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Original Research

Continuing Education To Go: Capacity Building in Psychotherapies for Front-Line Mental Health Workers in Underserviced Communities

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Received September 2012, revised, and accepted November 2012. **Objective:** To address the gaps between need and access, and between treatment guidelines and their implementation for mental illness, through capacity building of front-line health workers.

Methods: Following a learning needs assessment, work-based continuing education courses in evidence-supported psychotherapies were developed for front-line workers in underserviced community settings. The 5-hour courses on the fundamentals of cognitivebehavioural therapy, interpersonal psychotherapy, motivational interviewing, and dialectical behaviour therapy each included videotaped captioned simulations, interactive lesson plans, and clinical practice behaviour reminders. Two courses, sequentially offered in 7 underserviced settings, were subjected to a mixed methods evaluation. Ninety-three nonmedical front-line workers enrolled in the program. Repeated measures analysis of variance was used to assess pre- and postintervention changes in knowledge and self-efficacy. Qualitative data from 5 semistructured focus groups with 25 participants were also analyzed.

Results: Significant pre- and postintervention changes in knowledge (P < 0.001) were found in course completers. Counselling self-efficacy improved in participants who took the first course offered (P = 0.001). Dropouts were much less frequent in peer-led, small-group learning than in a self-directed format. Qualitative analysis revealed improved confidence, morale, self-reported practice behaviour changes, and increased comfort in working with difficult clients.

Conclusion: This work-based, multimodal, interactive, interprofessional curriculum for knowledge translation of psychotherapeutic techniques is feasible and helpful. A peer-led group format is preferred over self-directed learning. Its application can build capacity of front-line health workers in helping patients who suffer from common mental disorders.

Formation continue à pour emporter : la création de capacité en matière de psychothérapies pour les travailleurs de première ligne en santé mentale des communautés sous-desservies

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Objectif : Aborder l'écart entre les besoins et l'accès, et entre les lignes directrices de traitement et leur mise en œuvre pour la maladie mentale, par la création de capacité des travailleurs de première ligne de la santé.

Méthodes : À la suite d'une évaluation des besoins d'apprentissage, des cours de formation continue en milieu de travail sur les psychothérapies fondées sur des données probantes ont été mis au point à l'intention des travailleurs de première ligne dans des milieux communautaires sous-desservis. Les cours de 5 heures sur les fondements de la thérapie cognitivo-comportementale, la psychothérapie interpersonnelle, la technique d'entrevue motivationnelle, et la thérapie comportementale dialectique comportaient tous des simulations enregistrées sur vidéo, des plans de leçon interactifs, et des rappels de comportement en pratique clinique. Deux cours, offerts en ordre séquentiel dans 7 milieux sous-desservis, ont été soumis à une évaluation de méthodes mixtes. Quatre-vingt-treize travailleurs de première ligne non médicaux se sont inscrits au programme. Une analyse de variance des mesures répétées a servi à évaluer les changements des connaissances et de l'auto-efficacité avant et après l'intervention. Les données qualitatives de 5 groupes de discussion semi-structurés de 25 participants ont été analysées.

Résultats : Des changements significatifs des connaissances (P < 0,001) avant et après l'intervention ont été observés chez ceux qui ont terminé le cours. L'auto-efficacité en counseling s'est améliorée chez les participants qui ont suivi le premier cours offert (P = 0,001). Les décrocheurs étaient beaucoup moins fréquents dans les petits groupes d'apprentissage menés par les pairs que dans le format autodirigé. L'analyse qualitative a révélé une confiance améliorée, un meilleur moral, des changements du comportement dans la pratique auto-déclaré, et une plus grande assurance de travailler avec des clients difficiles.

Conclusion : Ce programme d'études en milieu de travail, multimodal, interactif, interprofessionnel pour la transmission des connaissances en techniques psychothérapeutiques est faisable et utile. Le format du groupe mené par les pairs est préféré à l'apprentissage autodirigé. Son application peut renforcer la capacité des travailleurs de la santé de première ligne d'aider les patients qui souffrent de troubles mentaux communs.

Mental illness is highly prevalent and disabling, compared with other medical conditions.^{1,2} Nevertheless, there are numerous challenges around treatment access,³ especially in rural settings.⁴ Intervention at community-level mental health clinics can help address the gaps between need and access, and between guidelines and implementation.

Abbreviations

ANOVA	analysis of variance
CBT	cognitive-behavioural therapy
CD	concurrent disorder
CD-MI	MI for CDs
CE	continuing education
CMHA	Canadian Mental Health Association
COSE	Counselling Self-Estimate Inventory
DBT	dialectical behaviour therapy
IPT	interpersonal psychotherapy
KQ	Knowledge Questionnaire
MI	motivational interviewing
RIPLS	Readiness for Interprofessional Learning Scale

In rural underserviced settings, health care providers face many professional challenges, including insufficient training and skills in managing mental illnesses, heavy caseloads, lack of specialist services for referral, and limited time.5 CE in evidence-based psychotherapies is an underused strategy for addressing these gaps and challenges.⁶ CE has been demonstrated to enhance the effectiveness of community health professionals who serve patients with mental illness.7 CE can also reduce professional isolation and increase the recruitment and retention of rural practitioners.⁸ However, professional development opportunities and CE are difficult for rural staff to access, owing to time, expense, and geographic barriers.^{9,10} Even where CE is available, in rural or urban settings, offerings of research-based educational methods may be poorly designed.¹¹ Thus there is a need for innovative CE, with evaluation, for community-based, front-line mental health workers in rural and remote settings.

Each course in our educational CE To Go program integrated evidence-supported CE practices to teach fundamentals of evidence-based psychotherapeutic approaches of CBT,¹² IPT,¹³ MI,¹⁴ and DBT.^{15,16} The rationale for providing workbased CE in these psychotherapy modalities was 2-fold. First, numerous studies have established their efficacy,¹⁷⁻²⁰ which has led to their inclusion in consensus treatment guidelines for prevalent mental disorders, including substance abuse, depression, and anxiety.^{21–24} Second, although front-line health workers are not necessarily trained or licensed to diagnose or prescribe medication, they often provide counselling, which could be enhanced with an expanded repertoire of guideline-recommended psychotherapy techniques. Consequently, the gap between needs and care could be eased in underserviced settings where there are high demands and limited specialized mental health services by task-shifting psychotherapeutic aspects of care to front-line workers. Task-shifting has been identified as an effective strategy for improving patient outcomes in low- and middle-income countries, settings that also face shortages in specialist mental health services.^{25,26}

The goals of the CE To Go project were 3-fold:

- 1. Improve access to professional development for mental health providers in underserviced settings.
- 2. Disseminate evidence supported psychotherapeutic practices for patients with mental illness through standardized, evaluated teaching to care providers.
- 3. Foster collaboration between mental health experts and front-line community mental health services through an interprofessional knowledge exchange program.

Our paper reports on the development and mixed methods evaluation of the implementation of a multimodal, skillsbased CE program of evidence supported psychotherapeutic approaches designed for front-line mental health workers in 7 rural underserviced community mental health clinics.

Methods

The project was a collaboration between a universityaffiliated psychiatric outreach program,²⁷ a provincial psychiatric outreach program,²⁸ and a major provider of national community mental health services.²⁹ Evaluation of 2 courses of our CE To Go knowledge exchange program was approved by the Research Ethics Board of the Centre for Addiction and Mental Health. The setting and participants for this project were in the 7 CMHA branches that are located in rural underserviced northern Ontario communities.²⁹

Course Development

Learning Needs Survey

A learning needs survey was distributed to 144 front-line mental health workers and executive directors in the 7 designated community mental health clinics. Respondents were asked to rank 10 course topics according to their interest and willingness to participate, including evidence-supported psychotherapeutic approaches (for example, CBT) and specific clinical challenges (for example, CDS). Based on the survey feedback (n = 105, 74%), courses were developed in the following areas: CBT (for depression and anxiety), IPT, CD–MI, and DBT. Results from the learning needs survey revealed highest rankings for CBT, CD–MI, and IPT. To optimize feasibility, we implemented and assessed 2 of the courses, CBT and CD–MI. They both

Clinical Implications

- Mental health care providers in rural underserviced settings face challenges that can affect access and quality of care.
- Gaps between access and services, and guidelines and their implementation can be addressed through educational outreach to build capacity.
- Peer-led, interactive, small-group CE in evidencesupported psychotherapies can improve knowledge and skills of front-line mental health workers.

Limitations

- Selection bias may have influenced the results for the communities who were assigned to self-directed learning.
- The small sample size made it impossible to detect differences related to teaching effectiveness of differing small-group facilitators.
- Assessment of patient outcomes and therapist
 behaviours would enhance the evaluation framework.

ranked highly and addressed prevalent clinical problems—depression and CDs.

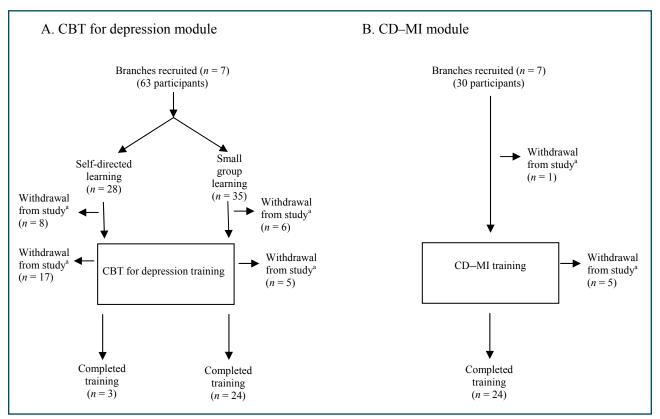
Respondents were also asked to identify a potential local course facilitator who they considered a trusted professional colleague whom you would turn to for advice on a difficult clinical matter. Opinion leaders, defined as local professionals who have earned respect and credibility from their peers, have been shown to be effective vectors in professional development.^{30,31} Each facilitator had at least 2 peer nominations and the approval of their local CMHA branch executive director. The course facilitators were not necessarily experts in what they would be asked to teach.

Design

The curricular design was multimodal, skills-oriented, and case-based. Simulations, captioned videotaped demonstrations, and interactive and reflective educational exercises were used with practice reminders and homework.^{31–35} The goals were to teach aspects of the essential theories and techniques of evidence-supported psychotherapeutic treatments for integration into the delivery of primary mental health care.

Each course was designed to take 5 hours to complete in once-weekly, hour-long sessions delivered by local course facilitators. During the first hour, learners viewed the videotaped overview of therapeutic principles. The video featured faculty who demonstrated therapeutic techniques in captioned simulations with standardized patients. The role of faculty was constrained to authorship of the videotapes, lesson plans, and course materials. In the next three 1-hour learning sessions, course facilitators led the group through a review of specific segments of the role modelling, with structured reflection, simulation exercises, and homework to consolidate learning of specific skills. The final, fifth session applied what had been taught to new case material.

Figure 1 Participant flow diagram



^a Reasons for withdrawal included high staff turnover and time constraints owing to clinical obligations.

All participants were permitted by their employer to reserve working hours for project participation.

CBT was highest ranked in the learning needs survey and, therefore, offered first. For the CBT course, each community mental health branch was assigned to either self-directed or small-group learning format (Figure 1). The 4 community mental health settings that identified a local opinion leader-facilitator were assigned to the small-group learning format, and the remaining 3 branches to the selfdirected learning format. We matched the community clinic branches according to population size and catchment areas (that is, communities with larger populations, compared with smaller communities with a large catchment area) to control for differences in service delivery when comparing the outcomes of differing learning formats. Owing to a high number of dropouts (89% and 20%, respectively) from the self-directed, compared with the small-group learning formats, we offered the second course only in the smallgroup format. Video conferencing in the small groups was used to overcome geographic barriers to participation.

Course Evaluation

The courses were evaluated with a sequential mixed methods design.^{36,37} Quantitative data measured changes in knowledge and therapeutic confidence; qualitative data

elaborated the experiences and impact of learning, including self-reported changes in clinical practice behaviours.

Data Collection

The project measured 3 quantitative outcomes: knowledge, self-efficacy, and readiness-to-learn.

The COSE includes items designed to measure counselling self-efficacy, defined as one's beliefs or judgments about one's capability to effectively counsel a client in the near future.³⁸ Studies report internal consistency ranging from 0.93 to 0.96^{38,39} and a 3-week, test–retest reliability of 0.87.³⁸ The COSE was administered at baseline and after each course. People who participated in both modules completed the COSE after each course, thus had 3 time point measurements; whereas those who did only 1 course had 2.

The KQs were administered before and after each CE course. Each KQ was created by the faculty curriculae authors (Dr Zaretsky, Dr Fefergrad, Mr Skinner, and Ms Cooper with Dr Ravitz) and included case-based questions to test clinically applied knowledge. All items were reviewed by independent faculty experts to establish face validity. The maximum attainable mean score on each of the KQs is 27.

The RIPLS has 19-items used to explore differences in students' perception and attitudes toward interprofessional

learning,⁴⁰ with a reported internal consistency of 0.90. This was administered prior to the beginning of the course.

All participants who enrolled were invited to attend qualitative semistructured focus groups (45 to 90 minutes). These groups were conducted via video conferencing by a coinvestigator (Dr Teshima), who had no contact with the participants during the learning phase of the project. Participants were asked to reflect on and evaluate the courses and their learning regarding their participation experience and its effect on their clinical work as front-line mental health care providers.

Data Analysis

Quantitative Data

Repeated measures ANOVA was used for the COSE and the KQs from pre- to postintervention, with completion of one or both courses included as a between-subjects factor. Moderated regressions were performed via hierarchical regression analyses to explore the possibility that readiness to learn (RIPLS) or premodule counselling self-efficacy (COSE) may moderate the relation between pre- and postmodule knowledge. Finally, ANOVA and Pearson chisquare significance tests were used to test for differences between people who completed the intervention and those who did not. Data were analyzed with IBM SPSS Statistics 19.0 (Armonk, NY, 2010). All effects were tested at the P <0.05 level of significance, as established a priori.

Qualitative Data

The audio-recorded and transcribed focus group discussions were coded by 4 researchers using item and thematic analysis to identify key themes in learners' experiences, and selfreported changes in knowledge, attitudes, or skills. Three researchers compared and discussed the items, prominent themes, and patterns to achieve coding consensus. The focus group participants then reviewed findings for authenticity.

Results

Quantitative Perspectives

Seven underserviced community mental health branches participated in the project. Invitations were sent to 124 mental health workers from these branches. Sixty-three participants enrolled in the CBT course and 30 in the CD–MI course (Table 1). Twenty-eight participants in the CBT course were assigned to the self-directed learning format, and 35 were assigned to the small-group learning format (Figure 1). The second course was only offered in the small-group format.

CBT for Depression

ANOVA and Pearson chi-square analyses revealed no significant differences in baseline education, age, previous training, or level of experience between people who completed the module (n = 27), those who dropped out before the module began (n = 14), and those who dropped out during the module (n = 22) on all measures (Table 2). However, a significantly larger proportion of completers

Table 1 Baseline participant demographics (n = 93)					
Demographic	CBT n = 63	CD–MI <i>n</i> = 30			
Sex, <i>n</i> (%)					
Female	54 (86)	23 (77)			
Male	9 (14)	7 (23)			
Age, mean years	42.9	40.7			
Completed a bachelor's degree, n (%)	35 (56)	22 (73)			
Training, mean years	4.2	4.6			
Previously trained in respective psychotherapy, <i>n</i> (%)	16 (25)	10 (33)			
Clinical work experience, mean years	11.1	10.2			
Professional designation, n (%)					
Community support worker	5 (8)	2 (7)			
Rehabilitation practitioner	7 (11)	7 (23)			
Crisis response worker	7 (11)	3 (10)			
Mental health worker	11 (17)	6 (20)			
Case manager	10 (16)	2 (7)			
Therapist or registered nurse	5 (8)	5 (17)			
Housing outreach worker	3 (5)	1 (3)			
Other	11 (17)	2 (7)			

of the first module were assigned to small-group learning (80%), compared to those assigned to self-directed learning (11%). Given the high attrition rate in the self-directed format, we offered all eligible participants the small-group format for the second module (CD–MI).

Repeated measures ANOVA for pre- (mean 4.47, SD 0.56) to postintervention (mean 4.85, SD 0.55) revealed a significant improvement in counselling self-efficacy as assessed by the COSE (F = 15.58, df = 1/15, P = 0.001, $\eta^2 = 0.51$), as well as for knowledge as assessed by the CBT for Depression KQ (preintervention: mean 17.43, SD 5.57; postintervention: mean 23.37, SD 3.83) (F = 27.08, df = 1/25, P < 0.001, $\eta^2 = 0.52$). No significant differences were found between people who participated in both the CBT and CD–MI courses, compared with just the CBT.

Moderated regressions were performed in order to explore the possibility that readiness to learn interprofessionally (RIPLS) or premodule counselling self-efficacy (COSE) scores may moderate the relation between pre- and postmodule CBT knowledge as measured by the knowledge questionnaire. No such moderation effects were found.

CDs and MI

Among the participants in the second course, 11 were new and 19 had participated in the first module. ANOVA and Pearson chi-square analyses revealed no significant differences in baseline education, age, previous training, or level of experience between people who completed the course (n = 24), and those who dropped out before or during the course (n = 6) on all measures (Table 2).

Table 2 Demographics of completers and noncompleters							
	CBT		CD-MI				
Demographic	Completers n = 27	Noncompleters $n = 36$	Completers n = 24	Noncompleters $n = 6$			
Age, mean years	43.4	42.5	39.7	44.7			
Completed a bachelor's degree, n (%)	19 (70)	16 (44)	17 (71)	5 (83)			
Training, mean years	4.6	3.9	4.8	3.9			
Clinical work experience, mean years	13.3	8.9	10.4	9.5			

Precourse COSE scores were quite high (mean 4.83, SD 0.79); however, a significant effect for the between-subjects variable (participation in both or 1 module) was found, such that people who participated in both the CBT and CD–MI courses had significantly lower baseline COSE scores (mean 4.38, SD 0.81) than those who only completed the CD–MI module (mean 5.18, SD 0.59) (F = 5.96, df = 1/16, P < 0.05). A significant increase was found in pre-(mean 17.25, SD 3.18) to posttest knowledge (mean 22.23, SD 2.94) as assessed by the CD–MI KQ (F = 61.18, df = 1/22, P < 0.001, $\eta^2 = 0.74$). Repeated measures ANOVA for the intervention revealed no significant improvement in counselling self-efficacy as measured by the COSE from pre- to postintervention.

Moderated regressions were performed to explore the possibility that readiness to learn (RIPLS) or premodule counselling self-efficacy (COSE) scores may moderate the relation between pre- and post-CD–MI module knowledge. No significant moderation effects were found.

Qualitative Perspectives

Five focus groups were held, with 25 participants in total after the courses were completed. Focus group participants included representatives from each of the 7 CMHA clinic branches. These data offered insights into the learners' experiences with specific examples of knowledge, skills, practice behaviour, and attitudinal changes in their work with patients. We grouped this feedback in our thematic analysis into 3 categories: their sense of themselves in their professional roles with improved confidence; their learning of techniques using model-specific psychotherapies; and their relations with, and understanding of, patients' symptoms and problems. All of this led to increased comfort in working with difficult patients.

Improved Confidence

Participants reported an improved sense of self-efficacy in their professional roles when working with challenging patients who abuse substances or are nonadherent with treatment. Confidence emerged from feeling validated in the rightness of what they knew, acquiring new skills to expand their therapeutic repertoire, the experience of being part of a team, and feeling relieved to not necessarily feign expertise. Examples are included in the following 2 quotations: There's validation that you were on track, you were doing the things that really mattered . . . that we're doing our job well and we're doing our job right and we're looking for the right things in our clients. [I]t also brought up some of our very own experiences with our caseload. It would spark a familiarity with some of the other people that I worked with . . . where I've been stuck in a certain point where it has kind of helped me move them along a little bit.

Participants commented positively on the work-based, small-group learning format, which fostered cohesion and collegiality. Spontaneous case discussions and shared discoveries facilitated clinical practice changes with an expanded therapeutic repertoire. Improved confidence was, in some cases, reinforced through positive outcomes and feedback from their patients. For example, one participant commented "It's sweet and simple and it's very useful and very powerful . . . I find with the individuals that I work with, I get a lot more outcomes, positive outcomes."

Learning Model-Specific Psychotherapy Approaches

Regarding clinical behaviour and practice changes, participants valued learning specific therapeutic techniques that improved their understanding of patients and the outcomes of sessions. Specifically, they commented on using more open-ended questions, rolling with resistance, assessing readiness to change, and timing the use of automatic thought records or use of the downward arrow technique; for example, "I really like the downward arrow . . I'm using that in my practice whereas I don't think I was before. So it's enhanced my practice."

Using MI to understand patients' struggles with ambivalence as interfering with their ability to change, health workers can better avoid countertherapeutic traps, such as being confrontational. In applying CBT principles, the linking of cognitions, feelings, and behaviours provides a clear theoretical lens to understand and address problematic behaviours or associated negative ways of thinking.⁴¹ Learning specific techniques increased the range of practice behaviours and awareness of therapeutic choices when in the throes of a challenging clinical encounter. Here are 2 examples:

The [countertherapeutic] traps for me now, they pop up as little cues—little red flags. So I kind of make a [clinical] decision at that point experiencing that moment. I wonder okay, do I go with the trap, or do I continue in what I'm doing?

It's getting you more aware because a lot of our clients are giving short answers so you've got to sort of start practicing the open-ended questions to get them to talk more.

Improved Understanding of Therapeutic Alliances With Patients

The therapeutic alliance is a strong predictor of outcomes in all forms of psychotherapy.^{42–44} Participants reported an improved sense of rapport with, and understanding of, their patients; for example, "I think it's definitely built better rapport with a lot of my clients."

Patients who do not progress despite health providers' best efforts can engender feelings of demoralization and lowered professional self-esteem in mental health providers. Although care providers need to be prepared to change their therapeutic approach in the face of therapeutic impasses, sometimes a lack of progress is related to external factors or patients' capacities and readiness to change. Psychotherapeutic approaches can foster understanding of the complex factors that underlie symptoms and behaviours, and potentially mitigate therapist frustration, hostility, or negative countertransference that can interfere with the development of an effective therapeutic alliance. Examples that illustrate this are included in the following 2 quotations:

In some way it takes the pressure off you as a worker to fix everybody. Where if you realize some people just aren't there yet, and so that's okay. Just by recognizing that, it's just okay. There's nothing wrong with me as a worker, they're just not ready to make the changes yet and it's okay.

[N]ow it's like no, you know, like I'm doing the best I can, I am providing all the skills and supports needed but this individual is, like if he or she isn't ready that's fine and, you know, let's just go with it. So now I don't internalize it as much, I'm just very much comfortable and I let them know, like okay, so sometimes I feel stuck.

Discussion

Rural mental health CE programs can improve knowledge and skills, and lead to practice changes that improve access and quality of guideline-recommended treatments.^{45,46} However, numerous barriers exist for delivery of CE in remote underserviced settings, including staff time and motivation, relevance, cost, and geographic distance.^{9,47} E-learning is an alternative that can address some of these barriers,^{48,49} but most people prefer face-to-face learning with peers when the training involves conceptual knowledge and knowledge application.⁵⁰ Further, access to the Internet is not always consistent or available in rural settings.⁵¹ The results of our educational program lend further support to using educational, capacity building programs, with task-shifting to nonmedical mental health workers^{26,52} as a potential solution to the problem of mental health care disparities that are especially salient in underserviced settings. Our findings also support the preference for workbased, small-group learning formats, compared with selfdirected formats.

In addition to improving confidence, knowledge, and skills, small-group, peer-led learning can improve cohesiveness and morale, and may empower participants by removing the dynamics that accompany learning from experts. Workplace learning, beyond the acquisition of knowledge and skills, is "nurtured by progressive problem solving and the intention to integrate conceptual understanding with practical problem solving,"^{53, p 150} with participation as members of a community of practice. Our capacity building CE program integrated CE best practices, using teaching formats that were longitudinal, multimodal, and mixed didactic and interactive interprofessional case-based approaches³⁵ in evidence-supported psychotherapeutic essentials.

Front-line health workers, with minimal training, are faced with the challenge of providing counselling to people with mental disorders (for example, depression), along with substance abuse.⁵ Psychotherapeutic treatments for these disorders, as recommended in consensus guidelines, support their broader application and integration into care provided by nonmedical, front-line mental health workers.^{26,52} The qualitative feedback and quantitative results of this program demonstrated that a curriculum with novel delivery in the workplace by locally selected interprofessional peers can be effective.

Limitations of our findings include the potential for selection bias, which could have influenced the results for the communities who were assigned to self-directed learning. These communities may have been less cohesive and felt less motivation to participate, as evinced by the high drop-out rate and a failure to elect an opinion leader. As well, the size of our sample was not sufficiently powered to detect differences related to teaching effectiveness of differing small-group facilitators, which bears further study. Finally, while the results indicate improvements in selfefficacy, knowledge, and course satisfaction, these do not necessarily indicate counsellor clinical competence. Future research that includes an evaluation of patient outcomes and therapist behaviours is needed.

Conclusions

The CE To Go educational intervention integrates teaching of best clinical practices, with attention to content and process elements embodying best teaching practices. Interactive, longitudinal, and case-based learning formats with simulations in interprofessional, work-based, small groups facilitated by local opinion leaders are an effective vector for CE and can be used to reduce the gaps between guidelines and their implementation. This may facilitate improved access to treatment, by scaling up evidencesupported psychotherapeutic care with nonmedical health workers for patients with mental illness in need.

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