



Mental Health
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Opening Minds in High School: Results of a Contact-based Anti-stigma Intervention – Beautiful Minds

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August 2012

www.mentalhealthcommission.ca

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

The authors wish to thank the schools, teachers, staff, students, community professionals, and speakers who participated in this project.

1 OPENING MINDS: CHANGING HOW WE SEE MENTAL ILLNESS

Stigma is a significant concern for those living with a mental illness. Stigma is a primary vehicle for the entrenchment of discriminatory behaviours, and has been identified as a major barrier to timely and accessible care, recovery, and quality of life for persons living with mental illnesses. As such, reducing the stigma and discrimination associated with mental illness is becoming an increasingly important focus. One particular area of focus is that of the healthcare sector.

As part of its 10-year mandate, The Mental Health Commission of Canada (MHCC) has embarked on an anti-stigma initiative called Opening Minds (OM) to change the attitudes and behaviours of Canadians towards people with a mental illness. OM is the largest systematic effort undertaken in Canadian history to reduce the stigma and discrimination associated with mental illness. OM is taking a targeted approach, with healthcare providers being one of its main target groups. OM's philosophy is not to reinvent the wheel, but rather to build on the strengths of existing programs from across the country. As such, OM is conducting evaluations of various programs to determine their success at reducing stigma. OM's goal is to replicate effective programs nationally.

For more information, go to: www.mentalhealthcommission.ca/English/Pages/OpeningMinds.aspx



2 INTRODUCTION AND PURPOSE

Stigma and discrimination have gained the attention of the public health and policy communities as a hidden and costly burden caused 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.

3 PROGRAM DESCRIPTION

Beautiful Minds in Secondary Schools is a program adapted from the Centre for Addiction and Mental Health program "Talking About Mental Illness." The purpose of Beautiful Minds is to bring about positive change in people's knowledge of mental health and reduce stigma that surrounds mental health issues. It includes a four component package for teachers to adapt to fit the needs of their classroom. The first and second components offer basic mental health and mental illness information for the teacher to use in a class. The third component of the package consists of a presentation by a mental health facilitator and one or two individuals who have experienced a mental health issue and want to share their story to help others. The fourth has a debriefing focus to be used in the classroom following the presentation. Beautiful Minds is booked by request of teachers through our online booking process. The program is delivered most often to grade 11 students in physical and health education and in the history course Introduction to Sociology, Psychology, and Anthropology. There are a small number of presentations in other courses and at other grade levels. The age range for youth is approximately 14-19 years. Teachers are required to be present for the presentation portion of the program and school support staff are required to be present to support students if needed. Beautiful Minds provides a number of resources to participants including a Student Handbook and a Roadmap Through the Teenage Years for parents.

Volunteer speakers receive eight free hours of training focusing on presentation skills and the development of their personal stories. Concepts such as the principles of recovery have been included in the package, as well as up-to-date statistics. Written materials are provided for the speakers to take away in order to assist them when they begin presenting. Ongoing support is provided by the Coordinator of the program.

4 APPROACH TO DATA COLLECTION

Students were surveyed before and after the contact-based intervention.

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 0.84 for the Stereotype Scale and 0.85 for the Social Tolerance Scale. Both are well above the conventional threshold of 0.70 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.

Seventy five pre-test and 48 post-test surveys were collected (a total of 123 surveys), but of these, only 31 were able to be matched for analysis. The low number of matched surveys is primarily due to inconsistencies when students completed the sections to help identify themselves. Given the large number of unmatched surveys and the potential for introducing bias by leaving out data from subjects that could not be matched, results presented here are unmatched. This means that the chances of finding statistically significant differences will be reduced. Absolute percentage differences that are in excess of 10% will be used to highlight differences that are potentially noteworthy, even if they don't reach statistical significance.

5 RESULTS

5.1 Sample Characteristics

Seventy five students completed the pre-test survey and 48 completed the post-test. The characteristics of the pre- and post-test groups are presented in Table 1. The post-test was completed by a greater proportion of males, 17 year olds, and students in grade twelve than the pre-test.

Table 1. Sample Characteristics

Characteristic	Pre-test % (N=75)	Post-test % (N=48)
Gender		
• Male	30.6% (22)	39.1% (18)
• Female	69.4% (506)	60.9% (28)
• Missing	-- (3)	-- (2)
Age		
• 15	1.4%(1)	0.0%(0)
• 16	68.1% (49)	42.2% (19)
• 17	22.2% (16)	46.7% (21)
• 18	8.3%(6)	11.1%(5)
• Missing	--(3)	--(3)
Grade		
• 10	5.6%(4)	2.1%(1)
• 11	73.6% (53)	58.3% (28)
• 12	20.8% (15)	39.6% (19)
• Missing	--(3)	--(0)
Contact – Does someone you know have a mental illness (multiple responses accepted)		
• No	21.1% (15)	17.4% (8)
• Uncertain	36.6% (26)	28.3% (13)
• Close friend	7.0% (5)	10.9% (5)
• Family member	16.9% (12)	21.7% (10)
• Somebody else	8.5% (6)	19.6% (9)
• I do	12.7% (9)	17.4% (8)
• Missing	-- (4)	-- (2)

5.2 Stereotyped Attributions

Stereotyped attributions items are shown in **Tables 2, 3 and 4**. For ease of presentation, items were recoded into three groups: agree (strongly agree and agree), neutral, and disagree (disagree and strongly disagree). Table 2 shows the majority of respondents held positive (non-stereotypical) attitudes toward people with a mental illness on the controllability items. For example, before the intervention students tended to disagree with the common stereotypes that people with a mental illness could snap out of it if they wanted to (80% disagree), get what they deserve (78% disagreed), or that they often don't try hard enough (73% disagree). Just over two thirds (69%) disagreed that people with a mental illness tend to bring it on themselves.

Also reported in **Table 2** is the change score from pre-test to post-test. Three of the four Controllability items changed in the expected direction with the largest positive change being for the items “Most people with a mental illness get what they deserve” and “People with a mental illness could snap out of it if they wanted to.” At baseline, 78% and 80% respectively disagreed with these statements whereas 92% and 94% disagreed at post-test (a 14% positive change for both). The item “People with a mental illness tend to bring it on themselves” had a 12% positive change while the item “People with mental illnesses often don't try hard enough to get better” had a 3% negative change.

Table 2. Controllability Items

Stereotyped Attributions Items	Pre-test % (n=75)	Post-test % (n=48)	% Change
4. People with a mental illness tend to bring it on themselves.			
• Strongly disagree/disagree	68.9% (51)	80.9% (38)	12.0
• Unsure	16.2 % (12)	6.4% (3)	-9.8
• Strongly agree/ agree	14.9% (11)	12.8% (6)	-2.1
• Missing	(1)	(1)	
5. People with mental illnesses often don't try hard enough to get better.			
• Strongly disagree/disagree	73.3% (55)	70.8% (34)	-2.5
• Unsure	18.7% (14)	20.8 % (10)	2.1
• Strongly agree/ agree	8.0% (6)	8.3% (4)	0.3
• Missing	(0)	(0)	
6. People with a mental illness could snap out of it if they wanted to.			
• Strongly disagree/disagree	80.0% (60)	93.8% (45)	13.8
• Unsure	17.3 % (13)	4.2% (2)	-13.1
• Strongly agree/ agree	2.7 % (2)	2.1% (1)	-0.6
• Missing	(0)	(0)	
14. Most people with a mental illness get what they deserve.			
• Strongly disagree/disagree	77.5% (55)	91.7% (44)	14.2
• Unsure	18.3% (13)	8.3% (4)	-10.0
• Strongly agree/ agree	4.2% (3)	0.0% (0)	-4.2
• Missing	(4)	(0)	

Table 3 shows the stereotyped attributions for the recovery items. Again, prior to the intervention, the majority of respondents held positive (non-stereotypical) attitudes toward people with a mental illness on both items. At post-test, both showed positive change with the greatest change for the item “People with a mental illness need to be locked away” (a 15% positive change); this was the largest positive change realized for any one item. There was a 5% positive change for the item “Most people with a mental illness are too disabled to work.”

Table 3. Recovery Items

Stereotyped Attributions Items	Pre-test % (n=75)	Post-test % (n=48)	% Change
3. Most people with a mental illness are too disabled to work.			
• Strongly disagree/disagree	72.0% (54)	77.1% (37)	5.1
• Unsure	20.0 % (15)	8.3% (4)	-11.7
• Strongly agree/ agree	8.0% (6)	14.6 % (7)	6.6
• Missing	(0)	(0)	
15. People with serious mental illnesses need to be locked away.			
• Strongly disagree/disagree	66.2% (49)	81.3% (39)	15.1
• Unsure	20.3% (15)	16.7% (8)	-3.6
• Strongly agree/ agree	13.5% (10)	2.1% (1)	-11.4
• Missing	(1)	(0)	

Table 4 shows the stereotyped attributions for violence and unpredictability. All five items changed in a positive direction. The largest change was for the item “People with a mental illness often become violent if not treated.” On the post-test, 52% of respondents disagreed with the statement, reflecting a 14% improvement. The second highest positive shift was seen for the item “Most violent crimes are committed by people with a mental illness” with an 11% positive shift.

Table 4. Violence/Unpredictability Items

Stereotyped Attributions Items	Pre-test % (n=75)	Post-test % (n=48)	% Change
7. People with a mental illness are often more dangerous than the average person. • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing	53.3% (40) 24.0% (18) 22.7% (17) (0)	60.4 % (29) 20.8% (10) 18.8% (9) (0)	7.1 -3.2 -3.9
8. People with a mental illness often become violent if not treated. • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing	37.8% (28) 36.5% (27) 25.7% (19) (1)	52.1% (25) 22.9% (11) 25.0% (12) (0)	14.3 -13.6 -0.7
10. Most violent crimes are committed by people with a mental illness. • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing	53.4% (39) 31.5% (23) 15.1% (11) (2)	64.6% (31) 20.8% (10) 14.6% (7) (0)	11.2 -10.7 -0.5
11. You can't rely on someone with a mental illness. • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing	67.6% (50) 21.6% (16) 10.8% (8) (1)	70.8% (34) 10.4% (5) 18.8% (9) (0)	3.2 -11.2 8.0
12. You can never know what someone with a mental illness is going to do. • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing	30.1%(22) 27.4% (20) 42.5% (31) (2)	37.5% (18) 29.2% (14) 33.3% (16) (0)	7.4 1.8 -9.2

5.3 Expressions of Social Tolerance

Social tolerance items are shown in **Tables 5 and 6**. **Table 5** presents the items that relate to the expression of social distance. Prior to the intervention, the majority of students showed non-stigmatizing responses for all items but one, with positive responses ranging from 58% to 72%. Just over one quarter (28%) disagreed with the item that involved the most intimate social interaction prior to the intervention: “If I know someone had a mental illness I would not date them.”

All but one item shifted in a positive direction, showing increased tolerance at the post-test. The largest positive change was seen for the item “I would not want to be taught by a teacher who had been treated

for a mental illness. At baseline, 58% disagreed with this item. At the post-test, this increased to 79% indicating a 21% positive shift.

Table 5. Social Distance Items

Social Distance items	Pre-test % (n=75)	Post-test % (n=48)	% Change
18. I would be upset if someone with a mental illness always sat next to me in class. <ul style="list-style-type: none"> • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing 	63.5% (47) 24.3% (18) 12.2% (9) (1)	72.9% (35) 22.9% (11) 4.2 % (2) (0)	9.4 -1.4 -8.0
19. I would not be close friends with someone I knew had a mental illness. <ul style="list-style-type: none"> • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing 	71.6% (53) 21.6% (16) 6.8% (5) (1)	85.1% (40) 10.6% (5) 4.3% (2) (1)	13.5 -11.0 -2.5
20. (R) I would visit a classmate in hospital if they had a mental illness. <ul style="list-style-type: none"> • Strongly agree/ agree • Unsure • Strongly disagree/disagree • Missing 	68.9% (51) 25.7% (19) 5.4% (4) (1)	66.7% (32) 22.9% (11) 10.4% (5) (0)	-2.2 -2.8 5.0
21. I would try to avoid someone with a mental illness. <ul style="list-style-type: none"> • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing 	67.6 % (50) 20.3% (15) 12.2% (9) (1)	83.0% (39) 12.8% (6) 4.3% (2) (1)	15.4 -7.5 -7.9
22. (R) I would not mind it if someone with a mental illness lived next door to me. <ul style="list-style-type: none"> • Strongly agree/ agree • Unsure • Strongly disagree/disagree • Missing 	71.8% (51) 15.5% (11) 12.7 % (9) (4)	75.0% (36) 22.9% (11) 2.1% (1) (0)	3.2 7.4 -10.6
24. If I knew someone had a mental illness I would not date them. <ul style="list-style-type: none"> • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing 	28.4% (21) 41.9% (31) 29.7% (22) (1)	43.8% (21) 39.6% (19) 16.7% (8) (0)	15.4 -2.3 -13.0
25. I would not want to be taught by a teacher who had been treated for a mental illness. <ul style="list-style-type: none"> • Strongly disagree/disagree • Unsure • Strongly agree/ agree • Missing 	58.1% (43) 31.1% (23) 10.8% (8) (1)	79.2% (38) 14.6% (7) 6.3% (3) (0)	21.1 -16.5 -4.5

Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma.

Social responsibility items are presented in **Table 6**. Before the intervention, students were generally socially responsible when a time commitment was not involved, such as sticking up for someone who had a mental illness if they were being teased (83%) or telling a teacher a student was being bullied (83%). All items showed a positive shift on the post-test (7% to 10%), with the greatest improvement for the item “I would volunteer my time to work in a program for people with a mental illness.”

Table 6. Social Responsibility Items

Social Responsibility items	Pre-test % (n=75)	Post-test % (n=48)	% Change
28. (R) I would tell a teacher if a student was being bullied because of their mental illness. • Strongly agree/ agree • Unsure • Strongly disagree/disagree • Missing	74.3% (55) 14.9% (11) 10.8% (8) (1)	83.3% (40) 12.5% (6) 4.2 % (2) (0)	9.0 -2.4 -6.6
32. (R) I would stick up for someone who had a mental illness if they were being teased. • Strongly agree/ agree • Unsure • Strongly disagree/disagree • Missing	76.4% (55) 19.4% (14) 4.2% (3) (3)	83.3% (40) 12.5% (6) 4.2 % (2) (0)	6.9 -6.9 0.0
33. (R) I would tutor a classmate who got behind in their studies because of their mental illness. • Strongly agree/ agree • Unsure • Strongly disagree/disagree • Missing	65.8% (48) 19.2% (14) 15.1% (11) (2)	75.0% (36) 14.6% (7) 10.4% (5) (0)	9.2 -4.6 -4.7
34. (R) I would volunteer my time to work in a program for people with a mental illness. • Strongly agree/ agree • Unsure • Strongly disagree/disagree • Missing	42.5% (31) 31.5% (23) 26.0% (19) (2)	52.1% (25) 35.4% (17) 12.5% (6) (0)	9.6 3.9 -13.5
Note: (R) Signifies the item was reverse coded in the scale calculation. Higher scale scores reflect higher levels of stigma.			

6 PROGRAM SUCCESS

In order to provide an overall measure of the success of the intervention, we chose an a priori 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 1 shows the cumulative percent of the Stereotyped Attribution items reflecting non-stigmatizing responses. Prior to the intervention, 35% of students gave a non-stigmatizing response to at least 9 of the 11 questions (signifying an “A” grade). At post-test, this was 43% (reflecting an 8% improvement).

Figure 1. Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing Response

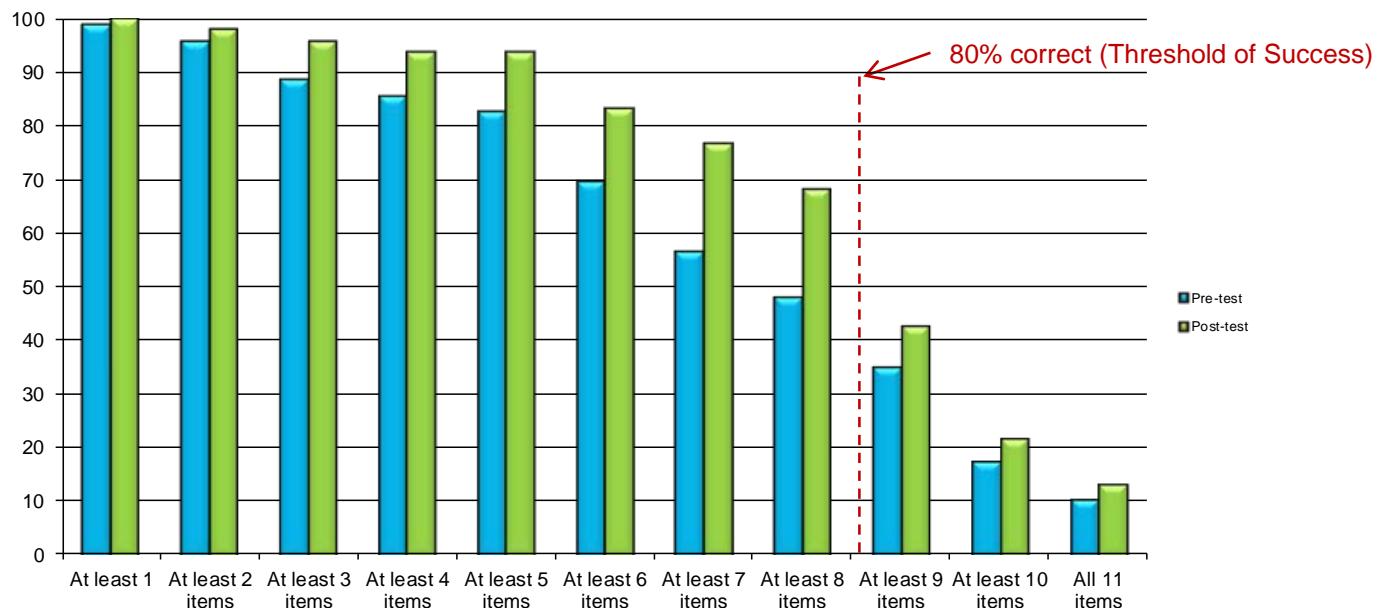
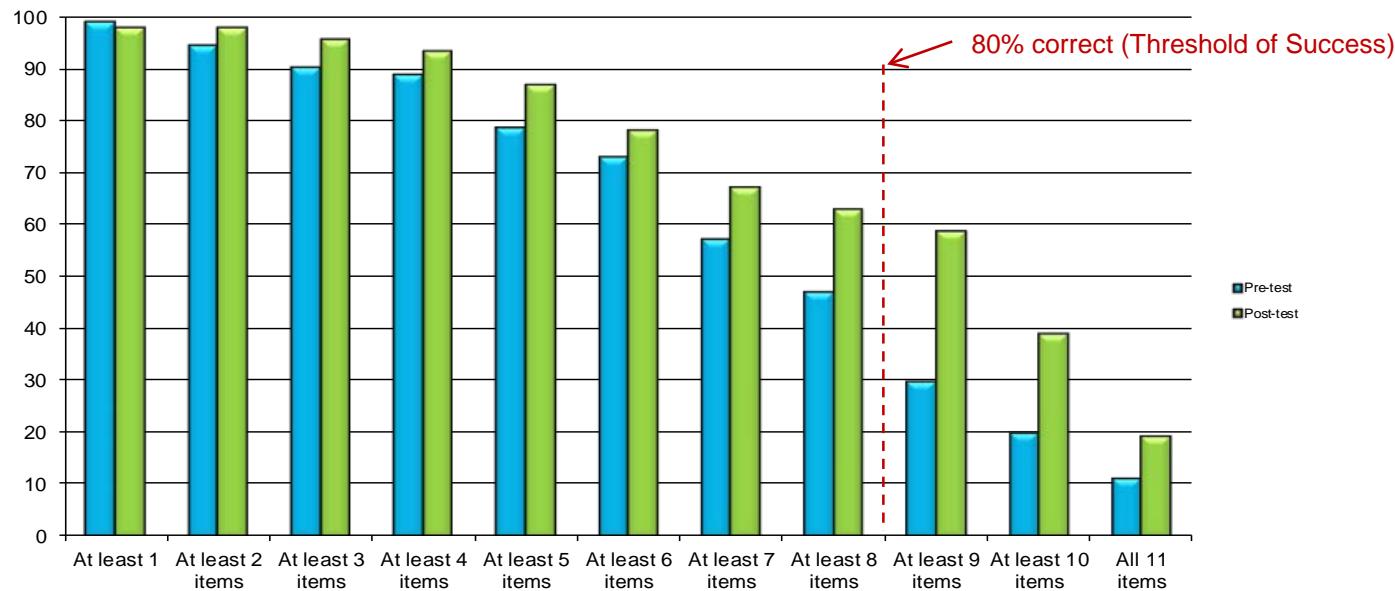


Figure 2 shows the cumulative percent of the Social Tolerance items reflecting non-stigmatizing responses. Prior to the intervention, 30% of students gave a non-stigmatizing response to at least 9 of the 11 questions (signifying an “A” grade). At post-test, this was 59% (reflecting a 29% improvement).

Figure 2. Cumulative Percent of Social Tolerance Scale Items Reflecting Non-stigmatizing Response



7 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 program achieved greater success in diminishing social tolerance (29% more students received an “A” grade at post-test) than expressions of stereotyped attitudes (8% more students received an “A” grade at post-test). The positive findings suggest that there are components of the program that work.

In addition, a small number of students continued to hold stigmatizing beliefs despite their participation; for example, one third did not disagree with the stigmatizing statement that people with mental illnesses often don’t try hard enough to get better. Program staff believe this could be attributed to the fact that the volunteer speakers identified that they were not able to work because of their mental health issues. Program staff feel this issue has not been addressed fully and may now change how the program is delivered to stress the point that “I still have a mental illness, but I now am managing well and am able to work or am moving toward being able to work.”

Responses to the item “You can’t rely on someone with a mental illness” also had a negative increase. Program staff feel they can reverse this result by clarifying in the presentation that although there were times when the individual speakers were not reliable (when they were ill), in order to come and speak with Beautiful Minds they needed to be able to make a commitment and keep it, and therefore now consider themselves reliable.

There was quite a positive increase in most of the social distance items. Program staff believe this is due to the presenters themselves and the training they receive. The training allows speakers the opportunity to practice telling their story. Speakers say that interacting with the students provides them with the confidence and skills to present themselves as well and competent. One criterion Beautiful Minds follows is that the speakers have to be in a place of recovery in order to go out and speak. The relationship between the facilitator and the speakers maintains this principle as well as the communication channels. If they are not doing well, the person takes a break from speaking until they are feeling well again. This can provide a real message of hope about recovery from mental illness, and that people are worthwhile and can make meaningful contributions to society.

Positive change was seen for all the social responsibility items. Program staff attribute this to the compassion that can be fostered when people meet other people who have a mental health issue. The storytelling aspect of moving from being very unwell to being well, and the personal rapport that develops between the volunteer speaker, facilitator, and students is vital. The format of the presentation and the appropriate storytelling helps students realize they can make a positive difference to people with a mental illness. Instead of avoiding or making fun of people living with a mental health issue, students can help them cope with the illness.

Finally, the facilitator of Beautiful Minds is open about sharing with students at appropriate times that she has a history of mental health problems. She has played the role of someone capable of organizing and delivering a program, and as such decreases the students’ need to maintain a comfortable distance from her, therefore reducing social distance.

Appendix A: Beautiful Minds Tabular Results

Percent Non-Stigmatizing Endorsement of Stereotyped Items

	Pre-test % (n=69)	Post-test % (n=47)
None	1.3% (1)	0.0% (0)
At least 1	98.6% (74)	100.0% (48)
At least 2 items	95.7% (66)	97.9% (46)
At least 3 items	88.4% (61)	95.7% (45)
At least 4 items	85.5% (59)	93.6% (44)
At least 5 items	82.6% (57)	93.6% (44)
At least 6 items	69.6% (48)	83.0% (39)
At least 7 items	56.5% (39)	76.6% (36)
At least 8 items	47.8% (33)	68.1% (32)
At least 9 items	34.8% (24)	42.6% (20)
At least 10 times	17.4% (12)	21.3% (10)
All 11 times	10.1% (7)	12.8% (6)

Percent Non-Stigmatizing of Endorsement of Social Tolerance Items

	Pre-test % (n=75)	Post-test % (n=48)
None	1.3% (1)	2.1% (1)
At least 1	98.6% (69)	97.8% (45)
At least 2 items	94.3% (66)	97.8% (45)
At least 3 items	90.0% (63)	95.7% (44)
At least 4 items	88.6% (62)	93.5% (43)
At least 5 items	78.6% (55)	87.0% (40)
At least 6 items	72.9% (51)	78.3% (36)
At least 7 items	57.1% (40)	67.4% (31)
At least 8 items	47.1% (33)	63.0% (29)
At least 9 items	30.0% (21)	58.7% (27)
At least 10 times	20.0% (14)	39.1% (18)
All 11 times	11.4% (8)	19.6% (9)