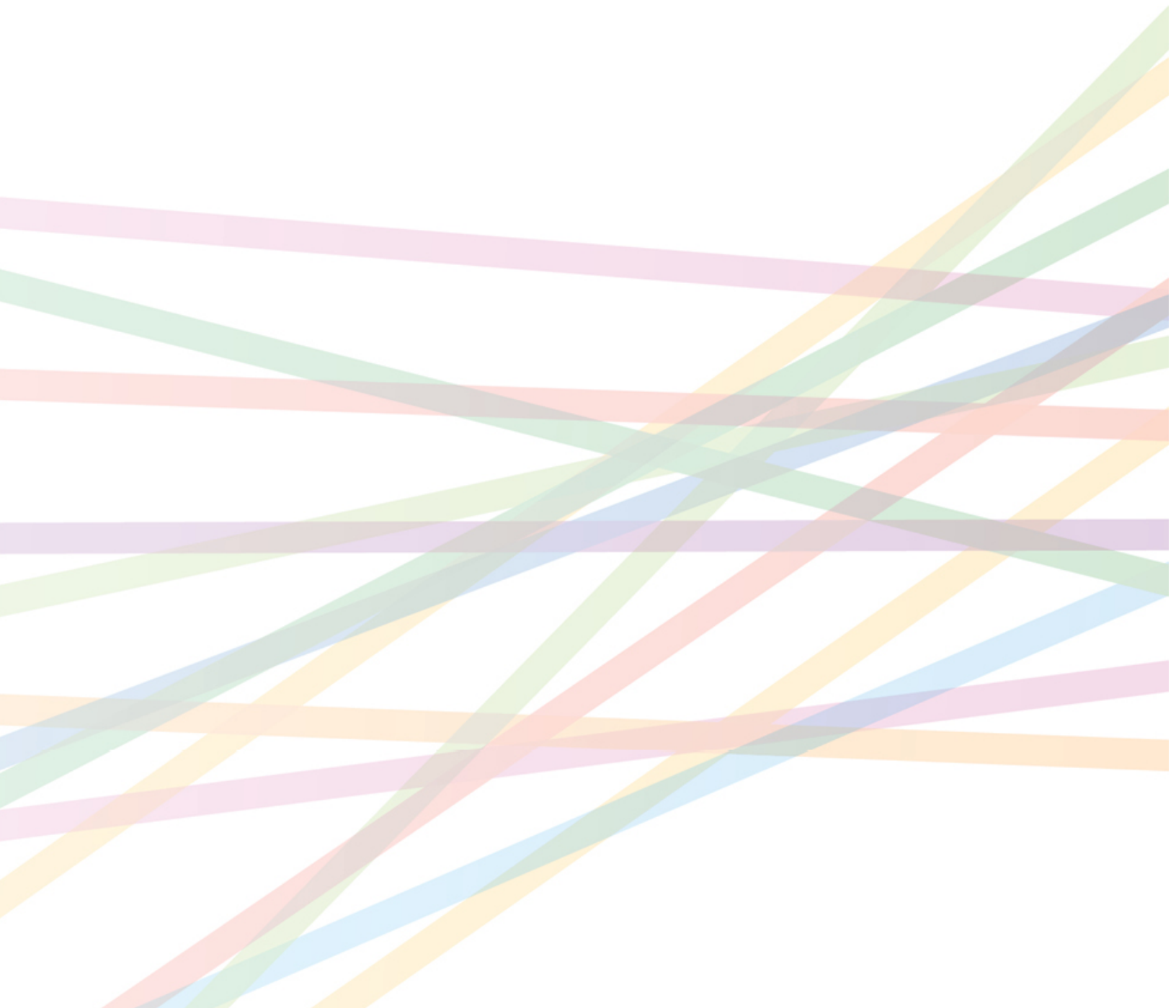




BLENDED GUIDE AND GO-TO TRAINING
PROGRAM: TRAINING THE TRAINERS

REPORT FOR HEALTH PROFESSIONALS –
BELIZE CITY, BELIZE





Evaluation of the Blended Guide and Go-To Training Program in Belize City, Belize

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Background

The Mental Health & High School Curriculum Guide (the Guide), was developed in 2007 by Dr. Stan Kutcher, Sun Life Chair in Adolescent Mental Health in collaboration with the Canadian Mental Health Association. The current edition was revised with national and international input in 2017. This resource was designed to support Provincial/Territorial curriculum frameworks in Canada, and was developed to be integrated into grade eight, nine, or ten classrooms nationally by the regular classroom teachers who have been trained in its application during a day-long professional development session.

In contrast to stand-alone mental health or anti-stigma programs, this novel approach strives to improve mental health literacy (understanding how to optimize and maintain good mental health; understanding mental disorders and their treatments; decreasing stigma; enhancing help-seeking efficacy) in students and teachers alike. By utilizing educator-familiar, education system-compatible, sustainable, and frugal pedagogic processes, this approach facilitates the integration of Canada's only evidence-based mental health literacy resource into existing school curricula, sustainably strengthening human resource capacity in education systems to effectively address the mental health needs of students and teachers alike. Both nationally and internationally, substantive research has demonstrated highly positive impacts of this approach on all aspects of mental health literacy.

The Go-To Educator training program was designed by Dr. Kutcher and Dr. Yifeng Wei to address the need for informed, teacher-led identification, support, triage and referral (through student services providers) of students in-school who are likely to have a mental disorder or need mental health care. Taught to teachers and student services providers concurrently (and whenever possible, to local health and mental health care providers), this intervention has been

robustly demonstrated to improve the ability of “Go-To Educators” to assist and support students with mental health needs. To maintain its sustainability, the Go-To Educator program encompasses a ‘train the trainer’ model. This model prepares teachers, student health service providers and health providers to lead trainer teams within their school boards. These trainer teams then help identify “go-to” educators within their schools and implement the training program. Thus, this method will ensure future continuation of this intervention.

Previously provided as separate training sessions, the Guide training and Go-To training were combined into one three-day Blended Guide and Go-To Training Program. Here, trainers from school boards or other education/health jurisdictions learn how to apply both training programs simultaneously. This approach was designed to be easily integrated into existing education and health systems, and its effective global application attests to the value of this delivery method (for recent publications in scientific journals related to these interventions, see the reference list at the end of this report. Evaluations of previous training programs can be found at: http://teenmentalhealth.org/toolbox/?filter_category-filter=school-mental-health-reports).

This report is an evaluation of the Blended Guide and Go-To Educator training program following the ‘train the trainer’ model described above undertaken in Belize City, Belize. This professional development session for health professionals was facilitated by Dr. Kutcher and Dr. Wei in early December 2018.

Participants

A total of 22 health services providers (19 females, 3 males) participated in the program. Of these, 16 completed both pre- and post-session knowledge surveys, 16 completed both pre- and post-session attitudes surveys, and 17 completed both pre- and post-session help-seeking surveys. Paired-samples t-tests were conducted on these 16 knowledge, 16 attitude, and 17 help-seeking surveys. Participants consisted of counselors (n=12, 54.55%), nurses (n=4, 18.18%), registered psychologists (n=3, 13.64%), and other professions (n=3, 13.64%).

The participants were from Belize City, Belize and had between three to 30 years of experience in their practice. Participants were asked whether they had previously received mental health training and, if yes, to specify the type of training provided. Fifteen participants

(68.18%) reported that they had received prior mental health training, including programs such as Psychological First Aid (PFA) and counselor education.

Procedure

Participants completed anonymous mental health knowledge, attitudes, and help-seeking toward mental illness surveys before, and directly after the professional development session. Mental health knowledge was measured with 30 questions, where educators chose either ‘true’, ‘false’ or ‘do not know’. Each correct answer received one point, for a total score out of 30. Participants were encouraged to choose ‘do not know’ to reduce the likelihood of false-correct results due to guessing. These choices were scored as incorrect.

Twelve questions were included to assess participants’ attitudes toward mental illness based on a 7-point Likert-scale. Item choices ranged from ‘Strongly Disagree’ to ‘Strongly Agree’, and answers were combined to return a score out of a maximum of 84, higher scores corresponded to more positive attitudes toward mental illness (reduced stigma). Attitudes toward seeking help for a mental illness or mental distress were measured with a five question survey based on a 7-point Likert scale that also ranged from ‘Strongly Disagree’ to ‘Strongly Agree’, totaling a possible 35 points. Higher mean scores suggest a more positive attitude toward seeking help or referring a friend to seek help.

Completed surveys were entered into a secure database by a researcher blind to participant identities and naïve to the workshop materials and delivery. To assure anonymity, participants were asked not to provide any personal identifying information (names, addresses, etc.). To link responses between the pre-session and post-session evaluations, anonymous linking questions were asked, including participants’ birth month, first two letters of their name, and first three letters of their city of birth.

Just over two thirds of participants reported receiving prior mental health training. Therefore, an additional point of interest was whether participation in previous mental health training programs influenced educators’ knowledge or attitudes pertaining to mental health and mental illness prior to completing the Blended Guide and Go-To Educator training program, and if previous training might have affected how participants learned from the training session. Half of participants who reported having prior mental health training attended a Psychological First

Aid workshop (n=8, 53.33% of those who reported previous training). Therefore, further analyses were conducted on these participants independently to assess the long-term effects of this particular intervention, as well as any affect it may have on how participants responded to the Blended Guide and Go-To Educator training program.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Scores for mental health knowledge, attitudes toward mental illness, and help-seeking were compared between pre- and post-session surveys, and the differences quantified using paired sample t-tests. Independent-samples t-tests were used to compare mean knowledge, attitude, and help-seeking scores for individuals who had completed previous mental health training and for those who reported no prior training, for both pre- and post-session. All p-values were compared to a statistical significance alpha of .05, and d-values were compared to Cohen’s d effects scale (small= .2, medium= .5, large= .8, and very large= 1.2).

This report is an evaluation of the Blended Guide and Go-To Educator training program following the ‘train the trainer’ model undertaken in Belize City, Belize. This professional development session for healthcare professionals was facilitated by Dr. Kutcher and Dr. Wei in early December 2018. A total of 22 participants, with up to 30 years of experience in their field were involved in this study.

Outcomes

Paired-samples t-tests were conducted to study the difference between participants’ pre- and post-test knowledge, attitudes, and help-seeking attitudes. Prior to attending the workshop, participants correctly answered an average of 12.81 (42.7% correct, $SD=5.89$) out of 30 mental health knowledge questions. After training, the scores significantly increased to an average of 21.38 (71.27% correct, $SD=4.32$) out of 30 knowledge questions, demonstrating a significant and

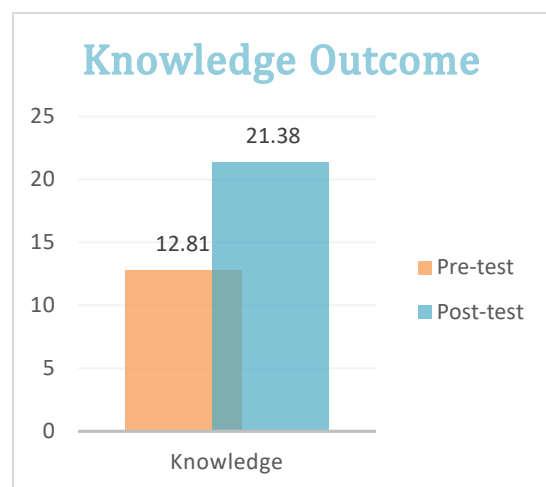


Figure 1

substantial increase in mental health knowledge $t(15) = -6.030, p=.000, d=1.66$ (see Figure 1). This result is statistically significant and robust (very large effect size)

Conversely, there was no significant difference between participants' pre- and post-test mean attitude scores. In pre-training surveys, the mean attitude score was 75.06 (SD=5.01) out of 84 compared to a mean of 74.75 (SD=9.50) in post-training surveys out of 84 $t(15) = .135, p=.894$ (see Figure 2).

However, similar to knowledge, help-seeking scores significantly increased at post-test. Pre-test scores showed a mean of 30.65 (SD=5.60) and increased to 34.65 (SD=.862) out of a possible 35 points $t(16) = -2.904, p<.05, d=.80$ (see Figure 3). This reflects an extremely high mean post-test score, meaning these participants have an excellent understanding of the importance of seeking help. This could increase the possibility that these participants would seek help for a mental illness or mental health problem, and/or refer a friend or family member to seek help when needed.

Independent t-tests were conducted in order to assess if there was a difference in pre- and post-test knowledge, attitude, and help-seeking mean scores between participants who received mental health training prior to the current intervention and those who did not. Results from the t-test for pre-session knowledge showed significant differences $t(15) = -2.605, p<.05$, (see Figure 4). Those with previous training had a mean score of 15.08 (SD=4.72) while those without had a mean score of

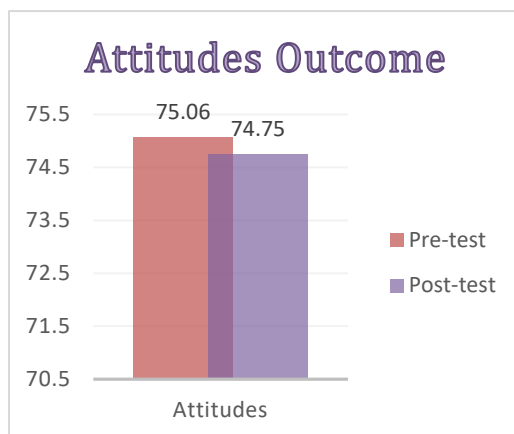


Figure 2

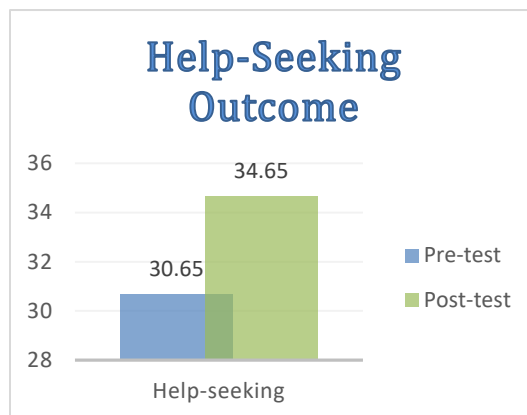


Figure 3

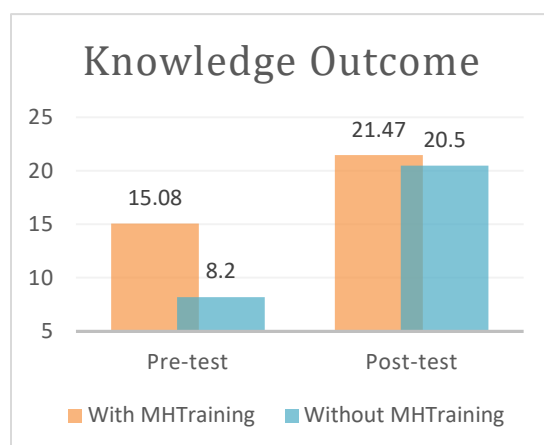


Figure 4 Knowledge outcome for level of previous mental health training.

8.20 (SD=5.59). Independent t-tests further revealed no significant differences in mean scores for post-test mental health knowledge $t(19) = -.380, p=.708$ (see Figure 4) between participants with (M=21.47, SD=6.05) and those without (20.50, SD=1.76) previous mental health training, indicating that at the end of the training session, both groups showed similar knowledge scores.

Mean attitude scores were insignificantly different between those with (M=74.46, SD=5.44) and those without previous mental health training (M=76.40, SD=4.83) $t(16) = .696, p=.497$ (see Figure 5) at pre-test. Numerically, these scores were higher (lower stigma) for those without previous mental health training compared to those with the prior training. Furthermore, post-test mean scores for attitudes toward mental illness were also showed no significant differences $t(18) = 1.155, p=.263$ (see Figure 5) between participants with (M=74.00, SD=9.53) and those without (M=79.00, SD=6.87) previous mental health training.

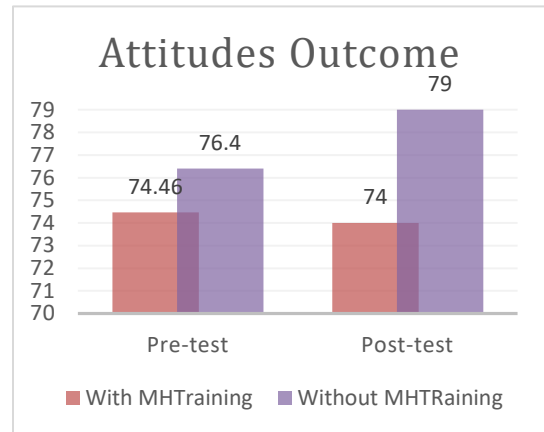


Figure 5 Attitudes outcome for level of previous mental health training.

Pre-test mean help-seeking scores were slightly higher for those with (M=31.85, SD=5.05) compared to those without (M=29.50, SD=6.44) previous mental health training at pre-test. However, this difference was insignificant $t(17) = -.865, p=.399$ (see Figure 6). This result did not differ from the post-session survey. Independent t-tests revealed no significant differences for post-test attitudes toward help-seeking $t(18) = -.253, p=.503$ (see Figure 6) between those with (M=34.50, SD=1.40) and those without (M=34.33, SD=1.21) previous mental health training. Both groups improved significantly at post-test similarly.

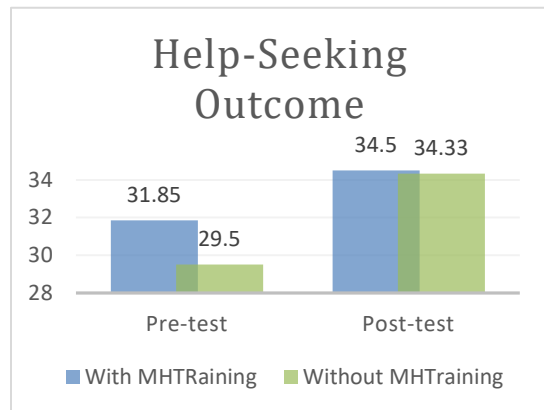


Figure 6 Help-Seeking outcome for level of previous mental health training.

For more fine-grained analysis, we evaluated whether previous Psychological First Aid training made a difference in participants' post-test outcomes. Independent t-tests were

conducted in order to assess if there was a difference in pre- and post-test knowledge, attitude, and help-seeking mean scores between participants who had previously received Psychological First Aid training compared to those who received other mental health training prior to the current intervention or who did not receive previous training. Similar results were recorded for those with PFA training and for those with other training, suggesting PFA has no different effect on this group of participants' mental health knowledge, stigma reduction, or attitudes about seeking help.

Results from the t-test for pre-test knowledge acquisition show insignificant differences between those who have previous PFA training and those with other previous mental health training $t(15) = .906, p = .379$ at pre-test. Post-test knowledge acquisition was also insignificant $t(19) = -.793, p = .438$ (see Figure 7).

While mean attitude scores were higher for those without PFA than those with the training, the results from this test were not significantly different between those with and those without PFA training at pre-test $t(16) = 1.579, p = .134$, nor at post-test $t(18) = .538, p = .597$ (see Figure 8).

Similarly, help-seeking mean scores were slightly higher for those without PFA training at pre-test compared to those with previous mental health training. However, this difference was insignificant $t(17) = 1.212, p = .242$. Post-session t-tests also revealed insignificant differences for help-seeking mean scores between those with PFA and those without $t(18) = -1.083, p = .293$ (see Figure 9).

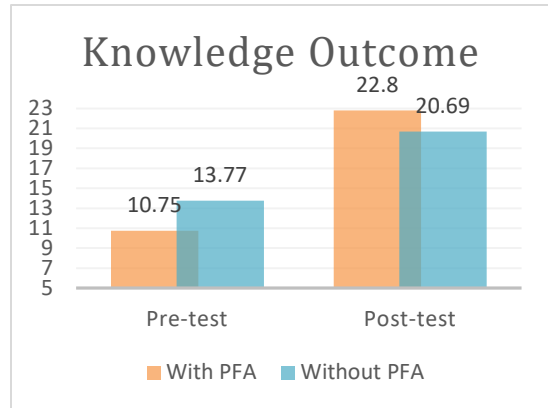


Figure 7 Knowledge outcome for participants with prior Psychological First Aid training, compared to those without such training.

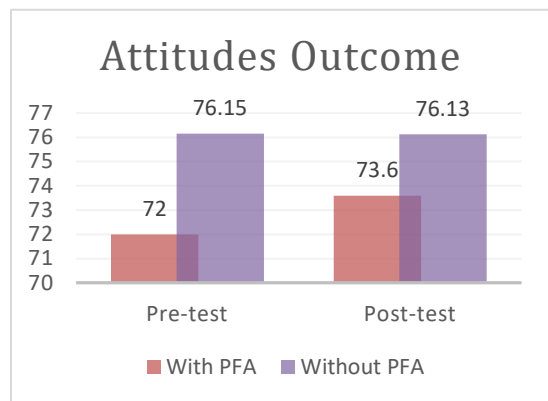


Figure 8 Attitudes outcome for participants with prior Psychological First Aid training, compared to those without such training.

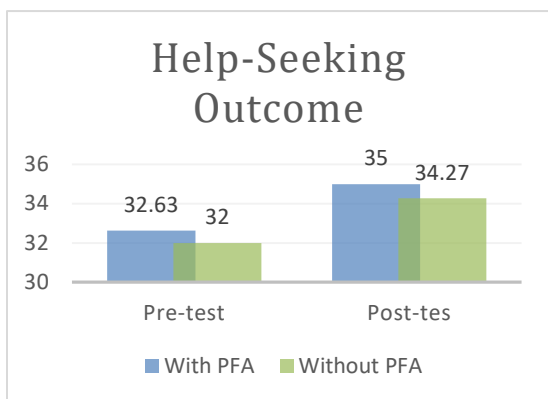


Figure 9 Help-seeking outcome for participants with prior Psychological First Aid training, compared to those without such training.

Discussion

The results from this assessment clearly demonstrate the benefits of the Blended Training Program on significantly and substantially improving student services provider's general knowledge about mental health and mental illness and increased their likelihood for seeking help for mental health problems or a mental illness, in the short term. Both knowledge and help-seeking scores showed statistically significant and robust (very large and large effects sizes, respectively) improvements following the intervention.

Of further interest, participation in prior mental health training did not statistically significantly differentiate baseline attitude or help-seeking scores between those who had received a previous training program from those who had not. Pre-test knowledge scores, however, were significantly higher based on previous mental health training. These scores did however even out in the post-session survey, demonstrating that participants improve their knowledge, attitudes, and help-seeking attitudes outcomes in the same manner after receiving the intervention, regardless of their previous mental health training. This result indicates that prior mental health training may not have a significant effect on how well participants learn from their exposure to this training intervention (post-test results). This finding demonstrates that even those participants with prior mental health training improved their mental health literacy by exposure to the Blended Guide and Go-To Educator training program.

Using a more fine-grained analysis, we addressed specifically how previous involvement in Psychological First Aid training (an expensive and revenue driven intervention), might affect how participants score on their knowledge, attitudes, and help-seeking surveys compared to those participants who have other mental health training experience or no previous training at all. The results for these tests revealed that those participants who attended a Psychological First Aid workshop prior to engaging in the current intervention did not have superior mental health literacy scores. The two groups, those with, and those without PFA training, produced similar results on all three variables: knowledge, attitudes, and help-seeking for both pre and post-intervention surveys. This implies that participation in the PFA program does not have any additional significant effect on participants' mental health knowledge retention, stigma reduction, or increased help-seeking ideation compared to other mental health training. With regards to the impact of the most commonly endorsed program, those participants who had

previously taken Psychological First Aid did not demonstrate any significant differences from those who had received no previous training in post-test evaluations. However, since the total numbers studied were small, it is important that these results be considered to be preliminary. This finding does suggest, however, that PFA, while it may be a useful educational intervention in its own right, is not a substitute for the Blended Guide and Go-To Educator program.

This assessment illustrates significant positive short-term changes in the improvement of Belize participants' knowledge and help-seeking attitudes pertaining to mental health and mental illness achieved using an educationally appropriate and inexpensive classroom-ready, student- and teacher-focused mental health literary enhancement intervention that draws on participants' existing pedagogical expertise. This result is consistent with evaluations conducted in many Canadian provinces (Kutcher, Wei, & Morgan, 2015; McLuckie, Kutcher, Wei, & Weaver, 2014; Kutcher, Wei, McLuckie, & Bullock, 2013; Kutcher & Wei, 2013; Kutcher, Bagnell, & Wei, 2015; Wei, Kutcher, Hine, & Mackay, 2014, see http://teenmentalhealth.org/toolbox/?filter_category-filter=school-mental-health-reports for School of Mental Health reports from Nova Scotia, Ontario, and Calgary, Alberta) and further demonstrates the suitability of this approach as an effective intervention that can be used in Belize and surrounding areas to improve mental health literacy of health services providers and enhance their competencies to identify and support students in need of mental health care.

A concern arising from this evaluation is the low baseline mental health knowledge found in this cohort of educators. The participants were primarily psychologists, counselors, and psychiatric nurses and would be expected to have substantial mental health related knowledge, but this was not confirmed in the data. These results are similar to those found in a large sample of Canadian educators (see Appendix B) and suggest that ongoing professional development for mental health services providers should be strongly encouraged.

Applying a follow-up evaluation of participants would provide further information related to persistence of improvement over time. At this time however, the project leaders in Belize and at PAHO can take comfort that this evaluation has demonstrated good mental health literacy in this Core Trainers group, suggesting that, as a whole, this group should have the ability to engage in this project as trainers for educators and others.

Future application and scale up of this intervention in Belize should now be possible. We have provided a brief overview of the process by which both Go-To Educators and teachers using the Guide resource in their classrooms could be reached. It is summarized in Appendix A.

We look forward to receiving the follow-up assessments in two to three months and remain committed to assist as much as possible in the application of these interventions across Belize.

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Appendix A

Implementation Framework: Considerations for Core Trainers Educators

You and those who trained with you are the Core Trainers – you will now train both the Go-To Educators and the teachers who will be using the Mental Health & High School Curriculum Guide (the Guide) materials in your jurisdiction. Prior to doing that you should check out the abridged slide decks (one for Go-To Educators and one for Guide) that you can use for your one-day sessions. You should also take the on-line course Bringing Mental Health to Schools (<http://pdce.educ.ubc.ca/mentalhealth/>) so you will better understand the Guide and be better able to teach it.

Professional development for the Go-To Educators:

These individuals will need to be selected so that all junior high and secondary schools will have Go-To educators. Usually school principals do the selection. The numbers per school will vary depending on size and other factors. When conducting your training session it is important that the number of participants not be so large that the day becomes unmanageable. Usually between 25 and 40 participants is an appropriate number but you will need to see what size group you feel most comfortable with as you move forward with your sessions.

You may decide to present this one-day session by yourself or together with another Core Trainer. If it is the latter, please make sure that you and your presentation partner have reviewed how you will deliver the session prior to implementation.

Your Go-To Educators may come from various different backgrounds. It is a good idea to familiarize yourself with the different backgrounds represented and to consider how to apply your intervention to ensure you respect and acknowledge that. Also remember that some of your audience will have either personal or family experience with mental illness or suicide – please keep that in mind as you go through the day.

Once selected the Go-To Educators will be exposed to the one-day training from the Core Trainers (the suggested abridged slide deck is found on the Core Trainers page on our website). Please remember that you will likely be playing a Ted talk (<https://leanin.org/education/ted-talk->

how-to-make-stress-your-friend) and other embedded video clips and thus you will need Internet access and sound capability.

First, the Go-To Educators are exposed to your one-day session. Then they must read the Teacher Knowledge Update (the “Apple Book”: <http://teenmentalhealth.org/schoolmhl/wp-content/uploads/2018/11/final-teacher-knowledge-update.pdf>). We highly recommend that following that, they take the on-line curriculum course “Bringing Mental Health to Schools” as well (<http://pdce.educ.ubc.ca/mentalhealth/>). This will better embed their knowledge and will make them familiar with what the teachers will be teaching in the classroom.

Some sites have provided “booster session” a year or so following the original one day training for Go-To Educators. That is an option for you and the implementation team to consider. An alternative is to have the Go-To Educators taken the free on-line university mental health literacy course (<https://www.teachmentalhealth.org/>) and consider that to be the booster session. It is a good idea to let your Go-To Educators know about this course option in case they are interested in a “deeper dive” into mental health literacy.

Professional development for the teachers who will be using the Guide in their classrooms:

The Guide is the mental health literacy, classroom teacher ready resource, designed for use in grades 7,8,9 or 10. You will be introducing this resource to teachers who will be using the Guide in their classes. The numbers per school will vary depending on size and other factors. When conducting your training session it is important that the number of participants not be so large that the day becomes unmanageable. Usually between 25 and 40 participants is an appropriate number but you will need to see what size group you feel most comfortable with as you move forward with your sessions.

You may decide to present this one-day session by yourself or together with another Core Trainer. If it is the latter, please make sure that you and your presentation partner have reviewed how you will deliver the session prior to implementation. For the Guide session, it is useful to have the participants sitting at round tables with 4 – 6 participants per table. They will be doing group work on the modules as part of their training session.

Please remember that the participants must bring a laptop computer or an iPad to be able to participate fully in the day. You will also need Internet access and the ability to play videos (including sound) to the participants. Breakout spaces may be useful if the room is not large enough to accommodate group work.

Your teacher participants may come from various different backgrounds. It is a good idea to familiarize yourself with the different backgrounds represented and to consider how to apply your intervention to ensure you respect and acknowledge that. Also remember that some of your audience will have either personal or family experience with mental illness or suicide – please keep that in mind as you go through the day.

Once selected the classroom teachers will be exposed to the one-day training from the Core Trainers on the use of the Guide resource (the suggested abridged slide deck is found on the Core Trainers page on our website). In addition to showing the slide deck introducing the Guide you need to be able to take the participants through each module (starting with the Introduction - <http://teenmentalhealth.org/schoolmhl/school-mental-health-literacy/mental-health-high-school-curriculum-guide/modules/introduction-to-the-modules/>). The preferred method is to take the group through module one – illustrating the materials and engaging them in various activities throughout the module. Use module one to illustrate how all the modules are structured and please make sure that you differentiate the Core from the Supplementary Materials.

First, the classroom teachers who will be using the Guide resource are exposed to your one-day session. Then they must read the Teacher Knowledge Update (the “Apple Book”: <http://teenmentalhealth.org/schoolmhl/wp-content/uploads/2018/11/final-teacher-knowledge-update.pdf>) and then they should take the on-line curriculum course “Bringing Mental Health to Schools” as well (<http://pdce.educ.ubc.ca/mentalhealth/>) following the one-day session. Taken together, this approach will cement their ability to successfully apply the Guide resource in their classes.

Evaluation

If you are going to be doing an evaluation of your interventions this should be done as part of a larger evaluation/implementation framework. Please discuss this with your implementation leadership. Please ensure that if your measures are being done for research purposes (as opposed to evaluation) then the proper ethical permission should have been obtained prior to commencing any research.

Question

If you have any additional questions please do not hesitate to link to us through the website – teenmentalhealth.org

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Appendix B

The Impact of “Go-To Educator Training” on Educator’s Knowledge About and Stigma Towards Youth Mental Illness in Four Canadian Provinces: findings from an initial application of a novel intervention.

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Abstract

Schools are well positioned to help early identification of youth who are experiencing a mental illness and assist them in access to care. However, educators are generally unprepared for this undertaking. The current study utilized a gate-keeper/mental health literacy program, the Go-To Educator Training program (GTET), targeting educators that students naturally gravitate to for support, to improve their mental health knowledge, early identification skills, decrease stigma, enhance within school relationships between teachers and student support workers and establish connections to local mental health providers. Pre- and post- mental health knowledge, mental illness identification skills, and stigma evaluation surveys were completed by program participants. Four Canadian provinces (Ontario, Nova Scotia, Alberta and Manitoba) held GTET programs from 2012 – 2014, training 434 secondary school educators. Paired t-tests assessed change in knowledge and stigma. ANOVA's compared knowledge and stigma change scores between provinces. Correlation measured the relationship between knowledge and stigma. Knowledge significantly improved $t(423) = 38.37, p < .001$. Stigma significantly decreased $t(402) = 3.44, p < .001$. There was no significant difference between provincial scores of knowledge ($F(3,419) = 1.59, p = .19$) nor stigma ($F(3,399) = 2.25, p = .08$). Knowledge and stigma were significant correlated before ($n = 414, r = .19, p < .001$) and after ($n = 412, r = .18, p < .001$) training. This demonstrates the GTET may be an effective secondary school educator gate-keeper training program. Further study is needed to measure the impact of the training on the ability of the "Go To Educators" to identify and support youth with mental disorders and to link with mental health care providers outside school settings.

Key Words: Mental health; gate-keeper; adolescents; youth; teachers; go-to educator

Introduction

Young people, ages 15 – 24 years, are the highest risk group for the diagnosis of mental illness, and mental illnesses make up the single largest burden of illness in this age cohort (Kirby & Keon, 2004; Kessler et al., 2005; Smetanin, et al., 2011). Undiagnosed and untreated mental illness in adolescents leads to numerous negative outcomes including poor academic achievement, interpersonal difficulties, increased risk of physical illnesses such as heart diseases and Type II diabetes, and increased risk of early mortality including death by suicide (Smetanin, et al., 2011; Institute of Medicine, 2006).

Currently, there are numerous effective evidence-based treatments available for young people who have mental disorders (World Health Organization [WHO], 2001; WHO, 2008; Kieling et al., 2011). However, early identification and access to care for youth who have a mental disorder is vastly under developed globally (WHO, 2008; Kessler et al, 2007) Since most young people attend school, it is reasonable to consider the potential role that schools can have in enhancing mental health literacy for both educators and students; while supporting the early identification, triage and linking to mental health care for young people identified to be at risk of having a mental illness (Kutcher & Wei, 2014; Kutcher & Wei, 2013; Wei & Kutcher, 2014; Whitley, Smith & Vaillancourt, 2012; Kirby & Keon, 2006). Unfortunately, despite increasing global awareness of this issue (WHO, 2001; Kutcher, Wei and Weist, 2015; Kessler, et al, 2007; Wei & Kutcher, 2012; Kieling et al, 2011), educators generally report feeling unprepared to identify or help students who have a mental illness (Mental Health Commission of Canada [MHCC], 2013; Froese-Germain & Reil, 2012; Reinke, Stormont, Herman, Puri, & Goel, 2011; Walter, Gouze, & Lim, 2006).

This globally identified perspective of educator unpreparedness is similar in Canada. In 2012, the Canadian Teacher Federation surveyed over 3900 elementary and secondary school teachers and reported that 87% of teachers agreed that insufficient educator knowledge regarding mental illness in children was a barrier to access for mental health services for young people and that 77% agreed that an additional barrier to providing support for students was educators' inability to identify mental illness in students (Froese-Germain & Reil, 2012). This absence of educator preparedness may be a significant barrier to early identification and improved access to mental health care for students with mental illnesses. Similar concerns have been raised by others who have addressed the issue of mental health in Canadian school settings (MHCC, 2013; Whitley et al., 2012; Kutcher, 2011; Kirby & Keon, 2006). In addition, stigma has been considered to be a significant barrier for mental health help-seeking (Gulliver, Griffiths, & Christensen, 2010) and educators can potentially play a significant role in helping to decrease stigma and promote help-seeking behaviors among students in need of mental health care. Embedding such capacity into educational systems could possibly enhance the ability of youth to earlier and better access needed mental health care and lead to improved horizontal integration between education and health systems in meeting mental health care needs of young people (Wei, Kutcher, & Szumilas, 2011; Kutcher, 2015)

One approach to addressing these needs is the application of a gate-keeper/mental health literacy intervention into the school setting, designed to: enhance capacity for identification of students at risk for mental disorders; reinforce on-site assessment and triage for youth with mental health problems/mental disorders; improve referrals to community based mental health care; integrate ongoing school based support for students living with a mental disorder, and

decrease stigma of mental illness (Wei, Kutcher, Hine, & Mackay, 2014; Wei & Kutcher, 2014; Wei et al. book chapter).

In order to address this issue, we created an educational intervention delivered in seminar format designed to enhance capacity of schools to identify, triage, refer and support students who may be in need of mental health care. Teachers who students naturally “go-to” for help are identified by schools and offered an opportunity to participate in a one day training program designed to enhance their knowledge of mental health and mental disorders and their treatments and to decrease stigma related to mental disorders. This one day training intervention can be applied during existing professional development days and thus enhances existing capacity within schools without additional and expensive added on programs. It is part of the pathway to mental health care for young people (Wei et al, 2011; Kutcher & Wei, 2013; Wei & Kutcher, 2014) and is a component of building school capacity for identification, triage, referral and support of students who may have a mental disorder.

This paper reports on the implementation of the “Go-To” Educator Training (GTET) program that trains educators on early identification skills and competencies in referral of youth at high risk of mental disorder; as well as decrease of stigma of mental illness in four Canadian provinces between 2012 and 2014. We hypothesized that the Go-To Educators enrolled in these GTET programs will demonstrate significantly and substantially improved mental health knowledge and decreased stigma as a result of the intervention. Additionally, we hypothesized that there would be a positive correlation between changes in mental health knowledge and decreased stigma in participants.

Methods

Study design

This is a pre and posttest design applied to assess participants' knowledge and stigma change before and after the implementation of GTET. Correlations were further assessed between knowledge and stigma among participants.

Intervention

Building on evidence that supports the use of educator gatekeepers who are known to and respected by students (Wyman et al., 2008; Martinez et al., 2015), the GTET program was developed to help train educators in junior high and secondary schools to identify, triage, refer and support students at risk for mental disorders (Wei et al, 2011; Kutcher & Wei, 2013; Wei & Kutcher, 2014). The GTET was designed to be part of a horizontally integrated pathway to mental health care model that can seamlessly link schools with mental health care providers in the community (Wei et al, 2011; Kutcher & Wei, 2013; Wei & Kutcher, 2014). The purpose of the GTET is to build and enhance educators' mental health knowledge and competencies to identify students who may experience common mental illnesses during the adolescent years, as well as reduce stigma of mental illness. Additionally, GTET further teaches educators how to provide school based support for students living with a mental illness; clarifies and improves referral processes for mental health care between schools and local health and mental health care providers and promotes horizontal integration through the development of personal and professional networks between schools and community based health care providers (Wei et al., 2011; Kutcher & Wei 2013). GTET is not a program placed into schools, rather it is an

enhancement of existing school capacity, designed to strengthen existing systems that link pedagogy to health care.

In the initial evaluation of GTET applied during its development, Kutcher and Wei (2013) demonstrated that the one-day training, , resulted in significant and substantial improvements in knowledge and decrease in stigma of “Go To” educators and that these improvements were maintained over time. Student referrals to the community mental health care facility increased slightly and the quality of the referrals (the proportion of those referred who were deemed to be at high need for mental health care by receiving clinicians) improved. Additional investigations with other educators using this intervention demonstrated similar positive results (Wei & Kutcher, 2014; Wei et al., 2014; Wei et al., 2014; Kutcher, Wei, & Hashish, 2016).

Participants and Procedures

A power analysis based on previous study of this intervention, indicated that given the significance level of $\alpha=0.05$, power $1-\beta=0.80$, and estimated effect size based on past experience, Cohen’s $d=0.3$, a sample size of $n=90$ is need to achieve statistical significance.

The recruitment of participants for GTET occurred in the Canadian provinces of Nova Scotia, Ontario, Manitoba (Winnipeg) and Alberta (Calgary), and was led by local school boards or health authorities. A total of 434 educators (334 females, 94 males and 6 who did not identify) were selected by their local school principal as individuals whom students were known to gravitate towards for support and who accepted the opportunity to participate in the training program. Participant demographics are displayed in Table 1 by province. The GTET was delivered during professional development days by the knowledge translation team who

developed GTET. The one day GTET intervention focuses on tools and knowledge necessary for the early identification of mental illness, student support, triage and referral competencies contextualized to the junior high and secondary school setting. An integral aspect of the program is establishing referral pathways through personal/professional networks from the school into the community through the inclusion in the training of school based student support staff (such as counselors, psychologists, social workers, mental health clinicians, etc.) and local health/mental health care providers (such as community mental health clinicians). Further information about details of the GTET intervention can be found in Wei & Kutcher (2014). The GTET intervention and evaluation were approved by all schools involved.

Measurement and data collection.

Pre-training and post-training surveys were obtained regarding knowledge about and attitudes towards mental illness in young people before and directly after the training sessions. The pre- and post-training surveys were identical in each site. The knowledge portion included 30 questions developed by mental health and education professionals addressing a wide range of mental health information including signs, symptoms, onset and causes of common mental disorders in youth; epidemiology of adolescence mental illness; different youth appropriate diagnostic tools/assessments and methods of referral and parental support. Each question required participants to answer by choosing one of three answers 'true', 'false' and 'do not know'. Participants were encouraged to choose 'do not know' if they did not know the answer to minimize the likelihood of guessing. A correct response was worth 1-point, and incorrect and do not know answers received no points. The total knowledge score possible was 30. The internal consistency of the pre-training mental illness knowledge survey was $\alpha = .76$ (30 items) and the post-training survey was $\alpha = .66$ (30 items).

The attitudes towards mental illness survey included eight questions based on frameworks addressing the stigma of mental illness (Thornicroft, 2006; Jones, Farina, Hastorf, Marcus, Miller, Scott, 1984) such as willingness to interact with individuals who have a mental illness, perceived cognitive and behavioural functioning of individuals with mental illness and apparent causes of mental illnesses. The questions required participants to choose an answer from a 7-point Likert scale ranging from 'strongly disagree' to 'strongly agree'. For each question, answers considered positive attitudes were given higher scores with the highest score of 7, and negative attitudes were given lower scores with the lowest score of 1, amounting to a total positive attitude score out of 56. The internal consistency for both the pre-training and post-training attitudes questions towards mental health was $\alpha = .67$.

The surveys were all anonymous. To link pre- and post- training surveys, participants were asked five questions: birth month; first pets' name; postal code; shoe size; the last two digits of their phone number. As a result, 423 knowledge surveys and 403 attitude surveys were able to be matched for further analysis.

Upon the completion of the training session participants were also asked to complete a feedback evaluation survey regarding the content and the presenters of the session. The survey included seven questions requiring participants to answer using a 6-point Likert scale ranging from 'poor' (0 points) to 'excellent' (5 points). They were also given the opportunity to provide written comments and suggestions for improvement.

Data analysis.

To determine the impact of the training, two separate paired-sample t-tests were used to compare pre- and post-training knowledge scores and attitude scores. The magnitude of training

effect was determined with the effect size Cohen's d (Cohen, 1988). Eight additional paired-sample t -test were used to compared intra-provincial pre- and post-training knowledge scores and attitude scores. Two one-way ANOVA's were used to compare change scores for knowledge (post-training minus pre-training) and attitude scores (post-training minus pre-training) across provinces.

Two Pearson's product moment correlations were used to investigate the relationship between the knowledge and attitudes scores on the pre- and post- surveys. All data analysis was performed using SPSS 17 (SPSS Inc., Chicago, IL, USA). P-values for the t -test were compared to the significance level of $\alpha = .05$. The alpha for the one-way ANOVA's were corrected using Bonferroni correction and set to $\alpha = .03$.

Results

Table 1 shows demographics of all participants across the 4 provinces. Table 2 demonstrates that both knowledge and attitudes improved significantly ($p < .001$) among participants when combining all 4 provinces together. Similarly, the survey outcomes on knowledge and attitudes in each individual province showed significant improvements following the training ($p < .001$) (Table 3 and 4; Figure 1 and 2). The one-way ANOVA comparing changes in knowledge among the 4 provinces did not show any significant differences among provinces, $F(3,419) = 1.59, p = .19$. Similarly, the one-way ANOVA used to investigate the differences in change of attitude scores did not show any significant differences amongst the provinces, $F(3,399) = 2.25, p = .08$.

The Pearson correlation analysis between knowledge and attitudes scores demonstrated a significant positive correlation between knowledge scores and attitude scores on the pre-training survey ($N = 414$, $r = .19$, $p < .001$) and the post-training survey ($N = 412$, $r = .18$, $p < .001$).

Of the 423 participants, 215 provided feedback regarding their satisfaction with the GTET. Participants provided consistently positive rating for all items on the survey ($\geq 4.5/5$, Table 5). When asked to compare the GTET with similar professional development they had received 49% responded that it was much better, 33% rated it better and 10% rated it as similar.

Discussion

Results of this study indicate that the educators receiving this professional development day intervention, significantly and substantially improved their mental health knowledge and decreased stigma within and across 4 Canadian provinces. Further, there were no significant differences in outcomes in these measures across provinces, indicating a consistent magnitude of change, not geographically dependent. Further, the decrease in stigma scores was significantly inversely related to the increase in mental health knowledge scores, suggesting that for educators, increasing knowledge may be an effective way to reduce stigma.

The baseline knowledge scores were low, with a mean value of about 30%. This finding was consistent across all provinces. Such a low mental health knowledge level in educators who were pre-selected as being already involved in mental health related supports for students is concerning and demonstrates the need to provide enhancement of mental health literacy in Canadian teachers. However, this finding is also consistent with the previous evidence on the unpreparedness of Canadian educators to address student mental health needs (MHCC, 2013; Whitley et al., 2012; Kirby & Keon, 2006; Froese-Germain & Reil, 2012). It further highlights

the importance of providing effective, school based training such as GTET to promote educator competency and confidence in helping students with mental health problems or mental illness.

The knowledge increase showed a very robust effect size, while the attitudes effect size changes were more muted albeit still positive. This finding may have been the result of the highly positive baseline attitude scores found in the sample (and individually within each province), reflecting a ceiling effect for the intervention. Since educator participants were pre-selected by school principals as individuals who were already engaged in helping students they may have been a group of individuals who already were more likely to hold less stigmatizing attitudes towards people with mental illness than a group of randomly selected educators. An ongoing study of this intervention in a more representative sample of teachers is currently underway and may shed light on this issue.

As there were no significant inter-provincial differences identified in this evaluation we have reasonable comfort that the GTET outcomes on educator knowledge and attitudes will also be similar when applied in other Canadian jurisdictions and beyond. This finding supports the potential use of GTET as a national intervention that may be useful in enhancing the role of schools in addressing mental health care of students and in potentially enhancing access to needed mental health care through early identification of youth at risk for a mental disorder

Very few, if any, mental health interventions in the school setting have assessed the relationship between improvements in educators' mental health knowledge and decreases in stigma. The results presented herein demonstrate a significant positive correlation between mental health knowledge and attitudes in educators. The determined correlation coefficient between pre-training knowledge and attitude scores is relatively low ($r = .19, p < .001$) however

the large sample size strongly influences the correlations coefficient and this value is considered significant and not likely to have arisen due to chance for the given population (Bryman & Cramer, 2011). This relationship between knowledge improvement and stigma reduction, demonstrates that individuals' attitudes towards mental illness is reflective of their knowledge about mental illness, even in a pre-selected population with highly positive baseline attitudes towards mental illness, who received a one-day professional development intervention. This relationship between mental health knowledge and stigma reduction was maintained after training ($r = .18, p < .001$), despite significant improvements in both knowledge and attitudes after the completion of the GTET.

Education about mental illness may be an important factor in leading to reduced stigma related to mental illness but this relationship has not been well studied (Rüsch, Angermeyer, & Corrigan, 2005; Kutcher, Wei & Coniglio, 2016). The nationwide aggregated outcomes presented here support the notion that in the school setting at least, gatekeeper educators will demonstrate decreased stigmatizing after mental health education. This finding is consistent with a recent study (Milin, Kutcher, Lewis, et al., 2016) on the effectiveness of a mental health literacy resource for high school students that demonstrated significant reduced stigma as a result of mental health curriculum resource. Should this finding be replicated, it may provide instructive direction on how future professional development interventions can be used to decrease stigma in not only Canadian settings but also in other cultural settings.

Further, as some current research indicates (Gulliver et al., 2010), improved knowledge and stigma are known to be predictors of help-seeking behaviors. Thus, teachers participating in the GTET may have the capacity to improve their own help-seeking behaviors and enable them

to help others including their students. This possibility is currently the focus of developing research by the authors.

The aggregated nationwide GTET program outcomes presented here support previous evaluations demonstrating targeting go-to educators as a successful means of improving their knowledge of adolescent mental health, enhancing their competencies for early identification of mental illness, and promoting skills on how to triage and facilitate referrals for students requiring mental health care (Kutcher & Wei, 2013; Wei & Kutcher 2014; Wyman et al., 2008). These results are also consistent with previously published findings that have demonstrated that targeting educators with gatekeeper training programs improves their knowledge and abilities to assist adolescents to access mental health care if needed (Wyman et al., 2008; Hussein & Vostanis, 2013). Taken together, these data suggest that wide-spread application of the educator gatekeeper approach in the context of the GTET intervention may be a useful component of a comprehensive, integrated and horizontal pathway to mental health care for young people that links schools with health care providers to improve early access to care for those youth who require it (Wei et al, 2011; Kutcher, 2011; Kutcher, Wei & Hashish, in press).

The overall findings from the aggregated GTET program reported here support the success of a school based mental health early identification program for educators. The implementation of the training is currently delivered by the developer of the program. To achieve widespread implementation of this intervention, the use of a train-the-trainer model with trainers embedded in each school board so that yearly upgrading and training provided to new educators would be available. Evaluations of this approach have begun and data to date have demonstrated similarly positive results (<http://teenmentalhealth.org/toolbox/go-teacher-training-interim-report-nova-scotia/>). Additionally, using this water-fall model the GTET program can be effectively

implemented in concert with classroom teacher training on the Mental Health and High School Curriculum Guide (the Guide), which has been shown to improve the mental health literacy of secondary school students and teachers alike (McLuckie et al., 2014; Wei, et al., 2014; Kutcher, Wei, & Morgan, 2015). Through this approach, go-to educators in junior high and secondary schools may be able to work with classroom teachers more efficiently to help them identify students at risk of mental health problems and mental disorders and help them to access mental health care and support needed.

Limitations

This study was an open cross-sectional intervention without a control group. Thus it suffers from the limitations of such an approach. While a controlled evaluation of this intervention is needed, the reproducibility of these results in four different geographic locations and the similarities of both baseline and final evaluation results in all settings provide some degree of comfort as to the validity of the findings. A further limitation is that “Go-To Educators” are pre-selected by each school’s administration, which may introduce a certain degree of bias and may or may not be individuals that would similarly be chosen by students themselves. Additionally, it is essential to be able to demonstrate that this type of training also has positive impact on identification and referral of youth who have mental health care needs. A controlled trial addressing this important issue is currently underway with positive initial results that will be reported when the study is completed and full data analysis has been conducted. None-the-less, the results on the impact of this intervention on enhancing knowledge and decreasing stigma are significant in their own right and begin to address the mental health related challenges reported by Canadian teachers. (Froese-Germain and Riel, 2012).

Conclusions

In conclusion the findings presented support the GTET as a promising educator gatekeeper/mental health literacy training program in Canadian schools that promotes competencies and skills of selected educators in the early identification of adolescents with mental illness, support for these youth in the context of the school, improved triage and referral to most appropriate health/mental health care providers in the community. This approach not only increases educator knowledge, decreases stigma and enhances the possibility that young people with mental disorders may be more readily identified, supported and referred for care but also has the potential to be adapted and applied widely across different settings that may be readily easily and inexpensively integrated into existing provincial and territorial school systems. Further research addressing this application of GTET, using controlled studies in various locations, with different demographics, and in different school systems in a manner cognizant of the identified limitations in this report will help policy makers, administrators and human services providers better determine the impact of this approach on enhancing access of young people to needed mental health care. A number of studies addressing these domains are currently underway.

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Table 1

Demographics for participants by province, including sample size, and frequency of gender and profession

Variables		Nova Scotia	Ontario	Alberta	Manitoba
Provincial Sample size		120*	244	28	31
Gender	Females	85	196	23	22
	Males	34	43	5	9
	Did not identify	1	5	-	-
Profession	Teachers	84	108	-	16
	Guidance and Family Counselors	20	43	7	8
	Social Workers	1	28	6	2
	School administrators	7	17	-	3
	Psychological services	-	19	10	1
	Schools Plus Mental Health Clinicians	4	-	-	-
	Other	2	29	5	1
	Did not list	2	-	-	-

* The 120 participants from Nova Scotia included in the current sample population were previously included in the sample population in Wei & Kutcher (2014).

Table 2

Knowledge and attitude scores at pre- and post-training among 4 provinces

Outcomes	Pre-training*	Post-training*	<i>t</i> -test	Cohen's <i>d</i> statistic
Knowledge	12.16 (4.67)	20.97 (3.73)	$t(423) = 38.37, p < .001$	2.08
Attitudes	50.93 (4.47)	51.70 (4.54)	$t(402) = 3.44, p < .001$	0.17

* Mean scores presented with standard deviation in ().

Table 3

*Knowledge scores descriptive statistics and *t*-tests for each province*

Province	Pre-training*	Post-training*	Mean Difference	<i>t</i> -test	Cohen's <i>d</i>
Ontario	12.43 (4.88)	20.91 (4.00)	8.48 (5.13)	$t(243) = 25.83^{**}$	1.90
Nova Scotia	11.57 (4.34)	21.08 (3.28)	9.51 (4.07)	$t(119) = 25.56^{**}$	2.48
Alberta	14.00 (2.93)	22.14 (3.06)	8.14 (3.23)	$t(27) = 13.35^{**}$	2.72
Manitoba	10.61 (4.89)	19.94 (3.54)	8.81 (4.72)	$t(30) = 11.07^{**}$	2.19

* Mean scores presented with standard deviation in ().

** Significant, $p < .001$

Table 4

Attitude scores descriptive statistics and t-tests for each province

Province	Pre-training*	Post-training*	Mean Difference	t-test
Ontario	51.43 (4.48)	51.75 (4.49)	0.33 (4.66)	$t(235) = 1.08, p = .28$
Nova Scotia	49.90 (4.59)	51.52 (4.22)	1.62 (4.11)	$t(115) = 4.25, p < .001^{**}$
Alberta	50.20 (4.13)	50.80 (5.47)	0.60 (4.40)	$t(24) = 0.68, p = .50$
Manitoba	51.77 (3.41)	52.92 (5.48)	1.15 (4.32)	$t(25) = 1.36, p = .19$

* Mean scores presented with standard deviation in ().

** The Cohen's $d = .37$ for the significant different in change of attitudes scores for Nova Scotia.

Table 5

Participant satisfaction with GTET

Variable	Mean	SD
I found the workshop useful and informative	4.63	.61
I enjoyed the workshop	4.52	.68
I found the speaker(s) to be of high quality	4.78	.49
I learned information and concepts that will be helpful to me in my work	4.63	.62
I would recommend this workshop to my colleagues	4.63	.65
I would rate this workshop	4.58	.63

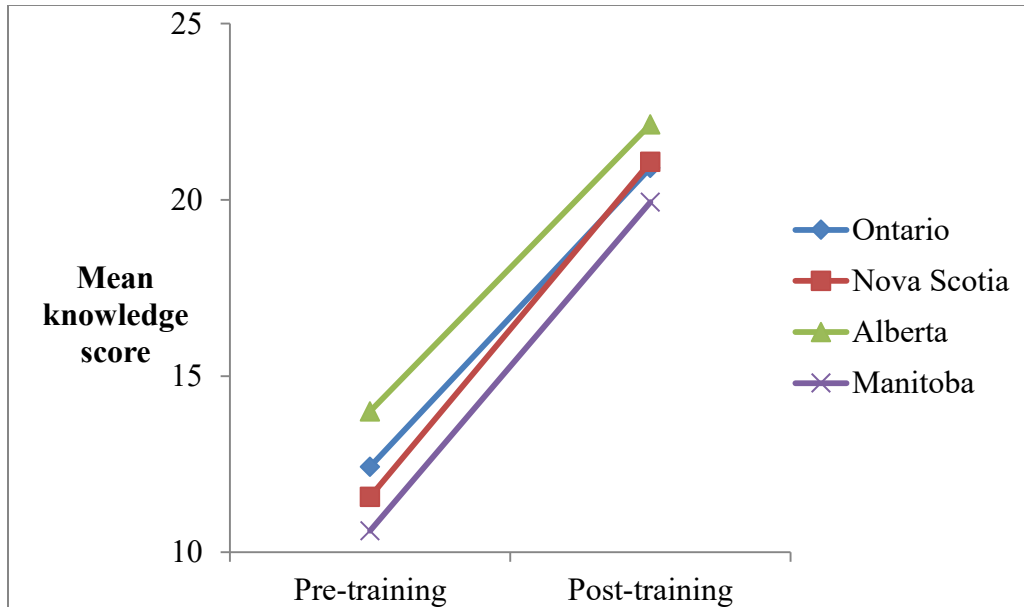


Figure 1. Mean scores by province on the pre- and post-training knowledge surveys.

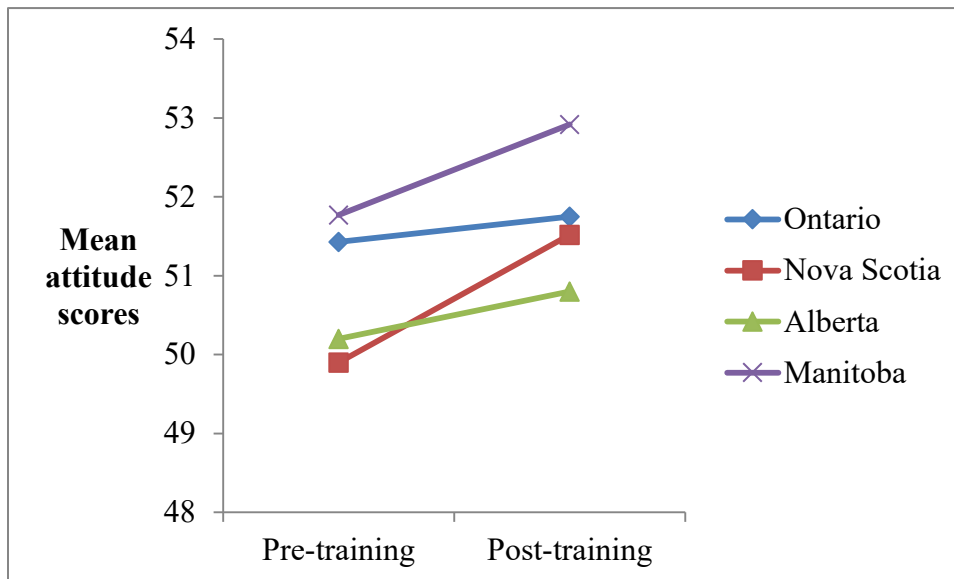


Figure 2. Comparison of the mean pre- and post-training attitude survey scores for each province.