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 second and most current edition was prepared in 2014. This resource was designed to support Provincial/Territorial curriculum frameworks and was developed to be integrated into junior or early secondary school classrooms by the regular classroom teacher who has ideally been introduced to the resource and its pedagogical application during a day-long professional development session. In contrast to stand-alone mental health or anti-stigma programs, this novel approach strives to concurrently 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 inexpensive 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. Substantive research in Canada and internationally 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 mental health 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.

Previously provided as separate training sessions, the Guide training and Go-To training have recently been combined into one three-day Blended Guide and Go-To Training Program. Here, master trainers from school boards or other education/health jurisdictions learn how to apply both training programs, and how use these competencies to scale-up the intervention in their locations using the methods and timing best suited to the needs of individual schools. 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 is not a program parachuted into a school or school system, it is a capacity-enhancing intervention designed to be sustainably and frugally applied within the educational and wider community environments. All materials are freely available online where they can easily be accessed by educators, health care providers, students, and parents alike.

This report is an evaluation of a Blended Guide and Go-To Training Program following the ‘train the trainer’ model described above undertaken in three regions in Newfoundland: St. John’s, Gander, and Deer Lake. These professional development sessions for school-based educators was facilitated by Dr. Kutcher and held in March and May, 2017.

Participants

One hundred twenty-four educators (99 females, 24 males, one undisclosed) participated in the Program, and 119 educators completed both pre- and post-session evaluation surveys. Educators included guidance counselors (n = 108, 87%), psychologists (n = 8, 6%), educators and itinerant educators (n = 7, 6%), and other professions (n = 1, 1%) from English-language schools in Newfoundland and Labrador with between one and 32 years of experience. Of the 124 educators present, 88 reported receiving prior mental health training.
Mental Health First Aid was the most common training program with 53 educators reporting completion of the program prior to the present session.

**Procedure**

Program participants completed anonymous mental health knowledge and attitudes toward mental illness surveys before, and directly after the professional development session. Because of an overlap in the content evaluated between this evaluation and the Guide Training, the “Go To” Educator Training evaluation tool was used. Mental health knowledge was measured with 30 true-false questions, and educators were asked to choose either ‘true’, false’ or ‘do not know’. Each correct answer received one point for a total score of 30. Participants were encouraged to choose ‘do not know’ to reduce the likelihood of false-correct results due to guessing, and ‘do not know’ choices were scored as incorrect.

Twelve 7-point Likert-scale questions were included to assess participants’ attitudes toward mental illness. Likert-scale items ranged from ‘Strongly Disagree’ to ‘Strongly Agree’, and answers were combined to return an individual score out of a maximum total score of 84 with higher scores corresponding to more positive attitudes toward mental illness. 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 to not 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, postal code, shoe size, and first pet’s name.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Scores for mental health knowledge and attitudes toward mental illness were compared between pre- and post-session surveys, and the differences quantified using paired sample t-tests. Pre-session scores were divided at the median to allow for further exploration into the effect of the session on knowledge and attitudes toward mental illness. Post-test changes in knowledge and attitude scores for the groups above and below the median score at pre-test were quantified using paired sample t-tests. We further compared the regional differences on knowledge and
attitudes with analyses of variance (ANOVA). We also compared the comfort level of participants who received Mental Health First Aid Training against participants who had not received any training at baseline in identifying students with potential mental health problems or disorders using the Chi-square test. All p-values were compared to a statistical significance alpha of .05.

**Province-Wide Outcomes**

*Pre-Session Results*

Data from each site (St. John’s, Gander, and Deer Lake) were combined into a province-wide dataset for aggregate analysis. A one-way analysis of variance (ANOVA) was used to compare pre- and post-session score differences for equal variances, returning no significant differences for knowledge ($F(2,116) = 1.09, p = .34$) or attitudes toward mental illness ($F(2,116) = 0.94, p = .39$). Data were additionally analyzed for differences in demographic factors, including gender, prior mental health training, prior mental health treatment (participant or family member), and prior medical treatment for a serious condition (participant or family member). No demographic factors were found to influence pre-session knowledge or attitude scores (see Table 1), and the analysis proceeded with the aggregate data set.

<table>
<thead>
<tr>
<th>Category</th>
<th>Factors</th>
<th>Knowledge Scores</th>
<th>Attitude Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male (n = 24), Female (n = 99)</td>
<td>$t(121) = 0.72, p = .47$</td>
<td>$t(121) = 1.24, p = .22$</td>
</tr>
<tr>
<td>Prior Training Type</td>
<td>Mental Health First Aid (MHFA, n=44), MHFA and other programs (n=9), Go-To Educator Training (n=3), other training (n = 22), Not specified (n=10), No prior training (n=32)</td>
<td>$F(5,114) = 1.15, p = .34$</td>
<td>$F(5,114) = 0.75, p = .59$</td>
</tr>
<tr>
<td>Prior Mental Health Treatment</td>
<td>Yes (n=88), No (n=29), Don’t Know (n=5), Unspecified (n=2)</td>
<td>$F(3,118) = 0.85, p = .47$</td>
<td>$F(3,118) = 1.06, p = .37$</td>
</tr>
<tr>
<td>Prior Medical Treatment</td>
<td>Yes (n=111), No (n=11)</td>
<td>$t(120) = 0.29, p = .89$</td>
<td>$t(120) = 0.94, p = .11$</td>
</tr>
</tbody>
</table>

*Table 1: Knowledge and attitude scores compared by demographic factors*
Session Outcomes Results

On the pre-session survey of mental health knowledge, participants returned a mean score of 14.35 (standard deviation, SD=3.91) out of 30. This score increased to 23.10 (SD=2.51) during the post-session survey, demonstrating a significant and substantial increase in mental health knowledge ($t(118) = 25.18, p<.001; d=2.65$). Pre-session scores were then divided into two groups: those above the median score (14.00-30.00), and those below the median score (0-12.00). This allowed for greater clarity in studying the effects of the session on participants’ mental health knowledge. Participants with a score equal to the median score of 13.00 were removed from the median split analysis. The change in knowledge scores from pre- to post-session was then compared by group. Participants with below-median knowledge scores on the pre-session survey presented an initial mean score of 10.50 (SD=1.36), and significantly and substantially improved their knowledge scores to an average of 22.08 (SD=2.78; $t(39)=25.41, p<.001, d=5.29$) on the post-session survey (see Figure 1). The group of participants with higher-than-median pre-session knowledge scores also returned significant and substantial increases in their knowledge scores on the post-session survey, increasing from an average of 17.42 (SD=3.02) pre-session, to an average of 23.90 post-session (SD=2.11; $t(59)=6.80, p<.001, d=2.49$).

\[A \text{ p-value score of 0.05 or lower demonstrates significance determination with lower scores deemed to be stronger indicators. A d score of 0.3 demonstrates a moderate degree of impact while a score of 0.8 demonstrates a high degree of impact. Scores above 1.0 demonstrate more substantial impact with higher numbers associated with greater impact.}\]
Figure 1.
Comparison of the mental health knowledge scores from pre- to post-session surveys (scores out of a maximum of 30 points, * represents a significant and substantial positive difference).

Statistical evaluation of the pre- and post-session attitude scores revealed a statistically significant improvement from the average pre-session score of 77.35 (SD=5.84) out of 84 to an average of 79.50 (SD=5.15) out of 84 (t(118)=4.09, p<.001, d=0.39). As with knowledge scores, pre-session attitude scores were divided into sub-groups above (80-84) and below (0-78) the median score of 79 to further explore the effects of the session on participants’ attitudes toward mental illness. Participants with a score of 79 were removed from the analysis. Participants with below-median attitude scores on the pre-session survey presented a mean score of 72.26 (SD=4.90), and significantly and substantially improved their attitudes toward mental illness to an average post-session score of 77.19 (SD=5.11; t(53)=6.20, p<.001, d=0.99; see Figure 2). The group of participants with higher-than-median pre-session attitude scores reported non-statistically significant, changes in their attitudes toward mental illness on the post-session survey (SD=4.50; t(42)= 0.85, p=.40).
Since the Province of Newfoundland had recently provided the Mental Health First Aid training program to many of its educators, an additional point of interest was whether participation in the Mental Health First Aid training program (delivered within 12 months prior to participation in this session) influenced educators' knowledge or attitudes pertaining to mental health and mental illness prior to completing the Blended Guide and Go-To Training Program. Participants were asked whether they had previously received mental health training and, if yes, to specify the type of training provided. Eighty-eight participants reported that they had received prior training: 44 received Mental Health First Aid only, nine received Mental Health First Aid and other programs (such as ASIST), three received Go-To Training, 22 received other training (ASIST, Inservices, etc.), and ten did not specify. Mean knowledge and attitude scores for individuals who had completed Mental Health First Aid only (n = 44) were compared to those of individuals who reported no prior training (n = 32). Unpaired t-tests revealed no significant differences in pre-session scores between participants with and without previous Mental Health First Aid Training in either knowledge (t(74) = 0.77, p=.15) or attitudes toward mental illness (t(74) = 1.38, p=.96). Post-test mean scores were likewise non-significant between individuals who had completed Mental Health First Aid and those who had no prior training for both knowledge (t(71) = 0.43, p=.06) and attitudes toward mental illness (t(71) = 0.39, p=.70).

**Figure 2.** Effects of professional development on attitude toward mental illness (scores out of a maximum of 84 points, *represents a significant and substantial difference).
An additional survey question at baseline was used to establish participants’ self-reported competency level for early identification of mental health problems or disorders. Participants were asked how comfortable they were with identifying students who may have a mental disorder, and selected one option on a five-point text-based Likert scale (Very uncomfortable – Very comfortable). Answers were coded as positive (Somewhat/Very Comfortable), negative (Somewhat/Very Uncomfortable), and neutral (Neutral). Participants who answered this question were divided into those who had completed Mental health First Aid only (n = 41), and individuals who had received no prior training (n = 24). A Chi Square analysis was performed to establish whether individuals with Mental Health First Aid training were more comfortable with identifying students who may have a mental disorder, returning no significant associations between the two variables ($\chi^2(1) = 2.56, p = .13$).

**Individual Site Outcomes**

The aggregate data confirm trends seen during individual site analysis. Mental health knowledge and attitudes toward mental illness were found to increase significantly from pre- to post-session, and were further explored using the median-split technique described above. In all sites, participants showed significantly and substantially improved mental health knowledge scores post-session with a median score of 13 in St. John’s and Gander, and a median score of 14 in Deer Lake (see Figure 3).
Attitude toward mental illness scores broadly positive overall ($M = 77.35$, $SD=5.84$) and in the individual region data. The median-split analysis revealed significant score increases among individuals who presented below-median pre-session scores, while individuals with above-median pre-session scores did not report significant score changes at post-session across all regions (see Figure 4).

### Figure 3
Median-split analysis of knowledge scores by region. All differences are significant.

<table>
<thead>
<tr>
<th></th>
<th>Pre-session below-median</th>
<th>Post-session above median</th>
<th>Pre-session above-median</th>
<th>Post-session above-median</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. John's</td>
<td>10.14</td>
<td>17.57</td>
<td>21.29</td>
<td>23.71</td>
</tr>
<tr>
<td>Gander</td>
<td>10.6</td>
<td>14.45</td>
<td>22.87</td>
<td>24.25</td>
</tr>
<tr>
<td>Deer Lake</td>
<td>11.56</td>
<td>18.07</td>
<td>22.18</td>
<td>24.13</td>
</tr>
</tbody>
</table>

### Figure 4
Below-median attitude scores by region. All differences are significant.

- Pre-session below-median: St. John's 70.71, Gander 73.63, Deer Lake 72.46
- Post-session below-median: St. John's 75.55, Gander 78.68, Deer Lake 77.54
Discussion

The results of this evaluation clearly demonstrate the short-term benefits of the Blended Guide and Go-To Training Program in significantly and substantially improving educators’ general knowledge and attitudes toward mental illness across the province of Newfoundland and Labrador. Knowledge scores showed statistically significant (p<.001) as well as statistically substantial (d=2.65) improvement following the intervention. Those educators who returned below-median attitude scores during the pre-session assessment showed significant and substantial improvements in post-session attitude scores (p<.001, d=0.99). Participants whose pre-session attitude scores were above the median did not significantly improve their attitudes during the training, illustrating a “ceiling effect” for those who have highly positive pre-existing attitudes toward mental illness. For educators who present less positive attitudes initially, participation in the professional development session resulted in significant and substantial short-term improvement.

Of further interest, in this group, previous participation in a specific and widely applied mental health education program (Mental Health First Aid) did not differentiate baseline knowledge or attitude scores of those who had received that program from those who had not. Mental Health First Aid was also found to not influence participants’ self-reported comfort levels in identifying students who may have a mental disorder. This raises questions about the lasting impact and cost-effectiveness of this intervention on educators’ mental health literacy and self-reported comfort in identification of young people with mental health problems or mental disorders. Further evaluation of this issue in different and larger populations of educators using more complex study design and analysis is warranted before any conclusions can be drawn.

This evaluation demonstrates significant positive short-term changes in the improvement of Newfoundland educators’ knowledge and 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 other 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 Newfoundland and Labrador to improve mental health literacy of educators, and enhance their self-reported competencies to identify and support students in need of mental health care across the province.

These results also illustrate the similarities in improvements in mental health knowledge and attitudes in educators working in different regions of Newfoundland and Labrador. This finding provides added support for the consistent impact of this intervention, regardless of geography. This implies that a scaling up of this intervention to teachers and students is likely to result in similar positive outcomes across the entire province.

**Evaluation Summary**

Following the final day of training, participants completed Go-To Educator and Curriculum Guide Training Workshop Evaluation Forms. Across the three regions, 120 participants completed the evaluation, which is comprised of six five-point Likert-scale questions pertaining to the workshop’s content, relevance, and delivery (0 = poor; 5 = Excellent), and one text-based five-point Likert question (Much worse-Much better); as well as two text fields for comments and suggestions for improvement. Participants returned an overall mean score of 33.71 (SD=2.61) out of a possible 35 points. When asked “Overall, I found the workshop useful and informative” participants’ average score was 4.88 out of 5. In response to the question “Overall I found the speaker(s) to be of high quality”, the average participant score was 4.94 out of 5. In response to the question “Overall I learned information and concepts that will be helpful to me in my work”, the participants’ average score was 4.89. When asked “I would recommend this workshop to my colleagues”, the participants’ average score was 4.86. When asked to provide an overall rating for the workshop, participants’ average score was 4.85.
out of 5. Finally, participants were asked to rate this workshop compared to other similar workshops they have taken (see Figure 5). Seventy-seven participants rated the program as much better (64.17%) compared to other similar programs, 38 participants rated the program as better (31.67%) compared to other similar programs, four participants rated it as the same (3.33%), and one participant did not answer the question (0.83%).

Figure 5. Participant responses to evaluation question 7 (“Compared to other similar programs I have taken I would rate this workshop”)

Participants expressed enthusiasm for the workshop, and feedback was extremely positive with the most common suggestions for improvement asking for more break time during the sessions. Some typical feedback comments are:

“Excellent presentation with immense knowledge base - I see no suggestions for improvement, other than every educator/counsellor should receive this training. Thanks”

“Loved, loved, loved this PD. So beneficial, gets straight to the REAL issues and presented solutions to our issues!”

“I thoroughly enjoyed the past 2 days. The resources are the best I’ve seen. I feel very energized and better prepared to assist youth in our school system.”
Honestly the best PD I've had the opportunity to take part in. Refreshing. No BS. Completely applicable to our position in the school system. May I put you on speed dial please? Lol. We need more of this, and less “this is how to cover your (and OUR aka school board's) butt! Thanks again! Felt like I was in grad school all over again. Wonderful.”

“Excellent information and resources provided. Very applicable to schools and a range of students, teachers and parents - and myself. Thanks”

“Great workshop. This is what my school and staff were looking for and asking for.

Overall, the evaluations indicated a predominantly positive experience with the workshop and highlighted its applicability for use in schools. This was noted in addition to the previously detailed significant and substantial increases in mental health knowledge and attitudes toward mental illness. These results offer further support for the scale up of this intervention across the province of Newfoundland and Labrador.

Future Directions

The present evaluation provides a detailed picture of educators’ mental health knowledge and attitudes across the province of Newfoundland and Labrador. The significant and substantial improvements in both knowledge and attitudes as a result of this professional development session provide strong support for a wide-scale implementation of this training across Newfoundland and Labrador.

We intend to re-evaluate the educators involved in this professional development after a 3-month period to obtain additional data on the sustainability of the impact of this intervention over time. This re-evaluation will test retention of the knowledge and persistence of the improvement in stigma reduction and attitudes towards mental illness. It will also address participant self-reported mental health status and help-seeking behaviour. Should those results prove to be positive, these findings taken together will provide additional support for utilizing this intervention as a sustainable, effective, and relatively inexpensive-to-apply
method for increasing the mental health literacy outcomes of educators across Newfoundland and Labrador, and elsewhere. Combined with previous research (see references) these results provide solid empirical support for the value of introducing the Guide resource and Go-To Educator training across Newfoundland and Labrador to help address mental health needs of both students and teachers alike.

References


