**Mental Health Commission of Canada**

**Commission de la santé mentale du Canada**

# Opening Minds In High School:

Results of a Contact-Based Anti-Stigma Intervention

Durham and York Region Talking About Mental Illness (TAMI ) Programs

Michelle Koller, PhD Candidate, Shu-Ping Chen, PhD,

Bob Heeney, CYW CYC (Cert), Allison Potts, M.S.W. R. S. W, Heather Stuart, PhD.

August, 2012

## Acknowledgements

***OPENING MINDS*: Changing how we see mental illness**.

As part of its 10-year mandate, The Mental Health Commission of Canada has embarked on an anti-stigma initiative called *Opening Minds* to change the attitudes and behaviours of Canadians towards people with a mental illness. *Opening Minds* is the largest systematic effort undertaken in Canadian history to reduce the stigma and discrimination associated with mental illness. *Opening Minds* is taking a targeted approach, initially reaching out to healthcare providers, youth, the workforce and media. *Opening Mind's* philosophy is to build on the strengths of existing programs from across the county, and to scientifically evaluate their effectiveness. 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 experience with a mental illness and have recovered or are managing their illness. *Opening Mind's* goal is to replicate effective programs nationally, develop new interventions to address gaps in existing programs and add other target groups over time.

For more information go to:

*www.mentalhealthcommission.ca/English/Pages/OpeningMinds.aspx*

# Introduction and Purpose

Stigma and discrimination have gained the attention of the public health and policy communities as a hidden and costly burden cause by society's prejudicial reaction to people with a mental illness (World Health Organization, 2001). Stigma and discrimination pose major obstacles in virtually every life domain, carrying significant negative social and psychological impacts. Reducing stigma and discrimination have become important policy objectives at both international and national levels (Sartorius & Schulze, 2005). The 2009 launch of the Mental Health Commission's *Opening Minds* anti-stigma anti-discrimination initiative marked the largest systematic effort to combat mental illness related stigma in Canadian History.

The *Opening Minds* program has partnered with a number of programs that deliver contact-based education to primary and high school students throughout Canada. Contact-based education involves people who have experienced a mental illness to educate students by telling their personal stories and allowing time for active discussion. In some cases, teacher lesson plans accompany the classroom presentations.

This report is intended to provide programs with an overview of their key evaluation results. A subsequent initiative will examine each program's components in depth in order to highlight the active ingredients that are associated with the largest change. This initial report presents the combined findings of the Durham and York Regions TAMI (Talking About Mental Illness) programs. Extensive Appendices are provided containing tabular data for each of the separate interventions but these are not discussed in detail in this report.

**Durham and York region TAMI Programs**

Program Overview

Students and school staff who participate in a Durham and York region TAMI program receive current mental health and illness information and hear the stories and interact personally with persons who have been affected directly with a mental illness. All Durham speakers participate in consistent training where they are guided through a process of writing their stories of hope and recovery, practicing the delivery in front of the Durham Coalition, shadowing experienced speakers in any number of Durham and York region TAMI projects, experiencing the question period with the students, and, when ready, they will participate in the in-class program. Speakers are active members of the coalition. In Durham Region, the program receives ongoing support from 12 service providers, 4 school boards, 6 speakers, and an agency that dedicates staff time to lead and coordinate efforts.

Three models encompass in the Durham and York Region TAMI programs:

- **Five Day In Class High School model:** The Durham TAMI Coalition designed a teacher facilitation guide and student workbook that takes participants through mental health lessons. Durham Coalition members delivered a consistent introductory session for each class that was involved in the 5 Day program. The students and teaching staff then followed the lesson plans as they prepared to hear the recovery stories of two persons who have been affected by a mental illness. The last module of the program is a debrief session, followed by a discussion on community resources and "where to go for help." (Please refer to Appendix C and E for detailed results.)    York Region followed the model utilizing their own community partners.
- **Assembly model:** The Assembly model, targeted both grade 9 and Grade 12, shows student initiatives in tackling stigma, a presentation by Durham TAMI coalition member on attitudes, beliefs and stereotypes, followed by the stories of two persons who have been affected by mental illness. Time was left for all Q&A session. (Please refer to Appendix D for detailed results.)    York Region did not utilize this model.
- **Summit model:** In Durham region, high schools were invited to bring 4 students and one staff member to Ontario Shores Centre for Mental Health Sciences, where they learned about mental illness and the associated stigma via presentations, breakout room experiential exercises, hearing the stories of the Durham TAMI speakers, as well as making plans on how they would design and deliver mental health awareness activities to their schools. Consistently responding to previous student evaluations is a strategy that is used to help design all future Summits.   The York Region Summit model is similar to the Durham Model but takes place at a community venue that is not a mental health facility. (Please refer to Appendix F and G for detailed results)

A standardized introductory session was held for all high school classes including goals of the program, exercises, discussion, and format, as well as standardized break out room exercises and discussions. In class, there was a consistent person scheduling presentations, coordinating speakers and facilitators, and sending electronic learning

materials. Students received consistent information in initiatives in tackling stigma, attitudes, beliefs and stereotypes, and stories from persons with lived experience. Teachers were recognized as partners. The Durham TAMI Coalition designed a teacher facilitation guide and student workbook that takes participants through anti-stigma lessons.

All learning material provided by the Durham TAMI Coalition was a modified version of the mental health curriculum originally developed in partnership between the Centre for Addiction and Mental Health (CAMH), the Mood Disorders Association of Ontario, and the Canadian Mental Health Association. The Summit and Assembly models were developed by the Durham TAMI Coalition, which is a partnership of several community organizations representing mental health, health, education, youth justice, and addictions.

## Approach to Data Collection

Students were surveyed before and after the contact-based intervention. Students from two high schools in Durham Region were recruited to provide a comparison condition. They completed a pre-test and post-test but did not receive the targeted interventions, though the schools had previously been involved in TAMI programming.

All programs participating in this network initiative used the same pre- and post-test survey questionnaires to collect their data. These surveys were adapted from items used by the six contact based programs that participated in the instrument development phase of this project. The resulting Stigma Evaluation Survey contained 22 self-report items. Of these:

- 11 items measured **stereotyped attributions**
  - controllability of illness – 4 items,
  - potential for recovery – 2 items, and
  - potential for violence and unpredictability – 5 items
- 11 items measured expressions of **social tolerance**, which include both social distance and social responsibility items
  - desire for social distance – 7 items, and
  - social responsibility for mental health issues – 4 items

All items were scored on a 5-point agreement scale, ranging from strongly agree to strongly disagree. To avoid potential response sets some items were positively worded while others were negatively worded. Items were scored so that higher scores on any item would reflect higher levels of stigma. The scales had good reliability in this pooled sample with a pre-test Cronbach's alpha of 0.85 for the Stereotype Scale and 0.87 for the Social Tolerance Scale. Both are well above the conventional threshold of .70 indicating that they are highly reliable. Information on gender, age, grade, and prior contact with someone with a mental illness (close friend or family member) was also collected.

# Results

## Sample Characteristics

Nine hundred and fifty two high school students completed the pre-test and post-test surveys. The characteristics of the students are presented in **Table 1**. The majority (59%) were female. Over half (58%) were 16 or 17 years old and most (68%) were in either grade 11 or grade 12. On the pre-test almost two thirds (65%) of the students indicated they knew someone with a mental illness and 21.9% indicated that they had a mental illness.

**Table 1.** Sample Characteristics for Those Who Completed Both the Pre and Post-test

| Characteristic | % (n) (n=952) |
|---|---|
| **Gender** | |
| • Male | 41.2% (385) |
| • Female | 58.8% (550) |
| • Missing | -- (17) |
| **Age** | |
| • 13 | 2.2% (21) |
| • 14 | 25.1% (238) |
| • 15 | 5.8%(55) |
| • 16 | 28.3% (269) |
| • 17 | 29.6% (281) |
| • 18+ | 8.9%(85) |
| • Missing | --(3) |
| **Grade** | |
| • 9 | 27.6% (261) |
| • 10 | 4.6% (44) |
| • 11 | 33.3% (315) |
| • 12+ | 34.5% (327) |
| • Missing | -- (5) |
| **Contact- Pre-test   - Does someone you know have a mental illness** (multiple responses accepted) | |
| • No | 15.2% (114) |
| • Uncertain | 20.3% (184) |
| • Close friend | 13.2% (120) |
| • Family member | 23.3% (211) |
| • Somebody else | 21.3% (193) |
| • I do | 21.9% (198) |
| • Missing | -- (46) |

## Stereotypes Attributions

With the exception of the items measuring dangerousness, violence, and predictability, at the time of the pre-test, the majority of respondents held positive (non-stereotypical) attitudes toward people with a mental illness. For example, before the intervention students tended to disagree with the common stereotypes that people with a mental illness get what they deserve (81% disagreed) or that they could snap out of it if they wanted to (81% disagreed). Seventy-seven percent disagreed that people with mental illness need to be locked away and three-quarters (76%) disagreed that people with a mental illness bring it on themselves. However, only one quarter (26%) disagreed with the stereotype that you can never know what someone with a mental illness is going to do, and only 31% disagreed with the stereotype that people with a mental illness become violent if not treated (see **Appendix A** for detailed tables).

**Figure 1** shows the proportion of students who made any change on the controllability items from pre-test to post-test (where pre-test and post-test surveys were individually matched). The greatest positive shift (reflecting reduced stigma) was for the item, "people with mental illnesses often don't try hard enough to get better" (39.5% improvement). The proportion that improved their response on the item "people with mental illnesses tend to bring it on themselves" was 31.4%. There was a 27.4% improvement for the item, "people with mental illnesses could snap out of it if they wanted to", and a 23.2% improvement for the item, "most people with mental illness get what they deserve". The majority of students (45.5%-66.6%) did not change scores. Percentages varied by item. These reflected two conditions: either they already held a non-stigmatizing attitude and stayed the same or they had a negative attitude on the pre-test and did not improve. A detailed item-by-item breakdown is shown in Appendix A, page A3. A relatively small proportion of students (10.2%-14.9%) showed a negative change. Please refer to **Appendix A** (p. A3) for specifics.
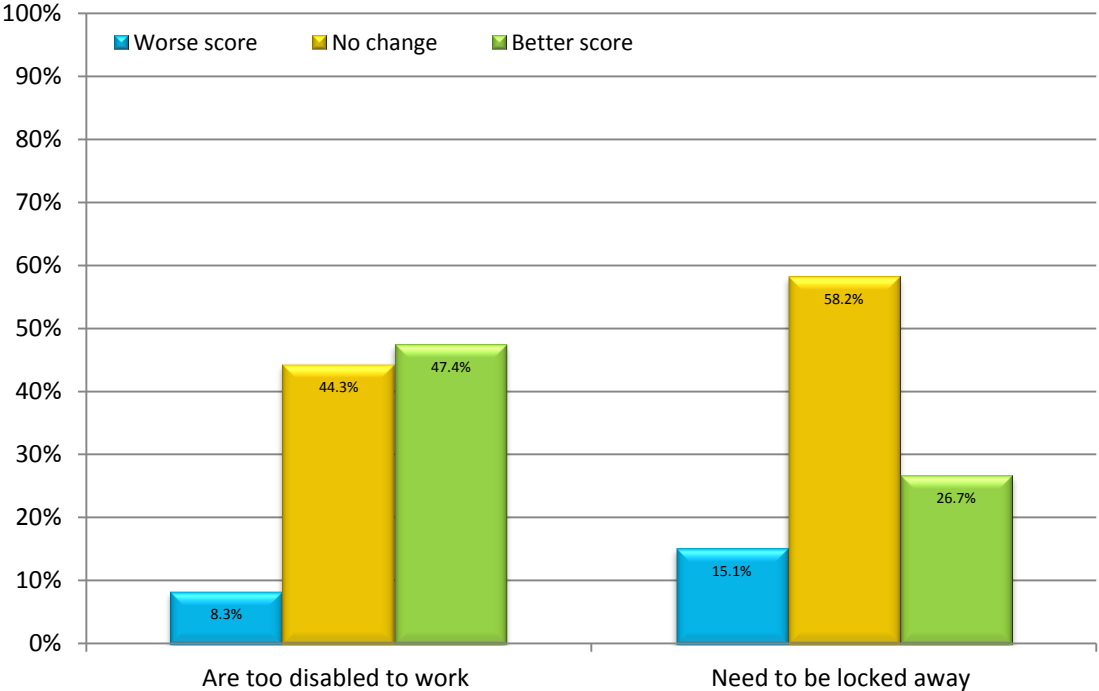
**Figure 1.** Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=797 pre-test/post-test pairs). The bars show the proportion (%) of students who had a post-test score that was worse than the pre-test score, did not change, and got better (became less stigmatizing).
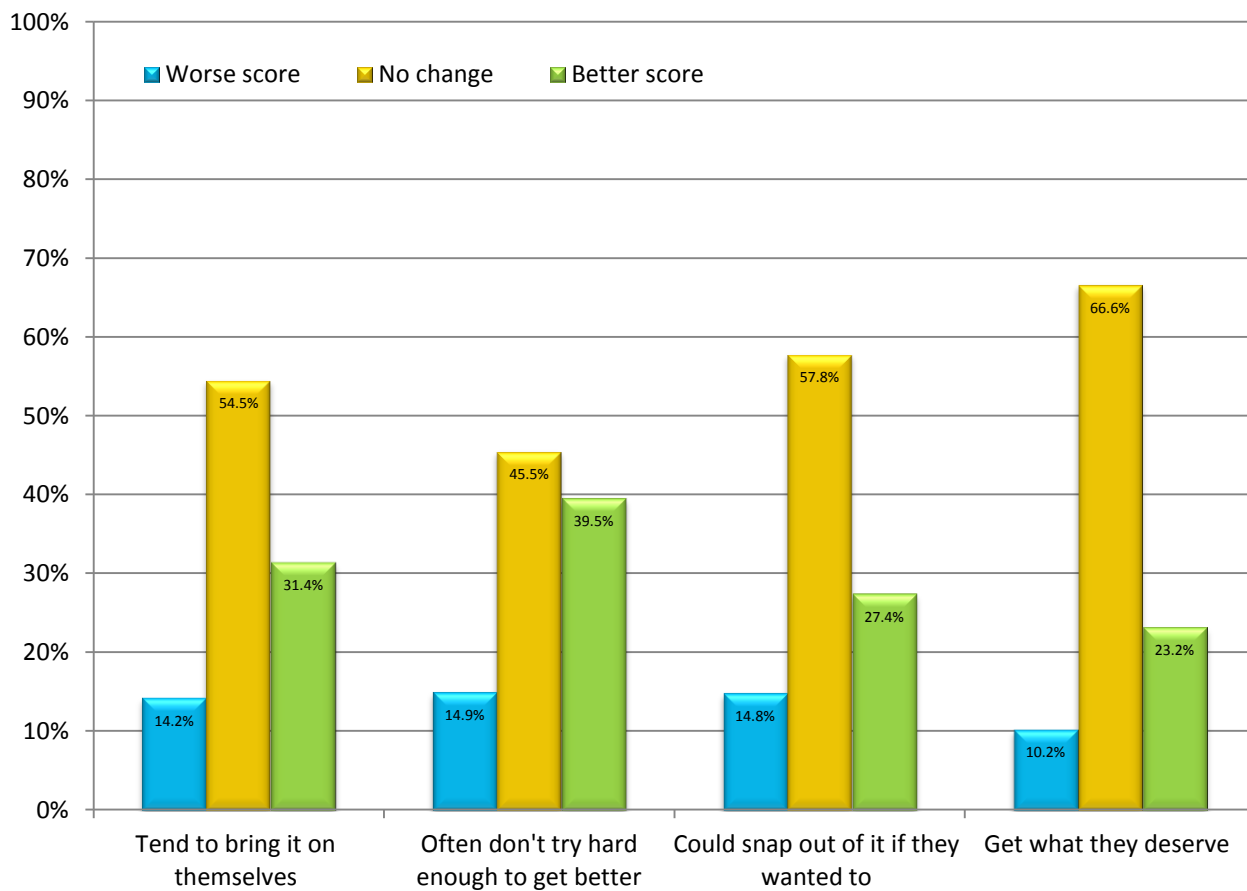
**Figure 2** shows the proportion of students who made any change on the recovery items. Almost half (47.4%) improved on the item, "most people with a mental illness are too disabled to work" and just over one quarter (26.7%) improved on the item, "people with serious mental illnesses need to be locked away". Students whose scores did not change reflected two conditions: either they already held a non-stigmatizing attitude and stayed the same or they had a negative attitude on the pre-test and did not improve. A relatively small proportion of students (8.3% and 15.1%) showed a negative change. Please refer to **Appendix A** (p. A3) for specifics.

**Figure 2.** Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=797 pre-test/post-test pairs)

**Figure 3** shows the proportion of students who made any change on the items dealing with violence and unpredictability. All showed a large improvement of 35% or more. The greatest improvement was for the items, "you can never know what someone with a mental illness is going to do" (47.1% improvement) and "people with a mental illness are often more dangerous that the average person" (46.2% improvement). These were the largest improvements on any single item. Students whose scores did not change reflected two conditions: either they already held a non-stigmatizing attitude and stayed the same or they had a negative attitude on the pre-test and did not improve. Some students (11% and 18.1%) showed a negative change. Please refer to **Appendix A** (p. A3) for specifics.

**Figure 3**. Proportion of students who made any change on the Likert scale from pre-test to post-test – Violence/Unpredictability Items (n=797 pre-test/post-test pairs)
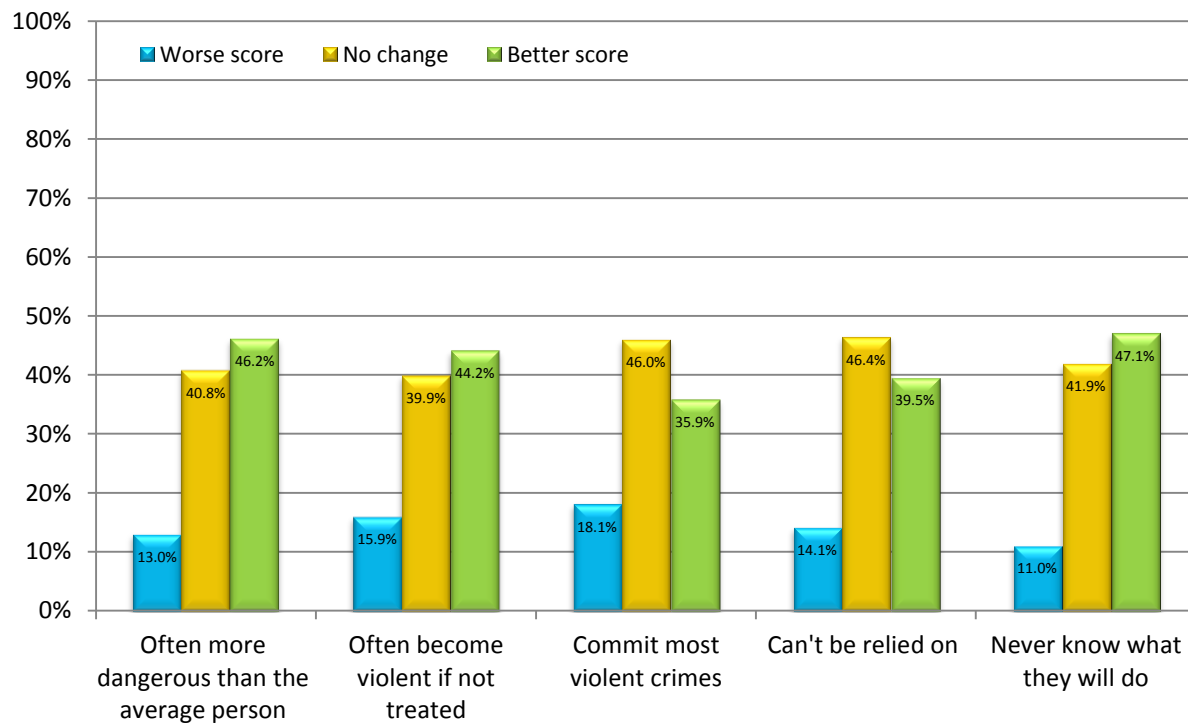
## Expressions of Social Distance

Prior to the intervention students showed generally positive, non-stigmatizing responses to six out of the seven social distance items. For example, 79% agreed with the statement "I would not mind if someone with a mental illness lived next door to me"; and 77% disagreed with the statements "I would try to avoid someone with a mental illness" and "I would not be close friends with someone I knew had a mental illness" (see **Appendix A** for detailed tables.)

**Figure 4** shows the proportion of students who made any change on the social distance items. All items showed improvement. For example, following the intervention there was a 33.4% improvement for the item, "I would not want to be taught by a teacher who had been treated for a mental illness" and a 35.3% improvement for the item "If I knew someone had a mental illness I would not date them". Students whose scores did not change reflected two conditions: either they already held a non-stigmatizing attitude and stayed the same or they had a negative attitude on the pre-test and did not improve. Some students (13.5%-21.6%) showed a negative change (see **Appendix A**, p. A8).

**Figure 4.** Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=815 pre-test/post-test pairs)
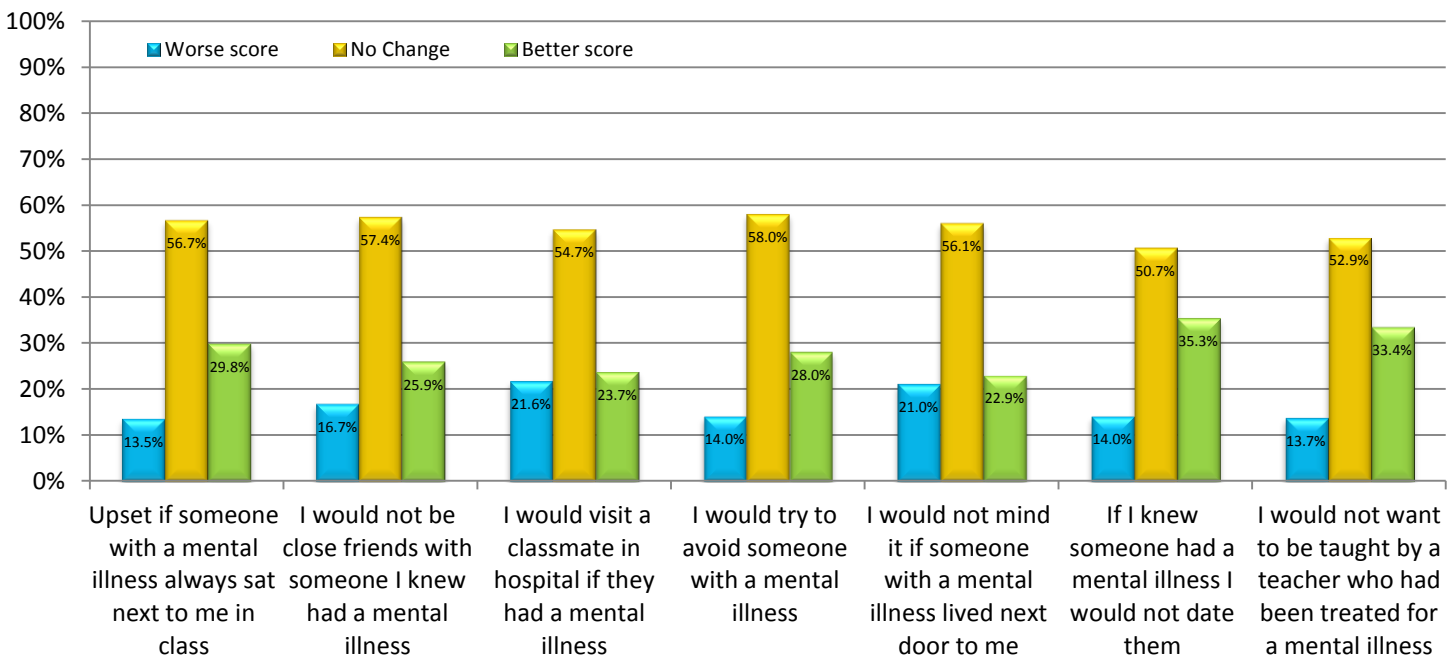
## Social Responsibility

Before the program intervention, students were generally socially conscious. Eighty-five percent said "they would stick up for someone who had a mental illness if they were being teased" and 80% percent said they "would tell a teacher if a student was being bullied because of their mental illness" (see **Appendix A** for detailed tables)

**Figure 5** shows the proportion of students who made any change on the social responsibility items. The higher changes were noted for two items: "I would volunteer my time to work in a program for people with mental illness" (29.4% improvement) and "I would tutor a classmate who got behind in their studies because of their mental illness" (24.5% improvement). Students whose scores did not change reflected two conditions: either they already held a non-stigmatizing attitude and stayed the same or they had a negative attitude on the pre-test and did not improve. A relatively small proportion of students (14.8% and 19.3%) showed a negative change (see Appendix A, p. A8).

**Figure 5.** Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility items (n=815 pre-test/post-test pairs)
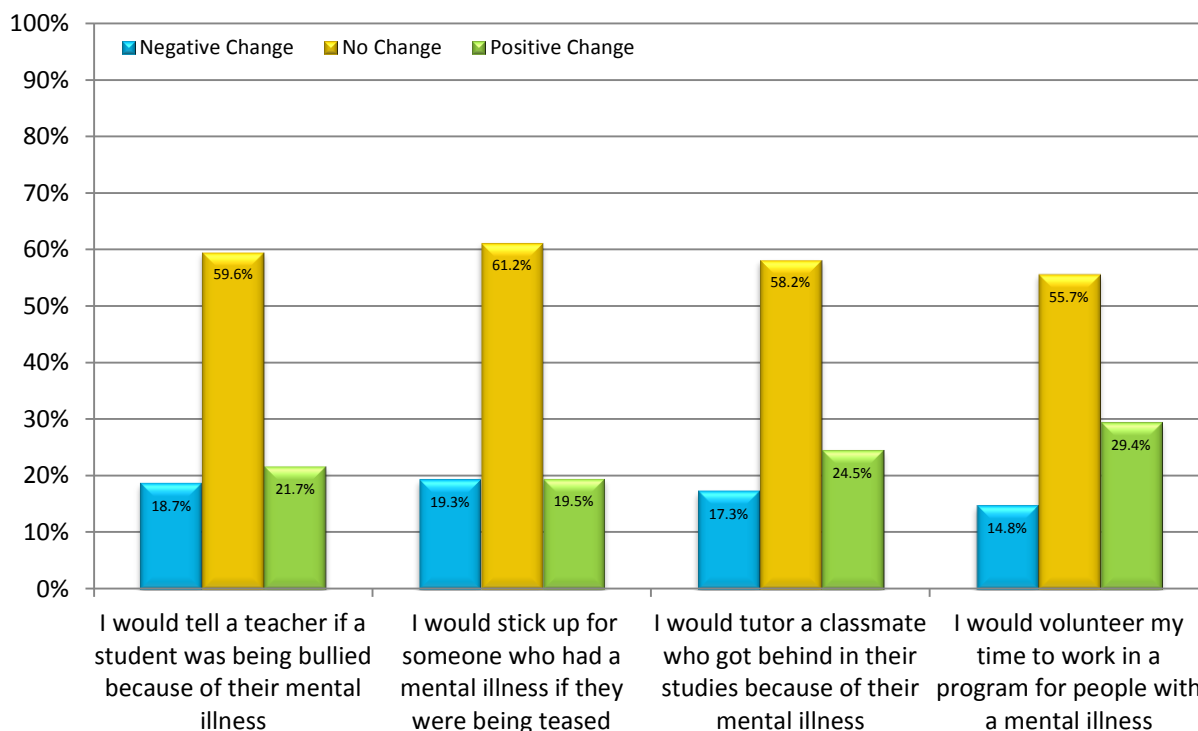
## Program Success

In order to provide a measure of the overall success of the intervention, we chose (*a priori*) a cut-off score of 80% correct. Though somewhat arbitrary, we have used this cutoff in previous work to count the number of students who achieve an A grade or higher following an educational session. More specifically, success was measured by comparing the proportion of students who obtained 80% or more correct (non-stigmatizing) answers on the post-test compared to the pre-test.

**Figure 6** shows the cumulative percent of items reflecting non-stigmatizing responses for the Stereotype Scale. Prior to the intervention, 29% of students gave a non-stigmatizing response to at least 9 of the 11 stereotype items reflecting 80% correct (corresponding to the red-dotted line on the graphs below). At post-test this had increased to 56% (reflecting a 27% improvement overall). When item scores were aggregated to reflect a scale value out of 55, the average (median) score dropped from 25 at the pretest to 21 at the post-test (reflecting an 4% drop in the average scale score). A Wilcoxon Signed Rank Test showed that at post-test there was a significant drop in the Stereotype Scale Score (Z=-16.94, p<.001).

**Figure 6.** Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=797)
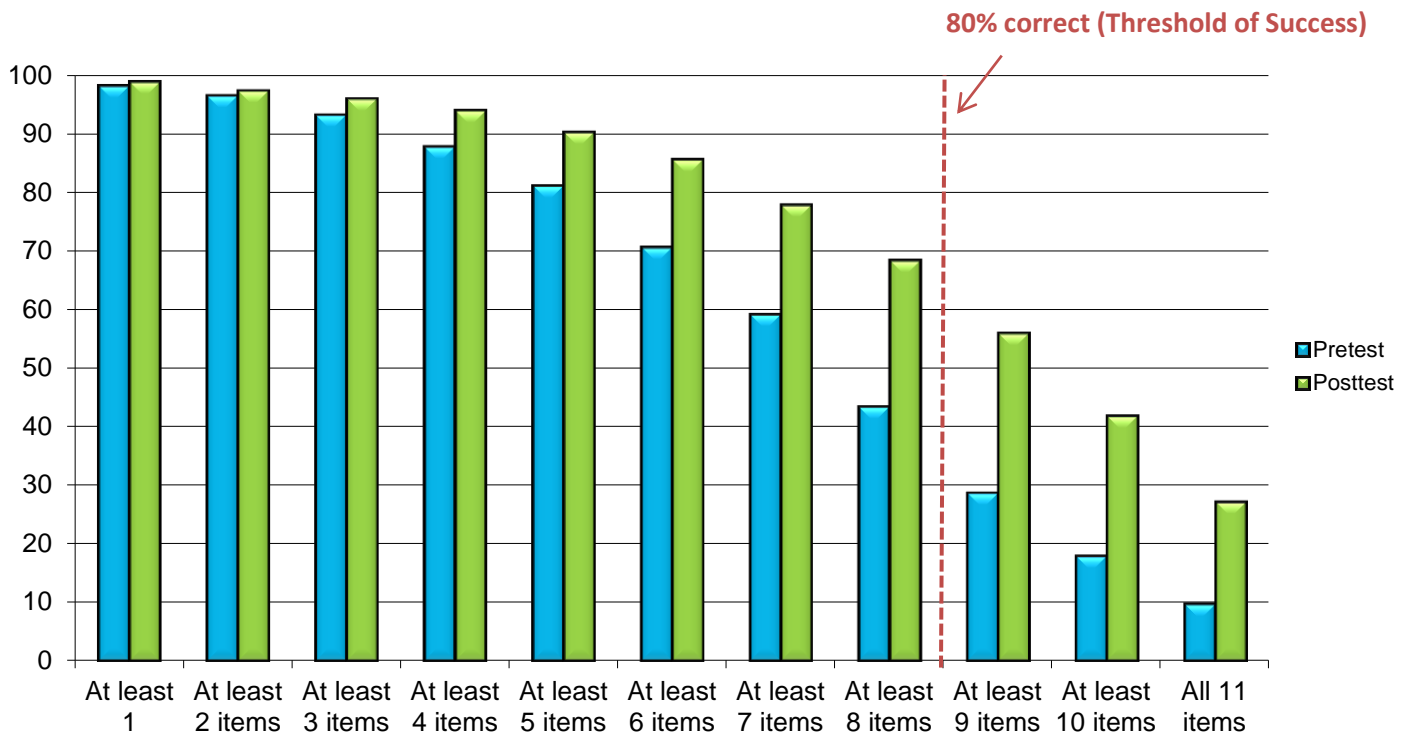
**Figure 7** shows the cumulative percent of items reflecting non-stigmatizing responses for the Social Tolerance Scale. Prior to the intervention 47% of the students gave a non-stigmatizing response to 9 the 11 items reflecting 80% correct (corresponding to the red-dotted line on the graphs below). At post-test this had increased to 59% (reflecting a 12% improvement overall). When item scores were aggregated to reflect a scale value out of 55, the average (median) score dropped from 23 at the pretest to 22 at the post-test (reflecting a 1% drop in the average scale score). A Wilcoxon Signed Rank Test showed that at post-test there was a significant drop in the Stereotype Scale Score (Z=-7.83, p<.001).

**Figure 7.** Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=815)
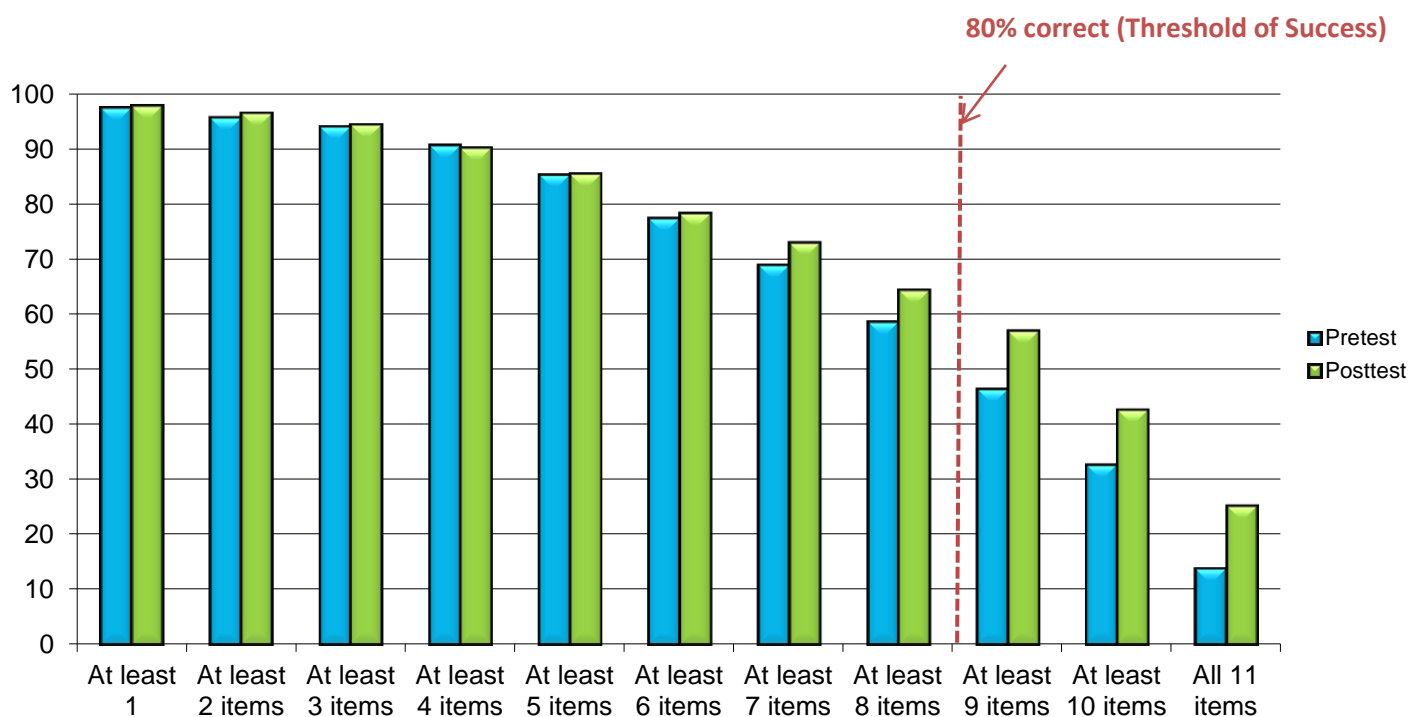


**Figure 8 and 9** show the change in stereotype and social tolerance scale scores. Prior to the intervention more respondents were positive (80% threshold, 9 out of 11 positive responses) on the tolerance scale (38.1%) compared to the stereotype scale (21.3%). After the intervention, the percent that improved their attitudes by crossing the 80% threshold was 29.8% (stereotype scale) and 16.0% (tolerance scale). The percent that improved their scores but did not cross the 80% threshold was 20.3% (stereotype scale) and 12.7% (tolerance scale).

**Figure 8.** Change in Stereotype Scale Score (n=751)
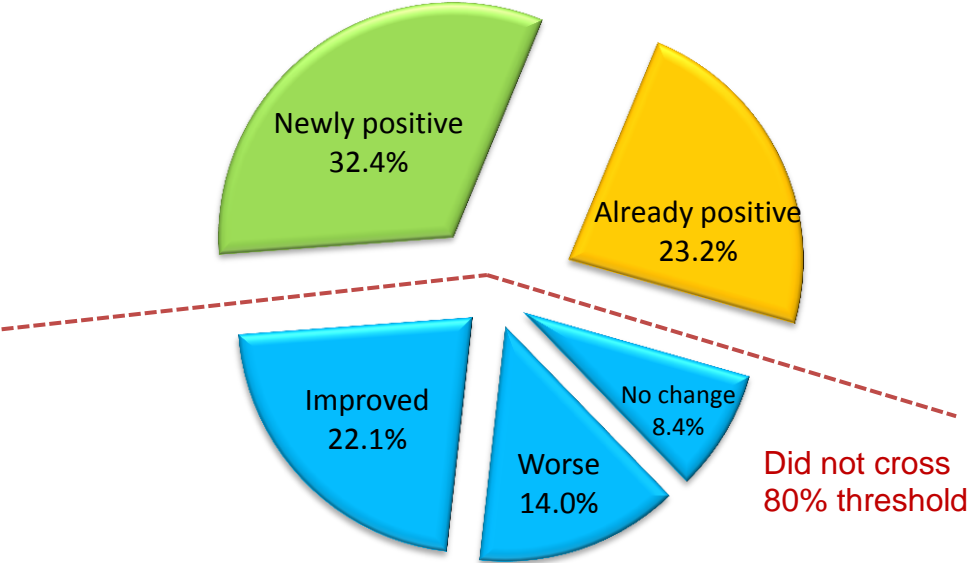


Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

**Figure 9.** Change in Social Tolerance Scale Score (n=797)
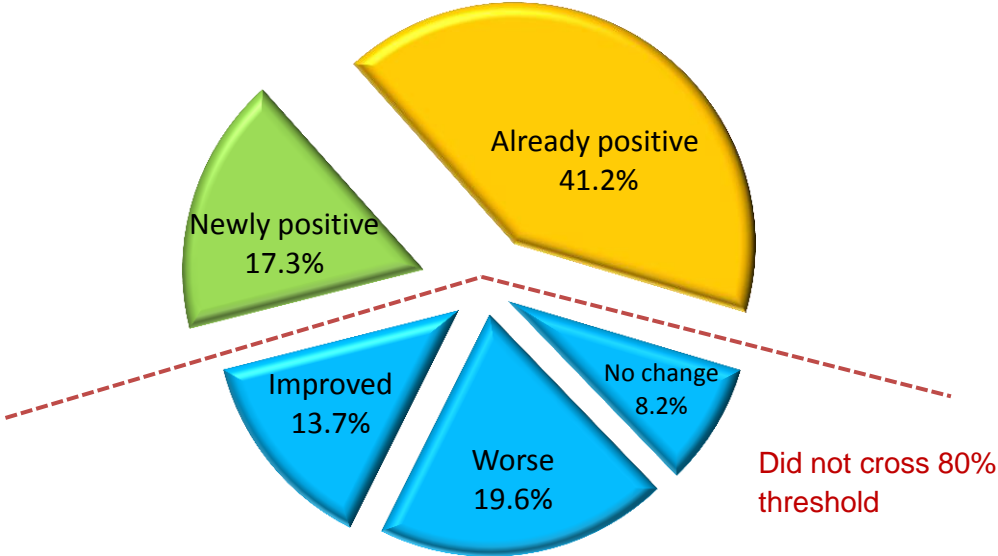
## Comparison Condition

Appendix B contains detailed tabular data for the 215 students who made up the comparison group. They show that comparison students also improved their scores, but were less likely to do so than the students who received the targeted interventions. The students who received the targeted educational interventions were statistically more likely to show improvement (by moving beyond the 80% threshold for correct answers) in both Stereotype[1] and Social Tolerance[2] scores.

A potential explanation why the control group also showed improvement is that one of the high schools has a 7 year history of being active in Mental Health awareness and Stigma messaging, after having contact with various TAMI programs. For the period October to April, this high school had 4 students attend a "Stomping Out Stigma" summit; a group of 40 students then participated in an Action Group workshop as a kick-off to their mental health awareness week. This was followed with 2 assemblies (grade 9 and 12), a parent education evening, Grade 11 in class project and a professional development day for all teaching staff. The participating grade level did not have direct contact with a TAMI presentation, however it may be that the climate and culture of this school is one where positive "change" is expected and this culture impacted on the students who completed the pre and post-tests.

## Conclusion

This report describes the results of a contact-based anti-stigma intervention provided to high school students. The results show that this program was successful in improving the proportion of students who got 80% of the answers correct, so received an A grade, on the tests used to assess social stereotypes and social tolerance. The programs achieved greater success in diminishing stereotyped attitudes (reflecting an 4% difference in aggregated scale scores), than in expressions of social tolerance (reflecting a 1% difference in aggregated scale scores). In addition, a small number of students continued to hold stigmatizing beliefs despite their participation—for example, almost one quarter did not disagree with the stigmatizing statement that people with a serious mental illness need to be locked away.

These findings suggest that certain elements of the programs appear to be working. For example, program staff consider that the speakers' stories are central to their success along with consistent coordination, training, support, and messaging. However, they also consider that there is need for ongoing investigation into the program messages that may be less potent in effecting change, or that may be consolidating stereotypes. Separate analyses by program will also be informative in case some programs are more potent in changing students perceptions than others.

[1] Odds ratio = 3.1, 95% CI = 1.9, 5.0 controlling for pre-test score
[2] Odds ratio = 4.0, 95% CI = 2.0, 7.9 controlling for pre-test score

Considering that some students did not move in the expected direction, there may be some value in assessing their 'readiness for change' in future evaluations to determine if their stage of change is predictive of program outcomes. Qualitative investigation may also help identify the active ingredients in the program or why some students benefited more than others. Finally, given that comparison group students also improved (but only slightly), it will be important to obtain comparison subjects from a school that has not previously been involved with TAMI programming.

Since data collection, the Durham TAMI Coalition has designed a supportive and educational website that can be used by teachers and students in designing and delivering mental health or anti-stigma awareness activities. The Programs provide an opportunity to empower youth activism by encouraging schools to identify student mental health leaders and activists as the summit participants. The models are valuable to be replicated in other regions. The increasing demand for the program has also created a need to increase the speaker base with a wider variety of story content.

# Appendix A – Combined Sample

Data is based on pre/post outcomes for the Durham and York Region 5 Day High School In-Class program, Assembly model, and the Durham and York Region Summit Model.    While the curriculum and exercises used in both Durham and York Region are consistent with one another, it should be noted that the speakers and professionals involved in both regions are a different group.    The speaker training process used in both regions is different and the stories used in each region are also different in nature.    The chair of the Durham Coalition brought the model to York Region, where this community adopted the Durham Model of contact based education.

Stereotyped attribution items are shown in the three tables below. For ease of presentation, items were recoded into three categories: agree (strongly agree and agree), neutral, and disagree (disagree and strongly disagree) and grouped by theme controllability of illness, potential for recovery and potential for violence and unpredictability.

## Stigma Stereotype Results

## Controllability Items

| Stereotyped Attributions Items | Pre-test % (n=797) | Post-test % (n=797) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.**<br>• Strongly disagree/disagree<br>• Unsure<br>• Strongly agree/ agree | 75.7% (603)<br>14.8 % (118)<br>9.5% (76) | 83.4% (665)<br>9.7% (77)<br>6.9% (55) | 7.7<br>-5.1<br>-2.6 |
| **5. People with mental illnesses often don't try hard enough to get better.**<br>• Strongly disagree/disagree<br>• Unsure<br>• Strongly agree/ agree | 71.0% (566)<br>19.9% (159)<br>9.0% (72) | 84.9% (677)<br>10.5 % (84)<br>4.5% (36) | 13.9<br>-9.4<br>-4.5 |
| **6. People with a mental illness could snap out of it if they wanted to.**<br>• Strongly disagree/disagree<br>• Unsure<br>• Strongly agree/ agree | 81.2% (647)<br>11.9 % (95)<br>6.9 % (55) | 86.8% (692)<br>8.9% (71)<br>4.3% (34) | 5.6<br>-3.0<br>-2.6 |
| **14. Most people with a mental illness get what they deserve.**<br>• Strongly disagree/disagree<br>• Unsure<br>• Strongly agree/ agree | 81.2% (647)<br>16.3% (130)<br>2.5% (20) | 88.2%(703)<br>9.9% (79)<br>1.9% (15) | 7.0<br>-6.4<br>-0.6 |
| Note: Missing excluded from percent calculation. | | | |

# Recovery Items

| Stereotyped Attributions Items | Pre-test % (n=797) | Post-test % (n=797) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 71.0% (566) | 89.5% (713) | 18.5 |
| • Unsure | 20.3% (162) | 6.6% (53) | -13.7 |
| • Strongly agree/ agree | 8.7 % (69) | 3.9 % (31) | -4.8 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 77.0% (614) | 84.8% (789) | 7.8 |
| • Unsure | 15.6% (124) | 11.5% (105) | -4.1 |
| • Strongly agree/ agree | 7.4% (59) | 3.6% (38) | -3.8 |
| Note: Missing excluded from percent calculation | | | |

# Violence/ Unpredictability Items

| Stereotyped Attributions Items | Pre-test % (n=797) | Post-test % (n=797) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 46.5% (371) | 68.6 % (547) | 22.1 |
| • Unsure | 31.7% (253) | 19.1% (152) | -12.6 |
| • Strongly agree/ agree | 21.7% (173) | 12.3% (98) | -9.4 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 30.6% (244) | 52.3% (417) | 21.7 |
| • Unsure | 45.5% (363) | 30.2% (241) | -15.3 |
| • Strongly agree/ agree | 23.8% (190) | 17.4% (139) | -6.4 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 61.0% (486) | 70.3% (560) | 9.3 |
| • Unsure | 23.2% (185) | 21.7% (173) | -1.5 |
| • Strongly agree/ agree | 15.8% (126) | 8.0% (64) | -7.8 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | | | |
| • Unsure | 64.9% (517) | 76.7% (611) | 11.8 |
| • Strongly agree/ agree | 23.1% (184) | 16.4% (131) | -6.7 |
| | 12.0% (96) | 6.9% (55) | -5.1 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 26.3% (210) | 47.9% (382) | 21.6 |
| • Unsure | 34.4% (274) | 28.1% (224) | -6.3 |
| • Strongly agree/ agree | 39.3% (313) | 24.0% (191) | -15.3 |
| Note: Missing excluded from percent calculation. | | | |

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | McNemar-Bowker Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Controllability Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 14.2% (113) | 54.5% (434) | | 31.4% (250) | χ2 = 69.1; df = 10; p<.001 |
| | | 7.9% (63) | 46.5% (371) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 14.9% (119) | 45.5% (363) | | 39.5% (315) | χ2 =101.4; df = 10; p<.001 |
| | | 5.4% (43) | 40.2% (320) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 14.8% (118) | 57.8% (461) | | 27.4% (218) | χ2 =48.715; df = 10 p<.001 |
| | | 4.8% (38) | 53.1% (423) | | |
| 14 Most people with a mental illness get what they deserve | 10.2% (81) | 66.6% (531) | | 23.2% (185) | χ2 =45.5; df = 8; p<.001 |
| | | 6.3% (50) | 60.4% (481) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 8.3% (66) | 44.3% (353) | | 47.4% (378) | χ2 =227.0;df = 10; p<.001 |
| | | 5% (40) | 39.3% (313) | | |
| 15 People with serious mental illnesses need to be locked away | 15.1% (120) | 58.2% (464) | | 26.7% (213) | χ2 =33.8;df =10 ; p<.001 |
| | | 5.3% (42) | 52.9% (422) | | |
| **Violence / Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 13.0% (104) | 40.8% (325) | | 46.2% (368) | χ2= 165.0; df = 10; p<.001 |
| | | 16.2% (129) | 24.6% (196) | | |
| 8 People with a mental illness often become violent if not treated | 15.9% (127) | 39.9% (318) | | 44.2% (352) | χ2 =127.5; df =10; p<.001 |
| | | 25.3% (202) | 14.6% (116) | | |
| 10 Most violent crimes are committed by people with a mental illness | 18.1% (144) | 46.6% (367) | | 35.9% (286) | χ2 =67.1; df =10; p<.001 |
| | | 13.0% (104) | 33.0% (263) | | |
| 11 You can't rely on someone with a mental illness | 14.1% (112) | 46.4% (370) | | 39.5% (315) | χ2 =110.7; df =10; p<.001 |
| | | 9.4% (75) | 37.0% (295) | | |
| 12 You can never know what someone with a mental illness is going to do | 11.0% (88) | 41.9% (334) | | 47.1% (375) | χ2 =188.4; df =10; p<.001 |
| | | 28.1% (224) | 13.8% (110) | | |

Notes:
- Base size is those who responded to all the pre-test and post-test items (n=797)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree.
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns.

Percent Non Stigmatizing Endorsement of Knowledge Items

|  | Pre-test % (n) | Post-test % (n) |
|---|---|---|
| None | 1.8% (14) | 1.1% (9) |
| At least 1 | 98.2% (783) | 98.9% (788) |
| At least 2 items | 96.5% (769) | 97.4% (765) |
| At least 3 items | 93.2% (743) | 96.0% (151) |
| At least 4 items | 87.8% (700) | 94.0% (749) |
| At least 5 items | 81.1% (646) | 90.3% (720) |
| At least 6 items | 70.6% (563) | 85.6% (682) |
| At least 7 items | 59.2% (472) | 77.9% (621) |
| At least 8 items | 43.4% (346) | 68.4% (545) |
| At least 9 items | 28.7% (229) | 56.0% (446) |
| At least 10 times | 17.9% (143) | 41.9% (334) |
| All 11 times | 9.7% (77) | 27.2% (217) |

Change in Stereotype Scale Score

| Stereotype scale score | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| High school control group (n=157) | 15.9% (25) | 15.3% (24) | 68.8% (108) |
| All programs (n=751) | 23.2% (174) | 32.4% (243) | 44.5% (334) |
| Durham 5 day in class (n=358) | 22.6% (81) | 34.9% (125) | 42.5% (152) |
| Assembly (n=304) | 22.4% (68) | 29.6% (90) | 48.0% (146) |
| York 5 day in class (n=20) | 5.0 % (1) | 35.0% (7) | 60.0% (12) |
| Stomping out Stigma Summit October (n=33) | 36.4% (12) | 39.4% (13) | 24.2% (8) |
| Stomping out Stigma Summit November (n=36) | 33.3% (12) | 22.2% (8) | 44.4% (16) |
| Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

# Social Tolerance Results

## Social Distance Items

| Stereotyped Attributions Items | Pre-test % (n=815) | Post-test % (n=815) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 72.9% (594) | 80.0% (652) | 7.1 |
| • Unsure | 17.9% (146) | 13.7% (112) | -4.2 |
| • Strongly agree/ agree | 9.2% (75) | 6.3 % (51) | -2.9 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 76.9% (627) | 81.3% (663) | 4.4 |
| • Unsure | 17.1% (139) | 14.1% (115) | -3.0 |
| • Strongly agree/ agree | 6.0% (49) | 4.5% (37) | -1.5 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | 0.1 |
| • Strongly agree/ agree | 73.0% (595) | 73.1% (658) | -2.4 |
| • Unsure | 20.1% (164) | 17.7% (465) | 2.3 |
| • Strongly disagree/disagree | 6.9% (56) | 9.2 % (91) | |
| **21. I would try to avoid someone with a mental illness.** | | | 4.3 |
| • Strongly disagree/disagree | 77.3 % (630) | 81.6% (665) | -1.7 |
| • Unsure | 15.8% (129) | 14.1% (115) | -2.6 |
| • Strongly agree/ agree | 6.9% (56) | 4.3% (35) | |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 79.4% (647) | 78.7% (641) | -0.7 |
| • Unsure | 13.7% (112) | 11.7% (95) | -2.0 |
| • Strongly disagree/disagree | 6.9 % (56) | 9.7% (79) | 2.8 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 34.1% (278) | 47.4 % (386) | 13.3 |
| • Unsure | 43.7 % (356) | 38.9% (317) | -4.8 |
| • Strongly agree/ agree | 22.2 % (181) | 13.7% (112) | -8.5 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 63.3% (516) | 71.9% (658) | 8.6 |
| • Unsure | 24.0% (196) | 20.1% (190) | -3.9 |
| • Strongly agree/ agree | 12.6 % (103) | 8.0% (71) | -4.6 |
| Notes: | | | |
| • (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

# Social Responsibility Items

| Stereotyped Attributions Items | Pre-test % (n=815) | Post-test % (n=815) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 80.2% (654) | 80.9% (659) | 0.7 |
| • Unsure | 14.7 % (120) | 13.5% (110) | -1.2 |
| • Strongly disagree/disagree | 5.0% (41) | 5.6 % (46) | 0.6 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 85.0% (693) | 84.5% (689) | -0.5 |
| • Unsure | 13.0 % (106) | 11.4 % (93) | -1.6 |
| • Strongly disagree/disagree | 2.0% (16) | 4.0 % (33) | 2.0 |
| **33. (R)   I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 65.5% (534) | 66.9 % (545) | 1.4 |
| • Unsure | 22.9% (187) | 21.7% (177) | -1.2 |
| • Strongly disagree/disagree | 11.5% (94) | 11.4% (93) | -0.1 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 54.0% (440) | 59.9% (488) | 5.9 |
| • Unsure | 30.1% (245) | 26.7% (218) | -3.4 |
| • Strongly disagree/disagree | 16.0% (130) | 13.4% (109) | -2.6 |
| Notes: • (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | McNemar-Bowker Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 13.5% (110) | 56.7% (462) | | 29.8% (243) | χ2 = 53.0; df =9; p<.001 |
| | | 9.6% (78) | 47.1% (384) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 16.7% (136) | 57.4% (468) | | 25.9% (211) | χ2 =29.3; df =10; p=.001 |
| | | 7.9% (64) | 49.6% (404) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 21.6% (176) | 54.7% (446) | | 23.7% (193) | χ2 =16.6; df =10; p=.084 |
| | | 11.4% (93) | 43.3% (353) | | |
| 21 I would try to avoid someone with a mental illness | 14.0% (114) | 58.0% (473) | | 28.0% (228) | χ2 =46.6 df =10; p<.001 |
| | | 8.5% (69) | 49.6% (404) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 21.0% (171) | 56.1% (457) | | 22.9% (187) | χ2 =14.2; df =10; p=.166 |
| | | 6.9% (56) | 49.2% (401) | | |
| 24If I knew someone had a mental illness I would not date them | 14.0% (114) | 50.7% (413) | | 35.3% (288) | χ2 =80.8; df =10; p<.001 |
| | | 32.3% (263) | 18.4% (150) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 13.7% (112) | 52.9% (431) | | 33.4% (272) | χ2 =71.3; df =10; p<.001 |
| | | 12.6% (103) | 40.2% (328) | | |
| **Social Responsibility Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 18.7% (152) | 59.6% (486) | | 21.7% (177) | χ2 =13.6; df =10; p=.192 |
| | | 7.1% (58) | 52.5% (428) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 19.3% (157) | 61.2% (499) | | 19.5% (159) | χ2 =16.6 df =10; p=.0.83 |
| | | 5.6% (46) | 55.6% (453) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 17.3% (141) | 58.2% (474) | | 24.5% (200) | χ2 =20.6; df =10; p=.024 |
| | | 16.6% (135) | 41.6% (339) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 14.8% (121) | 55.7% (454) | | 29.4% (240) | χ2 =53.0; df =10; p<.001 |
| | | 21.2% (173) | 34.5% (281) | | |

Notes:
- Base size is those who responded to all the pre-test and post-test items (n=815)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree.
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Non Stigmatizing Endorsement of Social Distance Items

|  | Pre-test % (n) | Post-test % (n) |
|---|---|---|
| None | 2.5% (20) | 2.1% (17) |
| At least 1 | 97.5% (795) | 97.9% (798) |
| At least 2 items | 95.7% (780) | 96.6% (787) |
| At least 3 items | 94.1% (767) | 94.5% (767) |
| At least 4 items | 90.7% (739) | 90.3% (736) |
| At least 5 items | 85.4% (696) | 85.6% (698) |
| At least 6 items | 77.5% (632) | 78.4% (639) |
| At least 7 items | 69.0% (562) | 73.1% (596) |
| At least 8 items | 58.7% (478) | 64.5% (526) |
| At least 9 items | 46.5% (379) | 57.1% (465) |
| At least 10 times | 32.8% (267) | 42.8% (349) |
| All 11 times | 13.9% (113) | 25.3% (206) |

Change in Social Tolerance Scale Score

| Stereotype scale score | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| High school control group (n=177) | 37.9% (67) | 5.6 % (10) | 56.5% (100) |
| All programs (n=794) | 41.2% (327) | 17.3 % (137) | 41.6% (330) |
| Durham 5 day in class (n=357) | 41.7% (149) | 17.1% (61) | 41.2% (147) |
| Assembly (n=335) | 35.8% (120) | 19.1% (64) | 45.1% (151) |
| York 5 day in class (n=23) | 8.7 % (2) | 17.4% (4) | 73.9% (17) |
| Stomping out Stigma Summit October (n=33) | 81.8% (27) | 12.1% (4) | 6.1% (2) |
| Stomping out Stigma Summit November (n=46) | 63.0% (29) | 8.7% (4) | 28.3% (13) |
| Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=797)

|  | Median (interquartile range) |
|---|---|
| Pre-test | 25 (20-29) |
| Post-test | 21 (15-25) |

Tolerance Items (n=815)

|  | Median (interquartile range) |
|---|---|
| Pre-test | 23 (18-28) |
| Post-test | 22 (16-27) |

**Appendix B- Durham TAMI High School Comparison Condition**

This sample is the control group. Students from various Durham region high schools were given the pre-test and then the post-test 2 to 3 weeks later, without any intervention.

Sample Characteristics for Those Who Completed Both the Pre- and Post-test

| Characteristic | % (N=215) |
|---|---|
| **Gender** | |
| • Male | 42.6% (89) |
| • Female | 57.4% (120) |
| • Missing | -- (6) |
| **Age** | |
| • 15 | 61.2% (131) |
| • 16 | 38.3% (82) |
| • 17 | 0.5%(1) |
| • Missing | --(1) |
| **Grade** | |
| • 10 | 99.1% (213) |
| • 11 | 0.9% (2) |
| • Missing | -- (0) |
| **Contact- Pre-test  - Does someone you know have a mental illness**[*] | |
| • No | 13.5% (28) |
| • Uncertain | 23.6% (49) |
| • Close friend | 17.3% (36) |
| • Family member | 13.5% (28) |
| • Somebody else | 23.1% (48) |
| • I do | 20.7% (43) |
| • Missing | -- (7) |
| * Multiple responses accepted | |

# Stigma Stereotype Results

Controllability Items

| Stereotyped Attributions Items | Pre-test % (n=166) | Post-test % (n=166) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.** | | | |
| • Strongly disagree/disagree | 81.9% (136) | 81.3% (135) | -0.6 |
| • Unsure | 13.9 % (23) | 16.3% (27) | 2.4 |
| • Strongly agree/ agree | 4.2% (7) | 2.4% (4) | -1.8 |
| **5. People with mental illnesses often don't try hard enough to get better.** | | | |
| • Strongly disagree/disagree | 80.7% (134) | 76.5% (127) | -4.2 |
| • Unsure | 14.5% (24) | 16.3 % (27) | 1.8 |
| • Strongly agree/ agree | 4.8% (8) | 7.2% (12) | 2.4 |
| **6. People with a mental illness could snap out of it if they wanted to**. | | | |
| • Strongly disagree/disagree | 81.3% (135) | 79.5% (132) | -1.8 |
| • Unsure | 13.9 % (23) | 15.1% (25) | 1.2 |
| • Strongly agree/ agree | 4.8 % (8) | 5.4% (9) | 0.6 |
| **14. Most people with a mental illness get what they deserve.** | | | |
| • Strongly disagree/disagree | 81.9% (136) | 84.3(140) | 2.4 |
| • Unsure | 16.3% (27) | 13.3% (22) | -3.0 |
| • Strongly agree/ agree | 1.8% (3) | 2.4% (4) | 0.6 |
| Note:   Missing excluded from percent calculation | | | |

## Recovery Items

| Stereotyped Attributions Items | Pre-test % (n=166) | Post-test % (n=166) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 70.5% (117) | 69.3% (115) | -1.2 |
| • Unsure | 26.5% (44) | 24.7% (41) | -1.8 |
| • Strongly agree/ agree | 3.0 % (5) | 6.0 % (10) | 3.0 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 72.9% (121) | 75.9% (154) | 3.0 |
| • Unsure | 20.5% (34) | 19.3% (42) | -1.2 |
| • Strongly agree/ agree | 6.6% (11) | 4.8% (11) | -1.8 |

## Violence/ Unpredictability Items

| Stereotyped Attributions Items | Pre-test % (n=166) | Post-test % (n=166) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 45.8% (76) | 50.0% (83) | 4.2 |
| • Unsure | 34.3% (57) | 34.3% (57) | 0.0 |
| • Strongly agree/ agree | 19.9% (33) | 15.7% (26) | -4.2 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 31.9% (53) | 31.9% (53) | 0.0 |
| • Unsure | 39.2% (65) | 48.8% (81) | 9.6 |
| • Strongly agree/ agree | 28.9% (48) | 19.3% (32) | -9.6 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 57.8% (96) | 59.0% (98) | 1.2 |
| • Unsure | 32.5% (54) | 32.5% (54) | 0.0 |
| • Strongly agree/ agree | 9.6% (16) | 8.4% (14) | -1.2 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 65.1% (108) | 65.1% (108) | 0.0 |
| • Unsure | 26.5% (44) | 26.5% (44) | 0.0 |
| • Strongly agree/ agree | 8.4% (14) | 8.4% (14) | 0.0 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 28.3% (47) | 33.7% (56) | 5.4 |
| • Unsure | 28.9% (48) | 34.9% (58) | 6.0 |
| • Strongly agree/ agree | 42.8% (71) | 31.3% (52) | -11.5 |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=166 pre-test/post-test pairs)
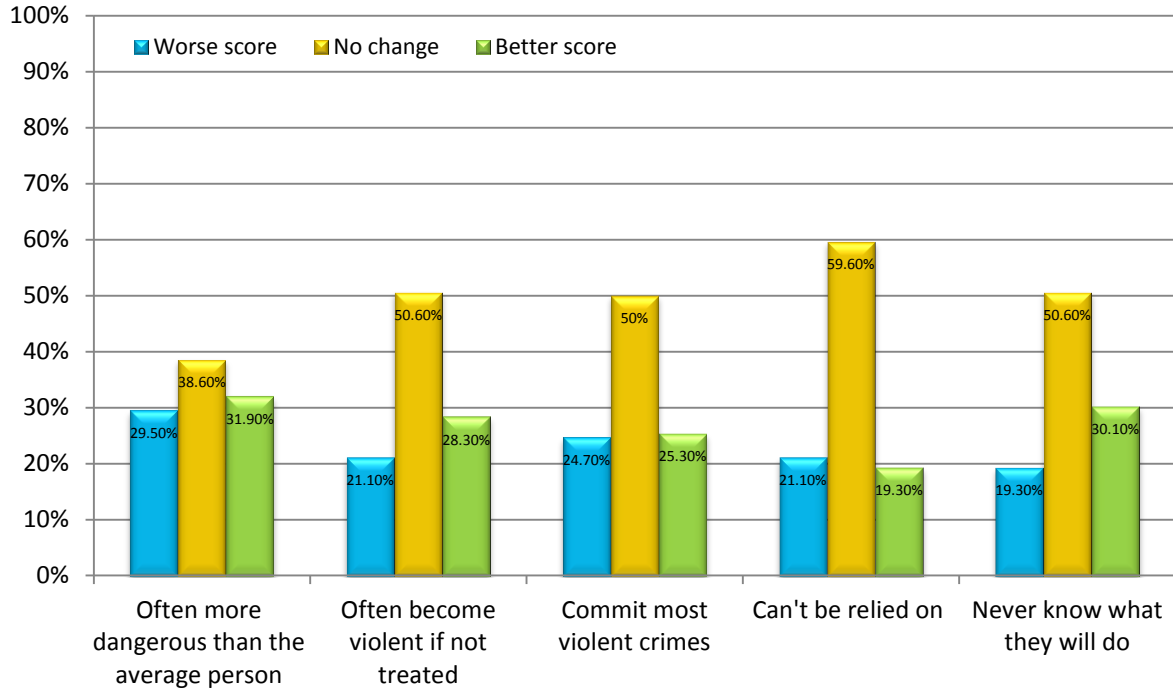


Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=166 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test –
Violence/Unpredictability Items (n=166 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=166 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | McNemar-Bowker Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* %(n) | Non-stigmatizing* %(n) | | |
| **Controllability   Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 12.0% (20) | 69.3% (115) | | 18.7% (31) | χ2 = 9.4; df = 6; p=.150 |
| | | 9.0% (15) | 60.2% (100) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 24.7% (41) | 56.0% (93) | | 19.3% (32) | χ2 =4.9; df = 3; p=1.76** |
| | | 4.8% (8) | 51.2% (85) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 15.7% (26) | 66.3% (110) | | 18.1% (30) | χ2 =5.8; df = 7 p=.565 |
| | | 9.0% (15) | 57.2% (95) | | |
| 14 Most people with a mental illness get what they deserve | 17.5% (29) | 62.7% (104) | | 19.9% (33) | χ2 =2.69; df = 5; p=.748 |
| | | 9.0% (15) | 53.6% (89) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 18.7% (31) | 56.0% (93) | | 25.3% (42) | χ2 =2.99;df = 3; p=.407** |
| | | 13.3% (22) | 42.8% (71) | | |
| 15 People with serious mental illnesses need to be locked away | 21.7% (36) | 54.2% (90) | | 24.1% (40) | χ2 =8.6;df =10 ; p=.567 |
| | | 10.2% (17) | 44% (73) | | |
| **Violence/ Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 29.5% (49) | 38.6% (64) | | 31.9% (53) | χ2= 95.29; df = 9; p=.390 |
| | | 19.9% (33) | 18.7% (31) | | |
| 8 People with a mental illness often become violent if not treated | 21.1% (35) | 50.6% (84) | | 28.3% (47) | χ2 =22.8; df =10; p=.011 |
| | | 38.6% (64) | 12.0% (20) | | |
| 10 Most violent crimes are committed by people with a mental illness | 24.7% (41) | 50.0% (83) | | 25.3% (42) | χ2 =8.2; df =8; p=.417 |
| | | 19.9% (33) | 30.1% (50) | | |
| 11 You can't rely on someone with a mental illness | 21.1% (35) | 59.6% (99) | | 19.3% (32) | χ2 0.3; df =3; p=.962** |
| | | 19.3% (32) | 40.4% (67) | | |
| 12 You can never know what someone with a mental illness is going to do | 19.3% (32) | 50.6% (84) | | 30.1% (30) | χ2 =10.9; df =8; p=.207 |
| | | 35.5% (59) | 15.1% (25) | | |

Notes:
- Base size is those who responded to all the pre and post-test items (n=166)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response. **Due to response distribution responses were recoding into 3 categories to perform statistical test
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Positive Endorsement of Knowledge Items

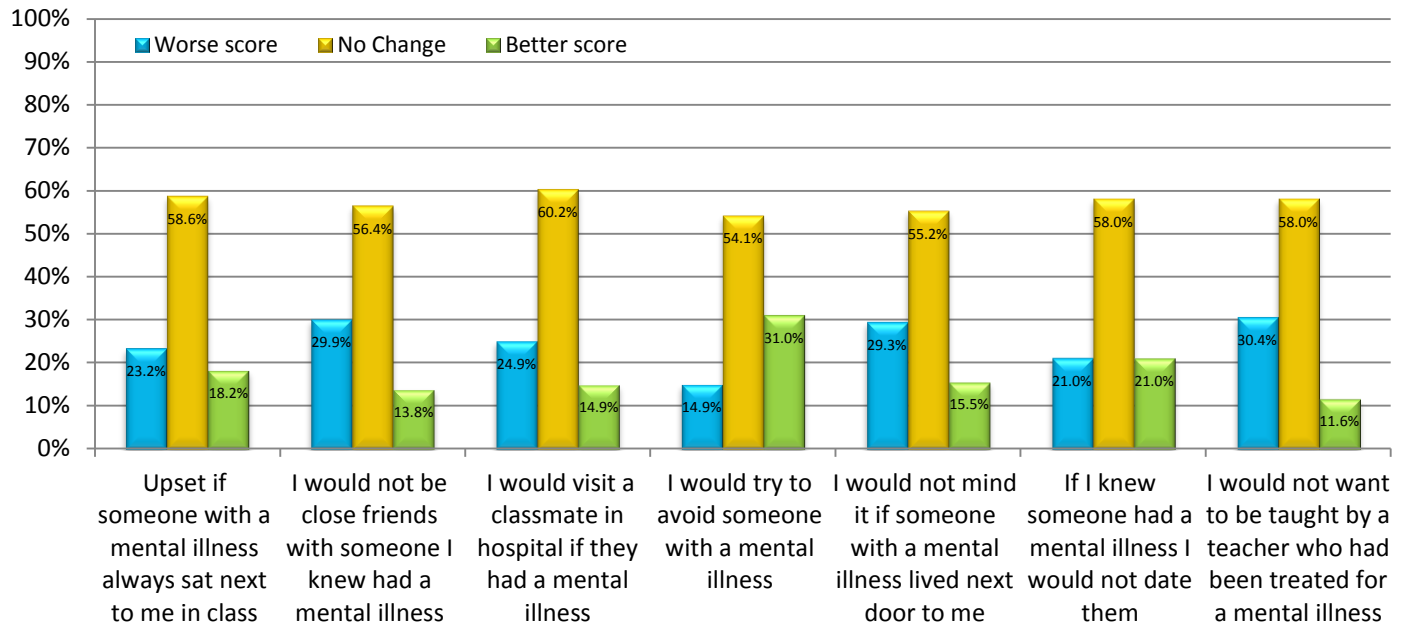|  | Pre-test % (n) | Post-test % (n) |
|---|---|---|
| None | 1.2% (2) | 3.6% (6) |
| At least 1 | 98.8% (164) | 96.4% (160) |
| At least 2 items | 98.2% (163) | 94.0% (156) |
| At least 3 items | 95.8% (159) | 91.0% (151) |
| At least 4 items | 94.0% (156) | 88.6% (147) |
| At least 5 items | 88.0% (146) | 82.5% (137) |
| At least 6 items | 74.7% (124) | 74.7% (124) |
| At least 7 items | 58.4% (97) | 58.4% (97) |
| At least 8 items | 39.8% (66) | 47.6% (79) |
| At least 9 items | 27.7% (46) | 34.3% (57) |
| At least 10 times | 14.5% (24) | 24.1% (40) |
| All 11 times | 8.4% (14) | 15.1% (257) |

# Social Tolerance Results

## Social Distance Items

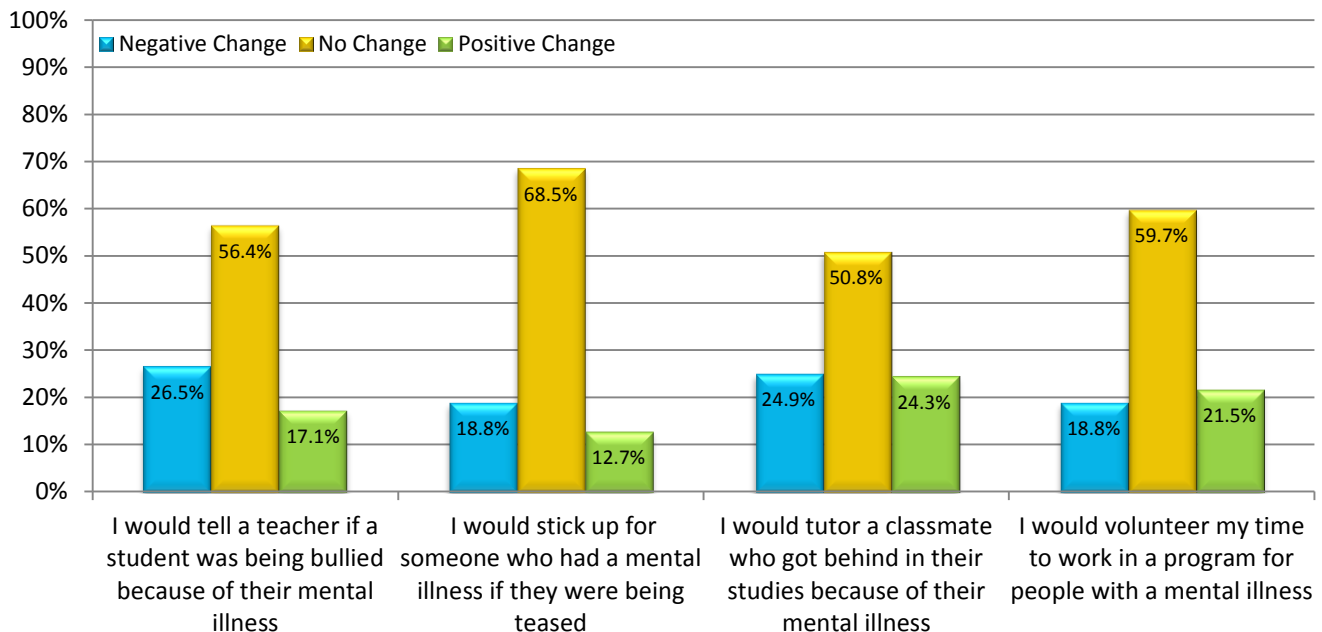| Stereotyped Attributions Items | Pre-test % (n=181) | Post-test % (n=181) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 74.6% (135) | 69.6% (146) | -5.0 |
| • Unsure | 14.9% (27) | 24.3% (49) | 9.4 |
| • Strongly agree/ agree | 10.5% (19) | 6.1 % (11) | -4.4 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 74.6% (135) | 70.2 % (127) | -4.4 |
| • Unsure | 18.8% (34) | 22.7% (41) | 3.9 |
| • Strongly agree/ agree | 6.6% (12) | 7.2% (13) | 0.6 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | |
| • Strongly agree/ agree | 72.4% (131) | 66.3% (120) | -6.1 |
| • Unsure | 18.2% (33) | 26.5% (48) | 8.3 |
| • Strongly disagree/disagree | 9.4% (17) | 7.2 % (13) | -2.2 |
| **21. I would try to avoid someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 76.8 % (139) | 79.0% (143) | 2.2 |
| • Unsure | 18.2% (33) | 17.1% (31) | -1.1 |
| • Strongly agree/ agree | 5.0% (9) | 3.9% (7) | -1.1 |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 82.9% (150) | 77.9% (141) | -5.0 |
| • Unsure | 11.6% (21) | 14.4% (26) | 2.8 |
| • Strongly disagree/disagree | 5.5 % (10) | 7.7% (14) | 2.2 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 32.6% (59) | 28.7 % (52) | -3.9 |
| • Unsure | 42.0 % (76) | 48.6% (88) | 6.6 |
| • Strongly agree/ agree | 25.4 % (46) | 22.7% (41) | -2.7 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 65.2% (118) | 53.6% (97) | -11.6 |
| • Unsure | 26.0% (47) | 33.7% (61) | 7.7 |
| • Strongly agree/ agree | 8.8 % (16) | 12.7% (23) | 3.9 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

## Social Responsibility Items

| Stereotyped Attributions Items | Pre-test % (n=181) | Post-test % (n=181) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 80.1 % (145) | 77.3% (140) | -2.8 |
| • Unsure | 16.0 % (29) | 18.2% (33) | 2.2 |
| • Strongly disagree/disagree | 3.9% (7) | 4.4 % (8) | 0.5 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 88.4% (160) | 80.7% (146) | -7.7 |
| • Unsure | 9.4 % (17) | 17.1 % (34) | 7.7 |
| • Strongly disagree/disagree | 2.2% (4) | 2.2% (4) | 0.0 |
| **33. (R)   I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 61.9% (112) | 61.3 % (122) | -0.6 |
| • Unsure | 27.6% (50) | 31.5% (65) | 3.9 |
| • Strongly disagree/disagree | 10.5% (19) | 7.2% (17) | -3.3 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 48.6% (88) | 50.3% (91) | 1.7 |
| • Unsure | 38.7% (70) | 37.6% (68) | -1.1 |
| • Strongly disagree/disagree | 12.7% (23) | 12.2% (22) | -0.5 |
| Note:    (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=181 pre-test/post-test pairs)



Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility (n=181 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=181 pre-test/post-test pairs)

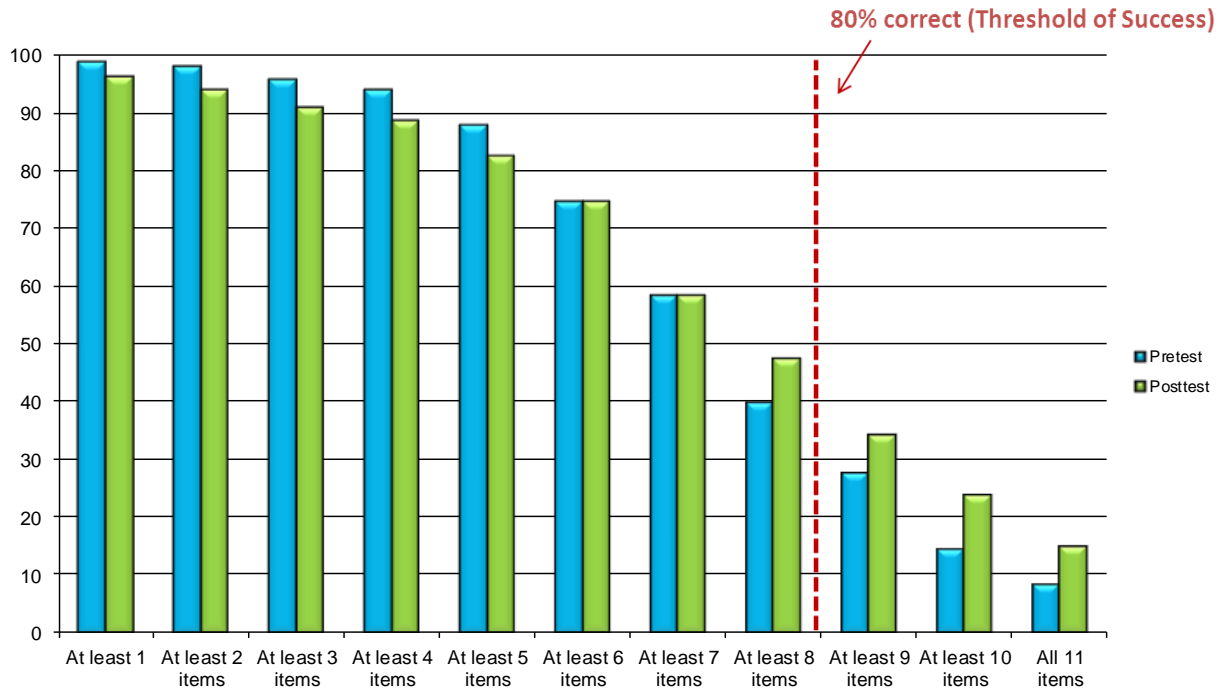| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | McNemar-Bowker Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* %(n) | Non-stigmatizing* %(n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 23.2% (42) | 58.6% (106) | | 18.2% (33) | χ2 = 18.9; df =8; p=.015 |
| | | 12.7% (23) | 45.9% (83) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 29.9% (54) | 56.4% (102) | | 13.8% (25) | χ2 =2.6; df =3; p=.466** |
| | | 11.6% (21) | 44.8% (81) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 24.9% (45) | 60.2% (109) | | 14.9% (27) | χ2 =23.9; df =9; p=.005 |
| | | 14.9% (27) | 45.3% (82) | | |
| 21 I would try to avoid someone with a mental illness | 22.1% (40) | 61.3% (111) | | 16.6% (30) | χ2 =1.6; df =3; p=.666** |
| | | 10.5% (19) | 50.8% (92) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 29.3% (53) | 55.2% (100) | | 15.5% (28) | χ2 =12.8; df =9; p=.174 |
| | | 5.0% (9) | 50.3% (91) | | |
| 24If I knew someone had a mental illness I would not date them | 21.0% (38) | 58.0% (105) | | 21.0% (38) | χ2 =8.4; df =10; p=590 |
| | | 42.5% (77) | 15.5% (28) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 30.4% (55) | 58.0% (105) | | 11.6% (21) | χ2 =24.7; df =9; p=.003 |
| | | 21.0% (38) | 37.0% (67) | | |
| **Social Responsibility    Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 26.5% (48) | 56.4% (102) | | 17.1% (31) | χ2 =10.8; df =9; p=.291 |
| | | 8.3% (15) | 48.1% (87) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 18.8% (34) | 68.5% (124) | | 12.7% (23) | χ2 =10.6 df =7; p=.156 |
| | | 7.7% (14) | 60.8% (110) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 24.9% (45) | 50.8% (92) | | 24.3% (44) | χ2 =6.9; df =6; p=.332 |
| | | 18.8% (34) | 32.0% (58) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 18.8% (34) | 59.7% (108) | | 21.5% (39) | χ2 =5.0; df =8; p=.754 |
| | | 29.8% (54) | 29.8% (54) | | |

Notes:
- Base size is those who responded to all the pre and post-test items (n=181)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response. ** Due to response distribution responses were recoding into 3 categories to perform statistical test
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

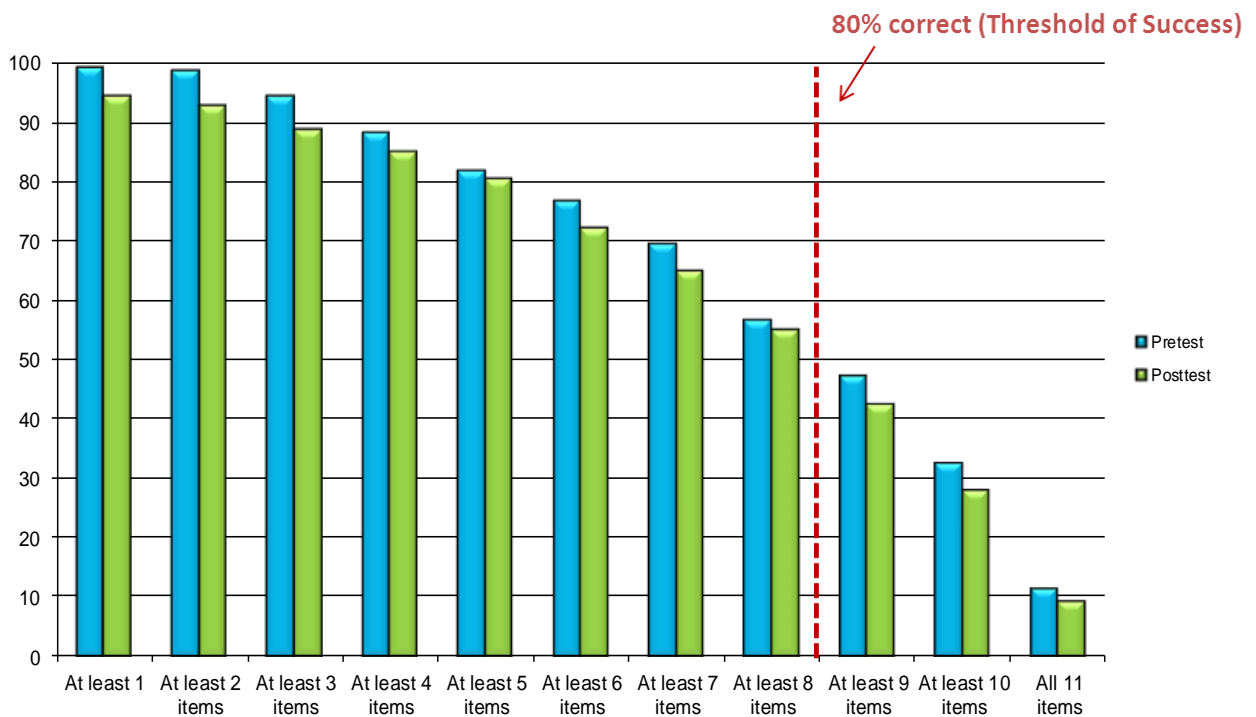Percent Non Stigmatizing of Endorsement of Social Distance Items

|  | Pre-test   % (n) | Post-test % (n) |
|---|---|---|
| None | 0.6% (1) | 5.5% (10) |
| At least 1 | 99.4% (180) | 94.5% (171) |
| At least 2 items | 98.9% (179) | 92.8% (168) |
| At least 3 items | 94.5% (171) | 89.0% (161) |
| At least 4 items | 88.4% (160) | 85.1% (154) |
| At least 5 items | 81.8% (148) | 80.7% (146) |
| At least 6 items | 76.8% (139) | 72.4% (131) |
| At least 7 items | 69.6% (16) | 65.2% (118) |
| At least 8 items | 56.9% (103) | 55.2% (100) |
| At least 9 items | 47.5% (86) | 42.5% (77) |
| At least 10 times | 32.6% (59) | 28.2% (51) |
| All 11 times | 11.6% (21) | 9.4% (17) |

## Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=166)



80% correct (Threshold of Success)

## Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=181)



80% correct (Threshold of Success)

## Change in Stereotype Scale Score (n=157)



Already positive 15.9%

Newly positive 15.3%

Did not cross 80% threshold

Worse 33.1%

Improved 17.8%

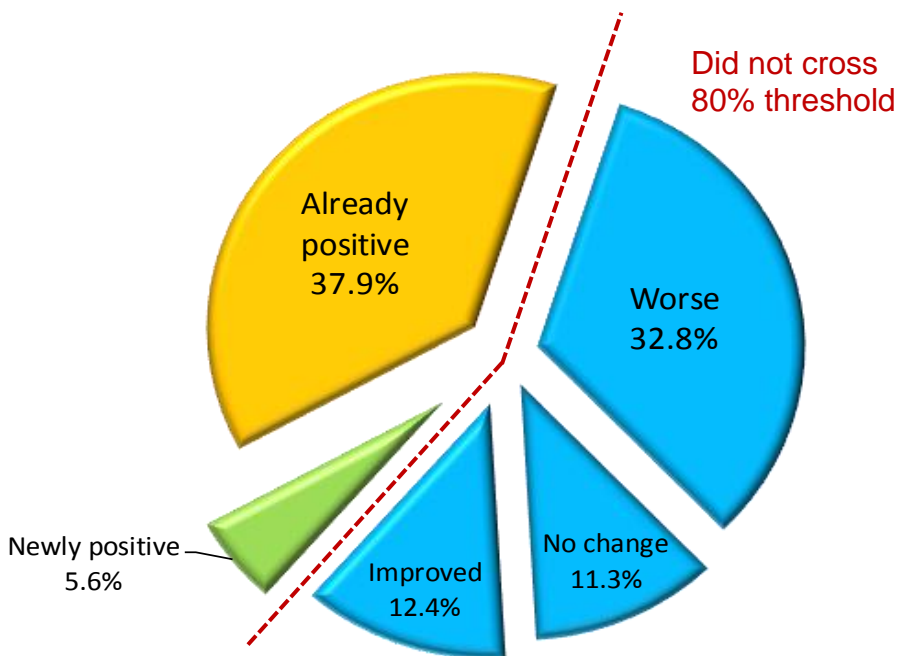No change 17.8%

Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Social Tolerance Scale Score (n=177)



Already positive 37.9%

Did not cross 80% threshold

Worse 32.8%

Newly positive 5.6%

Improved 12.4%

No change 11.3%

Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

Change in Stereotype Scale Score and Social Tolerance Scale Score

| | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| Stereotype scale score (n=157) | 15.9% (25) | 15.3% (24) | 68.8% (108) |
| Social tolerance scale score (n=177) | 37.9% (67) | 5.6 % (10) | 56.5% (100) |
| Notes: To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=166)

| | Median (interquartile range) |
|---|---|
| Pre-test | 24.5 (21-28) |
| Post-test | 24 (20-27) |

Tolerance Items (n=181)

| | Median (interquartile range) |
|---|---|
| Pre-test | 23 (19-28) |
| Post-test | 22 (21-29) |

**Appendix C- Durham TAMI Five Day in Class High School Program**

The Durham TAMI Coalition has been running this project into regional high schools for the past 10 years. The curriculum which was originally developed by MDAO, CAMH and CMHA, was modified by the Durham TAMI Coalition into a succinct 5 day model. The Durham TAMI Coalition designed a teacher facilitation guide and student workbook that takes participants through such lessons as; What is Stigma; What is Mental Illness and What is Mental Health. Durham Coalition members deliver a consistent introductory session for each class that is involved in the 5 Day program. The students and teaching staff then follow the lesson plans as they prepare to hear the recovery stories of two persons who have been affected by mental illness. The last module of the program is a debrief session, followed by a discussion on community resources and "where to go for help."

Sample Characteristics for Those Who Completed Both the Pre- and Post-test

| Characteristic | % (N=427) |
|---|---|
|  |  |
| **Gender** |  |
| • Male | 38.5% (162) |
| • Female | 61.5% (259) |
| • Missing | -- (6) |
| **Age** |  |
| • 14 | 0.2% (1) |
| • 15 | 3.1% (13) |
| • 16 | 48.9%(208) |
| • 17 | 31.3% (133) |
| • 18+ | 16.5% (70) |
| • Missing | --(2) |
| **Grade** |  |
| • 9 | 0.2% (1) |
| • 10 | 2.4% (10) |
| • 11 | 60.2% (257) |
| • 12 | 36.8% (156) |
| • Missing | -- (3) |
| **Contact- Pre-test - Does someone you know have a mental illness**[*] |  |
| • No | 16.0% (65) |
| • Uncertain | 21.0% (85) |
| • Close friend | 14.3% (58) |
| • Family member | 27.9% (113) |
| • Somebody else | 21.0% (85) |
| • I do | 19.0% (77) |
| • Missing | -- (22) |
| * Multiple responses accepted |  |

# Stigma Stereotype Results

## Controllability Items

| Stereotyped Attributions Items | Pre-test<br>% (n=376) | Post-test<br>% (n=376) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.** | | | |
| • Strongly disagree/disagree | 82.4% (310) | 88.3% (332) | 5.9 |
| • Unsure | 11.2 % (42) | 7.7% (29) | -3.5 |
| • Strongly agree/ agree | 6.4% (24) | 4.0% (15) | -2.4 |
| **5. People with mental illnesses often don't try hard enough to get better.** | | | |
| • Strongly disagree/disagree | 69.9% (263) | 85.9% (346) | 16 |
| • Unsure | 21.3% (80) | 9.8 % (45) | -11.5 |
| • Strongly agree/ agree | 8.8% (33) | 4.3% (413) | -4.5 |
| **6. People with a mental illness could snap out of it if they wanted to**. | | | |
| • Strongly disagree/disagree | 85.1% (320) | 88.0% (331) | 2.9 |
| • Unsure | 8.8 % (33) | 8.0% (30) | -0.8 |
| • Strongly agree/ agree | 6.1 % (23) | 4.0% (15) | -2.1 |
| **14. Most people with a mental illness get what they deserve.** | | | |
| • Strongly disagree/disagree | 84.8% (319) | 88.8%334) | 4 |
| • Unsure | 12.2% (46) | 9.0% (34) | -3.2 |
| • Strongly agree/ agree | 2.9% (11) | 2.1% (8) | -0.8 |

### Recovery Items

| Stereotyped Attributions Items | Pre-test % (n=376) | Post-test % (n=376) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 69.9% (263) | 90.2% (339) | 20.3 |
| • Unsure | 19.9% (75) | 6.6% (25) | -13.3 |
| • Strongly agree/ agree | 10.1 % (38) | 3.2 % (12) | -6.9 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 74.7% (281) | 85.4% (321) | 10.7 |
| • Unsure | 17.8% (67) | 11.2% (42) | -6.6 |
| • Strongly agree/ agree | 7.4% (28) | 3.5% (13) | -3.9 |

### Violence/ Unpredictability Items

| Stereotyped Attributions Items | Pre-test % (n=376) | Post-test % (n=376) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 41.5% (156) | 66.8 % (251) | 25.3 |
| • Unsure | 33.2% (125) | 21.0% (79) | -12.2 |
| • Strongly agree/ agree | 25.3% (95) | 12.2% (44) | -13.1 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 29.3% (110) | 53.2% (200) | 23.9 |
| • Unsure | 45.5% (171) | 30.3% (114) | -15.2 |
| • Strongly agree/ agree | 25.3% (95) | 16.5% (62) | -8.8 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 61.7% (232) | 71.8% (270) | 10.1 |
| • Unsure | 22.6% (85) | 21.3% (80) | -1.3 |
| • Strongly agree/ agree | 15.7% (59) | 6.9% (26) | -8.8 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 64.6% (243) | 79.3% (298) | 14.7 |
| • Unsure | 23.7% (89) | 14.3% (54) | -9.4 |
| • Strongly agree/ agree | 11.7% (44) | 6.4% (24) | -5.3 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 27.4%(107) | 51.3% (193) | 23.9 |
| • Unsure | 32.2% (137) | 25.5% (96) | -6.7 |
| • Strongly agree/ agree | 40.4% (177) | 23.1% (87) | -17.3 |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=376 pre-test/post-test pairs)



Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=376 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test – Violence/Unpredictability Items (n=376 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=376 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Controllability    Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 14.1% (53) | 54.5% (205) | | 31.4% (118) | χ2 = 34.6; df = 10; p<.001 |
| | | 5.1% (19) | 49.5% (186) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 14.9% (56) | 44.9% (169) | | 40.2% (151) | χ2 =51.9; df = 8; p<.001 |
| | | 5.3% (20) | 39.6% (149) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 16.8% (63) | 59.3% (223) | | 23.9% (90) | χ2 =16.6; df = 10; p=.085 |
| | | 3.5% (13) | 55.9% (210) | | |
| 14 Most people with a mental illness get what they deserve | 12.2% (46) | 65.4% (246) | | 22.3% (84) | χ2 =14.9; df = 7; p=.037 |
| | | 5.1% (19) | 60.4% (227) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 6.9% (26) | 45.7% (172) | | 47.3% (178) | χ2 =115.9;df = 8; p<.001 |
| | | 4.8% (18) | 41.0% (154) | | |
| 15 People with serious mental illnesses need to be locked away | 14.6% (55) | 55.3% (208) | | 30.1% (113) | χ2 =25.0;df =10 ; p=.005 |
| | | 4.8% (18) | 50.5% (190) | | |
| **Violence/ Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 12.0% (45) | 37.8% (142) | | 50.3% (189) | χ2= 95.7; df = 10; p<.001 |
| | | 17.3% (65) | 20.5% (77) | | |
| 8 People with a mental illness often become violent if not treated | 14.4% (54) | 37.5% (141) | | 48.1% (181) | χ2 =78.6; df =10; p p<.001 |
| | | 25.3% (95) | 12.2% (46) | | |
| 10 Most violent crimes are committed by people with a mental illness | 18.6% (70) | 44.1% (166) | | 37.2% (140) | χ2 =36.5; df =10; p<.001 |
| | | 11.2% (42) | 33.0% (124) | | |
| 11 You can't rely on someone with a mental illness | 13.0% (49) | 46.5% (175) | | 40.4% (152) | χ2 =62.5; df =10; p<.001 |
| | | 8.0% (30) | 38.6% (145) | | |
| 12 You can never know what someone with a mental illness is going to do | 10.1% (38) | 40.7% (153) | | 49.2% (185) | χ2 =100.9; df =10; p<.001 |
| | | 26.9% (101) | 13.8% (52) | | |

Notes:
- Base size is those who responded to all the pre and post-test items (n=376)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Positive Endorsement of Knowledge Items

|  | Pre-test    %<br>(n=376) | Post-test %<br>(n=376) |
|---|---|---|
| None | 1.6% (6) | 1.1% (4) |
| At least 1 | 98.4% (370) | 98.9% (372) |
| At least 2 items | 96.0% (361) | 97.3% (366) |
| At least 3 items | 91.8% (345) | 95.7% (360) |
| At least 4 items | 88.0% (331) | 94.7% (356) |
| At least 5 items | 82.7% (311) | 91.0% (342) |
| At least 6 items | 73.4% (276) | 86.2% (324) |
| At least 7 items | 62.8% (236) | 81.4% (306) |
| At least 8 items | 43.1% (162) | 71.8% (270) |
| At least 9 items | 28.7% (108) | 57.4% (216) |
| At least 10 times | 17.8% (67) | 46.0% (173) |
| All 11 times | 8.8% (33) | 28.8% (107) |

# Social Tolerance Results

Social Distance Items

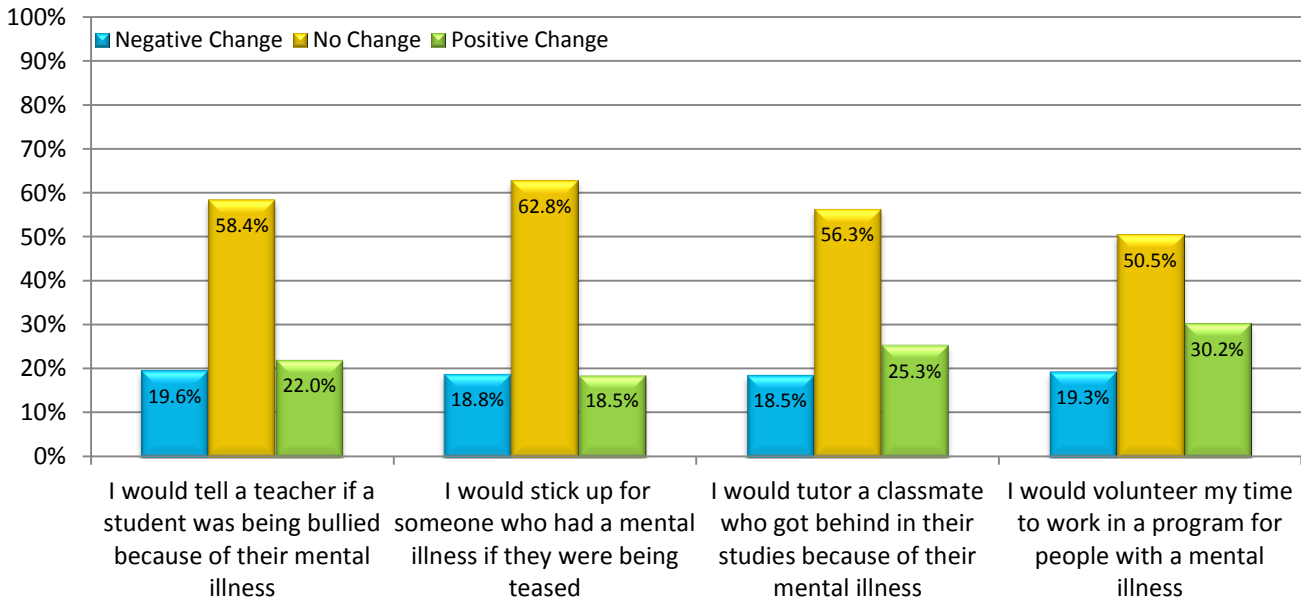| Stereotyped Attributions Items | Pre-test % (n=368) | Post-test % (n=368) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 72.6% (267) | 79.1% (291) | 6.5 |
| • Unsure | 17.7% (65) | 14.4% (53) | -3.3 |
| • Strongly agree/ agree | 9.8% (36) | 6.5 % (24) | -3.3 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 78.3% (288) | 83.2 % (306) | 4.9 |
| • Unsure | 14.4% (53) | 11.7% (43) | -2.7 |
| • Strongly agree/ agree | 7.3% (27) | 5.2% (19) | -2.1 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | |
| • Strongly agree/ agree | 70.7% (293) | 73.9% (272) | 3.2 |
| • Unsure | 22.6% (95) | 17.9% (66) | -4.7 |
| • Strongly disagree/disagree | 6.8% (29) | 8.2 % (30) | 1.4 |
| **21. I would try to avoid someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 75.3 % (277) | 81.3% (299) | 6 |
| • Unsure | 18.5% (68) | 13.6% (50) | -4.9 |
| • Strongly agree/ agree | 6.3% (23) | 5.2% (19) | -1.1 |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 77.4% (285) | 77.4% (285) | 0 |
| • Unsure | 15.2% (56) | 12.8% (47) | -2.4 |
| • Strongly disagree/disagree | 7.3 % (27) | 9.8% (36) | 2.5 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 34.0% (125) | 51.6 % (190) | 17.6 |
| • Unsure | 43.5 % (160) | 37.0% (136) | -6.5 |
| • Strongly agree/ agree | 22.6 % (83) | 11.4% (42) | -11.2 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 67.7% (249) | 75.0% (276) | 7.3 |
| • Unsure | 20.7% (76) | 19.6% (72) | -1.1 |
| • Strongly agree/ agree | 11.7 % (43) | 5.4% (20) | -6.3 |
| Note:   (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

Social Responsibility Items

| Stereotyped Attributions Items | Pre-test % (n=368) | Post-test % (n=368) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 80.2 % (295) | 81.0% (298) | 0.8 |
| • Unsure | 13.9 % (51) | 12.8% (47) | -1.1 |
| • Strongly disagree/disagree | 6.0% (22) | 6.3 % (23) | 0.3 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 86.7% (319) | 84.5% (311) | -2.2 |
| • Unsure | 10.6 % (39) | 12.2 % (45) | 1.6 |
| • Strongly disagree/disagree | 2.7% (10) | 3.3 % (12) | 0.6 |
| **33. (R)  I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 64.9% (239) | 66.3 % (244) | 1.4 |
| • Unsure | 21.2% (78) | 20.9% (77) | -0.3 |
| • Strongly disagree/disagree | 13.9% (51) | 12.8% (47) | -1.1 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 54.9% (202) | 59.8% (220) | 4.9 |
| • Unsure | 26.9% (99) | 25.3% (93) | -1.6 |
| • Strongly disagree/disagree | 18.2% (67) | 14.9% (55) | -3.3 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=368 pre-test/post-test pairs)



Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility (n=368 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=181 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 14.4% (53) | 55.4% (204) | | 30.2% (111) | χ2 = 22.8; df =7; p=.002 |
| | | 8.2% (30) | 47.3% (174) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 16.8% (62) | 55.2% (203) | | 28.0% (103) | χ2 =17.8; df =10; p=.058 |
| | | 4.9% (18) | 50.3% (185) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 22.3% (82) | 53.3% (196) | | 24.5% (90) | χ2 =13.4; df =10; p=.200 |
| | | 11.1% (41) | 42.1% (155) | | |
| 21 I would try to avoid someone with a mental illness | 14.9% (55) | 54.1% (199) | | 31.0% (114) | χ2 =26.0; df =9; p=.002 |
| | | 8.4% (31) | 45.7% (168) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 20.9% (77) | 54.1% (199) | | 25.0% (92) | χ2 =11.5; df =10; p=.318 |
| | | 7.9% (29) | 46.2% (170) | | |
| 24 If I knew someone had a mental illness I would not date them | 14.7% (54) | 44.8% (165) | | 40.5% (149) | χ2 =48.5; df =10; p<.001 |
| | | 28.0% (103) | 16.8% (62) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 14.9% (55) | 53.5% (197) | | 31.5% (116) | χ2 =31.6; df =10; p<.001 |
| | | 9.8% (36) | 43.8% (161) | | |
| **Social Responsibility    Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 19.6% (72) | 58.4% (215) | | 22.0% (81) | χ2 =4.5; df =9; p=.087 |
| | | 7.6% (28) | 50.8% (187) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 18.8% (69) | 62.8% (231) | | 18.5% (68) | χ2 =4.8; df =8; p=.778 |
| | | 6.0% (22) | 56.8% (209) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 18.5% (68) | 56.3% (207) | | 25.3% (93) | χ2 =7.0; df =10; p=.725 |
| | | 16.3% (60) | 39.9% (147) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 19.3% (71) | 50.5% (186) | | 30.2% (111) | χ2 =14.3; df =10; p=.161 |
| | | 17.4% (64) | 33.2% (122) | | |

Notes:
- Base size is those who responded to all the pre and post-test item (n=368)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Non Stigmatizing of Endorsement of Social Distance Items

| | Pre-test % (n) | Post-test % (n) |
|---|---|---|
| None | 3.5% (13) | 2.4% (9) |
| At least 1 | 96.5% (355) | 97.6% (359) |
| At least 2 items | 95.4% (351) | 96.7% (356) |
| At least 3 items | 94.0% (346) | 94.3% (347) |
| At least 4 items | 91.3% (336) | 90.5% (333) |
| At least 5 items | 85.1% (313) | 86.7% (319) |
| At least 6 items | 78.8% (287) | 80.2% (295) |
| At least 7 items | 69.3% (255) | 74.7% (275) |
| At least 8 items | 59.5% (219) | 65.5% (241) |
| At least 9 items | 47.0% (173) | 57.3% (211) |
| At least 10 times | 34.8% (128) | 44.3% (163) |
| All 11 times | 11.7% (43) | 25.3% (93) |

Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=376)
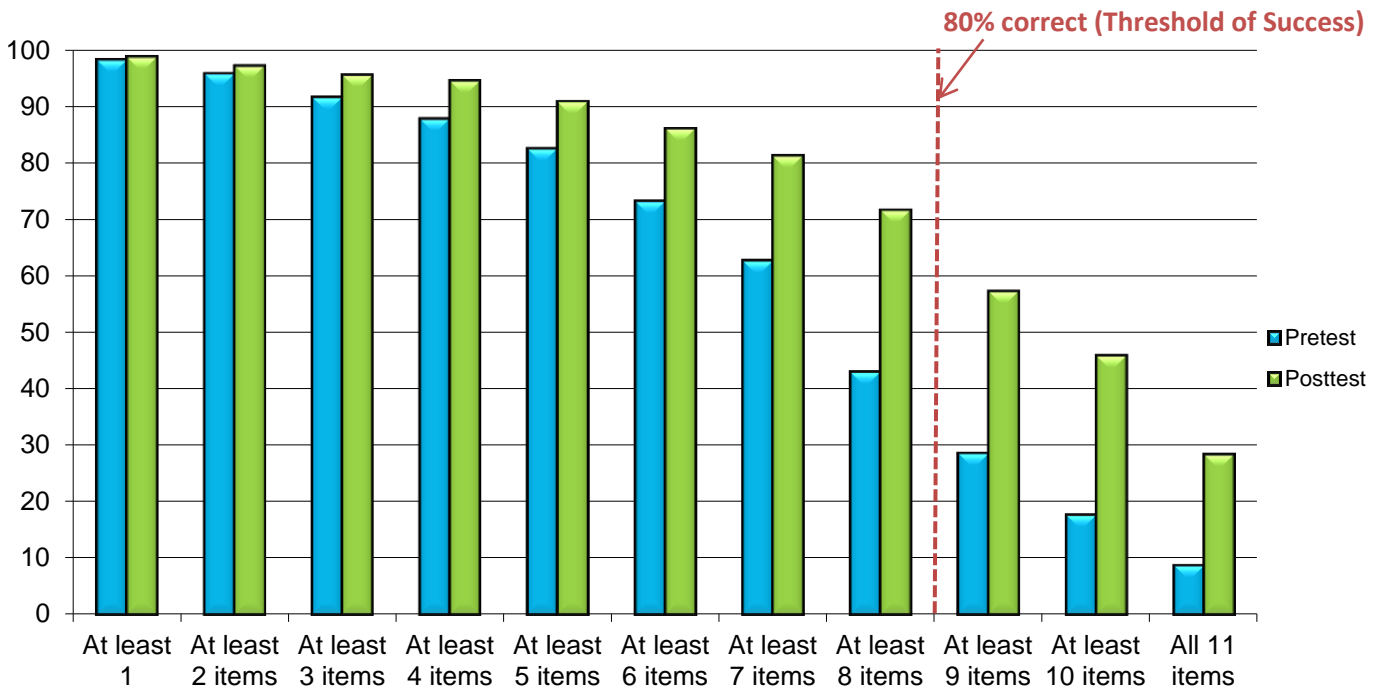


Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=368)
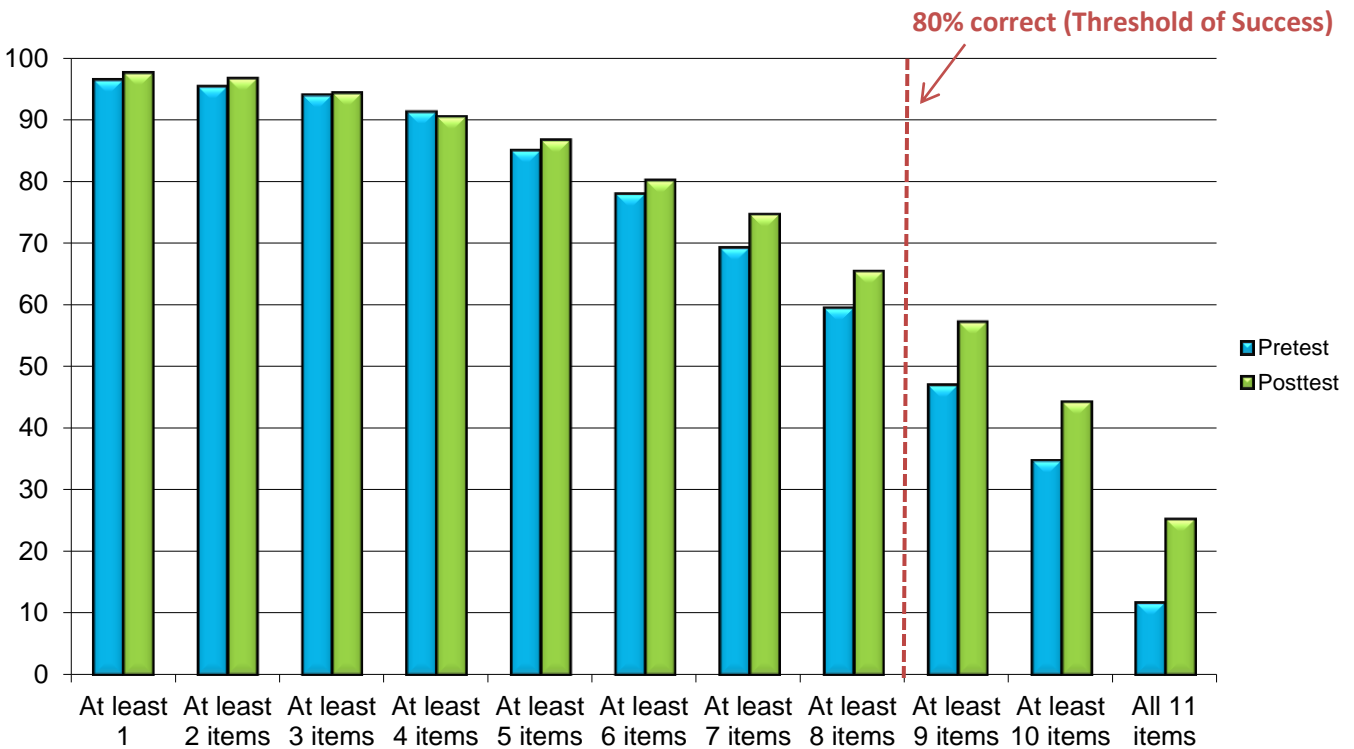
## Change in Stereotype Scale Score (n=358)
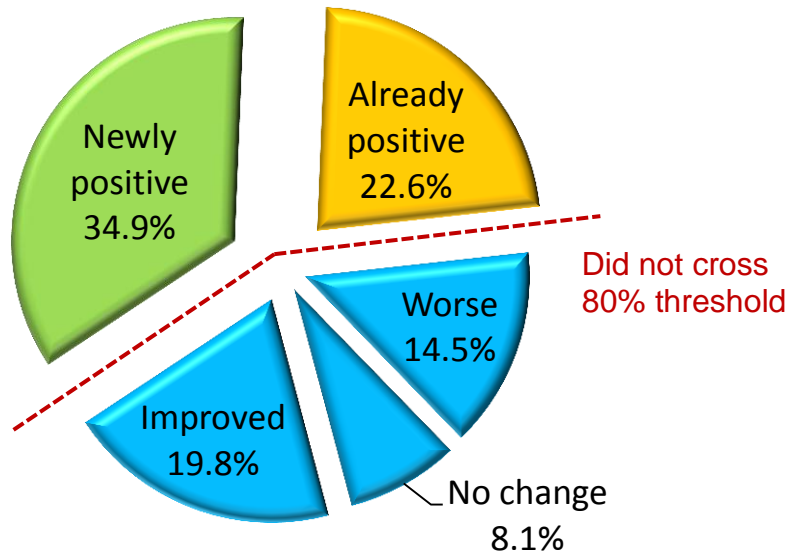


Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Social Tolerance Scale Score (n=357)



Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Stereotype Scale Score and Social Tolerance Scale Score

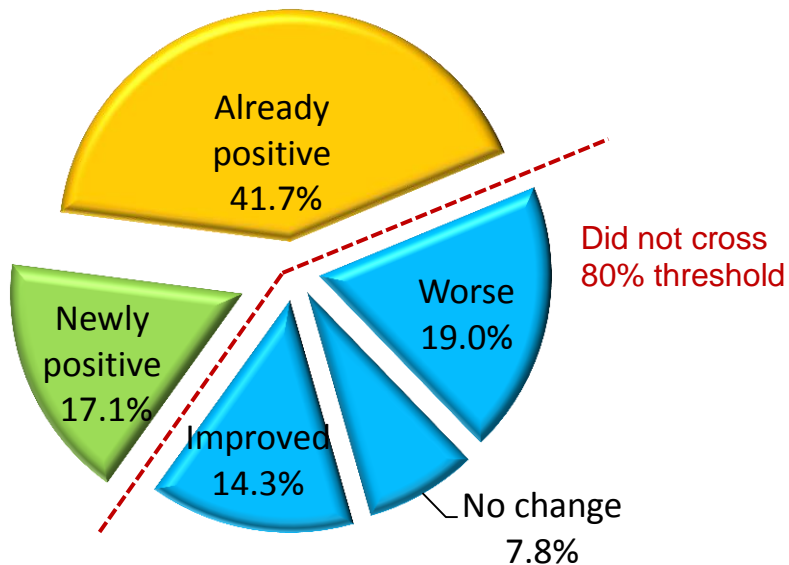|  | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| **Stereotype scale score (n=358)** | 22.6% (81) | 34.9% (125) | 42.5% (152) |
| **Social tolerance scale score (n=357)** | 41.7% (149) | 17.1 % (61) | 41.2% (147) |
| Notes: To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=376)

|  | Median (interquartile range) |
|---|---|
| Pre-test | 24 (20-29) |
| Post-test | 21 (15-25) |

Tolerance Items (n=368)

|  | Median (interquartile range) |
|---|---|
| Pre-test | 23 (18-28) |
| Post-test | 21 (16-27) |

**Appendix D - Assembly**

This Secondary School has been involved in both the Durham Five Day In Class High School Program as well as the Durham Summit Model for the past 7 years. The Assembly model was designed in cooperation with Assembly students and staff members. The model shows student initiatives in tackling stigma, a presentation by Durham TAMI coalition member on attitudes, beliefs and stereotypes, followed by the stories of two persons who have been affected by mental illness. Time was left for all Q&A session. The school targeted both Grade 9 and Grade 12 , therefore the data covers two separate assemblies, with both assemblies utilizing the same presenters. Students were administered the pre-test one week prior to the assembly and the post test was administered two weeks after the assembly.

Sample Characteristics for Those Who Completed Both the Pre and Post-test

| Characteristic | % (N=405) |
|---|---|
| **Gender** | |
| • Male | 46.4% (183) |
| • Female | 53.6% (211) |
| • Missing | -- (11) |
| **Age** | |
| • 13 | 5.0% (20) |
| • 14 | 57.4% (232) |
| • 15 | 2.0%(8) |
| • 16 | 3.2% (13) |
| • 17 | 30.0% (121) |
| • 18 | 2.5% (10) |
| • Missing | --(1) |
| **Grade** | |
| • 9 | 63.3% (255) |
| • 10 | 1.2% (5) |
| • 12 | 35.5% (143) |
| • Missing | -- (2) |
| **Contact- Pre-test    - Does someone you know have a mental illness**[*] | |
| • No | 13.5% (52) |
| • Uncertain | 21.9% (84) |
| • Close friend | 12.8% (49) |
| • Family member | 18.0% (69) |
| • Somebody else | 21.4% (82) |
| • I do | 23.2% (89) |
| • Missing | -- (21) |
| * Multiple responses accepted | |

# Stigma Stereotype Results

## Controllability Items

| Stereotyped Attributions Items | Pre-test<br>% (n=326) | Post-test<br>% (n=326) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.** | | | |
| • Strongly disagree/disagree | 69.0% (225) | 78.2% (255) | 9.20 |
| • Unsure | 18.7 % (61) | 13.5% (44) | -5.2 |
| • Strongly agree/ agree | 12.3% (40) | 8.3% (27) | -4 |
| **5. People with mental illnesses often don't try hard enough to get better.** | | | |
| • Strongly disagree/disagree | 71.5% (233) | 85.0% (277) | 13.50 |
| • Unsure | 20.2% (66) | 10.1 % (33) | -10.10 |
| • Strongly agree/ agree | 8.3% (27) | 4.9% (16) | -3.40 |
| **6. People with a mental illness could snap out of it if they wanted to**. | | | |
| • Strongly disagree/disagree | 76.4% (249) | 85.9% (280) | 9.50 |
| • Unsure | 16.3 % (53) | 9.8% (32) | -6.50 |
| • Strongly agree/ agree | 7.4 % (24) | 4.3% (14) | -3.10 |
| **14. Most people with a mental illness get what they deserve.** | | | |
| • Strongly disagree/disagree | 76.4% (249) | 86.5% (282) | 10.10 |
| • Unsure | 22.1% (72) | 11.7% (38) | -10.40 |
| • Strongly agree/ agree | 1.5% (5) | 1.8% (6) | 0.30 |

## Recovery Items

| Stereotyped Attributions Items | Pre-test<br>% (n=326) | Post-test<br>% (n=326) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 70.2% (229) | 89.0% (290) | 18.80 |
| • Unsure | 22.1% (72) | 6.7% (22) | -15.40 |
| • Strongly agree/ agree | 7.7 % (25) | 4.3 % (14) | -3.40 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 76.1% (248) | 82.5% (269) | 6.40 |
| • Unsure | 15.3% (50) | 12.6% (41) | -2.70 |
| • Strongly agree/ agree | 8.6% (28) | 4.9% (16) | -3.70 |

### Violence/Unpredictability Items

| Stereotyped Attributions Items | Pre-test % (n=326) | Post-test % (n=326) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 50.9% (166) | 67.5 % (220) | 16.60 |
| • Unsure | 30.4% (99) | 18.7% (61) | -11.70 |
| • Strongly agree/ agree | 18.7% (61) | 13.8% (45) | -4.90 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 31.0% (101) | 50.6% (165) | 19.60 |
| • Unsure | 45.4% (148) | 29.8% (97) | -15.60 |
| • Strongly agree/ agree | 23.6% (77) | 19.6% (64) | -4.00 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 61.0% (199) | 67.5% (220) | 6.50 |
| • Unsure | 22.4% (73) | 22.4% (73) | 0.00 |
| • Strongly agree/ agree | 16.6% (54) | 10.1% (33) | -6.50 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 62.9% (205) | 73.0% (238) | 10.10 |
| • Unsure | 23.6% (77) | 19.3% (63) | -4.30 |
| • Strongly agree/ agree | 13.5% (44) | 7.7% (25) | -5.80 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 25.5%(83) | 44.8% (146) | 19.30 |
| • Unsure | 34.7% (113) | 30.1% (98) | -4.60 |
| • Strongly agree/ agree | 39.9% (130) | 25.2% (82) | -14.70 |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=326 pre-test/post-test pairs)



Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=326 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test –
Violence/Unpredictability Items (n=326 pre-test/post-test pairs)
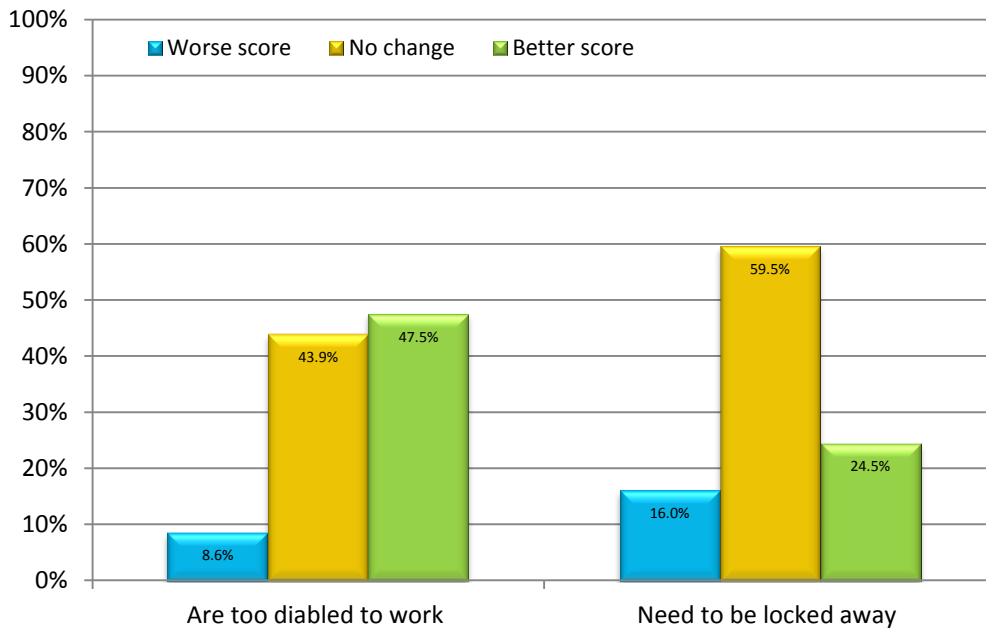
Appendix D – Assembly

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=326 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Controllability    Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 15.0% (49) | 53.7% (175) | | 31.3% (102) | χ2 = 29.8; df = 9; p<.001 |
| | | 10.7% (35) | 42.9% (140) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 15.0% (49) | 45.7% (149) | | 39.3% (128) | χ2 =46.2; df = 9; p<.001 |
| | | 5.2% (17) | 40.5% (132) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 12.0% (39) | 56.4% (184) | | 31.6% (103) | χ2 =39.8; df = 8; p<.001 |
| | | 5.8% (19) | 50.6% (165) | | |
| 14 Most people with a mental illness get what they deserve | 8.9% (29) | 66.6% (217) | | 24.5% (80) | χ2 =32.4; df = 7; p<.001 |
| | | 8.3% (27) | 58.3% (190) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 8.6% (28) | 43.9% (143) | | 47.5% (155) | χ2 =100.4;df = 9; p<.001 |
| | | 5.8% (19) | 38% (124) | | |
| 15 People with serious mental illnesses need to be locked away | 16.0% (52) | 59.5% (194) | | 24.5% (80) | χ2 =18.2;df =10 ; p=.052 |
| | | 6.7% (22) | 52.8% (172) | | |
| **Violence/ Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 15.0% (49) | 46.3% (151) | | 38.7% (126) | χ2= 51.2; df = 10; p<.001 |
| | | 17.2% (56) | 29.1% (95) | | |
| 8 People with a mental illness often become violent if not treated | 17.8% (58) | 42.0% (137) | | 40.2% (131) | χ2 =43.7; df =10; p p<.001 |
| | | 26.7% (87) | 15.3% (50) | | |
| 10 Most violent crimes are committed by people with a mental illness | 17.2% (56) | 51.2% (167) | | 31.6% (103) | χ2 =21.3; df =10; p=.019 |
| | | 15.6% (51) | 35.6% (116) | | |
| 11 You can't rely on someone with a mental illness | 14.4% (47) | 47.2% (154) | | 38.3% (125) | χ2 =47.5; df =9; p<.001 |
| | | 12.6% (41) | 34.7% (113) | | |
| 12 You can never know what someone with a mental illness is going to do | 12.3% (40) | 42.3% (138) | | 45.4% (148) | χ2 =71.0; df =10; p<.001 |
| | | 28.2% (92) | 14.1% (46) | | |

Notes:
- Base size is those who responded to all the pre- and post-test items (n=326)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Positive Endorsement of Knowledge Items

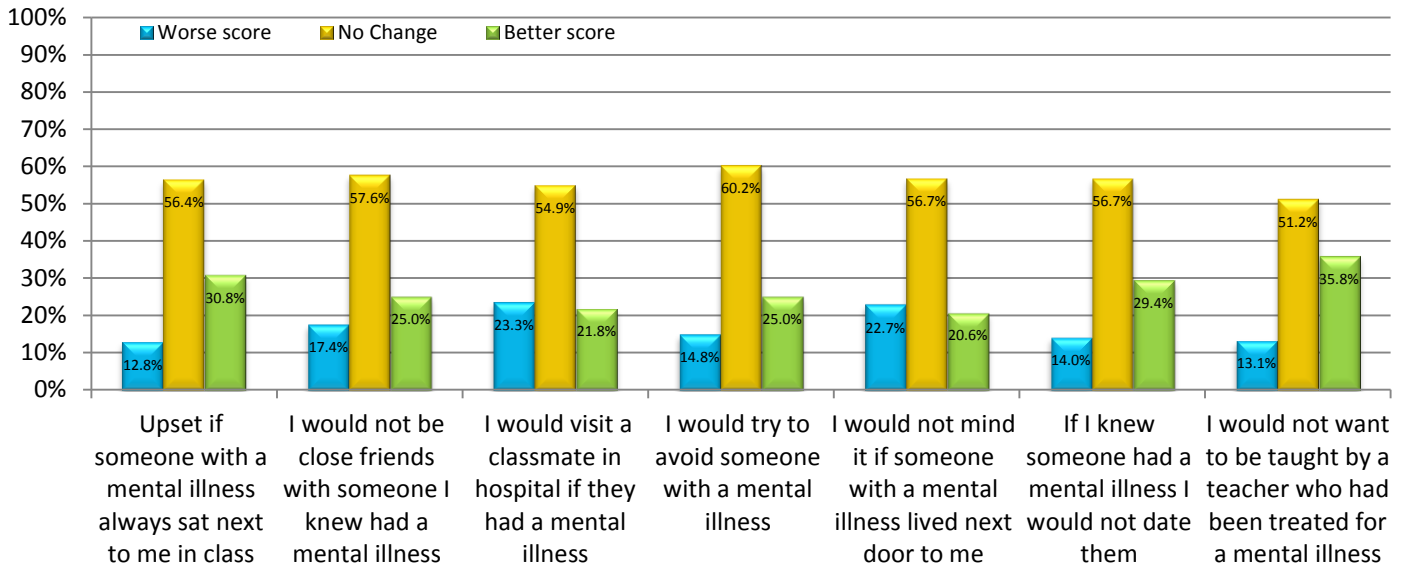| | Pre-test % (n=329) | Post-test % (n=326) |
|---|---|---|
| None | 2.1% (7) | 1.5% (5) |
| At least 1 | 97.9% (319) | 98.5% (321) |
| At least 2 items | 96.9% (315) | 96.9% (315) |
| At least 3 items | 93.9% (306) | 95.7% (312) |
| At least 4 items | 87.1% (284) | 92.6% (302) |
| At least 5 items | 78.2% (255) | 89.0% (290) |
| At least 6 items | 66.0% (215) | 83.7% (273) |
| At least 7 items | 54.3% (177) | 73.0% (238) |
| At least 8 items | 41.4% (134) | 64.1% (209) |
| At least 9 items | 27.6% (90) | 53.4% (174) |
| At least 10 times | 17.2% (56) | 37.7% (123) |
| All 11 times | 10.7% (35) | 26.1% (85) |

# Social Tolerance Results

## Social Distance Items

| Stereotyped Attributions Items | Pre-test % (n=344) | Post-test % (n=344) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 69.8% (240) | 78.8% (271) | 9.0 |
| • Unsure | 19.8% (68) | 14.2% (49) | -5.6 |
| • Strongly agree/ agree | 10.5% (36) | 7.0 % (24) | -3.5 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 72.4% (249) | 77.3 % (266) | 4.9 |
| • Unsure | 21.8% (75) | 17.7% (61) | -4.1 |
| • Strongly agree/ agree | 5.8% (20) | 4.9% (17) | -0.9 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | |
| • Strongly agree/ agree | 73.8% (254) | 70.9% (244) | -2.9 |
| • Unsure | 19.5% (67) | 19.2% (66) | -0.3 |
| • Strongly disagree/disagree | 6.7% (23) | 9.9 % (34) | 3.2 |
| **21. I would try to avoid someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 76.7 % (264) | 79.7% (274) | 3.0 |
| • Unsure | 14.8% (51) | 15.7% (54) | 0.9 |
| • Strongly agree/ agree | 8.4% (29) | 4.7% (16) | -3.7 |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 80.8% (278) | 77.6% (267) | -3.2 |
| • Unsure | 13.1% (45) | 11.3% (39) | -1.8 |
| • Strongly disagree/disagree | 6.1 % (21) | 11.0% (38) | 4.9 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 28.5% (98) | 37.5 % (129) | 9.0 |
| • Unsure | 48.3 % (166) | 44.2% (152) | -4.1 |
| • Strongly agree/ agree | 23.3 % (80) | 18.3% (63) | -5.0 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 54.7% (188) | 65.1% (224) | 10.4 |
| • Unsure | 29.7% (102) | 23.5% (81) | -6.2 |
| • Strongly agree/ agree | 15.7 % (54) | 11.3% (39) | -4.4 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

## Social Responsibility Items

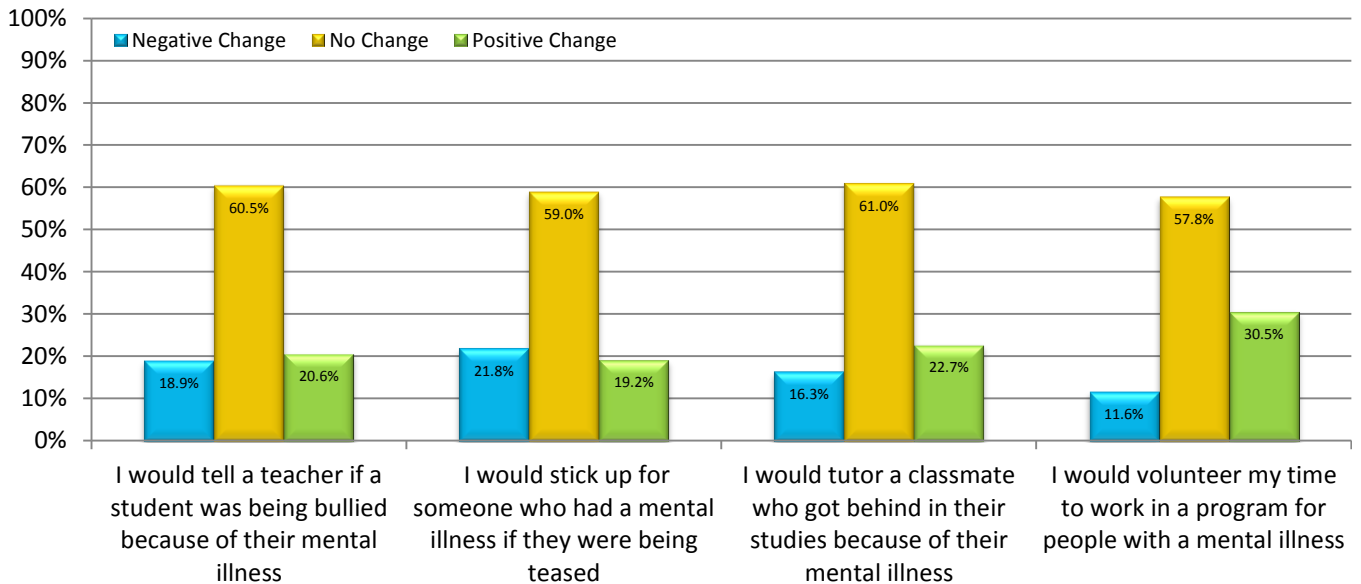| Stereotyped Attributions Items | Pre-test<br>% (n=368) | Post-test<br>% (n=368) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 79.9 % (275) | 79.9% (275) | 0.0 |
| • Unsure | 14.8 % (51) | 14.8% (51) | 0.0 |
| • Strongly disagree/disagree | 5.2% (18) | 5.2 % (18) | 0.0 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 83.1% (286) | 83.7% (288) | 0.6 |
| • Unsure | 15.7 % (54) | 11.3 % (39) | -4.4 |
| • Strongly disagree/disagree | 1.2% (4) | 4.9 % (17) | 3.7 |
| **33. (R)    I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 64.0% (220) | 64.8 % (223) | 0.8 |
| • Unsure | 26.2% (90) | 24.4% (84) | -1.8 |
| • Strongly disagree/disagree | 9.9% (34) | 10.8% (37) | 0.9 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 49.4% (170) | 57.3% (197) | 7.9 |
| • Unsure | 36.0% (124) | 30.5% (105) | -5.5 |
| • Strongly disagree/disagree | 14.5% (50) | 12.2% (42) | -2.3 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=344 pre-test/post-test pairs)



Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility (n=181 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=344 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 12.8% (44) | 56.4% (194) | | 30.8% (106) | χ2 = 27.9; df =9; p=.001 |
| | | 11.9% (41) | 44.5% (153) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 17.4% (60) | 57.6% (198) | | 25.0% (86) | χ2 =12.8; df =8; p=.120 |
| | | 11.6% (40) | 45.9% (158) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 23.3% (80) | 54.9% (189) | | 21.8% (75) | χ2 =10.4; df =10; p=.403 |
| | | 12.8% (44) | 42.2% (145) | | |
| 21 I would try to avoid someone with a mental illness | 14.8% (51) | 60.2% (207) | | 25.0% (86) | χ2 =24.6; df =9; p=.003 |
| | | 9.3% (32) | 50.9% (175) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 22.7% (78) | 56.7% (195) | | 20.6% (71) | χ2 =14.4; df =10; p=.153 |
| | | 6.4% (22) | 50.3% (173) | | |
| 24 If I knew someone had a mental illness I would not date them | 14.0% (48) | 56.7% (195) | | 29.4% (101) | χ2 =23.35; df =9; p=.006 |
| | | 40.1% (138) | 16.6% (57) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 13.1% (45) | 51.2% (176) | | 35.8% (123) | χ2 =43.3; df =10; p<.001 |
| | | 17.4% (60) | 33.7% (116) | | |
| **Social Responsibility    Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 18.9% (65) | 60.5% (208) | | 20.6% (71) | χ2 =6.9; df =8; p=.543 |
| | | 6.4% (22) | 54.1% (186) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 21.8% (75) | 59.0% (203) | | 19.2% (66) | χ2 =12.8; df =3; p=.005* |
| | | 5.8% (20) | 53.2% (183) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 16.3% (56) | 61.0% (210) | | 22.7% (78) | χ2 =15.8; df =10; p=.105 |
| | | 19.2% (66) | 41.9% (144) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 11.6% (40) | 57.8% (199) | | 30.5% (105) | χ2 =38.93; df =10; p<.001 |
| | | 27.0% (93) | 30.8% (106) | | |

Notes:
- Base size is those who responded to all the pre- and post-test items (n=344)
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree.
- Statistical tests use the original five point scale, positive change does not necessary imply non stigmatizing response.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns
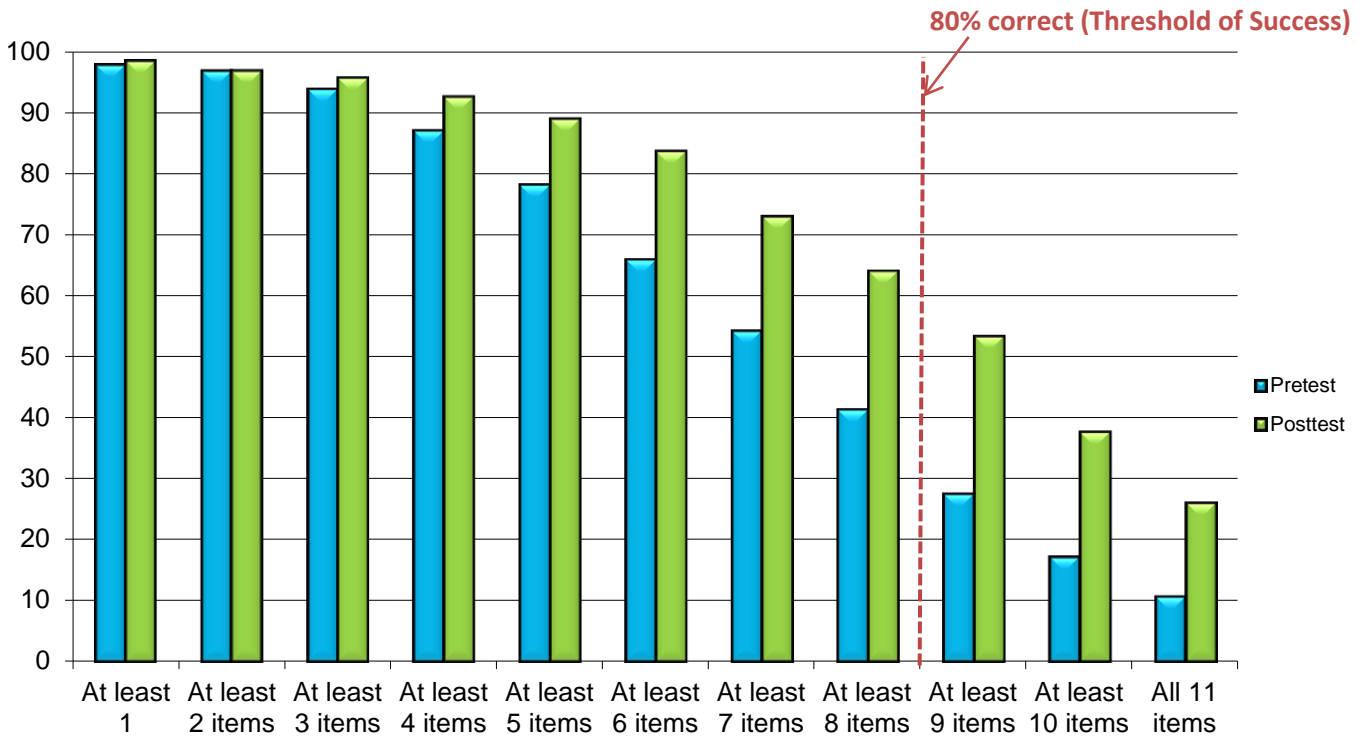
Percent Non Stigmatizing of Endorsement of Social Distance Items

| | Pre-test % (n=344) | Post-test % (n=344) |
|---|---|---|
| None | 2.0% (7) | 2.3% (8) |
| At least 1 | 98.0% (337) | 97.7% (336) |
| At least 2 items | 95.3% (328) | 95.6% (329) |
| At least 3 items | 93.3% (321) | 93.6% (322) |
| At least 4 items | 89.2% (307) | 88.7% (305) |
| At least 5 items | 84.0% (289) | 82.8% (285) |
| At least 6 items | 74.4% (256) | 74.4% (256) |
| At least 7 items | 66.3% (228) | 68.3% (335) |
| At least 8 items | 54.4% (187) | 60.5% (208) |
| At least 9 items | 41.3% (142) | 53.5% (184) |
| At least 10 times | 25.3% (87) | 37.5% (129) |
| All 11 times | 11.6% (40) | 20.1% (69) |

Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=326)

**80% correct (Threshold of Success)**



Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=344)

**80% correct (Threshold of Success)**

## Change in Stereotype Scale Score (n=304)



Newly positive 29.6%
Already positive 22.4%
Worse 13.8%
Improved 25.0%
No change 9.2%
Did not cross 80% threshold

Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Social Tolerance Scale Score (n=335)



Already positive 35.8%
Newly positive 19.1%
Improved 12.8%
No change 9.6%
Worse 22.7%
Did not cross 80% threshold

Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

### Change in Stereotype Scale Score and Social Tolerance Scale Score

| | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| **Stereotype scale score (n=304)** | 22.4% (68) | 29.6% (90) | 48.0% (146) |
| **Social tolerance scale score (n=335)** | 35.8% (120) | 19.1 % (64) | 45.1% (151) |
| Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=326)

| | Median (interquartile range) |
|---|---|
| Pre-test | 25 (20-23) |
| Post-test | 21 (16-26) |

Tolerance Items (n=344)

| | Median (interquartile range) |
|---|---|
| Pre-test | 24 (19-28) |
| Post-test | 23 (17.25-28) |

**Appendix E- York TAMI Five Day in Class High School**

The York Region TAMI Coalition has been running this project into regional high schools for the past 3 years. The curriculum which was originally developed by MDAO, CAMH and CMHA, was modified by the Durham TAMI Coalition into a succinct 5 day model. York Region has adopted the Durham Model for contact based education into their high schools. The Durham TAMI Coalition designed a teacher facilitation guide and student workbook that takes participants through such lessons as; What is Stigma; What is Mental Illness and What is Mental Health. York Region Coalition members deliver the Durham introductory session for each class that is involved in the 5 Day program. The students and teaching staff then follow the lesson plans as they prepare to hear the recovery stories of two persons who have been affected by mental illness. The York Region speakers follow a different training process than speakers in Durham region and they are trained by different personnel. The last module of the program is a debrief session, followed by a discussion on community resources and "where to go for help." The York Region sample size is significantly different as this region is at the starting stages of program marketing and delivery.

Sample Characteristics for Those Who Completed Both the Pre and Post-test

| Characteristic | % (N=28) |
|---|---|
| **Gender** | |
| • Male | 67.9% (19) |
| • Female | 32.1% (9) |
| • Missing | -- (0) |
| **Age** | |
| • 15 | 50% (14) |
| • 16 | 46.4% (13) |
| • 17 | 3.6% (1) |
| • Missing | -- (0) |
| **Grade** | |
| • 10 | 42.9% (12) |
| • 11 | 57.1% (16) |
| • Missing | -- (0) |
| **Contact- Pre-test - Does someone you know have a mental illness**[*] | |
| • No | 46.4% (13) |
| • Uncertain | 14.3% (4) |
| • Close friend | 0.0% (0) |
| • Family member | 10.7% (3) |
| • Somebody else | 7.1% (2) |
| • I do | 25.0% (7) |
| • Missing | -- (0) |
| * Multiple responses accepted | |

# Stigma Stereotype Results

## Controllability Items

| Stereotyped Attributions Items | Pre-test % (n=22) | Post-test % (n=22) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.** | | | |
| • Strongly disagree/disagree | 40.9% (310) | 54.5% (12) | 13.60 |
| • Unsure | 31.8 % (42) | 13.6% (3) | -18.2 |
| • Strongly agree/ agree | 27.3% (24) | 31.8% (7) | 4.5 |
| **5. People with mental illnesses often don't try hard enough to get better.** | | | |
| • Strongly disagree/disagree | 54.5% (12) | 68.2% (15) | 13.70 |
| • Unsure | 9.1% (2) | 18.2 % (4) | 9.10 |
| • Strongly agree/ agree | 36.4% (8) | 13.6% (3) | -22.80 |
| **6. People with a mental illness could snap out of it if they wanted to.** | | | |
| • Strongly disagree/disagree | 63.6% (14) | 68.2% (15) | 4.60 |
| • Unsure | 9.1 % (2) | 18.2% (4) | 9.10 |
| • Strongly agree/ agree | 27.3 % (6) | 13.6% (3) | -13.70 |
| **14. Most people with a mental illness get what they deserve.** | | | |
| • Strongly disagree/disagree | 68.2% (15) | 81.8% (18) | 13.60 |
| • Unsure | 18.2% (4) | 13.6% (3) | -4.60 |
| • Strongly agree/ agree | 13.6% (3) | 4.5% (1) | -9.10 |

### Recovery Items

| Stereotyped Attributions Items | Pre-test % (n=22) | Post-test % (n=22) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 59.1% (13) | 77.3% (17) | 18.20 |
| • Unsure | 22.7% (5) | 9.1% (2) | -13.60 |
| • Strongly agree/ agree | 18.2 % (4) | 13.6 % (3) | -4.60 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 90.9% (20) | 81.8% (18) | -9.1 |
| • Unsure | 4.5% (1) | 18.2% (4) | 13.7 |
| • Strongly agree/ agree | 4.5% (1) | 0.0% (0) | -4.5 |

### Violence/ Unpredictability Items

| Stereotyped Attributions Items | Pre-test % (n=22) | Post-test % (n=22) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 40.9% (9) | 59.1 % (13) | 18.2 |
| • Unsure | 27.3% (6) | 18.2% (4) | -9.1 |
| • Strongly agree/ agree | 31.8% (7) | 22.7% (5) | -9.1 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 13.6% (3) | 36.4% (8) | 22.8 |
| • Unsure | 68.2% (15) | 36.4% (8) | -31.8 |
| • Strongly agree/ agree | 18.2% (4) | 27.3% (6) | 9.1 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 54.5% (12) | 59.1% (13) | 4.6 |
| • Unsure | 18.2% (4) | 27.3% (6) | 9.1 |
| • Strongly agree/ agree | 27.3% (6) | 13.6% (3) | -13.7 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 54.5% (12) | 68.2% (15) | 13.7 |
| • Unsure | 22.7% (5) | 27.3% (6) | 4.6 |
| • Strongly agree/ agree | 22.7% (5) | 4.5% (1) | -18.2 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 18.2%(4) | 31.8% (7) | 13.6 |
| • Unsure | 22.7% (5) | 22.7% (5) | 0.0 |
| • Strongly agree/ agree | 59.1% (13) | 45.5% (10) | -13.6 |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=22 pre-test/post-test pairs)
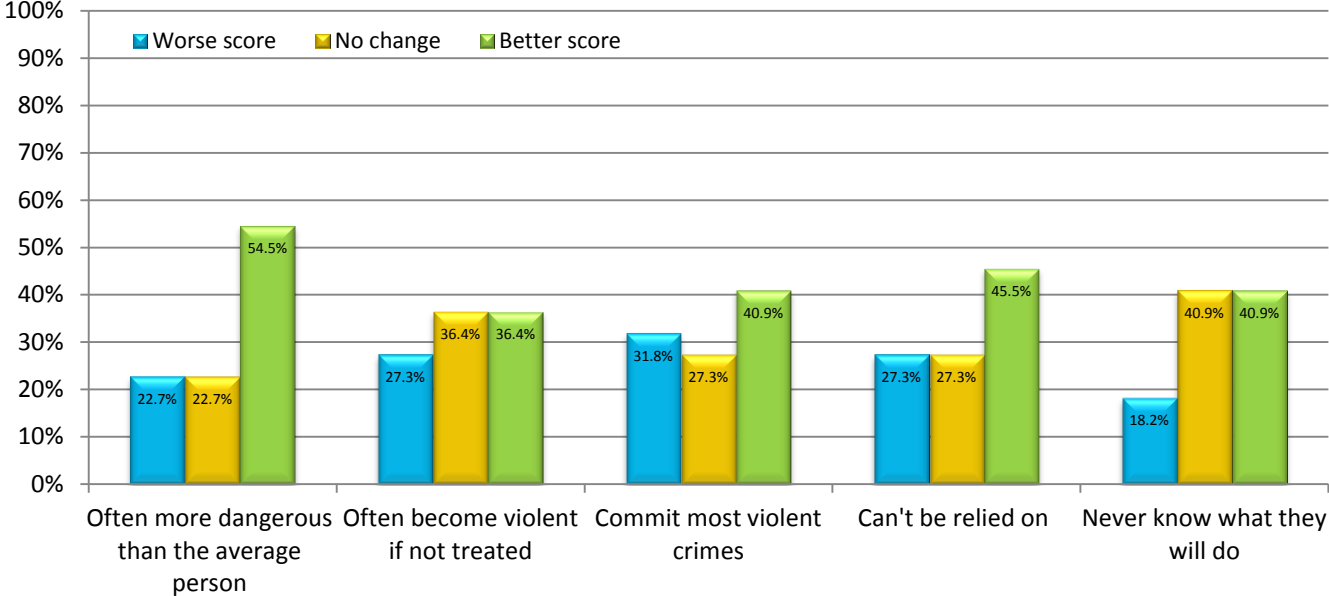


Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=22 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test –
Violence/Unpredictability Items (n=166 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=22 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Controllability    Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 13.6% (3) | 45.5% (10) | | 40.9% (9) | χ2 = 25.6; df = 3; p<.001 |
| | | 22.7% (5) | 22.7% (5) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 13.6% (3) | 40.9% (9) | | 45.5% (10) | χ2 =46.4; df = 3; p<.001 |
| | | 9.1% (2) | 31.8% (7) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 27.3% (6) | 50.0% (11) | | 22.7% (5) | χ2 =12.2; df = 3; p=.007 |
| | | 13.6% (3) | 36.4% (8) | | |
| 14 Most people with a mental illness get what they deserve | 9.1% (2) | 68.2% (15) | | 22.7% (5) | χ2 =25.1; df = 3; p<.001 |
| | | 9.1% (2) | 59.1% (13) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 13.6% (3) | 45.5% (10) | | 40.9% (9) | χ2 =88.4;df = 3; p<.001 |
| | | 9.1% (2) | 36.4% (8) | | |
| 15 People with serious mental illnesses need to be locked away | 27.3% (6) | 63.6% (14) | | 9.1% (2) | χ2 =26.2;df =3 ; p<.001 |
| | | 4.5% (1) | 59.1% (13) | | |
| **Violence/ Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 22.7% (5) | 22.7% (5) | | 54.5% (12) | χ2= 101.8; df = 3; p<.001 |
| | | 13.6% (3) | 9.1% (2) | | |
| 8 People with a mental illness often become violent if not treated | 27.3% (6) | 36.4% (8) | | 36.4% (8) | χ2 =95.0; df =3; p p<.001 |
| | | 31.8% (7) | 4.5% (1) | | |
| 10 Most violent crimes are committed by people with a mental illness | 31.8% (7) | 27.3% (6) | | 40.9% (9) | χ2 =37.5; df =3; p<.001 |
| | | 9.1% (2) | 18.2% (4) | | |
| 11 You can't rely on someone with a mental illness | 27.3% (6) | 27.3% (6) | | 45.5% (10) | χ2 =48.7; df =3; p<.001 |
| | | 4.5% (1) | 22.7% (5) | | |
| 12 You can never know what someone with a mental illness is going to do | 18.2% (4) | 40.9% (9) | | 40.9% (9) | χ2 =149.3; df =3; p<.001 |
| | | 36.4% (8) | 4.5% (1) | | |

Notes:
- Base size is those who responded to all the pre and post-test item (n=22).
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Due to small base size, analyses were performed using a collapsed 3 point scale instead of the original five point scale.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Positive Endorsement of Knowledge Items

|  | Pre-test     %  (3n=22) | Post-test %  (n=22) |
|---|---|---|
| None | 0.0% (0) | 0.0% (0) |
| At least 1 | 100.0% (22) | 100.0% (22) |
| At least 2 items | 90.9% (20) | 100.0% (22) |
| At least 3 items | 90.9% (20) | 90.9% (20) |
| At least 4 items | 72.7% (16) | 86.4% (19) |
| At least 5 items | 68.2% (15) | 77.3% (17) |
| At least 6 items | 54.5% (12) | 72.2% (16) |
| At least 7 items | 36.4% (8) | 50.0% (11) |
| At least 8 items | 31.8% (7) | 36.4% (8) |
| At least 9 items | 9.1% (2) | 36.4% (8) |
| At least 10 times | 4.5% (1) | 22.7% (5) |
| All 11 times | 0.0% (0) | 13.6% (37) |

# Social Tolerance Results

## Social Distance Items

| Stereotyped Attributions Items | Pre-test % (n=24) | Post-test % (n=24) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 58.3% (14) | 54.2% (13) | -4.1 |
| • Unsure | 33.3% (8) | 33.3% (8) | 0 |
| • Strongly agree/ agree | 8.3% (2) | 12.5 % (3) | 4.2 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 66.7% (16) | 62.5 % (15) | -4.2 |
| • Unsure | 33.3% (8) | 37.5% (9) | 4.2 |
| • Strongly agree/ agree | 0.0% (0) | 0.0% (0) | 0 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | |
| • Strongly agree/ agree | 50.0% (12) | 58.3% (14) | 8.3 |
| • Unsure | 25.0% (6) | 29.2% (7) | 4.2 |
| • Strongly disagree/disagree | 25.0% (6) | 12.5 % (3) | -12.5 |
| **21. I would try to avoid someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 54.2 % (13) | 66.7% (16) | 12.5 |
| • Unsure | 29.2% (7) | 33.3% (8) | 4.1 |
| • Strongly agree/ agree | 16.7% (4) | 0.0% (0) | -16.7 |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 70.8% (17) | 66.7% (16) | -4.1 |
| • Unsure | 20.8% (5) | 25.0% (6) | 4.2 |
| • Strongly disagree/disagree | 8.3 % (2) | 8.3% (2) | 0 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 4.2% (1) | 20.8 % (5) | 16.6 |
| • Unsure | 45.8 % (11) | 58.3% (14) | 12.5 |
| • Strongly agree/ agree | 50.0 % (12) | 20.8% (5) | -29.2 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 45.8% (11) | 50.0% (12) | 4.2 |
| • Unsure | 29.2% (7) | 29.2% (7) | 0 |
| • Strongly agree/ agree | 25.0 % (6) | 20.8% (5) | -4.2 |
| Note:    (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

## Social Responsibility Items

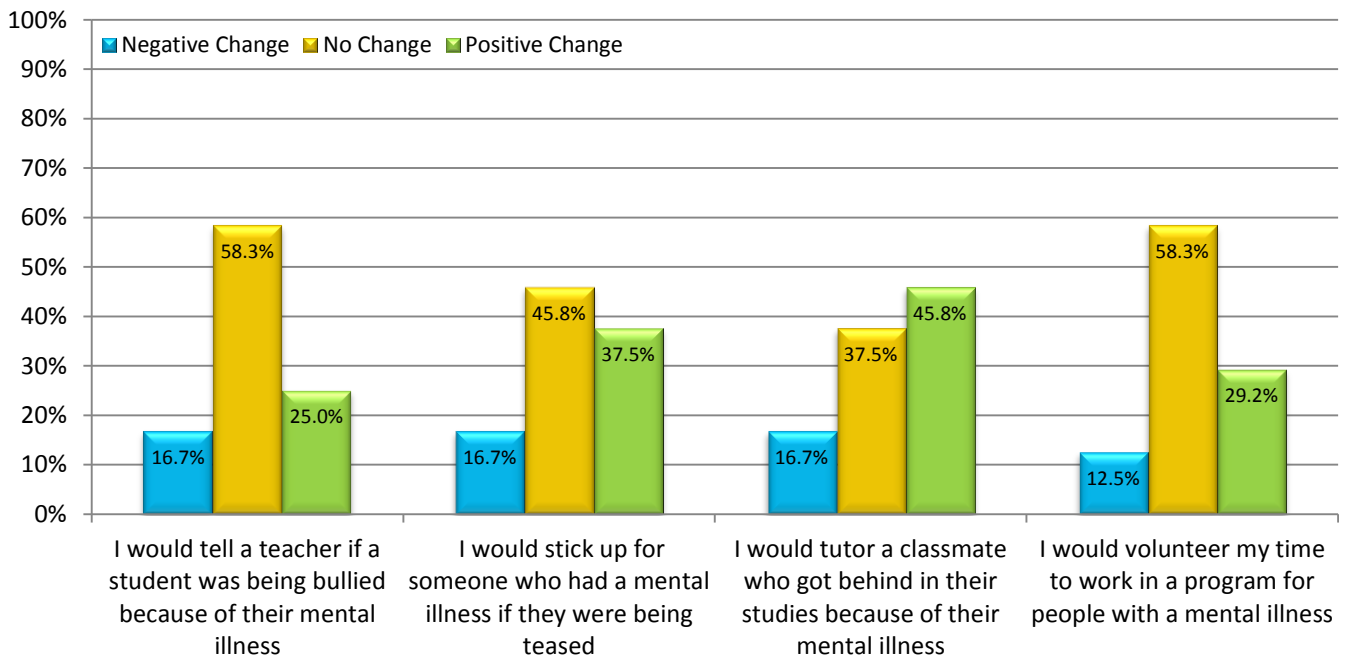| Stereotyped Attributions Items | Pre-test % (n=24) | Post-test % (n=24) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 70.8 % (17) | 75.0 % (18) | 4.2 |
| • Unsure | 29.2 % (7) | 25.0 % (6) | -4.2 |
| • Strongly disagree/disagree | 0.0% (0) | 0.0% (0) | 0.0 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 62.2% (20) | 83.3% (20) | 21.1 |
| • Unsure | 37.5 % (4) | 16.7 % (4) | -20.8 |
| • Strongly disagree/disagree | 0.0% (0) | 0.0% (0) | 0.0 |
| **33. (R) I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 37.5% (9) | 54.2% (13) | 16.7 |
| • Unsure | 37.5% (9) | 29.2% (7) | -8.3 |
| • Strongly disagree/disagree | 25.0% (6) | 16.7% (4) | -8.3 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 20.8% (5) | 33.3% (8) | 12.5 |
| • Unsure | 41.7% (10) | 33.3% (8) | -8.4 |
| • Strongly disagree/disagree | 37.5% (9) | 33.3% (8) | -4.2 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=24 pre-test/post-test pairs)
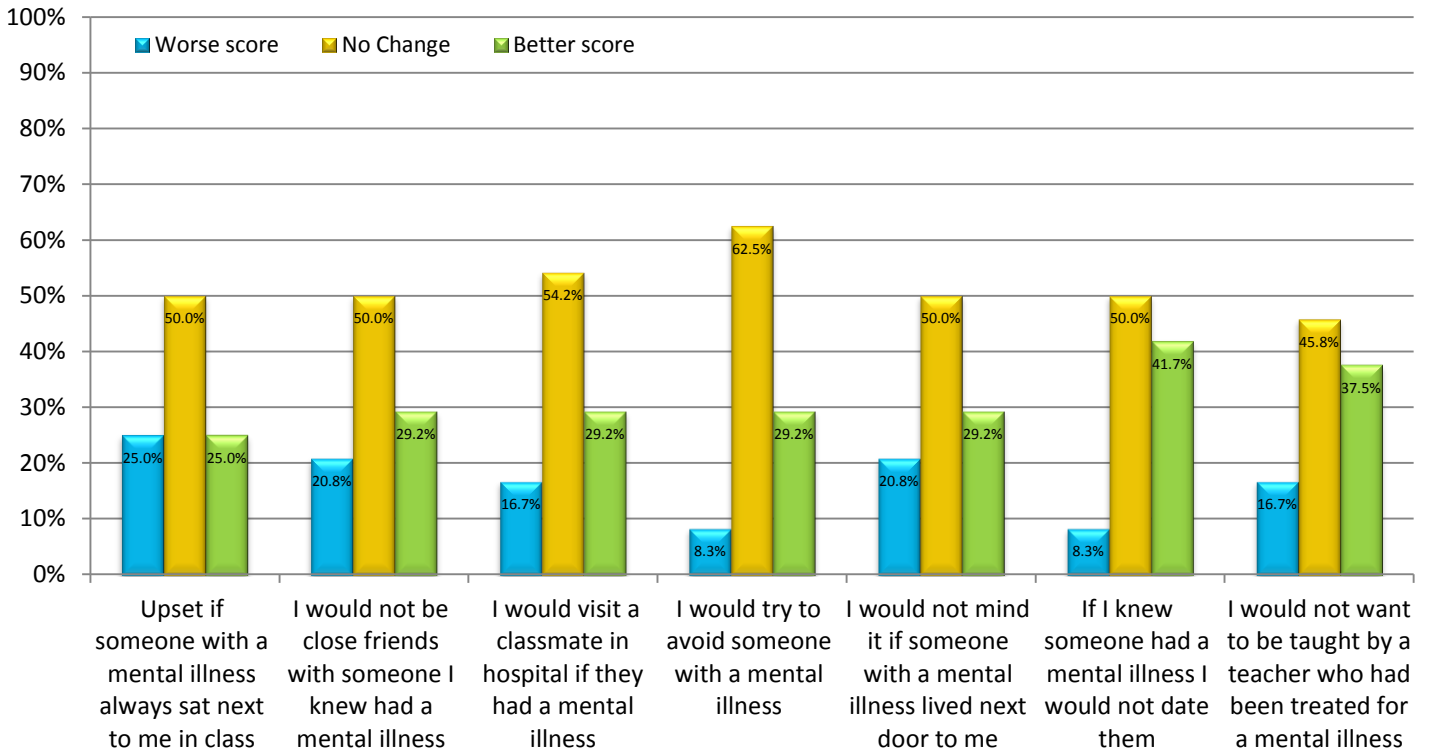


Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility (n=24 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=24 pre-test/post-test pairs)

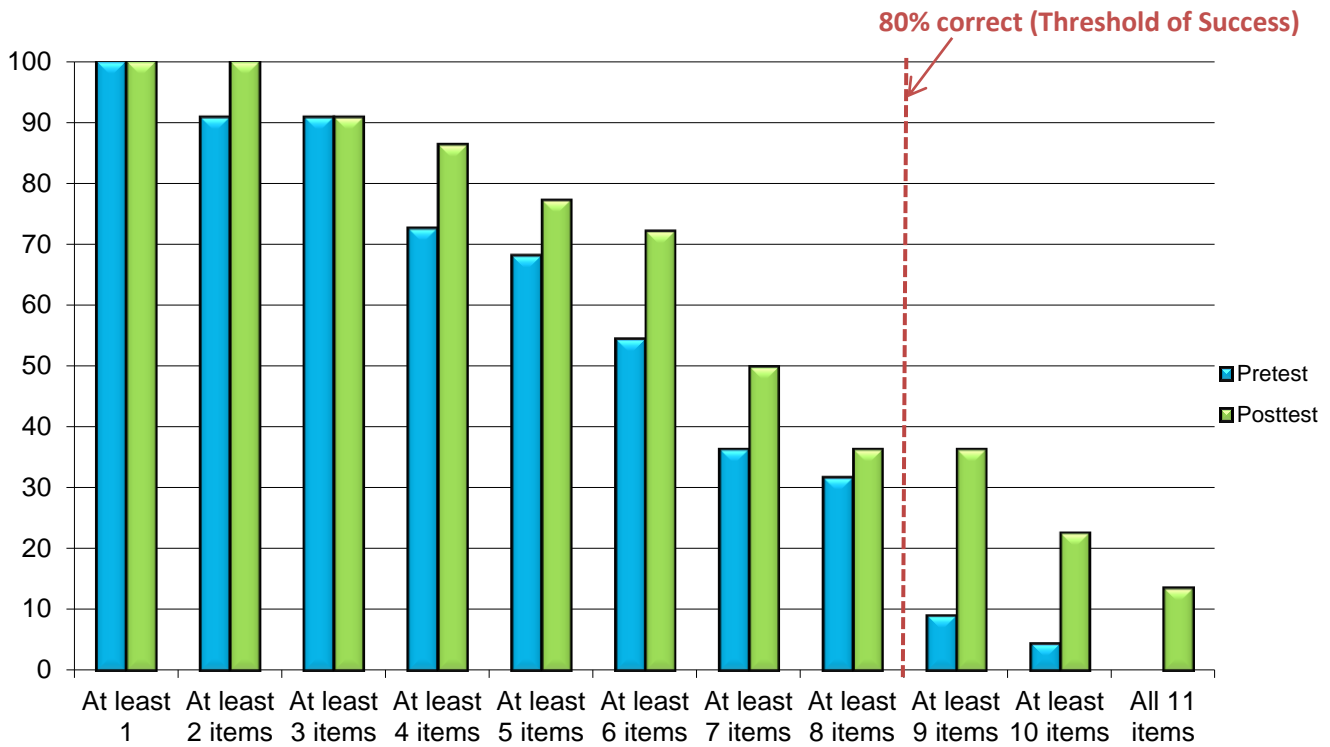| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 25.0% (6) | 50.0% (12) | | 25.0% (6) | χ2 = 23.0; df =3; p<.001 |
| | | 25.0% (6) | 25.0% (6) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 20.8% (5) | 50.0% (12) | | 29.2% (7) | χ2 =4.8; df =3; p=.186 |
| | | 20.8% (5) | 29.2% (7) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 16.7% (4) | 54.2% (13) | | 29.2% (7) | χ2 =5.0; df =3; p=.170 |
| | | 12.5% (3) | 41.7% (10) | | |
| 21 I would try to avoid someone with a mental illness | 8.3% (2) | 62.5% (15) | | 29.2% (7) | χ2 =14.3; df =3; p=.003 |
| | | 25.0% (6) | 37.5% (9) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 20.8% (57) | 50.0% (12) | | 29.2% (7) | χ2 =6.3; df =3; p=.096 |
| | | 12.5% (3) | 37.5% (9) | | |
| 24 If I knew someone had a mental illness I would not date them | 8.3% (24) | 50.0% (12) | | 41.7% (10) | χ2 =55.5; df =3; p<.001 |
| | | 50.0% (12) | 0.0% (0) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 16.7% (4) | 45.8% (11) | | 37.5% (9) | χ2 =16.7; df =3; p=.001 |
| | | 16.7% (4) | 29.2% (7) | | |
| **Social Responsibility    Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 16.7% (4) | 58.3% (14) | | 25.0% (6) | χ2 =4.0; df =3; p=.266 |
| | | 16.7% (4) | 41.7% (10) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 16.7% (4) | 45.8% (11) | | 37.5% (9) | χ2 =8.7; df =3; p=..034 |
| | | 12.5% (3) | 33.3% (8) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 16.7% (4) | 37.5% (9) | | 45.8% (11) | χ2 =4.5; df =3; p=.212 |
| | | 16.7% (4) | 20.8% (5) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 12.5% (3) | 58.3% (14) | | 29.2% (7) | χ2 =21.6; df =3; p<.001 |
| | | 37.5% (9) | 20.8% (5) | | |

Notes:
- Base size is those who responded to all the pre and post-test item (n=24)
- (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Due to small base size, analyses were performed using a collapsed 3 point scale instead of the original five point scale.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

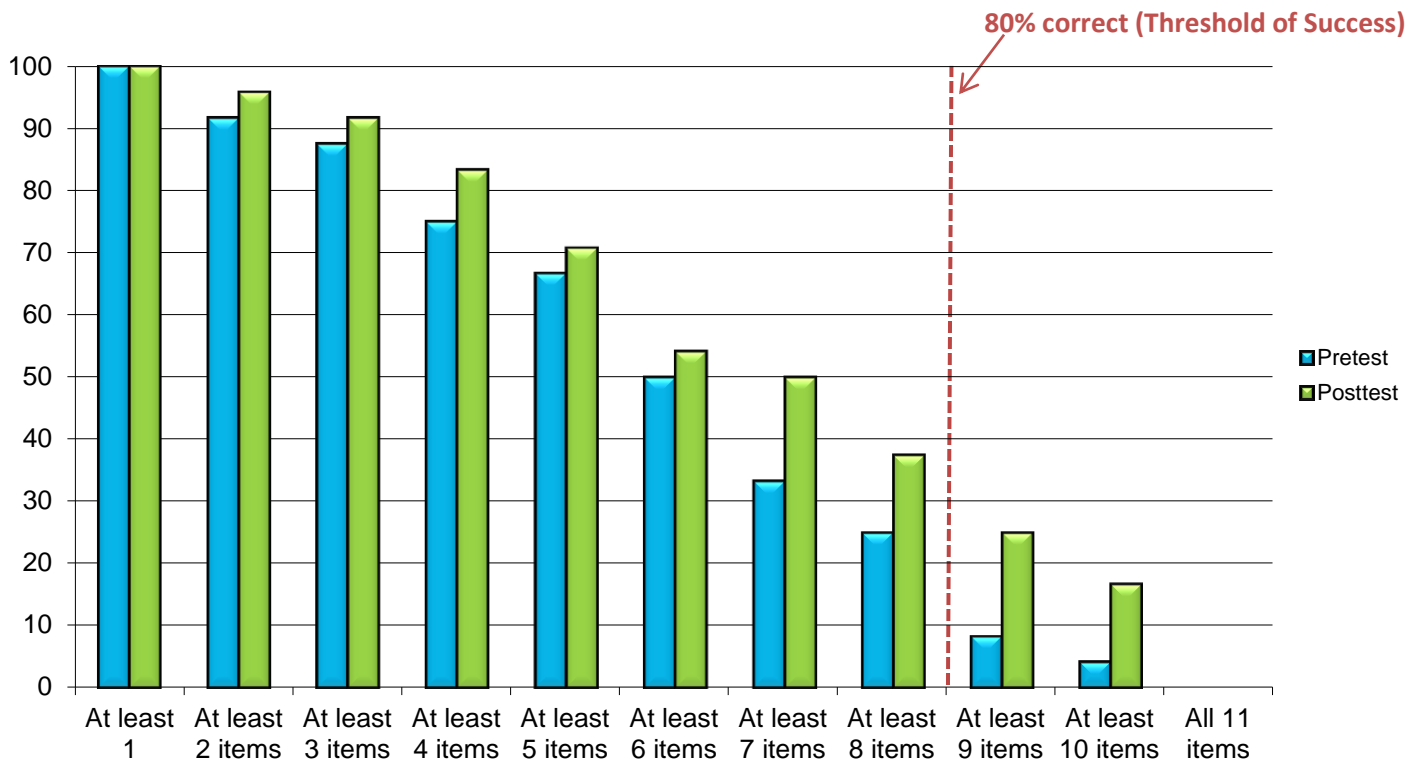Percent Non-Stigmatizing of Endorsement of Social Distance Items

| | Pre-test    % (n) | Post-test % (n) |
|---|---|---|
| None | 0.0% (0) | 0.0% (0) |
| At least 1 | 100.0% (24) | 100.0% (24) |
| At least 2 items | 91.7% (22) | 95.8% (24) |
| At least 3 items | 87.5% (21) | 91.7% (22) |
| At least 4 items | 75.0% (18) | 83.3% (20) |
| At least 5 items | 66.7% (16) | 70.8% (17) |
| At least 6 items | 50.0% (12) | 54.2% (13) |
| At least 7 items | 33.3% (8) | 50.0% (12) |
| At least 8 items | 25.0% (6) | 37.5% (9) |
| At least 9 items | 8.3% (2) | 25.0% (6) |
| At least 10 times | 4.2% (1) | 16.7% (4) |
| All 11 times | 0.0% (0) | 0.0% (0) |

Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=22)



Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=24)

## Change in Stereotype Scale Score (n=20)



- Already positive 5.0%
- Did not cross 80% threshold
- Newly positive 35.0%
- Worse 30.0%
- Improved 25.0%
- No change 5.0%

Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Social Tolerance Scale Score (n=23)



- Already positive 8.7%
- Did not cross 80% threshold
- Newly positive 17.4%
- Worse 17.4%
- No change 13.0%
- Improved 43.5%

Notes:    To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

Change in Stereotype Scale Score and Social Tolerance Scale Score

| | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| Stereotype scale score (n=20) | 5.0% (1) | 35.0% (7) | 60.0% (12) |
| Social tolerance scale score (n=23) | 8.7% (2) | 17.4 % (4) | 73.9% (17) |
| Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=22)

| | Median (interquartile range) |
|---|---|
| Pre-test | 26.5 (23.5-33.25) |
| Post-test | 25.5 (20.5-29.25) |

Tolerance Items (n=24)

| | Median (interquartile range) |
|---|---|
| Pre-test | 27.5 (23.25-31.5) |
| Post-test | 27 (19.75-30.75) |

**Appendix F - SOS Summit, October**

Durham Region TAMI Coalition has been offering a one day Stomping Out Stigma Summit for the past 8 years.    All Summits are held at Ontario Shores Centre for Mental Health Sciences. Literature supports that even a brief visit to a mental health facility can begin to dispel myths and stereotypes associated with mental illness. High Schools in the region are invited to bring 4 students and one staff member to Ontario Shores, where they will learn about mental illness and the associated stigma via presentations, breakout room experiential exercises, hearing the stories of the Durham TAMI speakers, as well as making plans on how they will design and deliver mental health awareness activities to their schools. The Durham TAMI Coalition designed an Action Guide, which is shared with students in order to help them plan their awareness activities. All participants are made aware of funding opportunities as well as the support offered by Durham TAMI, who is available to come to their schools for follow up activities.

Sample Characteristics for Those Who Completed Both the Pre and Post-test

| Characteristic | % (N=40) |
|---|---|
| **Gender** | |
| • Male | 22.5% (9) |
| • Female | 77.5% (31) |
| • Missing | -- (0) |
| **Age** | |
| • 13 | 2.5% (1) |
| • 14 | 5.0% (2) |
| • 15 | 7.5% (3) |
| • 16 | 35.0% (14) |
| • 17 | 40.0% (16) |
| • 18+ | 10.0% (4) |
| • Missing | -- (0) |
| **Grade** | |
| • 9 | 7.5% (3) |
| • 10 | 2.5% (1) |
| • 11 | 45.0% (18) |
| • 12 | 45.0% (18) |
| • Missing | -- (0) |
| **Contact- Pre-test    - Does someone you know have a mental illness**[*] | |
| • No | 10.3% (4) |
| • Uncertain | 12.5% (5) |
| • Close friend | 17.9% (7) |
| • Family member | 15.4% (6) |
| • Somebody else | 38.5% (15) |
| • I do | 23.1% (9) |
| • Missing | -- (1) |
| * Multiple responses accepted | |

# Stigma Stereotype Results

## Controllability Items

| Stereotyped Attributions Items | Pre-test % (n=34) | Post-test % (n=34) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.** | | | |
| • Strongly disagree/disagree | 88.2% (30) | 91.2% (31) | 3.00 |
| • Unsure | 5.9 % (2) | 0.0% (0) | -5.9 |
| • Strongly agree/ agree | 5.9% (2) | 8.8% (3) | 2.9 |
| **5. People with mental illnesses often don't try hard enough to get better.** | | | |
| • Strongly disagree/disagree | 73.5% (25) | 82.4% (28) | 8.90 |
| • Unsure | 20.6% (7) | 17.6 % (6) | -3.00 |
| • Strongly agree/ agree | 5.9% (2) | 0.0% (0) | -5.90 |
| **6. People with a mental illness could snap out of it if they wanted to.** | | | |
| • Strongly disagree/disagree | 88.2% (30) | 94.1% (32) | 5.90 |
| • Unsure | 8.8 % (3) | 5.9% (2) | -2.90 |
| • Strongly agree/ agree | 2.9 % (1) | 0.0% (0) | -2.90 |
| **14. Most people with a mental illness get what they deserve.** | | | |
| • Strongly disagree/disagree | 97.1% (33) | 97.1% (33) | 0.00 |
| • Unsure | 2.9% (1) | 2.9% (1) | 0.00 |
| • Strongly agree/ agree | 0.0% (0) | 0.0% (0) | 0.00 |

### Recovery Items

| Stereotyped Attributions Items | Pre-test<br>% (n=34) | Post-test<br>% (n=34) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 82.4% (28) | 91.2% (31) | 8.0 |
| • Unsure | 17.6% (6) | 5.9% (2) | -11.7 |
| • Strongly agree/ agree | 0.0 % (0) | 2.9 % (1) | 2.9 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 85.3% (29) | 97.1% (33) | 11.80 |
| • Unsure | 11.8% (4) | 2.9% (1) | -8.90 |
| • Strongly agree/ agree | 2.9% (1) | 0.0% (0) | -2.90 |

### Violence/ Unpredictability Items

| Stereotyped Attributions Items | Pre-test<br>% (n=34) | Post-test<br>% (n=34) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 55.9% (19) | 94.1% (32) | 38.20 |
| • Unsure | 26.5% (9) | 5.9% (2) | -20.60 |
| • Strongly agree/ agree | 17.6% (6) | 0.0% (0) | -17.60 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 38.2% (13) | 70.6% (24) | 32.40 |
| • Unsure | 41.2% (14) | 26.5% (9) | -14.70 |
| • Strongly agree/ agree | 20.6% (7) | 2.9% (1) | -17.70 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 64.7% (22) | 88.2% (30) | 23.50 |
| • Unsure | 29.4% (10) | 11.8% (4) | -17.60 |
| • Strongly agree/ agree | 5.9% (2) | 0.0% (0) | -5.90 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 82.4% (28) | 79.4% (27) | -3.00 |
| • Unsure | 14.7% (5) | 11.8% (4) | -2.90 |
| • Strongly agree/ agree | 2.9% (1) | 8.8% (3) | 5.90 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 26.5%(9) | 61.8% (21) | 35.30 |
| • Unsure | 44.1% (15) | 26.5% (9) | -17.60 |
| • Strongly agree/ agree | 29.4% (10) | 11.8% (4) | -17.60 |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=34 pre-test/post-test pairs)
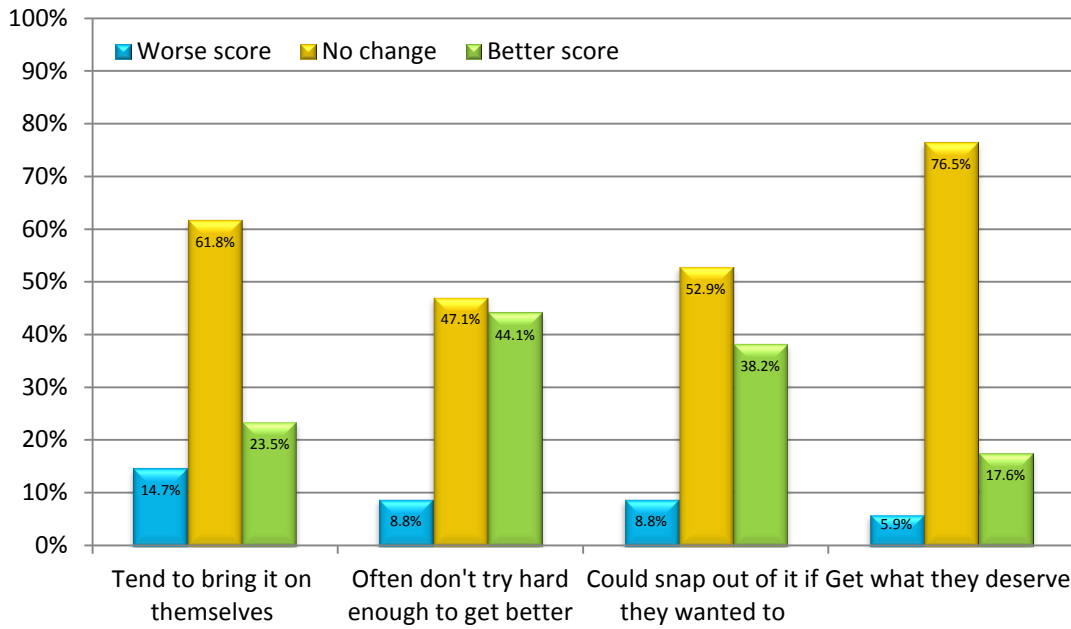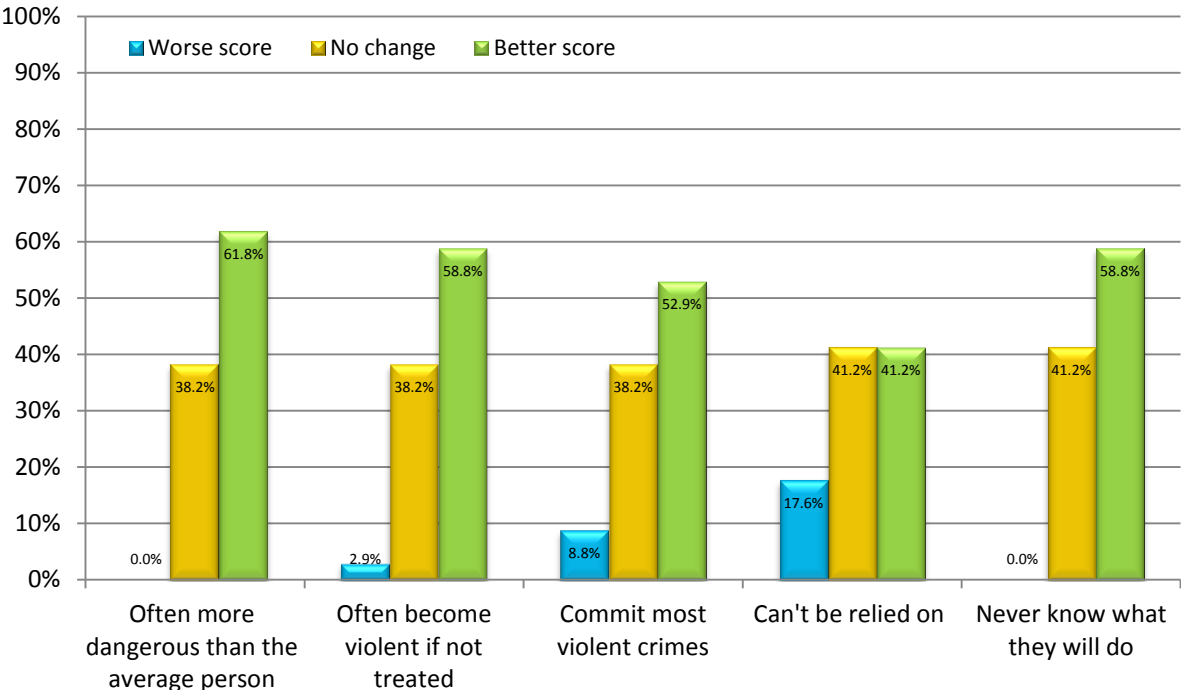


Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=34 pre-test/post-test pairs)
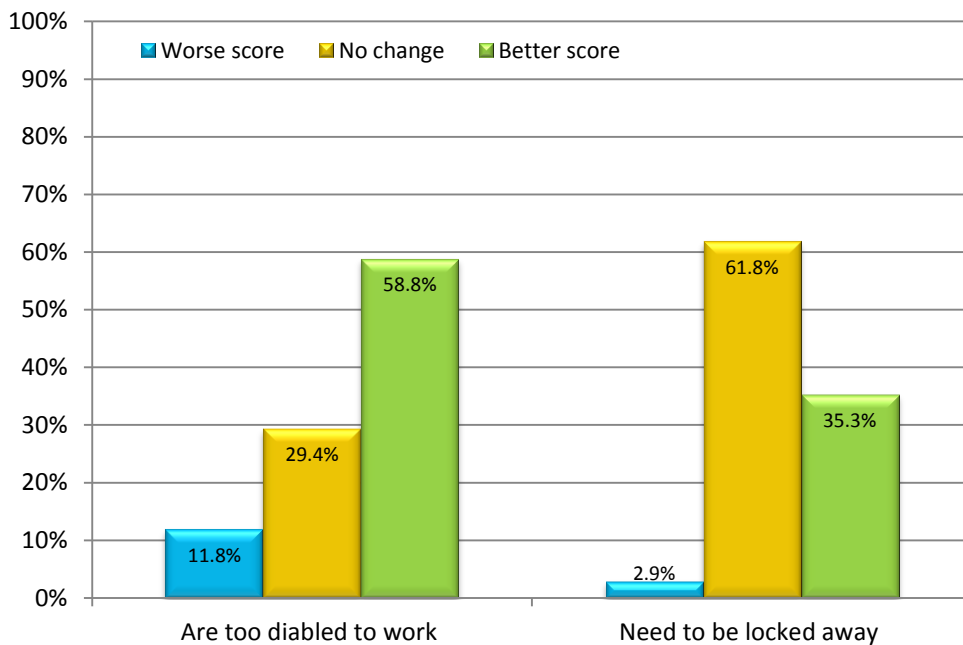
Proportion of students who made any change on the Likert scale from pre-test to post-test –
Violence/Unpredictability Items (n=34 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=34 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Controllability    Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 14.7% (5) | 61.8% (21) | | 23.5% (8) | ** |
| | | 5.9% (2) | 55.9% (19) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 8.8% (3) | 47.1% (16) | | 44.1% (15) | ** |
| | | 5.9% (2) | 41.2% (14) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 8.8% (3) | 52.9% (18) | | 38.2% (13) | ** |
| | | 5.9% (2) | 47.1% (16) | | |
| 14 Most people with a mental illness get what they deserve | 5.9% (2) | 76.5% (26) | | 17.6% (6) | ** |
| | | 0% (0) | 76.5% (26) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 11.8% (4) | 29.4% (10) | | 58.8% (20) | ** |
| | | 2.9% (1) | 26.5% (9) | | |
| 15 People with serious mental illnesses need to be locked away | 2.9% (1) | 61.8% (21) | | 35.3% (12) | ** |
| | | 2.9% (1) | 58.8% (20) | | |
| **Violence/ Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 0.0% (0) | 38.2% (13) | | 61.8% (21) | ** |
| | | 2.9% (1) | 35.3% (12) | | |
| 8 People with a mental illness often become violent if not treated | 2.9% (1) | 38.2% (13) | | 58.8% (20) | $\chi 2 =14.0$; df =3; p=.003 |
| | | 14.7% (5) | 23.5% (8) | | |
| 10 Most violent crimes are committed by people with a mental illness | 8.8% (3) | 38.2% (13) | | 52.9% (18) | ** |
| | | 5.9% (2) | 32.4% (11) | | |
| 11 You can't rely on someone with a mental illness | 17.6% (6) | 41.2% (14) | | 41.2% (14) | $\chi 2 =4.67$; df =3; p=.198 |
| | | 2.9% (1) | 38.2% (13) | | |
| 12 You can never know what someone with a mental illness is going to do | 0.0% (0) | 41.2% (14) | | 58.8% (20) | $\chi 2 =15$; df =3; p=.002 |
| | | 26.5% (9) | 14.7% (5) | | |

Notes:
- Base size is those who responded to all the pre- and post-test items (n=34).
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- **Unavailable due to empty cells
- Due to small base size, analyses were performed using a collapsed 3 point scale instead of the original five point scale.
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Positive Endorsement of Knowledge Items

| | Pre-test % (3n=34) | Post-test % (n=34) |
|---|---|---|
| None | 0.0% (0) | 0.0% (0) |
| At least 1 | 100.0% (34) | 100.0% (34) |
| At least 2 items | 100.0% (34) | 100.0% (34) |
| At least 3 items | 100.0% (34) | 100.0% (34) |
| At least 4 items | 94.1% (32) | 100.0% (34) |
| At least 5 items | 91.2% (31) | 100.0% (34) |
| At least 6 items | 82.4% (28) | 97.1% (33) |
| At least 7 items | 70.6% (24) | 94.1% (32) |
| At least 8 items | 64.7% (22) | 82.4% (28) |
| At least 9 items | 41.2% (14) | 76.5% (26) |
| At least 10 times | 29.4% (10) | 55.9% (19) |
| All 11 times | 8.8% (3) | 41.2% (14) |

# Social Tolerance Results

## Social Distance Items

| Stereotyped Attributions Items | Pre-test % (n=33) | Post-test % (n=33) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 93.9% (31) | 97.0% (32) | 3.10 |
| • Unsure | 6.1% (2) | 3.0% (1) | -3.10 |
| • Strongly agree/ agree | 0.0% (0) | 0.0% (0) | 0.00 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 97.0% (32) | 97.0% (32) | 0.00 |
| • Unsure | 3.0% (1) | 3.0% (1) | 0.00 |
| • Strongly agree/ agree | 0.0% (0) | 0.0% (0) | 0.00 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | |
| • Strongly agree/ agree | 97.0% (32) | 87.9% (29) | -9.10 |
| • Unsure | 0.0% (0) | 3.0% (1) | 3.00 |
| • Strongly disagree/disagree | 3.0% (1) | 9.1% (3) | 6.10 |
| **21. I would try to avoid someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 97.0% (32) | 97.0% (32) | 0.00 |
| • Unsure | 3.0% (1) | 3.0% (1) | 0.00 |
| • Strongly agree/ agree | 0.0% (0) | 0.0% (0) | 0.00 |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 93.6% (31) | 97.0% (32) | 3.40 |
| • Unsure | 6.1% (2) | 0.0 (0) | -6.10 |
| • Strongly disagree/disagree | 0.0 % (0) | 3.0 % (1) | 3.00 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 66.7% (22) | 78.8 % (26) | 12.10 |
| • Unsure | 27.3 % (9) | 21.2% (7) | -6.10 |
| • Strongly agree/ agree | 6.1 % (2) | 0.0% (0) | -6.10 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 87.9% (29) | 100.0% (33) | 12.10 |
| • Unsure | 12.1% (4) | 0.0% (0) | -12.10 |
| • Strongly agree/ agree | 0.0 % (0) | 0.0% (0) | 0.00 |
| Note:   (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

Social Responsibility Items

| Stereotyped Attributions Items | Pre-test % (n=33) | Post-test % (n=33) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 84.8 % (28) | 93.9 % (31) | 9.10 |
| • Unsure | 15.2 % (5) | 3.0 % (1) | -12.20 |
| • Strongly disagree/disagree | 0.0% (0) | 3.0% (1) | 3.00 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 93.9% (31) | 97.0% (32) | 3.10 |
| • Unsure | 3.0 % (1) | 0.0% (0) | -3.00 |
| • Strongly disagree/disagree | 3.0% (1) | 3.0% (1) | 0.00 |
| **33. (R) I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 93.9% (31) | 97.0% (32) | 3.10 |
| • Unsure | 6.1% (2) | 3.0% (1) | -3.10 |
| • Strongly disagree/disagree | 0.0% (0) | 0.0% (0) | 0.00 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 78.8% (26) | 84.8 % (28) | 6.00 |
| • Unsure | 21.2% (7) | 12.1 % (4) | -9.10 |
| • Strongly disagree/disagree | 0.0% (0) | 3.0% (1) | 3.00 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=33 pre-test/post-test pairs)
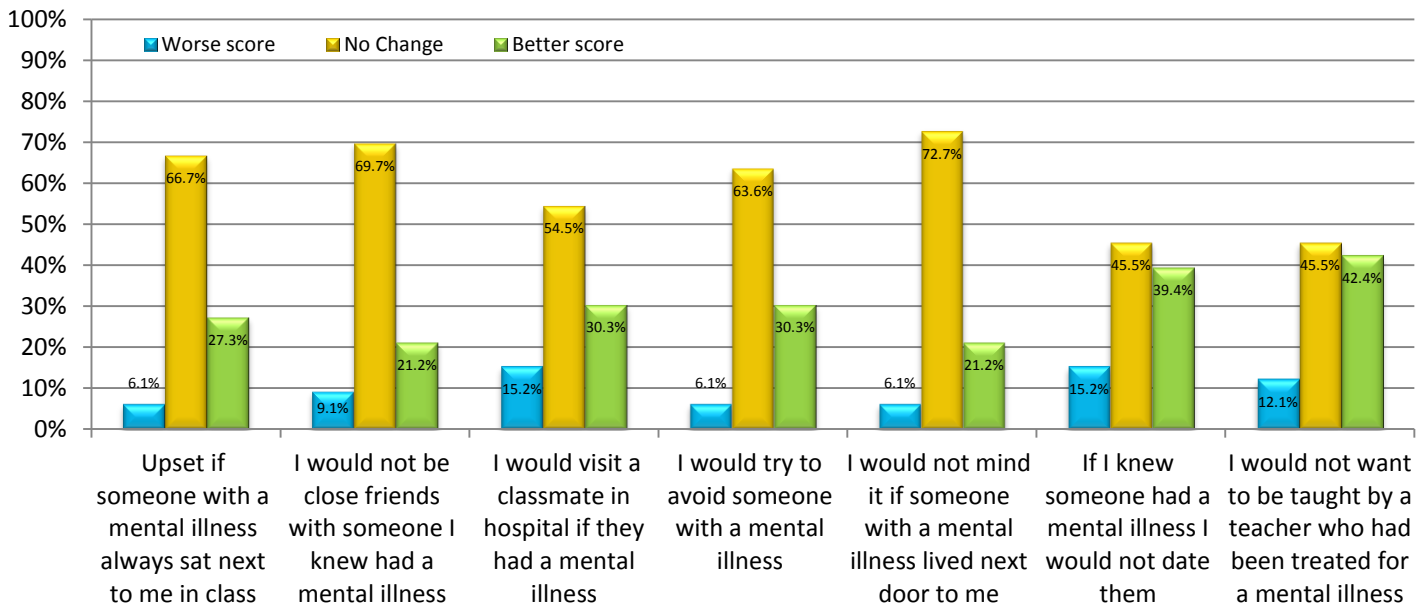


Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility (n=33 pre-test/post-test pairs)
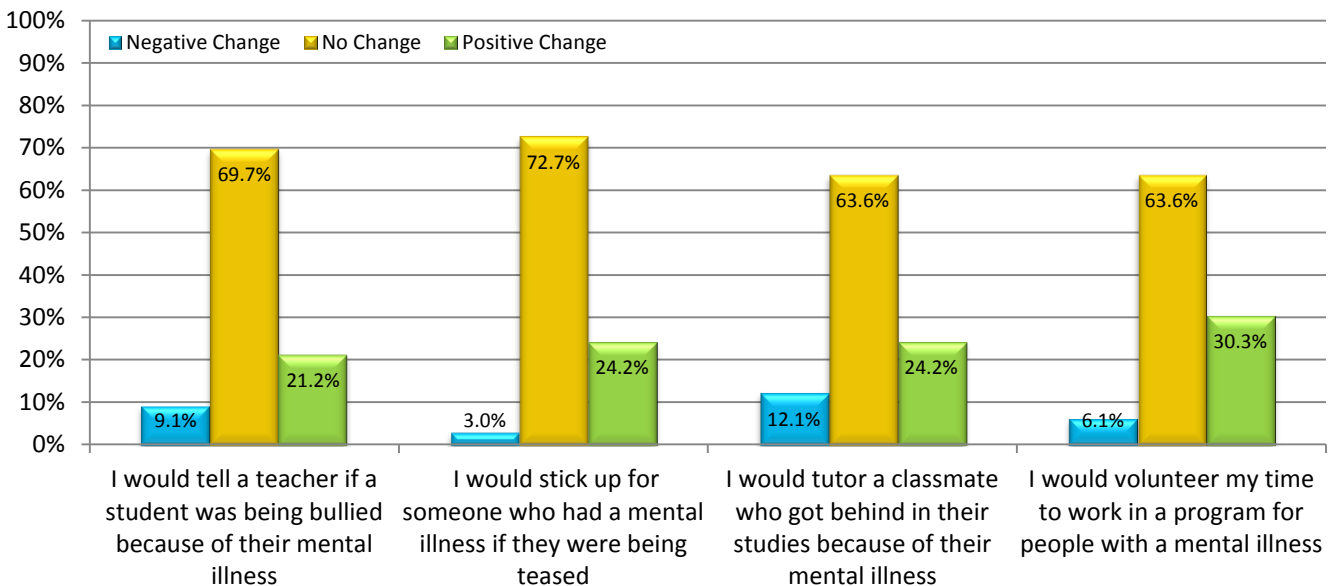
Proportion of students who made any change on the Likert scale from pre-test to post-test (n=33 pre-test/post-test pairs)
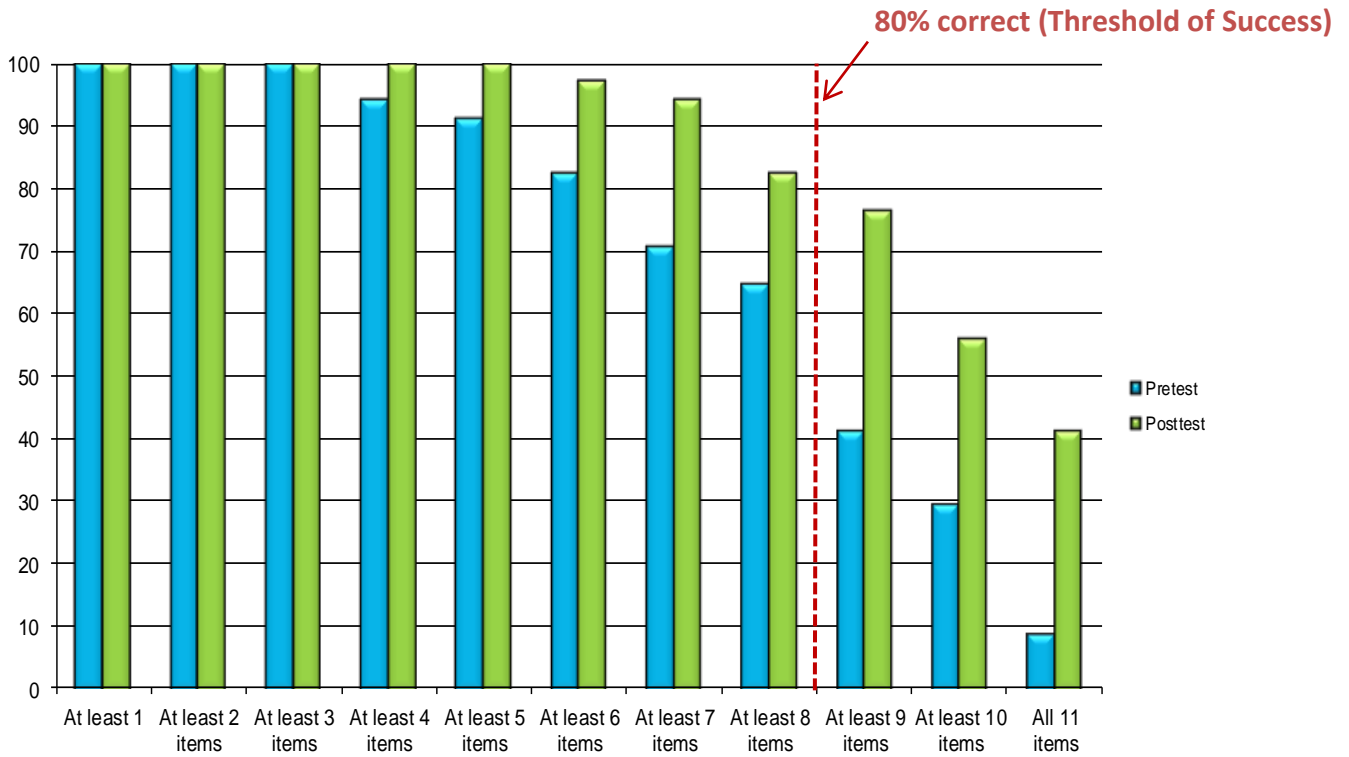
| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 6.1% (2) | 66.7% (22) | | 27.3% (9) | ** |
| | | 3.0% (1) | 63.6% (21) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 9.1% (3) | 69.7% (23) | | 21.2% (7) | ** |
| | | 3.0% (1) | 66.7% (22) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 15.2% (5) | 54.5% (18) | | 30.3% (10) | ** |
| | | 0% (0) | 54.5% (18) | | |
| 21 I would try to avoid someone with a mental illness | 6.1% (2) | 63.6% (21) | | 30.3% (10) | ** |
| | | 0% (0) | 63.6% (21) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 6.1% (2) | 72.7% (24) | | 21.2% (7) | ** |
| | | 0% (0) | 72.7% (24) | | |
| 24 If I knew someone had a mental illness I would not date them | 15.2% (5) | 45.5% (15) | | 39.4% (13) | ** |
| | | 9.1% (3) | 36.4% (12) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 12.1% (4) | 45.5% (15) | | 42.4% (14) | ** |
| | | 0% (0) | 45.5% (15) | | |
| **Social Responsibility    Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 9.1% (3) | 69.7% (23) | | 21.2% (7) | ** |
| | | 3.0% (1) | 66.7% (22) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 3.0% (1) | 72.7% (24) | | 24.2% (8) | ** |
| | | 0% (0) | 72.7% (24) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 12.1% (4) | 63.6% (21) | | 24.2% (8) | ** |
| | | 0% (0) | 63.6% (21) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 6.1% (2) | 63.6% (21) | | 30.3% (10) | ** |
| | | 9.1% (3) | 54.5% (18) | | |

Notes:
- Base size is those who responded to all the pre- and post-test items (n=33)
- (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- **Unavailable due to empty cells
- Due to small base size, analyses were performed using a collapsed 3 point scale instead of the original five point scale.

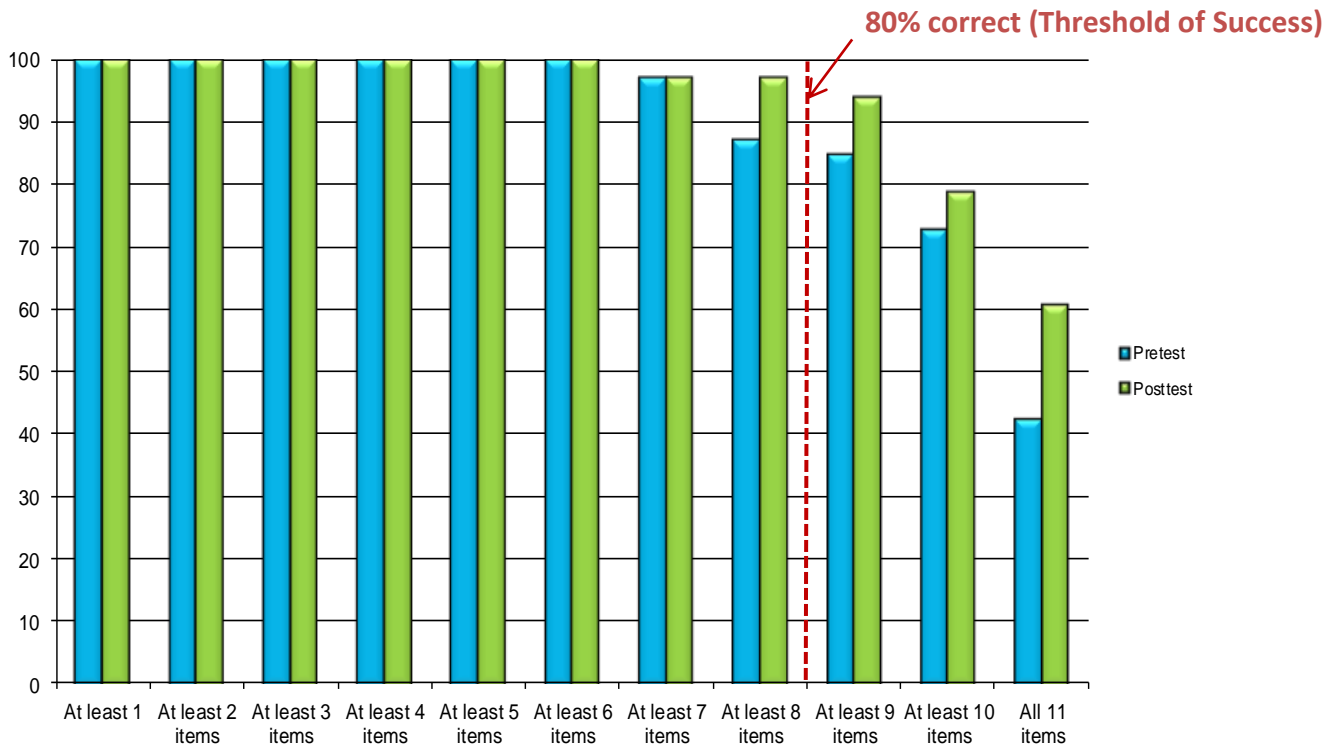Percent Non-Stigmatizing of Endorsement of Social Distance Items

|  | Pre-test % (n) | Post-test % (n) |
|---|---|---|
| None | 0.0% (0) | 0.0% (0) |
| At least 1 | 100.0% (33) | 100.0% (33) |
| At least 2 items | 100.0% (33) | 100.0% (33) |
| At least 3 items | 100.0% (33) | 100.0% (33) |
| At least 4 items | 100.0% (33) | 100.0% (33) |
| At least 5 items | 100.0% (33) | 100.0% (33) |
| At least 6 items | 100.0% (33) | 100.0% (33) |
| At least 7 items | 97.0% (32) | 97.0% (32) |
| At least 8 items | 87.9% (29) | 97.0% (32) |
| At least 9 items | 84.8% (28) | 93.9% (31) |
| At least 10 times | 72.7% (24) | 78.8% (26) |
| All 11 times | 42.4% (14) | 60.6% (20) |

Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=34)



**80% correct (Threshold of Success)**

Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=33)



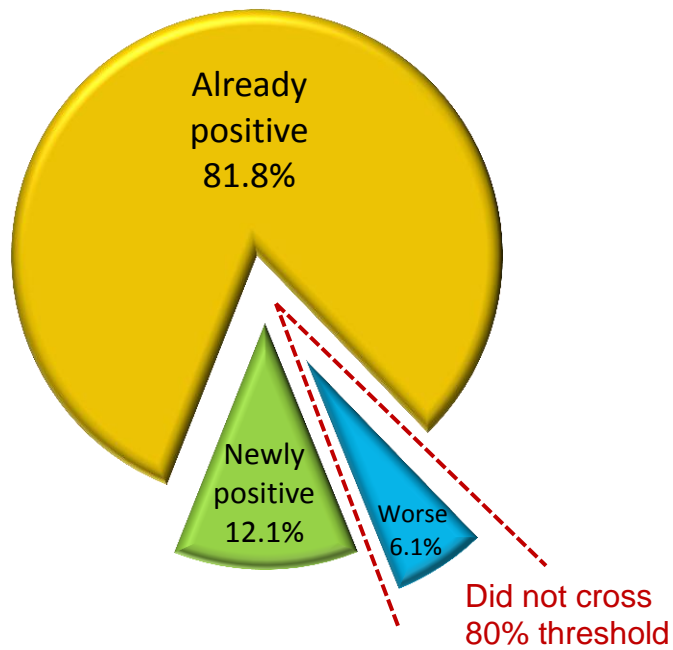**80% correct (Threshold of Success)**

## Change in Stereotype Scale Score (n=33)



Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Social Tolerance Scale Score (n=33)



Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Stereotype Scale Score and Social Tolerance Scale Score

| | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| Stereotype scale score (n=33) | 36.4% (12) | 39.4% (13) | 24.2% (8) |
| Social tolerance scale score (n=33) | 81.8% (27) | 12.1 % (4) | 6.1% (2) |
| Notes: To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=34)

| | Median (interquartile range) |
|---|---|
| Pre-test | 23 (19.75-26) |
| Post-test | 17 (13-21) |

Tolerance Items (n=33)

| | Median (interquartile range) |
|---|---|
| Pre-test | 17 (13.5-21) |
| Post-test | 14 (12-18) |

**Appendix G- SOS Summit, November**

The York Region Summit model is similar to the Durham Model in terms of exercises and discussions used during their day. As is true for the In Class Model, York Region utilizes their own speaker base and professionals to deliver the material. As well, the York Region Summit takes place at a community venue that is not a mental health facility. Students and staff members hear mental health and stigma presentations, participate in experiential breakout rooms, hear the stories of the York Region speakers and are given time to begin to design and learn how to deliver their mental health awareness activities in their own schools.

Sample Characteristics for Those Who Completed Both the Pre and Post-test

| Characteristic | % (N=52) |
|---|---|
| **Gender** | |
| • Male | 23.1% (12) |
| • Female | 76.9% (40) |
| • Missing | -- (0) |
| **Age** | |
| • 14 | 5.8% (3) |
| • 15 | 32.7% (17) |
| • 16 | 40.4% (21) |
| • 17 | 19.2% (10) |
| • 18+ | 1.9% (1) |
| • Missing | -- (0) |
| **Grade** | |
| • 9 | 3.8% (2) |
| • 10 | 30.8% (16) |
| • 11 | 42.6% (24) |
| • 12 | 19.2% (10) |
| • Missing | -- (0) |
| **Contact- Pre-test - Does someone you know have a mental illness**[*] | |
| • No | 8.0% (4) |
| • Uncertain | 12.0% (6) |
| • Close friend | 12.0% (6) |
| • Family member | 40.0% (20) |
| • Somebody else | 18.0% (9) |
| • I do | 32.0% (16) |
| • Missing | -- (2) |
| * Multiple responses accepted | |

# Stigma Stereotype Results

Controllability Items

| Stereotyped Attributions Items | Pre-test % (n=39) | Post-test % (n=39) | % Change |
|---|---|---|---|
| **4. People with a mental illness tend to bring it on themselves.** | | | |
| • Strongly disagree/disagree | 74.4% (29) | 89.7% (35) | 15.30 |
| • Unsure | 15.4 % (6) | 2.6% (1) | -12.8 |
| • Strongly agree/ agree | 10.3% (4) | 7.7% (3) | -2.6 |
| **5. People with mental illnesses often don't try hard enough to get better.** | | | |
| • Strongly disagree/disagree | 84.6% (33) | 87.2% (34) | 2.60 |
| • Unsure | 10.3% (4) | 10.3 % (4) | 0.00 |
| • Strongly agree/ agree | 5.1% (2) | 2.6% (1) | -2.50 |
| **6. People with a mental illness could snap out of it if they wanted to.** | | | |
| • Strongly disagree/disagree | 87.2% (34) | 87.2% (34) | 0.00 |
| • Unsure | 10.3 % (4) | 7.7 % (3) | -2.60 |
| • Strongly agree/ agree | 2.6 % (1) | 5.1 % (2) | 2.50 |
| **14. Most people with a mental illness get what they deserve.** | | | |
| • Strongly disagree/disagree | 79.5% (31) | 92.3% (36) | 12.80 |
| • Unsure | 17.9% (7) | 7.7% (3) | -10.20 |
| • Strongly agree/ agree | 2.6% (1) | 0.0% (0) | -2.60 |

### Recovery Items

| Stereotyped Attributions Items | Pre-test % (n=39) | Post-test % (n=39) | % Change |
|---|---|---|---|
| **3. Most people with a mental illness are too disabled to work.** | | | |
| • Strongly disagree/disagree | 84.6% (28) | 92.3% (36) | 7.70 |
| • Unsure | 10.3% (6) | 5.1% (2) | -5.20 |
| • Strongly agree/ agree | 5.1 % (0) | 2.6 % (1) | -2.50 |
| **15. People with serious mental illnesses need to be locked away.** | | | |
| • Strongly disagree/disagree | 92.3% (29) | 89.7% (35) | -2.60 |
| • Unsure | 5.1% (4) | 10.3% (4) | 5.20 |
| • Strongly agree/ agree | 2.6% (1) | 0.0% (0) | -2.60 |

### Violence/ Unpredictability Items

| Stereotyped Attributions Items | Pre-test % (n=39) | Post-test % (n=39) | % Change |
|---|---|---|---|
| **7. People with a mental illness are often more dangerous than the average person.** | | | |
| • Strongly disagree/disagree | 53.8% (21) | 79.5% (31) | 25.70 |
| • Unsure | 35.9% (14) | 15.4% (6) | -20.50 |
| • Strongly agree/ agree | 10.3% (4) | 5.1% (2) | -5.20 |
| **8. People with a mental illness often become violent if not treated.** | | | |
| • Strongly disagree/disagree | 43.6% (17) | 51.3% (20) | 7.70 |
| • Unsure | 38.5% (15) | 33.3% (13) | -5.20 |
| • Strongly agree/ agree | 17.9% (7) | 15.4% (6) | -2.50 |
| **10. Most violent crimes are committed by people with a mental illness.** | | | |
| • Strongly disagree/disagree | 53.8% (21) | 69.2% (27) | 15.40 |
| • Unsure | 33.3% (13) | 25.6% (10) | -7.70 |
| • Strongly agree/ agree | 12.8% (5) | 5.1% (2) | -7.70 |
| **11. You can't rely on someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 74.4% (29) | 84.6% (33) | 10.20 |
| • Unsure | 20.5% (8) | 10.3% (4) | -10.20 |
| • Strongly agree/ agree | 5.1% (2) | 5.1% (2) | 0.00 |
| **12. You can never know what someone with a mental illness is going to do.** | | | |
| • Strongly disagree/disagree | 28.2%(11) | 38.5% (15) | 10.30 |
| • Unsure | 51.3% (20) | 41.0% (16) | -10.30 |
| • Strongly agree/ agree | 20.5% (8) | 20.5% (8) | 0.00 |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Controllability Items (n=39 pre-test/post-test pairs)
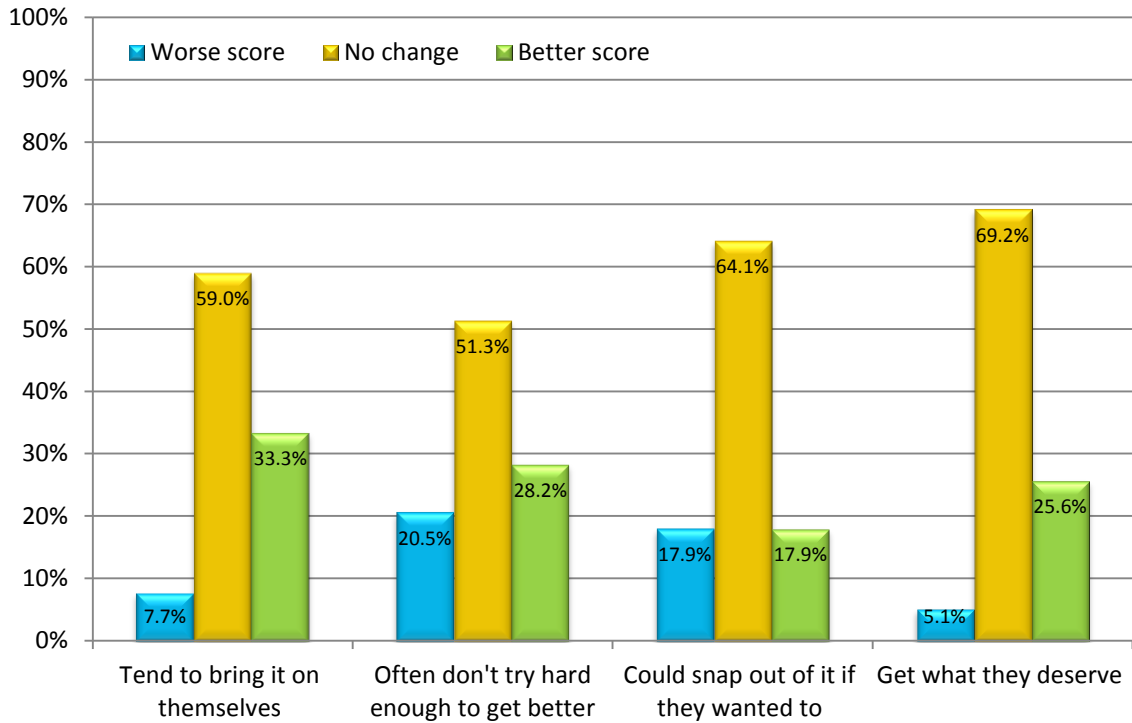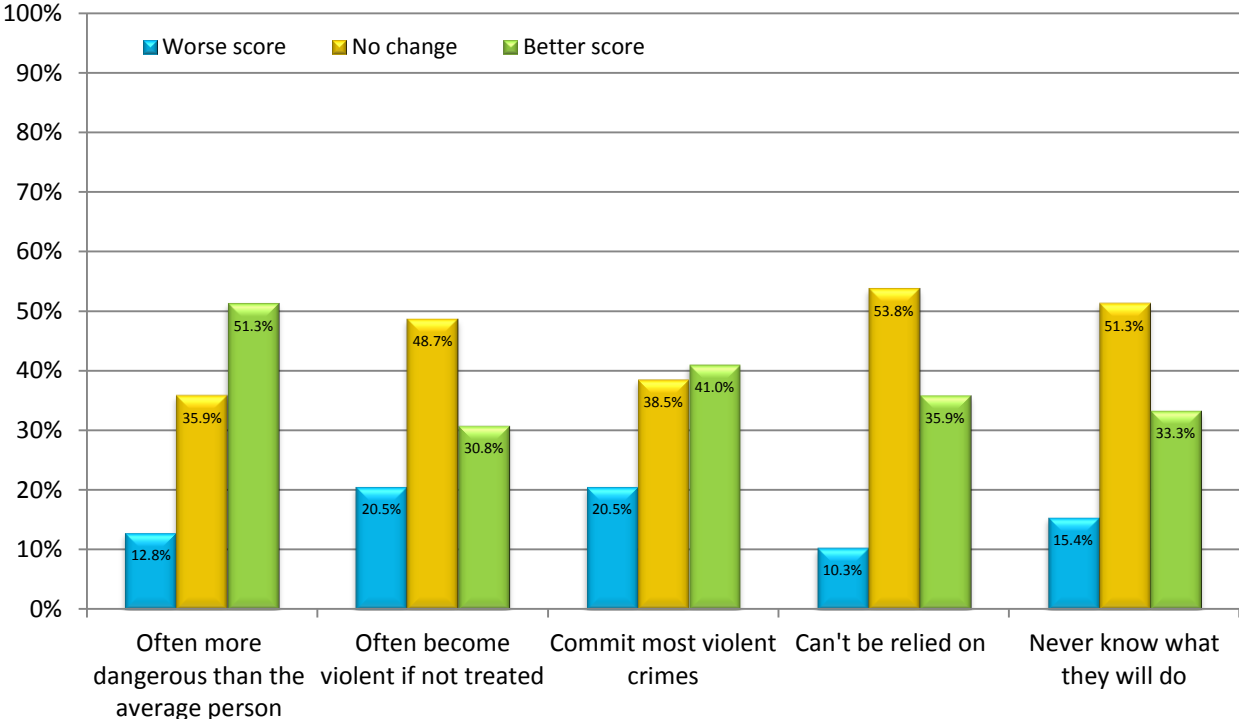


Proportion of students who made any change on the Likert scale from pre-test to post-test – Recovery Items (n=39 pre-test/post-test pairs)
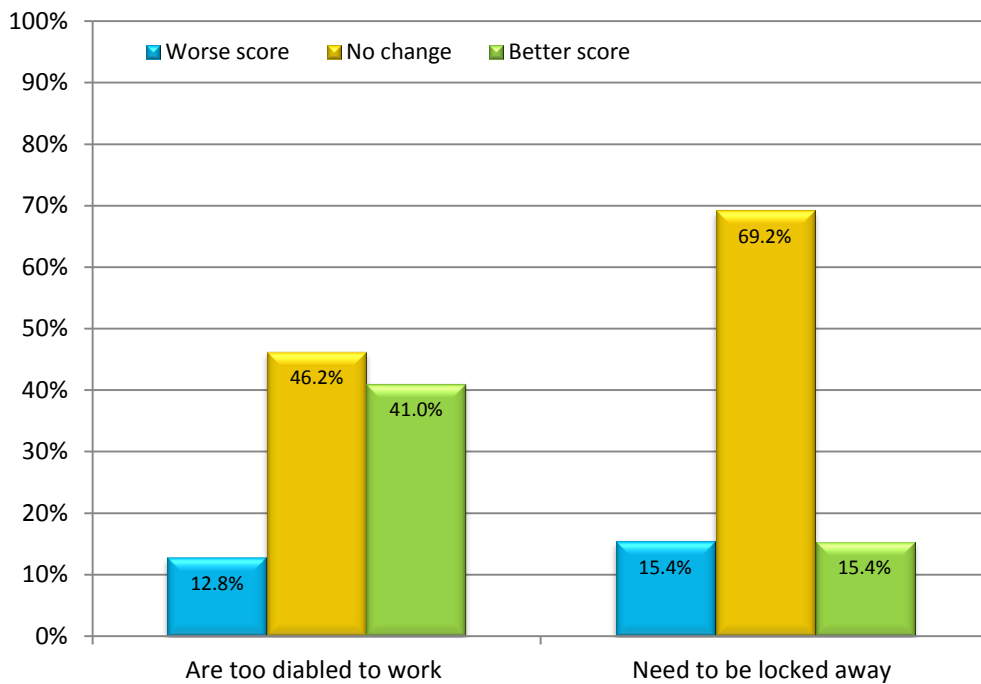
Proportion of students who made any change on the Likert scale from pre-test to post-test – Violence/Unpredictability Items (n=166 pre-test/post-test pairs)

Proportion of students who made any change on the Likert scale from pre-test to post-test (n=39 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Controllability    Items** | | | | | |
| 4 People with a mental illness tend to bring it on themselves | 7.7% (3) | 59.0% (23) | | 33.3% (13) | χ2 =7.0; df =3; p=.072 |
| | | 5.1% (2) | 53.8% (21) | | |
| 5 People with mental illnesses often don't try hard enough to get better | 20.5% (8) | 51.3% (20) | | 28.2% (11) | χ2 =1.0; df =2; p=.607 |
| | | 5.1% (2) | 46.2% (18) | | |
| 6 People with a mental illness could snap out of it if they wanted to | 17.9% (7) | 64.1% (25) | | 17.9% (7) | χ2 =1.0; df =3; p=.801 |
| | | 2.6% (1) | 61.5% (24) | | |
| 14 Most people with a mental illness get what they deserve | 5.1% (2) | 69.2% (27) | | 25.6% (10) | ** |
| | | 5.1% (2) | 64.1% (25) | | |
| **Recovery Items** | | | | | |
| 3 Most people with a mental illness are too disabled to work | 12.8% (5) | 46.2% (18) | | 41.0% (16) | χ2 =1.7; df =2; p=.435 |
| | | 0.0% (0) | 46.2% (18) | | |
| 15 People with serious mental illnesses need to be locked away | 15.4% (6) | 69.2% (27) | | 15.4% (6) | ** |
| | | 0.0% (0) | 69.2% (27) | | |
| **Violence/ Unpredictability Items** | | | | | |
| 7 People with a mental illness are often more dangerous than the average person | 12.8% (5) | 35.9% (14) | | 51.3% (20) | χ2 =14.0; df =3; p=.003 |
| | | 10.3% (4) | 25.6% (10) | | |
| 8 People with a mental illness often become violent if not treated | 20.5% (8) | 48.7% (19) | | 30.8% (12) | χ2 =2.3; df =3; p=.515 |
| | | 20.5% (8) | 28.2% (11) | | |
| 10 Most violent crimes are committed by people with a mental illness | 20.5% (8) | 38.5% (15) | | 41.0% (16) | χ2 =4.3; df =3; p=.228 |
| | | 17.9% (7) | 20.5% (8) | | |
| 11 You can't rely on someone with a mental illness | 10.3% (6) | 53.8% (21) | | 35.9% (14) | χ2 =4.9; df =3; p=.179 |
| | | 5.1% (2) | 48.7% (19) | | |
| 12 You can never know what someone with a mental illness is going to do | 15.4% (6) | 51.3% (20) | | 33.3% (13) | χ2 =2.0; df =3; p=.572 |
| | | 35.9% (14) | 15.4% (6) | | |

Notes:
- Base size is those who responded to all the pre and post-test item (n=39).
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Due to small base size, analyses were performed using a collapsed 3 point scale instead of the original five point scale. **Unavailable due to empty cells
- Degrees of freedom depend on the number of non-empty cells and may vary by question due to different response patterns

Percent Positive Endorsement of Knowledge Items

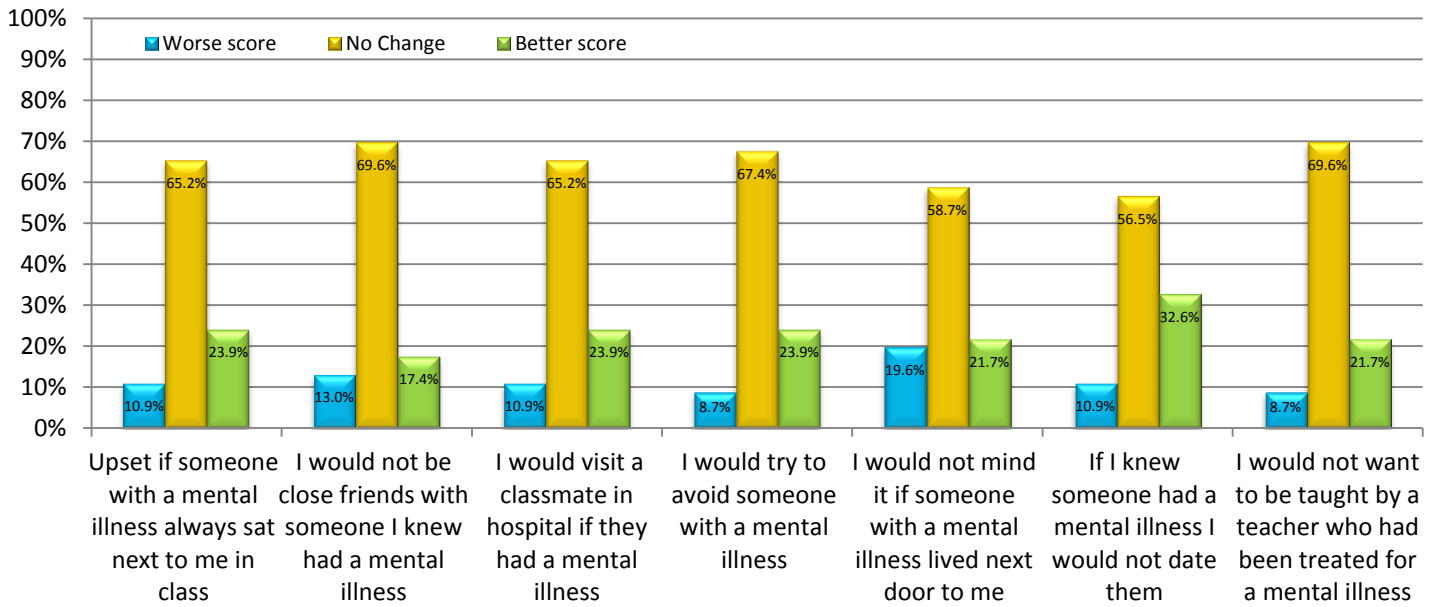| | Pre-test    %  (n=39) | Post-test %  (n=39) |
|---|---|---|
| None | 0.0% (0) | 0.0% (0) |
| At least 1 | 97.4% (38) | 100.0% (39) |
| At least 2 items | 97.4% (38) | 100.0% (39) |
| At least 3 items | 97.4% (38) | 100.0% (39) |
| At least 4 items | 94.9% (37) | 97.4% (38) |
| At least 5 items | 87.3% (34) | 94.9% (37) |
| At least 6 items | 82.1% (32) | 92.3% (36) |
| At least 7 items | 69.2% (27) | 87.2% (34) |
| At least 8 items | 53.8% (21) | 76.9% (30) |
| At least 9 items | 38.5% (15) | 56.4% (22) |
| At least 10 times | 23.1% (9) | 35.9% (14) |
| All 11 times | 15.4% (6) | 20.5% (8) |

# Social Tolerance Results

## Social Distance Items

| Stereotyped Attributions Items | Pre-test % (n=46) | Post-test % (n=46) | % Change |
|---|---|---|---|
| **18. I would be upset if someone with a mental illness always sat next to me in class.** | | | |
| • Strongly disagree/disagree | 91.3% (42) | 97.8% (45) | 6.50 |
| • Unsure | 6.5% (3) | 2.2% (1) | -4.30 |
| • Strongly agree/ agree | 2.2% (1) | 0.0% (0) | -2.20 |
| **19. I would not be close friends with someone I knew had a mental illness.** | | | |
| • Strongly disagree/disagree | 91.3% (42) | 95.7% (44) | 4.40 |
| • Unsure | 4.3% (2) | 2.2% (1) | -2.10 |
| • Strongly agree/ agree | 4.3% (4) | 2.2% (1) | -2.10 |
| **20. (R) I would visit a classmate in hospital if they had a mental illness.** | | | |
| • Strongly agree/ agree | 80.4% (37) | 80.4% (37) | 0.00 |
| • Unsure | 17.4% (8) | 8.7% (4) | -8.70 |
| • Strongly disagree/disagree | 2.2% (1) | 10.9% (5) | 8.70 |
| **21. I would try to avoid someone with a mental illness.** | | | |
| • Strongly disagree/disagree | 95.7% (44) | 95.7% (44) | 0.00 |
| • Unsure | 4.3% (2) | 4.3% (12) | 0.00 |
| • Strongly agree/ agree | 0.0% (0) | 0.0% (0) | 0.00 |
| **22. (R) I would not mind it if someone with a mental illness lived next door to me.** | | | |
| • Strongly agree/ agree | 78.3% (36) | 89.1% (41) | 10.80 |
| • Unsure | 8.7% (4) | 6.5% (3) | -2.20 |
| • Strongly disagree/disagree | 13.0 % (6) | 4.3 % (2) | -8.70 |
| **24. If I knew someone had a mental illness I would not date them.** | | | |
| • Strongly disagree/disagree | 69.6% (32) | 78.3 % (36) | 8.70 |
| • Unsure | 21.7 % (10) | 17.4% (8) | -4.30 |
| • Strongly agree/ agree | 8.7 % (4) | 4.3% (2) | -4.40 |
| **25. I would not want to be taught by a teacher who had been treated for a mental illness.** | | | |
| • Strongly disagree/disagree | 84.8% (39) | 89.1% (41) | 4.30 |
| • Unsure | 15.2% (7) | 8.7% (4) | -6.50 |
| • Strongly agree/ agree | 0.0 % (0) | 2.2% (1) | 2.20 |
| Note:   (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma | | | |

## Social Responsibility Items

| Stereotyped Attributions Items | Pre-test % (n=46) | Post-test % (n=46) | % Change |
|---|---|---|---|
| **28. (R) I would tell a teacher if a student was being bullied because of their mental illness.** | | | |
| • Strongly agree/ agree | 84.8 % (39) | 80.4 % (37) | -4.40 |
| • Unsure | 13.0 % (6) | 10.9 % (5) | -2.10 |
| • Strongly disagree/disagree | 2.2% (1) | 8.7% (4) | 6.50 |
| **32. (R) I would stick up for someone who had a mental illness if they were being teased.** | | | |
| • Strongly agree/ agree | 91.3% (42) | 82.6% (38) | -8.70 |
| • Unsure | 6.5 % (3) | 10.9% (5) | 4.40 |
| • Strongly disagree/disagree | 2.2% (1) | 6.5% (3) | 4.30 |
| **33. (R) I would tutor a classmate who got behind in their studies because of their mental illness.** | | | |
| • Strongly agree/ agree | 76.1% (35) | 71.7% (33) | -4.40 |
| • Unsure | 17.4% (8) | 17.4% (8) | 0.00 |
| • Strongly disagree/disagree | 6.5% (3) | 10.9% (5) | 4.40 |
| **34. (R) I would volunteer my time to work in a program for people with a mental illness.** | | | |
| • Strongly agree/ agree | 80.4% (37) | 76.1 % (35) | -4.30 |
| • Unsure | 10.9% (5) | 17.4 % (8) | 6.50 |
| • Strongly disagree/disagree | 8.7% (4) | 6.5% (3) | -2.20 |
| Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma. | | | |

Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Distance Items (n=46 pre-test/post-test pairs)



Proportion of students who made any change on the Likert scale from pre-test to post-test – Social Responsibility (n=46 pre-test/post-test pairs)
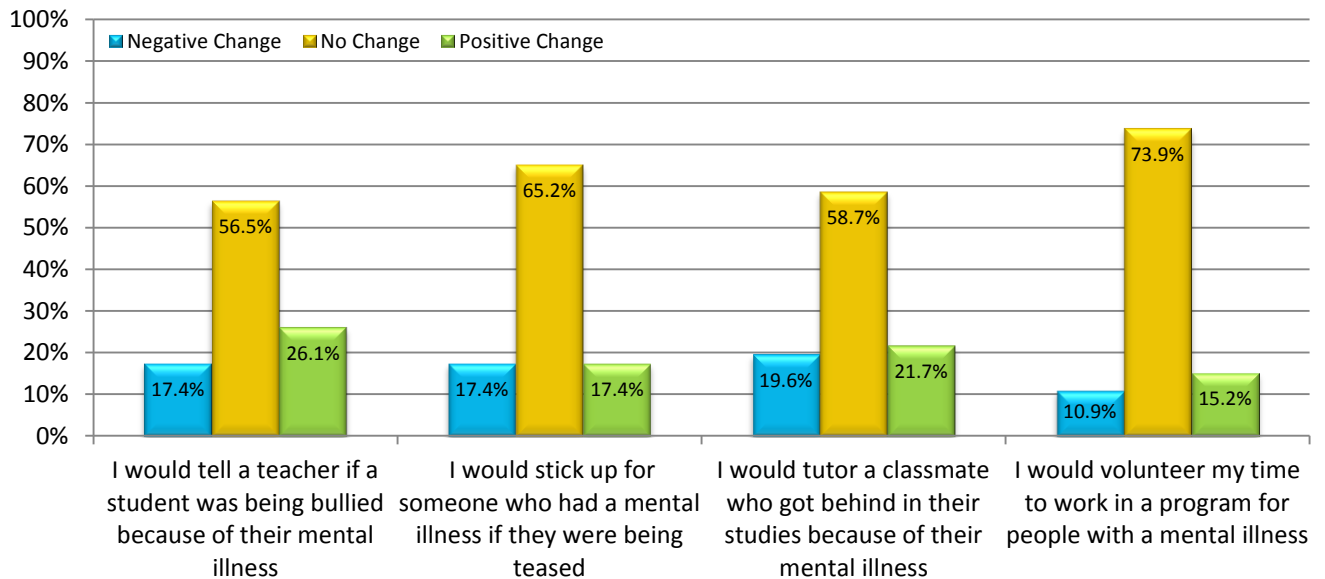
Proportion of students who made any change on the Likert scale from pre-test to post-test (n=46 pre-test/post-test pairs)

| Survey Item | Negative change % (n) | No change % (n) | | Positive change % (n) | *McNemar-Bowker* Significance |
|---|---|---|---|---|---|
| | | Stigmatizing* % (n) | Non-stigmatizing* % (n) | | |
| **Social Distance Items** | | | | | |
| 18 I would be upset if someone with a mental illness always sat next to me in class | 10.9% (3) | 65.2% (30) | | 23.9% (11) | ** |
| | | 0.0% (0) | 65.2% (30) | | |
| 19 I would not be close friends with someone I knew had a mental illness | 13.0% (6) | 69.6% (32) | | 17.4% (8) | χ2 =0.7; df =2; p=.717 |
| | | 0.0% (0) | 69.6% (32) | | |
| (R)20 I would visit a classmate in hospital if they had a mental illness | 10.9% (3) | 65.2% (30) | | 23.9% (11) | χ2 =7.0; df =3; p=.072 |
| | | 10.9% (5) | 54.3% (25) | | |
| 21 I would try to avoid someone with a mental illness | 8.7% (4) | 67.4% (31) | | 23.9% (11) | ** |
| | | 0.0% (0) | 67.4% (31) | | |
| 22 (R) I would not mind it if someone with a mental illness lived next door to me | 19.6% (9) | 58.7% (27) | | 21.7% (10) | χ2 =6.0; df =3; p=.112 |
| | | 4.3% (2) | 54.3% (25) | | |
| 24 If I knew someone had a mental illness I would not date them | 10.9% (5) | 56.5% (26) | | 32.6% (15) | χ2 =1.7; df =2; p=.435 |
| | | 15.2% (7) | 41.3% (19) | | |
| 25 I would not want to be taught by a teacher who had been treated for a mental illness | 8.7% (4) | 69.6% (32) | | 21.7% (10) | ** |
| | | 6.5% (3) | 63.0% (29) | | |
| **Social Responsibility    Items** | | | | | |
| 28 (R) I would tell a teacher if a student was being bullied because of their mental | 17.4% (8) | 56.5% (26) | | 26.1% (12) | χ2 =3.2; df =2; p=.202 |
| | | 6.5% (3) | 50.0% (23) | | |
| 32 (R) I would stick up for someone who had a mental illness if they were being teased | 17.4% (8) | 65.2% (30) | | 17.4% (8) | χ2 =2.6; df =2; p=.264 |
| | | 2.2% (1) | 63.0% (29) | | |
| 33(R) I would tutor a classmate who got behind in their studies because of their mental illness | 19.6% (9) | 58.7% (27) | | 21.7% (10) | χ2 =4.1; df =3; p=.246 |
| | | 10.9% (5) | 47.8% (22) | | |
| 34(R) I would volunteer my time to work in a program for people with a mental illness | 10.9% (5) | 73.9% (34) | | 15.2% (7) | χ2 =1.3; df =3; p=.721 |
| | | 8.7% (4) | 65.2% (30) | | |

Notes:
- Base size is those who responded to all the pre and post-test item (n=46)
- (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma
- Change was defined as moving on 5-point Likert Scale from the pre-test to the post-test (negative change: toward a more stigmatizing answer; positive change: toward a less stigmatizing answer)
- *The non-stigmatizing response means agree or strongly agree; the stigmatizing response includes unsure, disagree, and strongly disagree
- Due to small base size, analyses were performed using a collapsed 3 point scale instead of the original five point scale. **Unavailable due to empty cells

Percent Non Stigmatizing of Endorsement of Social Distance Items

| | Pre-test    %<br>(n=46) | Post-test %<br>(n=46) |
|---|---|---|
| None | 0.0% (0) | 0.0% (0) |
| At least 1 | 100.0% (46) | 100.0% (46) |
| At least 2 items | 100.0% (46) | 100.0% (46) |
| At least 3 items | 100.0% (46) | 100.0% (46) |
| At least 4 items | 97.8% (45) | 97.8% (45) |
| At least 5 items | 97.8% (45) | 95.7% (44) |
| At least 6 items | 95.7% (44) | 91.3% (42) |
| At least 7 items | 84.8% (39) | 91.3% (42) |
| At least 8 items | 80.4% (37) | 78.3% (36) |
| At least 9 items | 73.9% (34) | 71.7% (33) |
| At least 10 times | 58.7% (27) | 58.7% (27) |
| All 11 times | 34.8% (16) | 52.2% (24) |

Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing response (n=39)
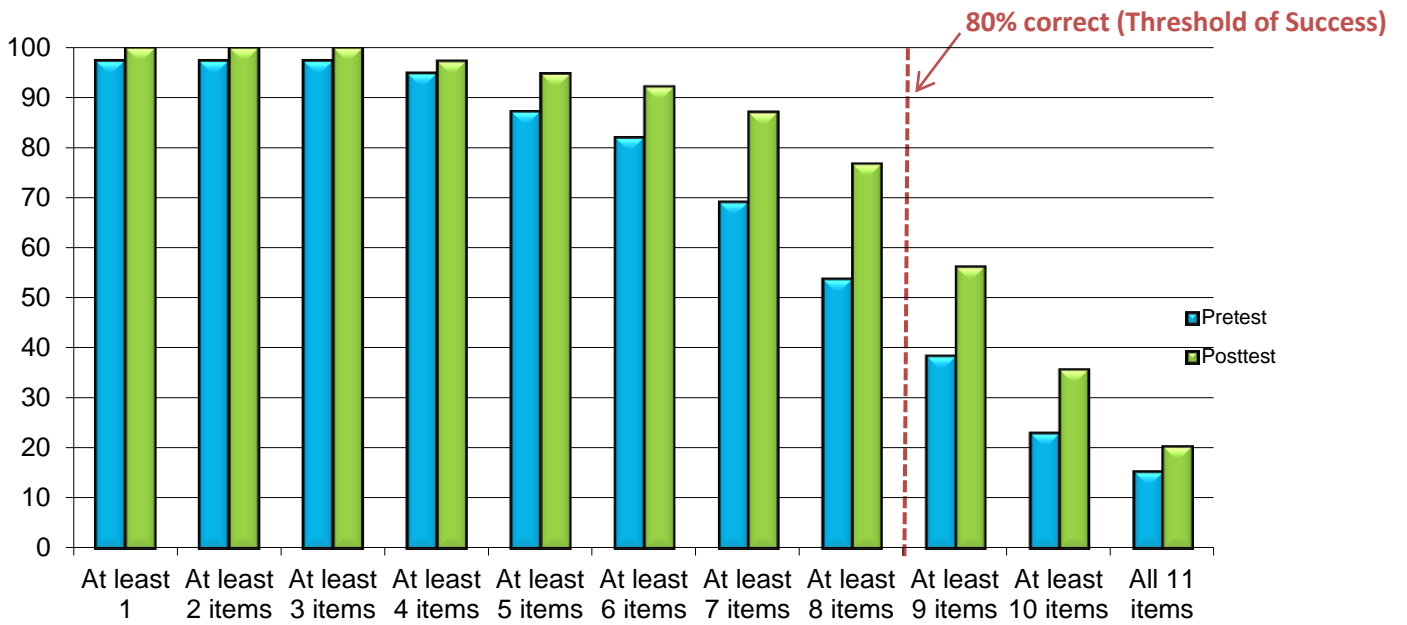


Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing response (n=46)
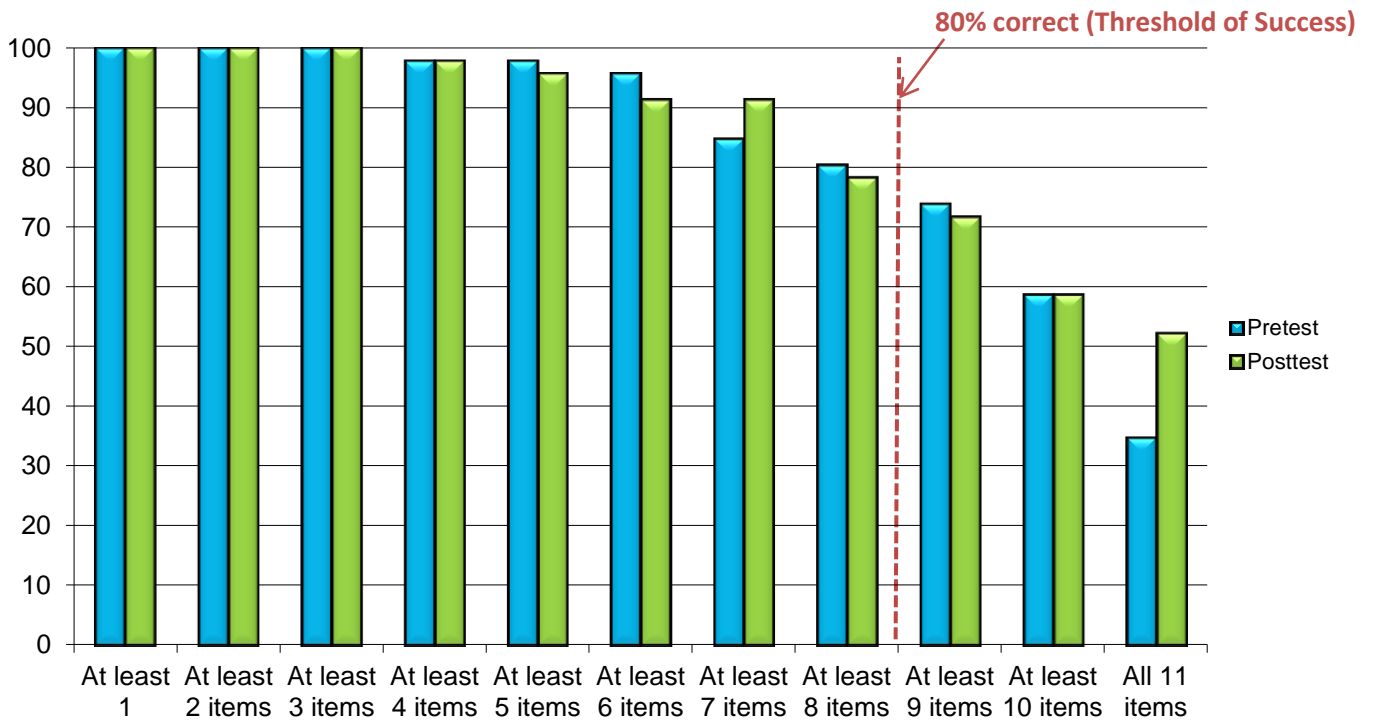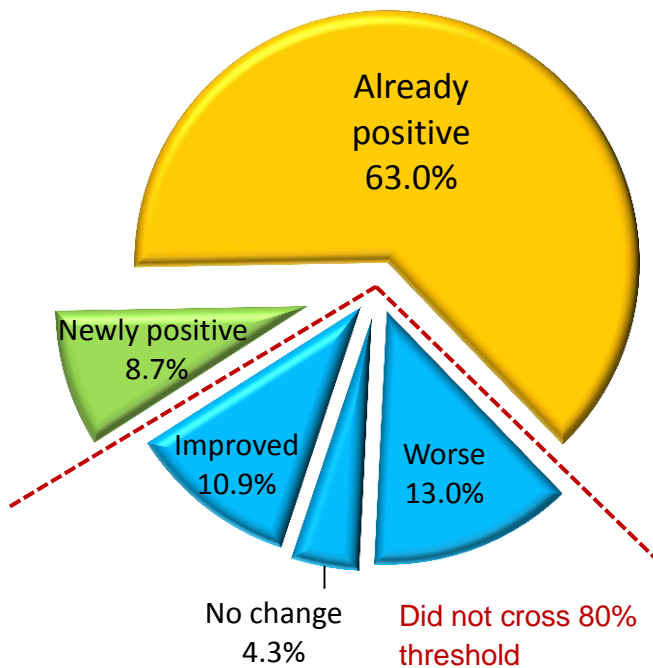
## Change in Stereotype Scale Score (n=36)
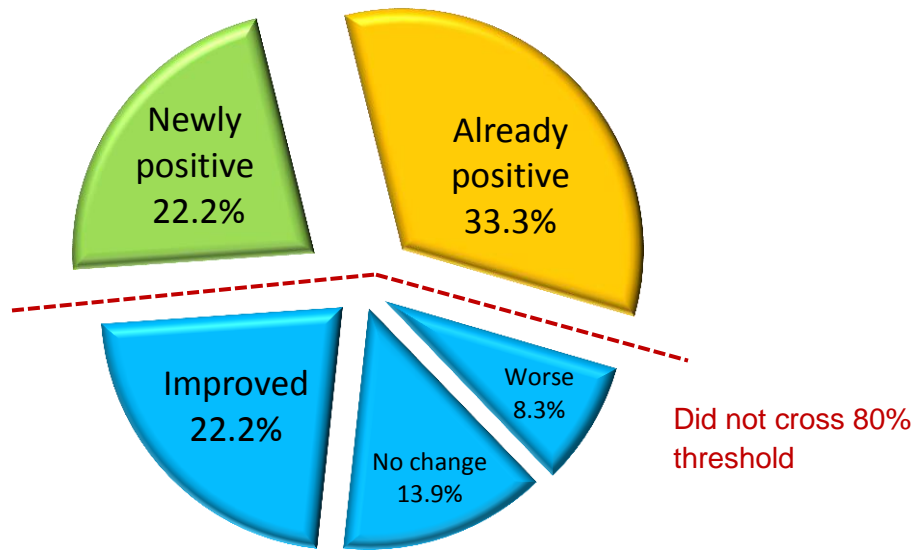


Notes:  To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Social Tolerance Scale Score (n=46)



Notes:  To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.

## Change in Stereotype Scale Score    and Social Tolerance Scale Score

| | Already positive % (n) | Positive Change % (n) | Did Not Cross 80% Threshold % (n) |
|---|---|---|---|
| **Stereotype scale score (n=36)** | 33.3% (12) | 22.2% (8) | 44.4% (16) |
| **Social tolerance scale score (n=46)** | 63.0% (29) | 8.7 % (4) | 28.3% (13) |
| Notes:   To adjust for regression to the mean, pre-test outliers (those whose pre-test scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis. | | | |

The responses to the items on each of the scale can be summed to obtain a scale score. The possible score for each scale ranges from 11 to 55 with a lower score indication less stigma.

Scale scores

Stereotype Scale Items (n=39)

| | Median (interquartile range) |
|---|---|
| Pre-test | 22 (18-26) |
| Post-test | 20 (16-24) |

Tolerance Items (n=46)

| | Median (interquartile range) |
|---|---|
| Pre-test | 18.5 (15-2.3) |
| Post-test | 18 (12.75-22.25) |