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Transitioning a home-based, motivational interviewing intervention among families to remote delivery during the COVID-19 pandemic: Key lessons learned

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Objective: This study examined the experiences, learnings, and strategies of Health Educators (HE) as they transitioned from a home-based model for motivational interviewing (MI) to remote delivery during COVID-19. The overall goal of this paper is to identify key lessons learned to help inform future delivery of remote MI delivery.

Methods: HE perceptions and experiences regarding the transition from in-person to remote delivery of MI for 21 families were captured through a video recorded discussion. Thematic analysis was used to identify themes and subthemes and key learnings from the transition experience.

Results: Five themes were identified including: 1) Impact of COVID-19 on families; 2) Scheduling, no-shows, and cancellations; 3) Preference of online video versus phone; 4) Building rapport with remote delivery; 5) HE work satisfaction. Based on these results, several key learnings were identified to improve remote MI-counseling, including using online video platforms versus phone calls, providing families the necessary information and technical support to improve acceptability, using specific strategies to enhance rapport and child engagement, and asking probing questions to elicit deeper reflection.

Conclusion: Specific considerations regarding rapport building including more frequent check-ins to demonstrate commitment to the family’s success, and effective communication strategies including asking more probing questions that elicit complex reflection can support successful transition of MI-counseling from in-person to remote delivery among families with young children.

Practice implications: Our practice recommendations based on key learnings from MI practitioners during the transition from in-person to remote MI-counseling can support healthcare professionals looking to transition MI-counseling services to remote delivery.

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1. Introduction

On March 11, 2020 the World Health Organization declared COVID-19 a global pandemic and called for every country to take “urgent and aggressive action” to slow the spread of the virus [1]. Following this announcement, stay-at-home directives began in Canada which resulted in minimizing physical contact and providing in-person healthcare services only where essential. While traditional healthcare involves patients receiving in-person care from a clinician, the COVID-19 physical distancing recommendations resulted in healthcare practitioners transitioning in-person visits to remote delivery where possible via telephone and/or online video platforms.

Research conducted prior to COVID-19 found that remote delivery of motivational interviewing (MI) has been well accepted among adults with chronic disease [2–4]. MI is a patient-centred, collaborative conversation to help patients commit to behaviour change [5]. MI requires sophisticated skills including open-ended questions, complex reflections, and summarizations [5]. For example, research has shown that telephone-based MI may help improve medication adherence [6] and may increase physical activity and reduce metabolic risk among older women when included as a component of a health behavior care plan [7]. A study by van Keulen et al. (2011) found that telephone-based MI was successful with improving physical activity, fruits and vegetable consumption among men and women compared to those that did
not receive the intervention [8]. However, this study also found that targeted print communication was equally successful with improving those health behaviors as telephone-based MI [8].

Pre-COVID–19 research has also shown that telephone-based MI is feasible and successful for families of young children. In a study by Akçay & Emirgöl [2019], researchers found that an intervention that used two in-person MI sessions and two telephone-based MI sessions was successful in reducing the aggressive behaviors of young children [9]. These findings were supported by another study that found telephone-based MI used to reinforce lifestyle behavior change goals developed during in-person clinic visits with a nurse was successful in improving the confidence and motivation of parents, and adherence to their behavior change goals [10].

However, transitioning to remote healthcare delivery during COVID–19 may present additional challenges. For example, a study by Sasangohar et al. [2020] found that a single platform may not fit the needs of all patients, and therefore a variety of options may be necessary to deliver patient-centered counseling. This study also found that technological literacy and creating and sustaining interpersonal connection to be a challenge with remote delivery of healthcare [11]. While a number of studies have examined the transition of primary healthcare from in-person to telephone or online videocalls during COVID–19 [12–17], no research has examined the transition of MI-Counseling for health behavior change from in-person to remote delivery during COVID–19. In addition, existing research on remote delivery of MI has been limited to telephone-based MI and does not examine the feasibility or acceptability of MI-Counseling among families using an online video platform. This is an important consideration as research suggests the use of online video platforms for remote delivery of healthcare is likely to continue as we transition into a post-COVID–19 era [18].

The current study aimed to address these gaps by examining Health Educator’s (HEs) experiences with and perceptions of transitioning from home visits to remote delivery of MI using both telephone and online videocalls within an existing trial of a family-based health promotion intervention. The study also aimed to identify key recommendations for other healthcare practitioners navigating the delivery of remote MI-counseling.

2. Methods

2.1. The Guelph Family Health Study overview

The Guelph Family Health Study (GFHS) is a randomized controlled trial designed to test the impact of a home-based obesity prevention intervention on children’s weight outcomes and their sleep habits, screen time, physical activity, dietary intake, and family meals.

Between December 2015 and March 2020, the GFHS team enrolled 285 families with children between the ages of 1.5 and 5 years. Families participating in the GFHS were randomized into two groups: intervention or control. Families in the intervention arm of the study received four visits with a HE, bi-weekly emails that aligned with their health behavior goals, and mailed incentives that provided a child-centered physical support item to reinforce their health behavior change goal for that week. HES are registered dietitians who completed a two-day MI training before the study began and advanced follow-up training once each year.

At each home visit with a HE, families evaluated and rated their current family habits and routines on a scale of 1 (very unsatisfied) to 10 (very satisfied), a skill learned from MI training. HES then used MI to prompt discussion that taps into the family’s personal values and beliefs, in order to support the families in meeting behavior change goals that are meaningful to them. To support families with goal development, resources included a MI focused tool developed by the GFHS team called the Health Behavior Wheel. To engage children with family goals, families were provided with a magnetic goal tracking resource where children could track their health behavior goals by using health-themed magnets to indicate when they had achieved their goal for that day or week. Subsequent follow up visits typically lasted 30 min to 1–h and families had the chance to again rate their health behaviors on the Health Behavior Wheel. Their rating was based on their perceived feeling of success with their goals from the previous four weeks. Families then either set new goals or continued working on previously stated goals for the upcoming four weeks. Families were encouraged to check-in with the HES between visits via email for resources, questions about their goals, and for any needed support.

2.2. Transition to remote MI delivery

Due to the COVID–19 physical distancing requirements, HE visits transitioned from in-person visits delivered in the home to remote delivery to help ensure the safety of participants and staff.

Standardized emails were sent to all families who had yet to complete their home visits (n = 22) explaining that the GFHS home visits were transitioning to remote delivery, and that families would have the option to choose between online videocalls and phone visits. The email also provided an explanation of how to use the Microsoft (MS) Teams virtual platform and described the security features associated with the platform. MS-Teams is the collaboration tool approved for use by the University of Guelph. One family declined the transition to remote delivery and opted out of their remaining visits. Of the 21 families who agreed to participate in the remote delivery, sixteen families had at least one in-person home visit before transitioning to remote delivery of MI-counseling, and five families were randomized after physical distancing recommendations and therefore only received remote delivery of the intervention. Of the 21 families who received remote visits, 10 families completed their visits via phone calls, 8 families used online videocalls, and 3 families completed their visits through a combination of both phone and online videocalls. MI-counseling visits were, on average, 10–minutes longer when done through an online videocall (31.5 min) versus a phone call (21.8 min).

With the transition to remote delivery, all required resources were shared with families via email in advance of the remote MI visits. Then, the HES had the families follow along in real-time as the HE reviewed the materials via phone or videocall.

2.3. Assessment of health educator perceptions of the transition

Three HES participated in a one-hour focus group discussion focused on their experiences and learnings regarding the transition of HE visits to remote delivery. This focus group discussion was hosted by the lead HE (LT) and was video recorded using Microsoft Teams. LT had four prepared questions for discussion: 1) What challenges did you encounter during the transition?, 2) Successes: what worked well?, 3) How does remote delivery differ with regards to encouraging and maintaining participant (whole family) engagement?, 4) What supports and resources were helpful for you? Using Braun & Clarke [2013] as a guide, LT conducted thematic analysis to identify themes as the unit of analysis [19]. Analysis of the meeting involved two phases. In phase one, LT listened to the video recording four times in order to take detailed notes of the discussion. To enhance credibility of the data, member-checking was completed by RL and JB, who individually reviewed the written notes to ensure accuracy and trustworthiness of the data. RL and JB provided additional thoughts and detail to the
transcript. In phase 2, LT immersed herself in the data by reading and coding the detailed notes. These codes were then used to as the building blocks of themes [20] and subthemes that were subsequently generated from the data. Once developed, themes and subthemes were reviewed against the transcript by all HEs (LT, RL, & JB) to ensure they were supported by the data and reflective of what was discussed at the meeting.

3. Results

Ninety-five percent of the families interviewed were from 2-parent households. Of the 21 families that took part in remote MI-counseling, 14% had 1 child, 53% had 2 children, and 33% had 3 or more children. Qualitative analysis of the group discussion with HEs revealed 5 themes: 1) Impact of COVID-19 on families; 2) Scheduling, no-shows, and cancellations; 3) Preference of online video versus phone; 4) Building rapport with remote delivery; 5) HE work satisfaction.

3.1. Impact of COVID-19 on families

It became obvious to HEs that challenges associated with the transition from home-based MI visits to remote MI visits was made more complex by the COVID-19 pandemic. HEs were transitioning families to remote visits, while families were adapting to the rapidly changing physical distancing restrictions, and disruptions within their own workplaces. Recognizing the transition was unique for every family was important as HEs sought to engage and tailor their interaction with the families. For example, the experience of COVID-19 was especially difficult for families who were front-line workers. This was also true for those families who had high-risk members living in the home, lost their job due to COVID-19, or were adapting their businesses for remote services. HEs worked to understand the experience of each family using open-ended questions about changes in the family's routines and structures due to COVID-19, recognizing that the lived experiences of COVID-19 differed for each family.

3.2. Scheduling, no-shows and cancellations

HEs identified that one of the initial challenges with some families was scheduling a remote visit. Given that parents were adapting to having children home full-time and, for many parents, adapting to working from home, it was difficult for families to take time from their newly developing and in-flux schedules for a MI-counseling visit. Some families were concerned about the time-commitment associated with the visit, and the “burden of finding time” to dedicate to a visit required HEs to be patient and flexible with scheduling visits. HEs found it necessary to acknowledge families’ feelings and remain flexible and understanding of their timeline when scheduling remote visits.

While scheduling remote visits was challenging for some families, HEs identified that for others scheduling remote visits was easier than booking in-person visits as families had more availability and appreciated the flexibility in location remote visits offered. One HE said, “families seemed to like the remote visits, perhaps because we are not actually entering their home . . . they just seemed more flexible”. For example, HEs conducted remote visits with families who were at the park or sitting in traffic.

The HEs identified an increase in no-shows i.e., families forgetting about the scheduled visit, for remote visits compared to in-home visits. HEs found the best way to avoid no-shows with remote delivery was to book the visit within a few days of the actual visit date. This was different from home visits, where booking further in advance and sending reminders was more effective in reducing no-shows.

While no-shows increased with remote delivery, HEs identified that cancellations of scheduled visits due to illness or a scheduling conflict was lower with remote delivery compared to in-home visits. Most rescheduling in-person visits was due to family members having a cold or seasonal flu symptoms, and not wanting to spread germs. Remote visits eliminate that challenge. If family members are feeling well enough to meet remotely, they can continue with the planned visit. Another common reason for cancellation pre-COVID-19 was a parent being called into work. HEs found that remote visits were often conducted in between parents’ work commitments when working from home, thus eliminating the need to cancel the visit.

3.3. Preference of online video versus phone

When comparing phone versus online video calls, MI-counseling via phone presented more of a challenge with engagement. Although families were typically receptive and engaged with in-person MI-counseling visits, the phone visits sometimes “seemed rushed, and it seemed the families wanted to move quickly through the visit”. HEs described families as seeming more distracted on the phone and provided shorter answers that seemed to lack deep reflection. One HE noted that families “seemed to be multitasking during the phone visit, whereas with online video calls, families were more dedicated to the conversation and focused on thinking through their behavior change goal”. Another HE described phone visits as getting the feeling families wanted to “get it over with”, because they had “less commentary and less verbal conversation” compared to online video calls. The HE went on to say that online video calls “felt like more like an actual session with more intimate and detailed conversation”, and that online video calls were more amenable to motivational interviewing compared to phone visits. Taken together, it seemed that the online video calls were more purposeful for families resulting in more in-depth reflection on personal values and goals.

While HEs identified that online video calls elicited better focus and commitment to the visit from the families, the online format was not without its challenges. A lack of familiarity with the MS-Teams platform was a challenge for some families. Some families worried about their privacy and whether the online platform could be hacked, or sessions would be recorded. To address these challenges, HEs provided families with an explanation of platform use and assurances regarding maintaining privacy while using MS-Teams. Providing this information to families took additional time compared to the time required to setup in-person visits. HEs needed to account for the additional time required to setup each MI-counseling visit. Families were appreciative of the additional information which helped increase their comfort level with remote visits.

3.4. Building rapport with remote delivery

HEs discovered that building and maintaining rapport with families during remote MI-counselling was possible. However, there were differences in the ability to build and maintain rapport among families who received MI-counseling via online video calls and those who received their visits via phone. The ability to see faces on an online platform seemed to help HEs build better connections and trust with families and to read non-verbal cues, compared to phone visits. HEs learned that successful phone visits required an understanding that non-verbal cues were not possible, and strategies were needed to mitigate this limitation. Specifically, HEs needed to be “comfortable with the silence” in order to provide ample time for the participant to reflect and respond on the phone. Further, because HEs depended solely on verbal communication during phone visits, HEs found success by asking more probing
questions such as “tell me more about that”, and “what are you not saying?”.

During in-home visits, HEs also worked toward building rapport with the children of the family. This was easy to do at home visits by reading, playing, or talking with the children. HEs reported on the importance of remembering to build rapport with the children during remote visits. However, rapport building with children was only possible when using a virtual platform, and not possible when conducting a phone visit. HEs accomplished rapport building with children by involving them in the meeting. Specifically, HEs would ask the child(ren) questions about a health behavior (e.g. “tell me about how you get ready to go to sleep?”) or giving them a specific task, for example, asking them to draw a picture of their favorite outdoor activity, and show that picture to the HE via the camera during the meeting. In doing this, children were less likely to distract their parents from the meeting, felt involved in discussion, and seemed more excited about engaging in the family visit to help their parents with creating health behavior goals.

3.5. HE work satisfaction

HES described the transition to remote visits during the pandemic as a rewarding experience. HEs reported a sense of accomplishment while “supporting families as they restructured their family routine to find a new-normal and helping families to maintain those health behaviors that are so important to them, during these very challenging times”. One HE said “families seemed really receptive to online MI visits and were appreciative that we [HEs] are continuing to support them during COVID” which provided this HE a feeling of satisfaction. Finally, HEs felt a strong sense of achievement having developed a new skill, specifically remote MI-counseling, which they feel increased their competence, knowledge, and marketability as they move forward with their careers.

Helping to contribute to work satisfaction among HEs was the appreciation expressed by families to the HEs about continuing to provide support during COVID-19. One HE described a family as being grateful to “have someone to discuss their challenges with and someone to bounce ideas and thoughts off of”. Families also appreciated hearing what other families in a similar situation were doing during the pandemic, often asking questions like “what are some other families you’re seeing doing” in relation to meals, physical activity, or other health behaviors. One HE described a family’s response to online learning: “one family said that they got a lot more out of the visits than they were expecting they would. They didn’t know what to expect and the visits exceeded their expectations”. HEs reported that this overwhelmingly positive response from families provided a feeling of accomplishment and work satisfaction. Families were thankful to have the GFHS visits to hold them accountable when building routines through the changes that a global pandemic brought to their family. Finally, families reported that they thought the online visits were “cool”, “easy”, and “convenient”, and really like the flexibility that this new way of engaging in health behavior change support brought to their life.

| Table 1 |
|---|

| Recommendations |
|---|
| **Platform** |
| Use an online video platform instead of phone calls for MI-counseling when possible. |
| **Remote platform and privacy information** |
| Provide families a detailed explanation of the remote platform being used, and steps taken to protect families’ privacy. |
| **Visit no-shows with remote visits** |
| Book visits within a few days of the expected visit date, no more than 1-week in advance, to reduce no-show rate. |
| **Reduction or elimination of ability to see non-verbal cues.** |
| Ask more probing questions that elicit reflection about their thoughts and feelings such as “tell me more about that”, “can you explain to me how that made you feel?”, and “what are you not saying?” |
| **COVID-19** |
| Acknowledge the family’s struggle and be adaptable to their timeline and preferences. |
| **Rapport building remotely** |
| Ask more questions that elicit reflection into personal values and beliefs such as “what is important to you about this?” and “what is the gift in this?” |
| **Include the child(ren)** |
| Provide child(ren) a task, such as asking them to draw a picture of their favorite fruit or vegetable or draw a picture of an activity they would like to do as a family and show it to the camera. |
| Involve children in the conversation about the family’s previous goals was also helpful. For example, questions could include: “tell me about the most exciting thing you did outside with your family?” or “do you remember all the vegetables and fruits you ate today?” |
| Ask children age-appropriate questions that help them to consider their own goals for health behavior change. For example, “tell me about one thing you did outdoors with your family that you would like to do again”, or “what do you think is something you could do to help make dinner?” |
4. Discussion and conclusion

4.1. Discussion

The goal of this study was to examine the HEs experiences with and perceptions of transitioning to remote delivery of MI-counseling in a home-based obesity prevention intervention that used family-targeted MI to support behavior change. HEs identified the unique family circumstances of COVID-19 as being an important consideration when working with families to provide MI-counseling remotely. Although connectivity was a challenge in the beginning, HEs found that online videocalls were superior to phone calls for remote MI-counseling. Online videocalls provided a more focused, formal, and intentional MI-counseling session that provided participants with better opportunity to reflect on their own values and beliefs to create meaningful health behavior change goals compared to telephone-based MI-counseling. Further, online videocalls provided a better opportunity for building rapport and trust between participant and HE, thereby creating a space for meaningful reflection and counseling. Based on these findings, key recommendations for transitioning or using remote MI-counseling among families were identified (Table 1).

Overall, HEs found that online videocalls provided for a better MI-counseling visit compared to a phone visit. For this study, HEs used MS-Teams because it is the collaboration tool approved for use by the university institution, but any online video platform (e.g. Zoom, Skype) would likely work well. Although not quite as good as in-person visits, HEs were able to see non-verbal communication with online videocalls which was not possible during a phone visit. Although limited by the camera view, live video provided HEs non-verbal insight into the family’s reactions and feelings toward their health behavior change goals. MI-counseling via phone did achieve the purpose of the visit, but it did not seem as “intentional” compared to an online videocall. These findings are supported with previous research by Afafjes-van, et al. (2020) where they surveyed 141 therapists who transitioned to online video therapy during COVID-19. Authors found that 41% of clinicians reported feeling less connected with their patients through remote services compared to in-person counseling, and 37% had difficulty reading the patients emotions [21]. However, a systematic review by Irvine et al., (2020) revealed that there are few differences in interactionality between therapy sessions conducted over the phone versus face-to-face sessions, though phone sessions were significantly shorter and therefore potentially less fruitful [22]. Our finding that online videocalls are preferable to phone visits from the provider perspective may provide some guidance to clinicians who are unsure of the best method to build rapport with clients while delivering counseling remotely.

HEs found it helpful to provide families information about the virtual platform used for online videocalls. Providing families information about how to use MS-Teams without downloading the program and assuring them it would not be recorded was helpful in increasing their comfort level with the virtual platform and their willingness to use the virtual platform over the phone. A study by Madden et al. (2020) supports these findings. The authors examined advantages, barriers, and provider attitudes of the transition to telehealth for prenatal care [14]. The results revealed that patients felt anxiety around using technology, and 78% of care providers reported that patient difficulty in using and accessing technology was most common barrier to the delivery of telehealthcare [14]. These findings reinforce our own results and emphasize the importance of providing clients with education and support for use of virtual platforms.

HEs recognized that the transition to remote delivery of MI was complicated by the COVID-19 pandemic, as families worked to navigate the effects of physical distancing and stay-at-home directives on their families. Liu and Doan (2020) describe COVID-19 as a chronic stressor that could potentially result in long-term health concerns [23]. In a study that examined the individual and dyadic experiences of families with children aged 2–14 during stay-at-home orders in Italy, it was found that families who reported more difficulty during quarantine had higher levels of stress [24]. Specifically, parents who reported difficulty with managing additional tasks associated with the quarantine (e.g. supporting children’s learning) with their pre-pandemic tasks were more stressed [24]. Results of this study demonstrated that additional stress negatively influenced children’s well-being [24]. These findings build on previous research that found quarantine can lead to psychological distress and poorer wellbeing among adults [24]. These research findings highlight the importance of continued MI-counseling for health behavior change among families amid a pandemic that includes stay-at-home directives. Families were more willing to engage in remote delivery of MI-counseling when HEs recognized that the lived experiences of COVID-19 differed for each family, and through verbal and written communication expressed that understanding with families. HEs put this recognition into action by prioritizing flexibility, support, and understanding with families. HEs verbally and through their emails acknowledged the family’s struggle and remained adaptable to the family’s timeline and preferences. These strategies may be useful for other health practitioners struggling to work remotely with families during a time of stress and uncertainty.

Finally, HEs agreed that transitioning to a remote platform was an exceptional learning experience and personally rewarding. These findings are consistent with a study by Smith, et al. (2020) who found that transitioning to remote healthcare delivery was satisfying for their service providers [25]. HEs were able to develop skills in building rapport in an online setting with families and developed skills in virtual platform use in order to troubleshoot problems with families as they setup and began to use the virtual platform. HEs also developed MI-counseling skills that were specific to remote counselling. This is an important skill as research has shown that clinicians perceive MI-counseling to be both rewarding and useful [26–28], and developing skills for remote MI-Counseling may be critical as remote healthcare services are likely to continue post-COVID-19 [18].

Although the current study provides valuable insights into the experience of HEs during the transition to remote delivery of MI-counseling in a home-based obesity prevention intervention, there are limitations that should be considered when interpreting results. Specifically, this study took place in Guelph, Ontario, Canada and thus all families were exposed to Public Health directives and bylaws that impacted this specific community. Therefore, the experiences of FGHS families and HEs when working with these families are not necessarily generalizable to the broader Canadian or world population. Further, there was a relatively small sample size of families who transitioned to remote visits, and therefore qualitative findings may not be suitable to generalize to the broader population.

4.2. Conclusion

Our study found that remote delivery of MI counselling was well accepted by families of young children. Specific considerations regarding rapport building including more frequent check-ins to demonstrate commitment to the family’s success, and effective communication strategies including asking more probing questions that elicit complex reflection can support successful transition of MI-counseling from in-person to remote delivery among families with young children. Healthcare providers should consider these key strategies identified in this paper when transitioning to remote delivery of service.
4.3. Practice implications

Our practice recommendations such as using an online video platform over phone counseling where possible to elicit better focus and commitment based on key learnings from HEs during the transition from in-person to remote MI-counseling can support healthcare professionals working to transition MI-counseling services to remote delivery.

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CRediT authorship contribution statement

Lisa Tang: Writing - original draft, Formal analysis, Writing - review & editing. Julia Broad: Writing - original draft. Rebecca Lewis: Writing - original draft. David W.L. Ma: Project administration, Supervision. Jess Haines: Project administration, Funding acquisition, Conceptualization, Writing - review & editing.

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