A Validation Study of the Tagalog Version of Mental Health Literacy Scale Among Community Health Workers

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Background: Mental Health Literacy (MHL) is considered a vital determinant of mental health and has the ability to benefit both individual and public mental health. To thoroughly measure the different aspects of mental health literacy and determine level of knowledge in the community, a MHLS-Filipino version is required.
Objective: This study aimed to validate the Mental Health Literacy Scale – Filipino (MHLS-F) version among Community Health Workers in a rural and an urban health center in CaLaBaRZon.
Study Design: This is a methodological study that was conducted among rural and urban health workers.
Patients and Methods: The guidelines provided by Beaton was used as template for the process of translation and cross-cultural adaptation. The first phase involved Translation and Cross- cultural Adaptation of the Mental Health Literacy Scale from English to Filipino Version (MHLS-F). The instrument was simultaneously forward translated from English to Filipino by two independent translators from the Sentro ng Wikang Filipino. Back translations into English were done by two independent translators. The expert review committee discussed discrepancies found between the original items and the back-translated version of the questionnaire through a small group discussion and evaluated the content validity. Judgement on each item was made based on the computed i- CVI. The pre-final translated questionnaire was pre-tested on 5 rural and 5 urban community health workers with similar characteristics to the study population. Suggestions or alternative wording were documented and forwarded to Sentro ng Wikang Filipino for editing and proofreading. After synthesis of all reviews, the Mental Health Literacy Scale – Filipino Version was finalized. The final version was administered to 220 Community Health Workers from the Santa Rosa CHO and San Juan MHO. Psychometric properties on internal reliability using Cronbach's Alpha was used as complementary procedure for determining the final structure of the instrument.
Results: All six domains of MHLS were translated into Filipino without any major problems. The Final Mental Health Literacy Scale- Filipino Version has 26 items under 3 subscales. It has an acceptable content validity and satisfactory internal consistency (Cronbach's alpha 0.730).
Conclusion: MHLS was successfully cross-culturally adapted into Filipino. The MHLS-F has good validity and reliability in assessing knowledge and attitude in mental health among community healthcare workers.

Key words: Mental health literacy, community health workers, translation, validation

Introduction

Mental health has emerged as an important public health concern in recent years. Approximately one million deaths per year are recorded, and suicide is the major reason for years of life lost due to mental illness.[1] Despite the huge burden of mental illness and available effective treatments, there is still poor health accessibility among people with mental disorders. One of the most fundamental health care recommendations by WHO for addressing global burden of the disease is integrating and providing mental health services in primary health care.[2]

In the Philippines, mental health care has been one of the biggest unmet needs and often not set as a health priority. Consequently, there is under reporting of psychological cases in the country. On June 21,

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2018, President Rodrigo Duterte signed the Philippine Mental Health Law (Republic Act 11036), which aims to give better access to mental health care. The law seeks to provide mental health services down to the barangay level. Communities are encouraged to participate in the development of mental health care services by providing available and appropriate mental health services in their community.[3] Community Health Workers, as front liners, can play significant roles in the primary and secondary prevention of Mental, Neurologic and Substance Abuse disorders through health education, case identification and referral.[4] A recent systematic review, however, found that barriers to receipt of mental health care include lack of knowledge and stigma related to mental illness.[5]

In order to address these identified challenges, mental health literacy (MHL) has been considered as an effective approach.[6] Improved mental health literacy may promote early identification of mental disorders, improve mental health outcomes, increase the use of health services, and enable the community to take actions to achieve better mental health.[7] Several scales have been developed to denote the wide-ranging scope of MHL. Most of the available instruments either assess specific dimensions of mental health literacy or specific mental health problems.[8] Wei[9] conducted a systematic review that appraised the qualities of studies evaluating the measurement properties of mental health knowledge tools and the quality of included measurement properties. Based on the review's findings, the Mental Health Literacy Scale (MHLS) by O'Connor and Casey (2015), a 35-item validated questionnaire used to assess knowledge and attitudes or a range of areas in mental health, captures a combination of all attributes of MHL. These include, ability to recognise disorder (8 items), knowledge where to seek information (4 items), knowledge of the risk factors and causes (2 items), knowledge of self-treatment (2 items), knowledge of professional help available (3 items) and attitudes that promote recognition or appropriate help-seeking behaviour (16 items). Total score is produced by summing all items with some reverse scored items with a highest possible score of 160 and lowest possible score of 35. A higher total scores corresponds to greater mental health literacy. It exhibited excellent internal consistency, good reliability, excellent content and structural validation and fair hypothesis testing.[9]

An instrument that rigorously measures the positive aspect of mental health literacy can help determine a population's or individual's level of knowledge.[10] However, it is important to note that when an original questionnaire was translated into another language, one cannot assume that the translated items are valid. The process of translation and cross-cultural adaptation will ensure retention of psychometric properties and cross-cultural adaptation process by obtaining the validity and reliability of an item or scale.[11] It is important to validate measurement scales as specific constructs which originated from another culture and setting may not have the same meaning.

Utilizing a validated tool to assess mental health literacy will assist in determining knowledge gaps and erroneous beliefs about mental health in the local setting and subsequently, will support the development of studies and programs aimed to ultimately improve health outcomes of mental health patients.

Objectives

This study aimed to validate the Mental Health Literacy Scale – Filipino (MHLS-F) version among Community Health Workers in a rural and an urban health center in CaLaBaRZon.

Specifically, the study aimed to

1. to examine the Content Validity of the MHLS-F
2. to describe the sociodemographic characteristics of the participants in the reliability testing
3. to examine the Internal Consistency Reliability of the MHLS-F

Methods

A methodological study design was utilized to validate the Filipino version of Mental Health Literacy Scale originated by O'Connor M. and Casey L.12 The study participants consisted of Community Health Workers in Sta. Rosa Laguna - City Health Office (Urban community) and San Juan Batangas - Municipal Health Office (Rural community) in CaLaBaRZon.

Included in the study were midwives or barangay health workers (BHWs) employed in the Local Government Unit of Sta. Rosa Laguna or San Juan Batangas, aged 20-59 years old regardless of sex, with or without chronic illness and mentally-abled, have served in the community for at least two years and proficient in Tagalog as main dialect and have signed informed consent to voluntarily participate in the study. Exclusion criteria included midwives or BHWs with difficulty in communication due to serious physical or mental illness, those who were cognitively impaired and unable to read, write and converse in conversational Filipino.

Researchers use a minimum of 2 to a maximum of 20 people per item to estimate the sample size for validation studies.[13] The current study included 5 participants per item question. Taking into consideration 20% dropout, the sample size calculated was 220 – 110 from Santa Rosa City Health Office (CHO) and 110 from San Juan Municipal Health Office (MHO). Simple random sampling was employed among all eligible midwives and BHWs using the random number table.

Study Procedure

The study underwent two phases. The first phase involved Translation and Cross- cultural Adaptation of the Mental Health Literacy Scale from English to a Filipino Version (MHLS-F). The second phase involved the validity testing of the Final MHLS-F tool. The procedures for translating the MHLS were based on the guidelines of translation and cross- cultural adaptation by Beaton, et al.[11] The study tool were grounded from the systematic review conducted by Wei Y, et al.[9] Initially, the author of the MHLS, Dr. Matt O'Connor was contacted through email to ask for his permission to use and translate this scale into the Filipino language.

Forward Translation

The instrument was simultaneously translated from English to Filipino by two independent translators from the Sentro ng Wikang

Filipino (Center for Filipino Language), University of the Philippines Manila. One of the translators was made aware of the concepts being examined in the questionnaire. The translators discussed the differences between their translations and were asked for written report documenting how these differences were resolved and the synthesis process.

Backward Translation

Back translations into English were done by two independent translators, both of whom are Professors with Master Degree in English. The back translation was conducted with no prior exposure to the English- language version of the questionnaire and should be preferably without medical background. This was done to further examine the appropriateness to its original form. The back-translators were instructed to use simple language and provide a translation of what the item actually says thereby capturing the literal meaning of the item. A written report was asked for documentation of how differences were resolved and the synthesis process.

Expert Review Committee

The aim of an expert review committee is to discuss the items in the back-translated questionnaire to generate a final back-translated questionnaire and to resolve any ambiguities between the final back-translated questionnaire and the original questionnaire.[14] The expert review committee was composed of: five Psychiatrists from Southern Tagalog Group of Psychiatrist (STGP). At least five people are recommended to have sufficient control over chance agreement.[15] The panel was chosen based on their appropriate academic qualifications and professional expertise in the field of mental health and consisted of fellows of the Philippine Psychiatric Association who have been practicing in their specialty for more than 10 years. They discussed any discrepancies found between the original MHLS items and the back-translated version of the questionnaire through a small group discussion facilitated by the primary investigator. Corresponding written reports created during previous phases were made available for reference. The Expert Committee consolidated all the versions of the questionnaire to develop a prefinal version of questionnaire for field testing.[14]

Testing for Content Validity

The content validity of the MHLS-Tagalog Version was evaluated by the members of the Expert Review Committee through a small group discussion. The questionnaire items were evaluated based on how adequately the items measure the construct that they intend to assess and the domains of interest. Each expert was asked to rate the importance of each item using a 5-point Likert Scale from '1' (not important at all) to '5' (totally important). The content validity index or i-CVI was computed by i-CVI = No. of Agreement/ No. of Raters. I-CVI was computed as number of experts giving ratings of 3 to 5 to the relevancy of each item, divided by the total number of experts.[15] Judgement on each item was made based on the computed i- CVI which was interpreted as follows: if i-CVI is >.79, the item was deemed appropriate, if between 0.70 to 0.79, the item would need revision and if <0.70, it would be eliminated.[16] Comments and suggestions from the Expert Review Committee were recorded.

Pre-Testing and Cognitive Interviewing

The pre-final translated questionnaire was pre-tested on 5 rural community health workers and 5 urban community health workers with similar characteristics to the study population (5% of the study population). According to Antunes,[14] each group should ideally have between a 5 to 8 participants. Pre-test respondents were administered the pre-final instrument and were systematically debriefed.[17,18] Problematic items were recorded and suggestions or alternative wording and phrasing were documented. Documented suggestions were forwarded to the initial translators from Sentro ng Wikang Filipino for editing and proofreading. After the synthesis of all reviews and suggestions, the form of the Mental Health Literacy Scale – Filipino Version was finalized.

Testing for Reliability

After obtaining informed consent, the final Mental Health Literacy Scale- Filipino Version was administered to the study participants from the Santa Rosa CHO and San Juan MHO. They were given ample time to answer the entire questionnaire and are free to ask if anything is not clear. The average time of completion of questionnaire is 15 minutes. Completed questionnaires were manually checked by investigator to ensure that there were no inconsistencies or missing items.

Based from the scores obtained from the 220 Community Health Workers, the internal consistency reliability of the tool was measured.

Statistical Analysis

All tabulations, figures, and listings were produced using Package for Social Sciences v.22 (SPSS v.22). Descriptive statistics was used to summarize the sociodemographic characteristics of the study group. Socio-demographic characteristics will be investigated regarding age, sex, region (urban or rural), educational attainment, family history of mental disorder, years of work experience, and previously received mental health care training.[19,20] Psychometric properties of internal consistency reliability employed Cronbach's Alpha Coefficient Analysis. According to the suggestion made by the previous studies, they considered a Cronbach's a <0.5 "unacceptable," 0.5-0.6 "poor," 0.61-0.7 "average," and >0.7 "satisfactory".[21]

Ethical Considerations

This study underwent review and approval by the Batangas Medical Center Research Ethics and Review Committee (RERC) and was granted partial financial support from Professional Education, Training and Research Office. No affiliations in any forms, as well as any possible conflicts of interests relevant to this study were identified.

Results

Evaluation by Expert Review and Content Validity

The item-level content validity indexes (i-CVIs) for relevance, likely effectiveness, and appropriateness for the intended audience were assessed. Based on the item level content validity index score (i-CVI) as seen in Table 1, all items except Q5 and Q6 scored ≥0.8 and were considered appropriate. Two items from subscale Ability to recognise disorders (Q5 and Q6) with an i-CVI score lower than 0.70 were eliminated. The scale contained 33 items subjected for pre-testing and pilot testing. Experts agreed to remove Q5 and Q6 since "Persistent Depressive Disorder" and "Agoraphobia" are not readily understandable and common among CHWs.

Table 1. Ratings on a 35-item scale for mental health literacy by five experts.

Attribute		Important (Rating 3, 4 or 5)	Not Important (Rating 1 or 2)	i-CVI's	Decision rule for item retention
Ability to recognise disorders	Q1	5	0	1	Appropriate
	Q2	5	0	1	Appropriate
	Q3	5	0	1	Appropriate
	Q4	5	0	1	Appropriate
	Q5	2	3	0.4	Eliminated
	Q6	3	2	0.6	Eliminated
	Q7	5	0	1	Appropriate
	Q8	5	0	1	Appropriate
Knowledge of risk factors and	Q9	5	0	1	Appropriate
	Q10	5	0	1	Appropriate
Knowledge of self-treatment	Q11	5	0	1	Appropriate
	Q12	4	1	0.8	Appropriate
Knowledge of professional help available	Q13	5	0	1	Appropriate
	Q14	5	0	1	Appropriate
	Q15	4	1	0.8	Appropriate
Knowledge where to seek information	Q16	5	0	1	Appropriate
	Q17	5	0	1	Appropriate
	Q18	5	0	1	Appropriate
	Q19	5	0	1	Appropriate
Attitudes that promote recognition or appropriate health-seeking behaviour	Q20	5	0	1	Appropriate
	Q21	5	0	1	Appropriate
	Q22	5	0	1	Appropriate
	Q23	5	0	1	Appropriate
	Q24	5	0	1	Appropriate
	Q25	5	0	1	Appropriate
	Q26	5	0	1	Appropriate
	Q27	5	0	1	Appropriate
	Q28	5	0	1	Appropriate
	Q29	5	0	1	Appropriate
	Q30	5	0	1	Appropriate
	Q31	5	0	1	Appropriate
	Q32	5	0	1	Appropriate
	Q33	5	0	1	Appropriate
	Q34	5	0	1	Appropriate
	Q35	5	0	1	Appropriate

Demographic Characteristics

Totally 225 individuals were recruited and subsequently enrolled in the pilot study (Table 2). The 225 participants consists mostly of females (99.6%) who were in the 50 – 59 year age group (53.8%). The highest literacy level was high school graduate (45.80%) and with work experience of more than 10 years (42.20%). Among the participants, 93.80% had no Family history of Mental Disorder and had no Previous Mental Healthcare Training (80.90%).

Reliability (Internal Consistency)

The initial Cronbach's alpha coefficient after CVI for the whole scale was 0.696 (Table 3.1). The Cronbach's alpha coefficients were higher than 0.7 for items pertaining to ability to recognize disorders, knowledge where to seek information and attitudes that promote recognition or appropriate health-seeking behaviour and were considered satisfactory. Items pertaining to knowledge of risk factors and causes (-0.762), Knowledge of self-treatment (-1.740) and Knowledge of professional help available (-0.715) were considered unacceptable.

Questions 9-15 had an unacceptable reliability, items were then removed from the scale. A negative value for alpha implies a negative average covariance among items and can be most likely due to small sample sizes and small numbers of items in a scale.[22] After removing items 9-15, the overall Cronbach's alpha coefficient improved (0.730) and was considered satisfactory (Table 3.2).

Discussion

This study presents findings on the translation and cross-cultural adaptation of Mental Health Literacy Scale- Filipino version among Community Healthcare Workers and its psychometric properties. Several instruments have been developed to assess the broad scope of mental health literacy, however, there has been no study yet which reported available validated Filipino-version measuring mental health literacy in the Philippines.

Table 2. Demographic characteristics of community health workers in Calabarzon 2021.

Variables	Frequency	Percentage
Age		
20-29	0	0.00
30-39	32	14.20
40-49	72	32.00
50-59	121	53.80
Sex		
Male	1	0.40
Female	224	99.60
Educational Attainment		
Some Elementary	3	1.30
Elementary Graduate	20	8.90
Some Highschool	40	17.80
Highschool graduate	103	45.80
Vocational Course	13	5.80
Some College	30	13.30
College Graduate	16	7.10
Family history of Mental Disorder		
Yes	14	6.20
No	211	93.80
Years of work experience		
2-5	60	26.70
6-10	70	31.10
>10	95	42.20
Previous Mental Healthcare Training		
Yes	43	19.10
No	182	80.90

Table 3.1: Cronbach's alpha coefficient for MHLS-F and its subscales (n =33).

Attribute		Corrected Item- Total Correlation	Cronbach's Alpha if item Deleted	Total	Interpretation
Ability to recognise disorders	Q1	0.602	0.825	0.845	Satisfactory
	Q2	0.662	0.812		
	Q3	0.639	0.816		
	Q4	0.634	0.818		
	Q7	0.639	0.817		
	Q8	0.581	0.827		
Knowledge of risk factors and causes	Q9	-0.278	.a	-0.762	Unacceptable
	Q10	-0.278	.a		
Knowledge of self-treatment	Q11	-0.465	.a	-1.74	Unacceptable
	Q12	-0.465	.a		
Knowledge of professional help available	Q13	0.372	0.589	-0.715	Unacceptable
	Q14	0.431	0.507		
	Q15	0.472	0.445		
Knowledge where to seek information	Q16	0.558	0.711	0.760	Satisfactory
	Q17	0.517	0.734		
	Q18	0.615	0.687		
	Q19	0.605	0.688		
Attitudes that promote recognition or appropriate health-seeking behaviour	Q20	0.195	0.760	0.758	Satisfactory
	Q21	0.289	0.752		
	Q22	0.161	0.764		
	Q23	0.438	0.738		
	Q24	0.449	0.738		
	Q25	0.329	0.748		
	Q26	0.190	0.761		
	Q27	0.217	0.756		
	Q28	0.323	0.749		
	Q29	0.364	0.745		
	Q30	0.373	0.744		
	Q31	0.517	0.728		
	Q32	0.574	0.724		
	Q33	0.434	0.742		
	Q34	0.336	0.751		
	Q35	0.478	0.733		
TOTAL	33			0.696	Average

Table 3.2: Cronbach's alpha coefficient for MHLS-F among community health workers.

Cronbach's Alpha	No. of items
0.696	33
0.730	26

The Original MHLS[12] captures a combination of all attributes of MHL. In the present study, while the MHLS-F is shorter than the original scale, the core Mental Health Literacy Principles such as: knowledge, attitudes or stigma and help-seeking efficacies still have all been addressed.[23] The Final Mental Health Literacy Scale- Filipino Version from Community Healthcare Workers viewpoint has 26 items with 3 subscales: Ability to recognise disorders (6 items), Knowledge where to seek information (4 items) and Attitudes that promote recognition or appropriate health-seeking behaviour (16 items). This scale is scored based on questions with a 4-point scale are rated 1 –very unlikely/ unhelpful, 4 – very likely/helpful and for 5-point scale 1 –strongly disagree/definitely unwilling, 5 –strongly agree/definitely willing. Total score is produced by summing all items with reverse scored items on items 20-28. It has a maximum score of 124 and minimum score of 26. The higher the total scores correspond to greater mental health literacy.

A study about health workers found out that, highly trained and greater knowledge about mental health care have been associated with favourable attitudes.[24] In addition, improved awareness of mental disorders among community health workers is likely to assist affected people to access treatment and improve the quality of care they receive.[25] Relevant to the efforts of the government in improving health outcomes among mentally-ill Filipinos, determining the baseline mental health literacy utilizing a validated Filipino version of the MHL-S questionnaire will be valuable in the proper implementation of services and projects established in the community under RA 11036. The application of this questionnaire can initially provide data that will assist the community health physician in improving capacity of the CHWs in handling mentally-ill persons in the frontlines.

The study has some limitations. The study was conducted only among CHWs from a rural and an urban health center in CaLaBaRZon, and the results may only apply in other communities similar to the study settings. As the design of the study was methodological and the data were collected using self-administered scale, the recall and social desirability biases may influence data quality. Despite these limitations, this study provided a validated, comprehensive scale for measuring Mental Health Literacy among CHWs.

Conclusions and Recommendations

The Mental Health Literacy Scale- Filipino Version has a satisfactory internal consistency (Cronbach's alpha = 0.73) and acceptable content validity. Considering the psychometric results from the study, this scale may be recommended for use in measuring Mental Health Literacy among Community Healthcare Workers. This tool can also serve as a base for developing local community-based and contextual scales in different areas in Philippines.

Further studies are suggested to examine other validity indexes for instrument validation and in addition, to conduct further studies employed in other communities not similar to the study setting and among different populations to further determine the generalizability of this scale.

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