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BC PSP Adult Mental Health Module: Key Findings

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The following is a summary of key findings from Adult Mental Health PSP Program Evaluation conducted by Opening Minds, in partnership with Fraser Valley Health.

1 OPENING MINDS: CHANGING HOW WE SEE MENTAL ILLNESS

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

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

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



2 BACKGROUND

Opening Minds is partnering with programs in Canada, reaching out to its initial target groups: youth, healthcare providers, the workforce, and news media. One of the partner programs for healthcare providers is the British Columbia Practice Support Program (PSP) created by the BC General Practice Services Committee (GPSC) to support family physicians in operationalizing training initiatives. One such initiative is the PSP Adult Mental Health Module, which was developed to enhance the capacity and comfort of family physicians to diagnose and engage patients in the management of their mental health issues.

This module trains family physicians and medical office assistants (MOAs) in the use of a wide range of tools that could be used in their own offices. The module involves three learning sessions separated by two action periods of about seven weeks. There are three components to the module. The CBIS (Cognitive Behavioral Interpersonal Skills) Manual, developed by Dr. Weinerman and her team, presents an organized protocol approach taking physician and client from a diagnostic screening interview through to a care plan, to one-page self-management CBT skills handouts that can be done in realistic Family Practice time, fitting BC fee schedules. The Antidepressant Skills Workbook (ASW) developed by Dan Bilsker, PhD, is another self-management workbook coaching option for family physicians. Finally, there is the Bounceback program delivered by CMHA that includes a DVD handout and a community self-management telephone coaching program.

The full program is available on the www.gpsc.bc.ca website.

The program was initially evaluated by Hollander Analytical Services Limited.¹ Results showed that this module was successful in changing family physicians' practice. Program participants felt they had improved patient care, increased their job satisfaction, decreased their reliance on prescribing antidepressant medications, and improved their patients' ability to return to work and stay at work. This change in practice was sustained over a 6- to 12-month follow-up period. Patients also reported that they felt more comfortable and engaged.

These results led to the hypothesis that as physicians become more knowledgeable and comfortable/confident in caring for persons with mental illness, stigmatizing attitudes and behaviours among this group may also be reduced. A previous evaluation of a condensed, one-day version of the PSP conducted by OM found the training to have a positive impact on attitudes and behavioural intentions among program participants.² The current evaluation, which was conducted in partnership with Fraser Valley Health, sought to examine the impact of the full program on attitudes and behavioural intentions of healthcare providers completing the Adult Mental Health PSP training.

¹ See Kadlec, H, and Hollander, M. 2012. Evaluation of the Practice Support Program: Final Report. Victoria, BC: Hollander Analytical Services. See also MacCarthy, D. 2013. Mental Health Practice and Attitudes Can Be Changed. *Perm J Summer*; 17(3):14-17. Located at <http://www.thepermanentejournal.org/issues/2013/summer/5223-mental-health.html>.

² See Luong, D. et al., 2012. PSP Adult Mental Health Module: Evaluation Report. Calgary: Mental Health Commission of Canada. Located at <http://www.mentalhealthcommission.ca/English/node/5177?terminal=39>.

3 EVALUATION METHODS

Five training cohorts from BC's Fraser Valley health region were involved in this research, totalling approximately 158 participants. The first cohort began the Adult Mental Health Module PSP training in October 2011, and completed it in late February 2012. The second cohort started their training in March of 2012 and completed it in June of 2012. The third cohort started in April 2012 and finished in September 2012. The final two cohorts began the module in October 2012 and completed it in February 2013.

In order to assess attitude change towards mental illness, program participants were given a questionnaire package at three different time-points. The first survey was completed before the initial training (pre-test survey). The second questionnaire was completed by participants at the completion of their program (post-test survey). The final survey (follow-up survey) was administered electronically, one and a half years after the Adult Mental Health Module training.

All surveys contained the 20-item Opening Minds Scale for Health Care Providers (OMS-HC) so that changes over time could be assessed. The OMS-HC is a validated scale that measures healthcare providers' attitudes and behavioural intentions towards people with a mental illness.³ To complete the scale, participants are asked the extent to which they agree or disagree with each item. Items are rated on a 5-point scale: *strongly agree*, *agree*, *neither agree nor disagree*, *disagree*, or *strongly disagree*. For this particular evaluation, Cronbach's alphas for the scale were .82 at pre-test, .78 at post-test, and .84 at follow-up, indicating an acceptable level of internal consistency for the OMS-HC scale.

To create a total scale score for the OMS-HC, all 20 items are summed for each participant. Total scores can range from 20 to 100, with lower scores indicating less stigma. Paired t-tests were used to analyze changes in scale scores. Also, by grouping certain questions from the scale together, the OMS-HC was used to examine three important dimensions of stigma: attitudes towards people with mental illness, healthcare professionals' attitudes about disclosure of a mental illness, and social distance.

There were five training cohorts in this study, totalling approximately 158 participants. Of those, 153 pre-test surveys were received and 91 completed post-test surveys were received. Only three of the five participating cohorts were asked to complete the 1.5 year follow-up survey.

Pre- to post-program results are based on a paired analysis of participants who completed both the pre- and the post-test surveys, and whose surveys could be matched (n=83). Follow-up results are based on a paired analysis of participants who completed all three surveys.

³ See Kassam A, Papish A, Modgill G, Patten S (2012). The development and psychometric properties of a new scale to measure mental illness related stigma by health care providers: The Opening Minds Scale for Health Care Providers (OMS-HC). *BMC Psychiatry* 12(62). Available at <http://www.biomedcentral.com/1471-244X/12/62>

4 RESULTS

4.1 Demographic Characteristics

Table 1 highlights the breakdown of program participants by cohort, age, gender and occupational category. Demographic characteristics are reported for the 83 program participants who completed both the pre- and post-test surveys.

Table 1. Demographic characteristics of PSP Adult Mental Health Module training participants

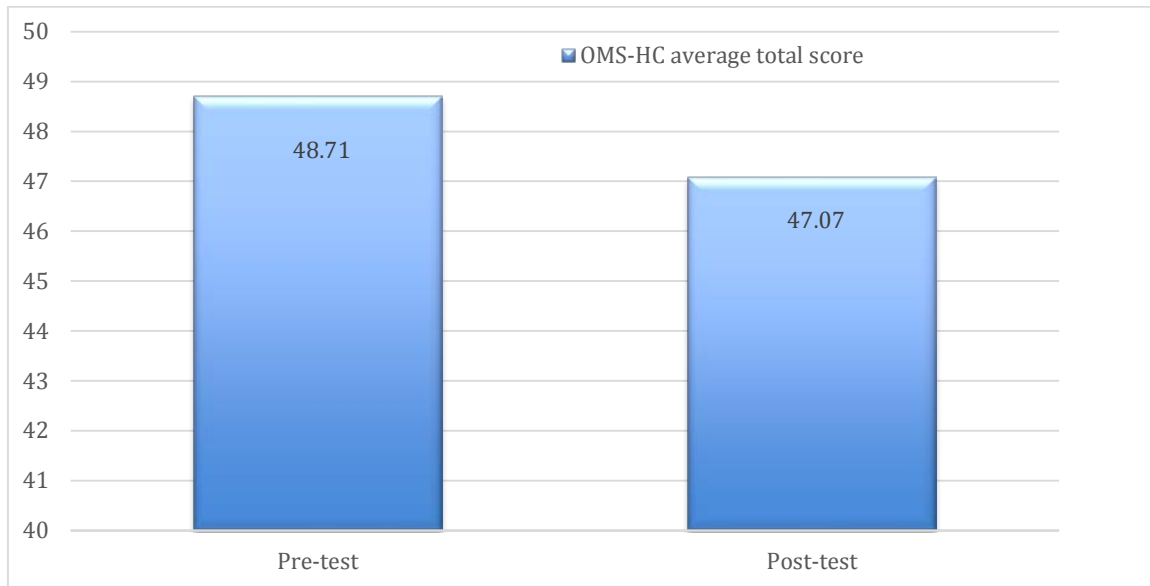
	n (=83)	%
Cohort		
1	9	10.8%
2	32	38.6%
3	14	16.9%
4	16	19.3%
5	12	14.5%
Gender		
Female	52	62.7%
Male	31	37.3%
Age group		
18-29	7	8.4%
30-39	20	24.1%
40-49	29	34.9%
50-59	20	24.1%
60-69	7	8.4%
Occupation		
Physician	58	69.9%
Nurse	7	8.4%
Physician assistant / MOA	18	21.6%
Years of practice (mean=16.0)		
5 years or less	16	19.2%
6-10 years	13	15.6%
11-15 years	12	14.4%
16-20 years	14	16.9%
21-25 years	11	13.2%
> 25 years	14	17.2%
No response	3	3.6%

4.2 OMS-HC Total Score Change from Pre to Post Training

Figure 1 highlights the average total score on the OMS-HC across time for those participants who completed a survey both pre- and post-program (paired analysis, n=83). For the pre-test, total scores ranged from 24 to 81 with an average of 48.71 (SD = 9.09), suggesting a relatively high level of stigma at baseline (as compared to other evaluations of healthcare provider programs conducted by OM⁴). For the post-test, total scores ranged from 22 to 67, with an average of 47.07 (SD=7.18).

The change in score from pre- to post-training represents a 3.3% relative improvement and a standardized mean difference (SMD) of .18, which may be considered a weak effect. Results of a paired t-test showed that this score improvement was not statistically significant at the $p < 0.05$ level [$t(82)=1.89, p=.062$].

Figure 1. OMS-HC score for PSP participants at pre and post training (paired analysis, n=83)



4.3 Dimensions of Stigma

The OMS-HC scale contains within it three main content areas, each measuring a specific dimension of stigma. While original scale testing suggested two main subscales – attitudes towards mental illness and attitudes towards disclosure of a mental illness⁵ – subsequent analyses have identified three subscales within the OMS-HC (paper in progress).

⁴ See <http://www.mentalhealthcommission.ca/English/initiatives-and-projects/opening-minds?terminal=39&rouetoken=d564ee83f0ef92c484cfc113ac58add5> for other healthcare provider anti-stigma program evaluation reports.

⁵See Kassam A, Papish A, Modgill G, Patten S (2012). The development and psychometric properties of a new scale to measure mental illness related stigma by health care providers: The Opening Minds Scale for Health Care Providers (OMS-HC). *BMC Psychiatry* 12(62). Available at <http://www.biomedcentral.com/1471-244X/12/62>

The first subscale or dimension is healthcare providers' inclinations towards disclosure of a mental illness. This dimension can be used to provide an indication of the stigma healthcare providers believe exists due to having a mental illness and how this would impact help-seeking. The second dimension is that of attitudes towards people with mental illness. The third dimension is that of social distance.

Table 2 shows the pre and post mean scores across these three dimensions of stigma measured by the OMS-HC. As shown, each of the three dimensions improved from pre- to post-PSP training. Mean score changes were not statistically significant at the $p < 0.05$ level [$t(82)=1.88, p=.063$].

Table 2. Stigma content areas: Changes in respondent score from pre-test to post-test (n=85)

Content Area	Pre-test mean (95%CI)	Post-test mean (95%CI)	Mean Change (95%CI)	Paired t-test
Attitude towards people with mental illness	2.26	2.12	0.14 (-0.01–0.29)	$t(82)=-1.88$ $p=.063$
Disclosure/help-seeking	2.72	2.66	0.06 (-0.10–0.23)	$t(82)=0.76$ $p=.451$
Social distance	2.10	2.04	0.06 (-0.06–0.18)	$t(82)=1.00$ $p=.323$

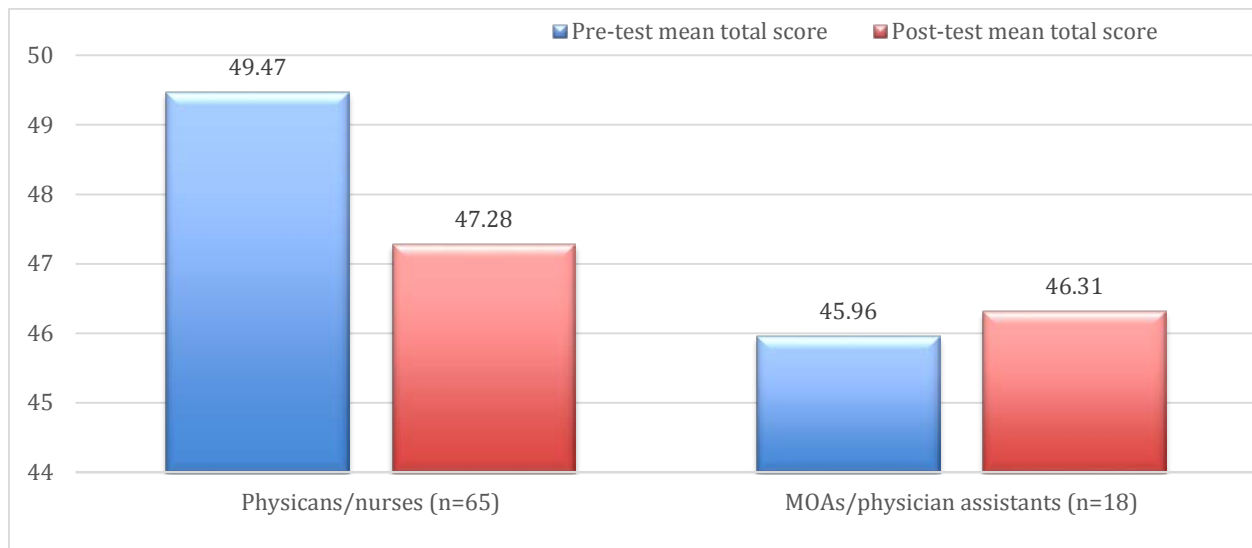
4.4 Results by Participant Type

Changes in score on the OMS-HC from pre- to post-training were also examined by participant type – physicians and nurses, and medical office assistants (MOAs)/physician assistants. These results are highlighted in **Figure 2**.

As shown, the physicians and nurses group realized a 4.4% improvement in score on the OMS-HC stigma scale – from 49.47 (SD=8.7) at baseline to 47.28 (SD=7.0) at program completion. The MOA/physician assistant group, by contrast, had slight increase (i.e., worsening) in OMS-HC score, from 45.96 (SD=10.2) at baseline to 46.31 (SD=8.0) at post-test.

Results of paired t-tests showed that the score improvement for the physician/nurse group was statistically significant [$t(64)=2.30, p=.025$]. The score change for the MOA/physician assistant group was not [$t(17)=-0.17, p=.864$].

Figure 2. OMS-HC score for PSP participants at pre and post training: Physicians and nurses, and MOAs/physician assistants



Changes in score for individual scale items were also examined according to participant type. For the physician and nurse group, five of the 20 statements showed statistically significant improvements from pre to post training:

- *“Employers should hire a person with a managed mental illness if he/she is the best person for the job.”*
- *“If I had a mental illness, I would tell my friends.”⁶*
- *“Despite my professional beliefs, I have negative reactions towards people who have mental illness.”*
- *“There is little I can do to help people with mental illness.”*
- *“People with mental illness seldom pose a risk to the public.”*

No statements showed statistically significant increases in stigma from pre- to post-training, although the statement, *“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”* was nearly significant [pre-test mean score=2.60, post-test mean score=2.80, $t(64)=-1.89$, $p=.063$].

For the MOA/physician assistant group, there were no individual scale items that showed statistically significant increases or decreases from pre- to post-training.

⁶ This item was approaching significance [pre-test mean score=2.95, post-test mean score=2.73, $t(64)=1.95$, $p=.056$].

4.5 Comparison to Other Programs

OM has evaluated two other programs similar to the Fraser Health PSP program: a condensed version of the PSP training delivered as a one-day workshop for family physicians, and the Cognitive Behavioural Interpersonal Skills (CBIS) program.⁷ Pre- to post-program scores across the three programs are provided in **Table 3**.

Table 3. OMS-HC Scores and Score Changes for Three Programs: Fraser Valley PSP, One-day PSP and CBIS training

Program	Pre-test average total score	Post-test average total score	Mean change (95% CI)	Paired t-test
Fraser Valley PSP (n=85)	48.71	47.07	1.64 (-0.09–3.38)	t(82)=1.89 p=.062
One-day PSP (n=17)	47.60	43.00	4.60 (2.07–7.14)	t(16)=-3.86 p<.001
CBIS training (n=164)	43.04	42.11	0.93 (0.16–1.70)	t(163)=2.38 p=.018

5 FOLLOW-UP RESULTS

Respondents from three of the five training cohorts (102 participants) were asked to complete a follow-up survey approximately one and half years following their participation in the PSP training. A total of 26 participants completed the follow-up survey. Analyzing scale scores a period of time after program completion allows for an examination of the extent to which program impacts may have been sustained over time.

Similar to the analysis of score changes from pre- to post-PSP training, a paired analysis of OMS-HC score changes was performed for those participants who completed a survey at each of the three time points: pre-PSP training, post-PSP training, and 1.5 year follow-up (n=23). As highlighted in Figure 3, score improved from pre-test to post-test, and again at follow-up. More specifically, scores improved approximately 3.7% from baseline to post-test, and 4.4% from baseline to the time of the follow-up survey.

⁷ CBIS training is one of the three main components of the PSP, delivered as a half-day workshop for physicians and other front-line healthcare providers.

The score change from pre-test to follow-up represents a standardized mean difference (SMD) of .27, which may be considered a weak effect. Results of a paired t-test showed that the score change from pre-test to the time of the follow-up survey was not statistically significant [$t(22)=1.50, p=.148$].

Figure 3. OMS-HC score for PSP participants at three time points (paired analysis, n=23)

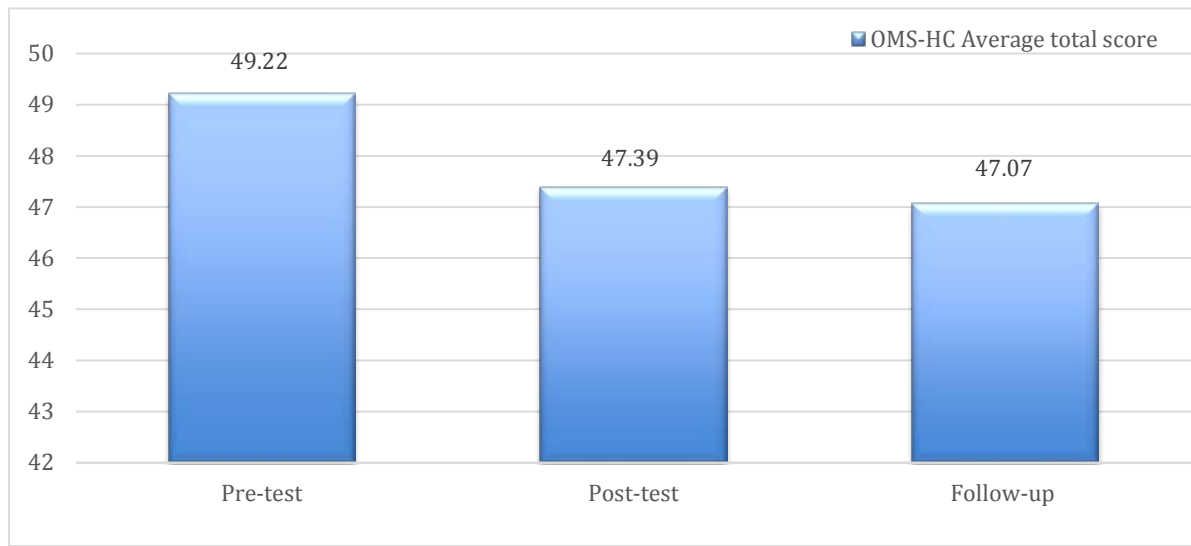


Table 4 shows OMS-HC score changes from baseline to follow-up according to participant type – physicians and nurses, and MOAs/physician assistants. As highlighted, physicians and nurses showed continued score improvements at each of the three time points. Although the total score change from baseline to follow-up did not meet the criteria for statistical significance at the $p < 0.05$ level [$t(16)=2.01, p=.062$], it was showing a trend towards significance.

Table 4. OMS-HC score for PSP participants at three time points: by participant type

Participant Type	Pre-test Score	Post-test Score	Follow-up Score	Mean change (95%CI)	Paired t-test
Physicians and Nurses (n=17)	49.33	47.59	46.48	2.85 (-0.16–5.87)	$t(16)=2.01$ $p=.062$
MOAs/physician assistants (n=6)	48.88	46.83	48.74	0.14 (-9.84–10.12)	$t(5)=0.04$ $p=.972$
Overall / All participants (n=23)	49.22	47.39	47.07	2.15 (-0.82–5.12)	$t(22)=1.50$ $p=.148$

6 SUMMARY AND CONCLUSIONS

The evaluation of the PSP Adult Mental Health training showed overall modest results in terms of its effectiveness for reducing mental illness related stigma among healthcare providers. While evaluation results suggest overall score improvements from pre-test to post-test to 1.5 year follow-up, these improvements may be considered weak effects, and were not statistically significant.

In examining outcomes by participant type, however, findings suggest that the Adult Mental Health PSP training *was* effective at reducing stigma among physicians and nurses, but not among MOAs/physician assistants. Paired analyses of OMS-HC scale scores over time found that physicians and nurses had improved scores from pre- to post-program, with continued improvement in score to the time of the 1.5-year follow-up. This was the case for total scale scores, as well as for each of the three dimensions of stigma captured within the scale – attitudes towards mental illness, attitudes towards disclosure/help-seeking, and social distance.

The fact that follow-up scores (for the physicians and nurses group) were lower than both pre- and post-test scores is particularly encouraging given the amount of time between the completion of training and the follow-up period. Although further research is required, it could be that as physicians and nurses put the PSP skills into practice, the quality of their interactions and their ability to help improves, leading to reduced mental illness related stigma.

While consistent improvements in score were observed for this group, these improvements were relatively modest in comparison to the condensed version of the PSP training evaluated previously by OM. While it is unclear why the current evaluation results were less robust than the results for the condensed version of this same program, there are two key possibilities. One is that program format makes a difference (e.g., condensed format versus full format); the second is that the person delivering the program makes a difference (e.g., facilitator tone, facilitator enthusiasm, degree to which facilitator models non-stigmatizing behaviours and attitudes). Results from qualitative research conducted by OM suggest the latter factor may be a key ingredient for stigma reduction programming (see OM's Interim Report at <http://www.mentalhealthcommission.ca/English/document/17491/opening-minds-interim-report?terminal=39>) and may mediate program outcomes. Future evaluations of the PSP Adult Mental Health training should seek to investigate these questions further.

It is also important to reiterate that only one of the score changes observed in this study met the criteria for statistical significance (physician/nurse score improvement from pre to post training), although certain other measures were nearly significant (such as the score change from baseline to follow-up for the physician/nurse group, for example). Further research is thus required before the longer-term effects of the Adult Mental Health PSP training on stigma reduction among physicians and nurses can be ascertained with confidence. Also, the fact that the program did not lead to a reduction in stigma for MOAs/physician assistants points to the possibility that program enhancements/alterations may be required to the content or delivery of the MOA/physician assistant version of the Adult Mental Health PSP training.