

S1 Table. Brief literature review on 15-item OMS-HC. There are only 13 studies reported utilized 15-item OMS-HC and an overview of the participants, full score, Cronbach's alphas, some of the remarks and main conclusions are highlighted.

No.	Study	Participants	Full score	Cronbach's alphas	Remarks	Conclusions
1	<b>Modgill G, et al., (2014)</b>	Healthcare providers in Canada. Two groups: 1. Pre-test(n=1448). 2. post-test (n=803).	1. Pre-test=33.4. 2. post-test=31.2.	Crude(every one)=0.79.	For more information please see full text and additional file 6.	Acceptable internal consistency of new version 15-item OMS-HC and reported good in detecting a positive change in anti-stigma interventions.
2	<b>Knaak S, et al., (2015)</b>	<ul style="list-style-type: none"> <li>Assessing anti-stigma program among healthcare providers in Canada.</li> <li>Two versions employed: 1. Original version(n=94) 2. Borderline Personality Disorder (BPD) version(n=93).</li> </ul>	1. Original <ul style="list-style-type: none"> <li>Pre-intervention=30.35.</li> <li>post-intervention=29.28.</li> </ul> 2. BPD <ul style="list-style-type: none"> <li>Pre-intervention=37.56.</li> <li>post-intervention=32.83.</li> </ul>	1. Original <ul style="list-style-type: none"> <li>Pre-intervention=0.73.</li> <li>post-intervention=0.81.</li> </ul> 2. BPD <ul style="list-style-type: none"> <li>Pre-intervention=0.79.</li> <li>post-intervention=0.8.</li> </ul>	Compare the stigma of mental illness and the stigma of BPD.	Providers showed higher BPD stigma than other mental illness. Anti-stigma programs reduce stigma significantly in both groups.
3	<b>Fernandez A, et al., (2016)</b>	<ul style="list-style-type: none"> <li>Medical students from Malaysia.</li> <li>Anti-stigma lecture with: 1. Face-to-face intervention(n=51) 2. Video-based contact(n=51).</li> </ul>	1. Face-to-face <ul style="list-style-type: none"> <li>Pre-intervention=43.3.</li> <li>post-intervention=35.6.</li> </ul> 2. Video-based contact <ul style="list-style-type: none"> <li>Pre-intervention=42.5.</li> <li>post-intervention=34.6.</li> </ul>	Only reported the pre-treatment sub-scales=0.5 for attitude, 0.6 for disclosure and help-seeking and 0.60 for social distance.	Assessment 1-month follow-up reported.	Coupled interventions of educational lecture and either face-to-face contact or video-based contact reduce stigma within health care providers.
4	<b>Petkari E (2017)</b>	Students of BSc Psychology program in UAE(n=26) through cine-forum interventions.	<ul style="list-style-type: none"> <li>Pre-intervention=36.56.</li> <li>post-intervention=34.41.</li> </ul>	Not available	Only 18 completed the assessment.	The benefit of movie-based interventions as a learning tool for mental illness and stigma reduction in a restrictive environment for psychology students.

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5	<b>Chang S, et al., (2017)</b>	Healthcare students of medical(n=502) and nursing(n=500) in Singapore.	14-item OMS-HC: • Total=35.7 • medical=34.5 • nursing=36.8	14-item=0.75	<ul style="list-style-type: none"> <li>• First large study that validated OMS-HC in Asia.</li> <li>• Factor analysis retained only 14-item OMS-HC.</li> </ul>	Medical students were found to be less stigmatized than nursing.
6	<b>Beaulieu T, et al., (2017)</b>	Primary care physicians(n=111) randomized to control or anti-stigma intervention of novel skill-based approach 'The British Columbia Adult Mental Health Practice Support Program.	<ol style="list-style-type: none"> <li>1. Control group: • pre-test=31.65 (mean=2.11). • post-test=31.05 (mean=2.07).</li> <li>2. Intervention group: • pre-test=33.15 (mean=2.21). • post-test=31.05 (mean=2.07).</li> </ol>	<ol style="list-style-type: none"> <li>1. Control group: • pre-test=0.52. • post-test=0.82.</li> <li>2. Intervention group: • pre-test=0.70 • post-test=0.87</li> </ol>	Double-blinded, cluster randomized controlled trial.	The skill-based approach showed a positive impact on the stigma of the health care professional.
7	<b>Ng YP, Rashid A, O'Brien F (2017)</b>	Randomized primary care nurses(n= 207) from Penang, Malaysia with Video-Based Contact Intervention(VBCI).	<ol style="list-style-type: none"> <li>1. Baseline score= 40.</li> <li>2. Post-intervention score= 34.</li> </ol>	Malay version= 0.76.	Malay version.	Brief VBCI is effective in improving stigma attitudes in primary care nurses.
8	<b>Destrebecq, A., et al. (2018)</b>	Multicentric, observational, cross-sectional study on students of nursing, physiotherapy, occupational therapy, and dietetics from the university of Milan, Italy(n=561).	Not reported.	Subscales of 15 item OMS-HC are 0.76, 0.83 and 0.82.	An Italian version of 12 and 15 item OMS-HC been used. The aim of the study was to examine the psychometric characteristics of the Italian version scale.	The Italian version of the OMS-HC reported valid and reliable. Older aged students showed lower stigma score.
9	<b>van der Maas, M. et al., (2018)</b>	Staff from 6 Community Health Centers(CHC) from Toronto, Canada(n=190).	Total mean score= 30.38	Sample= 0.766	Factor analysis showed good absolute. Comparing different scales designed to measure stigma were included to assess the external validity of 15-item OMS-HC.	15-item OMS-HC appropriate to be used in CHC settings and advantageous to others scales.

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10	<b>Laraib A, et al., (2018)</b>	3rd-year medical students, MBBS qualified teachers, trainee medical officers, house officers and clinicians from 5 major hospitals along with teaching institute from Abbottabad, Pakistan(n=553).	Not reported.	Not reported.	Psychiatrists, 1st and 2nd-year medical students were excluded.	Stigma does exist among healthcare providers. The attitudes sub-scale reported to be high while the sub-scales on help seeking and disclosure and social distance were lower.
11	<b>Happell, B., et al. (2019)</b>	Nursing undergraduate students from universities located in North-Western Europe and Australia. (n=423).	Not reported.	Between 0.6-0.8 similar to study no.1 Modgill G, et al., (2014).	<ul style="list-style-type: none"> <li>• Part of ongoing research on nurse education curricula (The Commune Project).</li> <li>• The aim of the study was to assess the validity of OMS-HC through confirmatory factor analysis and Rasch modeling.</li> <li>• Final version retains 13 items of 15 items OMS-HC.</li> <li>• Only conducted on nursing students.</li> </ul>	OMS-HC should not be a global estimate of stigma but could help in evaluating the efficacy of an anti-stigma intervention.
12	<b>Douglass M, Moy B(2019)</b>	<ul style="list-style-type: none"> <li>• P3 pharmacy students from Northeastern University, Boston, Massachusetts in USA(n=93).</li> <li>• A 90-minute intervention composed of three activities to generate discussion on the stigma of mental illness using Buzzfeed video, a Reddit discussion thread, and an AsapSCIENCE video.</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-intervention= 36.8.</li> <li>• post-intervention= 35.1.</li> </ul>	Not reported.	Majorities reported that pharmacists should have an active role in reducing stigma.	Stigma significantly decreased according to the attitudes and disclosure/help-seeking subcategories, but not the social distancing subcategory.

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13	Mötteli, S., et al., (2019)	A survey on clinical staff members from 15 wards from the Psychiatric University Hospital Zurich during September and October 2017(n=110).	Mean=2.00=Sum=30	Total scale=0.75. For subscales of attitude=0.60, for disclosure and help-seeking=0.48 and for social distance=0.78.	<ul style="list-style-type: none"> <li>• First research to investigate the relationship of improved recovery attitude with stigma in healthcare providers.</li> <li>• A German version of 15-OMS-HC and Recovery Attitude Questionnaire -7 scale been used.</li> <li>• All data were anonymously collected and ethical approval was not required.</li> <li>• A low response rate of 36.0%.</li> </ul>	<ul style="list-style-type: none"> <li>• Participants with more optimistic recovery attitude were less stigmatized towards people with mental illness.</li> <li>• To improve the anti-stigma campaign against the stigma of mental illness, more emphasis should be on the recovery attitudes.</li> </ul>