Muslim Attitudes Towards Religion Scale: Factors, Validity, and Complexity of Relationships with Mental Health in Iran

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Abstract

Iranian students responded to the Muslim Attitudes Towards Religion Scale (MARS) along with measures of psychiatric symptoms, religious motivation, and mystical experience. The MARS contained three factors, and these factors and the full scale were internally reliable. They also correlated positively with an extrinsic religious orientation, even more robustly with greater religious interest and an intrinsic religious orientation, and less consistently with slightly higher levels of self-reported mystical experience. The MARS failed to predict self-reported psychiatric symptoms, but partial correlations uncovered both direct and then inverse linkages with such symptoms after controlling for the intrinsic and extrinsic motivations, respectively. Theology students with a concentration in Islamic philosophy displayed the highest MARS scores. The MARS, therefore, was a valid measure of Iranian religiosity, but in Iran and perhaps in other Muslim societies as well, motivational factors may be critical in determining how the MARS correlates with mental health.

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Progress in establishing a broad, empirically based psychology of religion has been hindered by the relatively narrow focus of past research. Studies of English-speaking populations have dominated the literature. Other societies have received greater recent attention (e.g., Gorsuch, Mylvaganam, Gorsuch, & Johnson, 1997; Grzymala-Moszczynska, 1991; Hovemyr, 1988; Kaldestad & Stifoss-Hanssen, 1993), but Judeo-Christian commitments still remain the most common object of investigation (Hood, Spilka, Hunsberger, & Gorsuch, 1996, p. 2). The need to empirically study other religious traditions is obvious. Success in meeting that need clearly rests upon the availability of relevant psychological scales.

Wilde and Joseph (1997) devised, in English, a 14-item Muslim Attitudes Towards Religion Scale (MARS) and documented its validity in a sample of 50 British Muslims. At the most general level, the present project sought to determine if a Persian version of the MARS would adequately measure religiosity in a sample of Iranian Muslims. The factor structure of the MARS was determined as well, and validity data were obtained by examining associations of the factors and full scale with self-reported psychiatric symptoms, with other religious variables, and with the educational interests of Iranian students.

Other religious variables included the Allport and Ross (1967) Intrinsic and Extrinsic Religious Orientation Scales, the Hood (1975) Mysticism (M) Scale, and a self-rating of religious interest. Allport (1950) distinguished between the intrinsic and extrinsic religious orientations in response to evidence that religion exerted both positive and negative psychosocial influences. With an intrinsic motivation, religion serves as an end-in-itself, as the master motive in a believer's life. With an extrinsic motivation, religion is used instead as a means to other, sometimes more selfish ends (Allport & Ross, 1967). Research usually, though not invariably, has confirmed

Allport's expectation that intrinsicness would predict adjustment and extrinsicness maladjustment (e.g., Donahue, 1985).

Muslim belief systems emphasize that the motivation for being religious is an important consideration in determining the sincerity of a person's faith, and this emphasis displays at least some parallels with Allport's distinction between the intrinsic and extrinsic orientations (Watson & Ghorbani, 1998). When administered to Iranian Muslims, the Intrinsic and Extrinsic Scales also display linkages with mental health that conform with Allport's original expectations. In addition, data for other religious variables are predictably affected by their covariance with these scales. Relationships with adjustment are mediated, in part, by intrinsicness. Associations with maladjustment instead reflect a covariance with the extrinsic motivation (Ghorbani, Watson, Ghramaleki, Morris, & Hood, 2000). In the present project, therefore, MARS correlations with mental health were reexamined in additional analyses that partialed out one and then the other religious orientation scale.

Mystical experience is a central and universal feature of religion (Hood et al., 1996, pp. 224-272). The M Scale includes three factors that record what Stace (1960) described as the defining elements of mystical experience (Hood, Morris, & Watson, 1993). The Extrovertive factor records an experienced unity with the external universe. The Introvertive factor operationalizes a sense of pure consciousness, a unity without perception of the external world. A final Religious Interpretation factor expresses the use of religion to understand mystical experience. If valid, the MARS should correlate directly with one or more of these M Scale measures.

Self-ratings along a ten-point scale of personal interest in religion were obtained as well. Direct MARS relationships with these ratings would, of course, supply additional evidence of its validity.

Finally, Iranian university students served as the research participants. Among these were some who majored in theology with a concentration in Islamic Philosophy. Evidence for scale

validity presumably would be strengthened if these students scored higher than others on the MARS and/or on one or more of its factors.

Method

Participants

The sample consisted of 76 men and 102 women enrolled in an Iranian university. Their average age was 22.7 (S.D. = 5.51). Of this 178 total, 50 majored in theology with a concentration in Islamic Philosophy, with eleven others majoring in theology with a concentration in religions and mysticism (i.e., Religious Studies). Twenty-one majored in Guidance and Counseling, 28 in Psychology, 28 in Education of Exceptional Children, 15 in Educational Management, and 25 in Western Philosophy.

Measures

The MARS was presented within two questionnaire booklets containing measures employed in a number of different research projects. Responses to MARS items were made along a five-point scale ranging from "strongly disagree" (0) to "strongly agree" (4). The same response format was used with the 32-item M Scale. Coefficient alphas for the M Scale and the Extrovertive, Introvertive, and Religious Interpretation factors were .83, .75, .67, and .75, respectively. Allport and Ross (1967) scales were administered and scored according to standard instructions (Robinson & Shaver, 1973, pp. 705-708). The alpha for the Intrinsic Scale was .84. For the Extrinsic Scale, it was .71. All participants rated their personal interest in religion by answering the question, "How interested are you in religion?" Ratings ranged from 0 (not at all interested) to 9 (extremely interested). The average was 6.43 (S.D. = 2.50).

Self-reported psychiatric symptoms were recorded with the five scales of the Hopkins Symptom Checklist (HSCL: Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974). Students indicated the severity of experienced symptoms along a scale that ranged from "not at all" (0) to "extremely" (4). The HSCL includes Anxiety, Depression, Somatization, Obsessive-Compulsion,

and Interpersonal Sensitivity Scales. For reasons associated primarily with another study, the Psychoticism Scale of the SCL-90 (Derogatis & Cleary, 1987) was included as well. One Psychoticism item was omitted by mistake, but all remaining items were interspersed within the HSCL. All mental health measures displayed adequate internal consistency with alphas ranging from .74 for Obsession-Compulsion and Psychoticism to .86 for Depression.

Procedure

Careful translation of all scales occurred within the context of extensive e-mail conversations between the first two authors about the meaning of all items. Minor changes were made in the wording of some statements in order to make the Persian translations more relevant to Iranian religious life. "Qu'ran" was substituted for "Bible," for instance, and "mosque" or "religious group" for "church." The adequacy of all translations was confirmed by having someone unfamiliar with the project translate the Persian statements back into English. Administration of all scales occurred in fairly small groups, never larger than 50. Completion of both questionnaire booklets occurred within an hour and a half in virtually every instance.

Results

The MARS was internally reliable (alpha = .93), and the average score on the scale was 44.48 (S.D. = 10.40). Three factors exhibited eigenvalues greater than 1.0 and were analyzed using a varimax rotation. The first was associated with an eigenvalue of 7.56 and explained 54.0% of the variance. This Personal Help factor (M=19.62, S.D. = 4.86, alpha = .90) was defined by six items (factor loadings): "I find it inspiring to read the Qu'ran" (.67), "Allah helps me" (.72), "Saying my prayers helps me a lot" (.84), "Islam helps me lead a better life" (.68), "The five prayers help me a lot" (.57), and "The supplication (dua) helps me" (.75).

A second, Muslim Worldview factor (M=17.13, S.D. = 3.90, alpha = .89) described 9.8% of the variance and had an eigenvalue of 1.37. Five statements loaded most strongly on this dimension: "I like to learn about Allah very much" (.82), "I believe that Allah helps people" (.74), "I think the Qu'ran is relevant and applicable to modern days" (.67), "I believe that Allah listens to

prayers" (.76), and "Mohammed (peace be upon him) provides a good mode of conduct for me" (.63). An eigenvalue of 1.06 and 7.6% of the variance were connected with the three-item Muslim Practices factor (M=7.73, S.D. = 9.75, alpha = .78): "I pray five times a day" (.77), "I fast the whole month of Ramadan" (.82), and "I observe my daily prayers in the Mosque" (.73).

As Table 1 indicates, all intercorrelations among the MARS measures were robust, and each displayed significant positive relationships with the Extrinsic Scale that were even stronger with the Intrinsic Scale and with the religious interest ratings. At least one significant correlation with mystical experience also appeared for each MARS variable. MARS linkages occurred most consistently with the full M Scale and with the Religious Interpretation factor. Partial correlations controlled for possible influences of age and sex on these relationships, but in these analyses, all associations remained essentially unchanged. In other words, no significant zero-order correlation was converted into a nonsignificant partial correlation or vice versa.

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Insert Table 1 about here

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In the zero-order correlations with mental health, the only significant outcome was a small association between the Muslim Worldview factor and Obsession-Compulsion (see Table 2), which became nonsignificant once age and sex were partialed out (.15, p > .05). Partial correlations controlling for the Intrinsic Scale clearly enhanced the ability of the MARS to predict maladjustment because 12 rather than 1 out of the 24 relationships with psychiatric symptoms became statistically significant. When age and sex were removed as well, the slightly smaller linkage between somatization and the Muslim Worldview factor no longer reached conventional levels of significance (.13, p > .05). Removal of variance associated with the Extrinsic Scale eliminated the Muslim Worldview correlation with Obsession-Compulsion. In addition, the Muslim Practices factors displayed three inverse partial correlations with psychiatric symptoms. Partialing out age and sex along with the Extrinsic Scale uncovered an additional inverse linkage between

the Personal Help factor and Psychoticism (-.16, p < .05) while reducing slightly the inverse

association of the Muslim Practices factor with Depression and Psychoticism (r's = -.15, p > .05).

Controlling for age and sex had no other effects in any of these analyses.

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Insert Table 2 about here

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All majors had average scores that were in excess of the theoretical mid-points of the

MARS variables as defined by the maximum and minimum possible values. Possible ceiling

effects, therefore, were a concern, but significant contrasts nevertheless appeared for the full

MARS [F(6,170)=2.24, p < .05] and for the Muslim Practices factor [F(6,170) = 2.20, p < .05].

Least Significant Difference (LSD) tests revealed that the Islamic Philosophy majors (M = 48.21,

S.D. = 6.71) were higher on the MARS than the Psychology (M = 40.39, S.D. = 12.63) and

Religious Studies (M = 40.73, S.D. = 15.91) majors. On the Muslim Practices factor, Islamic

Philosophy students (M = 8.78, S.D. = 2.49) were higher than those in Western Philosophy (M =

6.56, S.D. = 3.27), Religious Studies (M = 6.73, S.D. = 4.34), and Psychology (M = 7.00, S.D. =

3.04). Majors in the Education of Exceptional Children (M = 8.26, S.D. = 3.36) also were higher

than the Western Philosophy students. Contrasts only approached significance for the Personal

Help (p = .05) and the Muslim Worldview (p = .08) variables. In these nonsignificant outcomes,

Islamic Philosophy majors once again displayed the highest averages.

A sex difference appeared for the Personal Help factor [t(176) = -2.24, p < .05] with women

(M = 20.31, S.D. = 3.79) scoring higher than men (M = 18.69, S.D. = 5.90). On the Muslim

Worldview factor [t (176) = -2.25, p < .05], women (M = 17.70, S.D. = 3.17) once again were

higher than men (M = 16.38, S.D. = 4.62). The two genders did differ on the full MARS, nor on the

Muslim Practices factor (p's > .15). Any attempt to look for sex-by-major interactions was

impossible because several cells in these analyses had no or only a very few women.

Discussion

In a sample of Iranian Muslims, the MARS contained three factors, which along with the full scale displayed adequate internal reliability. Strong correlations with Religious Interest Ratings and with the Allport and Ross Scales documented a sensitivity of the MARS to the motivational dimensions of Iranian religiosity. Among these associations, the strongest were with the theoretically more sincere intrinsic motivation. At least some linkages with self-reported mystical experience supplied additional evidence in favor of the MARS. Women also scored higher on the Personal Help and Muslim Worldview factors, and these outcomes paralleled previous demonstrations that women tend to be more religious (e.g., Hood et al., 1996, p. 86). Findings that Islamic Philosophy majors were highest on the MARS and on the Muslim Worldview factor were especially noteworthy given that such contrasts appeared within the context of generally high scores of all majors on these measures.

Only one significant relationship appeared between the MARS and self-reported psychiatric symptoms, and this linakge disappeared one age and sex were partialed out. Additional analyses suggested that the failure to find more consistent effects was due to motivational factors. MARS correlations with greater intrinsicness apparently obscured linkages with maladjustment. Associations with greater extrinsicness, in contrast, blocked the appearance of at least some relationships with adjustment. These patterns demonstrated once again that Allport's orientations are relevant to more than just Judeo-Christian traditions. They also supported previous suggestions that future research into all religions might benefit from a more expansive and highly differentiated analysis of religious motivation (Ghorbani et al., 2000; Pargament, 1992).

In their British sample, Wilde and Joseph (1997) observed a -.32 (p<.05) relationship between the MARS and the Eysenck and Eysenck (1991) measure of psychoticism (which operationalizes a personality dimension rather than the psychiatric symptoms recorded here). In the present project, no zero-order or partial correlation for the MARS came close to explaining that much variance in mental health. Beyond the use of different psychological scales, such

differences may have reflected important cultural contrasts. Extrinsic reasons for maintaining

Muslim commitments presumably were weaker in non-Muslim Great Britain than in Muslim Iran.

Hence, the MARS may have been associated with a more purely intrinsic motivation in Great

Britain, perhaps explaining its stronger relationship with mental health there. If this suggestion

proves to be true, then the MARS alone may not always be very useful in clarifying the mental

health consequences of Muslim beliefs. Such beliefs may need to be evaluated within context of

the complex motivations that people have for being religious.

In conclusion, the MARS factors and full scale were internally reliable and valid measures of

religious beliefs in a society that should be especially interesting to researchers in the psychology

of religion. These data also revealed, however, that efforts to understand the mental

health implications of Muslim belief may need to measure religious orientation along with the

MARS and other variables.

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Table 1

Intercorrelations among Muslim Attitudes Towards Religion (MARS) Factors and Scale and

Relationships with Other Religious Variables (N = 178)

Variable	MARS Measures			
	Personal Help	Moslem Practices	Moslem Worldview	MARS
MARS Intercorrelations				
Personal Help	-	.61***	.75***	.92***
Muslim Practices		-	.53***	.78***
Muslim Worldview			-	.88***
MARS Scale				-
Relationships with Other Religious Variables				
Religious Interest Ratings	.55***	.56***	.46***	.60***
Intrinsic Scale	.64***	.58***	.52***	.67***
Extrinsic Scale	.36***	.21**	.21**	.31***
Introvertive Mysticism	.10	-.01	.16*	.11
Extrovertive Mysticism	.20**	.13	.08	.16*
Mystical Religious Interpretation	.18*	.18*	.12	.18*
Mysticism Scale	.21**	.13	.15*	.20**

* p <.05   ** p <.01   *** p <.001

Table 2

Zero-Order and Partial Correlations of Muslim Attitudes Towards Religion (MARS) Factors and

Scale with Measures of Mental Health (N = 178)

| | Mental Health Measures | | | | | |
MARS Measure	Anxiety	Depres- sion	Obsession- Compulsion	Psycho- ticism	Interpersonal Sensitivity	Somat- ization
Zero-Order Correlations						
Personal Help	.14	.07	.06	.02	.03	.10
Muslim Practices	.03	-.08	-.04	-.07	-.12	-.01
Muslim Worldview	.05	.11	.15*	.07	.12	.07
MARS	.09	.05	.07	.01	.02	.07
Controlling for Intrinsic Scale						
Personal Help	.25**	.18*	.14	.13	.13	.24**
Muslim Practices	.09	-.02	.01	.00	-.06	.07
Muslim Worldview	.11	.20**	.23**	.15*	.21**	.16*
MARS	.19**	.17*	.17*	.13	.13	.21**
Controlling for Extrinsic Scale						
Personal Help	.03	-.08	-.05	-.13	-.09	.05
Muslim Practices	-.04	-.18*	-.11	-.17*	-.20**	-.05
Muslim Worldview	-.02	.04	.09	-.01	.05	.04
MARS	-.01	-.08	-.02	-.12	-.08	.02

* p <.05   ** p <.01   *** p <.001