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Fidelity and maintenance of motivational interviewing skills in diabetes prevention program coaches: a pilot study

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ABSTRACT

Motivational interviewing (MI) is an effective counseling style for changing lifestyle behaviors. The purpose of this study was to pilot a brief MI workshop on non-healthcare practitioners to deliver a community-based diabetes prevention program. Participants (n = 5) attended a two-day MI workshop, shadowed an expert coach delivering the diabetes prevention program, and finally, were shadowed by the expert coach and received feedback. Participants pre- and post-workshop MI skills were assessed, participants' satisfaction with the workshop was recorded, and their delivery of the program using MI was assessed using a random selection of participants' audio recordings of interactions with client. The primary outcome was whether coaches were able to maintain a level of client-centered MI skills for the six months post-training, as assessed by the Motivational Interviewing Competency Assessment (MICA). One session with one client per month for coaches' first six months post-training was coded. Counseling scores were generated using the MICA. In general, coaches showed improvements from pre- to post-workshop, were satisfied with the training, and were using client-centered care over the six-month study period. The majority (80%) of all sessions were client-centered for all the MICA categories. This pilot study offers preliminary evidence that non-healthcare practitioners attending a brief MI training were able to deliver client-centered coaching in a community-based diabetes prevention program up to six months post-training without the use of any booster training sessions. This suggests that the training used within this study may be sufficient to train future non-healthcare practitioner diabetes prevention program coaches in the community.

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Background

Over 6 million Canadians currently live with prediabetes (Diabetes Canada 2019). Prediabetes is characterized by elevated fasting glucose and/or impaired glucose tolerance that increases the risk for developing type 2 diabetes (T2D)(Ák et al. 2012). Preventing the progression of prediabetes to T2D can reduce morbidity, mortality, and burden on the healthcare system. Individuals with prediabetes can reduce their risk by increasing physical

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activity and adhering to a healthy diet, as shown in landmark intervention trials (Knowler, Barrett-Connor, and Fowler 2002; Lindström et al. 2003; Pan et al. 1997). However, these interventions were highly controlled, very costly to administer, and time-intensive for both participants and the highly qualified professionals (Hernan et al. 2003). Such intensive interventions are not sustainable in community settings.

Delivery of T2D prevention programs by staff without extensive training or a high-level degree of education may make these community programs more affordable and sustainable. Programs delivered using a client-centered approach led to better health outcomes and higher levels of client satisfaction than using directive and prescriptive coaching styles (Stewart et al. 2013). A client-centered approach 'embraces a philosophy of respect for, and partnership with, people receiving services' (Law, Baptiste, and Mills 1995). Motivational interviewing (MI) is a client-centered approach that has been used in several health behavior change programs (Chen et al. 2012; Chlebowy et al. 2015; Phillips and Guarnaccia 2017; Smith et al. 1997; Thepwongsa, Muthukumar, and Kessomboon 2017; West et al. 2007; Clark et al. 2004; Greaves et al. 2008). MI is a 'collaborative conversation style for strengthening a person's own motivation and commitment to change' (Miller and Rollnick 2013). Both client-centered and MI approaches encourage coaches to use open-ended questions, affirmations, reflections, and summaries (more on this to follow), and focus on partnership, empathy, and client autonomy; however, one of the major differences between client-centered care and MI is that the former is not consciously goal-directed and as evocative as MI (Csillik 2013; Miller and Moyers 2006).

MI has been used effectively in a wide spectrum of health behavior change research, including helping individuals with prediabetes and T2D control their glucose levels (Chen et al. 2012; Chlebowy et al. 2015; Phillips and Guarnaccia 2017; Smith et al. 1997; Thepwongsa, Muthukumar, and Kessomboon 2017; West et al. 2007), adhere to medication (Palacio et al. 2016), increase physical activity (Chlebowy et al. 2015; Clark et al. 2004; Phillips and Guarnaccia 2017; Thepwongsa, Muthukumar, and Kessomboon 2017), reduce body mass index (BMI) and waist circumference (Chlebowy et al. 2015; Clark et al. 2004; Thepwongsa, Muthukumar, and Kessomboon 2017; West et al. 2007), and engage in dietary changes (Clark et al. 2004). In a randomized controlled trial, MI delivered by non-healthcare practitioner staff resulted in a significantly greater number of participants reaching the target 5% weight reduction when compared to those who only received an information pack (Greaves et al. 2008). These findings are promising for communities and organizations that are financially constrained, as it suggests that MI can be learned and effectively delivered by individuals without extensive medical or clinical counseling backgrounds.

Briefly, MI centers around the quality of the counselor-client interaction (Morton et al. 2015) and broadly includes four processes: engaging, focusing, evoking, and planning; and four communication skills: open-ended questions, affirmations, reflections, and summaries. High-quality MI generally consists of more reflections than questions. These communication skills can elicit change talk, that is a client's arguments for making change, and to weaken client's arguments against making change, called sustain talk (Miller and Rollnick 2013). In addition, MI also includes a relational aspect – the spirit of MI. The spirit of MI refers to building a strong counselor-client relationship using four processes: 1) compassion and empathy, 2) acceptance, 3) partnership, and 4) evocation.

It is necessary to ensure that the training that health coaches receive is sufficient so that program participants are receiving the program as intended. Measuring treatment fidelity allows for confidence that any observed changes from an intervention were due

to the intended delivery of said intervention. Unfortunately, lack of monitoring of treatment fidelity is common in the MI literature, specifically in health behavior change (Frost et al. 2018). The assessment of treatment fidelity allows interventionists to better understand the elements for an intervention's success or failure. Frost et al. (2018) called for higher quality research to deal with issues relating to monitoring and reporting fidelity of MI interventions. Without the assessment and reporting of fidelity of MI interventions, readers cannot be confident that MI is truly being used as intended in interventions.

The fidelity of training is also necessary to assess to ensure those that are expected to deliver an intervention in an MI-informed approach received appropriate training (Bellg et al. 2004). Two-day MI workshops that combine didactic and experiential methods repeatedly prove effective in improving counselors' MI skills (Baer et al. 2004; Miller and Mount 2001). Furthermore, the addition of supervision and feedback following two-day MI workshops demonstrates additive benefit compared to a two-day workshop alone (Britt and Blampied 2010; Miller et al. 2004).

Although MI workshops have been shown to be effective, the maintenance of high-fidelity MI delivery has been questioned. It appears that important MI skills decline between two- and four-months post-workshop (Baer et al. 2004; Miller and Mount 2001). However, providing newly trained MI counselors with post-workshop enhancements, such as feedback and supervision appears to attenuate the loss of skills post-training (Schwalbe, Oh, and Zweben 2014). Review of previous literature does not give a conclusive overview of which skills decline, nor the timeline of when the skills begin to decline. This study aimed to address these important gaps in the literature by pilot testing a two-day MI workshop with post-workshop training enhancements to examine the skill acquisition and maintenance of newly trained coaches who delivered a diabetes prevention program called Small Steps for Big Changes (SSBC).

SSBC is a community-based program for individuals with prediabetes. The primary aim of SSBC is to help empower individuals at risk of developing T2D to make long-lasting exercise and dietary changes to decrease their risk for T2D. SSBC clients attended six one-on-one sessions with a trained coach over three weeks. Each session, the coach engaged in discussion with the client for approximately 40 minutes using MI. Each month, coaches started the three-week program with new clients.

The objective of the present pilot study was to examine the skills of newly trained coaches delivering SSBC up to six months after their initial three-phase MI-training to determine whether the training was sufficient at getting coaches to deliver SSBC at a level of client-centered care. It is imperative that this training is pilot tested to know if it is sufficient to train future SSBC coaches who are non-healthcare practitioners.

Methods

Study design

Due to the nature of SSBC being a community-based diabetes prevention program, this pilot study used a non-randomized design, and all coaches received the same MI training.

All SSBC sessions between clients and coaches were audio-recorded. One session with a client per month for each coach was randomly selected to be coded for six months post-training.

Participants and setting

SSBC was delivered in a fitness facility in Kelowna, British Columbia, Canada. All participants were recruited through word of mouth, the university job board, and advertising to undergraduate students about the opportunity through class visits and emails offering practicum and research opportunities. Eligible participants were naïve to MI and agreed to be coaches. No specific educational background was required to participate in this study.

MI training for SSBC coaches

The training for new SSBC coaches was designed by the director of SSBC, a clinical psychologist, and a MINT-certified trainer. The training instructor was the clinical psychologist, who has training in MI.

The three phase MI-informed training protocol for new SSBC coaches included a two-day (14-hour) MI workshop (phase one) in which they learned the skills and processes needed to deliver the SSBC content using MI. The workshop used a mixture of didactic and experiential learning, covering topics such as the spirit of MI, the four processes of MI, and the four MI micro-skills. Coaches also learned how to listen to and respond to change talk, ambivalence, and sustain talk. Of the 14-hour workshop, 12.5 hours were dedicated to teaching MI and 1.5 hours were dedicated to SSBC logistics. Following the workshop, coaches shadowed the workshop instructor in delivering SSBC (7 hours; phase two), with the instructor asking the coach if they had questions after each of the six sessions. Finally, phase three of the training consisted of the instructor shadowing the coach and providing feedback to ensure their understanding and comfort in delivering SSBC using MI (7.5 hours; phase three). In the third phase, after each of the six sessions, the instructor asked coaches to rate how they thought the session went on a scale from one to ten, asked the coach what they thought they did well and where they felt they could improve, and then provided feedback on the coaches' micro-skills, the spirit of MI, and responding to sustain and change talk. Following this three-phase MI training, coaches worked independently with clients.

Measures

Demographics. Participants self-reported their age, gender, ethnicity, highest education level completed, area of degree completed, years of counseling experience, and if they had ever received MI training.

Helpful Responses Questionnaire (HRQ). The HRQ is a tool that was developed to help assess therapeutic empathy and is now commonly used to examine counselling skills. In this study, participants read six health-related vignettes with a hypothesized statement from a client (1–3 sentences in length) and participants were prompted to write down one to two sentences with how they would reply to the client next. Each coach completed

the HRQ before the two-day workshop and immediately following the training. For this study, the HRQ scoring was adapted to assess MI-specific skills that include: open-ended questions, reflections, affirmations, closed questions, and MI non-adherent strategies (e.g. persuasion, giving advice without permission). The decision to use an adapted scoring system for the HRQ was made to reflect the skills that the coach training focussed on. The first author scored all of the coaches' responses to the vignettes by counting the MI-specific skills previously listed.

Motivational Interviewing Competency Assessment (MICA). The MICA (Jackson et al. 2015) is a coding tool developed to evaluate a practitioner's MI competency from a quality assurance perspective. Since SSBC is a community-based program, tools were carefully selected for this study that could be continually used to assess coaches' skills and provide feedback beyond the context of this study. The MICA codes MI micro-skills, strategies, and intentions. The two micro-skills that are counted are the number of reflections and questions given by the coach. The MICA codes the ratio of reflections to questions (R:Q) ≥ 2:1 as MI-competent. The MICA also codes two MI strategies: 1) strategically responding to change and 2) strategically responding to sustain talk; and five MI intentions: supporting autonomy and activation, guiding, expressing empathy, partnering, and evoking. Each strategy and intention are scored out of five, with a score of three is considered 'client-centered' (see Appendix 1 for full scoring rubric). The MICA permits half scores. In the case of sustain talk or change talk being absent from the coded session, the MICA instructs coders to give a score of 3/5. A total MICA score is generated by summing the average score of the two MI strategies with the average of the five MI intentions.

Satisfaction with the two-day workshop. A 15-item questionnaire was developed for the purpose of this study to evaluate coaches' satisfaction with the workshop. The response items ranged on a 5-point Likert scale from *Totally Disagree* (1) to *Totally Agree* (5). The satisfaction questionnaire was administered following the two-day workshop, and focussed on overall satisfaction of the workshop, satisfaction with the objectives of the workshop, satisfaction with the methods used throughout the workshop, and perceived usefulness of the training.

MICA coding and analysis of SSBC

One session with one client per month for coaches' first six months post-training was coded. The first two rounds of coded sessions were double-coded to ensure that coders were consistent with scores. Subsequent rounds of coding consisted of a smaller sample of sessions double-coded each month to prevent coder drift. Coders listened to 20-minute segments of each selected coach-client session audio recording. The 20-minute segments that were coded comprised of the first 15 minutes of each session and the final 5 minutes of each session, as the content covered during these portions was thought to be the most consistent among all coach-client pairs (i.e. reviewing goals from previous session, introducing new information, and wrapping up the session). As coders listened to the audio recordings, they coded statements as questions, reflections, or no code. After listening to the 20-minute segment, coders counted questions and reflections, and scored the quality of each MI intention and strategy out of five. Any disagreements between

coders (i.e. giving a MICA score that was not within 1 point of what the other coder gave), were resolved through discussion between the two coders.

MICA scores were reported as descriptive statistics, with means, standard deviations, and ranges of scores reported. Since results were reported as descriptive statistics and this was a pilot study, a sample size calculation was not required. Overall, if total MICA scores showed that coaches were delivering SSBC at a level of client-centered care or better, the pilot study would be determined to be a success.

Results

Participants

Five participants were included in the current pilot study. The coaches were one undergraduate- and four graduate-level students. Areas of study included psychology and kinesiology/exercise sciences. The mean age of coaches was 24.4 years old (SD = 1.51), and four of the five coaches identified as women.

Coaches' satisfaction with the two-day workshop

Overall, the coaches rated the two-day workshop as highly satisfactory, with a mean score of 4.7 (SD = 0.41) out of 5.0 (*Totally Agree*) to questions about their satisfaction with the format and perceived increased understanding of MI. The objectives and usefulness of the two-day workshop was rated out of 5, with higher scores indicating increased satisfaction: $M = 4.90$ (SD = 0.16) for satisfaction with the objectives of the workshop; $M = 4.81$ (SD = 0.15) for methods used throughout the workshop; and $M = 5.00$ (SD = 0.00) for perceived usefulness of the training.

HRQ

Pre- to post-training HRQ scores showed small improvements in MI-adherent responses (i.e. reflections) and a decrease in MI non-adherent responses (i.e. closed questions and persuasion), as well as a higher R:Q. All coaches had either the same number or more reflections, fewer or the same number of closed questions, and fewer instances of MI non-adherent responses from pre- to post-training (see Table 1). Three of the five coaches had improved R:Q's from pre- to post-training, and the two coaches that saw decreases in their R:Q from pre- to post-training increased both their reflections and open-ended questions. While a decrease in R:Q is not what one hopes to see after coaches' complete MI training, the increase in open-ended questions and reflections is encouraging.

MICA coding

Of the 36 sessions coded, 8 were double-coded by both coders (KC and EI). Coder agreement was calculated using a two-way mixed effects model and was found to be good (ICC = 0.78).

Table 1. HRQ scores of SSBC coaches pre- to post-training.

Coach	Pre-/post-training	Open-endedquestions	Affirmations	Reflections	Closedquestions	MINA	R:Q
1	Pre	5	0	6	0	0	1.2:1
	Post	3	1	6	0	0	2.0:1
2	Pre	6	0	5	5	1	0.8:1
	Post	6	1	5	1	0	2.0:1
3	Pre	2	0	4	5	0	2.0:1
	Post	5	0	7	0	0	1.4:1
4	Pre	6	0	4	2	0	0.7:1
	Post	3	0	4	1	0	1.3:1
5	Pre	1	0	4	0	0	4.0:1
	Post	3	0	5	0	0	1.7:1

Note. MINA is MI non-adherent responses, R:Q is the reflections to open-ended questions ratio.

MICA scores

The R:Q and MICA scores for each strategy and intention, and the total MICA score for each of the six months post-training are provided in Table 2 and Figure 1. Generally, coaches were operating at a level of client-centered care for the six months following training. No major increases or decreases in any of the strategies or intentions were observed during the study period. Sustain talk was absent from most coded sessions and was therefore assigned a score of 3/5, which explains the lack of variability between coaches' scores.

Table 2. MICA scores of SSBC coaches each month post-training.

Coach	Month post-training	R:Q	ST	CT	Autonomy	Guiding	Empathy	Partnership	Evoking	Total
1	1	0.81:1	3	3.25	3	2.5	2.75	3.25	3	6.03
	2	0.43:1	3	3.25	3.25	2	3	3.25	3.25	6.08
	3	0.77:1	3	3	3.5	3.5	3	3.5	2.5	6.2
	4	0.36:1	3	3	3	3	3	3.5	3	6.1
	5	0.44:1	3	3	3	2.5	3	3	3	5.9
	6	1.25:1	3.5	3	3	2	2.5	3	2.5	5.85
2	1	0.23:1	3	3	3	3	3	3.5	3	6.1
	2	0.57:1	3.25	3.5	3.75	3.75	3.5	3.75	3.5	7.03
	3	0.65:1	3.5	3	3.5	3.5	3	3.5	3.5	6.65
	4	0.72:1	3	4	4	4	3.5	4	4	7.4
	5	1.09:1	3	3.5	3.5	3.5	3.5	4	3	6.75
	6	0.86:1	3	3	3	3	3.5	2.5	3	6
3	1	0.88:1	3	3.25	3.75	3.5	3.25	3.75	3.5	6.68
	2	0.62:1	3	3.5	3	3.5	3	3	3	6.35
	3	3.00:1	3	3	3	3.5	3.5	3.5	3.5	6.4
	4	1.10:1	3	3	3	3	3.5	3.5	3	6.2
	5	0.85:1	3	3.25	3.75	3.75	3.5	3.75	3.5	6.85
	6	0.88:1	3	3.5	4	3.5	3.5	3.5	3.5	6.85
4	1	0.87:1	3	3.75	4	4	3	3	3.75	6.93
	2	1.00:1	3	3.5	3.5	4	3.5	4	3.5	6.95
	3	3.00:1	3	3.5	4	3.5	3.5	4	3.5	6.95
	4	1.39:1	3.25	4	4	4	3.5	4	3.75	7.48
	5	0.88:1	3	3.5	4	4	4	3.5	3.5	7.05
	6	0.41:1	3	3	3.5	3	3.5	3.5	3.5	6.4
5	1	0.21:1	3	3	3.5	3.5	3	3.5	3.5	6.4
	2	1.40:1	3	3	3.5	4	3.5	4	3.5	6.7
	3	0.05:1	3	3	2	2.5	2.5	2.5	2	5.3
	4	0.50:1	3	3	2.5	3	2.5	2.5	3	5.7
	5	1.00:1	3	3	2.5	3.5	2.5	2.5	2.5	5.7
	6	0.45:1	3	3	3	3.5	3	3	2.5	6

Note. R:Q is the reflections to questions ratio; ST is sustain talk, and CT is change talk.

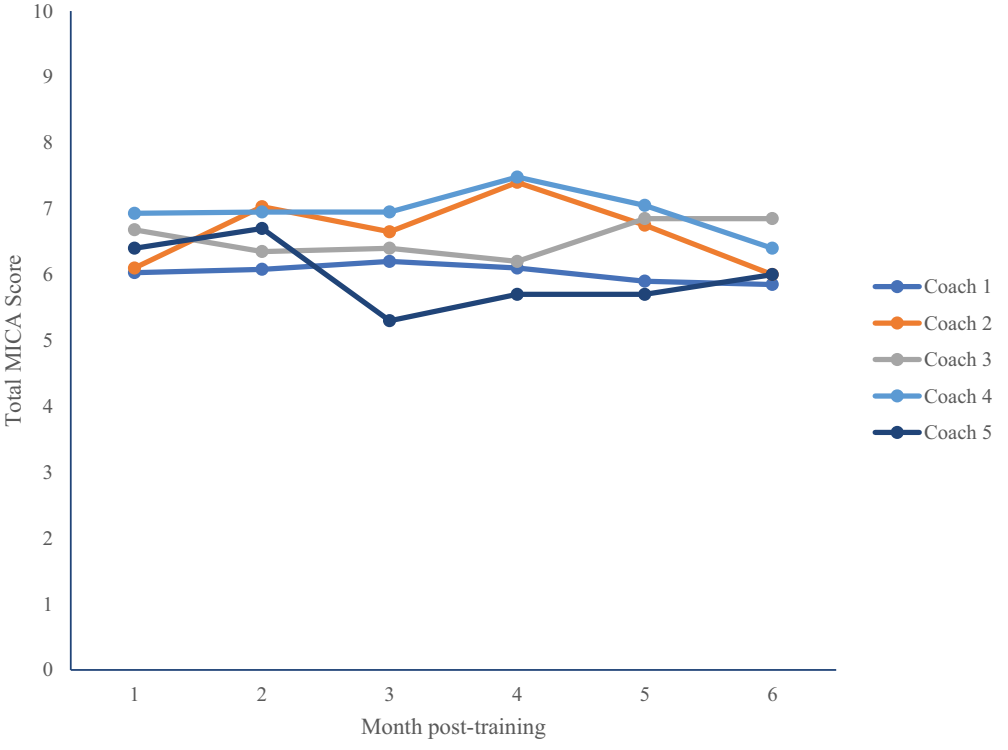


Figure 1. Coaches' total MICA scores post-training.

Discussion

Treatment fidelity is an often overlooked yet crucial aspect of pilot research. Understanding the degree to which an intervention is delivered as intended allows for accurate interpretation of results, appropriate conclusions to be drawn, and replicability (Bellg et al. 2004). The objective of this pilot study was to monitor the MI skills of newly trained SSBC coaches for the six months following the three-phase MI-training to determine if they were able to deliver SSBC at a level of client-centered care or better. Immediately post-MI training, all coaches were operating at a level of client-centered care, and this level was generally maintained for the next six months. The coaches delivered the SSBC intervention using a client-centered approach. No consistent decline or improvements in MI strategies or intentions were seen among the coaches. Rather, the general trend seemed to be that at some point in the middle months (i.e. 2–5), coaches had greater variability in their MICA strategies and intention scores, and then their scores converged around month six. Coaches did not reach an R:Q of 2:1, which was expected based on their naivety to MI and counseling. Within the context of SSBC, it is more important that coaches are delivering sessions using client-centered care and the spirit of MI than meeting a specific R:Q. These findings suggest that the coach training was successful in having coaches maintain client-centered skills for six months post-training. This leads to promising implications for the sustainability of delivering SSBC in the community.

Even though coaches were operating at a level one step below that of 'MI competence', as defined by the MICA, providing client-centered care has been emphasized as an important clinician skill. Client-centered care closely aligns with many of the core ideas of MI such as compassion, empathy, and active listening, all of which have been shown to enhance positive outcomes associated with care (Halstead 2001; Thorne et al. 2004). In contrast, Jackson et al. (2015) define MI competence as operating at a level that is intentionally and purposefully focused on MI intentions and skills, which differs slightly from their definition of client-centered care: operating at a level that 'naturally, intentionally, or unintentionally hits elements of MI'. Because of the novelty of the measure, the authors are not aware of any studies that have reported the frequency in which novice coaches reach either of these categories, or what effect either category has on client outcomes. The SSBC coaches reached and maintained a level of client-centered care that may be effective at helping individuals make health behavior changes.

Contrary to previous literature demonstrating a decline in MI skills over time (Baer et al. 2004; Miller and Mount 2001), there was no consistent decline observed among SSBC coaches included in this pilot study. While coaches in this study only reached a level of client-centered care, this observed maintenance of skills may be due to several factors. First, phase two and three of the training (i.e. shadowing and reverse-shadowing) may have improved coaches' understanding of these skills and processes allowing them to maintain skills for longer periods of time, as also demonstrated in previous work (Schwalbe, Oh, and Zweben 2014). Second, the five coaches that participated in this study were all involved in other areas of research within SSBC. Specifically, the coaches were undergraduate and graduate students in the last author's research group, and were all trained to be SSBC coaches within the first four months of joining the lab. Perhaps these coaches were more invested in their clients' outcomes due to the implications on their own research projects (i.e. adherence to physical activity, evaluation of SSBC) than coaches in other studies. As well, these coaches self-selected to be SSBC coaches that would go through MI training. Individuals who choose to take part in the MI training might be interested in this counseling style or see it as aligning with their own personality. Third, it is possible that by assessing the coaches' audio recordings, the coaches were more cognisant of the skills and processes they were being judged on and were therefore more likely to use those skills learned in the MI-workshop. It might also be the case that 'client-centered' communication might be easier to maintain when compared to 'MI-competent'. It is possible that no drift in skills was observed because none of the SSBC coaches started at a level of client-centered immediately post-training.

The rigorous measurement of the fidelity of MI skills across time allows for the conclusion that the SSBC program was delivered using a client-centered level coaching. Fidelity assessment is crucial for advancing the science of health coaching. Researchers demonstrating the fidelity of MI being delivered as intended can begin to understand what level of MI, and the specific MI skills or intentions that are most important for guiding individuals to make health behavior changes. The assessment of fidelity advances the evidence of client-centered coaching as an effective communication style for delivering behavior change interventions.

The findings from this study show that the SSBC coaches delivered an intervention using MI that was considered client-centered after the brief training. This study adds to the literature by demonstrating that this three-phase MI training style is effective at

teaching coaches a client-centered style of coaching that can be maintained for at least six months. None of the coaches had previous counseling experience and were all university students, and yet they were able to learn a client-centered delivery style and operate at an effective level of counseling after a two-day workshop plus shadowing time. Lastly, the MICA tool to assess fidelity has minimal burden on researcher's compared to other options of using more time-intensive coding tools (i.e. MISC (Miller et al. 2008), MITI (Moyers, Manuel, and Ernst 2014)), which is more sustainable to continue monitoring MI skills of future SSBC coaches over time.

Despite these strengths, this study is not without limitations. First, the lack of a control group limits the conclusions that can be drawn on which aspects of the training led to the maintenance of skills (the workshop, shadowing, or reverse-shadowing). The sample of coaches is also a limitation. This sample of students might not generalize to other individuals who would be working within a diabetes prevention program, such as diabetes educators or dietitians. The sample of coaches in this study were all members of the research team delivering SSBC, which limits the generalizability of these findings to coaches who are not members of the research team, and therefore may have less motivation to deliver SSBC as intended. An additional limitation is that while the use of the HRQ is useful in showing improvements from pre- to post-training, the HRQ cannot assess client-centered care, which makes it difficult to know whether coaches would have delivered client-centered care prior to being trained. Finally, there is the possibility that coaches might have delivered a higher level of MI because they knew they were being recorded. This potential limitation was managed through the research team asking coaches to record all sessions with their clients, and therefore, coaches did not know which of their sessions would be chosen for fidelity checks.

Future research should focus on aspects of the post-workshop enhancements to determine what is driving the maintenance of skills. Further research is needed to examine if and how skills can improve from client-centered to MI-competent.

Conclusion

This study provides evidence that the brief MI training used within the study was sufficient in effectively teaching SSBC coaches to deliver client-centered care. Based on the results from this study, the training can continue without the addition of booster sessions or additional training components for new SSBC coaches. This knowledge is important as client-centered care has been associated with improvements in health outcomes (Black 2005; Sumsion 2005; Townsend and Polatajko 2013), and now future work can examine the true impact of SSBC on client outcomes associated with reducing the risk of developing T2D.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Ethics approval and consent to participate

Ethical approval was obtained from the University of British Columbia Clinical Research Ethics Board (H16–02028). Before participating in the training, participants provided written consent to participate in the study and have their sessions with clients audio-recorded. Small Steps for Big Changes clients also consented to having their sessions audio-recorded.

Availability of data and materials

The datasets analysed during the current study are not publicly available because the dataset contains audio recordings and transcripts of coach-client interactions in which identifying and personal information is provided. Blinded transcripts could be made available from the corresponding author on reasonable request.

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