Mental Health Commission of Canada

Commission de la santé mentale du Canada

Opening Minds in High School:

Results of a Video-based Anti-stigma Intervention

Clé56 / Key 56

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The authors wish to thank the schools, teachers, staff, students, Alexandre Hamel (director of Key 56) and General Direction of Louis-H. Lafontaine Hospital, who participated in this project, and persons with mental illness who accepted to share their lives with sincerity and truth.

1 OPENING MINDS: CHANGING HOW WE SEE MENTAL ILLNESS

As part of its 10-year mandate, The Mental Health Commission of Canada (MHCC) embarked on an anti-stigma initiative called Opening Minds (OM) to change the attitudes and behaviours of Canadians towards people with a mental illness. OM is the largest systematic effort undertaken in Canadian history to reduce the stigma and discrimination associated with mental illness. OM is taking a targeted approach, initially reaching out to healthcare providers, youth, the workforce, and media. OM's philosophy is not to reinvent the wheel, but rather to build on the strengths of existing programs from across the county. As a result, OM has actively sought out such programs, few of which have been scientifically evaluated for their effectiveness. Now partnering with over 80 organizations, OM is conducting evaluations of the programs to determine their success at reducing stigma. OM's goal is to replicate effective programs nationally. A key component of programs being evaluated is contact-based educational sessions, where target audiences hear personal stories from and interact with individuals who have recovered or are successfully managing their mental illness. The success of contact-based anti-stigma interventions has been generally supported throughout international studies as a promising practice to reduce stigma. Over time, OM will add other target groups.

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 of Canada'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 having people who have experienced a mental illness educate students by telling their personal stories and allowing time for active discussion. In some cases, teacher lesson plans accompany the classroom presentations.

This is a non-technical report that is meant to provide programs with an overview of their key evaluation results. A subsequent initiative will examine program components in depth in order to highlight the active ingredients that are associated with the largest change. An appendix is provided containing additional tabular data.

3 PROGRAM DESCRIPTION

Clé56/Key 56 is a video-based anti-stigma program. The Hôpital Louis-H. Lafontaine set the goal "talking about mental health to fight prejudice" in summer 2009, when the hospital gave a young filmmaker, Alexandre Hamel, the opportunity to shoot a series of videos at the hospital. The result was a bold project with a human face: Clé56, which refers to the skeleton key that accesses all care units. The Clé56.com project is the filmmaker's vision of our psychiatric hospital. His point of view is original and subjective, but he does not pretend to encompass the full reality of mental health.

Alexandre was given carte blanche! For eight weeks, he went where he wanted, when he wanted. He got two instructions. The first was to respect the wishes of users and staff members who did not want to participate in the project. The second was never to hesitate to ask questions—and as many questions as he wanted—if he encountered a situation that he did not understand. The people in the videos gave their consent to be filmed, whether they were service users, employees or doctors. Service users gave their consent during treatment and after being discharged from the hospital. Treating teams and family members were also consulted to establish the person's capacity to consent.

Above all, these videos highlight the process that people go through towards recovery, with the inevitable highs and lows. They also show the support provided by the teams of doctors and professionals and include informative segments on mental health, treatment, medication and more.

Before launching the Clé56 videos, focus groups with staff members from the hospital, representatives from community organizations and people living with mental health disorders were held. These meetings allowed us to get their opinion on the project and make a few corrections to the videos to facilitate understanding for the general public.

The Clé56 project won many awards and honours, such as "Leading Practice" awarded by Accreditation Canada in 2010, and reached over 100,000 people. Further details are available at www.cle56.com.

For the school-based anti-stigma program, first the teachers or staff members asked the young people in the groups to fill out the first questionnaire. One week later, the Clé56 videos were screened for these same groups. Finally, one week after the screening, they were asked to fill out the second questionnaire. Neither the director, Alexandre Hamel, nor people with mental health disorders or staff members from Hôpital Louis-H. Lafontaine talked with these groups following the screening.

4 APPROACH TO DATA COLLECTION

Students were surveyed before and after the video-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 sample with a pre-test Cronbach's alpha of 0.78 for the Stereotype Scale and 0.85 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.

5 RESULTS

5.1 Sample Characteristics

One hundred and sixty five students completed both the pre-test and post-test surveys. The characteristics of the students are presented in Table 1. The majority (62.4%) were 15 years old. Half (50.9%) were male. On the pre-test, just over half (54.1%) of the students indicated they knew someone with a mental illness but only 2.5% indicated that they had a mental illness.

Table 1. Sample Characteristics for those who Completed both the Pre- and Post-test

Characteristic	% (n) (n=165)
Gender	
• Male	50.9% (82)
• Female	49.1% (79)
• Missing	-- (4)
Age	
• 13	1.2% (2)
• 14	1.8% (3)
• 15	62.4%(103)
• 16	26.3% (39)
• 17	9.1% (15)
• 18+	1.8%(3)
• Missing	--(0)
Contact – Pre-test: Does someone you know have a mental illness (multiple responses accepted)	
• No	28.9% (46)
• Uncertain	17.0% (27)
• Close friend	10.7% (17)
• Family member	18.9% (30)
• Somebody else	27.0% (43)
• I do	2.5% (4)
• Missing	-- (6)

5.2 Stereotype Attributions

At the time of the pre-test, the majority of respondents held positive (non-stereotypical) attitudes toward people with a mental illness in terms of the controllability items. For example, before the intervention, students tended to disagree with the common stereotypes that people with a mental illness get what they deserve (92% disagreed) or that they tend to bring it on themselves (86% disagreed). Seventy-two percent disagreed that people with mental illness often don't try hard enough to get better and just over two thirds (70%) disagreed they could snap out of it if they wanted to. However, responses to items measuring dangerousness, violence and predictability were not as positive. Only 18% disagreed with the stereotype that you can never know what someone with a mental illness is going to do, and only 23% 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" (29.1% improvement). Many of the students (43.0%-72.2%) did not change

scores; this 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 showed negative change ranging from 17.1% to 36.7%. The greatest negative shift was seen for "People with a mental illness could snap out of it if they wanted to" (36.7% reporting a more stigmatizing result). Please refer to **Appendix A** for specifics.

Figure 1. Proportion of Students who made any Change on the Likert Scale from Pre-test to Post-test – Controllability Items (n=150 pre-test/post-test pairs)

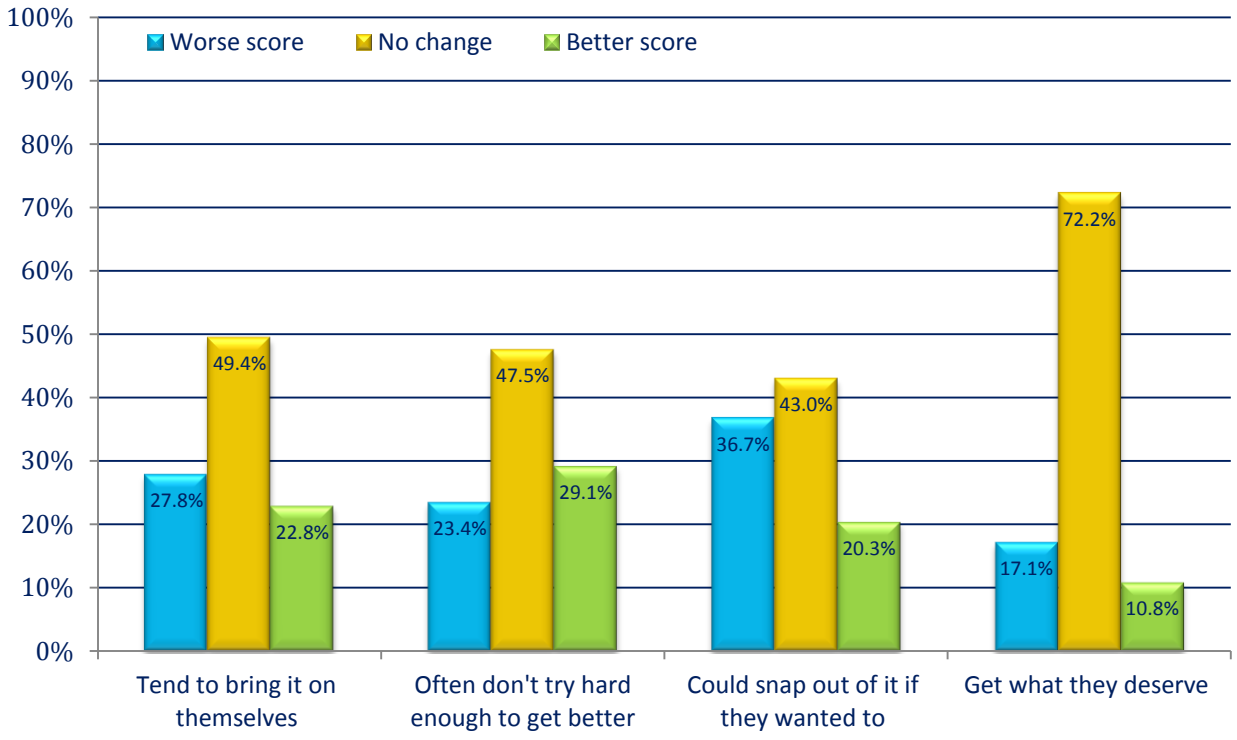


Figure 2 shows the proportion of students who made any change on the recovery items. Almost half (46.8%) improved on the item "Most people with a mental illness are too disabled to work." This was the largest improvement on any single item. Just over one quarter (26.7%) improved on the item "People with 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 (15.1%) showed a negative change (became more stigmatizing) on the item "People with mental illness are too disabled to work," but just over one third (34.8%) showed a negative change (became more stigmatizing) on the item "People with a mental illness need to be locked away." Please refer to **Appendix A** for specifics.

Figure 2. Proportion of Students who made any Change on the Likert Scale from Pre-test to Post-test – Recovery Items (n=158 pre-test/post-test pairs)

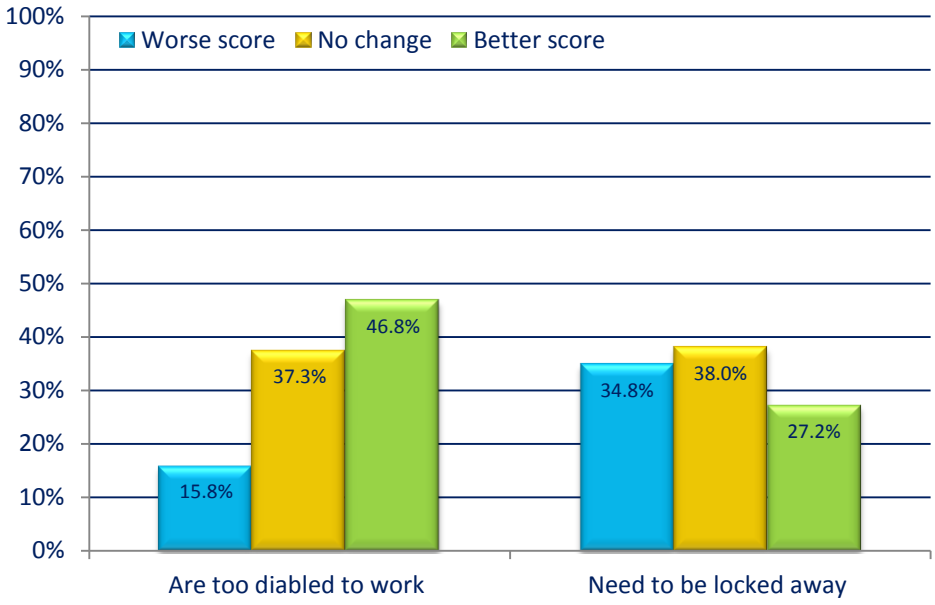
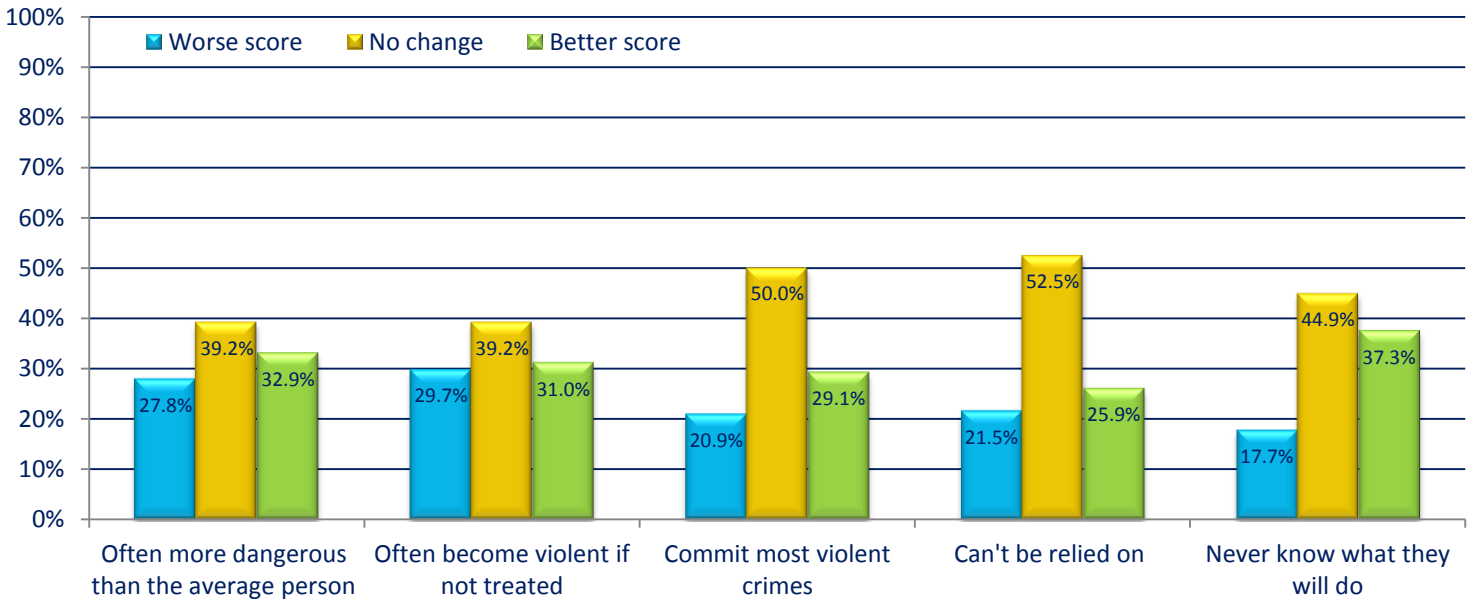


Figure 3 shows the proportion of students who made any change on the items dealing with violence and unpredictability. All showed an improvement of 25% or more. The greatest improvement was for the items "You can never know what someone with a mental illness is going to do" (37.3% improvement) and "People with a mental illness are often more dangerous than the average person" (32.9% 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. Negative change (became more stigmatizing) was also seen ranging from 17.7% for the item "You can never know what someone with a mental illness will do" to 29.7% for the item "People with a mental illness often become violent if not treated." Please refer to **Appendix A** 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=158 pre-test/post-test pairs)

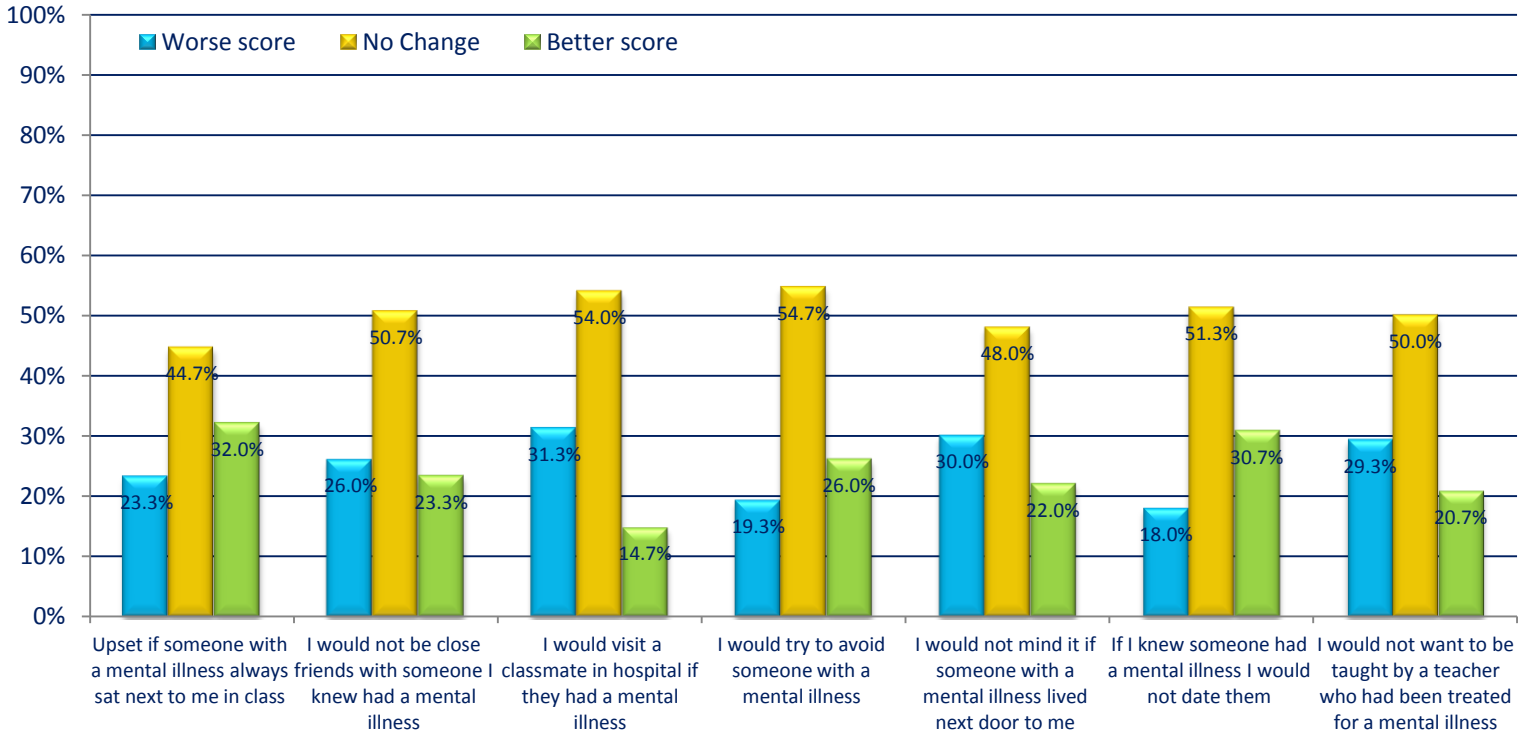


5.3 Expressions of Social Distance

Prior to the intervention, students showed generally positive, non-stigmatizing responses to six of the seven social distance items. For example, 73% disagreed with the statement "I would not be close friends with someone I knew had a mental illness" and 73% agreed with the statement "I would visit a classmate in the hospital if they had a mental illness." For the item that involved the most intimate social interaction, "If I knew someone had a mental illness I would not date them," only one quarter (28%) gave a positive non-stigmatizing response (disagreed with the statement). See **Appendix A** for detailed tables.

Figure 4 shows the proportion of students who made any change on the social distance items. Following the intervention, there was a 32.0% improvement for the item "I would be upset if someone with a mental illness always sat next to me in class," followed by a 30.7% 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. The proportion of students (13.5%-21.6%) who showed a negative change (became more stigmatizing) ranged from 18.0% for "If I knew someone had a mental illness I would not date them" to 31.3% for "I would visit a classmate in the hospital if they had a mental illness" (see **Appendix A**).

Figure 4. Proportion of Students who made any Change on the Likert Scale from Pre-test to Post-test – Social Distance Items (n=150 pre-test/post-test pairs)



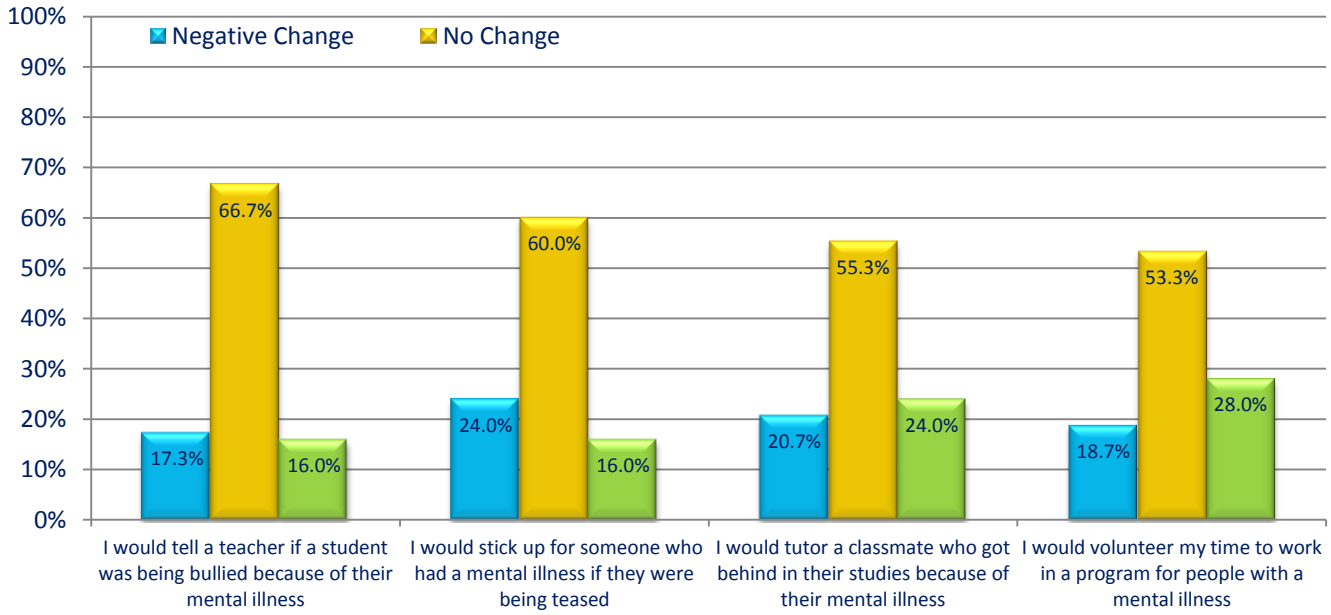
5.4 Social Responsibility

Before the program intervention, students were generally socially conscious when less intimate contact was involved; eighty-seven percent said they "would tell a teacher if a student was being bullied because of their mental illness" and 80% percent said "they would stick up for someone who had a mental illness if they were being teased." But when more contact and effort was involved, for example "I would tutor a classmate who got behind because of their mental illness" or "I would volunteer my time to work in a program for people with a mental illness," students were less positive with only 48.0% and 38.7% agreement, respectively.

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 proportion of students (17.3% to 24.0%) showed a negative change (became more stigmatizing), with the biggest negative change being

for the item "I would stick up for someone who had a mental illness if they were being teased." (See Appendix A).

Figure 5. Proportion of Students who made any Change on the Likert Scale from Pre-test to Post-test – Social Responsibility Items (n=150 pre-test/post-test pairs)



5.5 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 cut-off 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 and 7 show the cumulative percent of items reflecting non-stigmatizing responses. Prior to the intervention, 20% of students gave a non-stigmatizing response to at least 9 of the 11 stereotype items (reflecting 80% correct) and 29% to at least 9 of the 11 social tolerance items (reflecting 80% correct). At post-test, these had increased to 28% (reflecting a 8% improvement overall) and 31%, respectively (reflecting a 2% improvement overall).

Figure 6. Cumulative Percent of Stereotype Scale Items Reflecting Non-stigmatizing Response (n=158)

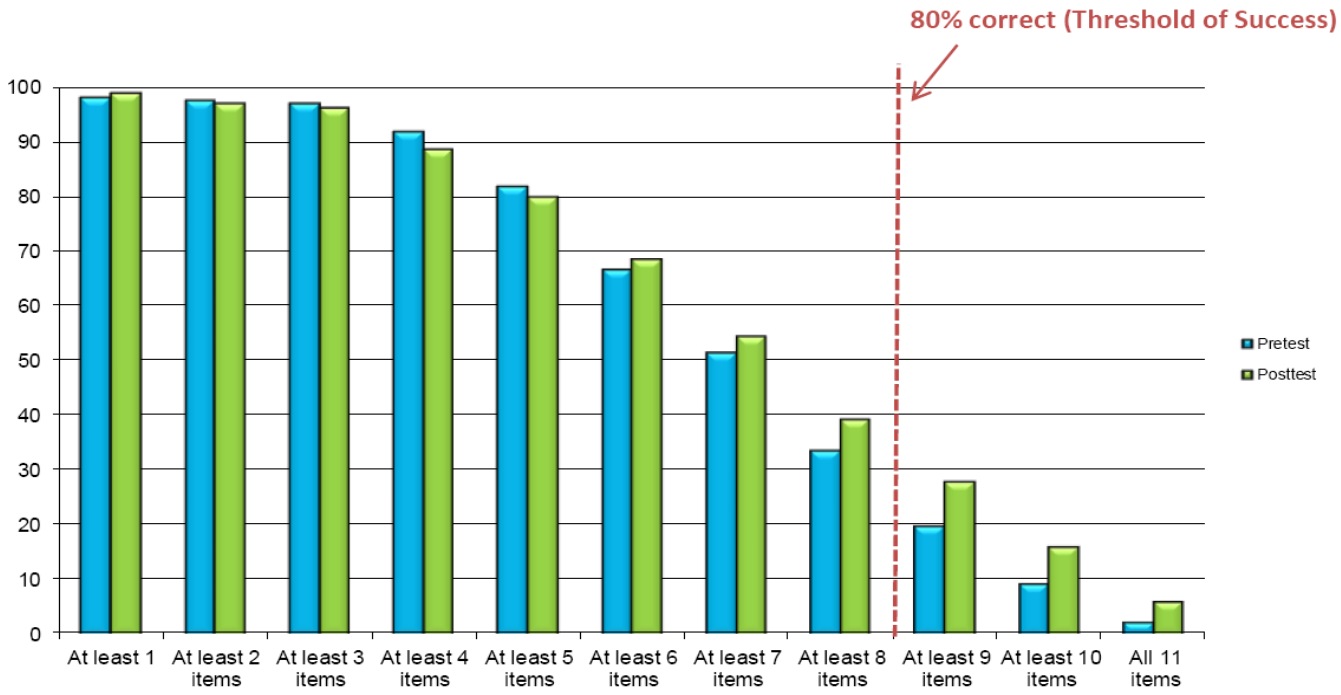
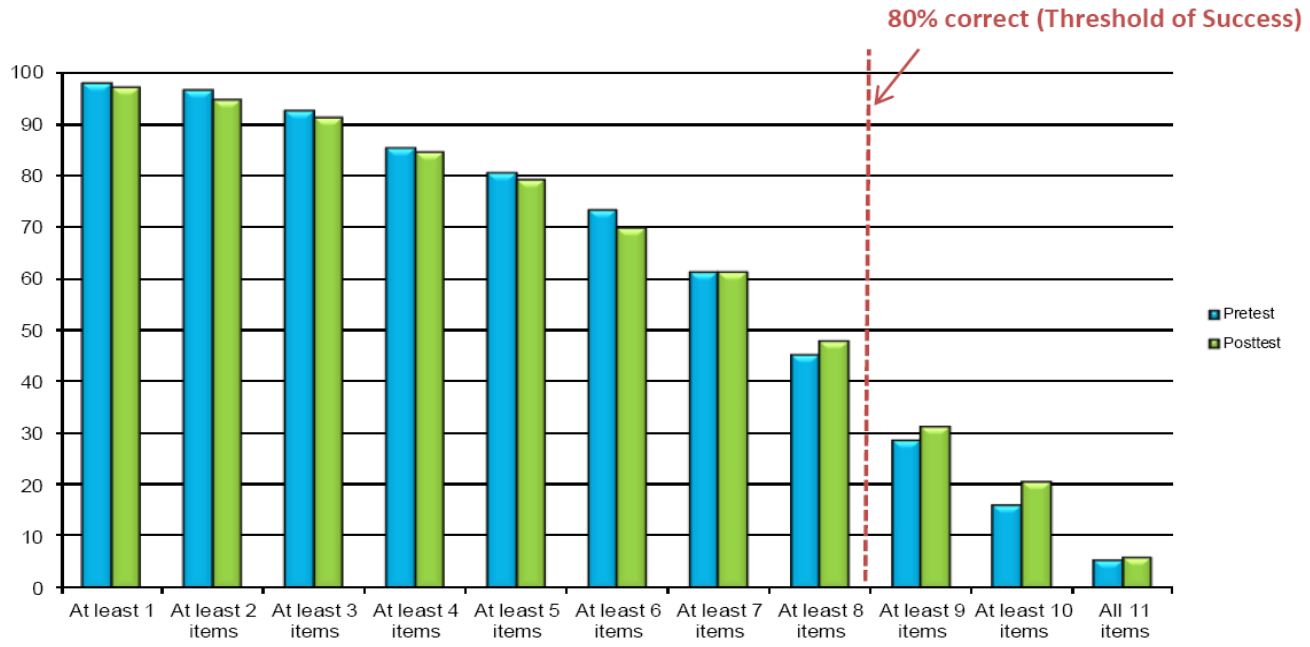
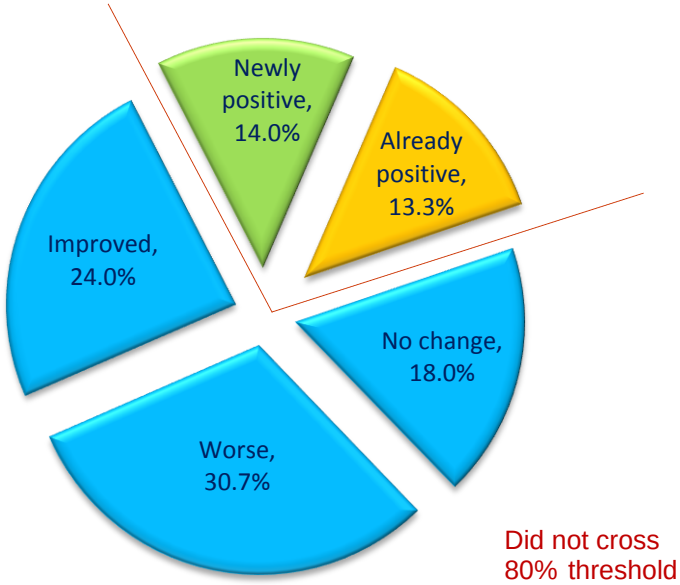


Figure 7. Cumulative Percent of Tolerance Items Reflecting Non-stigmatizing Response (n=150)



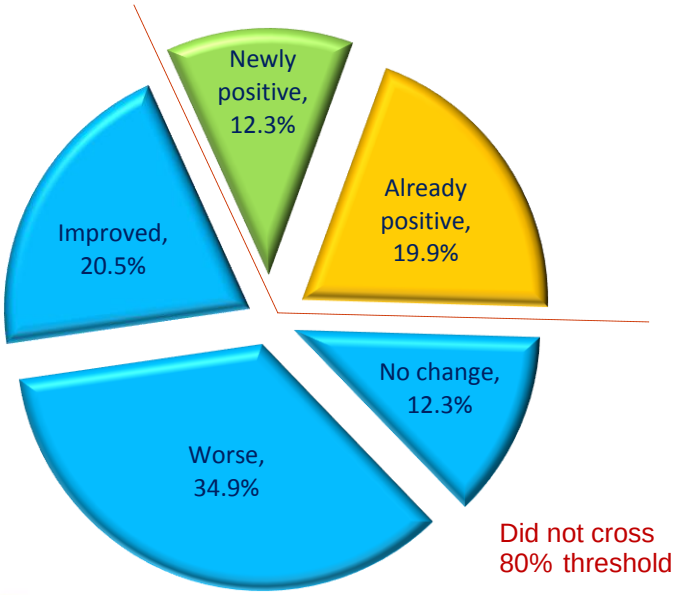
Figures 8 and 9 show the change in stereotype and social tolerance scale scores. Prior to the intervention, more respondents were positive (80% threshold, 9 out of 11 positive responses) on the tolerance scale (19.9%) compared to the stereotype scale (13.3%). After the intervention, the percent that improved their attitudes by crossing the 80% threshold was 14.0% (stereotype scale) and 12.3% (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=154)



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=146)



5 CONCLUSION

This paper describes the results of a video-based anti-stigma intervention provided to high school students. The evaluation results demonstrate that a video-based approach works to reduce the stigma that high school students hold about those dealing with mental illnesses. Overall, students demonstrated an improvement of between 10-50% positive changes. In addition, the results show that this program was successful in improving the proportion of students who got 80% of the answers correct (14% and 12.3%), thus receiving an A grade, on the tests used to assess social stereotypes and social tolerance.

The fact that Clé56 is on the web will ensure the project's longevity. In contrast to a TV series or documentary, the Clé56 videos are available at all times for an unlimited amount of time. Other strengths of this program include involvement of real people and their true daily realities, showing frank reality without judgment. Because of the true story and the real life without a filter or screenplay, the audience becomes attached to the people in the videos and wants to know what happens to them.

In light of the study results, it seems that a number of awareness initiatives need to be combined to fight prejudices surrounding people with a mental health disorder. If people watch the videos, attend talks and learn to recognize someone with a mental illness, they have more chances of changing how they think and becoming ambassadors for the demystification of mental illness. Therefore, combining the screening of the Clé56 videos with an in-class visit of the director, people starring in the videos and/or people with lived experience who could lead a discussion and answer questions would further improve the study outcomes.

Inspired by the success of Clé56, the hospital team wanted to maintain this momentum and present the reality of the institution through videos on daily life at the external resources. Today, mental health is often a dimension of life outside hospital walls – in regular society and in our own neighbourhoods. More than 1500 people live in the community in residential rehabilitation resources managed by staff from Hôpital Louis-H. Lafontaine. Through the lives of people at the Petite-Patrie and Viau residences, Alexandre Hamel showed yet another reality of mental health in the "Maisons de fous" and "Foliewood" projects. His work pays eloquent homage to the courage and determination of service users. These projects also depict the admirable work that mental health staff carry out on a daily basis. They agreed to spend several months in front of a camera as they went about their jobs. Their patience resulted in this wonderful testimonial not only to their work but also to the struggle of these residents along the path to recovery.

Appendix A

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 into controllability of illness, potential for recovery and potential for violence and unpredictability.

Stigma Stereotype Results

Controllability Items

Stereotyped Attributions Items	Pre-test % (n=158)	Post-test % (n=158)	% Change
4. People with a mental illness tend to bring it on themselves.			
• Strongly disagree/disagree	86.1% (136)	85.4% (135)	-0.7
• Unsure	10.8 % (17)	9.5% (15)	-1.3
• Strongly agree/ agree	3.2% (5)	5.1% (8)	1.9
5. People with mental illnesses often don't try hard enough to get better.			
• Strongly disagree/disagree	71.5% (113)	75.3% (119)	3.8
• Unsure	23.4% (37)	17.1 % (27)	-6.3
• Strongly agree/ agree	5.1% (8)	7.6% (12)	2.5
6. People with a mental illness could snap out of it if they wanted to.			
• Strongly disagree/disagree	69.6% (110)	62.7% (99)	-6.9
• Unsure	22.2 % (35)	21.5% (34)	-0.7
• Strongly agree/ agree	8.2 % (13)	15.8% (25)	7.6
14. Most people with a mental illness get what they deserve.			
• Strongly disagree/disagree	92.4% (146)	91.8%(145)	-0.6
• Unsure	4.4% (7)	6.3% (10)	1.9
• Strongly agree/ agree	3.2% (5)	1.9% (3)	-1.3

Recovery Items

Stereotyped Attributions Items	Pre-test % (n=158)	Post-test % (n=158)	% Change
3. Most people with a mental illness are too disabled to work.			
• Strongly disagree/disagree	51.3% (81)	68.4% (108)	17.1
• Unsure	36.1% (57)	21.5% (34)	-14.6
• Strongly agree/ agree	12.7 % (20)	10.1 % (16)	-2.6
15. People with serious mental illnesses need to be locked away.			
• Strongly disagree/disagree	64.6% (102)	58.2% (92)	-6.4
• Unsure	22.2% (35)	25.3% (40)	3.1
• Strongly agree/ agree	13.3% (21)	16.5% (26)	3.2

Violence/Unpredictability Items

Stereotyped Attributions Items	Pre-test % (n=158)	Post-test % (n=158)	% Change
7. People with a mental illness are often more dangerous than the average person.			
• Strongly disagree/disagree	41.1% (65)	44.3 % (70)	3.2
• Unsure	33.5% (53)	29.7% (47)	-3.8
• Strongly agree/ agree	25.3% (40)	25.9% (41)	0.6
8. People with a mental illness often become violent if not treated.			
• Strongly disagree/disagree	23.4% (37)	24.7% (39)	1.3
• Unsure	45.6% (72)	42.4% (67)	-3.2
• Strongly agree/ agree	31.0% (49)	32.9% (52)	1.9
10. Most violent crimes are committed by people with a mental illness.			
• Strongly disagree/disagree	62.7% (99)	68.4% (108)	5.7
• Unsure	24.1% (38)	21.5% (38)	-2.6
• Strongly agree/ agree	13.3% (21)	10.1% (7)	-3.2
11. You can't rely on someone with a mental illness.			
• Strongly disagree/disagree	66.5% (105)	71.5% (113)	5.0
• Unsure	27.2% (43)	24.1% (38)	-3.1
• Strongly agree/ agree	6.3% (10)	4.4% (7)	-1.9
12. You can never know what someone with a mental illness is going to do.			
• Strongly disagree/disagree	18.4%(29)	20.9% (33)	2.5
• Unsure	26.6% (42)	39.9% (63)	13.3
• Strongly agree/ agree	55.1% (87)	39.2% (62)	-15.9

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	27.8% (44)	49.4% (78)		22.8% (36)	χ2 = 1.4; df = 3; p=.696
		1.9% (2)	47.5% (75)		
5 People with mental illnesses often don't try hard enough to get better	23.4% (37)	47.5% (75)		29.1% (46)	χ2 =3.7; df = 3; p=.299
		8.2% (13)	39.2% (62)		
6 People with a mental illness could snap out of it if they wanted to	36.7% (58)	43.0% (68)		20.3% (218)	χ2 =6.1; df = 3: p=.107
		13.9% (22)	29.1% (46)		
14 Most people with a mental illness get what they deserve	17.1% (81)	72.2% (114)		10.8% (17)	χ2 =2.1; df = 3; p=.550
		2.5% (4)	69.6% (110)		
Recovery Items					
3 Most people with a mental illness are too disabled to work	15.8% (25)	37.3% (59)		46.8% (74)	χ2 =15.6;df = 3; p=.001
		10.8% (17)	26.6% (42)		
15 People with serious mental illnesses need to be locked away	34.8% (55)	38.0% (60)		27.2% (43)	χ2 =2.3;df =3 ; p=.508
		12.0% (19)	25.9% (41)		
Violence/Unpredictability Items					
7 People with a mental illness are often more dangerous than the average person	27.8% (44)	39.2% (62)		32.9% (52)	χ2= 0.9; df = 3; p=.825
		25.3% (40)	13.9% (22)		
8 People with a mental illness often become violent if not treated	29.7% (47)	39.2% (62)		31.0% (49)	χ2 =0.6; df =3; p=.887
		33.5% (53)	9% (5.7)		
10 Most violent crimes are committed by people with a mental illness	20.9% (33)	50.0% (79)		29.1% (46)	χ2 =2.2; df =3; p=.527
		12.7% (20)	37.3% (59)		
11 You can't rely on someone with a mental illness	21.5% (34)	52.5% (83)		25.9% (41)	χ2 =3.5; df =3; p=.323
		12.7% (20)	39.9% (63)		
12 You can never know what someone with a mental illness is going to do	17.7% (28)	44.9% (71)		37.3% (59)	χ2 =12.3; df 3=; p=.007
		38.6% (61)	6.3% (10)		

Notes:

- Base size is those who responded to all the pre-test and post-test items (n=158)
- 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
- Positive change does not necessary imply non stigmatizing response.

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)

Social Tolerance Results

Social Distance Items

Stereotyped Attributions Items	Pre-test % (n=150)	Post-test % (n=150)	% Change
18. I would be upset if someone with a mental illness always sat next to me in class.			
• Strongly disagree/disagree	58.0% (87)	59.3% (89)	1.3
• Unsure	25.3% (38)	24.7% (37)	-0.6
• Strongly agree/ agree	16.7% (25)	16.0 % (24)	-0.7
19. I would not be close friends with someone I knew had a mental illness.			
• Strongly disagree/disagree	73.3% (110)	72.0% (108)	-1.3
• Unsure	18.7% (28)	23.3% (35)	4.6
• Strongly agree/ agree	8.0% (12)	4.7% (7)	-3.3
20. (R) I would visit a classmate in hospital if they had a mental illness.			
• Strongly agree/ agree	72.7% (109)	70.0% (105)	-2.7
• Unsure	18.0% (27)	19.3% (29)	1.3
• Strongly disagree/disagree	9.3% (14)	10.7% (16)	1.4
21. I would try to avoid someone with a mental illness.			
• Strongly disagree/disagree	71.3 % (107)	74.7% (112)	3.4
• Unsure	18.7% (28)	19.3% (29)	0.6
• Strongly agree/ agree	10.0% (15)	6.0% (9)	-4.0
22. (R) I would not mind it if someone with a mental illness lived next door to me.			
• Strongly agree/ agree	63.3% (95)	56.7% (85)	-6.6
• Unsure	19.3% (29)	20.0% (30)	0.7
• Strongly disagree/disagree	17.3 % (26)	23.3% (35)	6.0
24. If I knew someone had a mental illness I would not date them.			
• Strongly disagree/disagree	26.7% (4)	30.7 % (46)	4.0
• Unsure	38.7% (58)	43.3% (65)	4.6
• Strongly agree/ agree	34.7% (52)	26.0% (39)	-8.7
25. I would not want to be taught by a teacher who had been treated for a mental illness.			
• Strongly disagree/disagree	64.0% (96)	62.7% (94)	-1.3
• Unsure	24.0% (36)	24.7% (37)	0.7
• Strongly agree/ agree	12.0% (18)	12.7% (19)	0.7
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=150)	Post-test % (n=150)	% Change
28. (R) I would tell a teacher if a student was being bullied because of their mental illness.			
• Strongly agree/ agree	86.7% (130)	87.3% (131)	0.6
• Unsure	10.7% (16)	10.0% (15)	-0.7
• Strongly disagree/disagree	2.7% (4)	2.7 % (4)	0.0
32. (R) I would stick up for someone who had a mental illness if they were being teased.			
• Strongly agree/ agree	80.7% (121)	76.0% (114)	-4.7
• Unsure	16.0% (24)	19.3 % (29)	3.3
• Strongly disagree/disagree	3.3% (5)	4.7% (7)	1.4
33. (R) I would tutor a classmate who got behind in their studies because of their mental illness.			
• Strongly agree/ agree	48.0% (72)	53.3% (80)	5.3
• Unsure	37.3% (56)	31.3% (47)	-6.0
• Strongly disagree/disagree	14.7% (22)	15.3% (23)	0.6
34. (R) I would volunteer my time to work in a program for people with a mental illness.			
• Strongly agree/ agree	38.7% (58)	42.0% (63)	3.3
• Unsure	39.3% (59)	40.7% (61)	1.4
• Strongly disagree/disagree	22.0% (33)	17.3% (26)	-4.7
Note: (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	23.3% (35)	44.7% (67)		32.0% (48)	χ2 = 1.8; df =3; p=.623
		15.3% (23)	29.3% (44)		
19 I would not be close friends with someone I knew had a mental illness	26.0% (39)	50.7% (76)		23.3% (35)	χ2 =2.9; df =3; p=.413
		11.3% (17)	39.3% (59)		
(R)20 I would visit a classmate in hospital if they had a mental illness	31.3% (47)	54.0% (81)		14.7% (22)	χ2 =0.7; df =3; p=.869
		14.0% (21)	40.0% (60)		
21 I would try to avoid someone with a mental illness	19.3% (29)	54.7% (82)		26.0% (39)	χ2 =3.7 df =3; p=.296
		12.0% (18)	42.7% (64)		
22 (R) I would not mind it if someone with a mental illness lived next door to me	30.0% (45)	48.0% (72)		22.0% (33)	χ2 =3.3; df =3; p=.344
		18.7% (28)	29.3% (44)		
24If I knew someone had a mental illness I would not date them	18.0% (27)	51.3% (77)		30.7% (46)	χ2 =7.2; df =3; p=.067
		39.3% (59)	12.0% (18)		
25 I would not want to be taught by a teacher who had been treated for a mental illness	29.3% (44)	50.0% (75)		20.7% (31)	χ2 =0.3; df =3; p=.986
		18.0% (27)	32.0% (48)		
Social Responsibility Items					
28 (R) I would tell a teacher if a student was being bullied because of their mental	17.3% (26)	66.7% (100)		16.0% (24)	χ2 =3.6; df =3; p=.308
		5.3% (8)	61.3% (92)		
32 (R) I would stick up for someone who had a mental illness if they were being teased	24.0% (26)	60.0% (90)		16.0% (24)	χ2 =2.9 df =3; p=..402
		11.3% (17)	48.7% (73)		
33(R) I would tutor a classmate who got behind in their studies because of their mental illness	20.7% (31)	55.3% (83)		24.0% (36)	χ2 =3.4; df =3; p=.331
		23.3% (35)	32.0% (48)		
34(R) I would volunteer my time to work in a program for people with a mental illness	18.7% (28)	53.3% (80)		28.0% (42)	χ2 =2.8; df =3; p=.421
		31.3% (47)	22.0% (33)		

Notes:

- Base size is those who responded to all the pre-test and post-test items (n=150)
- 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
- Positive change does not necessary imply non stigmatizing response.

	Already positive % (n)	Positive Change % (n)	Did Not Cross 80% Threshold % (n)
Stereotype scale score (n=154)	**13.3% (20)**	**14.0% (21)**	**72.7% (109)**
Social tolerance scale score (n=146)	**19.9% (29)**	**12.3 % (18)**	**67.8% (99)**
Notes: To adjust for regression to the mean, pretest outliers (those whose pretest scale scores were over 2 standard deviations beyond the mean) where omitted from this analysis.			