. The present study suggests that the unique challenges and complexities involved in virtual group-based therapy need not deter the implementation of virtual groups as a means of better addressing the mental health needs of Canadian youth and families.

Keywords: Virtual group therapy; youth mental health; family mental health; working alliance; group alliance; videoconferencing

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Despite a high incidence and prevalence of mental health concerns among Canadian youth, access to care for youth and their families has been described as inadequate and inappropriate (Malla et al., 2018). Particular challenges that Canadian youth and families face in accessing mental health services include delayed detection of mental health conditions, long wait lists, abrupt transitions in available services, and—especially in remote areas—an absence of services (Iver et al., 2015; Malla et al., 2018). In Ontario, the need for professional help has doubled among youth over the past 30 years (Comeau et al., 2019; Waddell et al., 2019). Moreover, of the estimated 18-20% of Ontario children and youth who meet the criteria for a mental health disorder, less than one-third access mental health services (Georgiades et al., 2019).

Virtual group therapy (i.e., group-based therapy delivered via a videoconferencing platform) offers several unique advantages to better addressing the mental health needs of youth and families, including the reduction of geographic, logistical, and stigma-related barriers to treatment (Douma et al., 2019). Preliminary findings attest to the efficacy of virtual group therapy for treating diverse concerns among youth and families (e.g., Lecomte et al., 2020; Reese et al., 2015). However, virtual environments may hinder the development of supportive, collaborative relationships within groups due to the complexity of the interactions involved (Jenkins-Guarnieri et al., 2015). Such potential hindrance is of particular concern given the role that the development of therapeutic group relationships plays in promoting positive treatment outcomes (Lo Coco et al., 2019). Consistent with the possibility that virtual environments pose unique challenges to the development of therapeutic group relationships, emerging research

exploring the experiences of mental health professionals facilitating groups has begun to detail the unique demands that virtual group environments place on facilitators (e.g., Shah et al., 2019). Promisingly, such research also points to the ability of group facilitators to adapt to the unique characteristics of virtual group environments (e.g., Rayner et al., 2016). However, research exploring the experiences of facilitators of virtual groups is limited. Particularly lacking are studies exploring the experiences of facilitators leading groups for youth and parents, as well as studies detailing the specific skills and strategies employed by facilitators in adapting to virtual group environments (Banbury et al., 2018).

The purpose of this study is to explore the experiences of mental health professionals employed by Kids Come First partner agencies as they implemented group-based services for youth and parents in response to the COVID-19 pandemic. Kids Come First is a network of 60 Eastern Ontario health agencies partnering to promote the integration and accessibility of health services for children and youth. Beginning in 2020, as social distancing measures were put into place to combat the spread of COVID-19, mental health and addictions agencies operating within the Kids Come First network initiated the process of rapidly transitioning their group-based services to virtual delivery. To capture this process, as part of a Frayme-funded study, University of Ottawa researchers collaborated with Kids Come First to distribute an online survey and to conduct individual interviews with service providers involved in the implementation and/or delivery of virtual groups. The present study, using the data from the funded study for secondary analyses, utilized a mixed-methods design. Specifically, descriptive statistics of survey responses and thematic analysis of interview transcripts were used to explore how facilitators adapted to virtual group environments in order to communicate effectively and develop therapeutic relationships with clients following the rapid transition to virtual service delivery in 2020.

Literature Review

Advantages of Virtual Group-based Therapy

While virtual group environments introduce unique challenges not encountered within in-person settings, virtual group-based therapy nonetheless offers several advantages. Virtual groups represent a cost-effective means of increasing access to mental health services via the reduction of multiple barriers to treatment (Christensen & Hickie, 2010; Douma et al., 2019). By allowing individuals to connect from distant locations, virtual groups reduce both geographic barriers as well as such logistical barriers as travel time (Dever Fitzgerald et al., 2010; Maurice-Stam et al., 2014; Vigerland et al., 2016). Additionally, the greater anonymity afforded clients by the opportunity to access services from the privacy of their own home, potentially with the option to participate using a nickname and/or without being visible, reduces stigma-related barriers to treatment (Dever Fitzgerald et al., 2010; Maurice-Stam et al., 2014; Vigerland et al., 2016). This increased access to mental health services is especially valuable in addressing mental health needs of otherwise underserved populations, such as rural communities (Dever Fitzgerald et al., 2010).

Research specifically exploring groups for youth and parents have identified additional advantages to virtual delivery. Shah et al. (2019) conducted semi-structured interviews with group facilitators leading a parent-training group for parents of children with ADHD. Study results indicated that facilitators perceived parents as appearing more at ease connecting from the comfort of their own home compared to clients attending in-person groups. Similarly, Rayner et al. (2016) conducted semi-structured interviews with parents (*n* = 13) who participated in a virtual group for parents of children with a serious injury/illness. Thematic analysis indicated that parents preferred virtual groups over in-person groups, citing both a lack of intimidation and

an increased sense of comfort they attributed to the ability to connect from their home environment.

Maurice-Stam et al. (2014) conducted structured interviews with facilitators ($n = 6$) leading a CBT-based virtual group for adolescent cancer survivors. Thematic analysis indicated that in addition to the reduced geographic and logistical barriers to treatment noted above, facilitators perceived virtual groups as advantageous with regard to improving clients' comfort, openness, and motivation. Specifically, facilitators perceived the intervention as promoting a sense of comfort among clients by allowing them to participate from their home environment. In addition, the ability for clients to participate in the group without being visible to others was perceived as not only promoting anonymity but easing the discussion of personal problems via the reduction of concerns about physical appearance. Finally, virtual groups were viewed by facilitators as potentially increasing motivation among youth due to both the appeal of digital environments to youth as well as younger clients' generally extensive experience utilizing digital platforms as a means of expressing themselves, acquiring information, and connecting with peers.

Treatment Efficacy

Efficacy of Virtual Groups for Adults

Preliminary research conducted with adults navigating diverse physical and psychological challenges suggests videoconferencing might be an effective means of delivering group-based treatment. For example, pre-post studies evaluating the delivery of group-based therapy via videoconferencing have demonstrated significant improvements in emotion regulation, self-efficacy, and mood among adults recovering from a stroke or traumatic brain injury, as well as those living with dementia (Taylor et al., 2009; Tsaousides et al. 2017;

Marziali, 2011). Moreover, when compared to equivalent in-person interventions, virtual groups for adults demonstrate comparable improvements in: (1) distress among adults recovering from cancer treatment, (2) anxiety, respiration rate, and vasodilation in adults diagnosed with coronary artery heart disease, and (3) anger symptoms among veterans with PTSD and anger management difficulties (Lin et al., 2018; Lleras de Frutos et al., 2020; Moreland et al., 2010; Zernicke et al., 2014). Research conducted with diverse adult populations thus suggests videoconferencing might be an effective means of delivering group-based treatment and potentially equally effective as in-person delivery.

Similarly, pre-post studies evaluating virtual groups specifically for parents have yielded consistently positive results. Reese et al. (2015) found that a virtual group for parents of children with behavioural problems (n = 13) significantly improved both child problem behaviour as well as multiple parenting outcomes, including dysfunctional disciplinary styles and interparent conflict over discipline. Rayner et al. (2016) found that parents of children with a serious injury or illness (n = 13) who participated in an ACT-based virtual group showed significant improvements in psychological flexibility, parental guilt and worry, and unresolved sorrow and anger. Shah et al. (2019) evaluated a parent training group for parents of children with ADHD (n = 11). Results indicated that participants' children showed significant improvement in inattentiveness, hyperactivity/impulsivity, and oppositional-defiant behaviours. Finally, McMillan et al. (2020) found that parents of children with severe cerebral palsy (n = 26) who participated in an ACT-based virtual group designed to increase psychological flexibility showed significant reductions in guilt and worry as well as increases in mindfulness. These findings thus suggest virtual groups to be an effective means of improving parenting skills and parental well-

being, as well as challenging child behaviours. However, these studies are limited by both the lack of a control condition and small sample sizes.

Experimental studies evaluating virtual groups specifically for parents are limited. Wakefield et al. (2016) found no significant differences between participants (n = 47) assigned to a CBT-based virtual group for parents of childhood cancer survivors and waitlist participants on measures of quality of life, psychological functioning, and family functioning. Conversely, Park et al. (2019) found that participants (n = 53) randomly assigned to a virtual stress management group for parents of children with learning and attentional disabilities showed significant improvements in distress, resilience, and stress coping compared to waitlist participants. Thus, combined with the findings outlined above, evidence is largely promising with regard to the effectiveness of virtual groups for adults in general, as well as for parents in particular.

Efficacy of Virtual Groups for Youth

Research specifically evaluating the efficacy of groups for youth delivered via a videoconferencing platform is sparse. However, preliminary findings combined with evidence concerning the effectiveness of similar online interventions, suggest virtual group-based therapy represents a promising means of supporting youth navigating diverse challenges. Lecomte et al. (2020) conducted a pre-post study of a CBT-based virtual group for adolescents and young adults with early psychosis (n = 14). Results showed significant improvements in both self-esteem and overall psychiatric symptoms at two-weeks post-treatment. Consistent with these promising preliminary findings, as outlined below, related research on both family-based therapy delivered via videoconferencing and group-based therapy delivered via other online mediums (e.g., chatrooms) offers support for the effectiveness of virtual mental health services for youth.

Based on preliminary findings, the delivery of family-based interventions for parents and their children via videoconferencing platforms may be effective in treating diverse mental health concerns among youth. Pre-post studies evaluating family-based virtual therapy for youth with anorexia nervosa, anxiety disorders, and ADHD have detected significant improvements in disordered eating, anxiety symptoms, and inattention (Anderson et al., 2017; Carpenter et al., 2018; Sibley et al., 2017). Moreover, experimental research on family-based therapy indicates comparable efficacy across videoconferencing and in-person modalities for CBT-, DBT-, and skills-based interventions for managing childhood OCD, epilepsy, and conduct problems (Comer, Furr, Kerns, et al., 2017; Glueckauf et al., 2002; Rabbitt et al., 2016). Interestingly, in some cases, the delivery of family-based interventions via videoconferencing evidenced even greater efficacy compared to in-person, demonstrating faster recovery rates among youth with depression and higher rates of post-treatment responsiveness among children with disruptive behaviour disorders (Comer, Furr, Miguel, et al., 2017; Nelson et al., 2003).

Similarly, research on group-based interventions for youth delivered via alternative online mediums lends further support for the effectiveness of virtual groups for youth. Specifically, pre-post studies evaluating group-based interventions delivered via chat-based and social networking platforms have shown significant improvements among youth with chronic illness, depression, and first episode psychosis on measures of coping skills, social withdrawal, and depression (Alvarez-Jiminez et al., 2013; Douma et al., 2019; Rice et al., 2018). Thus, while further research is required to better establish the particular efficacy of virtual groups for youth, preliminary findings, combined with evidence supporting the effectiveness of related interventions, suggest virtual delivery may be an effective means of assisting youth navigating diverse psychological and physical challenges.

Therapeutic Relationships

Definitions and Measurements of Therapeutic Relationships

Research exploring the development of therapeutic relationships within both individual- and group-based therapy most often utilizes Bordin's (1979) construct of the working alliance. According to Bordin, a working alliance consists of three interrelated components: (1) agreement between client and therapist concerning therapy goals, (2) agreement on the tasks required to achieve these goals, and (3) an emotional bond between client and therapist based on reciprocal positive feelings. Common measurements of therapeutic relationships based on Bordin's definition of the working alliance include the Working Alliance Inventory (WAI; Tracey et al., 1989) and the California Psychotherapy Alliance Scales (CALPAS; Gaston & Marmar, 1994).

Within group therapy contexts, building strong therapeutic relationships is complicated by the network of relationships involved. Specifically, three levels of interaction are involved in group contexts: group member to therapist, group member to the group-as-a-whole, and group member to group member (Lo Coco et al., 2019). Accordingly, a strong working alliance is cultivated in group settings via goal agreement, task collaboration, and emotional bond across these three levels of interaction. Research evaluating therapeutic group relationships commonly assess the group member to therapist alliance via such working alliance measures as the WAI. The group member to group-as-a-whole alliance is commonly assessed via alternative forms of working alliance scales such as the California Psychotherapy Alliance Scales for group (CALPAS-G; Gaston & Marmar, 1994). Despite a growing consensus concerning the role that group member to group member interactions play in developing therapeutic relationships within groups, few studies to date have incorporated specific assessment of this level of interaction (Lo Coco et al., 2019).

Therapeutic Relationships and Treatment Efficacy

The contribution of therapeutic relationships to treatment efficacy has most commonly been studied within the context of individual therapy. A substantial body of research attests to the important role that therapeutic relationships play in promoting positive treatment outcomes within such contexts. For instance, a recent meta-analysis conducted by Flückiger et al. (2018) evaluated 295 studies on the relationship between working alliance and treatment outcomes within individual therapy. Results indicated that both the positive association and predictive relationship between working alliance and treatment outcome is consistent across diverse diagnoses (e.g., depression, anxiety, bulimia nervosa) and treatment approaches (e.g., CBT, experiential therapy, psychoeducation). Meta-analysis results further indicated that the relationship between working alliance and treatment outcome is comparable across in-person and virtual modalities, thus highlighting the importance of cultivating therapeutic relationships within virtual interventions.

Substantial evidence also indicates that positive therapeutic relationships similarly promote positive treatment outcomes in group settings. Burlingame (2018) conducted a meta-analysis evaluating 40 studies on the relationship between working alliance and treatment outcome within group therapy contexts. Results indicated that working alliance is consistently associated with positive treatment outcomes across inpatient and outpatient settings, as well as across diverse diagnoses (e.g., anxiety, substance use disorder, personality disorder). Of particular relevance to the current study, results also indicated that the association between working alliance and treatment outcome is stronger when group members are younger.

Therapeutic Relationships within Virtual Groups

Despite the contribution of strong therapeutic relationships to positive treatment outcomes, research assessing the development of supportive, collaborative relationships within virtual groups is limited. Consistent with findings supporting the effectiveness of virtual group-based therapy, available research is largely promising with regard to the development of therapeutic relationships within virtual groups. However, findings also indicate virtual group environments may hinder such development relative to in-person settings.

Experimental research comparing relationship development across virtual and in-person conditions is limited to studies conducted with highly specific adult populations—namely, veterans with PTSD and high security inmates. Such research suggests that, while therapeutic relationships can develop within virtual group environments, such relationships are not as strong as those formed in-person. Specifically, studies comparing virtual groups for veterans with PTSD and equivalent in-person groups, indicate that while participants assigned to virtual conditions report strong alliance ratings with both the facilitator and the group-as-a-whole, these ratings were significantly lower compared to in-person participants (Frueh et al., 2007; Green et al., 2010; Moreland et al., 2010). Similarly, a more recent study comparing virtual and in-person delivery of a coping skills group for high security inmates found participants in the virtual condition were significantly less trusting and accepting of the facilitator and reported significantly lower agreement on goals and tasks (Batastini & Morgan, 2016). Importantly, equivalent decreases in working alliance have not been detected in studies comparing individual therapy across virtual and in-person conditions (Jenkins-Guarnieri et al., 2015). Based on this evidence, it has been suggested that virtual environments may inhibit the development of therapeutic relationships within groups due to the complexity of relationships involved and facilitators' need to manage simultaneous distractions and attentional demands (Jenkins-

Guarnieri et al., 2015; Simpson & Reid, 2014). However, it is important to note that such a conclusion is based on limited studies, the majority of which were conducted over 10 years ago. Moreover, the generalizability of these findings is limited by the specific populations studied.

Though limited to two available studies, preliminary findings concerning relationship development within virtual groups specifically for parents are largely promising. Wakefield et al. (2016) evaluated a CBT-based virtual group for parents (n = 25) of childhood cancer survivors. Results showed that participants rated their alliance with the group-as-a-whole (as measured via the CALPAS-G) at comparable levels compared to previously published results of in-person group interventions. McMillan et al. (2020) assessed an ACT-based virtual group for parents (n = 26) of children living with severe cerebral palsy. 62% of participants agreed that they developed a positive relationship with the facilitator while 56% of participants agreed that they felt connected with other group members, which suggests that group members may form therapeutic relationships with facilitators more easily than other members. Despite the lower rating of feeling connected to other group members, in response to an open-ended question prompting participants to describe the primary change they experienced due to the group, 10% of participants referenced the value of connecting with other parents navigating similar challenges. Thus, preliminary findings suggest parents participating in virtual groups are able to form supportive, collaborative relationships both with other group members and especially with group facilitators. However, based on these findings alone, it is unclear whether parents are able to develop therapeutic relationships within virtual groups to the same extent that they are able to within in-person contexts as neither available study included an in-person treatment condition.

Concerning virtual groups for youth, emerging research is similarly promising with regard to the development of therapeutic relationships. Lecomte et al. (2020) studied the delivery

of a group-based CBT intervention for adolescents and young adults with early psychosis (*n* =14). Participant ratings of the group member to therapist alliance (as measured via the WAI) were found to be similar to previously published results from a study evaluating the same intervention delivered in-person. McGill et al. (2017) evaluated a virtual group designed to improve quality of life and reduce stress for adolescents and young adults recovering from cancer. Participants (*n* = 39) rated the group-member-to-therapist alliance high (as measured via the WAI) throughout the intervention. They further rated the group-member-to-group-as-a-whole alliance (as measured via the CALPAS-G) at a comparable level compared to published ratings from studies evaluating in-person interventions. Moreover, facilitators' ratings of participant openness, mutual trust, and motivation increased significantly from the first session to the last, suggesting therapeutic relationships developed in virtual groups can improve with time. Thus, preliminary research is promising with regard to the ability of youth to develop supportive, collaborative relationships within virtual groups. However, further research is required in order to establish whether virtual group environments inhibit relationship development as is suggested by studies conducted with other populations.

Communication Adaptation

Research on virtual groups for adults highlight the unique challenges involved in communicating via videoconferencing platforms and suggests that virtual group environments place unique demands on facilitators due to the greater complexity of their role relative to clients (Banbury et al., 2018). For example, findings indicate that, in addition to navigating technological disruptions and a lack of nonverbal cues as all group members must do, facilitators face additional challenges with regard to maintaining adequate focus on the group discussion while simultaneously managing various technical aspects of the videoconferencing platform,

such as permitting group members to enter/exit the session (Khatri et al., 2014; Lundberg, 2014; Marziali et al., 2006). Despite such challenges, facilitators have described increased comfort navigating the unique characteristics of virtual group environments over time. Group facilitators have described transitioning to virtual delivery as "a learning curve" and have noted that, given adequate time to develop the skills necessary for virtual delivery, the processes of in-person groups can be replicated within virtual environments (Khatri et al., 2014; Marziali et al., 2006). However, there is a lack of research describing specific skills that are beneficial to facilitating virtual groups, nor is there research that explores how facilitators adapt their communication styles and strategies to meet the demands of virtual group environments (Banbury et al., 2018).

Preliminary research on virtual groups for parents similarly highlights the unique challenges involved in communicating within virtual groups and suggests that virtual environments can prove especially demanding for group facilitators. Shah et al. (2019) conducted semi-structured interviews exploring both parents' (n = 11) and facilitators' (n = unreported) experiences participating in a skills-based virtual group for parents of children with ADHD. Results indicated that parents found technological disruptions (e.g., loss of internet connection) to be manageable, and no parents found it difficult deciphering the facilitators' body language or expressions. By comparison, facilitators described internet connectivity and audio-video quality among parents with less stable and slower internet connections to be a substantial challenge. Additionally, they reported difficulty reading group members' nonverbal communication, specifically body language and facial expressions.

In a similar study, Rayner et al. (2016) assessed both parents (n =13) and facilitators (n = 4) experiences communicating within a virtual group for parents of children with a serious injury/illness. Thematic analysis of semi-structured interviews indicated that while some parents

initially experienced a sense of awkwardness concerning when to talk, this apprehension improved with practice. Moreover, all parents reported feeling comfortable communicating via the videoconferencing platform and no parents identified communication, technology, or internet connection as a barrier to participation. Conversely, facilitators described leading the group as more therapeutically challenging relative to in-person, stating that it required greater flexibility and more careful observation. All facilitators specifically noted that, compared to in-person settings, adequately attending to each individual group member and accurately reading members' body language and facial expressions were more difficult within the virtual environment. Of particular relevance to the present study, facilitators identified the following strategies as effective with regard to adapting to the unique demands of virtual group environments: reducing the amount of content delivered, incorporating more visual elements, conducting preprogram technical checks, co-facilitating group sessions with another facilitator, and implementing turn-taking strategies. Thus, while based on limited available studies with small sample sizes, emerging research has begun to highlight both the unique challenges faced by facilitators leading virtual groups for parents, as well as the strategies they have found to be effective in adapting to these challenges.

Absent from the literature on group-based interventions for youth are any studies examining the experiences of youth clients or facilitators communicating within virtual groups. Highlighting the importance of addressing this gap in the literature, especially as it pertains to facilitators' experiences, research on family-based interventions has pointed to unique concerns therapists face when communicating with young clients via videoconferencing. Specifically, therapists delivering family-based virtual therapy have reported elevated challenges compared to

in-person therapy with regard to managing risk and managing tantrums and/or challenging behaviours in children (de Boer et al., 2021).

Summary

Virtual group-based therapy offers multiple unique advantages to better addressing the mental health needs of youth and families; virtual groups provide opportunities for connection among peers within a medium that minimizes barriers to treatment (Douma et al., 2019). Preliminary findings concerning the efficacy of virtual group-based therapy for youth and families—combined with evidence supporting the effectiveness of related online interventions—suggest virtual groups may be effective in supporting youth and families navigating diverse psychological and physical challenges (e.g., Lecomte et al., 2020; Park et al., 2019). Evidence suggests that parents and youth participating in virtual groups appear able to develop the supportive, collaborative group relationships that contribute to positive treatment outcomes (e.g., McGill et al., 2017; Wakefield et al., 2016). However, experimental studies conducted with highly specific adult populations indicate that, compared to in-person settings, virtual group environments may hinder the development of therapeutic relationships within groups due to the complexity of relationships involved (Jenkins-Guarnieri et al., 2015).

Recent findings have drawn attention to some of the unique demands that virtual group environments place both on clients and, especially, on facilitators (e.g., Shah et al. 2019). Preliminary findings highlight the ability of facilitators to adapt to these unique demands (e.g., Rayner et al., 2016). Nevertheless, there is a substantial gap in the literature regarding both the unique demands of communicating within virtual groups as well as the specific skills and strategies employed by facilitators to adapt to these demands (Banbury et al., 2018). Despite the enormous potential that virtual groups represent with regard to better meeting the mental health

needs of youth and families, this gap in the literature is especially pronounced for groups targeting these populations.

Theoretical Framework

The theoretical framework for this study is informed by social information processing (SIP) theory (Walther, 1992; 2011). According to SIP theory, given adequate time and motivation, individuals interacting via computer-mediated communication (CMC) will form interpersonal relationships equivalent in quality to those developed in-person. The theory describes different channels of communication in terms of their relative “bandwidth”—that is, the amount of verbal and nonverbal cues accommodated by the channel (Sumner & Ramirez, 2017). Channels with a relatively high bandwidth are described as rich, while channels with a relatively low bandwidth are described as lean. In-person communication is posited to be the richest form of communication, allowing for the full range of verbal and nonverbal cues. By comparison, the various forms of CMC are described in terms of their relative leanness due to the filtering out of nonverbal cues. SIP theory argues that bandwidth determines the amount of time required for users to adapt their communication strategies to the structural limitations (i.e., reduced cues) of a CMC channel. Thus, while acknowledging that relationships are likely to develop at a faster rate within in-person contexts, SIP theory stresses both the affiliative nature of human beings and our related capacity to adapt to diverse social environments in order to develop meaningful interpersonal relationships in lean communication environments (Sumner & Ramirez, 2017).

According to SIP theory, individuals communicating within virtual groups can form relationships equivalent in quality to those formed in-person given enough time to adapt their communication strategies to the virtual environment (Grondin et al., 2019). While SIP theory

describes videoconferencing as a relatively rich channel compared to text-based channels, it nevertheless constitutes a lean environment compared to in-person settings (Sumner & Ramierez, 2017). Specifically, videoconferencing enables users to communicate to some degree via appearance, body movements, and various paralinguistic elements of speech (e.g., tone, rate, pitch, volume, length of pauses). However, the strength of these nonverbal cues is reduced compared to in-person interactions by such factors as audio and video quality, strength and stability of internet connection, camera placement and frame size, and lag time. Moreover, some aspects of nonverbal communication are filtered out entirely by videoconferencing—namely, touch, space, and genuine eye contact. Thus, according to SIP theory, the formation specifically of therapeutic relationships within virtual groups requires adaptation to the unique structural limitations of virtual group environments.

Research Questions

Emerging research has begun to both highlight the ability of facilitators to adapt to virtual group environments and to detail some of the specific strategies employed by facilitators in this process (e.g., Khatri et al., 2014; Rayner et al., 2016). However, such research is limited, especially as it relates to groups for youth and families (Banbury et al., 2018). The purpose of this study is to address this gap in the literature by employing a mixed-methods design to explore the experiences of mental health service providers transitioning to virtual delivery of groups for youth and families.

The primary research questions of the present study are: (1) To what extent are service providers working in the youth and family mental health sector able to adapt to the unique characteristics of virtual group environments in order to communicate effectively and develop

therapeutic relationships? (2) How do facilitators adapt to the unique characteristics of virtual group environments in order to communicate effectively and develop therapeutic relationships?

Methodology

Data

The present research utilized secondary quantitative and qualitative data previously gathered for a Frayme-funded study exploring the experiences of service providers working in the child and family services sector in Eastern Ontario as they transitioned their group-based mental health and addictions services to virtual delivery in response to COVID-19 social distancing protocols. This study was conducted via a collaboration between University of Ottawa researchers and 10 mental health and addictions service agencies operating within the Kids Come First network. Following approval by the University of Ottawa Research Ethics Board, the following datasets were collected between January and March 2021: (1) responses to an online survey, and (2) audio recordings of individual interviews.

Survey responses (n = 58) were collected via Qualtrics from service providers who were employed by partnering Kids Come First agencies, and who were involved in the management and/or delivery of virtual groups for youth and/or families at some point between March 2020 and March 2021. Audio recordings were collected via semi-structured interviews conducted over either Zoom or the telephone with service providers (n = 18) employed by partnering Kids Come First agencies. As above, these service providers were involved in the management and/or delivery of virtual groups for youth and/or families at some point between March 2020 and March 2021. Three research assistants conducted the interviews, one of whom is the author of the present study. Of the 18 available interview recordings, 12 were conducted with mental health professionals who facilitated virtual groups. Remaining interviews were conducted with

peer facilitators (i.e., individuals trained in offering support to those occupying similar demographic categories and/or navigating similar challenges to themselves). Recordings are approximately 30-45 minutes in length per interview. Survey and interview participants were recruited separately. Some individuals participated in both the survey and individual interviews.

Procedure

Approval for the secondary use of data was obtained from the University of Ottawa Research Ethics Board. Following ethics approval, excel documents of survey results and audio recordings of interviews with mental health professionals (n = 12) were accessed on the secure cloud platform where this data is stored (i.e., Sharepoint). Twelve out of the 18 interview recordings available were retained for analysis in order to focus on the experiences of mental health professionals, as opposed to peer facilitators.

Materials

Online Survey

To capture a high-level overview of service providers' experiences implementing virtual groups for youth and families, a novel survey was developed by University of Ottawa researchers (Appendix A). To promote the gathering of data beneficial to key stakeholders, input was sought from an advisory board that included representatives from participating Kids Come First agencies, as well as youth with experience participating in virtual groups. The end result of this collaborative process is a 29-item survey consisting of the following:

(1) 6 nominal scale items assessing participants' occupational role and the nature of the groups that they played a role in implementing.

(2) 20 Likert scale items assessing satisfaction with various aspects of the virtual service modality including the working alliance (specifically, the group member to therapist

alliance and group member to group-as-a-whole alliance) in two different ways: (a) in-and-of-itself (on a 5-point scale ranging from "very dissatisfied" to "very satisfied") and (b) relative to in-person delivery (on a 5-point scale ranging from "much worse" to "much better"). Scale items are grouped into four subscales supported by factor analysis and the conceptual design of the survey. Factor analysis was conducted in the context of another related study using the same data. The extraction method used was principal component analysis. The rotation method used was quartimax with Kaiser normalization. The quartimax rotation method minimizes the number of factors needed to explain each variable and thus simplifies the interpretation of variables. The rotation converged in four iterations.

(3) 3 open-ended questions prompting participants to describe the main challenges and advantages they experienced implementing virtual groups, as well as the key lessons they learned.

For participants leading multiple groups, some survey items could prove difficult to answer if these groups differed substantially on variables of interest (e.g., client engagement, attendance). Consequently, the survey included instructions asking participants to bring to mind one specific group they recently facilitated (or were presently facilitating) and to respond to survey items with only that particular group in mind. Instructions also informed participants that they could repeat the survey to respond based on another group they have facilitated.

Interview Guide

To capture in-depth accounts of service providers' experiences implementing virtual groups for youth and families, a semi-structured interview guide was developed by University of Ottawa researchers (Appendix B). The interview guide was developed following the

implementation of the online survey, and the results of the survey were used to inform the development of the guide. As with the survey, input was sought throughout the development process from both agency and youth representatives in the Kids Come First network. The resulting 20-item interview guide is organized according to the following key discussion topics:

(1) Contextual information on services provided (e.g., "What types of virtual groups has your agency offered since March 2020?")

(2) Administrative and logistical processes involved in service provision (e.g., "What, if any, issues emerged in relation to privacy/confidentiality for group members?")

(3) Barriers and gaps to service implementation (e.g., "What stands out to you as the main barriers and/or gaps related to providing effective virtual group services to your clientele?")

(4) Key learnings (e.g., "Looking back on your experiences implementing virtual groups, what stands out to you most regarding what you have learned?")

(5) Perceived impact of online service implementation and delivery (e.g. "What, if any, impacts or effects have you noticed on you, as the group facilitators/agency staff, in relation to this move to offering virtual group service?")

Data Analyses

To analyze the two existing datasets described above, a concurrent triangulation design (Creswell et al., 2003) was utilized as follows: datasets were analyzed concurrently, emphasis was placed on the qualitative dataset, and quantitative and qualitative results were merged within the interpretation phase. This mixed-methods approach is typically notated as QUAL + quan (Morse & Niehaus, 2009). The rationale for this approach is that it permits the expansion of quantitative results with qualitative data (Creswell, 2006).

Survey data were used to explore the extent to which group facilitators report satisfaction in adapting to the unique characteristics of virtual group environments. Specifically, descriptive statistics were generated to summarize the proportion of participants who (1) were satisfied with their ability to communicate and develop therapeutic relationships within virtual groups, and (2) describe their ability to communicate and develop therapeutic relationships within virtual groups as alternatively worse, equal, or better compared to in-person groups.

These quantitative findings were expanded upon and explained via an in-depth qualitative analysis exploring how group facilitators adapted to the unique characteristics of virtual group environments. Thematic analysis was conducted in accordance with the framework developed by Braun and Clarke (2006). Specifically, the six phases of thematic analysis outlined by the authors was conducted as follows:

(1) Familiarization with the data: audio recordings of individual interviews were transcribed, resulting transcriptions were reviewed, and emerging ideas were noted.

(2) Generation of initial codes: relevant features of the data were coded in a systematic fashion across all transcripts and data related to each code were gathered.

(3) Generation of themes: codes were collated into potential themes and data were gathered and organized by related theme.

(4) Review of themes: the relationship between themes and both the coded extracts and entire set of transcripts were reviewed in order to generate a thematic map of analysis.

(5) Definition and naming of themes: the specifics of each theme and the emerging story the analysis tells were refined in order to generate clear definitions and names for each theme.

(6) Production of the report: compelling extract examples were selected, and themes were related to the literature and research questions.

In keeping with the concurrent triangulation design of this study, the final stage of thematic analysis involved integrating the quantitative and qualitative findings within the discussion section below.

Trustworthiness

The present research adopts Nowel et al.'s (2017) approach for conducting a trustworthy thematic analysis. The authors recommend the incorporation of specific trustworthiness techniques into Braun and Clarke's (2006) six-phased method of thematic analysis outlined above. Based on these recommendations, an audit trail was maintained via thorough documentation of (1) the researcher's theoretical and reflective thoughts throughout the analyses, and (2) potential codes and themes as they emerged and developed. Additionally, researcher triangulation was performed by presenting themes to the two other research assistants who conducted the interviews in order to receive feedback concerning the extent to which presented themes align with the research assistants' impressions of the data. Finally, member checking was conducted via presenting themes to interview participants in order to receive feedback concerning the extent to which presented themes align with participants' experiences facilitating virtual groups. Interview participants who provided feedback ($n = 2$) described themes as accurately capturing their experiences facilitating virtual groups. Feedback did not result in addition or subtraction of themes or changes to theme titles. Examples of specific strategies described as beneficial in adapting to virtual delivery were incorporated into theme descriptions.

Results

Sample Characteristics

The occupational role identified by survey responses (n = 58) and interview participants (n = 12), and the nature of the groups implemented, are summarized in Table 1. The majority of survey responses (79.3%) were completed by facilitators who were professional service providers—as opposed to students/trainees or peers. Groups were primarily psycho-educational/skills-based in nature (59.6%), comprised of 10 members or less (67.9%), and met for 6-10 sessions (50.0%). Clientele were parents (44.3%), youth (27.8%), children (10.1%), as well as parents and children/youth together (17.7%). The vast majority of groups required no fee for participation (93.1%). From this larger sample of participants, a subsample of mental health professionals who facilitated virtual groups (n = 12) participated in in-depth discussion of their experiences through individual interviews.

Table 1

Sample Characteristics

	Survey Responses		Interview participants	
Variables	N	%	N	%
Role				
Administrative	1	1.7	0.0	0.0
Clinical Manager	4	6.9	0.0	0.0
Facilitator-Service Provider	46	79.3	12	100.0
Facilitator-Peer	5	8.6	0.0	0.0
Facilitator-Trainee	2	3.4	0.0	0.0
Clientele Served				
Parents	35	44.3	6	50.0
Youth	22	27.8	4	33.3
Children	8	10.1	1	8.3
Together	14	17.7	1	8.3
Group Type				
Support	7	12.3	2	16.6
Psycho-educational/skills	34	59.6	7	58.3
Mental health	16	28.1	3	25.0
Group Size				
Small (less than 10)	38	67.9	9	75.0
Medium (11-19)	17	30.4	3	25.0
Large (more than 20)	1	1.8	0.0	0.0
Number of Sessions				
2-5	7	12.1	N/A	N/A
6-10	29	50.0	N/A	N/A

11-15	8	13.8	N/A	N/A
16-20	4	6.9	N/A	N/A
21-25	2	3.4	N/A	N/A
>25	6	10.3	N/A	N/A
Don't know	2	3.4	N/A	N/A
Fees				
Yes	4	6.9	N/A	N/A
No	54	93.1	N/A	N/A

Quantitative Results

Means and standard deviations for all variables are summarized in Table 2. Rated on a scale from 1 ("very dissatisfied") to 5 ("very satisfied"), mean satisfaction with the counselling process (e.g., client engagement, client motivation, working alliance), technical considerations (e.g., access to equipment, disruptions, technical support), and privacy and safety concerns fell closest to "somewhat satisfied". Rated on a scale from 1 ("much worse") to 5 ("much better"), mean ratings of the counselling process, technical considerations, and privacy and safety concerns within virtual groups—as compared to in-person groups—were relatively lower than "neutral".

Privacy and safety concerns were rated highest for both satisfaction and comparison to in-person. Technical considerations were rated lowest, with technical disruptions experienced by clients receiving the lowest ratings of all variables. Among the variables of the counselling process subscale, client understanding and client motivation received the highest satisfaction ratings. Mean satisfaction with the group member to therapist alliance fell closest to "somewhat satisfied", while mean satisfaction with the group member to group-as-a-whole alliance was somewhat lower than "neutral". Mean ratings of working alliance variables within virtual groups—as compared to in-person—groups fell closest to "neutral". The group member to therapist alliance was rated higher than the group member to group-as-a-whole alliance for both satisfaction and comparison to in-person.

Table 2

Means and Standard Deviations for All Variables

	General Satisfaction		Comparison to In-person	
Variables	*M*	*SD*	*M*	*SD*
Counselling Process	3.75	0.84	2.86	0.74
Client attendance	3.78	1.34	3.11	1.12
Client engagement	3.74	1.22	2.79	1.14
Client application of learning	3.69	1.09	2.88	0.86
Client motivation	4.09	1.01	3.05	0.84
Tracking client progress	3.39	1.17	2.84	1.04
Client understanding	4.12	0.98	3.02	0.73
Group member to therapist alliance	3.78	1.08	2.94	0.99
Group member to group-as-a-whole alliance	3.39	1.25	2.59	1.09
Technical Considerations – Clients	3.56	0.84	2.67	0.67
Initial receptivity to participate	4.12	1.05	2.80	1.04
Ability to use technology	3.71	1.23	2.75	1.02
Access to equipment and resources	3.28	1.33	2.50	0.97
Disruptions experienced by clients	3.09	1.20	2.36	1.09
Technical support provided by agency	3.61	1.19	3.05	0.96
Technical Considerations – Facilitators	3.87	0.70	2.67	0.67
Initial receptivity to delivering	3.93	1.05	2.94	1.00
Ability to use technology	4.29	0.86	3.09	0.81
Access to equipment and resources	3.86	1.15	2.79	1.08
Disruptions experienced by facilitator	3.64	1.04	2.85	1.01
Technical support provided by agency	3.59	1.28	2.84	0.94
Privacy and Safety Concerns	4.26	0.88	2.97	0.94
Clients' considerations	4.05	1.09	2.95	1.03
Facilitators' considerations	4.50	0.92	3.04	1.02

Qualitative Results

Thematic analysis of interview data yielded the following nine themes, described in detail below.

Gaining comfort and competence over time. Facilitators described the overall process of adapting to virtual delivery as a "learning curve" involving steady increases in comfort and competence over time. Noting that, while they would not have opted to transition to virtual delivery in such an abrupt manner as was occasioned by the COVID-19 pandemic, facilitators

described being required to "jump into" virtual delivery as benefiting their learning process. For example, Janet[1] stated, "I think we actually served our clientele better just by taking a risk jumping in and learning as we went". Facilitators contrasted their initial hesitation towards transitioning to virtual delivery with the level of comfort and competence they ultimately achieved—a level described by multiple participants as exceeding expectations.

Relating to clients in a manner that takes into account their unique environmental context. Rather than consisting of a single, shared physical space, the virtual group environment includes the diverse locations from which clients participate in a session. In transitioning to virtual delivery, facilitators developed an acute awareness of the unique impact of each client's home environment on their ability to communicate openly. Facilitators described how, for clients who are able to access a sense of safety and comfort in their home environment, virtual groups enhanced the ability to openly share about personal, oftentimes difficult, experiences. For instance, Brian described clients' adjustment to opening up with the group as being eased by virtual delivery due to the fact that, "The client is in their own home, their own place of safety, their own happy place, where the comforts and security of their home is". The ability to connect from the comfort of home was viewed as particularly advantageous in fostering connection among clients managing social anxiety and agoraphobia.

Alternatively, facilitators described how, for clients occupying environments where they experience a lack of safety or comfort, participating from home can restrict openness—especially when such clients lack access to a sufficiently private space. For example, facilitators described challenges around clients opening up about sensitive topics due to concern of being overheard by household members. As Francis described,

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[1] To promote anonymity, pseudonyms have been used when referencing specific interview participants.

> Some people live in an environment where they can't [speak openly]—or it's really difficult for them, because, for example, if they're seeing us in regards to their addiction, and they're a youth, and their parents don't know, well, then confidentiality is a concern there. Similarly, for clients I see whose son or daughter might be struggling with substance use, and they're trying to get support, it's hard for them to want to talk about that openly if their son or daughter is around, or their partner is around.

Raised as a particular concern were the challenges experienced by clients vulnerable to domestic abuse in securing a safe, private space to speak openly about whatever challenges they may be navigating. Practicing empathic awareness of and sensitivity towards such barriers to openness was understood as vital in promoting client comfort, privacy, and safety. Facilitators refrained from placing the same standards and expectations for openness across all clients, opting instead to focus on "meeting clients where they are at". Facilitators noted the particular usefulness of allowing clients to interact through whatever channel of communication accommodated within the videoconferencing platform that clients found most comfortable. For example, clients concerned about being overheard by household members appeared to find comfort in communicating via the chat.

Approaching former structures and content with flexibility. Communicating with clients across the four channels of communication accommodated by prevalent videoconferencing platforms (i.e., audio, video, screen-sharing, chat) was described by participants as involving a fatigue-inducing level of complexity unique to virtual delivery. Specifically, multi-channel communication was described as demanding a level of both attention and multi-tasking not typically required of facilitators within in-person settings. For example, participants described the substantial attentional demands involved in simultaneously: observing clients' body language, monitoring the chat, leading the group discussion, and presenting a slideshow. Doris described the relationship between such multi-tasking and fatigue as follows,

> Being able to talk about the information, and observe the nonverbal of the client, while sharing the information on the screen, there's a lot of multitasking involved … I find that virtual services requires more focus and concentration. So there's more mental energy needed to multitask, and it can be very physically draining

While such demands are particular to the role of facilitator, fatigue was also observed among group members. One particular challenge highlighted by participants with regard to client fatigue was the tendency for group members to turn their attention away from the virtual session towards alternative sources of stimulation located in members' home environments. Such disengagement was portrayed as especially common among younger clients who would, for example, turn their attention towards playing with household pets or scrolling on their smart phones.

In order to both limit fatigue and promote engagement, facilitators described flexibly adjusting both session structures and methods of content delivery—as opposed to rigidly applying in-person practices to the virtual format. For example, perceiving the initial toll that lengthy, uninterrupted virtual sessions was having both on themselves as facilitators as well as on group members, participants opted to both shorten sessions and to incorporate break times. Facilitators noted the particular benefits of encouraging break times be used for such restorative activities as engaging in physical movement, going outdoors, and avoiding additional screen time. To further mitigate fatigue and foster engagement, facilitators described delivering content in novel ways. For example, content that may have been communicated either entirely audibly or with the assistance of a hand-out within in-person groups, was delivered through a combination of slides, images, videos, and interactive polls. Thus, the use of multi-media was emphasized as of particular value in promoting engagement.

Collaborating with a co-facilitator in novel ways. Collaborating with a co-facilitator was framed as valuable—and in some cases, imperative—in adapting to multi-channel communication and technological disruptions. Compounding the challenges involved in

communicating via audio, visual, and text-based channels described above is the vulnerability of each channel of communication to the influence of technological disruptions. Time lag, screen freezing, and disconnection were identified by participants as restricting the ease of flow of communication more readily experienced within in-person contexts. Such connectivity issues were perceived as especially common among clients connecting from rural areas. Relatedly, multiple facilitators noted that lack of adequate internet access in rural communities prevented some clients from being able to participate in virtual groups.

By collaborating with a co-facilitator in novel ways, participants were able to limit fatigue and promote client safety, as well as group cohesion and flow. Specifically, dividing responsibilities between co-facilitators permitted each facilitator to manage a more reasonable share of the tasks involved in facilitating virtual groups. For example, a facilitator may be tasked with sharing their screen and leading audible discussion while their co-facilitator attended to monitoring client well-being and integrating content from the chat into the audible discussion—thereby not only limiting facilitator fatigue but promoting client safety and group cohesion. Moreover, promoting group flow, facilitators described relying on a co-facilitator as helpful in both assisting clients experiencing connectivity issues, as well as having someone to take the lead in a session in the event of a facilitator themselves experiencing connectivity issues and/or dropping from the session. Emphasizing the value of having a co-facilitator, participants who previously facilitated in-person groups independently found it necessary to add a co-facilitator upon transitioning to virtual delivery. Relatedly, Margery remarked, “For myself at least, I don’t think it would be possible to facilitate groups virtually without being able to work with a co-facilitator.”

Simplifying the videoconferencing platform interface. The interfaces of common videoconferencing platforms were described by participants as introducing sources of both distraction and division not encountered within in-person settings. For instance, participants described seeing their image reflected in the self-view window as promoting a focus on self-image that risked detracting from their altruistic motivations in providing mental health services. As Paige stated, "We don't go into this work because of how we look and how we want to look, and all of a sudden we're so self-conscious". Chat notifications were similarly described by participants as distracting, with many recalling occasions when a train of thought would be lost or discussion point interrupted upon their attention being drawn towards a pop-up notification. The chat feature was further discussed as a source of group division. Specifically, facilitators described the potential for a secondary group to form within the chat due to members exploring tangents of discussion sufficiently divergent from topics being addressed within the audible discussion. The screen-sharing feature was similarly highlighted as a source of division, with participants describing how the inability to view all group members simultaneously when sharing one's screen restricted the sense of communicating with the group-as-a-whole.

To promote both group flow and cohesion, facilitators benefited from simplifying the platform interface to better suit their personal preferences. For example, to promote group flow by limiting distraction, some were grateful to discover the ability to hide the self-view window and/or to disable pop-up chat notifications. Similarly, to promote group cohesion, some facilitators opted to disable the chat entirely, thereby creating what Dorothy referred to as "one focused zone". Participants identified limiting prolonged screen sharing as a means of further fostering cohesion in the group. For example, rather than sharing an entire slideshow, facilitators opted to share 1-2 slides at a time before returning to grid-view to discuss the content covered in

the preceding slides. Alternatively, facilitators who were able to incorporate a second computer monitor into their set up benefited from being able to view their shared screen on one monitor and the grid-view of group members on the other.

Encouraging visibility. Individuals participating in virtual groups have access to a unique feature not possible within in-person settings—the ability to participate in a group session without being seen. Facilitators described multiple challenges stemming from group members participating in sessions with their video turned off. Lack of access to nonverbal cues created challenges around monitoring members' mood, wellness, understanding, and focus. Relatedly, facilitators experienced challenges incorporating non-visible clients into discussions—thereby limiting group cohesion. Finally, facilitators described experiencing discomfort within themselves—and perceiving discomfort in clients—in instances when clients shared about personal struggles without being able to see their fellow group members. As Paige remarked of the difficulty involved in speaking about painful topics to a grid of blank squares, "It's not helpful for the other people in the group to be talking into this blankness about their private, personal pain".

Accordingly, in order to adequately monitor clients' safety and engagement, as well as to promote both group cohesion and client openness, facilitators encouraged group members to participate with their video turned on. Visibility was commonly encouraged through highlighting the impact and importance of visible participation to group members. Terry described her approach to encouraging visibility as follows,

> At the beginning of each group, we mention that we would love to have people participate by turning on their video. For those reasons. We can't read the cues. We'd love to encourage a great dialogue between parents, but we respect the confidentiality. So if you're not comfortable, we'll ask you to put up your hand.

Facilitators encouraged clients to turn on their cameras by highlighting such benefits as the promotion of meaningful dialogue among members, while offering accommodations for those nevertheless uncomfortable with visible participation (e.g., using the hand raise function to signal their desire to speak). Visibility was further encouraged by speaking one-on-one with individuals resistant to visible participation in order to address any particular concerns and offer solutions. Some facilitators found it necessary to require consent to visible participation as a pre-requisite for joining a given group, given the substantial value they perceived in maximizing access to nonverbal cues.

Viewing technological disruptions as opportunities to model therapeutic qualities. Upon transitioning to virtual delivery, facilitators quickly became acquainted with the impact of technological disruptions on the flow of communication. Facilitators strove to limit the occurrence and impact of such disruptions as time lag, screen freezing, and disconnection by, for example, collaborating with co-facilitators as described above. However, facilitators came to accept technological disruptions as an inevitable part of the virtual group process. While acknowledging the frustration that can result from technological challenges, facilitators found value in embracing inevitable disruptions as opportunities to model therapeutic qualities. For instance, Paige described her approach to technological disruptions as follows:

> A big part of the work that we do with clients is helping them grow their self-compassion. So, it's kind of a handy thing—it kind of flows into the work that we do, because when people are struggling, and of course they're blaming themselves, and feeling ashamed for what's been happening, the Zoom becomes sort of an example of, "Well, here we are learning something— mistakes are gonna happen. How do we deal with them?" Right? And "How can we be kind to each other?" Because ultimately, it's just a mode for us to connect—for us to learn and grow together.

As described here, facilitators discovered value in transforming moments of disruption and frustration into opportunities to model such beneficial qualities as self-compassion, kindness, and

a growth mindset. Moreover, responding to technical disruptions in a manner that centers the collective learning and growing process unfolding in a given session enabled facilitators to foster a sense of group belonging.

Missing the invigorating qualities of in-person groups. Despite the advantages of virtual delivery, facilitators nonetheless described missing the unique, invigorating qualities of in-person groups. Facilitators expressed doubt over being able to fully replicate the group cohesion and bond that they were able to cultivate in-person, noting that, in the very least, it appeared to take more time in the virtual mode to develop strong therapeutic relationships in comparison to in-person contexts. Highlighting the impact of the lack of nonverbal cues on relationship development, Nicole shared,

> Compared to in-person, I think there's a little bit of a personal touch that seems to be missing. Some of the non-verbals are just not as available online. And it can feel a little bit harder, or it feels like it takes a little bit longer, to build that connection.

Importantly, the role of the pandemic in intensifying a longing for in-person connection was acknowledged. As Paige described,

> I find we end up talking about the pandemic—how it's been impacting us recently. And certainly, there is a grief over losing in-person contact with people. We're human. We need some person-to-person contact. Our worlds have gotten very small, even though they've gotten larger with Zoom. It's sort of this ironic contraction and expansion at the same time.

As described in the above quote, the contraction of many social spaces over the course of the pandemic into the dimensions of a computer screen contributed to a heightened sensitivity to the special qualities of in-person interactions; simultaneously, the ability for groups to meet without sharing a physical location provided individuals with the opportunity to receive support while navigating uniquely challenging circumstances.

Grounding self in sense of purpose when navigating challenges unique to virtual delivery. In the face of some of the more challenging aspects of virtual delivery—including fatigue, technological disruptions, and the lack of in-person connection—participants benefited from mindfully attending to the value and impact of facilitating virtual groups. For instance, Terry described the benefits of grounding herself in a sense of purpose when navigating technological challenges as follows:

> If something goes wrong, it's the nature of the beast, just move on from it. Don't get caught up in it. Just keep the flow of the group going. It's about the parents. We should come back to that. You do your best that you can with what you have … I think we can get very frustrated and caught up in the technology. But keeping in mind why you do it is important.

As reflected here, while facilitators adapted to many of the unique characteristics of virtual environments in order to promote such qualities as cohesion, comfort, and engagement, certain challenging aspects of virtual delivery were ultimately accepted as innate to the process— "the nature of the beast". Rather than becoming unduly disheartened by such aspects, facilitators benefited from grounding themselves in a sense of purpose. Multiple facilitators noted that finding a sense of purpose was aided by instances in which group members expressed their gratitude and described the positive influence group participation exerted on their lives. Frances described such instances as follows:

> They're grateful that we are able to even offer supports at all through this time, even if they can't come into the office. They're happy to be able to connect with other people, in whatever capacity that they can, who are going through similar things to them.

Facilitators were thus helped by mindfully attending to the meaningful impact of their work in cultivating social connection among individuals navigating similar challenges during a time uniquely characterized by social distance.

Discussion

The purpose of the present study is to explore the extent to, and ways in which, service providers working in the youth and family mental health sector in Eastern Ontario adapt to the unique characteristics of virtual environments in order to communicate effectively and develop therapeutic relationships. Towards this aim, secondary quantitative and qualitative data were analyzed using a mixed-methods design. Data were previously gathered for a Frayme-funded study on the rapid transition to virtual delivery of group-based mental health and addictions services occasioned by COVID-19 social distancing protocols. For this funded study, University of Ottawa researchers collaborated with Kids Come First partnering agencies to distribute an online survey to, and conduct individual interviews with, services providers involved in the implementation and/or delivery of virtual groups for youth and families.

Quantitative results indicate service providers achieved moderate satisfaction regarding their ability to communicate and develop relationships within virtual groups, and that this ability was perceived as approximating in-person processes. Mean satisfaction with the counselling process, technical considerations, and privacy and safety concerns fell closest to “somewhat satisfied”, suggesting service providers were moderately satisfied with their ability to adapt to virtual delivery. Mean ratings of the counselling process, technical considerations, and privacy and safety within virtual groups—as compared to in-person groups—fell closest to “neutral”, suggesting service providers perceived their ability to both communicate effectively and develop therapeutic relationships within virtual group environments as approximating their ability to do so within in-person settings.

Expanding upon these findings, qualitative results suggest that while virtual group environments involve unique challenges and an elevated complexity not encountered by facilitators within in-person contexts, facilitators are able to adapt to virtual delivery by both

employing diverse strategies and accepting certain limitations. Such environmental characteristics as technological disruptions, multi-channel communication, and platform interface features introduce sources of fatigue, distraction, and division unique to virtual delivery. Characteristics of virtual group environments further contribute to a level of complexity that places greater attentional demands on facilitators and requires more multi-tasking compared to in-person settings. However, in adapting their communication strategies by, for example, collaborating with a co-facilitator, simplifying platform interfaces, and approaching inevitable technological disruptions as opportunities to model therapeutic qualities, facilitators are able to promote outcomes beneficial to the development of therapeutic group relationships, including client openness and group cohesion.

To answer the research questions set out in this study, the discussion of findings is organized according to the three key aspects of the theoretical framework, social information processing (SIP) theory (Walther, 1992; 2011), that has guided this study: virtual group environments, communication adaptation, and relationship development.

Virtual Group Environments

Preliminary research examining the experiences of mental health professionals facilitating virtual groups portray virtual group environments as more demanding of facilitators compared to in-person settings. Specifically, virtual groups have been described by facilitators as more therapeutically challenging compared to in-person groups due to elevated attentional demands and difficulties stemming from the relative lack of nonverbal cues (Rayner et al., 2016). Prior research indicates virtual group environments are more demanding of facilitators relative to clients. Virtual group environments appear to require more focus and multi-tasking of facilitators compared to clients due to the greater share of responsibilities facilitators manage (Khatri et al.,

2014; Lundberg, 2014; Marziali et al., 2006). Correspondingly, facilitators of virtual groups for parents have described navigating technological disruptions and the lack of nonverbal cues as more challenging compared to parents participating in these groups (Rayner et al., 2016; Shah et al., 2019).

In keeping with the research summarized above, the present study identifies characteristics of virtual group environments that both introduce unique challenges and contribute to an elevated level of complexity not encountered by facilitators within in-person settings. Time lag, screen freezing, and disconnection were described by interview participants as disruptive to the type of group flow cultivated with greater ease within in-person settings, which echoes prior findings related to virtual groups (Rayner et al., 2016; Shah et al., 2019). Quantitative results from the current study suggest disruptions experienced by clients (rather than facilitators themselves) are especially challenging for facilitators to manage. Notably, while prior research has portrayed the expansion of virtual group services as an opportunity to better address the mental health needs of underserved rural communities (e.g., Dever Fitzgerald et al., 2010), interview participants described technological disruptions as especially common among clients connecting from rural areas due to a lack of adequate internet services.

Present findings detail the challenges experienced by facilitators with regard to clients' ability to participate in sessions with their video turned off, thus expanding upon prior research evidencing the elevated demands placed on group facilitators due to the relative lack of nonverbal cues accessible within virtual environments (e.g., Rayner et al., 2016). Qualitative results indicate non-visible participation introduces challenges around: monitoring clients, incorporating non-visible clients into group discussions, and discussing sensitive topics.

Alongside technological disruptions and the lack of nonverbal cues, present findings further identify the following environmental characteristics as introducing unique challenges and contributing to the complexity involved in virtual delivery: multi-channel communication, platform interface features, and clients' home environments. Consistent with prior research suggesting virtual environments are uniquely demanding of facilitators (e.g., Rayner et al., 2016), interview participants described communicating across the audio, visual, and text-based channels commonly accommodated by videoconferencing platforms as demanding a greater amount of attention and multi-tasking than is typically required of them within in-person settings. Similarly, features of common platform interfaces, including the chat and screen-sharing features, were understood by facilitators as introducing sources of both distraction and division not encountered within in-person groups (e.g., pop-up notifications). Finally, participation from home was understood by facilitators as both introducing sources of disengagement unique to virtual delivery (e.g., preoccupation with household pets), as well as impacting client openness.

Prior research highlighting the advantages of virtual groups has framed the ability for clients to participate from their home environment—possibly without being visible—as improving both access to treatment and communication among clients. Specifically, participating without being seen has been understood as reducing stigma-related barriers to treatment, as well as cultivating openness by reducing appearance-related concerns (Dever Fitzgerald et al., 2010; Maurice-Stam et al. 2014; Vigerland et al., 2016). Similarly, participating from the privacy and comfort of home has been understood as promoting anonymity and openness (Dever Fitzgerald et al., 2010; Maurice-Stam et al. 2014; Rayner et al., 2016; Shah et al., 2019; Vigerland et al., 2016). By comparison, present findings highlight both (1) the potential discomfort involved in

speaking about personal, painful struggles without being able to see fellow group members, and (2) the restricted openness exhibited by clients who lack access to safety, comfort, and/or privacy within their home environments.

It is worth noting that, while such characteristics as technological disruptions, lack of nonverbal cues, and multi-channel communication are common to both group-based and individual virtual therapy, the occurrence and influence of these characteristics is multiplied by the number of participants involved in a session. For example, while a client's screen freezing during a one-on-one session risks interrupting the flow of the session, within a group context, not only is the likelihood of such interruption occurring increased, but the possibility for multiple clients' screens to freeze simultaneously is introduced. Similarly, while monitoring client activity across video, audio, and text-based channels is relatively straightforward within an individual therapy context, within the context of group-based therapy, the complexity of such monitoring is multiplied by the number of members participating.

Communication Adaptation

From the perspective of SIP theory, such environmental characteristics as those outlined above constitute structural limitations that, given time, individuals will adapt their communication strategies to in order to communicate effectively and develop meaningful interpersonal relationships (Sumner & Ramirez, 2017). Lending support to this perspective, preliminary research indicates facilitators achieve greater comfort navigating virtual group environments over time, with facilitators describing the process of transitioning to virtual delivery as a learning curve involving sufficient skill development to eventually accommodate the replication of in-person processes (Khatri et al., 2014; Marziali et al., 2006). In the current study, interview participants similarly described transitioning to virtual delivery as a "learning

curve" involving steady increases in comfort and competence towards levels exceeding initial expectations. Quantitative findings likewise indicate facilitators adapted to the unique characteristics of virtual group environments to a satisfactory extent in order to communicate effectively, and that they perceived their ability to communicate within virtual groups as approximating their ability to do so within in person contexts.

Research detailing the specific approaches and strategies facilitators employ in adapting to virtual group environments is sparse. Rayner et al. (2016) found facilitators leading a virtual group for parents of children with a serious illness and injury benefited from: reducing the amount of content delivered, incorporating more visual elements, conducting preprogram technical checks, co-facilitating group sessions with another facilitator, and implementing turn-taking strategies. The interview participants in this study similarly identified collaborating with a co-facilitator and approaching former structures and content with flexibility as helpful approaches in adapting to virtual delivery. Specifically, dividing responsibilities between co-facilitators, shortening sessions, incorporating break times, and using multi-media were understood as beneficial in adapting to both multi-channel communication and sources of disengagement located in clients' home environments.

Interview participants identified additional approaches and strategies that appear novel in so far as they were not found within the body of literature reviewed in the present study. Such approaches and strategies include: (1) relating to clients in a manner that adequately considers their unique environmental context by, for example, permitting communication through whatever channel of communication they are most comfortable with, (2) simplifying the videoconferencing platform interface by disabling such features as the chat and self-view window, and (3) encouraging visibility by speaking one-on-one with clients to address any

concerns regarding visible participation. Facilitators identified some strategies that, in remedying a particular challenge, may exacerbate another. For example, while disabling the chat may limit distraction from pop-up notifications and limit division by preventing the formation of a subgroup within the chat, disabling this feature obstructs clients lacking sufficient comfort, safety, or privacy to speak audibly in their home environment from communicating through a channel they may find more accessible.

Interestingly, while the majority of strategies identified in the present study are oriented towards overcoming the structural limitations of virtual group environments, two overarching approaches contain within them a degree of acceptance of the limitations of virtual delivery. Specifically, utilizing technological disruptions as opportunities to model therapeutic qualities involves an acceptance of technological disruptions as inevitable. Similarly, grounding oneself in a sense of purpose was understood by facilitators as a means of coping with not only such inevitabilities as technological disruptions and fatigue, but also with the longing for the uniquely invigorating qualities of in-person connection.

Relationship Development

A substantial body of literature evidences the important role that relationship development plays in promoting positive treatment outcomes across individual and group-based therapy, as well as across in-person and virtual modalities (Burlingame, 2018; Flückiger et al., 2018). Within the context of group-based therapy, developing a strong working alliance involves fostering goal agreement, task collaboration, and an emotional bond across three levels of interaction: group member to therapist, group member to the group-as-a-whole, and group member to group member (Lo Coco et al., 2019). Experimental studies have indicated that the working alliance is rated significantly lower in virtual compared to in-person contexts for group-

based but not individual therapies, thus raising speculation that virtual group environments may hinder the development of therapeutic relationships (Frueh et al., 2007; Green et al., 2010; Moreland et al., 2010). Specifically, it has been speculated that virtual environments may inhibit the development of therapeutic group relationships due to the greater complexity involved in both: (1) communicating within virtual environments (relative to in-person settings), and (2) developing therapeutic relationships within group-based therapy (relative to individual therapy; Jenkins-Guarnieri et al., 2015; Simpson & Reid, 2014).

Consistent with such speculation, as outlined above, present findings indicate virtual group environments involve a level of complexity not encountered by facilitators within in-person settings. Moreover, interview participants expressed doubt over being able to fully replicate the level of group cohesion and bond commonly cultivated in person. It is worth noting however, that facilitators' perceptions of limited cohesion and bond may not align with clients' perceptions of group relationships and may not signal a hinderance to treatment efficacy. Prior research on the working alliance indicates that: (1) therapists' and clients' perceptions of the quality of the alliance often differ, and (2) clients' perceptions are more strongly linked to treatment outcomes than therapists' perceptions (e.g., Bachelor, 2013).

According to SIP theory, while virtual environments may decelerate relationship development, such hindrance does not dictate that therapeutic relationships equivalent in quality to those developed in-person cannot ultimately be formed within virtual groups. Rather, SIP theory suggests that: (1) the structural limitations of virtual group environments determine the amount of time required for users to adapt their communication strategies to the unique characteristics of the environment, and (2) given adequate time for such adaptation to occur, therapeutic relationships equivalent in quality to those developed in-person can develop.

(Grondin et al., 2019; Walther, 1992; 2011). Findings from the both the quantitative and qualitative data streams in the current study appear to align with these propositions of SIP theory. For instance, interview participants described therapeutic group relationships as needing more time to develop within virtual environments compared to in-person settings. Moreover, facilitators described the various communication strategies they employed in adapting to virtual delivery as promoting outcomes beneficial to the development of therapeutic group relationships, including client comfort and openness, as well as group flow, cohesion, and belonging. For example, encouraging visibility was understood as promoting client openness and group cohesion. Similarly, approaching technological disruptions as opportunities to model therapeutic qualities was described as promoting a sense of group belonging.

Present quantitative findings similarly indicate facilitators adapted to the unique characteristics of virtual group environments to a satisfactory extent in order to develop therapeutic relationships. Specifically, results suggest facilitators achieved a moderate satisfaction with regard to their ability to develop therapeutic relationships within virtual group environments, and that they perceived the relationships developed within virtual groups as approximating the quality of those developed in-person. Present findings are thus consistent with preliminary studies on virtual groups for youth and parents reporting working alliance ratings comparable to previously published results of equivalent in-person group interventions (Lecomte et al. 2020; McGill et al., 2017; Wakefield et al., 2016).

Finally, prior research has indicated that while group members may find it more difficult to form therapeutic relationships with other group members than with facilitators, members appreciate the ability to connect with individuals navigating similar challenges as their own (Wakefield et al., 2016). Consistent with such findings, present quantitative results suggest

facilitators perceived the group member to therapist alliance as developing with greater ease than the group member to group-as-a-whole alliance. Nevertheless, interview participants described group members as appreciative of and grateful for the opportunity to connect with individuals navigating similar challenges, especially during such a uniquely socially isolating time.

Implications and Applications

The present study offers several strategies that group facilitators can consider implementing in order to promote both effective communication and relationship development. The following approaches and strategies emerged as helpful to facilitators as they adapted to the virtual group environment: considering clients' unique environmental context, shortening group sessions and incorporating break times, utilizing multi-media, collaborating with a co-facilitator, simplifying platform interfaces, encouraging visibility, and approaching technological disruptions as opportunities to model therapeutic qualities. It is worth noting that many of these approaches and strategies appear readily applicable to the virtual delivery of services other than group-based therapy, including individual virtual therapy, as well as online classes and virtual work meetings.

Many of the strategies described by interview participants as beneficial in adapting to virtual delivery point to factors worth considering when selecting a videoconferencing platform to be used for virtual group-based therapy. For instance, facilitators appreciated being able to customize available features in order to both limit distraction and promote group cohesion by, for example, hiding the self-view window and disabling the chat as needed. Similarly, facilitators' appreciation of collaborating with a co-facilitator highlights the benefits of selecting a platform that can accommodate multiple hosts of a meeting so that each co-facilitator can be granted access to such controls as: permitting clients to enter a session, creating/launching a poll, and

beginning/ending a meeting. Finally, the value facilitators placed on maximizing access to nonverbal cues suggests platforms which prioritize the visibility of participants may be beneficial with regard to monitoring clients and promoting both group cohesion and openness.

Finally, present findings highlight factors that agencies may benefit from considering when screening and/or preparing clients for virtual groups. Specifically, client access to both adequate internet connectivity and safety/comfort/privacy at home appear worth considering. Quantitative and qualitative findings highlight technological disruptions, especially among clients, as a particularly challenging—if ultimately unavoidable—characteristic of virtual group environments. Several interview participants indicated that connectivity issues were especially common among clients connecting from rural and remote locations—the very locations often lacking access to in-person mental health services. It thus appears beneficial for agencies to not only plan for technological disruptions, but to offer clients both strategies for improving connectivity as well as accommodations for those unable to access a stable connection within their home.

Present qualitative findings indicate that for those lacking access to a sense of safety, comfort, or privacy in their home environment, participating from home can restrict openness. Moreover, for clients vulnerable to domestic abuse, participating in groups from home may represent a safety concern due to the possibility of being overheard by an abusive household member. Present findings thus highlight the value of encouraging clients to secure a private space and further suggest that clients lacking adequate safety in their home environment may be better suited to in-person groups.

Limitations and Future Research

The transferability of the present findings is limited by the unique context within which data for the study was collected. Specifically, the context of the COVID-19 pandemic likely exacerbated some of the challenges of virtual delivery described by the study. First, social distancing measures likely complicated clients' ability to access an adequately private space within their homes due to the increased presence of household members. Second, the migration of so much of social activity to virtual environments likely amplified the screen/Zoom fatigue experienced by both facilitators and clients. Finally, the general lack of in-person connection available during this period likely intensified facilitators' and clients' longing for the uniquely invigorating qualities of in-person groups. Accordingly, future research exploring the experiences of facilitators adapting to virtual delivery within a post-pandemic context would be of value in better establishing the extent to which facilitators are challenged by such factors as the lack of privacy in clients' homes, screen/Zoom fatigue, and the absence of in-person connection.

The current study is further limited by its focus on the experience of group facilitators to the exclusion of clients' experiences of virtual group services. Clients' experiences adapting to virtual delivery were captured exclusively through the perception of service providers. Accordingly, the strength of any inferences drawn concerning clients' experiences adapting to virtual group environments is limited by the absence of data directly capturing clients' experiences. Future research exploring clients' experiences adapting to virtual delivery would thus be beneficial in developing a better understanding of the extent to, and ways in which, effective communication and therapeutic relationship development are achieved within virtual groups. Preliminary findings evidence differences in how facilitators and clients adapt to virtual group environments (e.g., Rayner et al., 2016), thus underscoring the importance of future

studies including clients as participants. Studies including clients as participants would be of particular value in more comprehensively measuring the working alliance. Prior research suggesting that the association between working alliance and treatment outcome is stronger when group members are younger (Burlingame, 2018), highlights the particular value of studies conducted with child and youth participants. Finally, future studies would benefit from including assessment of the group member to group member alliance in order to evaluate all three levels of interaction involved in cultivating therapeutic group relationships.

While it is beyond the scope of the present study to compare therapeutic relationship development across virtual and in-person conditions, present findings detailing the elevated complexity encountered by facilitators within virtual group environments are consistent with speculation concerning the potential hinderance of relationship development within virtual groups. Especially given that such speculation is based upon a limited number of studies conducted with highly specific adult populations (i.e., veterans with PTSD, high security inmates), future experimental studies are needed to test whether virtual group environments hinder therapeutic relationship development relative to in-person settings. In light of the advantages offered by virtual groups with regard to better addressing the mental health needs of youth and families, studies conducted with child, youth, and parent participants would be of particular value.

Conclusion

In March of 2020, as social distancing measures in response to COVID-19 first took effect across Ontario, mental health and addictions agencies began exploring ways of maintaining service access during a uniquely uncertain and isolating time. For service providers employed by Kids Come First partner agencies, the possibility of implementing virtual group-

based therapy appeared both daunting and promising. With limited prior experience or guidelines available to inform the process, yet increasingly concerned by the disruption of mental health services, service providers rapidly transitioned their group-based services for youth and families to virtual delivery.

In exploring the experiences of these service providers as they navigated a substantial learning curve, the present study highlights the unique challenges and elevated complexity involved in facilitating virtual groups. Whether staring into a grid of blank squares, waiting for a client's screen to unfreeze, or contending for attention with a household pet, facilitators were faced with no shortage of challenges not encountered within in-person settings. At the same time, facilitators demonstrated an impressive ability to adapt to virtual delivery. Facilitators discovered ways of both communicating effectively and developing therapeutic relationships within virtual groups. Through employing such strategies as encouraging visibility, collaborating with a co-facilitator, and approaching technological disruptions as opportunities to model therapeutic qualities, facilitators promoted comfort and openness among clients, as well as group flow, cohesion, and a sense of belonging.

While conducted within the context of the rapid transition to virtual delivery occasioned by the COVID-19 pandemic, the present study aims to inform the implementation of group-based services beyond this unique context. Canadian youth and families face substantial challenges accessing adequate and appropriate mental health services (Iver et al., 2015; Malla et al., 2018). With the need for professional help rising among youth in Ontario and insufficient services available to meet this rising need (Comeau et al., 2019; Waddell et al., 2019; Georgiades et al., 2019), virtual group-based therapy represents a cost-effective means of increasing service

access via the reduction of geographic, logistical, and stigma-related barriers to treatment (Christensen & Hickie, 2010; Douma et al., 2019).

The present study complicates such advantages of virtual groups by highlighting ways in which for those lacking access to either adequate internet service or privacy and safety at home, virtual groups conversely introduce barriers to treatment. Moreover, virtual groups appear to involve unique challenges and an elevated complexity relative to both individual virtual therapy and in-person groups (Jenkins-Guarnieri et al., 2015; Simpson & Reid, 2014). Nevertheless, in showcasing the ability of facilitators to adapt to virtual delivery, the present study suggests that the unique challenges and complexities involved in virtual group-based therapy need not deter the implementation of virtual groups as a means of better addressing the mental health needs of Canadian youth and families.

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Appendix A

Online Survey

Instructions: We are interesting in learning about your experiences as a group facilitator working in a virtual group context, since the pandemic restrictions took effect in March 2020. In order to answer the questions below, **please bring to mind one group that you have facilitated** in recent months (and perhaps are still facilitating) and **answer all of the questions below in relation to that one particular group.** You may repeat the survey to answer the questions in relation to any other group you have facilitated recently by simply clicking the original survey link again.

What role did you play in the management and/or delivery of the virtual group?

- Administrator
- Clinical Manager/supervisor
- Group facilitator: Service provider
- Group facilitator: Peer
- Group facilitator: Student/trainee
- Other (specify):

What clients participated in the virtual groups that you were involved in managing and/or delivering since March 2020?

- Parent/Caregivers
- Youth (13 years and older)
- Children (12 years and younger)

- Parents and youth/children together

Please describe the *primary* type of your group by selecting one of the categories below that best describes your group:

- Support group
- Structured psycho-educational/skills training
- Mental health therapy or treatment group

Please indicate the size of the group which you were involved in managing and/or delivering.

- Small (less than 10 participants)
- Medium (11-19 participants)
- Large (more than 20 participants)

Please indicate the number of sessions offered for the virtual group in which you were involved in managing and/or delivering.

- 2 -5
- 6-10
- 11-15
- 16-20
- 21-25
- More than 25
- Don’t know

Did clients pay a fee (of any amount) to participate in your group?

- Yes
- No
- I Don't know

Please read each of the items below and respond to each of the 2 questions in relation to each item **as they apply to one particular group that you have facilitated in recent months**

	How *satisfied* are you with the following aspects of facilitating the group in a **virtual modality**?	*Compared to facilitating groups in-person*, how would you describe your experience facilitating the group in a virtual modality?
1. Clients' initial receptivity to participate in a mental health group	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
2. Group facilitator's initial receptivity to delivering the mental health group(s)	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied	• Much better • Somewhat better • Neutral • Somewhat worse

	• Very dissatisfied • N/A	• Much worse • N/A
3. Clients' considerations of privacy and their personal safety in the group	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
4. Group facilitator's considerations of maintaining privacy and personal safety for the group members	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
5. Clients' attendance at sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A

6. Clients' engagement in discussions and activities during the group sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
7. Clients' application of learning from the group experience outside of the sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
8. Clients' motivation for learning/change	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
9. Tracking clients' individual progress in the group	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied	• Much better • Somewhat better • Neutral • Somewhat worse

	• Very dissatisfied • N/A	• Much worse • N/A
10. Working alliance between the group facilitator and the individual group members	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
11. Working alliance between individual group members and the group-as-a-whole	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
12. Clients' understanding of the content, goals, and activities of the group	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A

13. Clients' ability to use technology during the sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
14. Group facilitator's ability to use technology during the sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
15. Clients' access to adequate equipment and any other resources required to participate fully in the sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
16. Group facilitator's access to equipment and any other resources required to conduct the sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied	• Much better • Somewhat better • Neutral • Somewhat worse

	• Very dissatisfied • N/A	• Much worse • N/A
17. Amount of disruptions experienced by clients during sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
18. Amount of disruptions experienced by the group facilitator during sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
19. Amount of technical/logistical support provided by the agency to clients in order to participate in the sessions	• Very satisfied • Somewhat satisfied • Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Much better • Somewhat better • Neutral • Somewhat worse • Much worse • N/A
20. Amount of technical/logistical support	• Very satisfied • Somewhat satisfied	• Much better • Somewhat better

provided by the agency to group facilitators in order to conduct the sessions	• Neutral • Somewhat dissatisfied • Very dissatisfied • N/A	• Neutral • Somewhat worse • Much worse • N/A

You may provide further information about your experiences facilitating virtual groups by responding to the questions below. In responding to these questions, you may consider all of the virtual groups you have facilitated since March 2020.

From your perspective, what are the biggest challenges involved in implementing virtual groups for youth and/or parents?

From your perspective, what are the main advantages of implementing virtual groups for youth and/or parents?

Please describe the most important lessons you have learned through your experiences implementing virtual groups for youth and/or parents.

Appendix B

Interview Guide

Contextual Information on Services Provided

Describe briefly what kinds of services your agency offers and the types of clientele your agency serves.

What types of virtual group services has your agency offered since March 2020?

What role(s) have you played in the management and/or delivery these groups?

Describe any prior experience (before March 2020) you had providing virtual group services.

Administrative and Logistical Processes Involved in Service Provision

What kinds of issues related administrative and logistical processes (e.g., selecting and using a platform, scheduling sessions, setting up hardware, managing connectivity issues) did you experience during the set-up and organization phase of virtual group services? What administrative and logistical issues, if any, did you experience while the groups were running?

What, if any, issues emerged in relation to privacy/confidentiality for group members and your communicating concerning these issues to members? What, if any. issues emerged in relation virtual etiquette (or "netitiquette") among the group members?

What ideas do you have ideas about how administrative and logistical processes related to organizing and running virtual group services can be improved?

Barriers and Gaps to Service Implementation

What stands out to you as the main barriers and/or gaps related to providing effective virtual group services to your clientele?

What solutions for reducing/removing these barriers and gaps did you attempt while working with your groups in recent months? How successful were your attempts to reduce/remove these barriers/gaps?

What other ideas, if any, do you have related to mitigating these gaps or barriers for effective delivery of virtual group services?

Key Learnings

Looking back on your experiences implementing virtual groups, what stands out to you most regarding what you have learned? If you had a colleague starting online groups, what advice would you give to them?

How have the lessons you've learned influenced how you do your work providing virtual group services?

How have these lessons influenced your agency's approach to online service provision?

Perceived Impact of Online Service Implementation and Delivery

What, if any, impacts or effects have you noticed on you, as the group facilitator/agency staff, in relation to this move to offering virtual group services?

What, if any, impacts or effects have you noticed on clients in relation to this move to virtual services?

How have clients responded to the services delivered in this new virtual mode?