Pakistan Journal of Social and Clinical Psycholoogy
2020, Vol. 18, No. 1, 37-42

Adaptation of Religiousness Measure for Muslim Women in Pakistan

Waseem Fayyaz
Department of Psychology,
Govt. Gordon College, Rawalpindi

Anila Kamal
National Institute of Psychology,
Quaid-i-Azam University, Islamabad, Pakistan

Saima Ambreen
Department of Psychology,
University Of Baluchistan, Quetta

The present study has attempted to adapt the Religiousness Measure (Sethi & Seligman, 1993) for Muslim women in Pakistan. This instrument focuses on religious practices, religious importance in daily lives, and religious hope. In the initial phase of the study, content examination and the translation of the measure into Urdu were done and important revisions were made. The next step involved the pilot testing of the instrument. Feedback obtained from this step was used to incorporate further changes in the tool. The final study was undertaken with 511 Muslim women whose age range was 19 to 47 years. Exploratory factor analysis revealed that the measure comprised four elements, namely, religious faith, religious practices, religious importance, and optimism. Other psychometric analysis established the structural validity of the measure. This instrument found variations on various religious factors. This tool can be used in social and religious studies in future and can be further validated with Muslim men.
***Keywords**:* Religiosity, religious faith, religious practices, Muslim women

Social scholars often face a challenge when they attempt to study those concepts that do not have clear definitions. Similar challenge is encountered in measuring an individual's religiosity. Religion is a multi-faceted construct. It involves certain beliefs, acts, traditions and experiences (Scheitle & Dougherty, 2008). Religion is considered a vastly complex phenomenon by some researchers. Being a multi-dimensional concept covers diverse meanings including cultural, organizational, personal, and behavioral. This issue has been realized by interdisciplinary researchers such as philosophers, anthropologists, psychologists, sociologists, and political scientists (McAndrew & Voas, 2011).

One of the first models of religiosity was presented by Glock (1969). This theory suggested five elements of religiosity, namely, knowledge, practice, belief, social consequences (welfare), and experience (religious emotional). Nevertheless, recent fundamentalist activism shows that the welfare dimension does not harmonize with religiosity. Moreover, religious knowledge is rarely considered an indicator of religiosity. As a matter of fact, a profound incongruence subsists between non-believers and the faithful ones. Nonbelievers usually express much more religious knowledge than the faithful ones. A witty article titled as "Want to Know More about God? Ask an Atheist" is largely influenced by the same fact (Crawford, 2011, p.10).

Correspondence concerning this article should be addressed to
Waseem Fayyaz Department of Psychology
Govt. Gordon College, Rawalpindi
Email: w_fayyaz@yahoo.com

Conventionally three aspects of religiousness are being focused: the belief, practice, and affiliation. In most religions faith in a deity and life after death has a core position. Practices such as prayers and attending services might become a burden for the followers of a religion. Still, people perform these acts to conform to societal norms or to appease their families. However, it is generally accepted that belief and practices in a religion relate with each other (McAndrew & Voas, 2011). Many have included personal practices, congregational services, views and personal belief about the religion as measures of religiousness. Others consider religious identity, familial communications or community relations as indicators of religiosity (Lippman, Michelsen, & Roehlekepartain, 2005).

Subject to the clarity of meanings, certain factors as worship space, rate of worship or religiosity type can be assigned quantities. Measurement plans need clear definitions, operationalization, and replicable methods. Though measuring religiosity is possible (a good amount of literature is evidence to that), it is not confidently known which standardized aspects should be measured. Different forms of religiousness require different aspects (McAndrew & Voas, 2011). Considering the complexities discussed above, this study has attempted to assess religiosity only through beliefs, practices, and importance of religious dimensions. So the religious knowledge and social consequences dimensions has been excluded from the measurement. The instrument used for this purpose is Religiousness Measure (Sethi & Seligman, 1993). The present paper reports the adaptation of the said measure. The present paper in fact makes a part of a larger project involving Muslim women of Pakistan. One of the purposes of the project was to assess the religiosity of these women. The problems and issues involved in measuring the religiousness have been discussed above. One such issue is the invariability and display of extremely affirmative

responses. This may occur in societies where there are more traditionalists. Liaquat (2012) observed similar response patterns among Pakistani population. We arranged to address this issue. To this purpose, we initially chose a few religious scales. These scales were pretested with 32 female university students and employees. The response analysis and participant's feedback indicated that many measures were either not well grasped by the respondents or their scores were extremely high. Any instrument having such properties cannot be considered useful because it may not provide any variation in the construct. So, such measures are useless for both understanding of a construct and for conducting statistical analysis on them. Among those measures, Religiousness Measure (Sethi & Seligman, 1993) was relatively well understood by the participants. It was also successful in generating variation in scores. Additionally, it also appeared appropriate for a Muslim society. Therefore, we selected this tool to work with. The purpose of the study is to modify a religious tool which could better serve to assess the religiosity of Muslim women population. The study has been divided in two phases and is described in the following section.

Method

2.1 Phase I

2.1.1 Instrument

Religiousness Measure (RM; Sethi & Seligman, 1993) focused three aspects: Religious influence (importance) in daily life, Religious involvement (practices), and Religious hope (faith). The instrument had seven items to assess the first aspect (e.g., "To what extent do your religious beliefs influence whom you associate with?"; "To what extent do your religious beliefs influence what you eat and drink?"). Each item is presented as a Likert type that ranged from 1 (not at all influential) to 7 (extremely influential). Three questions measured religious involvement (e.g., "How often do you attend religious services?"; "How often do you pray?") with six response options that renged from "several times a day" to "less than once a month." The religious hope subscale contains six items (e.g., "Do you believe there is a heaven?"; "Do you believe your suffering will be rewarded?"). Responses are on a Likert format, from 1 (disagree) to 7 (agree). Moreover, items 1 and 7 are not incorporated for calculating total scores.

Originally the measure was standardized with 623 Americans. This population included different religious communities including Muslims. Though original author has not reported reliability formally but validity was assessed through finding significant differences among religiously liberal, conservative, and moderate people of the sample (Sethi & Seligman, 1993).

2.1.2 Procedure

The adaptation and translation of the measure were undertaken with prior permission of authors. Three Ph.D. experts were inducted as a panel. They were requested to review the instrument for its difficulty and cultural/religious suitability. The experts had a reckoning of religious research and intellectual understanding of religion. Their recommendations were incorporated, and the measure was modified accordingly. The change was mainly about rephrasing some questions (for instance, item 10 "How much influence do your religious beliefs have on whom you associate with?" was substituted by "How much influence do your religious beliefs have on with whom you will relate or be friends with?"). Changes also include the replacement of certain words (e.g. *Qur'an* replaced *Holy Scriptures* in question 3). The whole sample were Muslim women, so item no. 1 "Do you believe in God" had been changed to "How religious person you consider yourself" as it was rarely probable that any negative response would appear. In order to improve the comprehension of anchors of original Likert type response options by local population, the response scale was also altered from 7-point to 5-point format. In original instrument the response set was quite possible as certain items of one subscale were given together in a series. So the item order was also revised for reducing the response set.

Next, the initially adapted version was translated in Urdu by a committee of eight bilingual experts. Among these, five had a minimum qualification of MPhil in Psychology, while the other three were English language teachers with teaching experience of at least five years. Amongst translations five were returned and the translation was finalized through the committee approach. The committee comprised of the researcher himself along with two Ph.D. university faculty members. Two committee meetings were held to finalize the new Urdu version. The whole translation procedure was conducted as per the guidelines of Brislin (1970).

Then we inducted six bilinguals for back translation (into English). The procedure and criteria to confirm the back translation were the same as described above. The original author was requested to review the newly adapted version. The author did not suggest any substantial revision. However, certain small modifications were recommended. We incorporated these consequently. One example of these changes is: the item "How much you consider yourself a religious person?" was rephrased as "How religious person you consider yourself?" After that the original author approved this final version.

2.2 *Phase II*

Phase II involves piloting of the newly adapted instrument and was further distributed in two steps:

2.2.1 Step I.

This step targets to find psychometric properties of the adapted instrument. This step was intended to check for the practicability, comprehensibility, and feasibility in administering the adapted instrument.

Participants

A total of 107 women who were residents of Islamabad and Rawalpindi took part in this stage of the project. Participants represented almost all religious sects. Most of the respondents were university students (n = 79, 75.2%). Other participants include university teachers (n = 17, 16.2%), whereas office job holders and homemakers were 4.9% and 3.8% respectively. Their age was between 19 and 45 years ($\overline{X}$ = 24.55, SD = 5.77). Bachelor women (n = 87) encompassed 81.3% of the total participants. The reported mean income was Rs. 142,530 (SD = 437,864). Owing to the high reported incomes these figures indicate a negative skew. Consequently, median income was chosen as a measure of central tendency (Rs. 75000).

Procedure

With prior permission of the institutional authorities contact was made with the participants**.** After taking informed consent we updated the respondents on about the purpose of the study. Overall we administered the measure in groups. Few administrations were on individual level as well. The self-report instrument's average completion time was 10 minutes. Ethical standards such as commitment on confidentiality and anonymity of the obtained information were followed. They own the right to withhold their information any time after the administration of measures.

Results

The primary purpose of this step was to know whether our instrument is psychometrically appropriate. Results showed that coefficient of reliability for Religious Hope (faith) was quite small (α= .38). To detect the cause of this result, item analysis was carried out. Few items had low corrected item-total correlations. This is imperative to note that the original authors have not reported reliability measures of the subscales. So to the best of our information, this study is the first effort to establish the internal consistency of this instrument and its sub-scales. Hence, it is reasonably probable that the coefficients show improvement in the second step of this phase. The Exploratory Factor Analysis that has been carried out in the later step may also help clarify the structure of the sub-scales. The inter-scale correlations of the variables included in the measure were satisfactory, with few exceptions which will be explained in the discussion section.

2.2.2 Step II.

Step II is the final step of the study and builds on exploratory factor analysis of the adapted version of the measure.

Participants

The participants selected through purposive sampling add up to 511 women. They represented nine urban areas of our country, including Lahore, Islamabad, Rawalpindi, Sialkot, Bahawalpur, Quetta, Karachi, Mansehra and Swabi. Age was between 19 and 47 years ($\overline{X}$ = 24.90 years, *SD* = 5.70, skew = 1.77). Due to highly skewed monthly income, the median value instead of mean was selected. The median was Rs. 50,000 (ranged from Rs. 8000 to 1,000,000; $\overline{X}$ = 87.26, *SD* = 123.53, skew = 5.17). Further details are reported in Table 1.

Table 1
Demographic Features of the Sample (in Percentages) (N = 511)

Characteristic	%
Identity	
Punjabi	48.1
Pakhtoon	13.7
Hazarewal	8.7
Baluchi	8.7
Sindhi	6.0
Urdu speaking	7.7
Kashmiri	7.2
Religious affiliation	
Sunni */ Ahle sunnut*	41.1
Barelvi	11.3
Deobandi	13.9
Ahle Hadis	13.7
Shiite	7.9
*Muslim**	12.1
Education	
Grade 8 to 12	12.5
Bachelors	48.9
Masters or higher	38.6
Work/Profession	
Unemployed / Student	58.7
Employed	34.1
Housewife	7.2
Marital status	
Unmarried	68.4
Married	20.9
Engaged	10.7

Note. * 'Muslim'= Selection of Muslim affiliation by some respondents means that they do not include themselves in any religious sect or affiliation.

Instruments

We applied Exploratory Factor Analysis (EFA) on the new modified version of Religiousness Measure (Sethi & Seligman, 1993). The current EFA brought out a four-factor solution, whereas the original instrument had claimed three factors only on theoretical foundations. EFA details are presented below.

Procedure

Procedure employed was mainly same as that of pilot study**.** Data were gathered at various educational institutions, university campuses, neighborhoods, and by social linkage from numerous urban regions. Complete data were obtained in about four months. Respondents from institutions were contacted with prior permission of the respective authorities. We informed them about study objectives and establish rapport with them. We attained Informed consent from the willing participants.

Results

The analysis involved Exploratory Factor Analysis (EFA). Other psychometric analysis was performed subsequently. EFA was considered superior to confirmatory factor analysis for two reasons. Firstly, several changes have been made in this measure as per the requirement of this study, so the original version has been transformed to a large extent. Secondly, no attempt was made or reported by the original author to establish the factorial structure of the original measure through statistical techniques. The authors of the original measure had considered theoretical understanding of numerous aspects of religiousness as basis for devising item. Although they indicated that the measure significantly differentiated fundamentalist, liberal, and moderate religious sections of the population (and reported it as an evidence of validity), but no statistical examination was attempted to obtain factorial validity (Sethi & Seligman, 1993). Hence, it is required to carry out EFA to specify the underlying structural components of the measure. We did not apply EFA in the initial stages of this study due to small samples.

Principal Component Analysis was applied for factor extraction. Whereas, Direct Oblimin (an oblique rotation method) was considered appropriate for factor rotation. This method was selected because of available theoretical evidence on the interrelationship of religiousness dimensions. We have a modest statistical evidence for this too. For instance, with the exception of one, all inter-item correlations were found to be significant (r = .09 to .64, p's < .05). Criteria for factor solution were sited at eigenvalues > 1 whereas factor loading at or above .40.

The resulted Keyser-Meyer-Olkin (KMO) = .85 approves that the sample size is sufficient for factor analysis, while the Bartlett's test of sphericity was found significant as well, p < .001. A four-factor solution was indicated through extraction as well as rotation

methods explaining a cumulative 58.8% variance. Table 2 shows the items and related factors of the instrument. The table also mentions the pattern matrix which helps understand the structure further. Moreover, we also noted the component correlation matrix which extends the evidence for the aptness of four-factor solution. Correlations were between *r* = .16 amd.36 indicating that the four factors are not exceedingly interrelated. Table 2 presents the final factorial structure.

Table 2
Factor Structure for the Religiousness Measure-Adapted (N = 510)

Item no	Items	Factors 1	2	3	4
15.	How much influence do your religious beliefs have on what social activities you undertake?	.80			
10.	How much influence do your religious beliefs have on what you eat and drink?	.74			
6.	How much influence do your religious beliefs have on what you wear?	.74			
4.	How much influence do your religious beliefs have on the important decisions of your life?	.73			
12.	How much influence do your religious beliefs have on with who you will relate or be friends with?	.72			
2.	How much important is religion in your life?	.62			
13.	How much do you believe that in future next generations will be able to lead a better life than yourself?		.83		
14.	How much do you believe that the future will be a better place to live?		.81		
8.	How much do you believe it is possible for all humans to live in harmony together?		.51		
17.	How often do you offer *prayers*?			.86	
16.	How often do you read *Quran*?			.84	
3.	When there is a religious ceremony/activity in your social circle (e.g. preaching/*daras*, congregational prayer, *Quran khwani/khatm, milad*, etc), how much are you likely to participate in it?			.50	
7.	How much do you believe that there is a heaven?				.77
11.	How much do you believe that your suffering will be rewarded?				.64
9.	How much do you believe there are miracles?				.63
Eigenvalues		4.85	1.46	1.32	1.18
% Variance		32.3	9.8	8.8	7.9
α		.85	.62	.69	.58

Note. Item no. 1 and 5 are excluded.

The two items that were not used in measuring the composite score as explained earlier, were excluded from the analysis. These include item 1 ("How religious person do you consider yourself?") and item 5 ("Given a choice, how much it is likely that you would marry a non-Muslim man?").

Religious Hope component of the original measure now has two basic dimensions for current data. Next, four inducted judges examined the content of the new components and assign those labels. The judges were PhD scholars and all belonged to different teaching faculties. They termed these components as Religious Faith and Optimism. This step finalized the establishment of a new version having 17 items and was labeled as Religiousness Measure-Adapted (RMA). This fresh instrument is having four factors including Religious Involvement (RI, 3 items), Religious Influence in Daily Life (RIDL, 6 items), Religious faith (RF, 3 items), and Optimism (OP, 3 items). Example items of new factors are: "How much do you believe that there is a heaven?" (RF); "How much do you believe it is possible for all humans to live in harmony together? (OP)". Question no. 1 and 5 are not included in any of these components. But these may offer supplementary evidence regarding the religious approach of the people. Further analysis involved other psychometric characteristics of the variables included in the RMA.

Table 3
Psychometric Characteristics of Religiousness Measure-Adapted (RMA) and its Sub-scales (N = 510)

Variables	No. of items	*M*	*SD*	α	Skew
RMA	15	56.73	8.50	.84	-0.86
RI	3	10.46	2.46	.69	-0.45
RIDL	6	22.60	4.66	.85	-0.89
RF	3	13.32	1.78	.58	-1.23
OP	3	10.38	2.53	.62	-0.43

Note. RMA = Religiousness Measure-Adapted; RI = Religious Involvement; RIDL = Religious Influence in Daily Life. RF = Religious Faith; OP = Optimism

Table 3 shows that variation, though little, can be observed on RF (Religious faith), *SD* = 1.78. This can be noted that skew statistics for RMA range from -0.43 to -1.23, which fall in acceptable range. Cronbach coefficients for the total measure is .84, and between .58 (RF) and .85 (RIDL) for its subscales. The comparatively low coefficients for RI, RF, and OP may be reasonable as there are few items in each subscale. Furthermore, Kline (1999) also put forward that Cronbach alpha less than .70 is also tolerable, especially in case of psychological constructs (except ability tests). Further, Bollen (1989) proposes that coefficient alpha is a stringent estimate of internal consistency.

The reliabilities of all the subscales have shown considerable improvement from the reliabilities achieved in pilot study (Step 1). RF and OP, as one single factor in original measure, had .38 internal consistency. Whereas, now their reliability coefficients are .58 and .62 respectively, with only 3 items in each subscale. The item-total correlations have also increased. This proves that insertion of English substitute words/phrases for difficult Urdu words has been an effective practice, which enhanced the psychometric foundation of the measure. To have further idea of structural nature of the measure, scale inter-correlations were calculated.

Table 4
Scale Inter-correlations of Scores on Religiousness Measure-Adapted (RMA) (N = 509)

Variable	1	2	3	4	5
1.RMA	-	.68***	.87***	.64***	.61***
2.RI		-	.45***	.31***	.26***
3.RIDL			-	.46***	.32***
4.RF				-	.28***
5.OP					-

***p< .001

Table 4 displays that for RMA (the full measure), all the sub-scales display significantly high correlational values with the full scale (r is between .61 and .87, for OP and RIDL respectively, p's < .001). And all sub-scales displayed small to medium correlations with each other (r = .26 to .46). We would like to point out that the correlations for optimism is slightly lower than other sub-scales. Noticeably, earlier respondents also had a query about this sub-scale as they probed if these questions were asked with regard to religious viewpoint or generally. Judges had also indicated some disagreement about the relationship of these items with religious faith. Though, in the additional analysis, very high correlation was seen with the total score when this subscale was retained. So, it appears no harm in keeping this sub-scale because its presence may not disturb the results connected to the instrument. Therefore, we retained the subscale. All these findings mark the distinctive statuses of sub-scales. At the same time their relatedness is evidence of unitary construct of religiosity. So far, it has been seen that the instrument is satisfactorily reliable and valid.

Limitation and Suggestions

Present study provides factorial or, say, construct validity of the measure. It also provides reliability estimates with regard to internal consistency of the questionnaire. The evidence for the criterion validity of the measure is available in Fayyaz's (2015) study, which established that the presently adapted instrument successfully differentiated between veiling and non-veiling women on their religiosity scores. However, we need to take more steps to build the reliability and validity of the measure. For example, temporal stability and convergent/discriminant validity can be assessed in future studies. It is also required that the instrument be cross validated with the male Muslim population.

Discussion and Conclusion

The major finding of exploratory factor analysis is the existence of four factors, though original measure is organized into three components. The current statistical exploration revealed that the Religious hope sub-scale of the original tool is composed of two factors instead of being a single construct. Originally this subscale has six items. After the current analysis, three items (7, 9, & 11) compose one component whereas item no. 8, 13, & 14 form the other subscale. On examining the content of these items qualitatively it was revealed that religious beliefs are focused in the first set of items (for example, item 7 probes about belief in heaven), and the next group of three questions give emphasis to hope regarding overall future life (for instance, item 13 probes about belief in improved life for coming generations). This second set of questions also evoked queries among few participants during collecting the data. They queried if these questions were related to religious viewpoint or else. This indicates that these three items may not have a religious nature. Hence, both quantitative and qualitative evidence guides us to keep two factor structure of this sub-scale.

Results indicate that this study has been successful in finding some variation in scores on religious faith, which is rare in societies with unwavering religious beliefs (Liaquat, 2012). We also saw that religious involvement / practices is not significantly correlated with religious faith. It means the people who are strong on faith and hope may not be equally stronger in their practices. A devout believer is not essentially a committed practitioner. We also noted that Religious faith showed higher average sore (M = 13.32) and less variation (SD = 1.78) as compared to Religious involvement/practices, which showed lower average (M = 10.46) and higher variation (SD = 2.46). This finding supports a common thought that faith is more firm than religious practices in their everyday life. That means people are relatively inflexible in their

faith, but may display variation in their religious activities. Further, the higher negative skew on Religious faith indicates that most respondents tend to have extreme positive scores on it. This finding reflects the tendency to show strong religious faith in the religious societies like Pakistan.

From these results a tool seems to have been established for Muslim women, specially anchored in Pakistani culture. However, it can be used elsewhere with minor changes or with translation in local languages. Nonetheless, if only a little variation is found on religious faith, the focus may be centered on the other two components, namely, religious practices and religious importance in daily life. There is an option for the future researches to include or exclude optimism from the tool. However, as a source of additional information, optimism can be measured and analyzed as a correlate of religiosity.

References

Bollen, K. A. (1989). *Structural equations with latent variables.* NewYork: Wiley.

Brislin, R. W. (1970). Back-translation for cross-cultural research.*Journal of Cross-Cultural Psychology, 1*(3), 185-216. doi: 10.1177/135910457000100301

Crawford, J. R. (2011). Dimension dementia: A universal approach to Measuring Religiosity. Honor Thesis

Fayyaz, W. (2015). *Conditions, context, and outcomes of practicing veil (hijab) among Pakistani women* (PhD thesis). National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Kline, P. (1999). The handbook of psychological testing (2nd ed). London: Routledge.

Liaquat, A. W. (2012). *Effect of dogmatic religiosity and educational environment on moral judgment competence* (M.Phil. dissertation). International Islamic University, Islamabad, Pakistan.

Glock, C. Y. (1969). Über die Dimensionen der Religiosität. In J. Matthes (Ed.), *Kirche und Gesellschaft: Einführung in die Religionssoziologie* (pp. 150-168). Reinbek bei Hamburg: Rowoh

Lippman, L., Michelsen, E., & Roehlekepartain, E. C. (2005). The measurement of religiosity and spiritiuality. Paper prepared for Office of Planning and Evaluation, HHS for the contract, *Indicators of Child, Family, and Community Connections* (Contract no. HHS-100-01-0011 (05).

McAndrew, S. & Voas, D. (2011). Measuring religiosity using surveys. Retrieved from surveynet.ac.uk/sqb/topics/religion/sqb_religion_mcandrew_voas. Pdf

Sethi, S., & Seligman, M. E. P. (1993). Optimism and fundamentalism. *Psychological Science, 4,* 256-259.

Scheitle, C. P., & Dougherty, K. D. (2008). The Sociology of Religious Organizations. *Sociology Compass, 2,* 981–999. doi: 10.1111/j.1751-9020.2008.00113.x

Received: 30th May, 2016
Revisions Received: 17th Aug, 2020