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Mental Health, Religion & Culture

Publication details, including instructions for authors and subscription information:

http://www.tandfonline.com/loi/cmhr20

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Published online: 11 Jul 2013.

To cite this article: Sina Hafizi, David H. Rosmarin & Harold G. Koenig (2014) Brief Trust/Mistrust in God Scale: psychometric properties of the Farsi version in Muslims, Mental Health, Religion & Culture, 17:4, 415-420, DOI: 10.1080/13674676.2013.816942

To link to this article: http://dx.doi.org/10.1080/13674676.2013.816942

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Brief Trust/Mistrust in God Scale: psychometric properties of the Farsi version in Muslims

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(Received 7 June 2013; final version received 16 June 2013)

In Iran, a Middle Eastern Islamic country, far too little attention has been paid to the validation and cultural adaptation of measures of religion/spirituality. This has limited the potential for research in this area. The objective of the paper is to assess the psychometric properties of the Farsi version of the Brief Trust/Mistrust in God Scale (BTMGS). After translation of the original English version of the measure into Farsi using a standard forward-backward method, the BTMGS along with the Duke University Religion Index (DUREL) and Hoge Intrinsic Religiosity (Hoge IR) Scale was administered to 720 medical students, physicians, and nurses at Tehran University of Medical Sciences and affiliated hospitals. Internal consistency (α) , test-retest reliability, concurrent validity, and construct validity were determined for the BTMGS. The Farsi version of the BTMGS had high internal consistency $(\alpha = 0.90 \text{ and } 0.92 \text{ for trust and mistrust subscales, respectively)}$ and test-retest reliability (intraclass correlation coefficient = 0.89 and 0.95 for trust and mistrust subscales, respectively), and was adequately correlated with other established measures of religiosity (i.e., the DUREL [r = 0.64, p < 0.001] and Hoge IR [r = 0.54, p < 0.001]) indicating support for the concurrent validity of the measure. A confirmatory factor analysis indicated that the Farsi version has two factors (i.e., Trust in God and Mistrust in God) consistent with the original scale. These findings suggest that the Farsi version of BTMGS is a valid and reliable measure in Farsi-speaking populations that may be used to assess relationships with health and well-being.

Keywords: religion; spirituality; Islam

Introduction

Although the relationship between religion/spirituality (R/S) and health has long been discussed by the global medical community, empirical research on this subject has only occurred within the past 25–30 years. This research has made it increasingly difficult to ignore the positive and negative roles that R/S issues can play in physical and mental health (Koenig, 2012). Scientific study on R/S and health has only been made possible by the existence of reliable and valid questionnaires – self-report indices of spiritual and religious life (Hall, Meador, & Koenig, 2008). Needless to say, religion and spirituality are complex and multidimensional concepts and most measures assess only one or two dimensions. For example, some measures assess general

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involvement with religion (i.e., religious affiliation and attendance), whereas others assess more proximal and theoretically functional aspects of the spiritual or religious life (Pargament, Feuille, & Burdzy, 2011). Nevertheless, measures such as these represent the backbone of R/S research.

Despite the growing body of research documenting ties between R/S and health (Koenig, Al Zaben, & Khalifa, 2012), very little research in this area has been conducted in the Islamic world (Hafizi, Koenig, Arbabi, Pakrah, & Saghazadeh, 2013). This is especially true for the country of Iran, where little attention has been paid to the subject because of a lack of validated and culturally adapted measures.

Among available R/S measures, the Brief Trust/Mistrust in God Scale (BTMGS) (Rosmarin, Pirutinsky, & Pargament, 2011) assesses positive and negative beliefs about God. This scale holds particular promise within the Islamic context given the primacy of the relationship with God in this culture. The BTMGS is a six-item measure grounded on cognitive theory that suggests that attitudes towards God can be both positive and negative. For example, God could be both viewed as either supportive or angry and spiteful. This theory has been supported by a wide range of studies on affective disorders (Rosmarin, Krumrei, & Andersson, 2009; Rosmarin, Pargament, & Mahoney, 2009; Rosmarin, Pargament, Pirutinsky, & Mahoney, 2010).

Trust in God (also known as *Tawakkul* in Islamic terminology) has been widely discussed in the Islamic literature. According to Islamic beliefs, Muslims should rely on God and ask him to grant the best outcome for them. Trust in God is frequently mentioned in the Koran, the Holy book of Muslims. According to Koran, "And whosoever puts his trust in Allah, then He will suffice him" (65:3); "Then when you have taken a decision, put your trust in Allah, certainly, Allah loves those who put their trust (in Him)" (3:159); and

The believers are only those who, when Allah is mentioned, feel a fear in their hearts and when His verses (this Koran) are recited unto them, they (i.e., the Verses) increase their Faith; and they put their trust in their Lord (Alone). (8:2)

Thus, Islam encourages followers to put their trust in God, which is commonly used as a coping behaviour by Muslims (Huguelet & Koenig, 2009). In contrast, mistrust and disbelief in God is strongly prohibited and known as one of the great sins or forbidden acts. According to the Koran, "Say to those who have disbelieved, if they cease (from disbelief), their past will be forgiven. But if they return (thereto), then the examples of those (punished) before them have already preceded (as a warning)" (8:38). Thus, the subject that the BTMGS measures are theoretically relevant for adherents to Islam. While the psychometric properties of the BTMGS have been established in Christian and Jewish populations, its usefulness in Islamic settings has never been studied.

We seek to fill this gap by examining the reliability and validity of the Farsi version of BTMGS, a measure that is brief, easy to use, and inclusive, such that it could have numerous applications in R/S-health research in Iran and other Farsi-speaking populations.

Methods

Participants

A total of 720 medical students, physicians, and nurses were recruited from the Tehran University of Medical Sciences and affiliated hospitals for this study. All reported religious affiliation as Shia Muslim and were fluent in Farsi. Informed consent was provided by all subjects, assuring that participation was voluntary and without coercion.

Procedure

The original English version of BTMGS was translated into Farsi through standard forward—backward methods. First, two bilingual physicians translate the original English version to Farsi. Next, two translations were compared and a single Farsi version was provided. Then, an independent translator translated the Farsi version back into English. Finally, the resulting English translation was judged by a panel of five physicians that there were no meaningful differences in content from the original English version.

Measures

Brief Trust/Mistrust in God Scale

The BTMGS consists of six items in total, of which three items assess trust in God (positive beliefs) and three items assess mistrust in God (negative beliefs). All items are rated on a Likert scale from one to five. The measure was developed on the notion that belief in God could be both positive and negative. The original English version of the measure has been shown to have two independent factors representing trust and mistrust dimensions. Previously, studies in Judeo-Christian populations have shown the measure to be a valid and reliable measure of religiosity (Rosmarin et al., 2011). The scale has also been shown to predict psychological symptoms such as depression and anxiety (Rosmarin, Krumrei, et al., 2009; Rosmarin, Pargament, et al., 2009; Rosmarin et al., 2010).

Duke University Religion Index

The Duke University Religion Index (DUREL) is a brief and comprehensive measure of religious involvement that is widely used in surveys and large sample studies (Koenig, Parkerson, & Meador, 1997). It consists of five items that assess religious attendance, private religious activities, and intrinsic religiosity. In this study, we used a validated Farsi version of the measure (Hafizi et al., 2013).

Hoge Intrinsic Religiosity Scale

The Hoge Intrinsic Religiosity (Hoge IR) Scale is a well-known measure of intrinsic religiosity. The scale consists of 10 items with response options ranging from one to five in agreement. This measure has been used widely in religion and health research and has been shown to be a reliable and valid measure of religiosity (Liu & Koenig, 2012).

Statistical analyses

Reliability of the BTMGS was assessed by two methods. Internal consistency was evaluated using Cronbach's α coefficient (α s >0.7 are considered satisfactory). Test–retest reliability was assessed by readministering the items to 20 medical students three to four weeks after the initial administration, and an intraclass correlation coefficient (ICC) was computed.

Validity was assessed by two methods. Concurrent validity was examined by computing bivariate correlations between the BTMGS, the DUREL, and the Hoge IR. A confirmatory factor analysis (CFA) was utilised to assess the factor structure of the scale. Indices used to evaluate model fit were the Comparative Fit Index (CFI), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), and the root mean square error of approximation (RMSEA). For CFI, NFI, and NNFI, values close to 1 (>0.90) are considered as acceptable fit. For RMSEA, values <0.080 are considered as satisfactory.

Results

The mean age of participants was 24.6 (SD = 6.6) and 38.3% were male. Mean scores for the trust and mistrust subscales of the BTMGS were 12.3 (SD = 3.1) and 4.6 (SD = 2.8), respectively, representing relatively high levels of trust in God and relatively low levels of mistrust overall. Average scores for each item of the scale are presented in Table 1. Cronbach's α for trust and mistrust subscales were 0.90 and 0.92, respectively. Test–retest reliability of the trust and mistrust subscales as measured using the ICC were 0.89 (95% CI: 0.75–0.95, p < 0.001) and 0.95 (95% CI: 0.88–0.98, p < 0.001), respectively. Correlations between scores on the BTMGS, DUREL, and Hoge IR Scale are presented in Table 2. The trust in God subscale was significantly and positively correlated with the DUREL (r = 0.64, p < 0.001) and the Hoge IR (r = 0.54, p < 0.001). The mistrust in God subscale was significantly and inversely correlated with the trust in God subscale (r = -0.64, p < 0.001), the DUREL (r = -0.46, p < 0.001), and the Hoge IR (r = -0.41, p < 0.001).

CFA of the BTMGS revealed that a two-factor solution best fits the data ($\chi^2 = 32.6$, df = 8, p < 0.001, CFI = 0.994, NFI = 0.992, NNFI = 0.983, RMSEA = 0.065), while a one-factor solution did not ($\chi^2 = 664.11$, df = 9, p < 0.001, CFI = 0.830, NFI = 0.829, NNFI = 0.604, RMSEA = 0.317).

Table 1. Scores on items of the BTMGS categorised by gender.

	Ν		ımber	
Items	Anchors	Male	Female	Total (%)
1. God loves me immensely	1. Not at all	18	14	4.4
	2. A little	8	15	3.4
	3. Somewhat	53	65	16.8
	4. A lot	67	129	27.6
	5. Very much	122	214	47.7
2. God ignores me	1. Not at all	163	284	63.2
	2. A little	60	92	21.5
	3. Somewhat	24	36	8.9
	4. A lot	11	13	3.4
	5. Very much	10	12	3.1
3. God cares about my deepest concerns	1. Not at all	15	20	4.9
7 1	2. A little	19	17	5.4
	3. Somewhat	44	71	16.2
	4. A lot	77	116	27.5
	5. Very much	113	213	46.1
4. God hates me	1. Not at all	209	355	80.0
	2. A little	29	39	9.6
	3. Somewhat	9	20	4.2
	4. A lot	8	8	2.3
	5. Very much	13	15	3.9
5. No matter how bad things may seem,	1. Not at all	19	17	5.1
God's kindness to me never ceases	2. A little	16	11	3.8
	3. Somewhat	38	65	14.8
	4. A lot	63	103	23.6
	5. Very much	132	241	52.7
6. God does not care about me	1. Not at all	167	307	66.9
	2. A little	57	72	18.3
	3. Somewhat	24	30	8.0
	4. A lot	9	13	3.1
	5. Very much	11	15	3.7

Table 2. Spearman correlation coefficients between brief trust and mistrust in God subscales and other measures of religiosity.

	2	3	4
1. Trust in God	-0.640*	0.643*	0.539*
2. Mistrust in God	1	-0.460*	-0.405*
3. DUREL	-	1	0.709*
4. Hoge IR	-	-	1

Note: *p < 0.001.

Discussion

The present study evaluated the psychometric properties of the Farsi version of the BTMGS in an Iranian Islamic population. This Farsi version has high internal consistency with Cronbach's α scores of 0.90 and 0.92 for the two subscales (trust and mistrust in God, respectively). The Cronbach's α of the original English version has been reported to be 0.90 for trust and 0.85 for mistrust in God (Rosmarin et al., 2011). We found that the test–retest reliability of the scale was also high (ICC = 0.89 and 0.95 for trust and mistrust subscales, respectively). The BTMGS was also reasonably correlated with two established measures of religiosity (i.e., the DUREL and Hoge IR) supporting the concurrent validity of the measure. Confirmatory factor analyses showed that Farsi version of measure has two factors (trust in God and mistrust in God), so the factor structure of the Farsi version is comparable to the original English version (Rosmarin et al., 2011).

These findings suggest that the Farsi version of the BTMGS is a valid and reliable measure of trust and mistrust in God for use in Farsi-speaking Islamic populations. The findings of this study, while preliminary, support the use of this scale in research examining relationships between religion and health in Farsi-speaking Shia Muslims. Previous studies in other cultures have found that scores on the BTMGS were associated with psychological symptoms (i.e., depression, worry, and anxiety) in Judeo-Christian populations, as trust in God was associated with lower scores for depression, anxiety, and worry and mistrust in God was associated with higher scores (Rosmarin et al., 2011).

These findings must be interpreted with caution given that participants were well-educated medical students, physicians, and nurses, which may limit generalisability. Nevertheless, this study is an important first step towards more research on the relationships between R/S and health in non-Western, Islamic populations.

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