

The Santa Clara Strength of Religious Faith Questionnaire: Confirmatory Factor Analysis

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Within contemporary psychology there is increasing interest in the role of religion on behaviour and psychological functioning. Such interest can be attested to by the growth in the number of pertinent books and articles that have been published and also the development of new self-report measures of religiosity. The Santa Clara Strength of Religious Faith Questionnaire is one such recently developed measure. It is a brief self-report measure comprising 10 items that were designed to measure strength of religious faith regardless of religious denomination or affiliation. Although Plante and Boccaccini (1997a, 1997b) have provided some preliminary evidence for the reliability and validity of the scale, the factor structure of the scale has not yet been examined. The aim of the present paper was to confirm the factor structure of the scale. The hypothesised one-factor model was tested using confirmatory factor analytic methods. Data from a sample of 106 Northern Irish undergraduate university students were examined using confirmatory factor analytic methods. A one-factor model was tested and accepted on the basis of fit statistics, therefore supporting the hypothesised unidimensional structure of the scale. The present results provide further evidence that the Santa Clara Strength of Religious Faith Questionnaire is psychometrically sound and therefore it can be recommended for further use by researchers interested in the construct of strength of religious faith.

KEY WORDS: religious faith; religiosity; confirmatory factor analysis.

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INTRODUCTION

Within both contemporary psychology (Koenig, 1998; Loewenthal, 1995; Schumaker, 1992; Shafranske, 1996) and psychiatry (Bhugra, 1996; Greenberg & Witztum, 1994; Jackson & Fulford, 1997) there is increasing interest in the role of religion on behaviour and psychological functioning. Such interest can be attested to by the growth in the number of pertinent books and articles published and also the development of new self-report measures of religiosity (Hill & Hood, 1999). The Santa Clara Strength of Religious Faith Questionnaire (SCSORF: Plante & Boccaccini, 1997a, 1997b) is one such recently developed measure.

The SCSORF is a brief self-report questionnaire comprising 10 items that is designed to provide a quick measure of strength of religious faith regardless of religious denomination or affiliation, for use within both research and clinical contexts. The authors (Plante & Boccaccini, 1997a, 1997b; Plante, Yancey, Sherman, Guertin, & Pardini, 1999) have primarily provided evidence for the reliability and validity of the SCSORF among samples of students in the USA.

Most previous work has sought to establish the convergent validity of the SCSORF with other measures of religiosity. For example, Plante and Boccaccini (1997a) and Plante et al. (1999) have consistently found that higher scores on the SCSORF were significantly associated with higher scores on Plante and Boccaccini's (1997a) newly developed measures of strength of faith, religiousness, spirituality, faith aiding coping, and overall feelings of comfort. Moreover, in combination, Plante and Boccaccini (1997a, 1997b) and Plante et al. (1999) have found that higher scores on the SCSORF were significantly associated with higher scores on established measures of religiosity, including the Intrinsic Motivation Scale (Hoge, 1972), both the Intrinsic and Extrinsic sub-scales of the Age Universal Religious Orientation Scale (Gorsuch & Venable, 1983), both the Internal and External sub-scales of the Religious Life Inventory (Batson & Ventis, 1982), and the Exaggerated Control sub-scale of the Belief in Personal Control Scale (Berrenberg, 1987), as well as lower scores on the God Control sub-scale of the Belief in Personal Control Scale (Berrenberg, 1987), and the Duke Religious Index (Koenig, Pakerson, & Meador, 1997). In contrast SCSORF scores were not significantly associated with scores on the Self-Righteousness Scale (Falbo & Belk, 1985) or the External Control subscale of the Belief in Personal Control Scale (Berrenberg, 1987).

Other work has examined the relationship between the SCSORF with various measures of mental health. For example, Plante, et al. (1999) found scores on the SCSORF were not significantly associated with scores on the Alliance subscale of the Social Provision Scale (Cutrona & Russell, 1987), the Marlowe Crowne Social Desirability Scale (Crowne & Marlowe, 1960), the Taylor Manifest Anxiety Scale short-form (Bendig, 1954), or the subscales of Depression and Anxiety of the Cautold Emotional Control Scale. While Plante and Boccaccini (1997a)

found scores on the SCSORF were significantly associated with lower scores on the Hope Scale (Synder, 1995) and the Depression and Interpersonal Sensitivity subscales of the Symptom Check List-90-Revised (Derogatis, 1977) and Low Self-Esteem subscale of the Weinberger Adjustment Inventory (Weinberger, 1991). However, SCSORF scores were not significantly associated with scores on the Anxiety subscale of the Symptom Check List-90-Revised (Derogatis, 1977) and the Repressive Defensiveness and Denial of Distress subscales of the Weinberger Adjustment Inventory (Weinberger, 1991).

The authors conclude that such findings “support the validity of the instrument, and suggest that strength of religious faith is closely related to, but not directly measured by, other established measures of religiousness and religiosity” (Plante, et al., 1999, p. 18,). Moreover “the lack of correlation between the SCSORF and instruments measuring self-righteousness, depression, and alliance serves to further validate the purity of the SCSORF as an instrument solely measuring religious faith” (Plante, et al., 1999, p. 18–19).

In contrast to the increasing attention paid to the validity of the SCSORF, little research has examined the reliability of the measure. For example, Plante and Boccaccini (1997a, 1997b) found the SCSORF to possess a high level of internal consistency, with Cronbach’s alphas ranging between 0.94 and 0.97 and split-half reliability correlations between 0.90 and 0.96. Despite such findings, the factor structure of the SCSORF has not yet been examined. The summation of the 10 items of the SCSORF into a total score presupposes a unidimensional structure. However, this assumption has not been explicitly tested.

The aim of the present study was to confirm the unidimensional factor structure of the SCSORF among a sample of Northern Irish undergraduate university students.

METHOD

Sample

The sample consisted of 106 university undergraduates attending the University of Ulster, Northern Ireland. The mean age of respondents was 29 with a standard deviation of 9. The range of ages was from 19 to 51 years. There were 21 males (20%) and 85 females (80%).

Measures

Participants completed the SCSORF (Plante & Boccaccini, 1997a), a 10-item self-report measure of “Strength of Religious Faith”. Sample items include “My religious faith is extremely important to me” (item-1) and “My relationship with God is extremely important to me” (item-7). The scale uses a 4-point Likert

response format, ranging from (1) “Strongly Disagree” to (4) “Strongly Agree.” Scores can range between 10 and 40, with higher aggregate scores reflecting stronger levels of “Strength of Religious Faith.”

Analysis

To test the dimensionality of the SCSORF a covariance matrix was computed from the sample raw data using PRELIS 2.3 (Jöreskog & Sörbom, 1999a). A single factor confirmatory factor analytic model was specified and estimated using LISREL 8.3 (Jöreskog & Sörbom, 1999b). All items were specified to load on one general “Strength of Religious Faith” factor.

RESULTS

The mean strength of religious faith scores as assessed by the SCSORF was 24 (sd = 9.0) among a sample of Northern Irish university students. These are slightly lower than those reported by the authors of the questionnaire among a sample of American university students (mean = 26.39; Plante & Boccaccini, 1997a).

The fit of the single factor model was assessed using the chi-square (where an associated probability value greater than 0.05 indicates acceptable fit), the Root Mean Square Error of Approximation (RMSEA: Steiger, 1990), and the standardised root mean square residual (SRMR) (where a value less than 0.05 indicates acceptable fit). The fit indices showed that the single factor model was an acceptable explanation of the sample data ($\chi^2 = 45$, $df = 35$, $p = <0.11$; RMSEA = 0.054, SRMR = 0.024). The factor loadings are reported in Table 1. The factor explained 75% of the observed variation.

The factor loadings shown in Table 1 are all high, ranging from 0.72 to 0.91, suggesting that each item is a good indicator of the general construct of strength

Table 1. Factor Loadings for the Confirmatory Factor Analysis of the Santa Clara Strength of Religious Faith Questionnaire

	Factor Loadings
1. My religious faith is extremely important to me	0.91
2. I pray daily	0.82
3. I look to my faith as a source of inspiration	0.91
4. I look to my faith as providing meaning and purpose in my life	0.89
5. I consider myself active in my faith or church	0.78
6. My faith is an important part of who I am as a person	0.91
7. My relationship with God is extremely important to me	0.86
8. I enjoy being around others who share my faith	0.72
9. I look to my faith as a source of comfort	0.87
10. My faith impacts many of my decisions	0.79

of religious feeling. Accordingly, the scale was found to be internally consistent with an alpha coefficient of 0.93 (Cronbach, 1951).

DISCUSSION

To confirm the factor structure of the SCSORF among a sample of Northern Irish undergraduate university students, a one-factor model was tested and accepted on the basis of fit statistics. This finding therefore supports the hypothesised unidimensional structure of the scale as implied in the scoring procedure of the SCSORF as suggested by Plante and Boccaccini (1997a).

Despite the obvious attraction to both clinicians and researchers of such a brief self-report measure designed to measure strength of religious faith regardless of religious denomination or affiliation, there has been little attention paid to the SCSORF; indeed the few reported studies using the SCSORF are confined to the work of the authors. Notwithstanding this, data from the current study, alongside those of Plante and Boccaccini (1997a, 1997b), demonstrate the reliability and validity of the measure. However, further work is clearly required. For example, the temporal stability of the scale has yet to be examined. Moreover, the SCSORF's relationship with other established indices of religiosity is also worthy of further examination (Hill & Hood, 1999). The value of the SCSORF in research among various diverse religious beliefs has also yet to be examined. The latter is somewhat surprising given that this is one of the major benefits of this scale over the more established measures.

In conclusion, the present results provide further evidence that the SCSORF is psychometrically sound and therefore it can be recommended for further use by both researchers and clinicians interested in the construct of strength of religious faith.

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