



Mental Health  
Commission  
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du Canada

# Evaluation of IWK's *Understanding the Impact of Stigma* Program

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December 2013

[www.mentalhealthcommission.ca](http://www.mentalhealthcommission.ca)

*This project was made possible through funding from the Opening Minds Anti-stigma/Anti-discrimination Initiative of the Mental Health Commission of Canada. The work of the Mental Health Commission of Canada is supported by a grant from Health Canada. The views expressed in this publication are those of the authors.*

## **1 OPENING MINDS: CHANGING HOW WE SEE MENTAL ILLNESS**

As part of its 10-year mandate, The Mental Health Commission of Canada (MHCC) has embarked on an anti-stigma initiative called Opening Minds (OM) to change the attitudes and behaviours of Canadians towards people with a mental illness. OM is the largest systematic effort undertaken in Canadian history to reduce the stigma and discrimination associated with mental illness.

OM is taking a targeted approach, initially reaching out to healthcare providers, youth, the workforce, and media. OM's philosophy is not to reinvent the wheel, but rather to build on the strengths of existing programs from across the country. As a result, OM has actively sought out such programs, few of which have been scientifically evaluated for their effectiveness.

Now partnering with over 100 organizations, OM is conducting evaluations of the programs to determine their success at reducing stigma. OM's goal is to replicate effective programs nationally.

A key component of programs being evaluated is contact-based educational sessions, where target audiences hear personal stories from and interact with individuals who have recovered or are successfully managing their mental illness. The success of contact-based anti-stigma interventions has been generally supported by international studies as a promising practice to reduce stigma. OM is partnering with programs in Canada reaching out to its initial target groups: youth, healthcare providers, the workforce and news media. Over time, OM will add other target groups.

For more information, go to: [www.mentalhealthcommission.ca/English/Pages/OpeningMinds.aspx](http://www.mentalhealthcommission.ca/English/Pages/OpeningMinds.aspx)



## 2 BACKGROUND

The IWK *Understanding the Impact of Stigma* workshop is a replication of the Ontario Central LHIN two-hour *Mental Illness and Addictions: Understanding the Impact of Stigma* program. (1) OM's previous evaluation work has shown it to be an effective stigma reduction program for healthcare providers. (1-3) The IWK Health Centre is a children's hospital in Halifax, Nova Scotia. The IWK *Understanding the Impact of Stigma* program was slightly adapted from the original Central LHIN program to better suit its own specific needs. IWK's *Understanding the Impact of Stigma* program is a two-hour workshop containing the following key elements:<sup>1</sup>

- Famous People PowerPoint – A looping slideshow featuring famous people who have a mental illness. The PowerPoint plays continuously as participants enter the room and complete the pre-test. It is used to introduce the concept of stigma.
- Earache Exercise – A warm-up activity that compares the symptoms and experience of having an earache with that of having depression. It is used to demonstrate the stigma of mental illness by highlighting how the circle of supports shrinks and the time elapsing before seeking treatment tends to be longer with mental illness.
- Stigma Definition – The term stigma is defined and a short discussion about prejudice and discrimination is facilitated with participants.
- Myths vs. Facts – Various statements are shown on the screen and participants are asked to guess whether each one is a myth or a fact. A short explanation is given for each. Many of the statements build on one another and also challenge the participants to think critically about how stigma is embedded in society.
- Anti-stigma DVD – A short (approximately 15 minute) locally-made film is shown to allow participants to see the issue of stigma from many different perspectives. The video features perspectives and experiences from a person with lived experience of mental illness, a family member of a person with mental illness, and a healthcare provider.
- Group Discussion – Participants are asked to break into small groups of 3-5 people and discuss a set of questions about mental illness stigma as it pertains to their own work environments. Once finished, each group reports back to the larger group and discussion follows.
- First Voice Presentation – A personal testimony delivered by a guest speaker who speaks to the group about his/her lived experience with mental illness and/or addiction starting from the first signs and symptoms to how they live well in the community today. Speakers highlight examples of stigma in healthcare environments as well as positive experiences that led to their recovery. The personal testimony is followed by a question and answer/discussion period.

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<sup>1</sup> A one-hour version of the workshop was also developed. The one-hour workshop consisted of a brief introduction to stigma, a screening of the anti-stigma video, a small and large group discussion, and the first voice personal testimony component. Approximately 38 participants received the one-hour version of the workshop.

- Anti-Stigma Commitment – Participants are asked to write down an individual commitment to change their practice in a specific way that will contribute to eliminating stigma in their practice and at IWK.
- Take-home Resources and Post-test – At the end of the workshop, participants complete their post-test survey. Participants are also given a brochure on stigma to reinforce the key program messages. A take-home resource giving practical suggestions for language use is also handed out to participants. (4)

OM conducted an evaluation of the IWK *Understanding the Impact of Stigma* program which was delivered over the course of 7 months, from December 2012 to July 2013. In all, 61 workshops were delivered to a total of 546 staff. Program participants included both clinical and non-clinical staff. Further details on the methodology used for this evaluation are provided below.

### 3 EVALUATION METHODS

In order to assess attitude change towards mental illness, workshop participants were given a questionnaire package at three different time points. The first survey was completed before the initial intervention (pre-test survey). The second questionnaire was given to participants immediately following the completion of the two-hour *Understanding the Impact of Stigma* workshop (post-test survey). The final survey was administered electronically, three months following participants' attendance at their workshop (follow-up survey).

The pre-test survey contained the 20-item Opening Minds Scale for Health Care Providers (OMS-HC), questions pertaining to experiences with mental illness, and demographic questions (age, gender, training, and professional status). For the post-test and follow-up surveys, participants completed the 20-item OMS-HC again so that changes over time could be assessed. They were also asked a number of questions pertaining to their satisfaction and usefulness of the program.

The OMS-HC is a 20-item questionnaire that measures healthcare providers' attitudes towards people with a mental illness. To complete the scale, participants are asked the extent to which they agree or disagree with each item. Items are rated on a 5-point scale: *strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree*. A copy of the OMS-HC scale is included as **Appendix A**.

To create a total scale score for the OMS-HC, all 20 items are summed for each participant. Total scores can range from 20 to 100, with lower scores indicating less stigma. For this particular study, Cronbach's alphas for the scale were .81 at pre-workshop, .82 at post-workshop, and .83 at follow-up, indicating an acceptable level of internal consistency for the OMS-HC scale at all three time points.

Paired t-tests were used to analyze total scale scores. Also, by grouping certain questions from the scale together, the OMS-HC can be used to examine three main dimensions of stigma: Attitudes towards people with mental illness, healthcare professionals' attitudes about disclosure of a mental illness and social distance. A threshold was also created to measure success, defined as the proportion of respondents who obtained 80% or more correct (non-stigmatizing) answers on the pre- and post-tests.

## 4 RESULTS

A total of 517 participants completed one or more of the three evaluation surveys. Analysis of OMS-HC score change from pre- to post-workshop was performed based on a total of 478 paired completed pre and post surveys. Demographic characteristics of the sample are provided in Section 4.1. Changes in OMS-HC scores from pre- to post-intervention are provided in Sections 4.2 to 4.4. Section 4.5 details participants' feedback about the workshop and Section 4.6 provides OMS-HC results by participant type.

Section 4.7 highlights results for the three-month follow-up survey. Follow-up survey results are based on a total of 167 paired and matched survey completions across all three time points.<sup>2</sup> Given the lower response rate for the follow-up survey, results for this component of the study should be interpreted with caution.

Individual item scores for the OMS-HC at all three time points can be found in the data tables in **Appendix B**.

### 4.1 Participant Demographics

Participant demographics are reported on the 478 participants with paired pre and post surveys. **Table 1** highlights the breakdown of participants by age, gender and occupation. As shown in the table, the majority of participants were female (87.5%), with a mean age of 41 years.

The majority of workshop participants worked in nursing units/clinics (27.4%), mental health (22.6%), or allied health (14.4%). A number of non-clinical employees participated in the *Understanding the Impact of Stigma* workshop – 11.9% of participants were health center employees from such areas as protection services, food services, housekeeping and maintenance, and 8.9% were employees in leadership, education, quality or administration.

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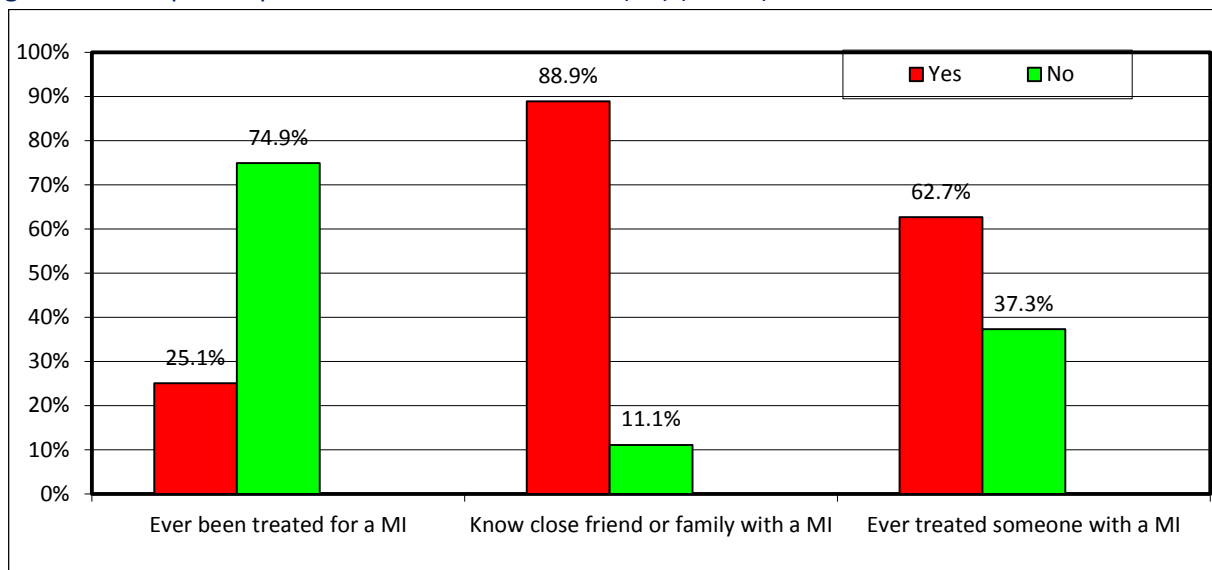
<sup>2</sup> A total of 404 respondents provided contact information to receive the follow-up survey. Thirty-nine of the follow-up survey invitations were returned as undeliverable, resulting in a follow-up survey sample of 365 possible respondents. Of the 365 follow-up survey invitations sent (invitations included three reminders to complete the survey), 198 respondents completed the follow-up survey, for a response rate of 54.2%. Of the 198 follow-up survey completions, 31 surveys could not be matched to previous questionnaires. These surveys were not included in paired analyses, leaving a total of 167 completed matched surveys across all three time points.

**Table 1.** Demographic characteristics of participants

Characteristic	(n=478)	%
<b>Gender</b>		
• Female	418	87.5%
• Male	55	11.5%
• Transgender	1	0.2%
• No response	4	0.8%
<b>Age group (mean age = 41)</b>		
• 18-29	85	17.8%
• 30-39	122	25.5%
• 40-49	138	28.9%
• 50-59	101	21.1%
• 60-69	13	2.7%
• No response	19	4.0%
<b>Department</b>		
• Leadership/quality/education/safety/HR	43	8.9%
• Allied health	69	14.4%
• Maintenance/housekeeping/protection/foods	57	11.9%
• Nursing unit/clinics	131	27.4%
• Mental health	108	22.6%
• Emergency	28	5.9%
• Primary health	10	2.1%
• Radiology/nuclear medicine	22	4.6%
• Did not specify	10	2.1%

The demographic section of the pre-test survey also asked respondents about their personal experience with mental illness. These results are highlighted in **Figure 1**. As shown, most participants had previous experience treating persons with mental illness (62.7%). Most participants said they personally knew a close friend or family member with a mental illness (88.9%), while one quarter of respondents indicated that they had been treated for a mental illness at some point in their lives (24.9%).

**Figure 1.** Participant experience with a mental illness (MI) (n=478)

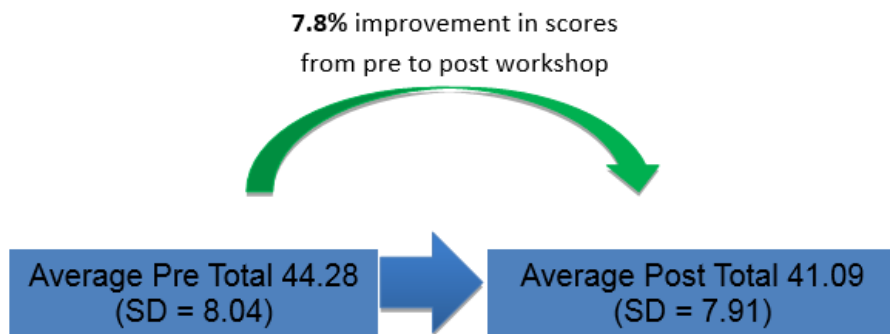


#### 4.2 OMS-HC Total Score Change from Pre- to Post-Workshop

To create scale scores for the OMS-HC, items were summed across all surveys having complete data. Scores can range from 20 to 100, with lower scores indicating less stigma.

For the pre-test, total scores ranged from 22 to 71, with an average of 44.28 (SD = 8.04). For the post-test, total scores ranged from 20 to 63, with an average of 41.09 (SD = 7.91). As highlighted in **Figure 2**, scores improved 7.8% from pre- to post-workshop. This represents a standardized mean difference (SMD) of 0.40, which may be considered a moderate effect. Results of a paired t-test showed this change to be statistically significant ( $t(477)=11.74$ ;  $p<.001$ ).

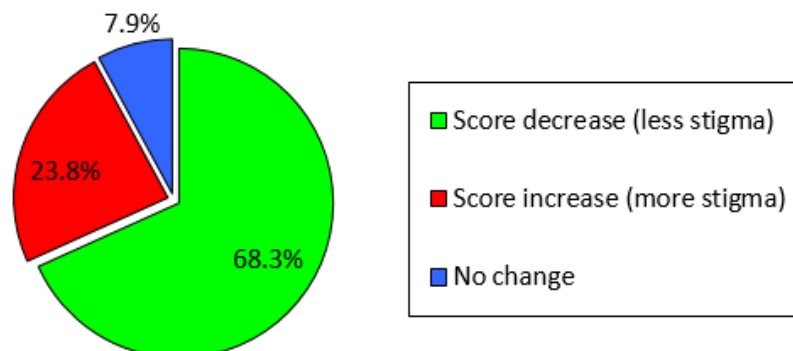
**Figure 2.** Opening Minds Scale for Health Care Providers: Average total scores for pre- and post-test (n=478)



The breakdown in the direction of score changes from pre- to post-workshop for IWK's *Understanding the Impact of Stigma* program is highlighted in **Figure 3**. This figure shows the number and percent of participants who had a total score increase (i.e. more stigma), total score decrease (i.e. less stigma) or a score that had no change.

While 68.3% of participants' scores improved from pre to post, 7.9% of participants had no change in score on the OMS-HC from pre- to post-orientation session. Approximately one quarter of participants had an increase in score from pre- to post-orientation session (23.8%).

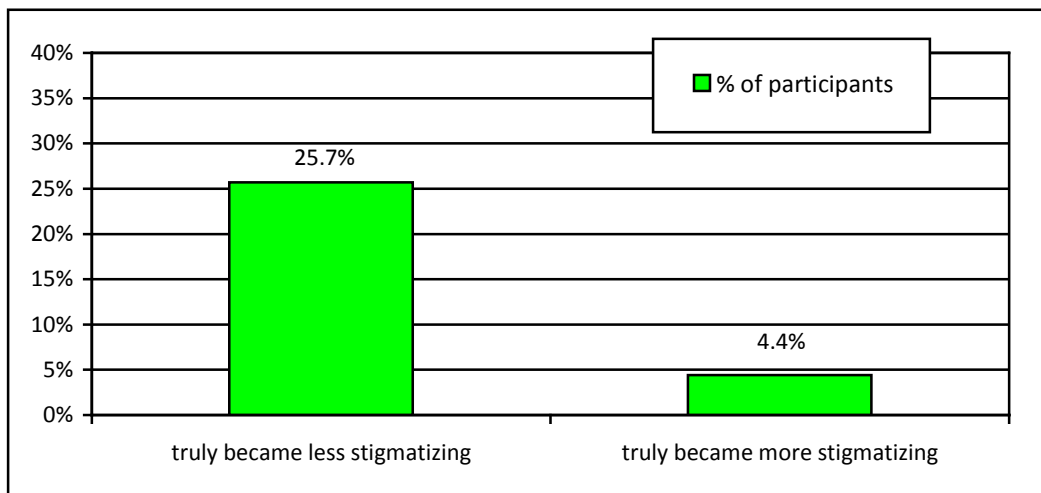
**Figure 3.** Direction of change from pre to post: OMS-HC scale (n=478)



The minimum detectable change (MDC) statistic is another method for examining changes in scores from pre- to post-workshop. The calculated MDC for the OMS-HC scale is 6.51.<sup>3</sup> This suggests that a score increase or decrease of 6.5 points or more on the OMS-HC scale reflects a true change in attitude; one that cannot be attributed to measurement error.

When the MDC is applied to participants' score changes from pre- to post-orientation, it can be determined (with 90% confidence) that for 25.7% of the sample, attitudes towards mental illness truly became less stigmatizing from pre- to post-workshop. By contrast, only 4.4% became more stigmatizing from pre- to post-workshop. This is highlighted in **Figure 4** below.

**Figure 4.** Pre to post score change using the MDC statistic (n=478)



### 4.3 Dimensions of Stigma

The OMS-HC scale contains within it three main content areas, each measuring a specific dimension of stigma.<sup>4</sup>

The first dimension is healthcare providers' inclinations towards disclosure of a mental illness. This dimension can be used to provide an indication of the stigma healthcare providers believe exists due to having a mental illness and how this would impact help-seeking. The specific scale items used to measure this dimension of stigma are as follows:

*Q4. If I were under treatment for a mental illness, I would not disclose this to any of my colleagues*

*Q6. I would see myself as weak if I had a mental illness and could not fix it myself*

*Q7 I would be reluctant to seek help if I had a mental illness*

*Q10. If I had a mental illness, I would tell my friends*

<sup>3</sup> The MDC for the OMS-HC scale was calculated based on a standard error of measurement (SEM) of 2.80 (from test-retest results as described in Kassam et al. 2012 (1)) and a z score of 1.65 (90% confidence level). The formula for calculating this statistic is as follows:  $MDC = SEM * \sqrt{2} * z$  score associated with confidence level of interest.

<sup>4</sup> While original scale testing (5) suggested two main subscales – attitudes toward mental illness and attitudes toward disclosure of a mental illness – subsequent analyses have identified three subscales within the OMS-HC (6).



The second dimension is that of ‘attitudes towards people with mental illness’ and includes the following statements:

*Q1. I am more comfortable helping a person who had a physical illness than I am helping a person who has a mental illness*

*Q12. Despite my professional beliefs, I have negative reactions towards people with a mental illness*

*Q13. There is little I can do to help people with mental illness*

*Q14. More than half of people with mental illness don’t try hard enough to get better*

*Q18. Healthcare providers do not need to be advocates for people with mental illness*

*Q20. I struggle to feel compassion for a person with a mental illness*

The third dimension is that of preferred social distance and includes the following statements:

*Q3. If a colleague with whom I work told me they had a managed mental illness, I would be as willing to work with him/her*

*Q8. Employers should hire a person with a managed mental illness if he/she is the best person for the job*

*Q9. I would still go to a physician if I knew that the physician had been treated for a mental illness*

*Q17. I would not want a person with a mental illness, even if it were appropriately managed, to work with children*

*Q19. I would not mind if a person with a mental illness lived next door to me*

Total scores for these three dimensions were created by taking the mean score for each item in the content area. A summary of changes in attitude for these three content areas is provided in **Table 2**.

As highlighted in the table, all three content areas showed a statistically significant improvement from pre-test to post-test on the OMS-HC. Scores improved just over 5% from pre- to post-survey for both the ‘attitude towards people with mental illness’ and the ‘social distance’ content areas. For the dimension of disclosure/help-seeking, scores improved by 7.4% from pre- to post-workshop.

**Table 2.** Stigma content areas: Changes in respondent score from pre to post (n=478)

Content Area	Pre test	Post test	% change	Paired t-test
Attitude towards people with mental illness	2.03	1.88	7.4%	t(477)=8.25*
Disclosure/help-seeking	2.54	2.40	5.4%	t(477)=5.41*
Social distance	1.85	1.74	5.6%	t(453)=5.24*

\* p<.001

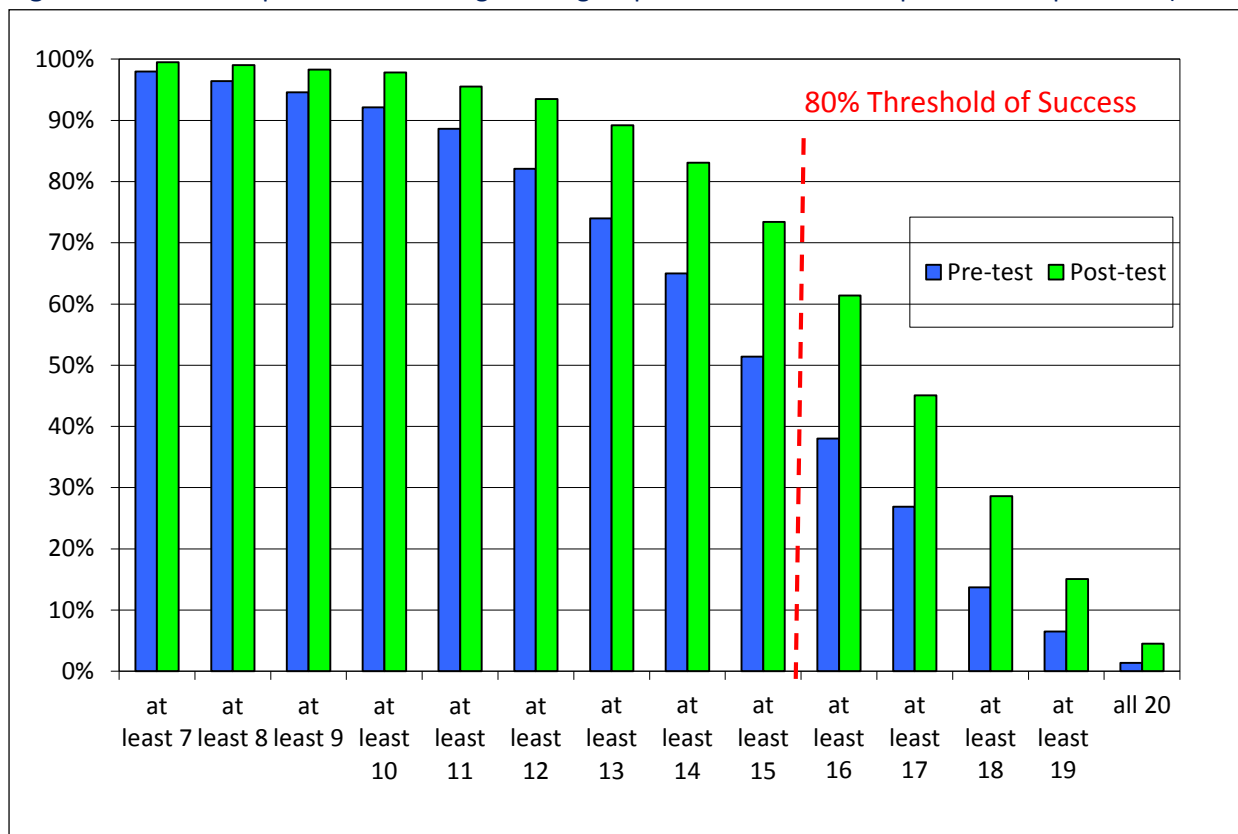
#### 4.4 Threshold of Success

Another way to examine the impact of IWK’s *Understanding the Impact of Stigma* program on mental illness-related stigma is to examine how many participants reached a “threshold of success” on the OMS-HC scale; in other words, how many participants responded to a certain number of items on the OMS-HC in a non-stigmatizing way.

The threshold of success measure was derived by recoding each participant’s response on the OMS-HC scale to represent either a stigmatizing or a non-stigmatizing response. For example, “Most people with mental illness could snap out of it if they wanted to” was recoded as non-stigmatizing if the respondent selected *strongly disagree* or *disagree* and recoded as stigmatizing if the respondent chose *neutral*, *agree*, or *strongly agree*.

**Figure 5** shows the cumulative percentages of participants who had non-stigmatizing responses for each possible score out of 20 at pre, post, and follow-up. A threshold of 80% (or at least 16 out of 20 “correct” – i.e. non-stigmatizing – answers) was used as an indication of success on the OMS-HC.

**Figure 5.** Cumulative percent of non-stigmatizing responses on OMS-HC at pre-test and post-test (n=478)



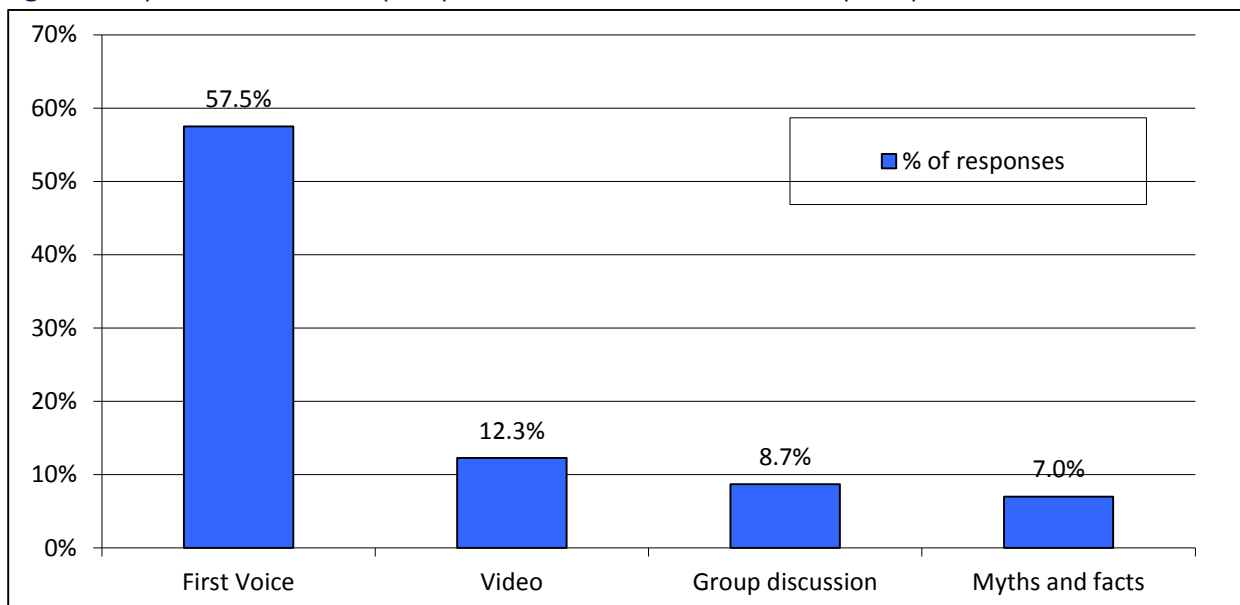
As highlighted in the figure, prior to the *Understanding the Impact of Stigma* session, 38% of participants were across the threshold of success on the OMS-HC. However, by the end of the session, the percentage across the threshold level of success had increased to just over six in ten participants, at 61.0%.

#### 4.5 Participant Feedback

In addition to measuring the impact of the anti-stigma intervention using quantitative techniques (i.e. changes in attitude as measured by the OMS-HC), respondents were also asked to indicate the aspect(s) of the program they thought most affected their perceptions of mental illness. They were then asked to elaborate on their response.

As highlighted in **Figure 6**, 57.5% of responses indicated the First Voice (personal testimony) portion was the aspect of the workshop that most affected their perceptions of mental illness. This was followed by the video component of the workshop, with 12.3% of respondents saying this was the element of the program that most affected their perceptions of mental illness.

**Figure 6.** Aspect of the workshop respondents felt most affected their perceptions of mental illness



Below are a selection of comments provided by participants describing how and why they were affected by particular aspects of the workshop.

##### **First Voice (personal testimony):**

- The 'First Voice' presentation had incredible impact – brave, truthful and uncovered some real hard truths.
- Guest speaker – hearing someone's personal experiences with mental health and what helped, what didn't and be reminded how successful someone can be when provided with supports.
- Appreciated [the speaker's] story, which served as an important reminder to embrace a spirit of inquiry when listening to symptoms of physical/mental illness.

##### **Video:**

- I found the video interesting because it vocalized other people's perspectives.

- Seeing the video made such an impact. I saw that the people who suffered with mental illness just wanted to be treated as a “normal” human being and not to be judged.
- Video – helped to hear from all views: patient, parent and healthcare provider.

**Discussion period:**

- The group discussion gave more insight into what my colleagues think of mental health patients and what we can do together to help reduce the stigma.
- The group discussion certainly made me think of how we treat people differently.

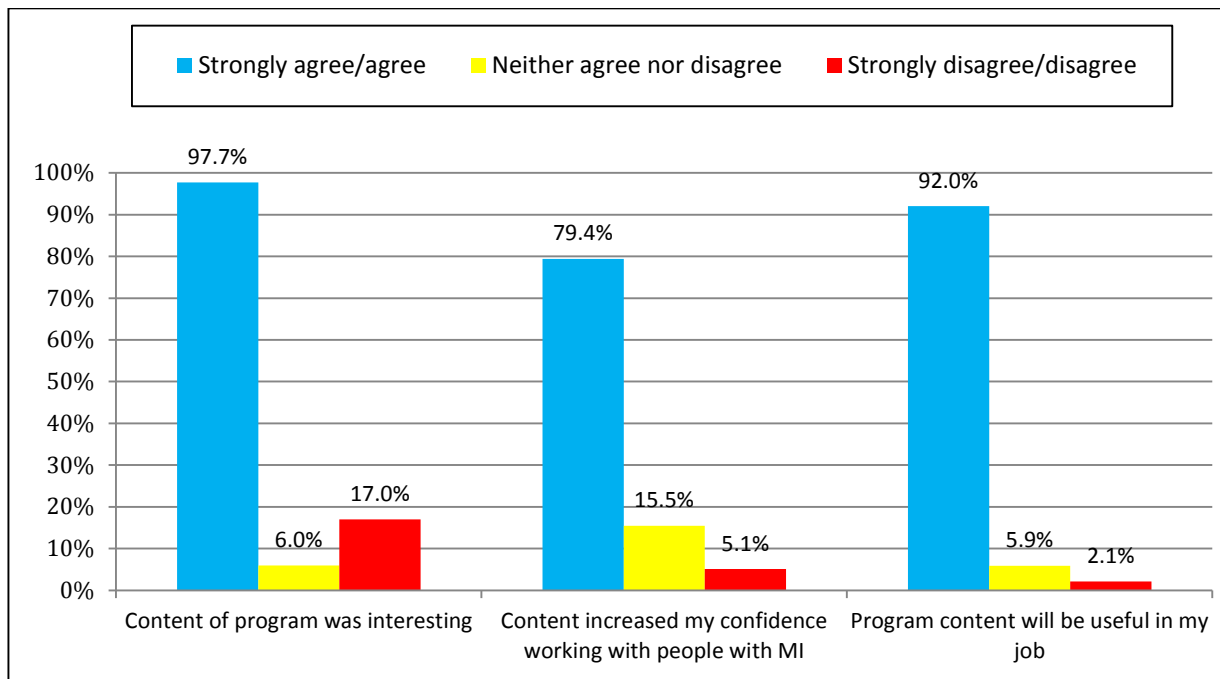
**Myths and facts:**

- Fact or myth questions gave information about mental illness and what can be done.
- Myth/fact: the stats were eye-openers.

Program participants were also asked the extent to which they agreed with the following statements about the *IWK Understanding the Impact of Stigma* program: “The content of the program was interesting;” “The content of the program increased my confidence working with people with mental illness;” and “The content of the program will be useful in my job.” These results are highlighted in **Figure 7**.

As shown in the figure, virtually all participants agreed that the program content was interesting (43.3% agreed; 54.4% strongly agreed), and that the program content would be useful for their job (53.7% agreed; 38.3% strongly agreed). In addition, approximately eight in ten respondents felt that the program increased their confidence working with people with a mental illness (53.6% agreed; 25.8% strongly agreed).

**Figure 7.** Participant agreement with statements regarding program quality and usefulness for the *IWK Understanding the Impact of Stigma* workshop



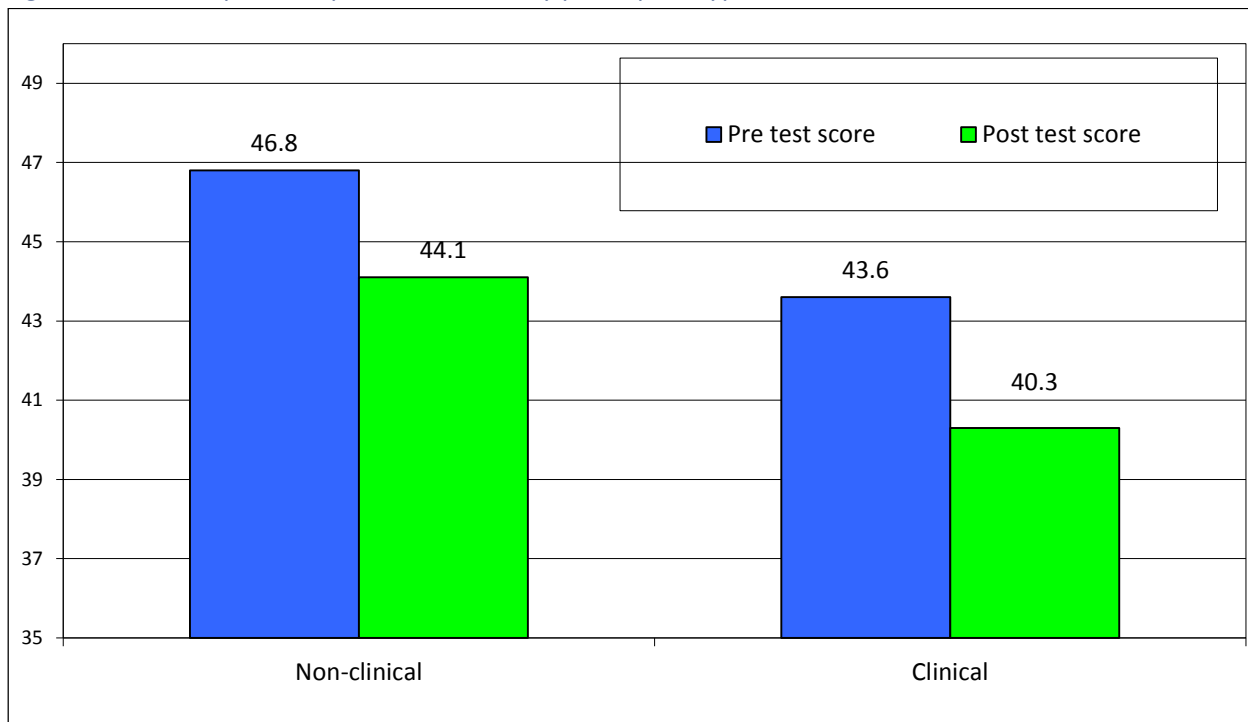
#### 4.6 Differences by Participant Type

As described above, the IWK *Understanding the Impact of Stigma* workshops were attended by both clinical and non-clinical staff. As such, OMS-HC scores were examined according to 'clinical' (n=368) versus 'non-clinical' (n=100) status.<sup>5</sup> As highlighted in **Figure 8**, non-clinical staff had higher (i.e. worse) average total baseline scores on the OMS-HC (46.8, SD=8.3) as compared to clinical staff (43.6, SD=7.8). The difference in baseline scores between the two groups was statistically significant ( $t(466)=3.67, p<.001$ ).

As further highlighted in the figure, OMS-HC scores changed an average of 5.9% (2.8 points on the OMS-HC scale, SMD=.34) from pre-test to post-intervention for the 'non-clinical staff' group, while the average score improvement among clinical staff was greater, at 7.6% (3.3 points on the OMS-HC scale, SMD=.43).

Although the change in score observed among non-clinical staff was smaller in magnitude than that observed for the clinical group, results of paired t-tests indicate the change in scores from pre- to post-workshop for both groups was statistically significant.<sup>6</sup>

**Figure 8.** OMS-HC pre- and post-test scores by participant type: 'Non-clinical' and 'clinical' staff



n=100 for the non-clinical group (paired data); n=368 for the clinical group (paired data)

#### 4.7 Follow-up Survey Results

As described above, participants of the IWK *Understanding the Impact of Stigma* program were asked to complete a follow-up survey three months after the completion of their workshop. The follow-up survey was

<sup>5</sup> Non-clinical staff included: Leadership, education, safety, HR, maintenance, housekeeping, protection and foods. Clinical staff included: Allied health professionals, nursing, mental health, emergency, primary health and radiology/nuclear medicine. Ten<sub>13</sub> participants did not indicate their department/occupation so were not included in the analysis by participant type.

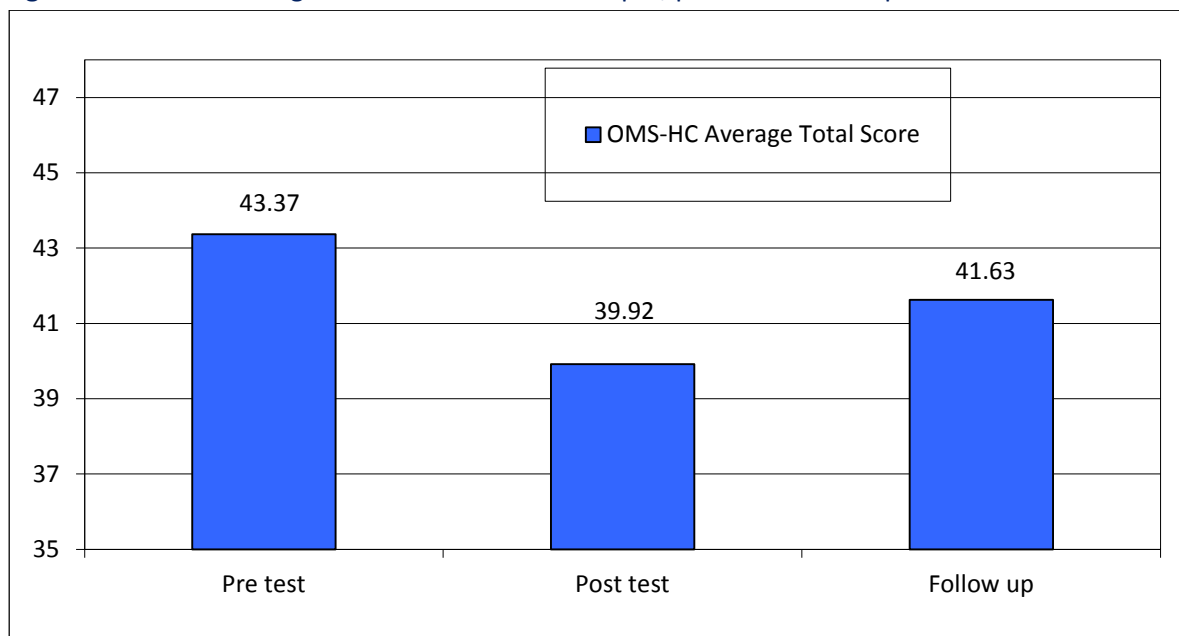
<sup>6</sup> Non-clinical  $t(99)=4.312, p<.001$ ; clinical  $t(367)=10.949, p<.001$ .

administered in order to gain a sense of sustained change over time. There were 167 participants who completed all three surveys. The following results are based on these 167 responses.

**Figure 9** highlights the average total OMS-HC score at all three time points. For the three month follow-up, total scores ranged from 23 to 60, with an average of 41.63 (SD=8.06). This score is higher (i.e. worse) than the score observed immediately following the *Understanding the Impact of Stigma* workshop. Results of a paired t-test show that the score increase from post-test to follow-up was statistically significant ( $t(166)=-3.53, p=.001$ ), suggesting program effects were not fully sustained at three months post-workshop.

Follow-up scores were, however, still 4.0% (1.74 points on the OMS-HC) improved over those observed at baseline. Results of paired t-tests show that the overall score improvement from baseline to three months post-workshop was statistically significant ( $t(166)=3.34, p=.001$ ).

**Figure 9.** OMS-HC average total scores across time: pre, post and follow-up



n=167 (paired data: completed pre, post, and follow-up surveys)

As highlighted in **Table 3**, an examination of follow-up scores by participant type (i.e. non-clinical versus clinical staff) suggests that program effects may be more likely to be sustained among non-clinical staff than among clinical staff.

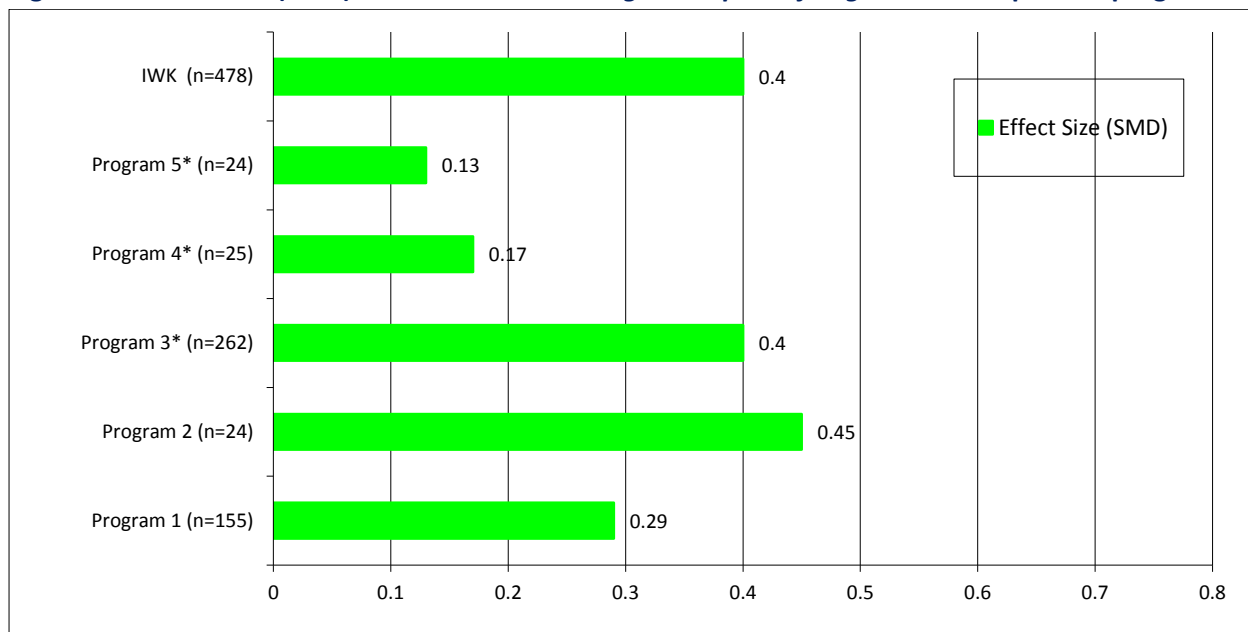
**Table 3.** OMS-HC scores across all three time points by participant type: ‘Clinical’ versus ‘non-clinical’ staff

Content Area	Pre-test score (95% CI)	Post-test score (95% CI)	Follow-up score (95% CI)	t-test (mean change from baseline to follow-up)
Clinical staff (n = 131)	42.0 (41.3-42.6)	38.7 (38.0-39.4)	41.0 (40.3-41.7)	t(130)=1.68 p=.095
Non-clinical staff (n = 33)	48.5 (47.4-49.6)	44.1 (39.9-45.7)	44.3 (42.9-45.7)	t(32)=4.01 p<.001

## 5 COMPARISON TO OTHER SIMILAR PROGRAMS

OM has evaluated a number of hospital/health centre-based programs similar in content to the IWK *Understanding the Impact of Stigma* program, allowing a comparison of outcomes across different programs to be conducted. These comparisons are highlighted in **Figure 10**, which shows the standardized score change as measured by the standardized mean difference (SMD) for the IWK *Understanding the Impact of Stigma* program and comparable programs.<sup>7</sup>

**Figure 10:** Effect sizes (SMD) for IWK *Understanding the Impact of Stigma* and comparable programs



\*One-hour program version

<sup>7</sup> Comparable programs are variations/adaptations of the *Mental Illness and Addictions: Understanding the Impact of Stigma* program.

As shown, the IWK *Understanding the Impact of Stigma* program is among the top performing programs in terms of overall program effect, along with ‘Program 2’ (a two-hour workshop using the same core curriculum as the IWK program) and ‘Program 3’ (a one-hour condensed version of the Ontario Central LHIN *Mental Illness and Addictions: Understanding the Impact of Stigma* curriculum).

## 6 SUMMARY AND CONCLUSIONS

The evaluation of the IWK *Understanding the Impact of Stigma* program showed overall positive results at improving attitudes and behavioural intentions towards mental illness and persons with mental illness. This was demonstrated by a number of key findings, including:

- A statistically significant improvement in score on the OMS-HC from pre- to post-program for both clinical and non-clinical staff;
- An overall 7.8% improvement in score on the OMS-HC from pre- to post-workshop and a comparably positive effect size of .40 (effect sizes for other similar programs range from .13 to .45);
- For one quarter of participants (25.7%) we were able to determine with 90% confidence that they truly became less stigmatizing towards mental illness, while only 4.4% became more stigmatizing;
- An increase in the percentage of respondents who gave non-stigmatizing responses to at least 80% of the scale items, from 38% at baseline to 61% at post-test;
- A statistically significant improvement in scores on all of the major three content areas measured by the OMS-HC from pre- to post-workshop – attitudes towards people with a mental illness, attitudes towards disclosure/help-seeking, and desire for social distance; and
- Although slippage in scores was observed at the time of the three-month follow-up, total average scores on the OMS-HC scale were still 4% improved from those observed at baseline, suggesting that that program effects may be partially sustained over time.

Participant perceptions of program impact were also positive. Participants felt that the workshop was a useful and impactful experience, especially the ‘First Voice’ personal testimony aspect of the program. The vast majority of participants felt that the program content was interesting and useful to their job, and approximately 80% felt that the program increased their confidence working with people with a mental illness.

Overall, the IWK *Understanding the Impact of Stigma* program demonstrated positive results in terms of its ability to reduce stigma against mental illness among both clinical and non-clinical healthcare staff. Compared to other similar programs, the IWK *Understanding the Impact of Stigma* program is among the top performing programs in terms of overall program effect. This program should be replicated and/or used as a model for anti-stigma programming in other hospitals or healthcare settings, although implementing this program within a model of sustainability would be of additional benefit. In particular, offering periodic ‘booster’ or refresher sessions will help to ensure that any reductions in stigma realized from the initial intervention are successfully maintained and reinforced over time. (2)



## **References**

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## Appendix A

### OMS-HC Scale for Health Providers

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If a person with a mental illness complains of physical symptoms (e.g., nausea, back pain or headache), I would likely attribute this to their mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If a colleague with whom I work told me they had a mental illness, I would be just as willing to work with him/her.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. If I were under treatment for a mental illness I would not disclose this to any of my colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I would be more inclined to seek help for a mental illness if my treating healthcare provider was not associated with my workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I would see myself as weak if I had a mental illness and could not fix it myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I would be reluctant to seek help if I had a mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Employers should hire a person with a managed mental illness if he/she is the best person for the job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I would still go to a physician if I knew that the physician had been treated for a mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. If I had a mental illness, I would tell my friends.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. It is the responsibility of healthcare providers to inspire hope in people with mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Despite my professional beliefs, I have negative reactions towards people who have mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. There is little I can do to help people with mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. More than half of people with mental illness don't try hard enough to get better.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. People with mental illness seldom pose a risk to the public.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The best treatment for mental illness is medication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I would not want a person with a mental illness, even if it were appropriately managed, to work with children.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Healthcare providers do not need to be advocates for people with mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I would not mind if a person with a mental illness lived next door to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I struggle to feel compassion for a person with mental illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Appendix B

### Data Tables

**Table B1.** OMS-HC frequency distributions for pre-test, post-test and follow-up (*all respondents; valid percent*)

Item	Pre-workshop (n=478)			Post-workshop (n=478)			Follow-up (n=167)		
	Disagree/ Strongly Disagree	Neither Agree nor Disagree	Agree/ Strongly Agree	Disagree/ Strongly Disagree	Neither Agree nor Disagree	Agree/ Strongly Agree	Disagree/ Strongly Disagree	Neither Agree nor Disagree	Agree/ Strongly Agree
1. I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.	45.2% (216)	20.7% (99)	34.1% (163)	53.4% (255)	16.1% (77)	30.5% (146)	52.1% (87)	12.6% (21)	35.3% (59)
2. If a person with a mental illness complains of physical symptoms (e.g. nausea, back pain or headache), I would likely attribute this to their mental illness.	75.8% (362)	17.6% (84)	6.5% (31)	85.8% (410)	9.2% (44)	5.0% (24)	79.1% (132)	15.6% (26)	5.4% (9)
3. If a colleague with whom I work told me they had a managed mental illness, I would be as willing to work with him/her. (reverse)	4.9% (18)	3.0% (13)	93.1% (422)	3.1% (14)	2.0% (9)	94.9% (431)	1.8% (3)	1.2% (2)	97.0% (162)
4. If I were under treatment for a mental illness I would not disclose this to any of my colleagues.	28.5% (136)	27.9% (133)	43.5% (207)	37.9% (181)	31.8% (152)	30.4% (145)	29.1% (48)	26.7% (44)	44.3% (73)
5. I would be more inclined to seek help for a mental illness if my treating healthcare provider was <u>not</u> associated with my workplace.	21.5% (102)	15.1% (72)	63.4% (302)	24.7% (118)	18.4% (88)	56.9% (271)	19.2% (32)	10.8% (18)	70.1% (117)
6. I would see myself as weak if I had a mental illness and could <u>not</u> fix it myself.	68.2% (325)	12.6% (60)	19.2% (91)	77.8% (372)	11.1% (53)	11.1% (53)	72.4% (121)	16.8% (28)	10.8% (18)
7. I would be reluctant to seek help if I had a mental illness.	77.1% (367)	10.7% (51)	12.2% (58)	80.7% (384)	9.2% (44)	10.1% (48)	82.0% (137)	9.6% (16)	8.4% (14)
8. Employers should hire a person with a managed mental illness if he/she is the best person for the job. (reverse)	2.2% (10)	3.5% (16)	94.2% (427)	1.8% (8)	1.1% (5)	97.1% (441)	0.0% (0)	1.8% (3)	98.2% (163)
9. I would still go to a physician if I knew that the physician had been treated for a mental illness. (reverse)	3.9% (18)	13.7% (62)	83.2% (373)	1.3% (6)	6.8% (31)	91.9% (416)	3.0% (5)	7.2% (12)	89.8% (150)

Item	Pre-workshop (n=478)			Post-workshop (n=167)			Follow-up (n=167)		
	Disagree/ Strongly Disagree	Neither Agree nor Disagree	Agree/ Strongly Agree	Disagree/ Strongly Disagree	Neither Agree nor Disagree	Agree/ Strongly Agree	Disagree/ Strongly Disagree	Neither Agree nor Disagree	Agree/ Strongly Agree
10. If I had a mental illness, I would tell my friends. (reverse)	15.4% (73)	25.6% (122)	59.0% (281)	14.5% (69)	28.4% (135)	57.2% (272)	12.6% (21)	29.5% (49)	57.8% (96)
11. It is the responsibility of healthcare providers to inspire hope in people with mental illness. (reverse)	5.0% (23)	20.8% (94)	74.2% (334)	1.6% (7)	7.5% (34)	90.9% (412)	5.4% (9)	14.5% (24)	80.1% (133)
12. Despite my professional beliefs, I have negative reactions towards people who have mental illness.	78.2% (373)	13.8% (66)	7.9% (38)	81.2% (385)	13.1% (62)	5.7% (27)	82.5% (137)	10.2% (17)	7.2% (12)
13. There is little I can do to help people with mental illness.	80.9% (385)	14.5% (69)	4.6% (22)	91.8% (435)	6.3% (30)	1.9% (9)	86.0% (142)	12.7% (21)	1.2% (2)
14. More than half of people with mental illness don't try hard enough to get better.	82.5% (391)	15.2% (72)	2.3% (11)	92.8% (441)	5.3% (25)	1.9% (9)	89.8% (149)	7.8% (13)	2.4% (4)
15. People with mental illness seldom pose a risk to the public. (reverse)	16.2% (73)	22.0% (99)	61.9% (279)	12.8% (58)	7.7% (35)	79.4% (359)	11.4% (19)	11.4% (19)	77.2% (129)
16. The best treatment for mental illness is medication.	52.1% (236)	43.9% (199)	4.0% (18)	72.8% (329)	25.2% (114)	2.0% (9)	61.4% (102)	33.7% (56)	4.8% (8)
17. I would <u>not</u> want a person with a mental illness, even if it were appropriately managed, to work with children.	84.9% (382)	10.9% (49)	4.2% (19)	90.0% (407)	7.3% (33)	2.7% (12)	87.4% (146)	9.6% (16)	3.0% (5)
18. Healthcare providers do <u>not</u> need to be advocates for people with mental illness.	91.1% (431)	6.3% (30)	2.5% (12)	93.9% (446)	2.3% (11)	3.8% (18)	92.8% (155)	4.8% (8)	2.4% (4)
19. I would <u>not</u> mind if a person with a mental illness lived next door to me. (reverse)	2.0% (9)	10.8% (49)	87.2% (395)	2.2% (10)	4.4% (20)	93.4% (423)	3.6% (6)	7.9% (13)	88.5% (146)
20. I struggle to feel compassion for a person with a mental illness.	88.6% (422)	6.7% (32)	4.7% (22)	92.7% (442)	4.8% (23)	2.5% (12)	94.0% (156)	3.0% (5)	3.0% (5)

**Table B2.** OMS-HC: Mean scores from pre-test to post-test with content areas indicated (*paired surveys*)

Qn	Dimension	Item	Mean score		Pair Samples T-Test (n=478)	
			Pre-test	Post-test	T-value	P-value
1	Attitude	I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.	2.80	2.63	3.95	<.001
2		If a person with a mental illness complains of physical symptoms (e.g. nausea, back pain or headache), I would likely attribute this to their mental illness.	2.12	1.97	4.16	<.001
3	Social Distance	If a colleague with whom I work told me they had a managed mental illness, I would be as willing to work with him/her.	1.67	1.71	-0.74	.460
4	Disclosure	If I were under treatment for a mental illness I would not disclose this to any of my colleagues.	3.21	2.93	6.60	<.001
5		I would be more inclined to seek help for a mental illness if my treating healthcare provider was <u>not</u> associated with my workplace.	3.55	3.39	3.83	<.001
6	Disclosure	I would see myself as weak if I had a mental illness and could <u>not</u> fix it myself.	2.33	2.10	5.58	<.001
7	Disclosure	I would be reluctant to seek help if I had a mental illness.	2.15	2.06	2.20	.029
8	Social Distance	Employers should hire a person with a managed mental illness if he/she is the best person for the job.	1.64	1.56	2.20	.028
9	Social Distance	I would still go to a physician if I knew that the physician had been treated for a mental illness.	2.01	1.83	5.80	<.001
10	Disclosure	If I had a mental illness, I would tell my friends.	2.47	2.52	-1.22	.223
11		It is the responsibility of healthcare providers to inspire hope in people with mental illness.	2.06	1.72	8.69	<.001
12	Attitude	Despite my professional beliefs, I have negative reactions towards people who have mental illness.	2.00	1.99	0.27	.786
13	Attitude	There is little I can do to help people with mental illness.	1.99	1.76	6.27	<.001
14	Attitude	More than half of people with mental illness don't try hard enough to get better.	1.94	1.63	8.04	<.001
15		People with mental illness seldom pose a risk to the public.	2.44	2.10	6.23	<.001
16		The best treatment for mental illness is medication.	2.43	2.11	9.04	<.001
17	Social Distance	I would <u>not</u> want a person with a mental illness, even if it were appropriately managed, to work with children.	2.02	1.83	5.46	<.001
18	Attitude	Healthcare providers do <u>not</u> need to be advocates for people with mental illness.	1.69	1.58	2.66	.008
19	Social Distance	I would <u>not</u> mind if a person with a mental illness lived next door to me.	1.90	1.77	3.81	<.001
20	Attitude	I struggle to feel compassion for a person with a mental illness.	1.75	1.66	2.52	.012