Evaluating the Greek Version of Religious Commitment Inventory-10 on a Sample of Pomak Households

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Abstract. *The aim of this study is to investigate the properties of the Religious Commitment Inventory-10 (RCI-10) in a Greek sample (600 participants). The items were translated into Greek from the original English version. The Greek version of the RCI-10 has acceptable reliability (Cronbach a = .869). It was found that various socio- demographic factors affecting religiosity score on Pomak households. Additionally, the two factor structure of the original scale is confirmed, although it is suggested that the composition of each factor is not the same with the original version. The results showed that the Greek RCI-10 is a promising scale that should be used preferably for exploratory purposes.*

Keywords: *RCI-10, Pomak households, Religiosity, Greek adaptation.*

JEL Codes: M1 Business Administration, M10 General.

1. Introduction

This article aims at presenting the results of a study evaluating the properties of a Greek adaptation of the Religious Commitment Inventory-10 on Pomak households. The RCI-10 scale is one of the most famous and commonly used factorial models of religiosity (Worthington *et al*., 2003). Also, it is consistent with Worthington's (1988) model of religious values in counselling, which was constructed to be both a brief screening assessment of religious commitment and an ecumenical assessment of religious commitment (Richards and Bergin, 1997). The key variable in Worthington's (1988) model is religious commitment, which is defined as the degree to which individuals adhere to their religious values, beliefs, practices and uses them in daily life (Worthington *et al*., 2003). The hypothesis is that highly religious individuals will evaluate the world through religious schemas and thus will integrate religion in much of their life. Cohen *et al*. (2006) claim that not only country or region of origin but also person's religion represent an important cultural influence on values and personality processes. The target population in this research was Pomak households, which live in three different prefectures of Thrace in Greece: Xanthi, Rodopi and Evros. Pomaks is a Muslim religious minority and is the second largest religious group after Christians in the region of Thrace (Satsios and Hadjidakis, 2016). The current study was designed to address this gap in research by evaluating the reliability and validity of the Greek version of the RCI-10 in a sample of Pomak households.

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2. Method

2.1. Participants

We used a sample of 600 Pomak households, the participation was anonymous and voluntary, and informed consent was obtained from all subjects before participation. All of the participants were Muslims. The adult head of the household was questioned in order to retrieve information.

2.2. Procedures

The original English version of the RCI-10 was translated into Greek. The resulting Greek version was translated back into English. This subsequent English version was compared to the original English version independently. Comparison of these translations showed there were no significant differences between the two versions.

2.3. Measures

2.3.1. Religious Commitment Inventory-10 (RCI-10)

The Religious Commitment Inventory-10 is a brief 10-item screening assessment of the level of one's religious commitment using a 5-point Likert rating scale from 1 (Not at all true of me) to 5 (Totally true of me). Religious commitment refers to how much an individual is involved in his or her religion (Koenig *et al*., 2001). RCI-10 examines intrapersonal religious commitment (6 items) and interpersonal commitment (4 items) levels of the individual. An example of typical items in scale includes, "*I enjoy working in the activities of my religious organization*" and from the interpersonal subscale "*I enjoy spending time with others of my religious affiliation*". The RCI-10 has been shown to be a reliable and valid measure of religiosity, mostly in Christian (Worthington *et al*., 2003) and Muslim (Alaedein, 2015) populations.

2.4. Statistical analysis

Standard descriptive measures (mean value, standard deviation) were computed in order to describe the sample score. In order to evaluate the effect of the socio demographic variables on the religiosity, we conducted analysis of variation (ANOVA). Further, in order to find homogeneous groups we applied Tukey's -b test of homogeneity. Reliability of the RCI-10 was assessed using Cronbach's coefficient. Principal component analysis (PCA) with varimax rotation was used to assess the construct validity of the Greek version. We accepted factors with eigenvalues greater than 1.0 and item loadings equal to or greater than 0.5. Data analysis was accomplished using SPSS version 22.

3. Results

3.1. Descriptive statistics

The sample in the survey consisted of 600 participants, of which 410 were male (68%) and 190 were female (32%) aged from 18 to 85 years (M = 30.2, SD = 11.5). In the group of marital status the most of the participants were single (N = 332, 55%) and married/with children (N = 208, 35%). The majority was living in the region of Xanthi (N = 386, 64%). In the category of educational level the most respondents were high school (N = 203, 34%) and university graduates (N = 168, 28%). In group of work status the most respondents were unemployment (N = 122, 20%) and labourer/worker (N = 90, 15%). Lastly, the research showed that the most families lived in their own house (N = 428, 71%). Cronbach's alpha of the Greek version of RCI-10 was .869, similar to other studies (Alaedein, 2015; Moore, 2007; Worthington *et al.*, 2003).

The mean score of the entire sample was 30.3 (SD = 8.5). In Table 1 the mean score and the standard deviation of the religiosity scale are presented for each level of the demographic factors that was recorded in the present study.

Table 1. Descriptive statistics of religiosity on demographics factors

Factor	Level (N)	M (SD)
Gender	Male (410)	30,5 (8,4)
	Female (190)	29,9 (8,7)
Marital status	Single (332)	29,2 (8,3)
	Married / without children (37)	30,2 (7,5)
	Married / with children (208)	32,6 (8,5)
	Partner / Widowed / Divorced (23)	27,3 (8,8)
Place of residence	Xanthi (386)	30,5 (8,7)
	Rodopi (183)	30,9 (8,2)
	Evros (31)	25 (5,9)
Educational level	Primary school (105)	33,2 (8,1)
	Secondary school (78)	31,3 (7,6)
	High school (203)	29,9 (8,4)
	College / Technical or Vocational school (46)	32,2 (9)
	University / MSc / PhD (168)	28,1 (8,5)
Work status	Private employee (104)	28,4 (7,8)
	State employee (22)	27,6 (10,3)
	Labourer / Worker (90)	33,1 (7,5)
	Self employee (86)	30,5 (10)
	Retired (21)	33,9 (8,5)
	Student (126)	29,5 (8,3)
	Unemployed (122)	30,2 (8,6)
	Other (29)	31,9 (5,3)
Housing situation/possession	Owned (428)	31,1 (8,7)
	Owned by a loan or mortgaged (52)	27,2 (7,4)
	Rent (67)	27 (7)
	Friends or relatives (53)	31,2 (7,9)

3.2. Analysis of variance

It was found that marital status (F(3, 596) = 8.121, p < .001), place of residence (F(2, 597) = 6.758, p = .001), educational level (F(4, 595) = 7.304, p < .001), work status (F(7, 592) = 3.336, p = .002) and housing situation (F(3, 596) = 7,512, p = .001) was affecting significantly the religiosity score.

Tukey's post hoc comparisons were applied in order to find homogeneous groups among the levels of the statistically significant factors. We found that married with children differentiate from the persons in the category "Partner / Widowed / Divorced" while it is not possible to clearly separate the other groups (Table 2).

Table 2. Tukey's homogeneity test for marital status levels

Marital status	N	Subset for alpha = 0.05	
		1	2
Partner / Widowed / Divorced	23	27,3	
Single	332	29,2	29,2
Married / without children	37	30,2	30,2
Married / with children	208		32,6

Means for groups in homogeneous subsets are displayed.

Further, Pomaks lived in Evros had lower scores than the residents of Xanthi and Rodopi (Table 3). This separation maybe is due to the bigger effect of the spiritual leaders (e.g. the Moufti offices) in Rodopi and Xanthi since they live and activate in these areas (Tsitselikis, 2013), stimulated in Muslims of those prefecture a more religious life.

Table 3. Tukey's homogeneity test for place of residence levels

Place of residence	N	Subset for alpha = 0.05	
		1	2
Evros	31	25,0	
Xanthi	386		30,5
Rodopi	183		30,9

Means for groups in homogeneous subsets are displayed.

As far educational level is concerned, the primary and secondary school graduates along with students of vocational schools had significantly larger scores in religiosity than high school and university graduates (Table 4). This finding may be due to the fact that students of the vocational schools had less opportunities since they did not achieved to pass in university.

Table 4. Tukey's homogeneity test for educational levels

Educational level	N	Subset for alpha = 0.05		
		1	2	3
University / MSc / PhD	168	28,1		
High school	203	30,0	30,0	
Secondary school	78		31,3	31,3
College / Technical or Vocational school	46		32,3	32,3
Primary school	105			33,3

Means for groups in homogeneous subsets are displayed.

Moreover, work status is concerned that the only clear separation is between state employee and retired person, while it is not possible to clearly separate the other groups (Table 5).

Table 5. Tukey's homogeneity test for work status levels

Work status	N	Subset for alpha = 0.05		
		1	2	3
State employee	22	27,6		
Private employee	104	28,4	28,5	
Student	126	29,5	29,6	29,6
Unemployed	122	30,2	30,3	30,3
Self employee	86	30,5	30,5	30,5
Other	29	31,9	32, 0	32,0
Labourer / Worker	90		33,1	33,1
Retired	21			33,9

Means for groups in homogeneous subsets are displayed.

Finally, the larger scores in housing situation/possession appeared in the participants who live in own house and with relatives (Table 6). This is logical, because they have more opportunities to work in the activities of their religious affiliation or make donations due to better financial situation, in contrast to the groups which must pay for loan or rent a house.

Table 6. Tukey's homogeneity test for housing situation

Housing situation / possession	N	Subset for alpha = 0.05	
		1	2
Rent	67	27,1	
Owned by a loan or mortgaged	52	27,2	
Owned	428		31,2
Friends or relatives	53		31,2

Means for groups in homogeneous subsets are displayed.

3.3 Factor structure

In order to confirm factor structure of the scale we applied principal components analysis with varimax rotation, which assures that the suggested factors will be linearly independent. The Kaiser-Meyer-Olkin measure of sampling adequacy was .892, and the Bartlett's test of sphericity was statistically significant [$c^2(45) = 2210.519$, $p < 0.001$], indicating that the sample was adequate and the variables were not correlated, so principal components analysis could be done. Results of the PCA confirm the two-factor solution for the Greek version of RCI-10. Factors had eigenvalues of 4.64 and 1.15, which explained 46.4 and 11.15% of the variance, respectively. Table 7 shows the factor loadings, means, and standard deviations for each item, and Cronbach's alpha when the item was deleted. The values that we obtain are similar to previous studies (Hafizi *et al*., 2016; Worthington *et al*., 2003). It is worth noting that although the two factor solution is supported, the exact definition is different from the original version of this scale, indicating that further research is required in order to specify the factor structure in the case of the Greek translation.

Table 7. RCI-10 Items, Factor Loadings, Descriptive Statistics, and Cronbach's Alpha if Items were Deleted

	Items	Factor Loadings		M (SD)	Cronbach's Alpha if Item Deleted
		Factor 1	Factor 2		
1	I often read books and magazines about my faith.	,784	,097	3 (1,3)	0,859
2	I make financial contributions to my religious organization.	,617	,367	3 (1,3)	0,854
3	I spend time trying to grow in understanding of my faith.	,790	,196	3,2 (1,2)	0,853
4	Religion is especially important to me because it answers many questions about the meaning of life.	,776	,185	3,6 (1,2)	0,854
5	My religious beliefs lie behind my whole approach to life.	,594	,384	3,3 (1,3)	0,854
6	I enjoy spending time with others of my religious affiliation.	,209	,721	2,7 (1,3)	0,806
7	Religious beliefs influence all my dealings in life.	-,012	,757	2,6 (1,2)	0,87
8	It is important to me to spend periods of time in private religious thought and reflection.	,372	,667	2,9 (1,2)	0,852
9	I enjoy working in the activities of my religious affiliation.	,362	,648	3 (1,3)	0,855
10	I keep well informed about my local religious group and have some influence in its decisions.	,473	,589	3,1 (1,2)	0,851
	Eigenvalue	4,637	1,145	Sum	
	% of Variance	46,4%	11,5%	57,8%	

4. Discussion

Understanding religiosity would allow us to advance and go deeper into uncovering the correlation between religiosity and social behaviour (Akerlof and Kranton, 2000; 2010). Towards this goal, it is an important task to provide and evaluate valid instruments measuring religiosity with reliability.

The Greek version of RCI-10 had satisfactory internal consistency, comparable to the original English version. Although the two-factor solution for the Greek version of RCI-10 is confirmed, the exact definition that is suggested is different from the original version of this scale, indicating that further research is required in order to specify the factor structure in the case of the Greek translation as well as the test-retest reliability of the Greek version of the RCI-10. As a result of this study, although preliminary, it is suggested that the Greek version of the RCI-10 is a reliable and valid measure of religiosity, suitable for use in financial research regarding the Pomak population of Greece.

It was found that demographic characteristics such as age, marital status, work status, educational level and place of residence were significant factors affecting religiosity scale. The above findings seem to be in contrast with previous studies (Worthington *et al*., 2003) where no significant differences based on demographic variables were found. However, it should be remarked that most of the published results are based on samples consisting from student or persons with strong religious beliefs (Alaedein, 2015; Hafizi, 2016; Moore, 2007; Worthington *et al*., 2003), while in the present study our sample did not had such characteristics.

Further, literate persons had lower religious beliefs than the other, while Pomaks living close to spiritual leaders tend to have larger scores of religiosity. On the other hand Pomaks with stable family life, who do not have financial problems, are more religious than the persons facing economic difficulties. The above verifies that the stable living conditions permit individuals to satisfy their spiritual needs and create a more safe and healthy family environment.

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