Validation and Factorial Structure of the Scale for Religious Practicing According to Islamic Believes-RPAIB

Azadeh Khajouei Mirzadeh, MA*
Department of Education
Shahid Bahonar University of
Kerman

Abbas Rahmati, PhD
Department of Psychology
Shahid Bahonar University of
Kerman

Masoud Fazilat Pour, PhD
Department of Psychology
Shahid Bahonar University of
Kerman

Religion is an inseparable part of human life and it plays a key role in promotion of health. The present study aimed to construct and validate a measure for Religion Practice According to Islamic Believes; RPAIB. The studied sample consisted of 375 undergraduate students from Shahid Bahonar University at Kerman who were selected using stratified random sampling. Data were collected using the religious beliefs questionnaire. Factor analysis of RPAIB revealed support for construct validity of RPAIB in a three factors solution whereby CCRB, CRO, SRRMR were extracted as using PCA method and Varimax rotation. The RPAIB- was satisfactory in terms of psychometrical aspects including construct validity and internal consistency. Due to the perceived lack of instruments with satisfactory psychometrical properties, RPAIB can be used as a valid and reliable inventory to measure the religion believes.

Keywords: religions practicing according to Islamic believes (RPAIB), religion measures, colleague students

Religion is one of the main concerns of the humankind throughout the history; it came across the humankind all along the history. Nowadays, we continue to think of faith as an inseparable part of the life by which it grants a fresh character to the faithfulness and requires us to lead to a specific kind of life Khodayarifard (2012). Religious commitment

manifests itself in obeying the Gods' orders; it encourages the believers towards fulfillment and prosperity. As a consequence, they possess a new character whose stability is dependent on their degrees of commitment.

Theologically speaking, faith is defined as belief in heart and commitment to do accordingly (Moein, 1970). Commitment to the requirements of religion, which refers to the behavioral aspect of faith, means that the faithful believer is actively seeking knowledge about and emotional proximity towards the almighty God and the messengers, and eventually to make him/herself obliged of fulfilling the personal, social, and economical requirements in line with the religion rituals/commands (Khodayarifard, 2012).

Religion is a multidimensional concept and its measurement is complicated enough (Ibid), developing measures to quantify levels of religious belief is a challenging attempt for the religious psychologists. However, like the other psychological/behavioral aspects of human life, it is measurable (Argyle, M., & Beit-Hallahmi, 1975; Bergin, 1983 & Janbozorgi, 1999).

The early steps in this area have been taken by Luba (1986), who developed a questionnaire to measure faithfulness (Khaaki, 2005). In addition, the corroborated research findings addressing other studies aimed to construct and validate other religious behavior measures using factor analysis (e.g., Leslie et al, 2005; Everett et al, 2003). Literature review showed that in Iran, some studies have investigated and measured beliefs and religious behavior among the school-aged students, employees and in the other populations (Anisi et. al., 2010; Azarbayjani & Moosavi, 2006; Giviyan, 1988; Navidi, 1997).

In addition, the review of literature suggests that despite the sizable research projects that have been carried out on measuring the religious beliefs and behaviors among different groups of people, there is a perceived lack of valid and reliable measures, for religious faith and behaviors in college students. Therefore, the present study aimed at addressing the above- mentioned gap in the research area and to develop

such a questionnaire for the college students.

Method

Participants

Participants were 375 undergraduate students recruited from Shahid Bahonar University at Kerman in the 2009-2010 academic years. The sample size was defined by means of Cochran method (Cochran, 1950) and using stratified random sampling.

Measures

Background variables. Background information are gathered from the participants included Gender, and the Level of education. For the sake of privacy, no further biographical/ personal information was collected.

Religious Practice According to Islamic Believe [RPAIB]. Literature review showed that Religious Practice According to Islamic Believe [RPAIB] as a measure of students' practical obligation to the Islamic beliefs has never been previously explored in an Iranian student sample, therefore, the factorial structure and construct validity of RPAIB is examined in this population.

Face validity. As the first criteria, the item pool including 45 items were given to the undergraduate students registered for an introductory psychology course from the same population. This attempt was made to assess the relevance of each item to be kept in the final measure. As the result, 17 items were removed from the item pool and the remaining 28 items as the item pool were subjected to the factor analysis (see Table 1).

Table 1

RPAIB Items (Starred Items are Removed after Factor Analysis)

No	Questions
1*	I am interested in praying
2*	I do pray five times a day
3	I do prayers during my travels
4	I do prayers in parties and celebrations
5	I do prayers even when I am sick
6*	I do fulfil necessary prerequisites of prayer (such as ablution)
7	I do prayer without my parents' pressure
8	I do not prefer other works than prayer on prime time
9	Losing prime time of prayer makes me really regretful
10	I do compensate the forgotten/postponed prayers
11	I take care of correct prayer's recitation
12*	My close friends do prayer regularly
13*	I do fasting during Ramadan
14*	I feel a profound sense of cheerfulness at the Ramadan's beginning
15	I avoid things which invalidate a fasting
16	I recompense my missed fasting
17	I fast without my parents' pressure or force
18	I fast with an only pure intention of God satisfaction
19*	I do perform necessary prerequisites of prayer (such as ablution)
20*	I do not break my fasting without a reasonable excuse
21*	I do not accept any order except those from the God
22	I feel surrounded by the God and his decisions
23*	I regard nobles of religion as my behavioural models
24	I am proud of following Islamic prophet mannerism (tradition, Sunnite)
25	I am interested in friendship with the God lovers
26*	I hate unbeliever, irreligious persons
27	I would rather to select my friends amongst religious- adherent persons
28	I do some activities (e.g., charity activities) for the God sake with my interest and tendency
29	I avoid anti-religious activities
30	I advise others towards charities and to use the God satisfying works
31	I warn others about anti- religious behaviours when see them doing these
32	If I do sin, I will become severely sorry
33*	My friends know me as a religious person
34*	I follow my parents' orders
35	I avoid gossip about the others
36	I consider religious limitations on my dressing and beautify
37	I consider religious limits when I meet with the people from the opposite gender
38	I avoid lying
39	I avoid looking at religiously banned people (e.g., naked ladies)
40	I commit to my promises
41	I avoid from violation of the others' rights
42*	I meet my sexual needs in a religious framework
43*	I avoid listening to religiously banned music
44*	I avoid from scandalize others
45*	I obey religious believes

Data screening. To assure of the further requirements, the remaining 28 items of RPAIB are screened for multicollinearity by examining the inter-item correlations between the items and removing those items with correlations greater than .90 or those which did not correlate with any others. The items with poor inter-item correlations were screened further by examining how each of these items contributed towards the internal consistency of the subscale reliability using Cronach's alpha coefficient. As the result, none of the items showed poor item-total correlations or were rated as less relevant in the pilot study (see Table 1). Item-total statistics are presented in Table 2. (See Table 1 for the original items of RPAIB).

Table 2
Item-Total Statistics

Questions	Scale Mean If Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cranach's Alpha if Item Deleted
1.I do prayers during my travels	109.25	263.932	.621	.927
2.I do prayers in parties and celebrations	109.51	262.111	.638	.926
3.I do prayers even when I am sick	109.49	264.587	.605	.927
4.I do prayer without my parents' pressure	108.86	268.631	.543	.928
5.I do not prefer other works than prayer on prime time	109.65	264.692	.604	.927
6.Losing prime time of prayer makes me really regretful	109.47	263.271	.662	.926
7.I do compensate the forgotten/postponed prayers	109.73	263.412	.623	.926
8.I take care of correct prayer's recitation	109.18	267.220	.636	.926
9.I avoid things which invalidate a fasting	109.04	270.547	.530	.928
10.I recompense my missed fasting	109.63	263.128	.580	.927
11.I fast without my parents' pressure or force	108.77	272.196	.550	.928
12.I fast with an only pure intention of God satisfaction	108.94	268.927	.639	.927
13.I feel surrounded by the God and his decisions	108.99	270.572	.554	.928
14.I am proud of following Islamic prophet mannerism (tradition, Sunnite)	108.86	269.514	.629	.927
15.I am interested in friendship with the God lovers	108.98	268.927	.622	.927
16.I would rather to select my friends amongst religious-adherent persons	109.46	268.794	.579	.927
17.I do some activities (e.g., charity activities) for the God sake with my interest and tendency	108.98	272.438	.584	.927

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18.I avoid anti-religious activities	109.36	268.808 .572	.927
19.I advise others towards charities and to use the God satisfying works	109.47	271.581 .482	.928
20.I warn others about anti- religious behaviours when see them doing these	110.02	269.160 .497	.928
21.If I do sin, I will become severely sorry	109.10	270.927 .576	.927
22.I avoid gossip about the others	109.40	279.106 .287	.931
23.I consider religious limitations on my dressing and beautify	109.33	267.469 .577	.927
24.I consider religious limits when I meet with the people from the opposite gender	109.28	267.202 .592	.927
25.I avoid lying	109.25	278.065 .352	.930
26.I avoid looking at religiously banned people (e.g., naked ladies)	109.48	269.320 .534	.928
27.I commit to my promises	108.87	280.207 .317	.930
28.I avoid from violation of the others' rights	108.79	281.802 .270	.931

The final version of RPAIB that includes 28- items was completed by 375 students who were selected using stratified random sampling from the students of Shahid Bahonar University at Kerman. The participant to variable ratio was at the 13:1 ratio. This ratio was in keeping with the recommendations made by Fidell & Tabachnic (2001). The participants have partaken in the study after written consents and they were debriefed at the end.

Results

Validation Process

The responses on RPAIB 28-items were subjected to data extraction using Principal Component Analysis [PCA] with Varimax rotation and Kaiser Normalization. The Kaiser-Meyer-Olkin [KMO] measure of sampling adequacy was .92 which was a superb value (Hutcheson & Sofroniou, 1999, pp.224-225) indicating that the sampling was adequate.

The initial factor analysis identified five factors with the Eigen values >1.00. Eigen values correspond to the variance as explained by the factors; and according to the (Guttman, 1954) criterion, factors eigenvalues greater than 1.00 are considered significant, explaining an important amount of the variability in the data. Similarly, eigenvalues less than 1.00 are

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considered insignificant, as they do not explain data variability. Therefore, at the initial sage of factor analysis, only factors with eigenvalues >1.00 were considered. The five factors solution was explaining a cumulative percentage of variance of 50.56%.

In order to maximize the likelihood of obtaining strong factors with factors structures that can depict high percentage of variance for the entire factor solution and for each factor, further manipulations were made to explore which factorial solution would produce the strongest and most robust factors for this data. Several analyses were carried out by changing the number of factors that were to be extracted. The results showed three factors with relatively high Eigenvalues with each factor accounting for a sizeable percentage of the variance. According to the findings from three factors solution, it produced factor structures with cumulative of variance of 50.56% for a three factor solution; in the order of 19.25% for factor one, .17.49% for factor two; and 13.82 for the third factor.

The following Scree plot graphically illustrates the Eigenvalues of these factors in their decreasing order (see Figure 1). According to the Scree test (when the analysis is limited up to the end of the rapid descent of the plot) five factors were revealed.

Therefore, both these methods of analysis indicate that the RPAIB responses provided by this student sample is best represented by a three factors solution when it was subjected to a PCA using Varimax rotation with rotations converging on six iterations of the 28 items of RPAIB.

Findings support a three factors solution. The factors model produced the most stable model which produced strong and robust factor loadings. Factor loadings are an estimate of the substantive importance of a given variable to a given factor and the significance of a factor loading was expected to be dependent on the sample size. Stevens (1992) produced a table of critical values and he has recommended for a sample size that was 300, factor loadings should be greater than .298 to be considered as significant, hence items with factor loadings greater than this value is

displayed in Table 3. Items with the highest loadings on each of the three factors which emerged from this analysis are demonstrated in Table 2.

Table 3
Rotated Component Matrix

Item No	Items	Component		
		CCRB	CRO	CRRMR
2	I do prayers in parties and celebrations	.839		
1	I do prayers during my travels	.759		
3	I do prayers even when I am sick	.754		
7	I do compensate the forgotten/postponed prayers	.635		
6	Losing prime time of prayer makes me really regretful	.616		
10	I recompense my missed fasting	.615		
5	I do not prefer other works than prayer on prime time	.587		
23	I consider religious limitations on my dressing and beautify	.568		
24	I consider religious limits when I meet with the people from the opposite gender	.487		
12	I fast with an only pure intention of God satisfaction		.757	
14	I am proud of following Islamic prophet mannerism (tradition, Sunnite)		.735	
15	I am interested in friendship with the God lovers		.730	
11	I fast without my parents' pressure or force		.669	
13	I feel surrounded by the God and his decisions		.651	
4	I do prayer without my parents' pressure		.579	
8	I take care of correct prayer's recitation		.554	
17	I do some activities (e.g., charity activities) for the God sake with my interest and tendency		.553	
9	I avoid things which invalidate a fasting		.497	
16	I would rather to select my friends amongst religious- adherent persons		.393	
25	I avoid lying			.702
27	I commit to my promises			.636
22	I avoid gossip about the others			.614
28	I avoid from violation of the others' rights			.581
18	I avoid anti-religious activities			.560
26	I avoid looking at religiously banned people (e.g., naked ladies)			.553
19	I advise others towards charities and to use the God satisfying works			.526
20	I warn others about anti- religious behaviours when see them doing these			.471
21	If I do sin, I will become severely sorry			.440

Factor names were chosen according to the contents by which the relevant items represent and after consultations with expert individuals in the area. The selected names for the extracted factors were Commitment to Conduction of Religious Behaviours [CCRB], Commitment to Religious Orders [CRO] and [Commitment to Respects Rights and Mutual Relationships] for the factors one to three accordingly. RPAIB total score has demonstrated high internal consistency with a satisfactory Cronach's alpha value ;(*Cronach's Alpha=.93)* and the RPAIB subscales also showed high internal consistency for the extracted factors including the values of *Cronach's Alpha =.89* for CCRB; *.88* for CRO; and *.80* for CRRMR.
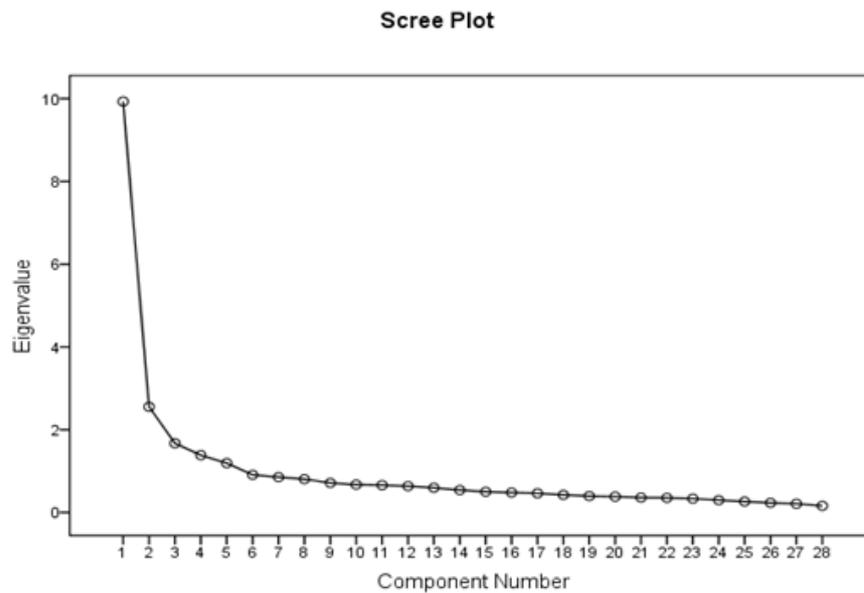
Scree Plot

Figure 1. Scree Plot of the Eigen Values for the Extracted Components

Discussion

The main purpose of the present study was to validate a measure for Religious Practicing According to the Islamic Believes, RPAIB in university students. The results mainly suggest that the RPAIB might

provide an additional useful tool to assess religious practice. The RPAIB showed high internal consistency. In addition, the Scree plot indicated a three-factor construct of the 28-items questionnaire. All the factors had Eigenvalues greater than one. Principal components with varimax rotation revealed a satisfactory percentage of total variance which explained (50.56%) by the three factors. Looking at the component matrix of the three-factor construct, individual items could be allocated to three subscales of Commitment to Conduction of Religious Behaviours (CCRB), Commitment to Religious Orders (CRO) and Commitment to Respects Rights and Mutual Relationships (CRRMR) for the factors one to three, respectively (see Table 3). Therefore, construct validity of the RPAIB can be supported. The correlations among the three RPAIB constructs were positive and significant.

The current study has a number of limitations that call for a cautious interpretation of some of the results. Firstly, the main target of this study was to validate the scale so it might be that the total sample for the cluster was limited. In addition, the collected data like the similar studies that are based on the participants responses are subject to further considerations; therefore, it recommends further investigations with the larger samples from the other universities.

Conclusions

The RPAIB scale showed satisfactory psychometrical aspects ant it can be used as a valid and reliable instrument to measure religious practicing according to the Islamic believes in university students.

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