

Cross-Cultural Implications of the Mental Health Literacy Scale (MHLS)

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In partial fulfillment of the requirements for CNS 790

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July 14, 2018

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The United States is arguably in the midst of a mental health crisis (Butcher, 2012). Adolescence is the peak age of onset for mental health concerns with approximately 1 in 5 youth aged 13-18 (21.4%) experiencing a mental health crisis in any given year, and for children aged 8 to 15, the estimate is closer to 13% (Center for Behavioral Health Statistics and Quality, 2014). Furthermore, in the United States, suicide is the second leading cause of death for people ages 10 to 24 and the tenth leading cause of death overall, claiming the lives of nearly 6,159 adolescents and young adults (ages 10-24) in 2016 (Center for Behavioral Health Statistics and Quality, 2015). Globally, mental disorders make up one third of the burden of illness in adolescence and early adulthood (ages 12 to 25) (WHO, 2013a). If we consider the many other adolescents who experience significant psychosocial problems and psychological distress, the numbers grow dramatically. Mental illness is compounded further by factors such as bullying, trauma, and poverty, where 50% of children under the age of 17 experience bullying each month (Bradshaw, Sawyer, & O'Brennan, 2007), nearly 48% of children age 0 to 17 have experienced at least one Adverse Childhood Experience (Data Resource Center for Child and Adolescent Health, 2013), and 1 in 5 children live in poverty (U.S. Census Bureau, 2014).

Approximately 70-75% of adult mental health problems start to manifest during adolescence and early adulthood (Kessler, Berglund, Demler, Jim, Merikangas, & Walkers, 2005), and we know that early onset of mental health issues is a significant predictor of future episodes, while early intervention is a predictor of positive outcomes for a variety of psychological conditions (Jorm, Wright, & Morgan, 2007). Nevertheless, an unprecedented number of children and youth that are showing signs and symptoms of mental illness are not receiving treatment. Moreover, the average delay between the onset of symptoms and

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intervention is approximately 10 years (Merikangas, He, Burstein, Swendsen, Avenevoli, Case, Georgiades, Heaton, Swanson, & Olfson, 2011). Untreated mental health problems in adolescents and young adults are strong predictors of poor vocational outcomes, problematic social functioning, as well as increased medical expenses and reduced life expectancy due to associated medical conditions, like heart disease and diabetes (Wei, McGrath, Hayden, & Kutcher, 2016; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998). Our adolescents are dependent on adults for recognition of their developmental challenges and mental health issues, as well as the provision of appropriate support (Aakre, Lucksted, & Browning-McNee, 2016).

Taken together, the P-12 school system and systems of higher education provide an asset-rich environment to filter school-age individuals through robust prevention and intervention measures. However, the counseling professionals in these institutions are limited. The national average school counselor to student ratio is 482:1 (U.S. Department of Education, 2016) and according to the Center for Collegiate Mental Health 2016 Annual Report (2017), there were 150,483 unique college students seeking mental health treatment with 3,419 clinicians and more than 1,034,510 appointments at 400 participating institutions in the 2015-2016 academic year. As a result, overwhelmed counseling offices prioritize crisis response and rapid access services, which thereby dilutes early identification and prevention measures traditionally provided by mental health professionals. It therefore becomes necessary to consider collaborative programming with stakeholder groups that work closely with students that can lead to earlier intervention to thwart crisis situations and support short-term, and lead to long-term, mental wellness.

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Despite the prevalence of mental health concerns during adolescence and the potential for early intervention because of the amount of time students spend in school, many professionals who work in education do not have formal training focused on the mental health of students. Youth Mental Health First Aid (YMHFA) USA (Kitchener & Jorm, 2009) is one training program designed to educate the adults in the general public through a skills-based approach in recognizing and responding to common emotional problems and mental illness in youth (age 12-18). It is an evidence-based, 8-hour course that introduces participants to components related to mental health problems, such as risk factors and warning signs, and then builds an understanding of the importance of early intervention and how to help an adolescent experiencing a mental health challenge (Aakre et al., 2016). Delivery of YMHFA has resulted in promising outcomes amongst participants, including increased identification of psychological distress, shifts in attitudes resulting in stigma reduction, and increased helping behavior (Aakre et al., 2016; Kelly et al., 2011; Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010). Therefore, providing an evidence-based training, such as this one, to professionals who work with adolescents and emerging adults has unrealized potential to curb youth mental illness and mitigate its effects.

Although the initial evidence indicates that YMHFA is a tool to be used as a primary prevention measure, there are only five research studies available that validate some element of the program's effectiveness. Moreover, the studies utilized instruments with low psychometric properties, such as surveys and vignettes, and only one actually assessed the construct of mental health literacy (MHL), whose participants were comprised of undergraduate social work students. Thus, endorsement of the YMHFA program as an MHL tool needs to be further evaluated.

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However, before the program can be evaluated as effective in MHL education, an instrument that has strong psychometric properties needs to be translated to the United States. Thus, the researcher will explore the cross-cultural validity of the Mental Health Literacy Scale (MHLS, Appendix A) that was first developed in Australia (O'Connor & Casey, 2015).

Research Question

- Is the MHLS an effective measure of MHL in the United States of America?

Research Hypothesis (RH)

- RH1: It is an effective measure of MHL in the United States of America.

Null Hypothesis

- NH1: It is not an effective measure of MHL in the United States of America.

Identification of Variables

Independent variable.

- Participant category—pre-service teacher, pre-service school counselors, pre-service clinical mental health counselors, pre-service college counselors, community volunteer

Dependent variable.

- Scores per item on the MHLS
- MHLS total scores

Operational Definitions

Mental health literacy: Identified as seven key attributes including recognition of disorders, knowledge of how to seek mental health information, knowledge of risk factors and causes, knowledge of self-treatments, knowledge of professional help available, attitudes that

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promote recognition, and appropriate help-seeking (Jorm, Korten, Jacomb, Christensen, Rodgers, & Pollitt, 1997).

Ability to recognize specific disorders: Ability to identify features of a disorder, a specific disorder or category of disorders (O'Connor & Casey, 2015)

Knowledge of how to seek mental health information: Knowledge of where to access information and capacity to do so (O'Connor & Casey, 2015)

Knowledge of risk factors and causes: Knowledge of environmental, social, familial, or biological factors that increase the risk of developing a mental illness (O'Connor & Casey, 2015)

Knowledge of self-treatments: Knowledge of typical treatments recommended by mental health professionals and activities that an individual can conduct (O'Connor & Casey, 2015)

Knowledge of professional help available: Knowledge of mental health professionals and the services they provide (O'Connor & Casey, 2015)

Attitudes that promote recognition: Attitudes that impact recognition of disorders (O'Connor & Casey, 2015)

Appropriate help-seeking: Willingness to engage in help seeking-behavior (O'Connor & Casey, 2015)

Pre-service teachers: Students at a post-secondary institution seeking a degree in education to be a P-12 teacher

Pre-service school counselors: Students at a post-secondary institution seeking a degree to become a school counselor who are in their last year of coursework

Pre-service clinical mental health counselors: Students at a post-secondary institution seeking a degree in clinical mental health counseling who are in their last year of coursework

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Pre-service college counselors: Students at a post-secondary institution seeking a degree in college student personnel who are in their last year of coursework

Community volunteers: Adults over the age of 18 who volunteered to take the MHLS

Literature Review

The term “mental health literacy” was first introduced to the literature in 1997 by Anthony Jorm, one of the developers of the YMHFA training. It is a construct that arose from the domain of health literacy (HL), which over time has evolved into a fundamental way to improve health outcomes at the individual and population levels, decrease health inequity, and with widespread consumption, has since enhanced the operation of health systems through reform and policy changes (Kutcher et al., 2016). In fact, the World Health Organization goes as far as to say that HL is perhaps “a stronger predictor of an individual’s health status than income, employment status, education and racial or ethnic group” (WHO, 2013b, p. 7). Similarly, the importance of mental health knowledge in improving health outcomes for people is widely recognized. Research suggests that improved knowledge about mental health leads to an increase in help-seeking behavior and access to health services, stigma reduction around mental illness, increased rates of early identification, and improved mental health outcomes overall (Henderson, Evans-Lacko, & Thornicroft, 2013; Rusch, Evans-Lacko, Henderson, Flach, & Thornicroft, 2011).

What constitutes the construct of mental health literacy (MHL) is currently being revisited (Spiker & Hammer, 2018), but there are two overlapping definitions that are currently utilized. The first was presented in the literature by Jorm et al. (1997), who defined MHL as “...the ability to recognise specific disorders; knowing how to seek mental health information, knowledge of risk factors and causes, of self-treatments, and of professional help available; and

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attitudes that promote recognition and appropriate help-seeking” (p. 182). The second definition was presented by Kutcher, Wei, & Coniglio (2016) as “...understanding how to obtain and maintain positive mental health; understanding mental disorders and their treatments; decreasing stigma related to mental disorders; and, enhancing help-seeking efficacy (knowing when and where to seek help), and developing competencies designed to improve one’s mental health care and self-management capabilities” (p. 155). Despite the 19-year gap between the two definitions, they share commonalities with little to no variation as to what constitutes MHL. For this exploratory study, the researcher will use the definition developed by Jorm, et al. (1997) which recognizes seven key attributes that constitute MHL, including recognition of disorders, knowledge of how to seek mental health information, knowledge of risk factors and causes, knowledge of self-treatments, knowledge of professional help available, attitudes that promote recognition, and appropriate help-seeking.

Since the inception of MHL in 1997, it has become a topic of steadily growing interest and utility. After all, it is a prerequisite for early recognition and intervention of mental disorders, as well as identifying knowledge gaps and misguided beliefs about mental health (Dias, Campos, Almeida, & Pahla, 2018). However, there is limited information available on effective programs that promote MHL, and this is due in part to a lack of psychometric and methodologically robust scale-based measures and accompanying studies that include extractable, quantitative data (O’Connor & Casey, 2015). Accordingly, O’Connor et al. (2014) did a thorough review of the literature from 1997 (year MHL was introduced) to 2012 and identified 594 articles that were published during this time with only 13 studies utilizing scale-based measures to explore MHL. Of the 13 studies, there was substantial variation in methodological rigor, which was determined using the Consensus-based Standards for the

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selection of Measurements Instruments (COSMIN), a tool used to evaluate the methodological quality of health measurement instruments across 9 domains. An evaluation of the 13 instruments revealed that the highest scoring MHL instrument scored a 5 out of 9 using the COSMIN, and the one that followed scored a 3 out of 9. Moreover, none of the studies addressed all seven attributes included in the original definition of MHL (Jorm et al., 1997). The most attributes that were addressed in any study was 4. Thus, O'Connor, Casey, and Clough (2014) concluded that there was not a current, quantitative measure of MHL with strong psychometric properties that can be utilized across settings and populations. Thereafter, O'Connor and Casey (2015) developed the Mental Health Literacy Scale (MHLS), which can be used to assess individual and population level differences in MHL as well as in determining the impact of programs designed to improve MHL.

Furthermore, in an effort to develop an instrument to evaluate MHL in a more comprehensive way, Dias et al. (2018), developed the Mental Health Literacy Questionnaire (MHLq) for both adults and young adults. Although the MHLq will need to be further developed prior to implementation, the initial results indicated that MHL was higher in females and participants who reported knowing someone with a mental health problem, which is consistent with previous research (Cotton, Wright, Harris, Jorm, & McGorry, 2006; Mackenzie, Gekoski, & Knox, 2006; Corrigan, Green, Lundin, Kubiak, & Penn, 2001). Therefore, MHL can also be attributed to lived experience, not just educational programming on mental health.

Research supports mental health education for adults who work with young people, whether that education is received through YMHFA or another program. The methods by which these conclusions were drawn are not methodologically robust, and half the studies were performed in countries outside the United States. Therefore, this research will concentrate

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specifically on validating the MHLS in the United States so that future research can evaluate the efficacy of such programs as YMhFA.

Methods

Participants

Participants in this study included 1,331 students and adult community volunteers. More specifically, the students included 319 pre-service teachers, 423 pre-service school counselors, 363 pre-service clinical mental health counselors, 132 pre-service college counselors, and 47 community volunteers. There were 45 (3.4% of total sample) participants who did not identify their affiliation. The sample was drawn from rural, suburban, and urban colleges and universities in the North Atlantic Region of the United States.

Measures

The MHLS is a 35-item questionnaire that was used in this study. Using the COSMIN as a guide, it has been determined to have adequate internal consistency, test-retest reliability, content validity, structural validity, as well as meeting appropriate specifications for measurement error and hypothesis testing. Its final Cronbach's alpha level was .873 indicating internal consistency and scale reliability (O'Connor & Casey, 2015). There continues to be research on the MHLS to increase its utility and psychometric properties.

Notably, Anthony Jorm is one of the two founders of the Mental Health First Aid (MHFA) series, including YMhFA, and his definition of MHL (Jorm et al., 1997) is the one used in this study. Moreover, the MHLS is based on Jorm et al.'s definition of MHL and includes items that correspond to the 7 attributes of MHL identified in the definition. Thus, there is alignment of program, definition, and instrument.

Procedures

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IRB approval was received from Shippensburg University of Pennsylvania prior to the start of the study. The MHLS was put into electronic form for ease of distribution, collection, and analysis. In two locations on the instrument the words “in Australia” were removed to avoid confusion, and translations were made to words such as “generalised” and “reconise” to reflect the language difference in the United States. As a result, the version used in this study was revised and will be referred to as MHLS-R. A request for participation in this study was forwarded to faculty in the College of Education at colleges and universities throughout the North Atlantic Region until a large sample size was received. Through convenience sampling, faculty volunteered to distribute the electronic MHLS-R that included the informed consent to students specifically in education and counseling departments. Participants could provide an email address to receive debriefing and results of this study. This method is similar to the procedure employed by O’Connor and Casey (2015), where they used undergraduate psychology students and practicing mental health professionals to analyze and develop the original MHLS. After enough responses had been received, access to the instrument was removed.

Results

Factor analysis was conducted to determine if the underlying structure of the original MHLS has cross-cultural validity and reliability with the MHLS-R by assessing the 7 key attributes identified in the definition of MHL: recognition of disorders, knowledge of how to seek mental health information, knowledge of risk factors and causes, knowledge of self-treatments, knowledge of professional help available, attitudes that promote recognition, and appropriate help-seeking (Jorm et al., 1997). Thirty-five items on the MHLS-R were included in the factor analysis. Prior to analysis, evaluation of missing data led to transformation of the data by replacing the missing values with the item means. The number of missing values ranged from

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5 (.4% of total items) to 39 (2.9% of total items). Following analysis of linearity and normality, 61 outliers were eliminated, which improved the model (*Skewness*=.684, *Kurtosis*=.039), despite having significance with the Kolmogorov-Smirnov test of normality ($p < .001$). Scatterplots and Q-Q plots illustrate moderate normality (Appendix B Figure 1-4). Cronbach's alpha was .87. Item-total correlations were all positive at $p < .001$. Principal components analysis was conducted utilizing a varimax rotation. The analysis produced a 7-component solution, which was evaluated with the following criteria: eigenvalue, scree plot, and residuals. Criteria indicated a 7-component solution was appropriate.

After rotation, the 7 components accounted for 59.31% of the variance displayed in Table 1.

Table 1

Total Variance Explained

Component	Eigenvalue	Percent of Variance (%)	Cumulative Percent (%)
1	7.90	22.57	22.57
2	5.94	16.97	39.54
3	1.72	4.91	44.46
4	1.43	4.09	48.55
5	1.32	3.79	52.35
6	1.26	3.59	55.94
7	1.18	3.37	59.31

Table 2 presents the loadings for each component. Component 1 consisted of 10 of the 35 variables with positive loadings and addressed Help Seeking behavior. Component 2 was comprised of 7 variables with positive loadings and addressed Recognition and Self-Help. Component 3 consisted of 5 variables with positive loadings and addressed Recognition and Risk Factors. Component 4 was comprised of 4 variables that addressed Accessing Resources. Component 5 included 4 variables addressing Attitudes Toward MI. Component 6 included 2

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variables addressing Inclusion Decisions, and Component 7 had 2 variables addressing Informal and Formal Supports.

Table 2

Component Loadings

	Loading
Component 1: Help Seeking Behavior	
Item 28_67: Effectiveness of treatment	.746
Item 15_4: Confidentiality non-life threatening	.740
Item 24_67: Avoid mental illness (MI) for safety	.713
Item 26_67: Strength of person with MI	.677
Item 18_5: Attending appointments for MI	.669
Item 16_5: Seek info about MI	.669
Item 27_67: Seek help for MI	.630
Item 34_67: Voting preference	.573
Item 22_67: MI as medical illness	.569
Item 20_67: Personal control of MI	.527
Component 2: Recognition & Self-help	
Item 1_1: Social phobia identification	.832
Item 2_1: GAD identification	.802
Item 3_1: MDD identification	.768
Item 4_1: Personality disorder identification	.720
Item 5_1: Dysthymia identification	.687
Item 11_3: Sleep effects	.665
Item 12_3: Avoidance effects	.535
Component 3: Recognition & Risk Factors	
Item 7_1: Bipolar disorder identification	.790
Item 6_1: Agoraphobia identification	.770
Item 10_2: Anxiety in men	.671
Item 8_1: Substance use identification	.664
Item 9_2: Anxiety in women	.620
Component 4: Accessing Resources	
Item 19_5: Access to MI resources	.669
Item 25_67: Speaking about personal MI	.642
Item 32_67: Colleague with MI	.624
Item 17_5: Using technology for MI resources	.595
Component 5: Attitudes toward MI	
Item 30_67: Social life	.662

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Item 29_67: Neighbor with MI	.655
Item 14_4: Confidentiality harm to self	.582
Item 23_67: Danger of MI	.539
Item 21_67: MI as weakness	.475

Component 6: Inclusion Decisions

Item 33_67: Family member marry person with MI	.822
Item 35_67: Employ someone with MI	.791

Component 7: Informal and Formal Supports

Item 31_67: Friend with MI	.751
Item 13_4: CBT identification	.738

Discussion

The MHLS-R showed consistencies and differences with the original MHLS. Both instruments extracted 7 components. For the MHLS-R, I used the criteria to retain the components of an eigenvalue that was greater than 1, and I also confirmed the extraction of 7 components with the visual representation of the scree plot. Although 7 factors were retained, the item loading differentiated from the MHLS. The components required renaming. Although there were consistencies and some evidence of similar loadings of items, this discrepancy will need to be examined further.

After removing outliers from the sample size of 1,430, I was able to analyze 1,369 cases. Because the sample size was so large, the estimated reliability is excellent (Mertler & Reinhart, 2017). This was further evidenced with a Cronbach's alpha of .87, which is identical to the findings of the MHLS. Moreover, the lowest loading on any component was .475 on Item 21_67, but because of the large sample size, it was able to be included. Consideration was given on whether to include this item at all because it shares similarities with Item 26_67.

Preliminary analysis demonstrates that there is cross-cultural potential for the MHLS. Further research and analysis will need to be done to examine relatedness between the

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construct of MHL and the questions found on the MHLS-R. Finally, because there is disagreement about what constitutes MHL, exploration into the definition of this construct needs to be developed and refined.

Limitations

Because the items on the MHLS-R did not load the same way they did on the MHLS, there are discrepancies in how the instrument translates to the United States. The initial 8 questions on the MHLS are about recognition of the most common mental health disorders in Australia. Therefore, those questions need to be revisited and reworded to reflect the most prevalent mental illnesses in the United States. Moreover, consideration should be given to research (O'Connor and Casey, 2015) that suggests that individuals with pre-existing mental health knowledge and individuals who are in close proximity to mental illness perform better on the MHLS, which may influence results. Lastly, participants in future studies should be drawn from a random sample of the population that does not exclusively include individuals seeking post-secondary education.

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Appendix A

Mental Health Literacy Scale - Revised
(Adapted from O'Connor & Casey, 2015)

The purpose of these questions is to gain an understanding of your knowledge of various aspects to do with mental health. When responding, we are interested in your degree of knowledge.

Therefore, when choosing your response, consider that:

- Very unlikely = I am certain that it is NOT likely
- Unlikely = I think it is unlikely but am not certain
- Likely = I think it is likely but am not certain
- Very likely = I am certain that it IS very likely

1. If someone became extremely nervous or anxious in one or more situations with other people (e.g., a party) or performance situations (e.g., presenting at a meeting) in which they were afraid of being evaluated by others and that they would act in a way that was humiliating or feel embarrassed, then to what extent do you think it likely they have **Social Phobia**

Very unlikely Unlikely Likely Very likely

2. If someone experienced excessive worry about a number of events or activities where this level of concern was not warranted, had difficulty controlling this worry and had physical symptoms such as having tense muscles and feeling fatigued then to what extent do you think it is likely they have **Generalized Anxiety Disorder**

Very unlikely Unlikely Likely Very likely

3. If someone experienced a low mood for two or more weeks, had a loss of pleasure or interest in their normal activities and experienced changes in their appetite and sleep then to what extent do you think it is likely they have **Major Depressive Disorder**

Very unlikely Unlikely Likely Very likely

4. To what extent do you think it is likely that **Personality Disorders** are a category of mental illness

Very unlikely Unlikely Likely Very likely

5. To what extent do you think it is likely that **Dysthymia** is a disorder

Very unlikely Unlikely Likely Very likely

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

6. To what extent do you think it is likely that a diagnosis of **Agoraphobia** includes anxiety about situations where escape may be difficult or embarrassing

Very unlikely Unlikely Likely Very likely

7. To what extent do you think it is likely that the diagnosis of **Bipolar Disorder** includes experiencing periods of elevated (i.e., high) and periods of depressed (i.e., low) mood

Very unlikely Unlikely Likely Very likely

8. To what extent do you think it is likely that the diagnosis of **Drug Dependence** includes physical and psychological tolerance of the drug (i.e., require more of the drug to get the same effect)

Very unlikely Unlikely Likely Very likely

9. To what extent do you think it is likely that in general, **women are MORE likely to experience a mental illness of any kind compared to men.**

Very unlikely Unlikely Likely Very likely

10. To what extent do you think it is likely that in general, **men are MORE likely to experience an anxiety disorder compared to women**

Very unlikely Unlikely Likely Very likely

When choosing your response consider that:

- Very unhelpful = I am certain that it is NOT helpful
- Unhelpful = I think it is unhelpful but am not certain
- Helpful = I think it is helpful but am not certain
- Very helpful – I am certain that it IS very helpful

11. To what extent do you think it would be helpful for someone to **improve their quality of sleep** if they were having difficulties managing their emotions (e.g., becoming very anxious or depressed)

Very helpful Unhelpful Helpful Very helpful

12. To what extent do you think it would be helpful for someone to **avoid all activities or situations that made them feel anxious** if they were having difficulties managing their emotions

Very helpful Unhelpful Helpful Very helpful

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

When choosing your response, consider that:

- Very unlikely = I am certain that it is NOT likely
- Unlikely = I think it is unlikely but am not certain
- Likely = I think it is likely but am not certain
- Very likely = I am certain that it IS very likely

13. To what extent do you think it is likely that **Cognitive Behavior Therapy (CBT)** is a therapy based on challenging negative thoughts and increasing helpful behaviors

Very unlikely Unlikely Likely Very likely

14. Mental health professionals are bound by confidentiality; however there are certain conditions under which this does not apply.

To what extent do you think it is likely that the following is a condition that would allow a mental health professional to **break confidentiality**:

If you are immediate risk of harm to yourself and others

Very unlikely Unlikely Likely Very likely

15. Mental health professionals are bound by confidentiality; however there are certain conditions under which this does not apply.

To what extent do you think it is likely that the following is a condition that would allow a mental health professional to **break confidentiality**:

If your problem is not life-threatening and they want to assist others to better support you

Very unlikely Unlikely Likely Very likely

Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
16. I am confident that I know where to seek information about mental illness					
17. I am confident using the computer or telephone to seek information on mental illness					

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

Please indicate to what extent you agree with the following statements:

	Strongly Disagree	Disagree	Neither agree or disagree	Agree	Strongly Agree
18. I am confident attending face to face appointments to seek information about mental illness (e.g., PCP)					
19. I am confident I have access to resources (e.g., PCP, Internet, friends) that I can use to seek information about mental illness					
20. People with mental illness could snap out of it if they wanted					
21. A mental illness is a sign of personal weakness					
22. A mental illness is not a real medical illness					
23. People with a mental illness are dangerous					
24. It is best to avoid people with a mental illness so that you don't develop this problem					
25. If I had a mental illness I would not tell anyone					
26. Seeing a mental health professional means you are not strong enough to manage your own difficulties					
27. If I had a mental illness, I would not seek help from a mental health professional					
28. I believe treatment for a mental illness, provided by a mental health professional, would not be effective					

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

Please indicate to what extent you agree with the following statements:

	Definitely unwilling	Probably unwilling	Neither willing or unwilling	Probably unwilling	Definitely unwilling
29. How willing would you be to move next door to someone with mental illness?					
30. How willing would you be to spend an evening socializing with someone with a mental illness?					
31. How willing would you be to make friends with someone with mental illness?					
32. How willing would you be to have someone with mental illness working closely with you on a job?					
33. How willing would you be to have someone with a mental illness marry into your family?					
34. How willing would you be to vote for a politician if you knew they suffered with mental illness?					
35. How willing would you be to employ someone if you knew they had a mental illness?					

Scoring

Total score is produced by summing all items (see reversed scored items below). 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

Reverse scored items: 10, 12, 15, 20-28

Maximum score: 160

Minimum score: 35

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

Appendix B

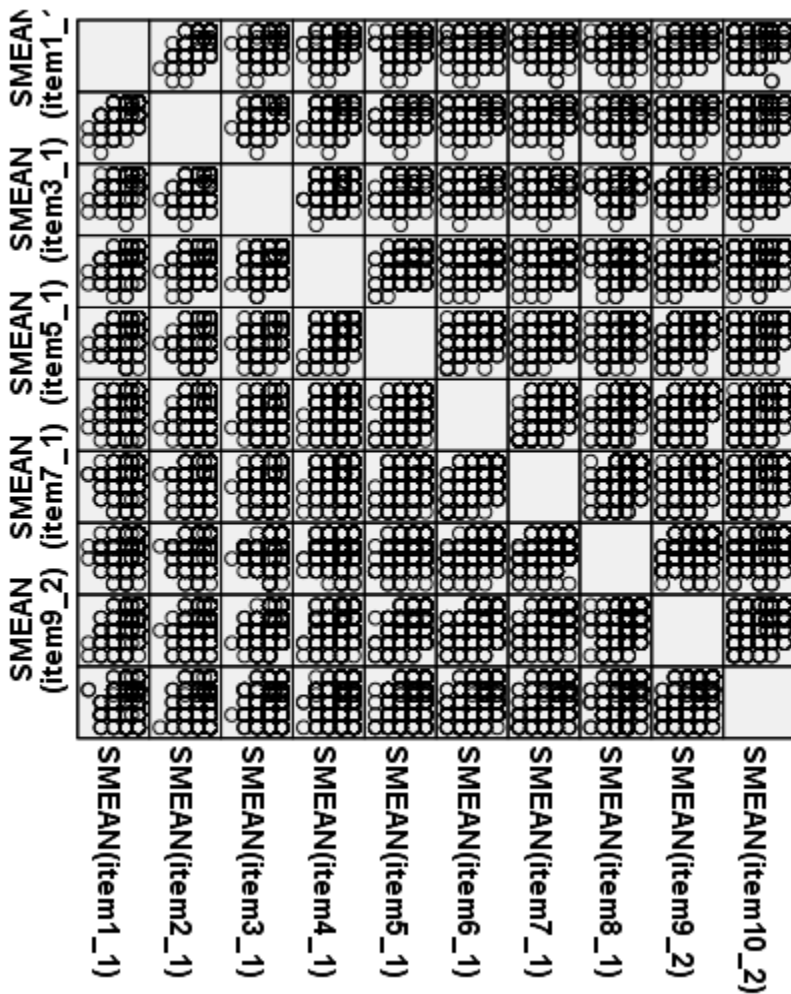


Figure 1. Scatterplot matrix of items 1 through 10.

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

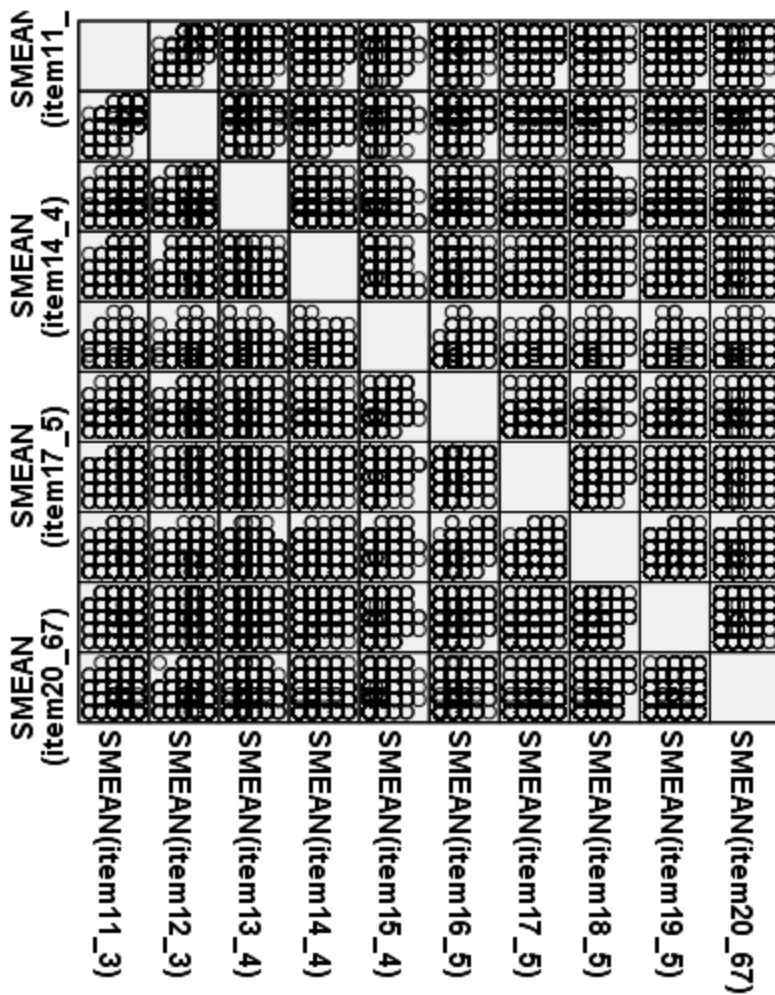


Figure 2. Scatterplot matrix of items 11 through 20.

CROSS-CULTURAL IMPLICATIONS OF THE MHLS

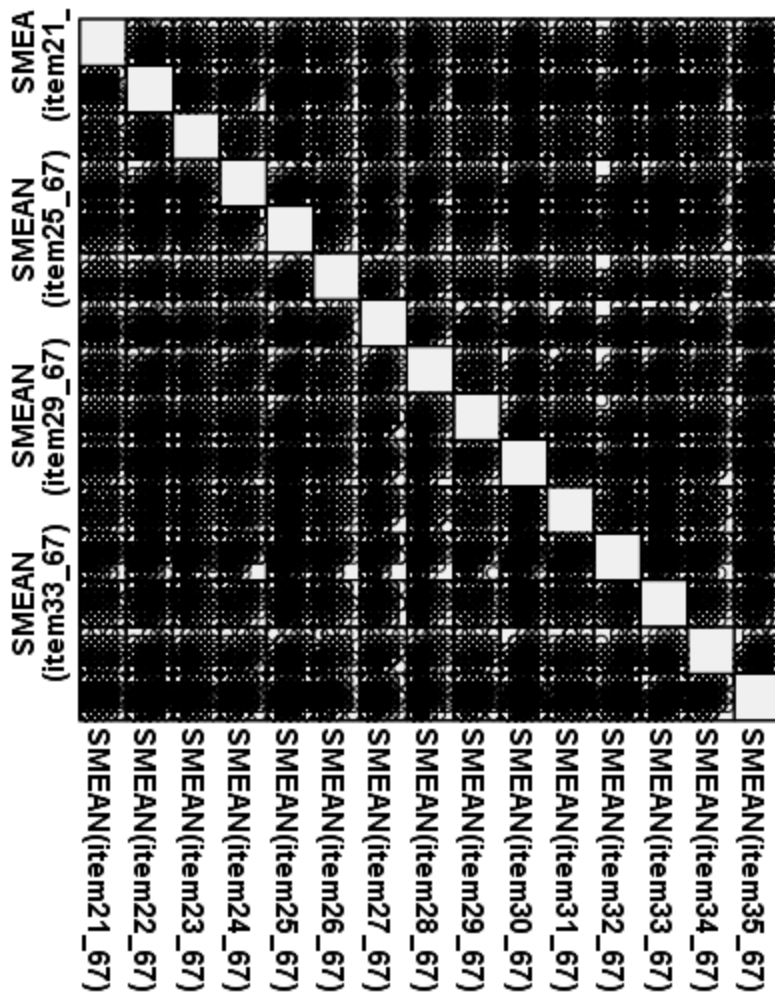


Figure 3. Scatterplot matrix of items 21 through 35.

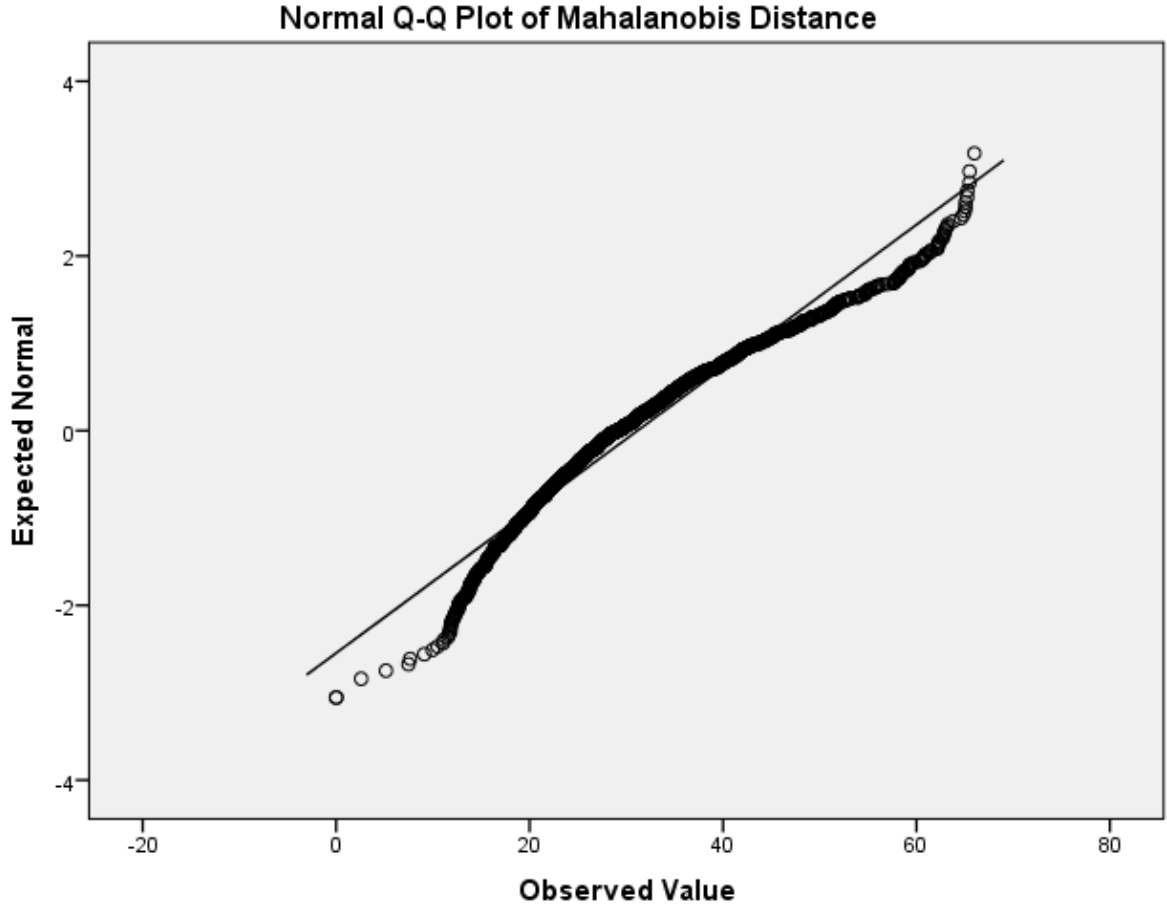


Figure 4. Normal Q-Q plot demonstrating moderate normality of data.