

## VALIDATION OF THE URDU VERSION OF RELIGIOUS ORIENTATION SCALE

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### ABSTRACT

#### OBJECTIVE

To determine the factor structure of the revised religious orientation scale for Pakistani adults and to establish psychometrics of the resulting scale.

#### RESEARCH DESIGN

Exploratory study

#### PLACE AND DURATION OF THE STUDY

The data was collected from the city of Rawalpindi and Islamabad during December 2014 to March 2015.

#### SUBJECTS AND METHODS

The study included a total of 318 adults (40% women), mean age 40.26 years and (60% men) mean age 45.21 years. Inclusion criteria were married Muslim Pakistani adults from any sect of Islam.

#### RESULTS

Data was split into two halves, each containing approximately 50% of the cases. First half of the sample was used to conduct exploratory factor analysis (EFA) whereas second half of the sample was used to confirm the factor structure resulting from EFA using confirmatory factor analysis (CFA). Results from EFA revealed a two factor solution with accumulated 43.8% percent of variance. As in the original scale out of the total 14 items, 8 items loaded on intrinsic religious orientation ( $\alpha = .84$ ) and 6 items constituted extrinsic religious orientation ( $\alpha = .69$ ) scale. The scale showed good reliabilities. Confirmatory Factor Analysis on the remaining sample showed indices of model fit.

#### CONCLUSION

The 14 items religious orientation scale emerged as an internally valid and reliable scale for Pakistani adults.

#### KEY WORDS

Religious orientation, Extrinsic/ Intrinsic, Validation

### INTRODUCTION

Religion plays very vital role in human life. The definition of religion is diverse, emphasizing different elements of religion. Some defined religion as system of beliefs and the practices relative to scared things<sup>1</sup>. Religion has been a variable of interest to psychologists for a number of years<sup>2</sup>. A variety of empirical researches have been conducted in East and West within diverse religious contexts e.g., Christians, Hindus, Muslims, and showed that religiosity plays a vital role in physical disease and dysfunction. Studies have frequently reported a positive impact of religiosity in patients with hypertension, cancer, diabetes, immune system dysfunction, and strokes and with fewer negative health behaviors e.g., smoking, drinking, and risky sexual behaviors<sup>3</sup>.

Allport proposed that there are two different religious experiences. The concept of intrinsic and extrinsic religiosity had the most impact<sup>4</sup>. Intrinsic religious orientation is when individual live his/her day to day life according to the teachings of his/her religion. While extrinsic religious orientation is when individual may be affected by other social factors and participate in religious activities to meet personal needs, e.g. social affiliation<sup>5</sup>. The people who are extrinsically oriented have been found to be more dogmatic and prejudiced than people who are intrinsically oriented<sup>6</sup>.

One study reported that intrinsic religiosity is a good predictor of lower self-reported aggression<sup>7</sup>. It has been reported that intrinsic religiosity and psychological distress has a negative relationship<sup>8</sup>. Research supports that prayers play a vital role in improving mental health conditions<sup>9</sup>. The research showed that religion has strong positive correlation with mental health and inverse relationship with depression and anxiety<sup>9</sup>. Another Indigenous study results showed that religion play a vital role in mental health of Pakistani Muslim university students but this domain is understudied in Pakistani Muslim sample where religion is very important aspect of life<sup>10</sup>.

The Allport religious orientation scale is the most widely used scale for measuring religious orientation<sup>11</sup>. The factor structure of this scale in Pakistani culture is not explored. The aim of the study is to adopt religious orientation scale with Pakistani sample. This is the first attempt to validate the construct validity of religious orientation by using exploratory factor analysis and confirmatory factor analysis in local settings.

## SUBJECTS AND METHODS

### Participants

The sample included N=318 adults, 191 men (60%) and 127 women (40%) through convenient sampling from Rawalpindi and Islamabad, Pakistan. Mean age of men was M = 45.21 (SD = ±5.87) and women was M = 40.26(SD = ±6.06). The family size was measured which include categories of small (n=1-3 children), medium (n=4-5 children) and large (n >5 children). All the participants had Pakistani nationality, married once and Muslims by religion.

### Instruments

Allport and Ross (1967) developed this scale in 1967. It is a 14 item Likert type scale. It is consisting of two subscales measuring individuals' orientation towards religion. Items range from 1 (strongly disagree) to 5 (strongly agree). Kirkpatrick (1988) suggested subdivision of extrinsic orientation, namely socially oriented extrinsic (Es) and personally oriented extrinsic (Ep). This scale was adapted by Gorsuch and McPherson's in 1989. The reliability of intrinsic religious orientation was .83 and reliability estimate for extrinsic personal, extrinsic social and extrinsic personal/extrinsic social were .57, .58 and .65 respectively<sup>12</sup>. The scale is translated into Urdu following the standard back translation procedure. Initial empirical investigation had resulted in low reliability analysis particularly for extrinsic religious orientation<sup>13</sup>.

### Procedure

After the approval of study protocol from institutional research ethic committee, participants were approached at their homes. Written informed consent was taken. Data was entered to SPSS version 20. To determine the factor structure of the scale, exploratory factor analysis was conducted. The sample was split into two halves using SPSS random split. The first random sample consisted of 159 adults which were used to conduct EFA.

## RESULTS

Results showed that some items which were originally in the personally extrinsic religious orientation (Ep) i.e., ("I pray mainly to gain relief and protection"), ("what religion offers me most is comfort in times of trouble and sorrow"), ("Prayer is for peace and happiness") came into Intrinsic religious orientation after the exploratory factor analysis (EFA). The items like "it does not much matter what I believe so long as I am good", ("although I am religious, I don't let it affect my daily life"), ("although I believe in my religion, many other things are more important to me in life") were the part of intrinsic religious orientation which became the part of extrinsic religious orientation.

### Exploratory factor analysis

Factors were extracted by using Principle Axis Factoring (PAF) as the method of extraction and oblique rotation was used as rotation method. EFA resulted in two factors solution with Eigen values 3.74, and 2.39 respectively, accounting for a total of 43.8 % explained variance. All items loaded well above  $\lambda >.40$  on respective factor. Another important decision after extraction method involve

considering the suitability of data for factor analysis. Several tests are used, including Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of Sphericity<sup>14</sup>. The KMO range from 0 to 1, values of .50 or greater is considered acceptable for that analysis<sup>15</sup>. The latter test gave confirmation that the observed correlation matrix is not an identity matrix, proved that linear combination exists, it should be significant with  $p < .05$ <sup>14</sup>. The KMO was .82 and Bartlett's test was significant, indicating appropriateness of two-factor solution.

### Confirmatory factor analysis

Confirmatory Factor Analysis (CFA) was done by using Analysis of Moment Structure (AMOS, version 21) software with maximum likelihood estimation method. Criteria of good fit is specified with Comparative fit index (CFI), Tucker-Lewis index (TLI), and Incremental fit index (IFI) shall exceed .90 and Root Mean Square Error of Approximation (RMSEA) should be less than .08. The chi-square statistic assess whether the model holds exactly in the population. A poor fit was suggested by the chi square value being significant,  $\chi^2$  (df) 95.76 (68) =,  $p < .05$ , yet the CMIN/df value (CMIN/DF = 1.408) appeared in recommended range. Insignificant  $\chi^2$  is the most desirable index but it is greatly affected by sample size. It is recommended to avoid decision making on the basis of this measure with larger sample<sup>16</sup>.

**Table 1**  
Frequency and percentage along demographic variables (N=318)

Sample characteristics	Categories	f	%age
Size of Family	Small(1-3)	95	29.9
	Medium(4-5)	152	47.8
	Large >5	70	22.0
	Missing	1	0.3
	Total	317	99.7
Education	Illiterate	42	13.2
	Under-matric	131	41.2
	Undergraduate	90	28.3
	Graduate	4	1.3
	Missing	51	16.0
Total	267	84.0	

Note: f= frequency; %= percentage.

**Table 2**  
Mean and standard deviation along demographic variables across gender (N=318)

Variables	Male			Female		
	M	SD	N	M	SD	N
Age	45.21	5.87	191	40.26	6.06	127
Family Income	1.92	0.86	185	2.08	0.78	111

Note: M= mean; SD=Standard deviation.

**Table 3**  
CFA of Religious Orientation Scale (N=159)

	$\chi^2(df)$	IFI	CFI	RMSEA	$\Delta \chi^2(df)$
Model 1	173.36(76)	.90	.897	.064	
Model 2	95.89(68)	.95	.97	.03	77.476(8)

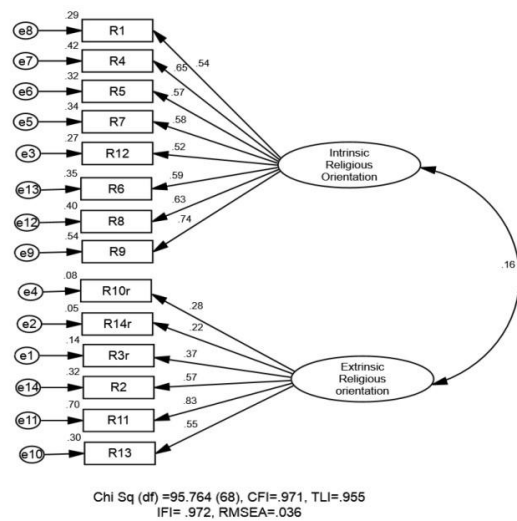
M1=default Model of CFA for religious orientation with 2 factors  
M2=M1 after adding covariance within factors

**Table 4**  
Factor structure of Urdu religious orientation scale.

No.	Factors	Factor Loading	
		EFA	CFA
	<b>Items Statements</b>		
1.	I enjoy reading about my religion.	.58	.54
4.	It is important to me to spend time in private thought and prayer.	.65	.65
5.	-----	.60	.57
6.	I pray mainly to gain belief and protection.	.62	.59
7.	I try hard to live all my life according to my religious beliefs.	.63	.58
8.	What religion offers me most is comfort in times of trouble and sorrow.	.66	.63
9.	Prayer is for peace and happiness.	.69	.74
12.	My whole approach to life is based on my religion.	.51	.52
<i>Extrinsic Religious Orientation(<math>\alpha=.69</math>)</i>			
2.	I go to church because it helps me to make friends.	.61	.57
3.	It does not much matter what I believe so long as I am good.	.51	.37
10.	Although I am religious, I don't let it affect my daily life	.39	.28
11.	I go to church mostly to spend time with my friends.	.71	.83
13.	I go to church mainly because I enjoy seeing people I know there.	.55	.55
14.	Although I believe in my religion, many other things are more important in life	.37	.22

**Table 5**  
Cronbach's alpha reliabilities of old and modified new scale

Scale	No of Items	Cronbach $\alpha$
<i>Old reliabilities</i>		
Religious Orientation	14	.40
Intrinsic religious orientation	8	.25
Extrinsic religious orientation	6	.65
<i>New reliabilities</i>		
Religious Orientation	14	.73
Intrinsic religious orientation	8	.84
Extrinsic religious orientation	6	.69



**Figure 1:** The CFA of Urdu Religious Orientation scale

The model obtained from the EFA showed excellent fit to the data with  $\chi^2(df=95) = 68$ , CFI=.97, TLI=.95, IFI=.97 and RMSEA=.03. Based on initial criteria of factor loading  $>.3^{15}$ , Items were examined. All items were with acceptable loadings i.e. ( $\lambda=.28$  to  $\lambda=.83$ ) except item 14. The item 14 showed low loading, but it was retained on the theoretical basis and its estimates were significant. It is suggested that loading below .30 are acceptable with large samples<sup>17</sup> and based on their qualitative significance. The review of the modification indexes in Amos<sup>18</sup> indicated that significant improvement can be achieved by correlating residuals of two items. The religious orientation scale showed very good reliabilities. Intrinsic Religious Orientation was improved from 8-items,  $\alpha=.40$  to 8-items,  $\alpha=.84$ , Extrinsic Religious Orientation was improved with  $\alpha=.69$  (6-items).

## DISCUSSION

The present study attempted to adapt and validate the Urdu version of religious orientation scale by Pakistani Muslims. Given the low reliability of the Urdu version of the scale reported consistently in earlier research, there was a dire need to look into the construct and evaluate it in reference to Pakistani Muslim community. Earlier research has shown that there is a significant impact of cultural variation on psychosocial construct<sup>13</sup>. It is recommended that a psychosocial construct shall be implied with proper adaptation to the cultural variation. The current study was aimed to assess face validity of the religious orientation scale in order to measure a valid and reliable construct.

Starting from a top-down approach, in first phase of the study, all fourteen items of the religious orientation scale were evaluated in reference to their face validity for measuring intrinsic versus extrinsic religious orientation. The items were presented to three SMEs (subject matter experts) having expertise in the scale development and well oriented to the relevant literature. SMEs without knowing which item belongs to intrinsic versus extrinsic constructs were asked to categorize the items as indicators of extrinsic or intrinsic construct. All SMEs indicated similar categorization of the indicators yet different from that of the original scale. Items no. 6, 8, 9 which

were originally in the personally extrinsic religious orientation after EFA loaded on intrinsic scale and items no. 3, 10, 14 loaded from intrinsic to extrinsic orientation.

The qualitative analysis of the indicators suggested restructuring of the constructs particularly for Pakistani Muslims. In second phase of the study, the experts' opinion were evaluated using a bottom-up approach i.e., exploratory factor analysis. The exploratory factor analysis confirmed two factors solution for the scale. Interestingly, as indicated by SMEs, the items of personal extrinsic religious orientation of the original structure loaded on to the intrinsic factor. This confirmed the SMEs opinion regarding the adult Pakistani Muslims concept of intrinsic versus extrinsic religious orientation. The study suggested different structure of intrinsic versus extrinsic constructs by shuffling items particularly indicators of extrinsic religious orientation-personal. In upbringing of Pakistani Muslims, a focus is employed on "emaan" or complete faith in Allah making is essential component of intrinsic religious orientation. There is no concept of extrinsic personal orientation for Muslims as for them pain and stressors are opportunities to come closer to Allah<sup>20</sup>.

In the final phase of the study, the new factor structure of the instrument derived by top-down approach (i.e., qualitative analysis) and bottom-up approach (i.e., exploratory factor analysis) was further confirmed by using quantitative top down approach for theory testing i.e., confirmatory factor analysis. The confirmatory factor analysis model for current sample showed good model fit to the data and yielded acceptable to excellent values on all fit indices. The factor loadings on each factor were considerably high. The reliability of the scale was also good and in the acceptable range.

The Cross cultural researches are much needed to promote the discipline of psychology of religion. Most of the work in the psychology of religion is done on Christian samples<sup>19</sup>. Religious ideology of Muslims differ from naturalistic foundation of psychological research conducted in West<sup>19</sup>. The newly established factor structure of the scale provides strong evidences to the psychometric properties of the scale. It can be used in future researches with more confidence across adult Pakistani sample.

## LIMITATIONS

The current study used convenient sampling technique in which at least one family member was pursuing an advanced degree from the city of Rawalpindi and Islamabad. The data collected from such sample was beneficial in providing a primary outline of Pakistani Muslims' religious motivation, but this is not generalizable to or representative of the Pakistani population. There is a need of Advanced investigation to ensure the generalizability.

## CONCLUSION

The conclusive result of the study showed that it has not only established psychometric properties of Urdu religious orientation scale but also provided deeper insight to the Islam as a religion by under examined religious and research perceptive side by side.

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