

ORIGINAL PAPER

The Psychometric Properties of a Malay Language Version of the Internalized Stigma of Mental Illness (ISMI) Scale (ISMI-BM)

Naemah binti Abdul Rahim¹, Aili Hanim binti Hashim²,
Ng Chong Guan³, Chong Siew Koon³

¹Department of Psychiatry and Mental Health, Taiping Hospital, Malaysia

²Department of Psychological Medicine, University of Malaya, Malaysia

³Department of Psychiatry and Mental Health, Hospital Sultanah Nur Zahirah Terengganu, Malaysia

Abstract

Introduction: This study examined the psychometric properties of a Malay translated version of Internalized Stigma of Mental Illness scale (ISMI-BM). **Methods:** 120 participants attending outpatient psychiatric clinic in University Malaya Medical Centre (UMMC) were recruited in this study. The participants have completed socio-demographic questionnaire, ISMI Scale (both English and Malay version), Discrimination and Stigma scale (DISC-12) and Rosenberg Self-Esteem scale. Prior, ethical approval was acquired from the UMMC Medical Ethics Committee. The internal consistency of the Malay version of ISMI was assessed using the Cronbach's alpha coefficient. Spearman correlation (r) was used to examine the parallel reliability between Malay version of ISMI with the original version of ISMI; and the concurrent validity between Malay version of ISMI with DISC-12 and Rosenberg Self-esteem scale. Statistical analysis was performed using Statistical package for Social Science (SPSS) version 22.0 software. **Results:** Our result showed that Malay version of ISMI scale has impressive internal consistency with high Cronbach alpha of 0.91. The study also demonstrated good parallel form reliability. ISMI-BM also significantly correlated with factors of DISC-12; DISC Overcoming Stigma ($r = -0.32, p < 0.01$) and DISC Positive Treatment ($r = -0.21, p < 0.05$) and Rosenberg Self-Esteem scale ($r = 0.50, p < 0.01$). **Conclusion:** The ISMI-BM demonstrated good validity and reliability that generally justified its use in routine clinical practice in Malaysia.

Keywords: Internalized Stigma, Validity, Reliability, Malay

Introduction

Stigma can be defined as the 'social-status loss and discrimination triggered by

negative labels that have become connected in a certain society' [1]. It is vital to ponder that the harm caused by stigma is not purely a direct result of the discrimination by

others, although obvious social exclusion and discrimination is often expressed by people with a mental illness [2]. Comparatively, stigma functions through the internalization of the public attitudes and beliefs by the stigmatized person. In view of that, internalized stigma, also known as self-stigma, can be generally defined as the subjective and internal experience of stigma. A concise definition is provided by Ritsher et.al 2003: ‘Internalized stigma is the devaluation, shame, secrecy and withdrawal triggered by applying negative stereotypes to oneself’ [3].

It is predicted that about a third of people with serious mental illness experience high levels of internalized stigma that create an important obstacle to recovery [4]. Mental illness-related stigma has been associated with delay in treatment seeking and non-adherence to treatment [5], poor social functioning [6] and difficulty obtaining housing and employment [7]. In other international studies, it was reported that mental illness stigma was significantly associated with worse physical quality of life, employment limitations and worse social functioning among individuals with mental illness [8].

Internalized Stigma of Mental Illness (ISMI) scale is widely used to measure internalized stigma among people with mental illness. The ISMI contains 29 Likert items and it measures the subjective experience of stigma, with subscales measuring Alienation, Stereotype Endorsement, Perceived Discrimination, Social Withdrawal, and Stigma Resistance [9].

Since the ISMI is brief, simple, easy to complete, and its application in research settings as a screening tool is well documented; we have decided to translate the ISMI into Malay language (national

language in Malaysia) and to examine the psychometric properties of the questionnaire in a sample of psychiatric outpatient. This was to develop the Malay version of the ISMI to meet the increasing demand for the questionnaire. There is evidence that the ISMI is a consistent and reliable instrument when used in general population samples [3].

Having a validated measure of internalized stigma may encourage clinicians to include stigma reduction as a verifiable treatment goal in addition to symptom reduction. Because stigma works at cross-purposes to treatment [10], interventions that both reduce internalized stigma and reduce illness symptoms are likely to be more efficient, efficacious, and longlasting.

Methods

Study design

Stage 1: Translation of Malay version of ISMI

The English version of ISMI was translated into the Malay language by two authors who were bilingual (English and Malay). Another two different authors, who were also bilingual, then back-translated the ISMI from the Malay to the English version, following the back-translation technique [11]. The translated version was pilot tested among 30 staffs for face validity. The finalized version was further reviewed by a consultant psychiatrist for content validity and to ensure satisfactory face, semantic, criterion and conceptual equivalence[12].

Stage 2: Evaluation of the ISMI-BM

This was a cross-sectional study conducted from June to July 2015 at outpatient psychiatric clinic in the University Malaya Medical Centre (UMMC). The study protocol was approved by the Medical

Ethics Committee (MEC) of the UMMC. Criteria for selecting subjects were as follows: Any patients attending outpatient psychiatric department in UMMC, able to read and understand both English and Malay language adequately well and patients who are consented for the study. Patients with age below 18 years old, having underlying organic brain syndrome or had impaired cognitive function such as dementia or mental retardation were excluded from this study.

Patients whom attended outpatient psychiatric clinic and fulfilled the criteria were identified. They were approached and explained about the study. Those who agreed to participate were recruited into the study. The socio-demographic information of the patients was collected. They were given following questionnaires for the assessment of their self-esteem, internalized stigma, and experienced of discrimination.

The assessment questionnaire

ISMI – both English and Malay version

ISMI is a self-rated questionnaire designed to measure internalized stigma among persons with mental illness. It has 29 items and is divided into five categories; alienation, discrimination experience, social withdrawal, stereotype endorsement and stigma resistance. The I.S.M.I has been translated into many different languages and it has shown to have good validity and reliability [9]. ISMI has 29 items rated on Likert scale (0 to 4). Each of the items has a set of four response categories: Strongly Agree, Agree, Disagree and Strongly Disagree; with strongly disagree response receiving a score of 1 and strongly agree response receiving a score of 4. The total score is divided by the total number of answered items. The scores range from 1.00 to 4.00, and the higher the score indicates a

higher level of internalized stigma. Permission to use this scale has been granted from Associate Professor Jennifer E. Boyd.

Discrimination and Stigma Scale (DISC-12)

It is a 34-item clinical research instrument, and is used to measure the discrimination and levels of stigma experienced by the participant. It comprises four subscales and a global scale, each of which is scored separately. The four subscales are unfair treatment, stopping self, overcoming stigma and positive treatment. Both a mean and a total score are calculated for each subscale and the global scale. This scale allows to measure levels of stigma in each applicable typical area of life and also to the different areas of life. All interviews and assessments using DISC-12 were conducted by the first author. This scale is used to examine for concurrent validity of ISMI-BM. Permission to use this scale has been granted from Professor Graham Thornicroft.

Rosenberg Self Esteem Scale (RSES)

The Rosenberg Self-Esteem scale, a widely used self-rated questionnaire to evaluate individual self-esteem, was investigated using item response theory. This scale consists of 10-item scale that measures global self-worth by measuring both positive and negative feelings about self. All items are answered using 4-point Likert scale format ranging from strongly agree to strongly disagree. Total scores were sum for all 10 items. Higher scores indicate higher self-esteem.

Statistical analysis

The results were analyzed using Statistical Package for Social Sciences version 22.0. The descriptive statistics were used to examine the baseline characteristic data. The internal consistency of the Malay version of

ISMI was assessed using the Cronbach's alpha coefficient. Spearman correlation (r) was used to examine the parallel reliability between Malay version of ISMI with the original version of ISMI; and the concurrent validity between Malay version of ISMI with DISC-12 and Rosenberg Self-esteem scale.

Results

Based on the inclusion and exclusion criteria, total of 120 patients whom attending psychiatric outpatient clinic at UMMC were recruited for the study. Table 1 shows demographic background of the patients.

Table 1. The socio-demographic characteristics

Variables	Mean (sd)	n (%)
Age	40.64 (14.02)	
Gender		
a) Male		66 (55)
b) Female		54 (45)
Race		
a) Malay		55 (45.8)
b) Chinese		36 (30.0)
c) Indian		23 (19.2)
d) Others		6 (5.0)
Marital status		
a) Single		65 (54.2)
b) Married		45 (37.5)
c) Divorced		10 (8.3)
Religion		
a) Islam		60 (50.0)
b) Buddha		22 (18.3)
c) Hindu		19 (15.8)
d) Christian		14 (11.7)
e) Others		5 (4.2)
Educational Background		
a) None		
b) Primary		
c) Secondary		2 (1.7)
d) Tertiary		5 (4.2)
Employment status		48 (40.0)
a) Student		65 (54.2)
b) Employed		
c) Unemployed		10 (8.3)
d) Retired		65 (54.2)
		34 (28.3)
		11 (9.2)

Mean for total score of ISMI was 2.17 (sd 0.53), and based on the total score, 71.7% subjects were categorized low internalized stigma while 28.3% report to have high internalized stigma. On average, participants reported experiencing stigma in 19.27 of the 35 aspects of life on the DISC. Subscales for

Unfair Treatment and Stopping Self fell in the minimal stigma category (scores < 1) while subscale Overcoming Stigma and Positive Treatment were in low stigma category (scores of 1 – 1.5). For Rosenberg Self-esteem scale, mean score of the participants was 22.46 (sd 4.38).

Table 2. Correlation (Spearman) between ISMI, Disc-12 and RSES score

ISMI	RSES	DISC-12			
		Unfair treatment	Stopping self	Overcoming stigma	Positive treatment
Alienation	0.58**	0.41**	0.40**	0.10	-0.11
Stereotype endorsement	0.48**	0.26**	0.21**	-0.04	-0.04
Discrimination experience	0.39**	0.43**	0.32**	-0.01	-0.12
Social withdrawal	0.43**	0.45**	0.51**	0.04	-0.04
Stigma resistance	0.21	-0.25	-0.59	-0.32**	-0.21*
Total score	0.50**	0.42**	0.41**	0.13	-0.13

** Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

In the analysis of correlation of ISMI with DISC-12 and RSES total score (table 2), there were significant findings for all items. The ISMI Alienation, Stereotype Endorsement, discrimination Experience, Social Withdrawal and total score were significantly correlated with Rosenberg Self-

Esteem score and DISC unfair Treatment and DISC Stopping Self. The ISMI Stigma Resistance was significantly correlated with positive aspects subscale of DISC, which were DISC Overcoming Stigma ($r = -0.32$, $p < 0.01$) and DISC Positive Treatment ($r = -0.21$, $p < 0.05$).

Table 3. Internal Consistency for the ISMI

Factors	INTERNAL RELIABILITY (Cronbach α)
Total	0.912
Alienation	0.873
Stereotype Endorsement	0.846
Discrimination experience	0.872
Social Withdrawal	0.896
Stigma Resistance	0.651

Table 4. Corrected item-total correlations and Cronbach's alpha values if an item is deleted in the ISMI-BM

ISMI-BM	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Item 1	61.34	194.912	.710	.746	.906
Item 2	61.31	196.127	.638	.735	.907
Item 3	60.89	200.162	.491	.647	.910
Item 4	61.37	201.759	.495	.458	.909
Item 5	61.16	193.713	.744	.764	.905
Item 6	61.24	195.074	.668	.720	.906
Item 7	61.40	198.358	.602	.614	.908
Item 8	61.68	200.922	.494	.498	.909
Item 9	61.52	202.920	.425	.548	.911
Item 10	61.53	197.779	.643	.603	.907
Item 11	61.62	198.452	.599	.609	.908
Item 12	61.66	199.015	.536	.701	.909
Item 13	61.77	198.296	.625	.658	.907
Item 14	61.40	200.325	.536	.550	.909
Item 15	61.49	196.771	.672	.705	.907
Item 16	61.38	196.336	.649	.739	.907
Item 17	61.52	198.569	.608	.767	.908
Item 18	61.66	202.930	.490	.660	.910
Item 19	61.13	199.275	.513	.520	.909
Item 20	61.38	195.615	.714	.755	.906
Item 21	61.32	194.603	.724	.747	.906
Item 22	61.43	195.388	.720	.753	.906
Item 23	61.43	197.201	.713	.768	.906
Item 24	61.64	198.064	.655	.758	.907
Item 25	60.63	225.843	-.418	.402	.923
Item 26	61.36	209.418	.169	.548	.915
Item 27	61.46	211.655	.110	.626	.915
Item 28	61.32	218.080	-.144	.647	.919
Item 29	61.32	215.225	-.039	.554	.918

Table 3 and table 4 showed value of internal consistency for ISMI scale. Cronbach's α for the ISMI was 0.912, and removal of any item did not increase the α value to greater than 0.912 except for Stigma Resistance items (due to reverse-coded items). Sub-scale analysis showed Cronbach's α for Alienation was 0.873, for Stereotype Endorsement was 0.846, for Discrimination Experience was 0.872, for Social Withdrawal was 0.896 and for stigma

Resistance was 0.651. The parallel form reliability between the ISMI and the ISMI-BM was good (ICC= 0.97, $p < 0.01$).

Discussion

Results from our study demonstrate that the Malay translated version of the ISMI scale has good reliability and validity. Our study showed excellent internal consistency as reflected by a high Cronbach's alpha value

of 0.91. This indicates a high level of homogeneity among items in the scale. Also compare with original version of ISMI, ISMI-BM demonstrate good parallel form reliability (ICC= 0.97).

Our results for concurrent validity of ISMI-BM were also established. The ISMI Alienation, Stereotype Endorsement, discrimination Experience, Social Withdrawal and total score were significantly correlated with Rosenberg Self-Esteem score and DISC unfair Treatment and DISC Stopping Self. The ISMI Stigma Resistance was significantly correlated with positive aspects subscale of DISC, which were DISC Overcoming Stigma and DISC Positive Treatment. In general, tendencies toward stigma are negatively-themed while self-esteem is positive construct.

A few limitations of this study warrant considerations. First, it was a cross-sectional study, in which only the association was established but not the causation. Our sample was recruited from only one outpatient clinic using convenience sampling, thus the findings may not be generalizable to whole Malaysia population. Besides that, clinical features such as types of mental illness, comorbidity, severity of illness and types of medications used by the patients were not documented in the current study. The presence of such clinical features could affect ISMI-BM scores of the participants. Nevertheless, despite all the limitations, our results of this study were still very significant.

In conclusion, the ISMI-BM has demonstrated good reliability and validity which is consistent with original version of ISMI. The psychometric properties of the ISMI-BM are also in keeping with other translated versions of ISMI [13-15]. Therefore, ISMI-BM can be used as a valid and reliable tool to measure levels of

internalized stigma among people with mental illness in Malaysia. We hope that the development of this scale would benefit clinicians and researchers alike in the endeavor to understand stigma experienced by people with mental illness and eventually develop newer ways to aid them.

Acknowledgements

We would like to thank all the patients who participated in the study.

References

- [1] Ritsher, J.B., P.G. Otilingam, and M. Grajales, Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Res*, 2003. 121(1): p. 31-49.
- [2] Lauber, C., Stigma and discrimination against people with mental illness: a critical appraisal. *Epidemiologia e Psichiatria Sociale*, 2008. 17(01): p. 10-13.
- [3] Ritsher, J.B., P.G. Otilingam, and M. Grajales, Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry research*, 2003. 121(1): p. 31-49.
- [4] Yanos, P.T., D. Roe, and P.H. Lysaker, Narrative enhancement and cognitive therapy: a new group-based treatment for internalized stigma among persons with severe mental illness. *International journal of group psychotherapy*, 2011. 61(4): p. 576.
- [5] Rüsçh, N., M.C. Angermeyer, and P.W. Corrigan, Mental illness

- stigma: concepts, consequences, and initiatives to reduce stigma. *European psychiatry*, 2005. 20(8): p. 529-539.
- [6] Lasalvia, A., et al., Global pattern of experienced and anticipated discrimination reported by people with major depressive disorder: a cross-sectional survey. *The Lancet*, 2013. 381(9860): p. 55-62.
- [7] Corrigan, P., How stigma interferes with mental health care. *American psychologist*, 2004. 59(7): p. 614.
- [8] Alonso, J., et al., Perceived stigma among individuals with common mental disorders. *Journal of affective disorders*, 2009. 118(1): p. 180-186.
- [9] Boyd, J.E., et al., Internalized stigma of mental illness (ISMI) scale: A multinational review. *Comprehensive psychiatry*, 2014. 55(1): p. 221-231.
- [10] Link, B.G., et al., On stigma and its consequences: evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. *Journal of Health and Social Behavior*, 1997: p. 177-190.
- [11] R.W., B., Back-translation for cross-cultural research. *Journal of Cross-cultural Psychology*, 1970. 1: p. 185-216.
- [12] J.A., F., et al., Developing instruments for cross-cultural psychiatric research. *The Journal of Nervous and Mental Disease*, 1988. 176(5): p. 260-263.
- [13] James, T., et al., Validation of the Malayalam version of the Internalized Stigma of Mental Illness (ISMI) scale. *Asian J Psychiatr*. 20: p. 22-9.
- [14] Tanabe, Y., K. Hayashi, and Y. Ideno, The Internalized Stigma of Mental Illness (ISMI) scale: validation of the Japanese version. *BMC Psychiatry*. 16: p. 116.
- [15] Chang, C.C., et al., Cross-Validation of Two Commonly Used Self-Stigma Measures, Taiwan Versions of the Internalized Stigma Mental Illness Scale and Self-Stigma Scale-Short, for People With Mental Illness. *Assessment*.

Corresponding Author

Chong Siew Koon
Department of Psychiatry and Mental Health,
Hospital Sultanah Nur Zahirah Terengganu
Malaysia

Email: chongsiewkoon85@gmail.com

Appendix:**SILA TANDAKAN SATU**

1. SANGAT TIDAK SETUJU
2. TIDAK SETUJU
3. SETUJU
4. SANGAT SETUJU

PERKARA	1	2	3	4
1. Saya berasa terasing daripada dunia kerana mempunyai penyakit mental				
2. Penyakit mental telah memusnahkan hidup saya				
3. Orang yang tidak mempunyai penyakit mental tidak mungkin memahami saya				
4. Saya berasa malu kerana mempunyai penyakit mental				
5. Saya berasa kecewa dengan diri sendiri kerana mempunyai penyakit mental				
6. Saya berasa rendah diri berbanding mereka yang tidak mempunyai penyakit mental				
7. Stereotaip (pandangan) tentang pesakit mental berkait dengan saya				
8. Orang lain boleh tahu bahawa saya mempunyai penyakit mental berdasarkan penampilan saya				
9. Pesakit mental cenderung untuk bertindak ganas				
10. Oleh sebab saya berpenyakit mental, saya memerlukan orang lain untuk membuat kebanyakan keputusan bagi saya				
11. Orang yang mempunyai penyakit mental tidak boleh menjalani kehidupan yang baik dan memuaskan				
12. Pesakit mental tidak sepatutnya berkahwin				
13. Saya tidak boleh menyumbang apa-apa kepada masyarakat kerana saya mempunyai penyakit mental				
14. Orang lain mendiskriminasikan saya kerana saya mempunyai				

penyakit mental				
15. Orang lain berpendapat saya tidak boleh mencapai apa-apa dalam hidup kerana saya mempunyai penyakit mental				
16. Orang lain tidak mengendahkan atau kurang mengambil serius terhadap saya hanya kerana saya mempunyai penyakit mental				
17. Orang lain selalu merendah-rendahkan saya atau melayan saya seperti kanak-kanak hanya kerana saya mempunyai penyakit mental				
18. Tiada sesiapa yang berminat untuk mendekati saya kerana saya mempunyai penyakit mental				
19. Saya tidak banyak bercakap tentang diri sendiri kerana saya tidak mahu membebankan orang lain dengan penyakit mental saya				
20. Saya tidak lagi bersosial sekerap dahulu kerana penyakit mental saya mungkin akan menyebabkan saya kelihatan atau berkelakuan 'pelik'				
21. Stereotaip negatif tentang penyakit mental membuatkan saya terasing daripada dunia normal				
22. Saya menjauhkan diri daripada situasi sosial untuk mengelakkan keluarga atau kawan saya berasa malu				
23. Apabila berada dalam kalangan orang yang tidak mempunyai penyakit mental, saya berasa terasing atau kekurangan				
24. Saya menjauhkan diri daripada orang yang tidak mempunyai penyakit mental untuk mengelak penyisihan				
25. Saya berasa selesa dilihat bersama orang yang jelas mempunyai penyakit mental di khalayak ramai				
26. Pada umumnya, saya dapat menjalani kehidupan seperti yang saya mahu				
27. Saya boleh memiliki kehidupan yang baik dan memuaskan walaupun saya mempunyai penyakit mental				
28. Orang yang mempunyai penyakit mental memberikan sumbangan yang penting kepada masyarakat				
29. Hidup dengan penyakit mental menjadikan saya seorang yang cekal				