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Urdu Translation and Cross-Cultural Validation of Mood Disorder Questionnaire on Patient Engaging in Self-Harm

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ABSTRACT

Objective: To translate Mood Disorder Questionnaire and examine cross-cultural validation and estimate the reliability of the Urdu translated scale.

Study Design: Cross-sectional study.

Place and Duration of Study: Foundation University, Rawalpindi Pakistan, from Jun to Sep 2020.

Methodology: Forty patients with self-harm, aged 18 to 35 years, were recruited from different Mental Health Departments of Rawalpindi, Multan and Jhelum hospitals. The study was conducted in two phases. The Mood Disorder Questionnaire was translated into Urdu using Brislin 1970 guidelines in Phase-I. In Phase-II, cross-language validation was conducted through test-retest Cronbach alpha reliability estimation and item-total correlations.

Results: Current research revealed that the Urdu-Group had higher correlation coefficients (α=0.80) than English-English-Group (α=0.78) with acceptable Cronbach alpha reliabilities ranging between -1 to +1. Moreover, a significant positive item correlation (p<0.01) was found with the Mood Disorder Questionnaire composite score.

Conclusion: Current research findings established that the Urdu-translated version of the Mood Disorder Questionnaire was reliable and valid in Pakistani culture.

Keywords: Bipolar spectrum disorder, Inpatients, Mood disorder, Self-harm.

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INTRODUCTION

Bipolar spectrum disorder that involves Bipolar-I, Bipolar-II, and Bipola-NOS has been defined as an illness that comprises unusual mood swings, problems with energy or activity levels, concentration, and day-to-day tasks (DSM-5).[1] Diagnostic and Statistical Manual of Mental Disorders-fifth edition correctly identifies the sturdy link among mood disorders, self-harm and suicide risk.[2] The DSM-5 contains a suicide evaluation factor for mood disorders like bipolar and depressive disorder. Suicidal studies show that 60 per cent of suicides are due to mood disorders.[3] Bipolar spectrum disorder is used to measure through Mood Disorder Questionnaire; it was developed by Hirschfeld (2002) and is a screening instrument for bipolar spectrum disorder which involves Bipolar I, II and Bipolar not otherwise specified (Bipolar NOS).[3,4] It is the most widely used screening instrument for bipolar spectrum disorder worldwide and has adequate sensitivity (0.73) and good alpha reliability (0.90).[5] The existing literature supports that the Mood Disorders Questionnaire is a good instrument for the assessment of bipolar spectrum disorder among the clinical population.[6,7] There have been no reports on validating the Mood Disorder Questionnaire of the Urdu version with a sample of self-harm.

This study aimed to translate Mood Disorder Questionnaire into Urdu and validate the Urdu version of the Mood Disorder Questionnaire. Translation and validation of psychological instruments are very important to address cultural variability and to make the scale more indigenous and reliable across cultures.[5] Thus, current research presented an empirical test of the original version of the Mood Disorder Questionnaire in a heterogeneous clinical sample of self-harm patients.

METHODOLOGY

The cross-sectional study was conducted at Foundation University, Rawalpindi, from June to September 2020 after permission from Institutional Ethical Review Board (ref: FURC/IRB/Spring-2019/08). The data was collected from Mental Health Departments of three hospitals. The sample size was estimated through Epi-Tools Epidemiological Calculator with 74% estimated true proportion.[7]

Inclusion Criteria: Patients of either gender with minimum one-year involvement in self-harming behaviour were included.

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Exclusion Criteria: Patients having tattoos and/or culturally sanctioned behaviours, under 18 years of age, having an active episode of psychosis or risk of violence or having an intellectual disability, were excluded from the study.

Formal written consent was collected from the authorities of the concerned Mental Health Departments, and written consent was taken from each participating client with self-harm in the research. A self-reported measure of the Mood Disorder Questionnaire was selected for translation and validation into Urdu. The objective of the research was achieved in two phases. Phase-I consisted selection and translation of the scale, and phase-II presented an empirical test of the original version of the Mood Disorder Questionnaire on a heterogeneous clinical sample of self-harm patients (n=40). In Phase-I, the selected instrument was translated to understand and comprehend items of scale in Pakistani culture. The Mood Disorder Questionnaire was translated after taking permission from the original author. For translation purposes, the following procedure used the guidelines of Brislin (1970).[7,8]

Forward Translation comprised translating Mood Disorder Questionnaire into the target language (Urdu) from the source language (English). For this purpose, three bilingual experts fluent in reading, writing and speaking both Urdu and English were requested to translate the scale into Urdu. Two bilingual experts had MS in psychology, and one expert had MS in English subject. Initial translation was carried out according to these criteria: 1) translate the manuscript without excluding any item or word; 2) use reasonably simple language; and 3) emphasise content similarity; by following these instructions, translators separately translated scale. Three translations were later evaluated in a committee approach to select the best translation for each scale. The committee comprised five members; three had their MS degree in psychology, and two were PhD in psychology and had command of both languages. The committee members discussed each item in terms of its length, comprehension and content. The main emphasis was on examining whether these translated items conveyed the same meaning as given in the original scales. The most appropriate translation was selected with the agreement of the committee members.

Back translation of Urdu-selected items was done into the source language (i.e., English). For this purpose, the Urdu version was given to two independent bilinguals who were different from those who translated the scale into Urdu. One expert had a PhD in psychology, and one had a PhD in English. They were instructed to translate the items so that the context remained unchanged. Received English translations were again evaluated by committee approach. All the back translations were evaluated through a committee approach regarding their equivalence with the original items. There was no ambiguity found in the meaning of the original item for scale.

After the translation procedure, the next step was checking the internal consistency of the instrument, which was followed in Phase-II of the study. This step was carried out for cross-language validation of the translated version of the Mood Disorder Questionnaire through test-retest reliabilities for the English (original) to Urdu (translated) version of the instrument on participants of forty clients with self-harm.

The cross-language validation on clients with self-harm was accomplished. The sample was divided into four equal groups of ten participants and distributed in English-English, English-Urdu, Urdu-Urdu and Urdu-English test-retest conditions. The time interval between the test-retest was two weeks. In the first tryout, two groups comprising 10 participants in each group were given the original English Mood Disorder Questionnaire, and two groups comprising 10 participants each were given translated version (Urdu)of inventory with four testing conditions (Figure).

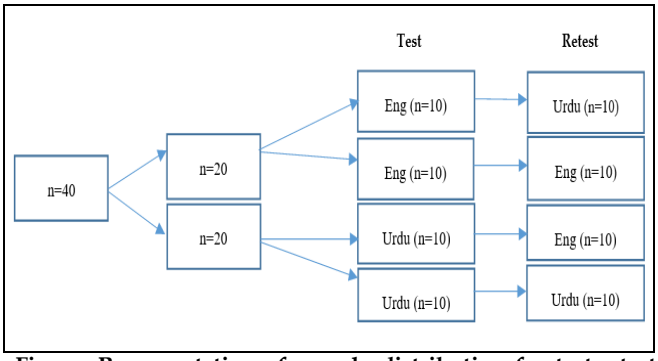

Figure: Representation of sample distribution for test-retest reliability (n=40)

Their responses were noted in English version and translated scale of Urdu. In the second Phase, after the 14 days interval, the same 40 patients with self-harm were included to make their responses again; however, in the retest try-out, testing conditions were reversed with the same instructions. This whole procedure was carried out to identify any equivalence

or discrepancy issues between the Urdu and English versions of the Mood Disorder Questionnaire.

Statistical Package for Social Sciences (IBM-SPSS Versio-23) was used to analyze data using descriptive statistics to calculate the internal consistency of the scales, and item-total correlations were computed.

RESULTS

The study sample consisted of an equal number of 20 males (50%) and 20 females (50%) with a mean age of 23.44 years ±7.6 was selected. Overdose of medicines 22(54.9%) and cutting of important veins 18(32.6%) were the most commonly reported method of self-harm. Reliabilities for the Mood Disorder Questionnaire (Urdu) were examined by test and retest reliability based on its total score of test and retest. Cronbach alpha reliability was also computed for scale. Table-I shows the correlation coefficients of test-retest administrations of the Urdu translated scale explaining four testing conditions, i.e., English-English, English-Urdu, Urdu-English and Urdu-Urdu. Results showed on Mood Disorder Questionnaire were (UU-r=0.89). High correlation coefficients of Urdu-Group than English-English-Group established that compared to the original English version, the translated Urdu version was found to have better comprehension. Table-II indicates the item-total correlations of the Mood Disorder Questionnaire, depicting significant positive item correlation (p<0.01) with a scale composite score. Moreover, correlation coefficients suggested that all scale items were significantly related, measuring the same construct and suggesting the interconnectedness of the items.

Table-I: Test-retest Reliabilities and Cronbach Alpha Reliabilities of the Mood Disorder Questionnaire (n=40)

Testing Conditions	Pearson Correlation
Group I English-English (n=10)	0.78
Group II English-Urdu (n=10)	0.84
Group III Urdu-English (n=10)	0.79
Group IV Urdu-Urdu (n=10)	0.80
α	0.83

Table-II: Item-total Correlation of Mood Disorder Questionnaire (n=40)

Items	r	Items	r
1a	0.69**	1i	0.61**
1b	0.68**	1j	0.69**
1c	0.59**	1k	0.68**
1d	0.64**	1 l	0.66**
1e	0.66**	1m	0.63**
1f	0.67**	2	0.74**
1g	0.75**	3	0.75**
1 h	0.69**	-	-

*Note.*p<0.05; **p<0.01*

DISCUSSION

Our study presented an empirical test of the original version of the Mood Disorder Questionnaire on a heterogeneous clinical sample of clients with self-harm (n=40). The content similarity of the scales was accomplished through different steps of scales' translation. Various aspects of the reliability and validity of the scale were evaluated, and good internal consistency and good test-retest reliability for the scale Mood Disorder Questionnaire were found. Current research results established that, compared to the original English version, the translated Urdu version was found to have better comprehension. Moreover, correlation coefficients of the Urdu translated scale suggested that all scale items were significantly related and measured the same construct. Acceptable Cronbach alpha reliabilities range between -1 to +1. Results revealed that data fulfils the assumption of parametric testing and have acceptable Cronbach Alpha reliabilities. Confirmatory evidence of content validity of the Mood Disorder Questionnaire was also acquired through item-to-total correlation of scale. Item-total correlations were calculated (n=40) in order to examine the consistency among items with the total of its scale. Many other researchers followed the same method used in current research to determine the content validity of the scale.[9-11] This content validation procedure, as Berg (1997) suggested, needs no further statistical test as it is the qualitative assessment procedure for the translated scale.[12] Nevertheless, another confirmatory evidence of the content validity of the scale was also acquired through the item-to-total correlation of the scale. Item total correlation was calculated in order to examine the consistency among items with a composite score of scale. Another study suggested, significant item-total correlations indicate that scales are valid and examine their intended measures.[13] In previous researches internal validity of the Mood Disorder Questionnaire was reported to be between 0.77 and 0.93.[14,15] Researchers used the Chinese version of the Mood Disorder Questionnaire to measure mood disorder among the Chinese sample and found it reliable and valid to assess bipolar spec-trum disorder.[16] An adequate reliability (i.e., α=0.83) of translated Mood Disorder Questionnaire in the Iranian language among clinical patients was found.[4,17,18] The reliability of the measure Mood Disorder Questionnaire in current research was also found to be satisfactory, meeting the requirement of α ≥0.80 for clinical measures. Our results align with coefficients α reported in former studies,[4,14-19] ranging from α=0.75 to 0.98.

Results of the current study also revealed that the Urdu version of the Mood Disorder Questionnaire was valid for diagnosing bipolar spectrum disorder in self-harm patients.

Urdu translated scale was validated using item-total correlation and test-retest reliabilities. Future researchers can plan further factor analysis and may adapt the scale into short forms for clinical populations. Likewise, said instrument could also be validated on a more diverse sample, and a larger sample size would help to surge the generalizability of results.

CONCLUSION

Overall, the results of the present study in terms of psychometric properties of the scale were encouraging and found to be internally consistent and reliable.

Conflict of Interest: None.

Authors' Contribution

Following authors have made substantial contributions to the manuscript as under:

NY: Conception, study design, drafting the manuscript, approval of the final version to be published.

SA: Data acquisition, critical review, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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