Mental Health Commission of Canada
Commission de la santé mentale du Canada

U of A OT Client-Educator Program

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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). This initiative aims to reduce stigma and discrimination associated with mental illness by changing attitudes and behaviours towards it. OM is the largest systematic effort undertaken in Canadian history. Its staged and targeted approach involves 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 anti-stigma programs from across the country. Accordingly, 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 programs to determine their success at reducing stigma, and based on these findings will formulate recommendations for effective programs that can be replicated and implemented nationally. A key component of programs being evaluated is contact-based education, 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.

1.1 Opening Minds and the Client-Educator Initiative

In the spring of 2009, Opening Minds issued a Request for Interest (RFI), seeking existing programs working to reduce stigma among its initial target groups of healthcare providers and youth. The Client-Educator Initiative from the Department of Occupational Therapy at the University of Alberta – a contact-based anti-stigma initiative for occupational therapy students – responded to this RFI and entered a partnership with Opening Minds. The Client-Educator Initiative has been a required element of an introductory course in mental health for occupational therapy (OT) students at the University of Alberta since 2007. While this initiative has been considered successful (based on both student and client-educator feedback), no formal evaluation had been undertaken until now.

2 BACKGROUND

2.1 Description of the Client-Educator Initiative

The Client-Educator Initiative was inspired by the LEARNING FROM EXPERIENCE manual produced in the UK for the Mental Health in Higher Education group by Tew, Gell, and Foster (2004)[1], as well as by the course instructor's professional and personal experiences. The initiative is part of a first year graduate-level course about occupational therapy in mental health. As part of the contact-based approach, the course instructor recruits individuals with lived experience of mental health problems and illnesses in the community to act as paid teaching assistants in the course. These teaching assistants are described as "Client-Educators" and work with students in groups over a period of four to five weeks. When student groups first meet their Client-Educator, they conduct narratively-based interviews (the Occupational Performance History Interview-II) (Kielhofner et al., 2004)[2] to gain insight into the Client-Educator's life. In a subsequent meeting, students receive feedback from the Client-Educator about their communication and interaction skills, check to see that they have correctly represented the Client-Educator's life and experiences, and collaboratively design a presentation that shares that Client-Educator's story with the class. Most Client-Educators choose to attend the presentations, with many actively participating in telling their stories. The presentations have included the use of a wide variety of media, such as photography, poetry, PowerPoint slides, role-play, fabric arts, visual arts, video, and music. Over 100 students each year take this course, which is routinely identified as one of the highlights of the first year in the occupational therapy program.

3 EVALUATION METHOD

While data were collected in 2010 and 2011 from OT students at the University of Alberta, this report only outlines the data that were collected from 2011 as the sample size was too small in the previous year. To conduct this evaluation, ethics approval from the research ethics boards at the University of Calgary, the University of Alberta, and the University of Ottawa were received. Quantitative and qualitative elements were used in the evaluation design.

3.1 Survey Design

The quantitative component of the evaluation used an online survey (via SurveyMonkey) to identify student attitudes towards people with lived experience of mental health problems and illnesses. This

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[1] Tew, J., Gell, C., & Foster, S. (2004). Learning from experience: Involving service users and careers in mental health education and training. Birmingham, UK; Mental Health in Education, Higher Education Academy.

[2] Kielhofner, G., Mallinson, T., Crawford, C., Nowak, M., Rigby, M., Henry, A., & Walens, D. (2004). Occupational Performance History Interview--II (OPHI-II) (Version 2). Chicago, IL: Model of Human Occupation Clearing House, Department of Occupational Therapy, College of Applied Sciences, University of Illinois.

was conducted at three time-points: pre (prior to interacting with the Client-Educator), post (after working with the client education), and at three-month follow-up.

The pre questionnaire package involved listing words that describe “mental illness” in addition to completing the Opening Minds Scale for Health Care Providers (OMS-HC), two social distance questions, three questions about treating people who have a mental illness, five attitude questions about diabetes (used as a physical illness comparison to mental illness), three questions on experiences with mental illness, and demographic questions (age and gender).

The post and three-month post questionnaire packages were identical to the pre questionnaire package with the exception that the demographic and experience with mental illness questions were not included. At these time-points, students also answered 11 questions evaluating the course (3 scale items and 8 open-ended questions).

3.2 OMS-HC: Scale Reliability

The OMS-HC is a 20-item measure that assesses healthcare providers’ stigmatizing attitudes towards people with a mental illness. The questionnaire asks participants the extent to which they agree or disagree with various statements. Each item is rated on a 5-point scale: *strongly agree*, *agree*, *neither agree nor disagree*, *disagree*, or *strongly disagree*. To create scale scores for the OMS-HC, items were summed across all surveys having complete data (n = 63). Scores can range from 20 to 100, with a low score for the attitude scale indicating less stigmatizing attitudes (note: for the details of the percentage of participants choosing each of the scale options for each item at pre, post, and follow-up, please see Appendix A).

The scale reliability for the OMS-HC was determined by calculating Cronbach’s alpha at pre, post, and follow-up. The OMS-HC had good to excellent reliability (Cronbach’s alpha for pre = .74, post = .77, and follow-up = .83) at all three time-points.

3.3 Focus Groups

In addition to understanding the students’ perceptions of the initiative, a focus group was also conducted with Client-Educators to understand the initiative from their vantage point. Six Client-Educators participated in the focus group, which explored Client-Educators’ thoughts about various topics:

- Experiences of stigma/prejudice in general and in interactions with healthcare professionals
- Talking publically about mental health issues prior to being a Client-Educator
- What being a Client-Educator entails
- How the students responded to them
- The best and worst things about the Client-Educator experience
- Whether this type of initiative should be extended to other healthcare professionals’ education

4 RESULTS

4.1 Participant Demographics

All participants (n = 63) completed the questionnaire packages at all three time-points. Table 1 outlines the breakdown of participants by age group, gender, and ethnicity. The majority of respondents were female. As well, most of the participants were between 18-25 years old and most identified themselves as Caucasian.

Table 1. Demographic characteristics of respondents

Demographic variables (n=63)	% (n)
Sex	
▪ Female	87% (55)
▪ Male	13% (8)
Age group	
▪ 18-25	62% (39)
▪ 26-44	38% (24)
Ethnicity	
▪ Arab/West Asian	2% (1)
▪ Asian	13% (8)
▪ Southeast Asian	6% (4)
▪ Caucasian	76% (48)
▪ Mixed	3% (2)

4.2 Participant Experiences with Mental Illness

Figures 1, 2, and 3 display the results of questions asking participants about their experiences with mental illness – whether they know someone with a mental illness (Figure 1), whether they have ever helped someone with a mental illness (Figure 2), and whether they themselves have been treated for a mental illness (Figure 3). The majority of respondents reported knowing someone with a mental illness (65%) and helping someone with a mental illness in previous work (57%), with a smaller percentage of participants (13%) reported having been treated for a mental illness.

Figure 1. Participant Experience with Mental Illness: Know Friend or Family with Mental Illness (n=63)

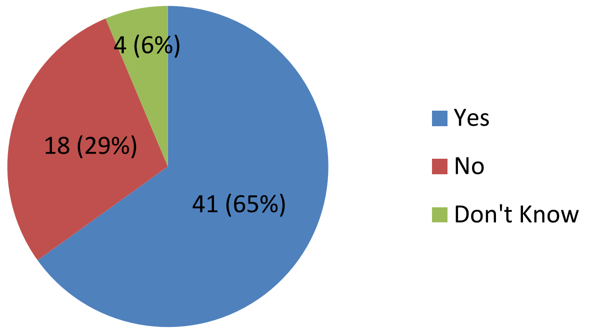


Figure 2: Participant Experience with Mental Illness: Ever Helped Someone with a Mental Illness in Previous Work (n=63)

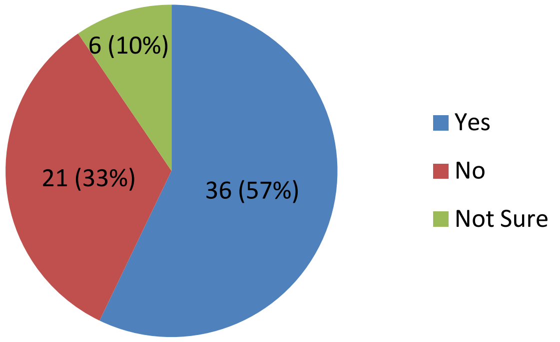
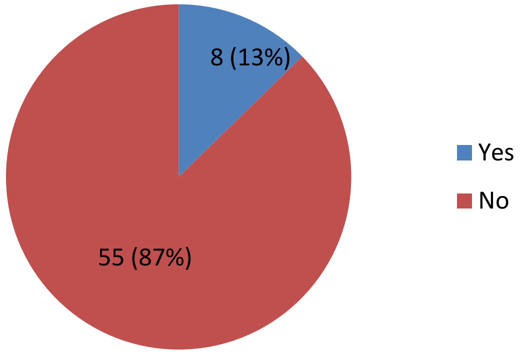


Figure 3: Participant Experience with Mental Illness: Have Been Treated for a Mental Illness (n=63)



4.3 Opening Minds Scale for Health Care Providers (OMS-HC)

4.3.1 OMS-HC: Total Scores

For the pre-test, total scores ranged from 32 to 66, with an average of 44.8 (SD = 6.9) and a median of 45. For the post-test, total scores ranged from 24 to 59, with an average of 42.4 (SD = 6.7) and a median of 43. For the follow-up, total scores ranged from 22 to 63, with an average of 41.8 (SD = 7.8) and a median of 42. Figure 4 indicates the change in average total scores across the time-points; scores decreased over time – approximately 5% from pre to post and 7% from pre to follow-up – indicating that participants' attitudes became less stigmatizing after the Client-Educator Initiative.

Figure 4. Opening Minds Scale for Health Care Providers – Average Total Scores Across Time (n=63)

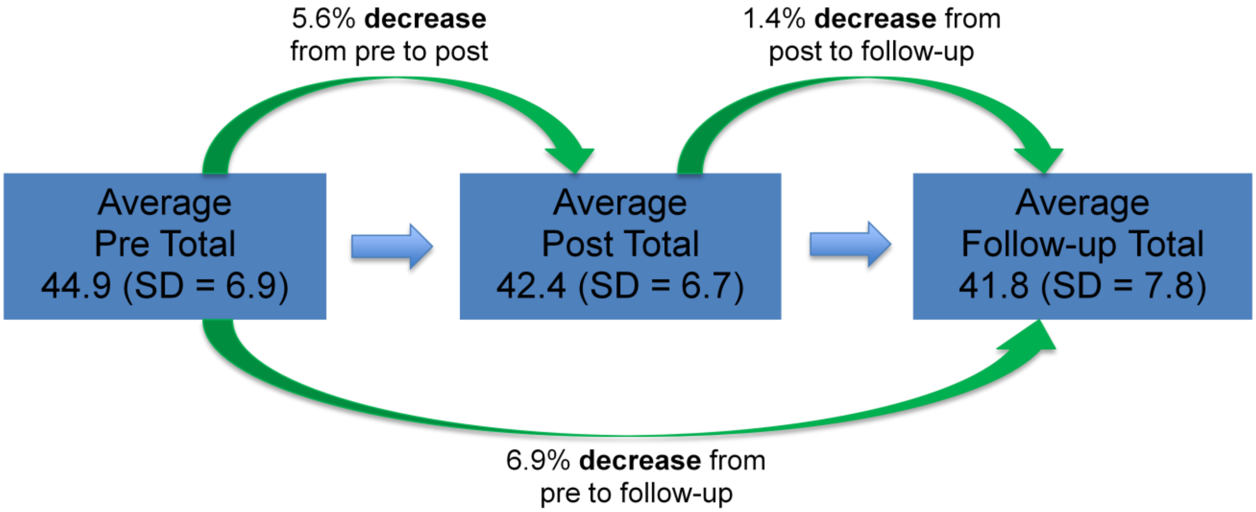


Table 2 shows the paired t-test results of the overall changes in the pre and post, pre and follow-up, and post and follow-up total scores. Comparison of the overall changes showed that there was a statistically significant overall positive change in attitudes about mental illness. In other words, the level of stigma significantly differed between the pre and post time period and the pre and follow-up time period (p<.001), but not the post to follow-up time period.

Table 2. Opening Minds Scale for Health Care Providers – Paired t-test for total score changes at the three time-points (n=63)

Total Scale Score	**Pre** **44.9 (SD = 6.9)**	**Post** **42.4 (SD = 6.7)**	**Follow-up** **41.8 (SD = 7.8)**
T-test of change score • **pre and post** • **post and follow up** • **pre and follow up**	 t(62) = 4.02, p < .001 t(62) = 1.07, p = .287 t(62) = 4.18, p < .001		

The breakdown of total score change from pre to post and from pre to follow-up are shown in Figures 5 and 6. These figures show the number and percentage of participants who had a total score increase (i.e., attitudes became more stigmatizing), decrease (i.e., attitudes became less stigmatizing) or a score that had no change. While almost one third of participants' attitudes became more stigmatizing from pre to post, this category of change decreased to less than a quarter by follow-up. Meanwhile, over half of the participants had a change in score that reflected attitudes that became less stigmatizing from pre to post, with this category of respondents increasing to represent over three quarters of the participants by follow-up (note: for the details of the percent change across scale options for each item, please see Appendix B).

Figure 5. Total score change from Pre to Post

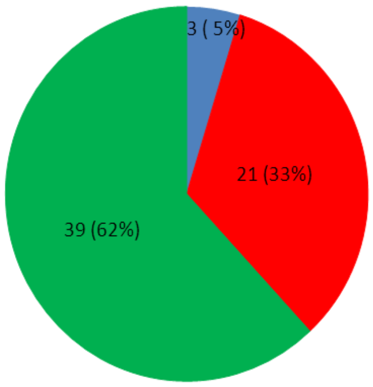
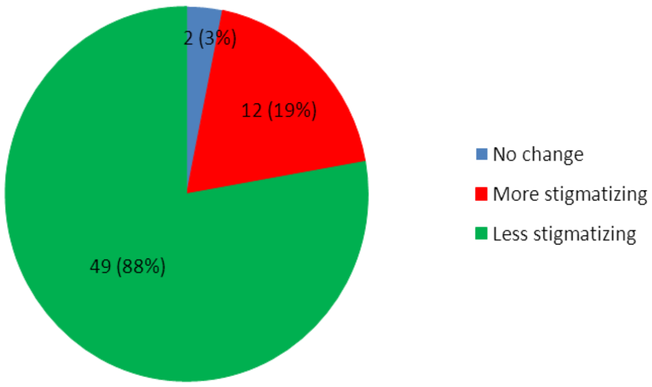


Figure 6. Total score change from Pre to Follow-up



(n=63)

4.3.2 OMS-HC: Stigma Content Areas

The items of the OMS-HC (with the exception of Item 16 – *The best treatment for mental illness is medication*) can be grouped by similar content into four different categories of stigma:

- Social Distance (Items 1, 3, 9, 19)
- Discrimination (Items 2, 6, 8, 12, 14, 15, 17, 20)
- Helping (Items 4, 5, 7, 10)
- Social Responsibility (Items 11, 13, 18)

Table 3 displays the percentage change from pre-test to follow-up for collapsed categories (i.e., strongly disagree and disagree; neither agree nor disagree; and strongly agree and agree) on all items of the OMS-HC scores grouped by stigma content area. The items of the helping stigma content area appeared to be the only content area that shifted from pre to follow-up in a relatively large amount (i.e., more than 10%). Within the four items of this content area, three items had at least a 10% increase in the participants choosing the non-stigmatizing responses at follow-up as compared to pre-test. The last item had about an 8% increase over the same time period. Of note, Items 2 and 6 increased 22.2% from pre to follow-up. This indicated relatively larger changes on these two items compared to the rest, which both belong to the discrimination stigma content area. As a whole, the social distance and social responsibility content areas did change relatively little (i.e., less than 5%) in either direction from pre-test to follow-up. This analysis appears to indicate that the Client-Educator Initiative was able to shift stigma related to helping people with mental illnesses the most.

Table 3. OMS-HC – Percentage changes in participant responses from pre to post for all items (grouped stigma content areas)

				Pre to Follow-up		
Item	**Content Area**	**Item**		**Disagree or Strongly Disagree**	**Neither Agree or Disagree**	**Agree or Strongly Agree**
2	Dis	If a person with a mental illness complains of physical symptoms (e.g. nausea, back pain or headache), I would likely attribute this to their mental illness.		22.2	-20.6	-1.6
6	Dis	I would see myself as weak if I had a mental illness and could not fix it myself.		22.2	-4.8	-17.5
8*	Dis	Employers should hire a person with a managed mental illness if he/she is the best person for the job.		4.8	-4.8	0.0
12	Dis	Despite my professional beliefs, I have negative reactions towards people who have mental illness.		0.0	9.5	-9.5
14	Dis	More than half of people with mental illness don’t try hard enough to get better.		7.9	-4.8	-3.2
15*	Dis	People with mental illness seldom pose a risk to the public.		7.9	0.0	-7.9
17	Dis	I would not want a person with a mental illness, even if it were appropriately managed, to work with children.		7.9	-9.5	1.6
20	Dis	I struggle to feel compassion for a person with a mental illness.		3.1	-4.8	1.6
4	Help	If I were under treatment for a mental illness I would not disclose this to any of my colleagues.		7.9	6.3	-14.3
5	Help	I would be more inclined to seek help for a mental illness if my treating healthcare provider was not associated with my workplace.		11.1	-7.9	-3.2
7	Help	I would be reluctant to seek help if I had a mental illness.		19.0	-7.9	-11.1
10*	Help	If I had a mental illness, I would tell my friends.		15.9	-9.5	-6.3
1	SD	I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.		3.2	-1.6	-1.6
3*	SD	If a colleague with whom I work told me they had a managed mental illness, I would be as willing to work with him/her.		4.8	-3.2	-1.6
9*	SD	I would still go to a physician if I knew that the physician had been treated for a mental illness.		-4.8	6.3	-1.6
19*	SD	I would not mind if a person with a mental illness lived next door to me.		23.8	-8.0	3.2
11*	SR	It is the responsibility of health care providers to inspire hope in people with mental illness.		-3.2	1.6	1.6
13	SR	There is little I can do to help people with mental illness.		4.8	-7.9	3.2
18	SR	Healthcare providers do not need to be advocates for people with mental illness.		0.0	0.0	0.0
16		The best treatment for mental illness is medication.		1.6	-3.2	1.6

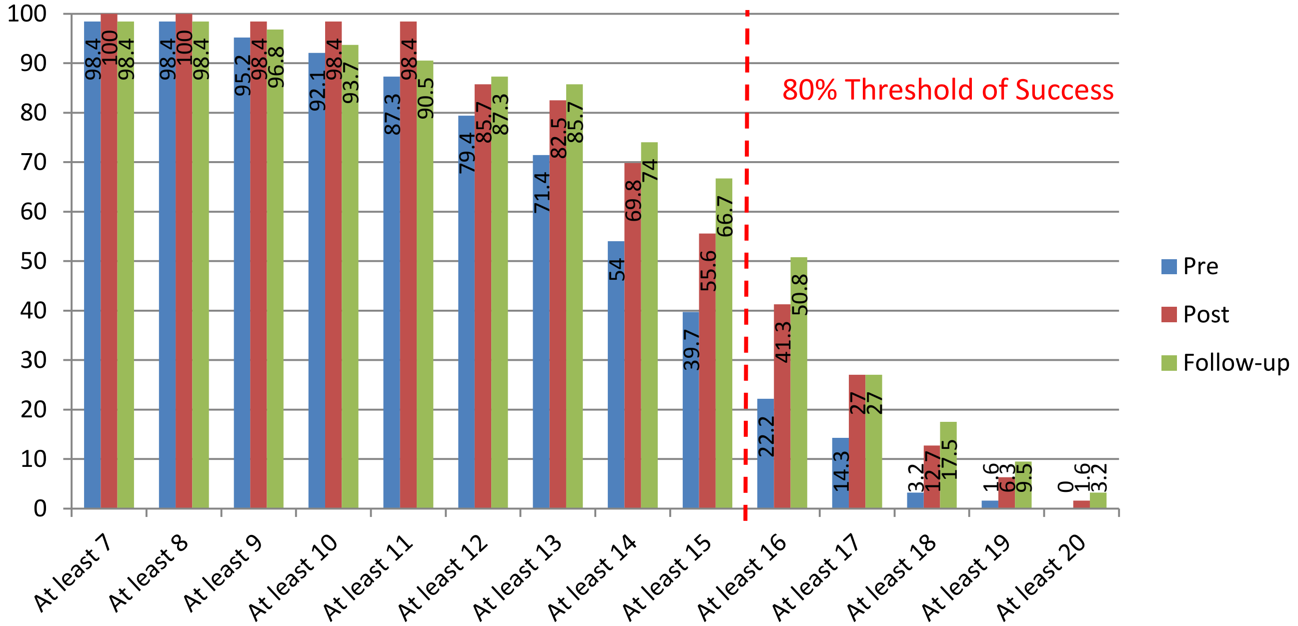
*these items were reverse scored. Please note that “strongly disagree” and “disagree” equate to non-stigmatizing responses for all items in this table.

4.3.3 OMS-HC: Cumulative Percentage of Non-Stigmatizing Responses

Another way to examine the results of the OMS-HC on stigmatizing attitudes is to see how many participants reached a “threshold of success” on the measure; in other words, how many participants responded to a certain number of items on the OMS-HC in a non-stigmatizing way.

Figure 7 shows the cumulative percentages of participants who had non-stigmatizing responses for each possible score out of 20 at pre, post, and follow-up. A threshold of 80% (or at least 16 out of 20 “correct” – i.e., non-stigmatizing – answers), corresponding to an A grade for an educational intervention, was used as an indication of success on the OMS-HC. This figure was derived by recoding each participant’s response on the attitude scale to represent a stigmatizing or non-stigmatizing response. For example, “Most people with mental illness could snap out of it if they wanted to” was recorded as non-stigmatizing if the respondent selected *strongly disagree* or *disagree,* and recoded as stigmatizing if the respondent chose *neutral*, *agree*, or *strongly agree*.

Figure 7. Cumulative Percentage of Non-Stigmatizing Responses on OMS-HC for Pre, Post, and Follow-up* (n=63)



*Not shown: 100% of participants had “at least 6” non-stigmatizing responses at all three time-points

Prior to the Client-Educator Initiative, 22.2% of participants managed to cross this 80% threshold of success on the OMS-HC. However, by the end of the Client-Educator Initiative, the percentage of participants who had crossed the 80% threshold level of success had increased to 41%. By the follow-up time-point, half of the respondents (51%) had crossed this threshold of success.

Figure 8 and Figure 9 display the number of participants who moved across the 80% threshold of success from pre to post, and from pre to follow-up. While the majority of respondents stayed below the threshold, more than one quarter crossed the threshold (i.e., had more than 16 non-stigmatizing responses on the OMS-HC) after the Client-Educator Initiative at both comparison points.

Figure 8. Threshold Categorization from Pre to Post

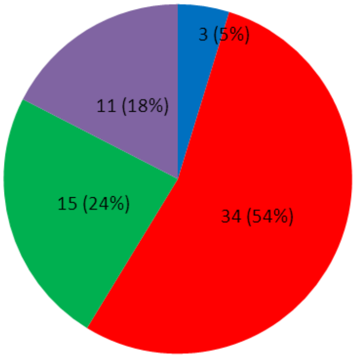
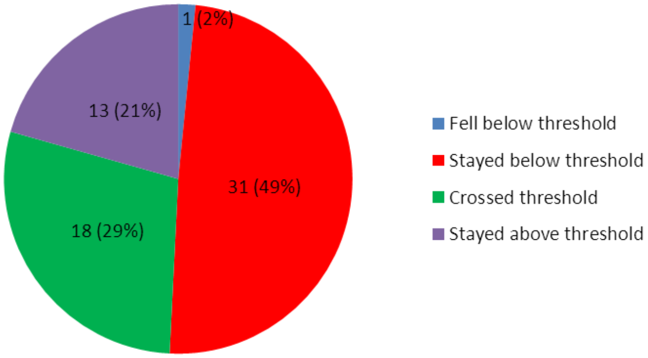


Figure 9. Threshold Categorization from Pre to Follow-up



(n=63)

4.4 Social Distance and Occupational Therapy Career

Participants were asked the following two social distance questions at the three points of data collection: 1) How would you feel about renting a room in your home to a person with a mental illness? and 2) How would you feel about having someone close to you marry a person with a mental illness? These questions were rated on a 4-point Likert scale: *1 = definitely willing, 2 = probably willing, 3 = probably unwilling, and 4 = definitely unwilling*.

Table 4 shows the breakdown of the percentage of participants choosing each scale option for both questions. The majority of responses chosen at each time-point were the less stigmatizing responses (i.e., definitely willing and probably willing). Furthermore, there was an increase in the percentage of participants choosing the least stigmatizing response (i.e., *definitely willing*) at post and follow-up as compared to baseline.

Table 5 shows the average total score for each item, as well as the two items combined, with lower scores indicating a desire for less social distance. Percentage change is also displayed, with negative scores indicating the scores had decreased; additionally, the results of the paired samples t-tests to test for significant differences between scores at various time-points are presented. Scores appeared to decrease from pre-test to follow-up, indicating that participants desired less social distance over time;

differences were not found to be statistically significant for each item but the average of the two items were statistically significant.

Participants were also asked the following question regarding their future career plans: Would you like to work with people who have mental illnesses as part of your occupational therapy career? Figure 10 shows the breakdown of responses to this question. More than half of respondents said they would like to work with people who have mental illnesses as part of their career; this percentage remained fairly stable across all three time-points.

Table 4. Social Distance – Percentage Across Scale Options (n=63)

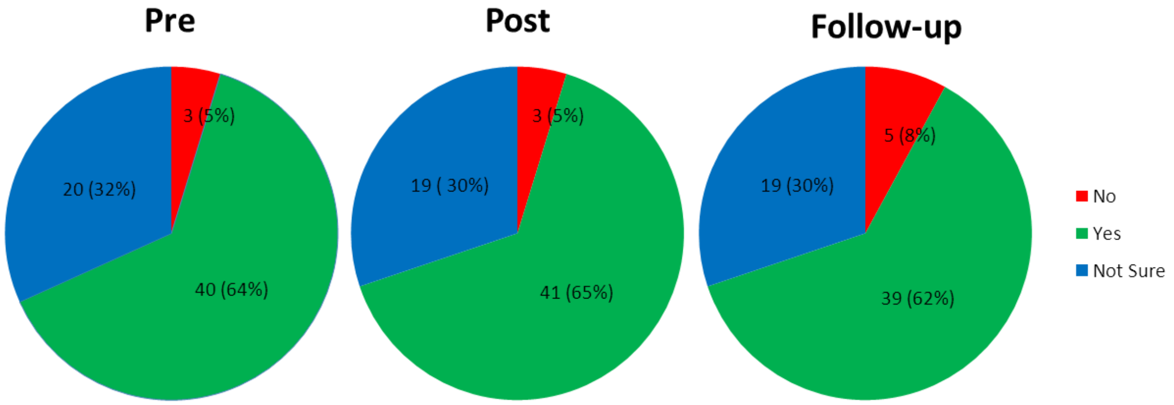
	Pre				Post				Follow-up			
Social Distance Item	Definitely willing	Probably willing	Probably unwilling	Definitely unwilling	Definitely willing	Probably willing	Probably unwilling	Definitely unwilling	Definitely willing	Probably willing	Probably unwilling	Definitely unwilling
Rent a room to a person with mental illness	6.3	63.5	27.0	3.2	9.5	68.3	20.6	1.6	9.5	68.3	20.6	1.6
Someone close to you marry a person with mental illness	20.6	60.3	17.5	1.6	27.0	57.1	14.3	1.6	25.4	61.9	12.7	0.0

Table 5. Social Distance – Item and Total Scores (n=63)

							Paired Samples T-Tests					
	Item/Total Score*			Percentage Change			Pre-Post		Post-Follow-up		Pre-Follow-up	
Item	Pre	Post	Follow-up	Pre-Post	Post-Follow-up	Pre-Follow-up	T-value	P-value	T-value	P-value	T-value	P-value
Renting a room	2.27	2.14	2.14	-5.59	0.00	-5.59	1.93	.059	0.00	1.000	1.66	.103
Someone close marrying	2.00	1.90	1.87	-4.76	-1.67	-6.35	1.29	.203	0.50	.621	1.73	.088
Total score of the 2 items	4.27	4.05	4.02	-5.20	-0.78	-5.95	1.99	.051	0.32	.748	2.29	.025

* Lower scores equate to a desire for less social distance (i.e., less stigmatizing attitude) (item scores range from 1 to 5; totals scores range from 2 to 10)

Figure 10. Occupational Therapy Career – Would like to work with people who have mental illnesses



4.5 Treatment Attitudes

In this section of the questionnaire, participants were asked to rate on a 5-point scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *unsure*, 4 = *agree*, and 5 = *strongly agree*) the extent to which they agreed that treating people with major depression, people with auditory hallucinations and delusions, and people with alcohol dependence was a waste of medical dollars.

Table 6 displays the percentage of respondents choosing each scale option for the three questions. The majority of responses chosen for these three questions fell into the less stigmatizing categories (i.e., strongly disagree and disagree), with major depression and auditory hallucinations & delusions having a higher percentage of responses in the most non-stigmatizing category (i.e., strongly disagree) as compared to alcohol dependence. For all three questions, the percentage of respondents choosing the most non-stigmatizing category increased at post and follow-up, as compared to the percentage choosing this category at baseline.

Table 7 shows the average total score for each item, as well as the three items combined. Lower scores indicate more disagreement with the statement, i.e., less stigmatizing response. Percentage change is also displayed. Additionally, the results of the paired samples t-tests to test for significant differences between scores at various time-points are presented. Scores appeared to decrease over time indicating that participants became more disagreeable with the statements. Although this change was not statistically significant, the scores themselves were very low already (i.e., well below 2 on the 5-point scale), probably preventing any additional gains that might have incurred from the initiative by a floor effect.

Table 6. Treatment Attitudes – Percent Across Scale Options

	Pre					Post					Follow-up				
Treatment Item	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Treating people with major depression is a waste of medical dollars	71.4	28.6	0.0	0.0	0.0	76.2	23.8	0.0	0.0	0.0	73.0	25.4	1.6	0.0	0.0
Treating people with long-standing auditory hallucinations and paranoid delusions is a waste of medical dollars	65.1	33.3	1.6	0.0	0.0	69.8	30.2	0.0	0.0	0.0	71.4	28.6	0.0	0.0	0.0
Treating people with alcohol dependence is a waste of medical dollars	47.6	41.3	6.3	4.8	0.0	46.0	49.2	3.2	4.8	0.0	50.8	41.3	6.3	1.6	0.0

Table 7. Treatment Attitudes – Item and Total Scores

							Pair Samples T-Tests					
	Item/Total Score*			Percentage Change			Pre-Post		Post-Follow-up		Pre-Follow-up	
Treatment Items	Pre	Post	Follow-up	Pre-Post	Post-Follow-up	Pre-Follow-up	T-value	P-value	T-value	P-value	T-value	P-value
Treating people with major depression is a waste of medical dollars	1.29	1.24	1.29	-3.70	3.85	0.00	0.72	.471	-0.65	.517	0.00	1.000
Treating people with long-standing auditory hallucinations and paranoid delusions is a waste of medical dollars	1.37	1.30	1.29	-4.65	-1.22	-5.81	0.94	.350	0.26	.799	1.00	.321
Treating people with alcohol dependence is a waste of medical dollars	1.68	1.60	1.59	-4.72	-0.99	-5.66	0.87	.388	0.18	.854	1.00	.321
Total score of above 3 items	4.33	4.14	4.16	-4.40	0.38	-4.03	1.03	.307	-0.09	.927	0.80	.428

* Lower scores equate to more disagreement (item scores range from 1 to 5; totals scores range from 3 to 15)

4.6 Diabetes vs. Mental Illness

Participants were also asked five questions about their attitudes towards diabetes. These five items mirrored four of the items of the OMS-HC in addition to the treatment attitudes questions discussed in the previous section (note: the rating scale for the diabetes items was slightly different than that of the OMS-HC, “unsure” vs. “neither agree or disagree”, respectively):

1. Treating people with Type II diabetes is a waste of medical dollars (comparable to the average of the items in the treatment attitudes)
2. I would be reluctant to seek help if I had Type II diabetes (see Item 7 in the OMS-HC)
3. I would see myself as weak if I had Type II diabetes and could not fix it myself (see Item 6 in the OMS-HC)
4. If I were under treatment for Type II diabetes I would not disclose this to any of my colleagues (see Item 4 in the OMS-HC)
5. I would be more inclined to seek help for Type II diabetes if my treating healthcare provider was not associated with my workplace (see Item 5 in the OMS-HC)

Type II Diabetes is a chronic physical condition, which healthcare providers (HCPs) are taught may be partially controlled and even preventable by changes in lifestyle. There is a common perception among healthcare providers that mental illness can also be prevented by lifestyle changes, thus comparable to lack of self-control among people with diabetes. It was for this reason that stigma related to diabetes was used as the comparison group to stigma related to mental health/illness.

Table 8 displays the percentage of responses for each scale option for the five diabetes items and four of the corresponding mental illness items. For the diabetes items, the majority of responses chosen for these questions fell into the less stigmatizing categories (i.e., strongly disagree and disagree), with the percentage of respondents choosing the most non-stigmatizing category (i.e., strongly disagree) increasing at post and follow-up, as compared to the pre time-point. Compared to these diabetes items, the distribution of the mental illness items were more evenly distributed across all scale options with more participants choosing the stigmatizing responses (i.e., strongly agree and agree). It appears that participants had more stigmatizing attitudes for mental illnesses than for diabetes.

Table 9 displays the average total score for each item, as well as the five items combined. Lower scores indicate more disagreement with the statements, i.e., indicate a less stigmatizing response. Percentage change is also displayed. Additionally, the results of the paired samples t-tests to test for significant differences between scores at various time-points are presented. Scores, both combined and separate, remained fairly similar across time; however, some items (e.g. I would be reluctant to seek help if I had Type II diabetes) had slight increases in scores at post and follow-up. T-test results, however, showed that any differences in scores were not statistically significant. This would suggest that there were no diffuse treatment effects from the anti-stigma intervention, at least concerning diabetes attitudes. This finding is also reflected in the changes in average total scores for the diabetes and mental illness items across the three time-points (Table 10).

Table 8. Diabetes vs. Mental Illness Attitudes – Percent Across Scale Options

Diabetes Item	Pre					Post					Follow-up				
	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree	Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
Treating people with Type II diabetes is a waste of medical dollars	61.9	34.9	3.2	0.0	0.0	60.3	38.1	1.6	0.0	0.0	61.9	34.9	3.2	0.0	0.0
I would be reluctant to seek help if I had Type II diabetes	66.7	31.7	0.0	1.6	0.0	55.6	41.3	3.2	0.0	0.0	52.4	44.4	3.2	0.0	0.0
I would be reluctant to seek help if I had a mental illness	9.5	44.4	25.4	19.0	1.6	22.2	52.4	15.9	9.5	0.0	25.4	47.6	17.5	9.5	0.0
I would see myself as weak if I had Type II diabetes and could not fix it myself	30.2	42.9	11.1	11.1	4.8	28.6	44.4	9.5	15.9	1.6	28.6	41.3	11.1	19.0	0.0
I would see myself as weak if I had a mental illness and could not fix it myself	7.9	31.7	23.8	33.3	3.2	14.3	41.3	30.2	11.1	3.2	17.5	44.4	19.0	19.0	0.0
If I were under treatment for Type II diabetes I would not disclose this to any of my colleagues	28.6	42.9	17.5	7.9	3.2	22.2	44.4	23.8	9.5	0.0	15.9	54.0	20.6	7.9	1.6
If I were under treatment for a mental illness I would not disclose this to any of my colleagues	1.6	12.7	39.7	33.3	12.7	1.6	17.5	47.6	28.6	4.8	1.6	20.6	46.0	23.8	7.9
I would be more inclined to seek help for Type II diabetes if my treating healthcare provider was not associated with my workplace	17.5	36.5	14.3	23.8	7.9	17.5	36.5	17.5	23.8	4.8	15.9	36.5	15.9	30.2	1.6
I would be more inclined to seek help for a mental illness if my treating healthcare provider was not associated with my workplace	0.0	11.1	17.5	39.7	31.7	1.6	15.9	17.5	42.9	22.2	4.8	17.5	9.5	44.4	23.8

Table 9. Diabetes Attitudes – Item and Total Scores

							Pair Samples T-Tests					
	Item/Total Score*			Percentage Change			Pre-Post		Post-Follow-up		Pre-Follow-up	
Treatment Items	Pre	Post	Follow-up	Pre-Post	Post-Follow-up	Pre-Follow-up	T-value	P-value	T-value	P-value	T-value	P-value
Treating people with Type II diabetes is a waste of medical dollars	1.41	1.41	1.41	0.00	0.00	0.00	0.00	1.000	0.00	1.000	0.00	1.000
I would be reluctant to seek help if I had Type II diabetes	1.37	1.48	1.51	8.14	2.15	10.47	-1.41	.163	-0.44	.658	-1.54	.129
I would see myself as weak if I had Type II diabetes and could not fix it myself	2.17	2.17	2.21	0.00	1.46	1.46	0.00	1.000	-0.31	.760	-0.21	.833
If I were under treatment for Type II diabetes I would not disclose this to any of my colleagues	2.14	2.21	2.25	2.96	2.16	5.19	-0.47	.641	-0.49	.626	-0.78	.441
I would be more inclined to seek help for Type II diabetes if my treating healthcare provider was not associated with my workplace	2.68	2.62	2.65	-2.37	1.21	-1.18	0.43	.670	-0.19	.849	0.17	.863
Total of the above 5 items	9.78	9.89	10.03	1.14	1.44	2.60	-0.34	.735	-0.48	.634	-0.60	.549

* Lower scores equate to more disagreement (item scores range from 1 to 5; totals scores range from 5 to 25)

Table 10. Mental Illness vs. Diabetes Attitudes

	Item/Total Score*			Percentage Change		
Items Type	Pre	Post	Follow-up	Pre-Post	Post-Follow-up	Pre-Follow-up
Total of the 5 mental illness items	14.30	12.84	12.70	-10.21	-1.07	-11.17
Total of the 5 diabetes items	9.78	9.89	10.03	1.14	1.44	2.60

* Lower scores equate to less stigmatizing attitudes (totals score can range from 5 to 25)

4.7 Words That Come to Mind Questionnaire (WTCMQ)

At all three time-points, participants were asked to list four words that describe a person with mental illness. Responses from the WTCMQ were categorized by similarity and themes/categories of words (listed below) were derived from all responses accordingly.

In total, 9 themes were derived:

1) Stigmatizing attitudes and negative characteristics

These were words deemed to be representative of stigmatizing attitudes, and included negative adjectives to describe people with mental illness.

Example words: unpredictable, crazy, difficult

2) Health, symptoms, and disorders

These were words associated with describing the symptoms of mental illness, including the symptoms of various mental illnesses and names of mental health disorders.

Example words: ill, unhealthy, not well

3) Emotional states

These were words describing the emotional states of those with mental illnesses.

Example words: scared, confused, lonely

4) Normality

This theme was comprised of words describing the normality of mental illness and how it can affect anyone.

Example words: regular, everyday people, misunderstood

5) Internal struggles and stigma faced

These were words describing the difficulties a person with a mental illness is faced with.

Example words: stigmatized, marginalized, undervalued

6) Positive characteristics

These were words representative of non-stigmatizing attitudes, and included positive adjectives to describe people with mental illness.

Example words: successful, inspiring, interesting

7) Support

This theme was comprised of words that indicated respondents felt people with mental illness required support.

Example words: may require help, in need of compassion, looking for help

8) Management/treatment

This theme was comprised of words describing management and treatment of mental illness.

Example words: medicated, lifelong managers of their disease, need to know their triggers

9) Individuality

This final theme was comprised of words indicating the uniqueness of mental illness to each person.

Example words: each person is unique, has their own story, depends on each case

There was also an “uncategorized” category for miscellaneous words that did not fit into any of the above themes, but were not meaningful enough on their own to create a new category.

To examine the changes in participants' responses over time for the Words that Come to Mind Questionnaire, the number of responses for each of the nine themes were further separated by when the response was given (i.e., pre-survey, post-survey, or three-months post-survey). Figure 12 displays the percentage of responses that were allocated into the different themes at each time-point. Additionally, Table 12 displays the breakdown of each theme by response count, percentage, percentage change, and rank.

Of note, the most frequently mentioned responses fell into the *normality, internal struggles and stigma faced*, and *positive characteristics* themes. There was a 5% decrease in the percentage of words used that fell into the *stigmatizing and negative characteristics* theme from baseline to follow-up, while there was a 30% increase in the percentage of words that fell into the *normality* category between these time periods. The highest percentage change seen was with the *positive characteristics* theme – with a 40% increase in the percentage of words used by respondents at follow-up as compared to baseline. While this percentage increase was not as large at follow-up, it was still a 26% increase from baseline.

Figure 12. Words that Come to Mind – Percentage of Responses in Each Theme

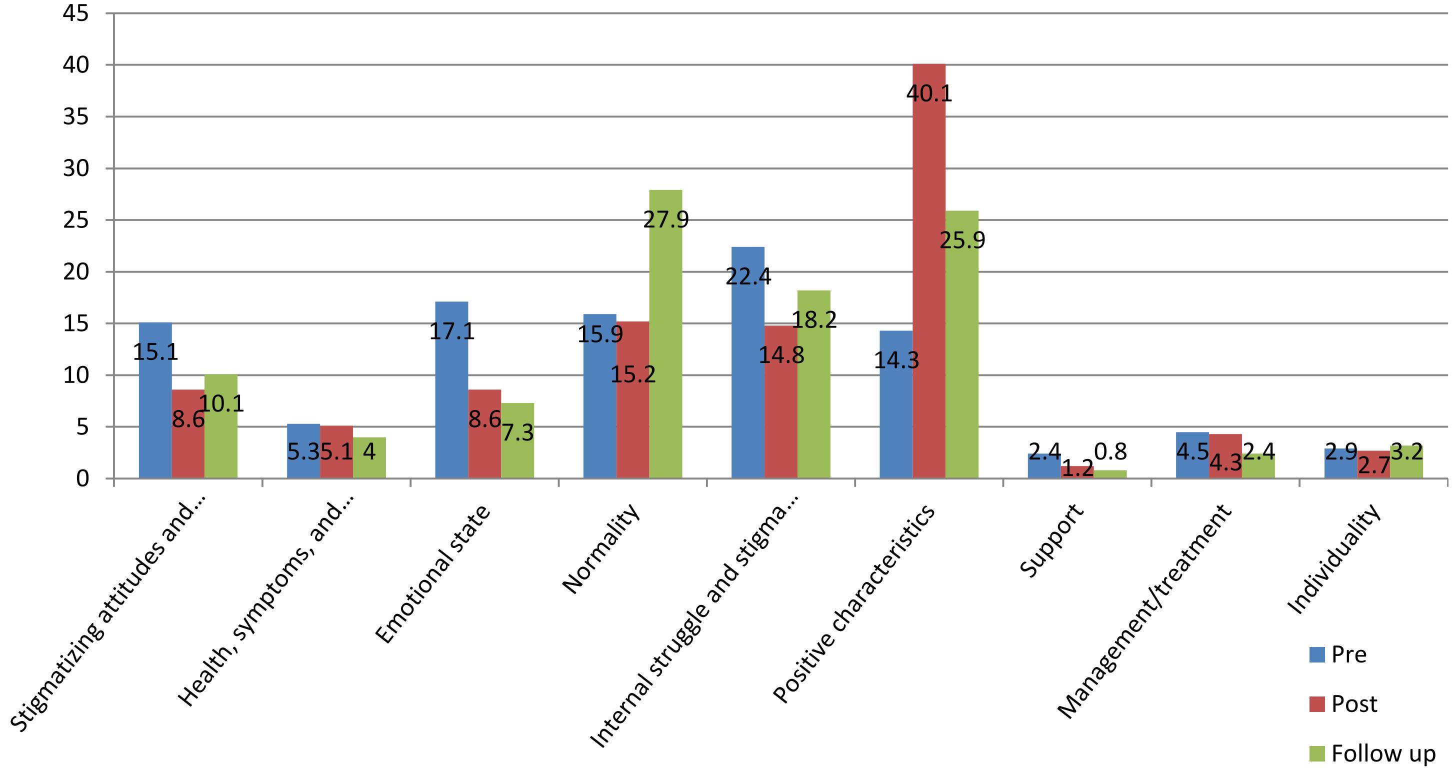


Table 12. Words that Come to Mind*

	Response Count			Response Percent			Percentage Change			Response Rank		
Theme Category	Pre	Post	FU	Pre	Post	FU	Pre-Post	Post-FU	Pre-FU	Pre	Post	FU
1) Stigmatizing attitudes and negative characteristics	37	22	25	15.1	8.6	10.1	-6.5	1.5	-5.0	4	4	4
2) Health, symptoms, and disorders	13	9	10	5.3	5.1	4.0	-0.2	-1.1	-1.3	6	5	6
3) Emotional state	42	22	18	17.1	8.6	7.3	-8.5	-1.3	-9.8	2	4	5
4) Normality	39	44	69	15.9	15.2	27.9	-0.7	12.7	12.0	3	2	1
5) Internal struggle and stigma faced	55	38	45	22.4	14.8	18.2	-7.6	3.4	-4.2	1	3	3
6) Positive characteristics	35	103	64	14.3	40.1	25.9	25.8	-14.2	11.6	5	1	2
7) Support	6	3	2	2.4	1.2	0.8	-1.2	-0.4	-1.6	9	8	9
8) Management/treatment	11	7	6	4.5	4.3	2.4	-0.2	-1.9	-2.1	7	6	8
9) Individuality	7	9	8	2.9	2.7	3.2	-0.2	0.5	0.3	8	7	7
Total	245	257	247	99.9	100.6	99.8						

*Note: Miscellaneous category was not included in the breakdown as there was only one word that was not categorized

4.8 Evaluation of Initiative by Students

Students were asked about their opinions of the Client-Educator Initiative at the post and follow-up time-points. The first three questions were rating scale questions:

1. The Client-Educator Initiative was interesting
2. The Client-Educator Initiative increased my confidence in working with people with mental illness
3. The Client-Educator Initiative will be useful in my MScOT training overall

Table 13 displays the percentage of responses of each scale option for the three evaluation questions. Students rated the initiative favourably after the course, with the majority of respondents strongly agreeing that the initiative was interesting (70%) and would be helpful in their career (54%). The initiative also appeared to increase students' confidence in working with people with mental illness, with 56% and 32% respectively strongly agreeing and agreeing to that statement. While the percentage of respondents strongly agreeing with the three statements appeared to slightly decrease at follow-up (60% vs. 70% for interesting, 23% vs. 32% for confidence, and 47% vs. 54% for usefulness), overall, the evaluation of the initiative remained favourable.

Table 13. Evaluation of Initiative by Students – Percent Across Scale Options

Evaluation Items	Post-course				Follow-up			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
The Client-Educator Initiative was interesting	0.0	0.0	30.2	69.8	1.6	0.0	38.7	59.7
The Client-Educator Initiative increased my confidence in working with people with mental illness	1.6	11.1	55.6	31.7	3.2	12.9	61.3	22.6
The Client-Educator Initiative will be useful in my MScOT training overall	0.0	1.6	44.4	54.0	4.8	3.2	45.2	46.8

Table 14 displays the average total score for each item (ranging from 1-5), as well as the three items combined (ranging from 3-15). Higher scores indicate more positive opinions. Percentage change is also displayed, as well as the results of the paired samples t-tests to test for significant differences between scores at post and follow-up. Scores, both combined and separate, tended to decrease over time. T-test results showed that the change in combined total of the items was statistically significant (p < .05).

Table 14. Evaluation of Initiative by Students – Item and Total Scores

Evaluation Items	Item/Total Score*		Percentage Change	Pair Samples T-Tests	
	Post	Follow-up		T-value	P-value
The Client-Educator Initiative was interesting	3.69	3.56	-3.49	1.53	.132
The Client-Educator Initiative increased my confidence in working with people with mental illness	3.19	3.03	-5.05	2.01	.049
The Client-Educator Initiative will be useful in my MScOT training overall	3.53	3.34	-5.48	1.94	.057
Total score of above 3 items	10.42	9.94	-4.64	2.82	.006

* Higher scores equate to more positive opinions (item scores range from 1 to 5; totals scores range from 3 to 15)

In addition to the three rating scale questions, students were asked eight open-ended questions as part of the course evaluation. Below are the questions, with a summary of responses. Please note that the responses given at post did not differ from responses given at follow-up.

1. Do you feel your behaviour towards people with mental illness will be different than what it would have been before working with your Client-Educator? If yes, in what way? If no, why not?

The majority of respondents indicated that they did believe their behaviour would be different, particularly in terms of being more careful of judgements they might make and taking more strides to understand their clients. One respondent said, “Prior to the Client-Educator initiative I had mixed feelings towards the mental illness of depression, it wasn’t until the experiences of the Client-Educators were highlighted that really allowed me to gain a new perspective. I find myself less often making judgements of a person and instead feel the need to gain an understanding of each person’s story before I can assume anything.”

In terms of the behaviours not changing, this was attributed to a variety of factors including students already having compassion and respect for those with mental illness and/or already having experience working with clients with mental illness. Some students also mentioned that their experience with their Client-Educator was negative, and therefore not influential in terms of changing their behaviour. Some students also felt that the interaction with the Client-Educator was limited and that the group setting in which the interactions happened were not realistic of what a one-on-one working relationship would be like with a real client. One respondent expands, “If the initiative was more one-on-one, then I believe I could really enhance my confidence with working with these clients. The group setting was not as helpful with really testing how my own independent interaction would be with a client with mental illness.”

2. In what ways do you think the Client-Educator Initiative could be improved?

Several suggestions were made in terms of improving the initiative. One thought that was raised several times was the screening of new Client-Educators in order to make sure they were suitable for the initiative, or to make sure that they knew what was expected of them in the initiative. Some respondents felt that their Client-Educators were not very open with them throughout the process, which made the learning experience limited. As one respondent noted, “New Client-Educators could be given more information on what is expected from the experience. Being hesitant to share information affected the experience we hoped to get through this experience and the Client-Educator was hard to contact at times and wanted to spend as little time possible with us during interviews.”

Another suggestion was to link the project to a more OT focus, “I think it was interesting to learn about the different clients but the life narrative assignment didn’t really seem to serve a purpose. I would have preferred more discussion about what the OT’s did and maybe brainstorm in our groups about what else could be done. We have the time in school to come up with new strategies and ideas to use in mental health so it may be beneficial to try to think like the OT who is working with the client.”

Other suggestions included: more time with the Client-Educators (and less time spent on presentations), being able to interview more than one Client-Educator, having the assignments worth more so that they would have incentive to put more effort into the project, debriefing after interviews with Client-Educators, and smaller groups to allow for more individual interview time.

3. **What did you like best about the Client-Educator Initiative?**

Working with the client-educator – i.e., having the experience of working with someone with a mental illness and hearing their stories and experiences – was mentioned repeatedly as one of the best things about the initiative. As one respondent says, "Being able to interact one-on-one with someone who has actually dealt with a mental illness and learned how to cope with it. It gave you a lot of insight into what that might feel like and having to present their story made you really try to think of what it would be like getting through life living with a mental illness." Another benefit of the initiative that was mentioned was gaining the experience of using an interview tool (i.e., using the OPHI-II).

4. **What did you like least about the Client-Educator Initiative?**

Things that were least liked about the Client-Educator initiative included: having a client-educator who was not cooperative, limited time spent with the Client-Educators, the amount of time required for preparing the presentation, lack of link back to OT skills, the emotional difficulty of hearing so many stories (especially the more negative ones), and the difficulty of group work logistics (e.g. scheduling).

5. **Do you think this type of assignment is useful in reducing prejudice and discrimination against people with persistent mental illness?**

The majority of students responded to this question with yes. As one person explains, "I definitely feel that it has helped in doing just that. It makes people empathize with them, and just get a glimpse into their life story and everything that has happened prior to them having a mental illness and after, such as their road to recovery. It lets the students understand that having a diagnosis isn't the be all end all and that people with a mental illness can live lives just as fulfilling as ours."

Some respondents, however, were more doubtful and noted that it might have had the opposite effect – although this was mostly based on having a negative experience with their Client-Educator. As one person says, "I know that there were people in my group who are turned off from mental health because this was their first encounter and our client was difficult and frustrating to work with sometimes."

6. **Do you think this assignment would be useful for other healthcare providers? If so, who? If not, why not?**

Respondents noted that they felt this initiative would be helpful to other healthcare providers – all healthcare providers in general – as they will likely meet someone with a mental illness in their practice. Doctors and nurses in particular were singled out as people that might benefit as this would contribute to a reduction in discriminatory and stigmatizing behaviour towards people with mental illness in the healthcare setting. As one person says, **“**Hearing about some of the stigma that the Client-Educators experienced in healthcare settings was very disturbing, and this initiative would contribute towards reducing the negative attitudes; I think it would be particularly useful for doctors and nurses as the frontline healthcare professionals.”

At least one person, however, mentioned that they did not think it would be beneficial – as they felt their experience with the initiative was difficult and believed that it may be even more discouraging for other healthcare providers.

7. **Is there anything you would like to tell me about the Client-Educator Initiative or about prejudice and discrimination against people with persistent mental illness overall?**

A reoccurring theme in the responses to this question centred on the fact that the stigma is still out there and that it is shocking to see. As one person says, “It’s sad to see that there is still so much discrimination in the healthcare field towards individuals with mental illness. It makes me feel like I would never disclose if I had a problem.” On a more positive note, respondents felt that initiatives such as this one can help stop the discrimination, “I think that the stigma around mental illness is a persistent one, but that through initiatives like this, maybe we can break it down, one graduating class at a time. This is something that should be introduced in grade school as well, so that people grow up with more exposure/access, so that kids can see everyone is human and has their own struggles.”

8. **Please feel free to share any other comments you have.**

Respondents used this opportunity to comment on how much they enjoyed the initiative, how much value they see in having had the experience, and thanking the course instructor and Client-Educators for providing the experience and wanting their feedback.

5 FOCUS GROUP RESULTS

The second part of the course evaluation was from the Client-Educators’ perspectives. Their experiences and opinions were obtained through a focus group. Six Client-Educators participated in this focus group, which was audiotaped and reviewed by the course instructor and an individual with no involvement with the project. An informal thematic analysis was completed independently by both individuals and discussed to identify emerging themes. Themes that emerged in response to each of the questions are reported below.

Question: Past experiences with stigma and discrimination

All participants had experienced stigma and discrimination in the past. Common themes included negative responses of family being the most hurtful (although at least one participant noted that her mental illness had also resulted in increased closeness with some family members); loss of friendships and intimate relationships (although again, some participants found that their illness helped them sort out true friends from “fair weather” friends); and a slow change in societal attitudes, parallel to changes in public attitudes towards cancer, AIDS, and spinal cord injury.

The impact of stigma/prejudice related to employment was also mentioned by several participants, most of whom chose to self-reveal about their illness when talking with potential employers, even though they had been given conflicting advice about doing so.

The impact of stigma/prejudice in interactions with healthcare providers was another topic. A common theme was not being listened to by healthcare providers: “We are the ones who know how we feel.” Most participants reported experiences of trying to find a healthcare professional who treated them with respect. Some reported positive experiences with healthcare professionals and felt “lucky” to have found someone they felt comfortable with. One participant had a very negative experience with a physician under whose care she almost died. Medication issues were also noted – several participants felt their concerns about adverse effects of medication were not listened to or that doctors were “going by the book” in prescribing medications. The turnover of staff in mental health services was discussed: one participant felt that she therefore had to repeat her story endlessly – this was like constantly “picking at the scab” and resulted in her choosing to no longer see those healthcare providers. Several participants mentioned the help provided by occupational therapists – “You can do what you’re capable of, and then they help you increase what you can do.” Occupational Therapy was “A place to restart my life” – “They did magic.”

Question: Past experiences with speaking about mental illness and comfort with this

Some Client-Educators had considerable experience speaking about their mental illness prior to becoming a Client-Educator and some continue to present through speaker’s bureaus, at clubhouse events, conferences, and as peer support workers. Some had never spoken about their illness because of stigma, or some only within the context of therapy. One participant noted that learning how to speak about issues was important, as was learning to find people who would be good to speak with. Being a Client-Educator meant being able to talk about issues with people who were mostly very interested in learning more. Participants felt that they were now more comfortable talking about their experience of mental illness and the impact this has had on their lives.

Question: What’s it like being a Client-Educator? How do students respond?

“The Idea of having students interact with persons with lived experience is about as perfect as it gets.” Client-Educators said that they shared their life journey with the students with whom they worked – the ups and downs, and the message that there is a light at the end of the tunnel. Client-Educators felt they helped students learn how to communicate with people with lived experience of mental health problems and illnesses. They felt that the initiative helps students get more comfortable talking about mental illness. The importance of process was mentioned – “Hearing the story and then telling the story, both are important.” Several participants linked their commitment to being a Client-Educator to other anti-stigma initiatives in which they are also involved. Participants took their role as an educator seriously – they mentioned helping students learn about mental health challenges, how to work collaboratively, how to see people as people rather than as clinical labels. They felt their efforts in this initiative helped students early on to prevent stigma later. Several mentioned that students told them that as a result of meeting their Client-Educator, they were now much more interested in working in the mental health field. They saw mutual benefit of being involved: “Stories help the students with their own lives.” They reported that there is healing in telling stories and being heard. “We all have a story and stories are important.” The value of the experience as a “proving ground” for students who were not comfortable working with their Client-Educator was also mentioned by one participant; students might need to know that this was not something they should consider in their future career. Client-Educators who had been involved on more than one occasion mentioned differences between the experiences each year; these differences were ascribed to both the student group and to the Client-Educator’s own mental state and life circumstances while working together during any one year.

Students were seen as having trepidation at first. With most students groups, “What starts as an interview ends up being a discussion”; the turning point is when they hear Client-Educators’ stories. The experience helps students learn to talk about what they do not know. By the end of the experience, Client-Educators felt that they were connected, and that this was evidenced with cards, gifts, and comments from the students, some of whom told their Client-Educator that meeting them was the highlight of the year. One participant said of being a Client-Educator – “Credibility is re-gained if one’s story is listened to and given credibility and that happens in this class.”

Question: What are the best things about the initiative, and things that could be changed?

Several things were mentioned in terms of the best things about the initiative. One participant said that the strength of the initiative is that students have access to Client-Educators who are in recovery, are self-aware, articulate, and are dedicated to teaching. Several mentioned that the presentations were a highlight. Additionally, others mentioned that actively participating in the presentations were a highlight – “It made me feel like an advocate.” The opportunities for students to learn through each of the Client-Educator presentations were also described as very important.

In terms of what changes could be made, most mentioned that additional time with the students could be helpful. The option to have Client-Educators involved twice per year was mentioned by one participant. No other suggestions for changes were given.

Question: Would it be good to expand this initiative to other professionals?

Participants stated that a similar educational initiative would benefit student nurses, psychologists, social workers, and medical students. In addition, they felt that anybody who deals with situations where people are likely to be first responders to people with mental illness (e.g. EMS, police, crisis team workers) could benefit. One participant said “It’s kind of like a networking thing” – people who are more comfortable through having had the experience of working with a Client-Educator will tell other people they work with and family, and this comfort spreads.

6 SUMMARY

The evaluation of the Client-Educator Initiative at the University of Alberta was overall favourable:

- Results from the OMS-HC indicate that the initiative was effective at decreasing stigmatizing attitudes, as demonstrated by 1) statistically significant lower scores on the OMS-HC at post and follow-up as compared to baseline, and 2) an increase in the percentage of respondents who gave non-stigmatizing responses to at least 80% of the questionnaire at post and follow-up as compared to baseline.
- In breaking down the questionnaire items by type of stigma, helping was the area that showed the most reduction in stigmatizing attitudes.
- Respondents’ treatment attitudes and social distance attitudes, while becoming slightly less stigmatizing, were not significantly affected by the Client-Educator Initiative from a statistical standpoint.
- Interest in an OT career working in mental health did not seem to be influenced by the Client-Educator Initiative; over half of respondents indicated that they would be interested in this type of career, with the number of respondents remaining fairly stable across the three time periods.
- Immediately post initiative, respondents used more words that involved positive characteristics to describe people with mental illness, perhaps reflecting that the interaction with a Client-Educator helped them to see people with mental illness in a more positive way.
- The student evaluation of the initiative was very favourable, as shown by the quantitative and qualitative responses. Qualitative responses indicate that unfavourable experiences with the initiative may be attributed to a negative experience with the student’s Client-Educator – with suggestions that the selection process of Client-Educators may need improvement.
- Focus group results indicate that the initiative is mutually beneficial for the Client-Educator.

These results suggest that this initiative was effective at reducing the stigma associated with mental illness. And more importantly, the positive attitudinal gains from the intervention were maintained at the three-month follow-up, if not continued to increase. Other healthcare provider interventions evaluated by Opening Minds have shown partial regression back towards baseline levels at follow-up time-points. Although it is difficult to discern the exact reason for the continuation of the gains in this intervention compared to others without conducting an experiment, one possible explanation could be the contact experience used in the Client-Educator Initiative. Previous research has found that positive contact experiences are important to the reduction of stigma and prejudice. However, reduction is further enhanced when the contact experience aligns with Allport's four criteria for optimal contact experiences: 1) similarity between groups, 2) cooperation, 3) working towards a goal, and 4) support of authority, laws, and customs. The present initiative aligns with three of the four criteria. That is, participants, through interaction and extended duration of the initiative, saw the Client-Educators as similar to themselves. Furthermore, participants worked in cooperation with the Client-Educator to produce a presentation that was given to the rest of the class (i.e., goal). Contact experiences in other interventions, although positive, lack particularly the cooperation and goal aspects; therefore, limiting the richness of the experience.

This is speculation, however. Future research and interventions would be wise to examine the contact experience more closely, with an eye towards the criteria described by Allport. Nevertheless, these results taken as a whole are very encouraging and show promise for initiatives that are more involved and intensive in nature.

Appendix A: OMS-HC – Percent Across Scale Options

			Pre					Post					Follow-up				
Number	Content Area	Item	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1	SD	I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.	4.8	31.7	17.5	38.1	7.9	4.8	34.9	17.5	38.1	4.8	9.5	30.2	15.9	39.7	4.8
2	Dis	If a person with a mental illness complains of physical symptoms (e.g. nausea, back pain or headache), I would likely attribute this to their mental illness.	15.9	49.2	30.2	4.8	0.0	14.3	65.1	19.0	1.6	0.0	17.5	69.8	9.5	3.2	0.0
3*	SD	If a colleague with whom I work told me they had a managed mental illness, I would be as willing to work with him/her.	63.5	31.7	3.2	1.6	0.0	50.8	46.0	3.2	0.0	0.0	57.1	42.9	0.0	0.0	0.0
4	Help	If I were under treatment for a mental illness I would not disclose this to any of my colleagues.	1.6	12.7	39.7	33.3	12.7	1.6	17.5	47.6	28.6	4.8	1.6	20.6	46.0	23.8	7.9
5	Help	I would be more inclined to seek help for a mental illness if my treating healthcare provider was not associated with my workplace.	0.0	11.1	17.5	39.7	31.7	1.6	15.9	17.5	42.9	22.2	4.8	17.5	9.5	44.4	23.8
6	Dis	I would see myself as weak if I had a mental illness and could not fix it myself.	7.9	31.7	23.8	33.3	3.2	14.3	41.3	30.2	11.1	3.2	17.5	44.4	19.0	19.0	0.0
7	Help	I would be reluctant to seek help if I had a mental illness.	9.5	44.4	25.4	19.0	1.6	22.2	52.4	15.9	9.5	0.0	25.4	47.6	17.5	9.5	0.0
8*	Dis	Employers should hire a person with a managed mental illness if he/she is the best person for the job.	76.2	17.5	4.8	0.0	1.6	68.3	31.7	0.0	0.0	0.0	73.0	25.4	0.0	0.0	1.6
9*	SD	I would still go to a physician if I knew that the physician had been treated for a mental illness.	27.0	54.0	12.7	6.3	0.0	15.9	65.1	12.7	6.3	0.0	27.0	49.2	19.0	4.8	0.0
10*	Help	If I had a mental illness, I would tell my friends.	7.9	49.2	25.4	11.1	6.3	12.7	52.4	22.2	11.1	1.6	12.7	60.3	15.9	11.1	0.0
11*	SR	It is the responsibility of health care providers to inspire hope in people with mental illness.	34.9	55.6	7.9	1.6	0.0	36.5	52.4	11.1	0.0	0.0	38.1	49.2	9.5	3.2	0.0
12	Dis	Despite my professional beliefs, I have negative reactions towards people who have mental illness.	23.8	54.0	6.3	14.3	1.6	19.0	60.3	12.7	7.9	0.0	19.0	58.7	15.9	4.8	1.6
13	SR	There is little I can do to help people with mental illness.	44.4	41.3	14.3	0.0	0.0	31.7	58.7	7.9	1.6	0.0	39.7	50.8	6.3	3.2	0.0
14	Dis	More than half of people with mental illness don't try hard enough to get better.	34.9	52.4	9.5	3.2	0.0	49.2	46.0	4.8	0.0	0.0	41.3	54.0	4.8	0.0	0.0
15*	Dis	People with mental illness seldom pose a risk to the public.	15.9	61.9	11.1	11.1	0.0	22.2	55.6	11.1	9.5	1.6	30.2	55.6	11.1	3.2	0.0
16		The best treatment for mental illness is medication.	6.3	38.1	41.3	12.7	1.6	12.7	46.0	31.7	9.5	0.0	4.8	41.3	38.1	15.9	0.0
17	Dis	I would not want a person with a mental illness, even if it were appropriately managed, to work with children.	12.7	57.1	23.8	6.3	0.0	17.5	55.6	20.6	6.3	0.0	19.0	58.7	14.3	6.3	1.6
18	SR	Healthcare providers do not need to be advocates for people with mental illness.	63.5	36.5	0.0	0.0	0.0	66.7	31.7	0.0	0.0	1.6	71.4	28.6	0.0	0.0	0.0
19*	SD	I would not mind if a person with a mental illness lived next door to me.	17.5	46.0	17.5	0.0	0.0	31.7	57.1	7.9	1.6	1.6	38.1	49.2	9.5	3.2	0.0
20	Dis	I struggle to feel compassion for a person with a mental illness.	44.4	49.2	4.8	1.6	0.0	54.0	44.4	1.6	0.0	0.0	57.1	39.7	0.0	3.2	0.0

*Reversed scored items (anchors should read, from left to right, strongly agree, agree, neither agree or disagree, disagree, strongly disagree); SD = social distance, Dis = discrimination, Help = helping, SR = social responsibility

Appendix B. OMS-HC – Percent Change Across Scale Options

Number	Content Area	Item	Pre to Post					Post to Follow-up					Pre to Follow-up				
			Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree
1	SD	I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.	0.0	3.2	0.0	0.0	-3.2	4.8	-4.8	-1.6	1.6	0.0	4.8	-1.6	-1.6	1.6	-3.2
2	Dis	If a person with a mental illness complains of physical symptoms (e.g. nausea, back pain or headache), I would likely attribute this to their mental illness.	-1.6	15.9	-11.1	-3.2	0.0	3.2	4.8	-9.5	1.6	0.0	1.6	20.6	-20.6	-1.6	0.0
3*	SD	If a colleague with whom I work told me they had a managed mental illness, I would be as willing to work with him/her.	-12.7	14.3	0.0	-1.6	0.0	6.3	-3.1	-3.2	0.0	0.0	-6.4	11.2	-3.2	-1.6	0.0
4	Help	If I were under treatment for a mental illness I would not disclose this to any of my colleagues.	0.0	4.8	7.9	-4.8	-7.9	0.0	3.2	-1.6	-4.8	3.2	0.0	7.9	6.3	-9.5	-4.8
5	Help	I would be more inclined to seek help for a mental illness if my treating healthcare provider was not associated with my workplace.	1.6	4.8	0.0	3.2	-9.5	3.2	1.6	-7.9	1.6	1.6	4.8	6.3	-7.9	4.8	-7.9
6	Dis	I would see myself as weak if I had a mental illness and could not fix it myself.	6.3	9.5	6.3	-22.2	0.0	3.2	3.2	-11.1	7.9	-3.2	9.5	12.7	-4.8	-14.3	-3.2
7	Help	I would be reluctant to seek help if I had a mental illness.	12.7	7.9	-9.5	-9.5	-1.6	3.2	-4.8	1.6	0.0	0.0	15.9	3.2	-7.9	-9.5	-1.6
8*	Dis	Employers should hire a person with a managed mental illness if he/she is the best person for the job.	-7.9	14.2	-4.8	0.0	-1.6	4.7	-6.3	0.0	0.0	1.6	-3.2	7.9	-4.8	0.0	0.0
9*	SD	I would still go to a physician if I knew that the physician had been treated for a mental illness.	-11.1	11.1	0.0	0.0	0.0	11.1	-15.9	6.3	-1.6	0.0	0.0	-4.8	6.3	-1.6	0.0
10*	Help	If I had a mental illness, I would tell my friends.	4.8	3.2	-3.2	0.0	-4.8	0.0	7.9	-6.3	0.0	-1.6	4.8	11.1	-9.5	0.0	-6.3
11*	SR	It is the responsibility of health care providers to inspire hope in people with mental illness.	1.6	-3.2	3.2	-1.6	0.0	1.6	-3.2	-1.6	3.2	0.0	3.2	-6.3	1.6	1.6	0.0
12	Dis	Despite my professional beliefs, I have negative reactions towards people who have mental illness.	-4.8	6.3	6.3	-6.3	-1.6	0.0	-1.6	3.2	-3.2	1.6	-4.8	4.8	9.5	-9.5	0.0
13	SR	There is little I can do to help people with mental illness.	-12.7	17.5	-6.3	1.6	0.0	7.9	-7.9	-1.6	1.6	0.0	-4.8	9.5	-7.9	3.2	0.0
14	Dis	More than half of people with mental illness don’t try hard enough to get better.	14.3	-6.3	-4.8	-3.2	0.0	-7.9	7.9	0.0	0.0	0.0	6.3	1.6	-4.8	-3.2	0.0
15*	Dis	People with mental illness seldom pose a risk to the public.	6.3	-6.3	0.0	-1.6	1.6	7.9	0.0	0.0	-6.3	-1.6	14.3	-6.3	0.0	-7.9	0.0
16		The best treatment for mental illness is medication.	6.3	7.9	-9.5	-3.2	-1.6	-7.9	-4.8	6.3	6.3	0.0	-1.6	3.2	-3.2	3.2	-1.6
17	Dis	I would not want a person with a mental illness, even if it were appropriately managed, to work with children.	4.8	-1.6	-3.2	0.0	0.0	1.6	3.2	-6.3	0.0	1.6	6.3	1.6	-9.5	0.0	1.6
18	SR	Healthcare providers do not need to be advocates for people with mental illness.	3.2	-4.8	0.0	0.0	1.6	4.7	-3.1	0.0	0.0	-1.6	7.9	-7.9	0.0	0.0	0.0
19*	SD	I would not mind if a person with a mental illness lived next door to me.	14.3	11.1	-9.6	1.6	1.6	6.3	-7.9	1.6	1.6	-1.6	20.6	3.2	-8.0	3.2	0.0
20	Dis	I struggle to feel compassion for a person with a mental illness.	9.6	-4.8	-3.2	-1.6	0.0	3.1	-4.7	-1.6	3.2	0.0	12.7	-9.5	-4.8	1.6	0.0

*Reversed scored items (anchors should read, from left to right, strongly agree, agree, neither agree or disagree, disagree, strongly disagree); SD = social distance, Dis = discrimination, Help = helping, SR = social responsibility