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## Psychometric properties of Romanian version of The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ)

Romulus-Dan NICOARĂ<sup>1</sup>,  
Ana-Maria NICOARĂ<sup>2</sup>,  
Raluca TRIFU<sup>3</sup>,  
Florin Vasile MIHĂILEANU<sup>4</sup>,  
Horia-George COMAN<sup>5</sup>,

<sup>1</sup> Iuliu Hatieganu University of Medicine and Pharmacy, [danimicoara@yahoo.it](mailto:danimicoara@yahoo.it)

<sup>2</sup> Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, [dr\\_anamaria@yahoo.ro](mailto:dr_anamaria@yahoo.ro)

<sup>3</sup> Medical Psychology Department, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, [ralutrfu@gmail.com](mailto:ralutrfu@gmail.com)

<sup>4</sup> Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, [ms26rf@yahoo.com](mailto:ms26rf@yahoo.com)

<sup>5</sup> Medical Psychology Department, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania, [hcoman@umfcluj.ro](mailto:hcoman@umfcluj.ro)

**Abstract:** The objective of the present research is to adapt The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) to the Romanian population. SCSRFQ is a self-assessment questionnaire with two versions, 10-items version (SCSRFQ), and a short version (SCSRFQ-SF) with 5-items used to assess strength of religious faith. A total of 201 participants, aged 18-77 years, completed a socio-demographic data sheet and the SCSRFQ. A high internal consistency was obtained for the scale of the instrument, with a Cronbach's alpha coefficients 0.95. Exploratory factor analysis (EFA) and Confirmatory factor analysis (CFA) were also evaluated. The results indicate that the Romanian version of The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) has good psychometric properties, being a suitable instrument for the assessment strength of religious faith.

**Keywords:** SCSRFQ, SCSRFQ-SF, religious faith, religiosity.

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## 1. Introduction

Numerous studies show that religious belief and spirituality have been associated with positive mental and physical health outcomes. Several aspects of religious belief have been associated with positive mental health outcomes: lower levels of depression (Koenig et al., 1997, 1998), suicide (Donahue & Benson, 1995) or higher levels of self-esteem, life satisfaction and more effective personal adaptation (Payne et al., 1991). Thus, for the purpose of studying specific topics, several questionnaires were created.

The Santa Clara Strength of Religious Faith Questionnaire – SCSRQ (Plante & Boccaccini, 1997a) it is one of the questionnaires encountered both, in the literature and in medical practice that helps meet this need for evaluation. The questionnaire has been translated and adapted cross-culturally, thus having several versions: Turkish (Akin et al., 2015), Greek (Dianni et al., 2014), Iranian (Pakpour et al., 2014), Polish and Chilean (Wnuk, 2017).

The importance of this study consists primarily in the use of SCSRQ in a population with different cultural aspects than those tested in the original version, while the questionnaire is applied in a wide range of ages and occupational categories and in a language other than the one of origin. Translating and adapting the questionnaire on the Romanian population will help researchers expand their studies on religious issues in the Romanian population. The aim of the study is to investigate the EFA and CFA of the tool in Romanian language, both original version (10 item) and shortform (5 item).

## 2. Method

### 2.1. Participants

Was included in the study 201 participants, age range 18 – 77 years (mean=37.98, SDS= 12.55), 53 men (26.4%) and 148 women (73.6%), 29 from the rural area (14.4%) and 172 urban area (85.6%). According to the level of education: 1 mid-school level (0.5%), 35 with high-school level, (17.4%), 14 college level (7.0%) and 59 university graduates (29.4%), 84 postgraduate master level (41.8%), 6 with doctoral studies (3.0%) and 2 with postdoctoral studies (1.0%). Marital status: 73 unmarried (36.3%), 117 married (58.2%), 9 divorced (4.5%), 2 widowed (1.0%). Socio - economic status: 29 students (14.4%), 168 employees (83.6%), 2 without steady occupation (1.0%), 2 pensioners (1%). Referring to nationality: 199 participants of Romanian nationality (99.0%) and 2 participants of Hungarian nationality (1.0%). By religion: 115 Orthodox (57.2%), 5 Catholic (2.5%), 65 Pentecostal participants (32.3%), 11 Baptists (5.5%), 5 Reformed (2.5%).

## **2.2. Procedures**

The main objective in the present study was the translation, adaptation, and analysis of the psychometric properties of the questionnaire Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ) on the general population of Romania. The SCSRQ questionnaire was used on the Romanian population with the author's consent.

The SCSRQ questionnaire was generated and applied online using the Google Forms platform. The questionnaire was completed based on informed consent and participation was voluntary and unpaid.

In order to determine the sample size, the general recommendations to have between 2-20 respondents per item were followed, with a minimum between 100-250 (Sava, 2004, 2011). In this study, the item-to-subject ratio is 20.1 (201 participants / 10 items), thus meeting the criteria related to sample size. The data was collected between May and June 2023.

## **2.3. Measures**

The Santa Clara Strength of Religious Faith Questionnaire – SCSRQ (Plante & Boccaccini, 1997a, 1997b) is a self-assessment questionnaire with two versions, 10-items version, and a short version (SCSRQ-SF) with 5-items. The rating on both versions is done on a Likert scale from 1 – strongly disagree to 4 strongly agree. With the help of bilingual freelance translators, we developed the Romanian language version of the SCSRQ questionnaire. The back-translation process was repeated until the original questionnaire and the English questionnaire translated back were virtually identical (Brislin, 1986).

## **2.4. Statistical analysis**

Statistical analysis has been achieved through SPSS (Released, 2013) and aimed to investigate fidelity, exploratory factorial structure as well as confirmatory factor analysis. Fidelity was investigated from the perspective of internal consistency by calculating the Cronbach Alpha coefficient (Cronbach, 1951). In order to perform the exploratory factorial analysis, the two conditions were verified: the sample adequacy condition by calculating the KMO index (Field, 2000; Sava, 2004) and the sphericity condition by the Barlett spherical test (Williams et al., 2010). For achieving the confirmatory factor analysis was evaluated by calculating the following statistical indicators: Chi-squared test ( $\chi^2$ ) (Barrett, 2007), relative/normed chi-squared test ( $\chi^2/\text{df}$ ) (Bollen, 1989), CFI “comparative fit index” (Hu & Bentler, 1999), TLI “Tucker-Lewis Index” (Hu & Bentler, 1999), SRMR

“standardized root means square residual” (Hu & Bentler, 1999), RMSEA “root mean square error of approximation” (Browne & Cudeck, 1993).

### 3. Results

Table I shows means and standard deviation and in the table II the Skewness and Kurtosis for SCSRFQ.

**Table I.** Means and Standard Deviations for SCSRFQ

	Mean	Std. Deviation
1. My religious faith is extremely important to me.	3.37	.777
2. I pray daily.	3.20	.833
3. I look to my faith as a source of inspiration.	3.21	.812
4. I look to my faith as providing meaning and purpose in my life.	3.28	.832
5. I consider myself active in my faith or church.	2.92	.888
6. My faith is an important part of who I am as a person.	3.35	.774
7. My relationship with God is extremely important to me.	3.54	.728
8. I enjoy being around others who share my faith.	3.16	.857
9. I look to my faith as a source of comfort.	3.33	.813
10. My faith impacts many of my decisions.	3.27	.841

Source: Author's own conception

**Table II.** Skewness and Kurtosis for SCSRFQ

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
1. My religious faith is extremely important to me.	-1.264	.172	1.406	.341
2. I pray daily.	-.819	.172	.004	.341
3. I look to my faith as a source of inspiration.	-.978	.172	.668	.341
4. I look to my faith as providing meaning and purpose in my life.	-1.088	.172	.683	.341
5. I consider myself active in my faith or church.	-.570	.172	-.310	.341
6. My faith is an important part of who I am as a person.	-1.228	.172	1.364	.341
7. My relationship with God is extremely important to me.	-1.800	.172	3.252	.341
8. I enjoy being around others who share my faith.	-.794	.172	-.061	.341
9. I look to my faith as a source of comfort.	-1.177	.172	.943	.341
10. My faith impacts many of my decisions.	-1.052	.172	.525	.341

Table II contains the indicators of skewness and kurtosis for the 10 items of the scale.

Source: Author's own conception

**Table III-A.** Pearson Correlation for SCSRFQ

	1	2	3	4	5	6	7	8	9	10
1. My religious faith is extremely important to me.	1									
2. I pray daily.	.66	1								
3. I look to my faith as a source of inspiration.	.73	.73	1							
4. I look to my faith as providing meaning and purpose in my life.	.72	.73	.88	1						
5. I consider myself active in my faith or church.	.68	.70	.76	.78	1					
6. My faith is an important part of who I am as a person.	.77	.73	.80	.80	.71	1				
7. My relationship with God is extremely important to me.	.70	.70	.73	.77	.66	.80	1			
8. I enjoy being around others who share my faith.	.57	.66	.67	.68	.68	.67	.62	1		
9. I look to my faith as a source of comfort.	.71	.69	.73	.72	.67	.75	.72	.64	1	
10. My faith impacts many of my decisions.	.70	.68	.72	.76	.68	.75	.74	.62	.78	1

All 10 items of SCSRFQ were correlated with each other, these data can be found in Table III-A. Correlations between each item ranged from 0.62 to 0.88.

Source: Author's own conception

**Table III-B.** Pearson Correlation for SCSRFQ-SF

1. I pray daily.	1
2. I look to my faith as providing meaning and purpose in my life.	.73 1
3. I consider myself active in my faith or church.	.70 .78 1
4. I enjoy being around others who share my faith.	.66 .68 .68 1
5. My faith impacts many of my decisions.	.68 .76 .69 .63 1

All 5 items of SCSRFQ-SF were correlated with each other, these data can be found in Table III-B. Correlations between each item ranged from 0.63 to 0.78.

Source: Author's own conception

### Exploratory factorial analysis (EFA)

The necessary conditions for performing the factorial analysis have been met: both the value of the index Kaiser-Meyer-Olkin of sampling adequacy ( $KMO=0.957$ ;  $KMO=0.894$ ) in both versions, SCSRFQ and SCSRFQ-SF as well as the result of the Barlett test of thoroughness was statistically significant ( $\chi^2(45)=1987.713$ ,  $p<0.001$ ;  $\chi^2(10)=710.559$ ,  $p<0.001$ ). Cattel's graphical criterion indicated a solution with a single factor explaining 74.62% (SCSRFQ), 75.99% (SCSRFQ-SF) of the total dispersion. The factor loading and communalities are shown in the Table IV, the values are high, ranging from 0.74 to 0.91 suggesting that each item is a good indicator of the general construct of strength religious feeling.

**Table IV-A.** Factor loading and communalities of the SCSRFQ.

	Factor loading	$h^2$
1. My religious faith is extremely important to me.	.84	.71
2. I pray daily.	.84	.71
3. I look to my faith as a source of inspiration.	.90	.81
4. I look to my faith as providing meaning and purpose in my life.	.91	.83
5. I consider myself active in my faith or church.	.85	.72
6. My faith is an important part of who I am as a person.	.91	.82
7. My relationship with God is extremely important to me.	.87	.75
8. I enjoy being around others who share my faith.	.79	.62
9. I look to my faith as a source of comfort.	.86	.74
10. My faith impacts many of my decisions.	.86	.75

Source: Author's own conception

**Table IV-B.** Factor loading and communalities of the SCSRFQ-SF

	Factor loading	$h^2$
1. I pray daily.	.89	.75
2. I look to my faith as providing meaning and purpose in my life.	.91	.83
3. I consider myself active in my faith or church.	.89	.78
4. I enjoy being around others who share my faith.	.84	.70
5. My faith impacts many of my decisions.	.86	.74

Source: Author's own conception

### Confirmatory factorial analysis (CFA)

The model with a factor and 10 items was also tested by confirmatory factorial analysis, obtaining the results presented in Table V.

**Table V.** Results of confirmatory factor analysis of the SCSRFQ

Model	$\chi^2 (df)$	$\chi^2/df$	CFI	TLI	SRMR	[RMSEA 95% CI]
One factor - 10 items	$\chi^2(54)=94.8;$ $p < .001$	2.71	0.970	0.961	0.023	0.092 [0.070- 0.115]
One factor - 5 items	$\chi^2(5)=6.11;$ $p < 0.29$	1.22	0.998	0.997	0.012	0.033 [0.00- 0.10]

Source: Author's own conception

Five measures of model fit are reported: Chi-squared test ( $\chi^2$ ), relative/normed chi-squared test ( $\chi^2/df$ ), CFI “comparative fit index”, TLI “Tucker-Lewis Index”, SRMR “standardized root mean square residual”, RMSEA “root mean square error of approximation” Examination of the multiple fit indices on the first model (10-items) revealed that significant value of  $\chi^2$  may be due to sample size, and the indicator value  $\chi^2/df$  is regarded as a good one, the SRMR was .02 indicating a good values, the RMSEA was .09, indicating a marginally good model fit and also demonstrates that it is an acceptable model, and high similar to the CFI (.97) and TLI (.96).

### Internal consistency Reliability

Internal consistency reliability coefficient of the scale was  $\alpha=0.96$  for SCSRFQ and  $\alpha=0.92$  for SCSRFQ-SF similar to the value obtained for the original instrument. Table V presents values of internal consistency over several cultural adaptations (Akin et al., 2015; Cummings et al., 2015; Dianni et al., 2014; Lucchetti et al., 2013; Pakpour et al., 2014; Sherman et al., 2001; Wnuk, 2017).

**Table V.** Internal consistency for SCSRFQ over several cultural adaptations

Version	Cronbach Alfa ( $\alpha$ )
Turkish	0.87
Greek	0.94
Romanian	0.95
Iranian Muslim Patients Undergoing Dialysis	0.89
cancer patients	0.95
Chile	0.95
Poland	0.93
Original version	0.95

Source: Author's own conception

#### 4. Discussions

The results of the present study indicate adequate psychometric properties of Romanian version of The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ). Thus, a high internal consistency was obtained for the instrument, with Cronbach's alpha coefficients 0.95. Statistically significant correlations were obtained between all items of the questionnaire. Exploratory factorial analysis (EFA) showed a one-factor solution, similar to the original version of the instrument. Confirmatory factorial analysis (CFA) also demonstrates that it is an acceptable model. The present study is the first study of translation and adaptation of Romanian version of the Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ), investigating its psychometric properties. Thus, the present study also contributes to the literature by proposing a version of the scale adapted to a Romanian sample.

Finally, it is concluded that Romanian version of SCSRFQ is a unidimensional scale with a very good internal consistency reliability and can be used by Romanian researchers and clinicians interested to measure strength of religious faith in the Romanian population.

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## APPENDIX

*The questionnaire has been applied in Romanian.*

### Chestionarul Santa Clara privind puterea credinței religioase (SCSRFQ)

Vă rugăm să răspundeți la următoarele întrebări despre credința religioasă folosind scala de mai jos. Indicați nivelul de acord (sau dezacord) pentru fiecare declarație.

1 = puternic dezacord, 2 = dezacord, 3 = acord, 4 = puternic de acord

1. Credința mea religioasă este extrem de importantă pentru mine.  
 2. Mă rog zilnic.  
 3. Privesc credința mea ca pe o sursă de inspirație.  
 4. Credința îmi oferă sens și scop în viață.  
 5. Mă consider activ în credință sau biserică mea.  
 6. Credința mea este o parte importantă a ceea ce eu sunt ca o persoană.  
 7. Relația mea cu Dumnezeu este extrem de importantă pentru mine.  
 8. Îmi place să fiu în preajma altora care îmi împărtășesc aceeași credință.  
 9. Privesc credința mea ca pe o sursă de alinare.  
 10. Credința mea are un impact asupra multora dintre deciziile mele.

Original version of the applied questionnaire:

### **The Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ)**

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

- 1. My religious faith is extremely important to me.
- 2. I pray daily.
- 3. I look to my faith as a source of inspiration.
- 4. I look to my faith as providing meaning and purpose in my life.
- 5. I consider myself active in my faith or church.
- 6. My faith is an important part of who I am as a person.
- 7. My relationship with God is extremely important to me.
- 8. I enjoy being around others who share my faith.
- 9. I look to my faith as a source of comfort.
- 10. My faith impacts many of my decisions.