

## **Psychometric Properties of the Urdu Translation of Mindfulness Attention Awareness Scale (MAAS) in Pakistan**

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### **Abstract**

*In recent times, several types of research focused on assessing mindfulness by using a variety of existing scales. Mindfulness Attention Awareness Scale (MAAS) comes forth as a precise and comprehensive scale for measuring awareness and attention in daily life. Previously, MAAS has been translated into Spanish, French, and Chinese. Whereas, the present study examined the accuracy and effectiveness of Urdu Translation of the Mindfulness Attention Awareness scale. The triple-step translation process of Brislin was adopted by which cross-language validation and confirmatory factor analysis was done. The 15-item MAAS which was filled by 205 married couples and the findings showed a good reliability, and one-factor solution fit for MAAS was found in confirmatory factor analysis. In the evaluation of the Urdu rendition of the MAAS, it has been found that this scale emerges as an accurate and reasonable instrument to measure the level of mindfulness among Pakistani Married populace.*

**Keywords:** Mindfulness, Urdu Translation, Married couples, Pakistan.

### **Introduction**

The recent surge of experimentation and implementation in mindfulness across diverse fields like education, health, media, sports, child-rearing, and public-affairs is astonishing, to say the least (Wilson, 2014). The applications across fields like schooling highlight the significance of mindfulness-based approaches (Cullen, 2011; Hyland, 2015; Ricci, 2015). Over the past three decades, several researches have concluded that incorporating mindfulness helps in improving physical and mental health, by countering ailments like depression, chronic pain, and stress (Praisman, 2008). Therefore, the area of mindfulness is getting traction for its many benefits across a wide range of subjects about improved human working and well-being.

Mindfulness has been characterized as "focusing with a certain goal in mind: deliberately, at this moment, and non-judgmentally" (Kabat-Zinn, 1994, p. 4). This description shows that mindfulness is comprised of (a) a mindfulness segment where one's consideration, by and large, is intentionally tackled towards the present minute, and (b) a tolerant position towards this experience portrayed by a mentality of interest and receptiveness (Bishop, 2002). One of the most generally utilized operational meanings of mindfulness features two center parts: thoughtfulness regarding one's present understanding and non-evaluative perception related to that experience (Bishop et al., 2004). Whereas, the consideration part mirrors, and supports attention to one's emotions, musings, and practices since they happen naturally. Therefore, mindfulness consideration reflects the metacognitive monitoring of a person's current understanding. The non-evaluative perception segment mirrors common interest, transparency, and acknowledgment of one's understanding without desires and without attempting to adjust the experience. Albeit a few studies have concentrated only over consideration part in mindfulness (e.g., Brown & Ryan, 2003).

Superficially, several factors in mindfulness may take after different procedures that include introspection, for example, private hesitance (i.e., a ceaseless inclination to coordinate consideration toward contemplations and sentiments; Fenigstein, Scheier, & Buss, 1975), psychological mindedness (i.e., mindfulness and comprehension of mental procedures; Beitel, Ferrer, & Cecero, 2005), objective self-awareness (Duval & Wicklund, 1972). Nonetheless, there are distinct differences among various florals of mindfulness (Baer, Smith, & Allen, 2004; Beitel et al., 2005; Bishop et al., 2004; Lau et al.,

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2006; Nyklíček & Denollet, 2009). Major differences lie in the egotistical constructs including investigating, clarifying/translating the observations, while mindfulness includes the perception of a person's understanding irrespective of "recounting to a story" (e.g., considerations are simply contemplations; Kabat-Zinn, 1990). For instance, in light of depression, contemplation may bring about clarifications for the feeling, for example, recognizing past decisions or character attributes that prompted social detachment. Tragically, mostly introspections are off-base, and introspecting about the reasons for negative feelings tend to slide towards a negative mental wellbeing results (e.g., melancholy; Teasdale et al., 2000, 2002). Interestingly, mindfulness includes essentially seeing considerations and feelings since they emerge without much reflection. These types of disengaged perception, commonly known to be deflecting (Segal et al., 2002), enable individuals in encountering genuinely aversive feelings to be impermanent occasions as opposed to encounters that require a reaction or a clarification.

Mindfulness is a preparation system and a person's inherent quality, which makes it and its components, to some degree hard to clarify. Since mindfulness meditations will in general increment mindfulness dispositions, that, thus, yield advantageous psychosocial impacts, the evident end by all accounts is that the essential component of mindfulness interventions is mindfulness itself (Gu, Strauss, Bond, & Cavanagh, 2015; Nyklicek & Kuijpers, 2008). The present comprehension, in any case, is that mindfulness comprises of two intellectual procedures: present-focused attention and acknowledgment of feelings (Brown & Ryan, 2003; Cardaciotto et al., 2008; Ciarrochi & Kashdan, 2013; Hölzel et al., 2011).

Mindfulness has become an incredibly persuasive practice for a huge sum of the overall population, comprising some portion of Google's strategic policies (Schaufenbuel, 2015). The cognitive implications (Tang, Hölzel, & Posner, 2015), as well as wellbeing aspects, are also explored by some researchers (Jain et al., 2007). Furthermore, in the United Kingdom, it is accessible as established psychotherapy through the National Health Service(see Coyne, 2015b) and, in the recent past, London has it as some portion of formal education for around 6,000 younger students as well (Rhodes, 2015). Similarly, it has become a significant territory of deliberation over subdisciplines of mental science (Brown & Ryan, 2003), mechanical/authoritative (Dane, 2011), experimental (Jensen, Vangkilde, Frokjaer, & Hasselbalch, 2012), clinical (Dimidjian & Segal, 2015), instructive (Britton et al., 2014), are just a few mentionable areas.

### **Research Objective**

To the best of our research, this is the first Urdu adaptation of MAAS available, and no research utilizing any Urdu adaptation of MAAS is carried on any populace. In this manner, the motivation behind this examination is looking at the psychometric properties of an Urdu translation of this scale among wedded couples.

### **Research Question**

Does the Urdu translation of MAAS provide proof for the validity and reliability of the construct?

### **Method**

#### **Sample**

The sample of cross-language validation comprised of 103 married individuals from Lahore and Multan, Pakistan. The age range was 26 to 38 years old. Purposive sampling was used to select the participants.

The sample for exploratory factor analysis and Confirmatory factor analysis comprised of 205 married individuals for each analysis.

#### **Measure**

**Mindfulness Attention Awareness Scale (MAAS).** The MAAS (Brown & Ryan, 2003) is a developed test of 15-thing single-measurement proportion of trait mindfulness. This scale estimates the recurrence of open and responsive thoughtfulness regarding the present happenings. Respondents choose between 1 (never) to 6 (quite often) in this particular scale. Some sample options to choose from are "I think that it is hard to remain concentrated on what's going on in the present," "I could be encountering some feeling and not be aware of it until some other time," and "I race through tasks without being extremely mindful to them." Item scores are switch coded causing higher scores to show a more prominent level of mindfulness.

**Procedure**

First of all, the permission was taken from the Authors to begin the translation of English Questionnaires into Urdu (Hatfield & Sprecher, 1986), the request for translation was graciously accepted. The forward-backward method consisting of three steps was adopted for the process of translation. (Brislin, 1979). According to the standardized procedure of translation, the scale was translated from English into Urdu by three independent bilingual experts as the first step. The committee approach was used to find the best fitting translated items and then the final Urdu translated version of the scale was given to the expert to do the backward translation.

For the sake of assessing the cross-language validity of MAAS and PSSS, 103 participants were approached through purposive sampling whereas a sample of 205 was collected for exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) each. Before taking the consent of participants they were briefed about the objectives of our study so that they fill the questionnaire with interest. The married participants of the study were requested to be honest and were ensured of their data confidentiality. Moreover, they were informed of their right to leave the participation at any time of the study but none of them left. Participants were thanked for their cooperation at the end of data collection

**Results**

To analyze the **cross-language validity** across all the three versions of MAAS i.e., Original, Urdu, and English correlation analysis was run. The results are shown in the table.

**Table 1**

*Correlation among Original, Backward and forward versions of MAAS (N = 103)*

Variables	1	2	3
MAAS Original	1		
MAAS Forward	.62**	1	
MAAS Backward	.74**	.48**	1

Note: \*\*p < 0.01

**Table 2**

*Mean, Standard Deviation and Cronbach's Alpha Reliability Coefficient of the Urdu Version of Mindful Attention Awareness Scale (MAAS) (N = 103)*

Variables	Total items	Minimum Scores	Maximum Scores	M	SD	$\alpha$
Mindful Attention Awareness Scale (MAAS)	15	30	85	59.73	12.22	.97

Data suitability is first assessed through reliability for determining the consistency of responses. The study has assessed internal consistency reliability through Cronbach's Alpha. Table 2 depicts that the Cronbach's Alpha of MAAS scale is 0.97. That is considered as an excellent reliability.

**Table 3**

*Item Total Correlation of Urdu Mindful Attention Awareness Scale (MAAS) (N = 103)*

Item No.	Item-total correlation	Item No.	Item-total correlation
1	.92**	9	.93**
2	.92**	10	.95**
3	.90**	11	.59**
4	.93**	12	.49**
5	.94**	13	.60**
6	.95**	14	.48**
7	.93**	15	.55**
8	.96**		

Note: \*\*p < .01

Table 3 showcases the results which depict a highly significant item to item positive correlation, showing the MAAS scale tends to be an internally consistent scale of mindfulness. As each indicator contributes positively to improving the instrument's reliability.

**Exploratory Factor Analysis (EFA)**

Exploratory factor is done to analyze the factor structure of the constructs. EFA is a very suitable technique to assess the relationship between factors and items on the constructs. EFA is done through SPSS during the research.

The measure of KMO value is 0.96 greater than 0.5 is recommended. The significance level is achieved when the KMO is upwards of the 0.5 mark. The KMO value stands greater than the minimum level in the study as well. The greater value of KMO shows the strength of the data. The strength of the factors is shown by p-value which < 0.001.

Principal component analysis is performed for extraction, only one component has explained 72.88 % of variance. It means one component is differentiating with each other from the mean value so, EFA has also confirmed the factor structure. Figure 1 shows that there is one distant component that has an Eigenvalue greater than one. Factors can be loaded on this one component.

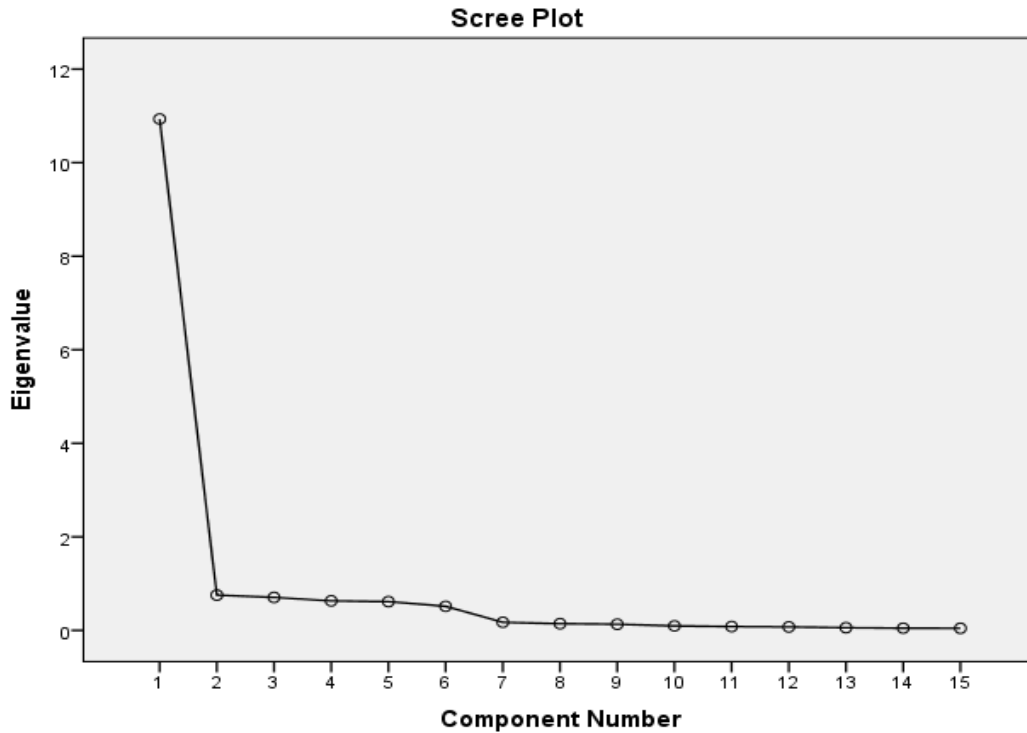


Figure 1: Scree plot

**CFA**

The MAAS (Urdu version) factorial validity was addressed by using structural equation modeling based confirmatory factor analysis (SEM) (Byrne, 2001; Jöreskog & Sörbom, 2004). The maximum likelihood estimation (MLE) method using AMOS 18.0 software, was employed in the study as well.

**Table 4**

*Chi-Square, Degree of Freedom and Model Fit Indices of CFA for MAAS Scale (N = 205)*

Indexes	$\chi^2$	df	CFI	RMSEA	GFI
Model	225.6	90	.97	.073	.87

The values which were obtained for the chosen fit indices as a result are as follows: CFI = .97; GFI = .87; RMSEA = .073; and, IFI = .969. In light of the above results, it could be seen that the selected fit indices are moderate but consistently depict a good-fitting model.

**Table 5**

*Factor Loadings for Exploratory Factor Analysis with Varimax Rotation of Urdu Mindful Attention Awareness Scale (MAAS) (N = 205)*

Serial #	Item No.	$\lambda$
1	1	.94
2	2	.94
3	3	.92
4	4	.95
5	5	.95
6	6	.96
7	7	.95
8	8	.97

9	9	.94
10	10	.96
11	11	.63
12	12	.64
13	13	.64
14	14	.63
15	15	.58
Eigen Values		10.93
Cumulative %		72.88

Note. Factor loadings > .30;  $\lambda$  = Factor Loadings

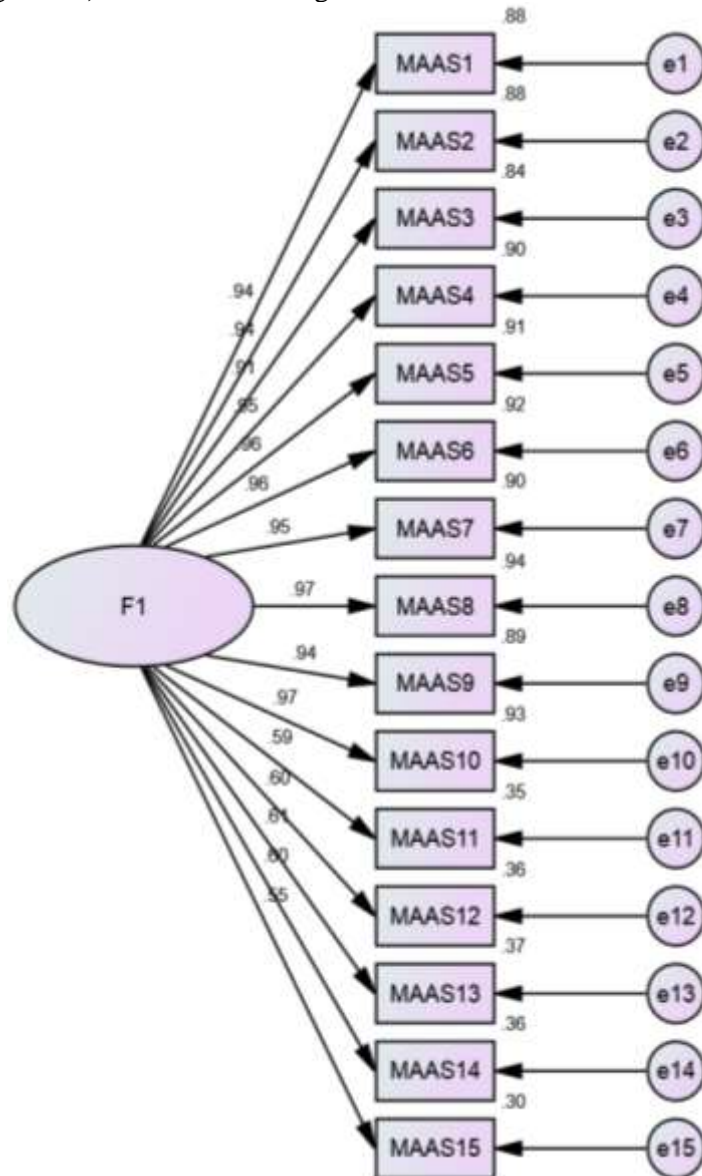


Figure 2: Measurement model of MAAS scale

**Discussion**

This study aims to translate and assess the psychometric properties of MAAS in Urdu Language. Previously, the scale has been translated into three languages, i.e., Spanish, French, and Chinese. The sample of 263 undergraduates was taken to translate and validate the Chinese scale, 190 high school students were taken for the French translation and 385 subjects were taken for the Spanish version. However, Married couples were taken for the translation and validation of the Urdu version of the scale.

The study has assessed internal consistency reliability through Cronbach’s Alpha. According to Nunnally (1994), the value of Cronbach’s Alpha greater than 0.6 considers as satisfactory as and

greater than 0.7 considers as good. The Cronbach's Alpha of Urdu MAAS scale is 0.97, for the Spanish version it is 0.89 (Cebolla et al., 2012). Whereas, the reliability coefficient of the French scale was calculated to be 0.84 (Jermann et al., 2009), and the value of 0.85 was shown for the Chinese rendition of the Mindfulness Attention Awareness Scale (Deng et al., 2012).

The Chinese items had a corrected item-total correlation in the range of .345 till .674 except from the Chinese items 4 had correlations of .250 and 5 was of .250 and .249 (Deng, et al., 2012). Factor analysis of the French scale extracted only one factor with 33.3% of the total variance. All the loading for each item was more than 0.30 except the item 2, which showed a loading of .20 (Jermann et al., 2009). In the Spanish rendition of MAAS gave 42.8% of the total variance accounted for a single factor again (Cebolla et al., 2012). Urdu MAAS also extracted one component with 72.88 of variance and factor loadings on each item are greater than 0.5 which ensures a suitable factor structure of the Urdu MAAS scale.

The KMO value for the Urdu version of MAAS is 0.96 greater than 0.5 as suggested and recommended. The significance level is achieved when the measure of KMO is greater than 0.5. The measure of KMO in this study is higher compared to the minimum level. The greater value of KMO in the Spanish version shows the strength of the data also. The two major indicators the KMO sampling, and Bartlett's Test of sphericity showed an adequacy index of 0.926 and exploratory  $p < 0.001$  respectively (Cebolla et al., 2012).

For the chosen fit indices of MAAS (Urdu version) the results were as follows: GFI = .87; CFI = .969; IFI = .969; and, RMSEA = .073. On the other side, The Spanish version of MAAS presented, RMSEA= 0.71, CFI= 0.92 and GFI=0.88. Given that these selected fit indices are moderate, it can be said that the Spanish MAAS had sufficient fit indices (Cebolla et al., 2012)

To sum up, the Mindfulness Attention Awareness Scale (MAAS) Urdu translated version is a valid and reliable way of examining the personal characteristics of the awareness and attentiveness among individuals.

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