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ARCHIVE FOR THE PSYCHOLOGY
OF RELIGION (2018) 1-24



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Model of Muslim Religious Spirituality: Impact of Muslim Experiential Religiousness on Religious Orientations and Psychological Adjustment Among Iranian Muslims

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Summary

Previous research indicates that spirituality expressed in tradition-specific terms may *initiate*, *invigorate*, and *integrate* Muslim religious commitments, suggesting a 3-1 Model of Religious Spirituality. In a test of this model, Islamic seminarians, university students, and office workers in Iran ($N = 604$) responded to Muslim Experiential Religiousness (MER), Religious Orientation, and mental health scales. The tradition-specific spirituality of MER displayed correlation, moderation, and mediation results with Intrinsic and Extrinsic Personal Religious Orientations that pointed toward initiation, invigoration, and integration effects, respectively. MER also clarified the ambiguous implications of the Extrinsic Social Religious Orientation. These data most generally confirmed the heuristic potential of the 3-1 Model.

Keywords

spirituality – religion – Muslim Experiential Religiousness – Religious Orientation Scales – Iran

Introduction

Development of a Muslim Experiential Religiousness (MER) Scale has made it possible to investigate a specifically Muslim form of spirituality (Ghorbani, Watson, Geranmayepour, & Chen, 2014a). In broad terms, spirituality represents a “search for the sacred” (Pargament, 2013, p. 257), and MER uses Quranic perspectives to describe a Muslim search for the sacred that begins with the “submission” to God that is the meaning of the Arabic word “Islam” (Nasr, 2002). One MER item says, for instance, “Submitting to God is a lovely experience for me, because I experience my finite nature in comparison to the greatness of God.” Submission then promotes a closeness to God that is illustrated in the self-report, “Intimate closeness to God is at the core of my efforts to be religious.” Out of this submission and closeness comes a loving relationship: “When I look deeply within myself, I understand that the experience of loving God is worth any effort in my life.” In short, MER expresses spirituality as a Muslim bonding with God that is submissive, close, and loving.

MER assesses a noteworthy process within the Muslim psychology of religion (Abu-Raiya & Hill, 2014), and its empirical usefulness has been established across two Muslim societies in Iran (Ghorbani, Watson, Geranmayepour, & Chen, 2013, 2014a, 2014b) and Pakistan (Khan, Watson, & Chen, 2015, 2016; Khan, Watson, Naqvi, Jahan, & Chen, 2015). A recent study also established the validity of MER by relating it to a four-fold religious-spiritual typology often examined within the Western psychology of religion (e.g., Zinnbauer et al., 1997). In Iranian university and Islamic seminary students, highest MER scores appeared for individuals who identified themselves as being “both religious and spiritual” (Ghorbani, Watson, Kashanaki, & Chen, 2017). Lower MER scores appeared for the self-identified “religious but not spiritual” type, which in comparison to the both-type confirmed the relative “spirituality” of MER. The “spiritual but not religious” type then displayed the next lower MER scores. This result relative to the both and to the religious-only types supported the explicitly *religious* spirituality of MER. Finally, the “neither religious or spiritual” type displayed lowest MER scores, which in comparison to the spiritual-only type further documented the spirituality of MER.

Model of Muslim Religious Spirituality

Western research into a spiritual-only type presupposes that spirituality can function independently of religion and can be operationalized generically (e.g., Hodge, 2003). Within this essentially atomistic perspective, generic spirituality can, but need not only, combine with traditional religiousness. Generic spirituality might instead involve a secular search for the sacred in, for instance, the self, nature, sexuality, or work. Understanding spirituality in generic terms is clearly important, but development of the MER Scale rests upon the belief that explicitly religious forms of spirituality deserve analysis as well. In contrast to an atomistic spirituality, MER attempts to assess a holistic bonding with God of the Quran in a loving relationship that encourages Muslim faithfulness. Based upon previous research, this project sought to describe and then empirically illustrate a heuristic model for understanding the religious spirituality of MER in terms of its *initiating*, *invigorating*, and *integrating* effects. In other words, this study most basically sought to develop a 3-1 Model of Muslim Religious Spirituality.

Initiating effects refer to a role of spirituality in instigating, prompting, or encouraging religiosity and vice versa. Evidence supporting this possibility appears in direct relationships of MER with a wide array of measures that record Muslim religious commitments (e.g., Ghorbani et al., 2013, 2014a, 2014b). Further suggesting initiating influences are demonstrations that Islamic seminarians score higher than university students on MER (Ghorbani, Watson, Aghababaei, & Chen, 2014; Ghorbani, Watson, Madani, & Chen, 2016; Ghorbani et al., 2017). MER, in other words, apparently reflects a stronger bonding with God that “initiates” pursuit of a religious career. Religious-spiritual type data further suggest that MER most strongly “initiates” visions of the self as being “both religious and spiritual” (Ghorbani et al., 2017), a finding which has been replicated in two other recent investigations (Ghorbani, Watson, Asadi, & Chen, 2018; Ghorbani, Watson, Rabiee, & Chen, 2018).

Invigorating effects refer to a role of spirituality in energizing, vitalizing, or enlivening religiousness. Results suggesting this influence appear in moderation analyses in which MER interacts with other religious variables to clarify their adjustment implications. In Iran, for example, measures of Muslim attitudes (Sahin & Francis, 2002; Wilde & Joseph, 1997) have more strongly predicted religious and psychological adjustment when MER was higher (Ghorbani et al., 2014b; Ghorbani et al., 2017; Ghorbani et al., 2016). In Pakistani Muslims, the benefits of both positive and negative religious coping have also become more evident at higher levels of MER (Khan et al., 2016).

Integrating effects refer to a role of spirituality in incorporating, amalgamating, or interconnecting the influences of religion. Mediation analyses document this effect by making it clear that MER helps explain relationships of Muslim commitments with their religious and psychological implications. In other words, MER appears to tie religion to its impacts on religious and psychological adjustment. Iranian studies, for example, have identified MER as a sometimes full or partial mediator of relationships observed for Islamic beliefs, Muslim attitudes, and Religious Orientations (Ghorbani et al., 2013, 2014a, 2014b).

MER and Religious Orientations

In summary, the 3-1 Model of Muslim Religious Spirituality may present a useful heuristic framework for understanding MER. To illustrate that potential, the present project conducted a first systematic analysis of the model by examining MER relationships with Religious Orientation Scales (Gorsuch & McPherson, 1989). An Intrinsic Religious Orientation reflects a sincere faith in which an individual embraces religion as defining the master motive in life. The Extrinsic Personal Orientation involves a use of religion to achieve subjective well-being. An Extrinsic Social Orientation assesses religiousness as means to desired social ends. In Iranian and Pakistani Muslims, the Intrinsic and Extrinsic Personal Orientations clearly predict religious and psychological adjustment, but the Extrinsic Social Orientation is ambiguous (Ghorbani, Watson, & Khan, 2007). Some items expressing the Extrinsic Social motivation may include ideas that conflict with traditional Muslim beliefs (Khan & Watson, 2004); yet, this measure often correlates positively with other religious constructs while displaying mostly nonsignificant but sometimes weakly positive or weakly negative linkages with mental health.

This examination of MER relationships with Religious Orientations also extended the analysis beyond the university and seminary students used in previous investigations. The interpretative potential of the 3-1 Model presumably should not be limited to academic contexts. The inclusion of office workers in this study tested that expectation. Such a procedure had the added advantage of making it possible to evaluate whether data obtained with university students usefully clarify Muslim commitments more generally in wider Iranian society.

This exploration of the 3-1 Model required assessments of psychological adjustment. Research participants responded to an array of psychological

constructs with well-established psychometric credentials in Iran. Evaluating better mental health were indices of Integrative Self-Knowledge (Ghorbani, Watson, & Hargis, 2008), Self-Control (Tangney, Baumeister, & Boone, 2004), Mindfulness (Brown & Ryan, 2003), Self-Esteem (Rosenberg, 1965), and Self-Compassion (Raes, Pommier, Neff, & Van Gucht, 2011). Recording maladjustment were measures of Depression and Anxiety (Costello & Comrey, 1967). Previous studies have already confirmed initiation effects in correlations of MER with Religious Orientations. In addition, the MER mediation of Religious Orientation relationships has been established for Depression and Anxiety, but not for any of the other psychological variables examined in these procedures (Ghorbani et al., 2014a). Finally, no previous studies have analyzed whether MER might moderate and thus invigorate Religious Orientation relationships. In contrast to piecemeal and incomplete previous findings, therefore, the present project represented the first explicit, systematic, and complete application of the 3-1 Model of Muslim Religious Spirituality to Religious Orientations.

Hypotheses

This project assessed the heuristic potential of a 3-1 Model of Muslim Religious Spirituality by testing four sets of hypotheses in an Iranian sample of Islamic seminarians, university students, and office workers.

First, the *initiating* influences of MER will be obvious in positive correlations with Religious Orientations and in the relatively higher religious spirituality and religiosity of Islamic seminarians in comparison to both university students and office workers.

Second, as constructs unambiguously reflecting adjustment to a formally Islamic society, MER and the Intrinsic and Extrinsic Personal Religious Orientations should predict relative mental health. In other words, these measures should correlate positively with Integrative Self-Knowledge, Self-Control, Mindfulness, Self-Esteem, and Self-Compassion and negatively with Depression and Anxiety.

Third, the *invigorating* influences of religious spirituality will appear in moderation effects in which MER magnifies the religious and psychological implications of Religious Orientations.

Fourth, *integrating* influences will appear in the MER mediation of at least some Religious Orientation relationships with self-reported religious and psychological functioning.

Method

Participants

Participating in this study were 303 men and 301 women. Their average age was 28.9 ($SD = 7.1$). Of this total, 244 seminarians studying in the holy city of Qom, 184 students at the University of Tehran, and 166 office workers employed in various state organizations and private companies in Tehran took part in this study.

Measures

All measures appeared in a single questionnaire booklet. Creation of a Persian Integrative Self-Knowledge Scale occurred during scale-development procedures. Each of the other measures had been translated from English into Persian and documented as valid in Iran during earlier investigations. Responses to all instruments occurred along a 1 to 5 Likert scale. The scoring of each measure involved computation of the average response per item. This procedure made it possible to more easily assess the relative level of responding to a construct by comparing its average response per item with the Likert scale. Measures appeared in the questionnaire booklet in the order of their description below.

Integrative Self-Knowledge

Twelve statements made up the Integrative Self-Knowledge Scale ($\alpha = .82$, $M = 3.52$, $SD = 0.72$). Each recorded efforts of the individual to unite past, present, or desired future self-experience into a meaningful whole (Ghorbani et al., 2008). An illustrative item said, "If I need to, I can reflect about myself and clearly understand the feelings and attitudes behind my past behaviors." One among the many previous Iranian studies using this instrument found it to be internally reliable ($\alpha = .71$) and valid in exploring experienced stress within the context of self-regulatory processes (Ghorbani, Watson, Farhadi, & Chen, 2014).

Mindfulness

Measuring a mindful ongoing awareness of the present was the 15-item Mindful Attention Awareness Scale (Brown & Ryan, 2003; $\alpha = .83$, $M = 3.55$, $SD = 0.71$). Each statement within this instrument was a reverse scored expression of a lack of mindfulness (e.g., "I find myself doing things without paying attention"). Exemplifying many of the previous Iranian studies using this instrument, one found Mindfulness to be internally reliable ($\alpha = .83$) and to

correlate predictably with a wide array of measures including, for example Self-Esteem, Self-Determination, Constructive Thinking, and Perceived Stress (Ghorbani, Watson, & Weathington, 2009).

Anxiety and Depression

Costello and Comrey (1967) scales assessed Depression (14 items, $\alpha = .90$, $M = 2.26$, $SD = 0.79$) and Anxiety (9 items, $\alpha = .80$, $M = 2.81$, $SD = 0.79$). Indicative of Depression was the claim, "I feel sad and depressed." Anxiety appeared in such self-reports as, "I'm a restless and tense person." Use of these scales rested upon a need to assess trait rather than state affects and upon decades of research documenting the utility of these two measures in clarifying religious functioning (e.g., Watson, Morris, & Hood, 1988). Illustrating their psychometric adequacy in Iran was a study demonstrating acceptable internal reliabilities for both Depression ($\alpha = .88$) and Anxiety ($\alpha = .74$) and correlations with a broad array of variables relevant to emotional intelligence (Ghorbani, Bing, Watson, Davison, & Mack, 2002).

Self-Esteem

The Rosenberg (1965) self-esteem scale ($\alpha = .81$, $M = 3.61$, $SD = 0.73$) included 10 items (e.g., "On the whole, I am satisfied with myself"). The previously mentioned study of stress and self-regulation was one of many investigations that have confirmed the internal reliability ($\alpha = .77$) and validity of this measure in Iran (Ghorbani et al., 2014).

Self-Control

Assessment of self-control involved use of the brief 13-item version of the Self-Control Scale (Tangney et al., 2004; $\alpha = .80$, $M = 3.43$, $SD = 0.67$). An illustrative expression of Self-Control said, "I am good at resisting temptation." Self-Control also proved to be internally reliable ($\alpha = .72$) and valid in the previous analysis of stress and self-regulation in Iran (Ghorbani et al., 2014).

Muslim Experiential Religiousness (MER)

The MER scale ($\alpha = .96$, $M = 3.68$, $SD = 1.01$) included 15 statements that said, for instance, "Experiences of submitting to God cause me to feel more vital and motivated." The investigation that reported development of MER supplied evidence of psychometric adequacy in its internal reliability ($\alpha = .90$) and in its expected relationships with Religious Orientations and psychological functioning (Ghorbani et al., 2014a).

Self-Compassion

Making up the short version of the Self-Compassion Scale ($\alpha = .71$, $M = 3.14$, $SD = 0.63$) were 12 statements expressing a compassionate and mindful understanding of the self (Raes et al., 2011). One item said, for instance, "I try to see my failings as part of the human condition." In an earlier Iranian study, this scale was internally reliable ($\alpha = .76$) and displayed expected relationships with religious and psychological variables, including, for example, the Intrinsic Religious Orientation, Self-Esteem, Self-Control, and Integrative Self-Knowledge (Ghorbani et al., 2017).

Religious Orientations

With slight modifications for use in Muslim society, the Gorsuch and McPherson (1989) Religious Orientation Scales assessed Intrinsic (8 items, $\alpha = .77$, $M = 3.43$, $SD = 0.83$), Extrinsic Personal (3 items, $\alpha = .75$, $M = 3.50$, $SD = 1.11$), and Extrinsic Social (3 items, $\alpha = .82$, $M = 2.28$, $SD = 1.04$) reasons for being religious. Representative of the Intrinsic Religious Orientation was the self-report, "My whole approach to life is based on my religion." An Extrinsic Personal motivation appeared in such claims as, "What religion offers me most is comfort in times of trouble and sorrow." Illustrative of the Extrinsic Social Orientation was the statement, "I go to activities associated with my religion because I enjoy seeing people I know there." These scales typically display acceptable Cronbach alphas in Iranian samples ($\alpha > .70$), but a lower value can sometimes appear for the Extrinsic Social Orientation (e.g., $\alpha = .57$; Ghorbani et al., 2014a). Intrinsic and Extrinsic Personal Orientation reliably predict adjustment; but again, the Extrinsic Social Orientation has ambiguous psychological implications (Ghorbani et al., 2007). In one study, for instance, Extrinsic Social linkages were positive with the Costello and Comrey (1967) Depression and Anxiety Scales (Ghorbani et al., 2014a), but negative in another (Ghorbani et al., 2017).

Procedure

This investigation complied with institutional regulations governing the conduct of ethical research. Participants volunteered with the confidentiality of all responding guaranteed. A researcher announced the availability of the research opportunity to classes at the university and Islamic seminary. After completion of these classes, interested students remained in the classroom and responded to the questionnaire booklet. A researcher also recruited office workers individually in their work environments. Those agreeing to participate received the questionnaire booklet and had a day or so to complete the project.

Responses of the participants were entered on the questionnaire booklet and later transferred into an SPSS data file.

Preliminary analyses examined the need to control for gender and age. After computing relationships among measures, multiple regression procedures examined the MER moderation of Religious Orientation effects (Baron & Kenny, 1986). A standardization of MER and Religious Orientations addressed the problem of multi-collinearity (Aiken & West, 1991). MER and the relevant Religious Orientation Scale served as simultaneous predictors of a construct, with their cross-product entered in the regression equation on the next step. A significant interaction on this final step identified a moderation effect. Clarification of significant moderation effects involved the use of multiple regression data to compute and then graphically depict regression lines in which a Religious Orientation Scale predicted the variable of interest at high and low levels of MER. Exactly one standard deviation above and below the mean of MER defined these high and low levels, respectively. Next, evaluation of MER as a mediator of Religious Orientation relationships used procedures that generated a 1000-sample bootstrap for establishing 95% confidence intervals that assessed the significance of regression coefficients (Hayes, 2013). Final procedures examined university student, Islamic seminarian, and office worker differences in all measures.

Results

Preliminary Analyses

Preliminary analyses uncovered significant differences in the frequencies of men and women across the three groups, $\chi^2(2) = 110.49, p < .001$. Seminarians included 193 men and 51 women with university students being 68 men and 126 women and with office workers being 42 men and 124 women. In short, seminarians included more men than women whereas the opposite was true of the two other groups. Group age differences appeared as well, $F(2, 601) = 59.29, p < .001$. Post hoc comparison demonstrated that workers ($M = 33.5, SD = 7.7$) were older than both the seminarians ($M = 28.9, SD = 7.1$) and university students ($M = 27.9, SD = 6.6$), who also differed from each other. A multivariate analysis of covariance (MANCOVA) controlling for age revealed that women scored higher than men on the Intrinsic Religious Orientation, Self-Control, Mindfulness, and Self-Esteem and lower on the Extrinsic Social Orientation, $F(1,581) \geq 4.10, p < .05$. In addition, partial correlations controlling for gender uncovered linkages of age that were positive with Integrative Self-Knowledge (.12),

Self-Control (.21), Mindfulness (.30), Self-Esteem (.12), and Self-Compassion (.13) and negative with the Extrinsic Social Orientation (-.18) and Depression (-.18, $p < .05$). Given these results, all subsequent analyses controlled for gender and age.

Partial Correlations

Table 1 presents partial correlations among all measures. MER correlated positively with all three Religious Orientations and predicted psychological adjustment as made evident in direct relationships with Mindfulness, Self-Control, Self-Esteem, and Self-Compassion and in inverse associations with Anxiety and Depression. The same pattern appeared for the Intrinsic Religious Orientation with the addition of a positive correlation with Integrative Self-Knowledge. The Extrinsic Personal Orientation displayed positive connections with the Extrinsic Social Orientation, Mindfulness, Self-Esteem, and Self-Compassion and a negative linkage with Depression. For the Extrinsic Social Orientation, partial correlations were negative with Integrative Self-Knowledge, Self-Control, and Self-Esteem and positive with Anxiety. All measures of relative mental health (i.e., Integrative Self-Knowledge, Mindfulness, Self-Control, and Self-Compassion) correlated positively with each other and negatively with the maladjustment of Anxiety and Depression. These latter two scales correlated positively.

Moderation Analyses

In analyses of moderation, the first step of multiple regression procedures controlled for gender and age. Then, the second step added MER and the relevant Religious Orientation Scale followed by their cross-product on the third step. Again, a significant result on the third step revealed a moderation effect. Table 2 summarizes these results. For the sake of brevity and clarity, this table does not present the first step controlling for gender and age and focuses instead on the conceptually noteworthy second and third steps.

With MER and the Intrinsic Orientation entered simultaneously on the second step, both measures predicted higher Extrinsic Personal and Social scores and lower Depression. Only MER displayed direct linkages with Mindfulness and Self-Compassion, and only the Intrinsic Orientation explained higher Integrative Self-Knowledge, Self-Control, and Self-Esteem and lower Anxiety. Six moderation effects appeared on step 3. As Figure 1 makes clear, the Intrinsic Orientation predicted a stronger Extrinsic Social Orientation when MER was low, but no relationship when MER was high. Findings for Integrative Self-Knowledge, Mindfulness, Self-Esteem, Anxiety, and Depression all indicated that the Intrinsic Orientation more strongly predicted psychological

TABLE 1 Partial correlations among religious and psychological measures controlling for age and gender

Measures	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. MER	-	.69***	.70***	.38***	.07	.24***	.11**	.15***	.18***	-.11**	-.28***
2. Intrinsic Orientation		-	.60***	.32***	.14**	.19***	.15***	.22***	.16***	-.17***	-.32***
3. Extrinsic Personal Orientation			-	.41***	.03	.15***	.07	.12**	.08*	-.02	-.22***
4. Extrinsic Social Orientation				-	-.16***	.04	-.11**	-.10*	-.03	.10*	.04
5. Integrative Self-Knowledge					-	.40***	.47***	.56***	.45***	-.54***	-.54***
6. Mindfulness						-	.35***	.28***	.32***	-.32***	-.29***
7. Self-Control							-	.58***	.45***	-.44***	-.47***
8. Self-Esteem								-	.49***	-.45***	-.70***
9. Self-Compassion									-	-.47***	-.48***
10. Anxiety										-	.46*
11. Depression											-

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

Note. Measures include Muslim Experiential Religiousness (MER).

TABLE 2 Muslim Experiential Religiousness (MER) moderation of Religious Orientation (RO) relationships

Independent Variable	Dependent Variable	Step 2		Step 3			
		ΔR ²	MER β	RO β	ΔR ²	ROxMER β	
Intrinsic Religious Orientation	Extrinsic Personal	.51***	.57***	.22***	.00	-.03	
	Extrinsic Social	.13***	.29***	.10*	.02***	-.14***	
	Integrative Self-Knowledge	.02**	-.05	.17***	.04***	.22***	
	Mindfulness	.05***	.21***	.03	.01**	.12**	
	Self-Control	.02**	.02	.13*	.00	.04	
	Self-Esteem	.05***	-.01	.22***	.03***	.18***	
	Self-Compassion	.03***	.12*	.08	.00	.04	
	Anxiety	.03***	.01	-.17***	.01*	-.11*	
	Depression	.10***	-.12*	-.22***	.02***	-.15***	
Extrinsic Religious Orientation	Extrinsic Social	.16***	.17**	.27***	.00	-.07	
	Integrative Self-Knowledge	.01	.11	-.06	.02***	.17***	
	Mindfulness	.05***	.26***	-.03	.01*	.09*	
	Self-Control	.01*	.12*	-.01	.00	.06	
	Self-Esteem	.02**	.13*	.03	.02***	.16***	
	Self-Compassion	.03***	.23***	-.08	.00	.06	
	Anxiety	.02**	-.18**	.11	.00	-.06	
	Depression	.07***	-.25***	-.04	.02***	-.16***	
Extrinsic Religious Orientation	Integrative Self-Knowledge	.05**	.15**	-.23***	.03***	.19***	
	Mindfulness	.06***	.25***	-.06	.01**	.12**	
	Self-Control	.04***	.17***	-.18***	.00	.04	
	Self-Esteem	.05***	.21***	-.19***	.03***	.20***	
	Self-Compassion	.04**	.22***	-.12*	.00	.03	
	Anxiety	.03***	-.17*	.17*	.01	-.09	
	Depression	.10***	-.33***	.17***	.04***	-.23***	

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

Note. Not presented are results for Step 1 controlling for age and gender

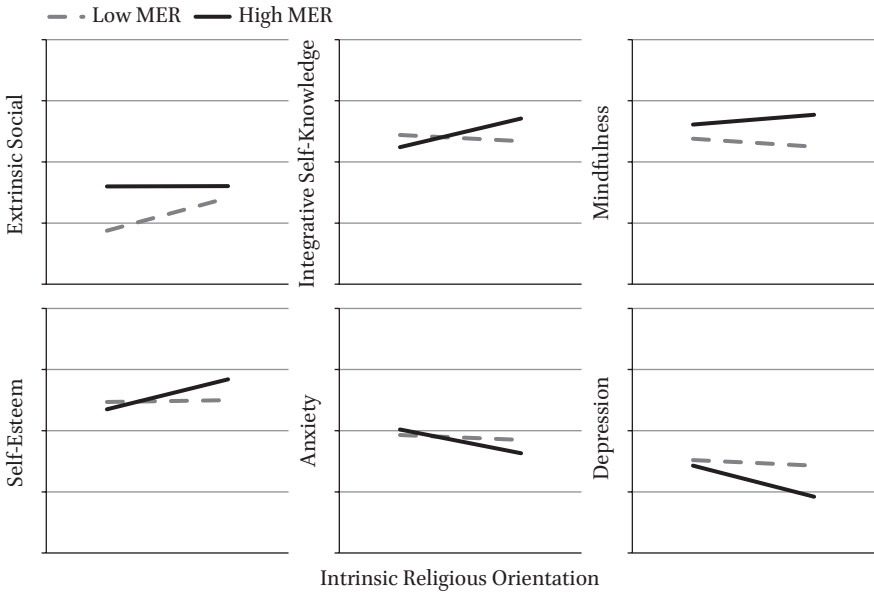


FIGURE 1 Muslim Experiential Religiosity (MER) moderation of Intrinsic Orientation relationships. Values along the Y-axis range from 1 through 5. Low and High MER were defined by ± 1 standard deviation from the mean

adjustment when MER was high but exhibited either no influence on psychological functioning or a connection with slightly poorer adjustment when MER was low.

Table 2 also makes it clear that MER and the Extrinsic Personal Orientation combined to predict a stronger Extrinsic Social Orientation, but only MER explained the relatively better mental health made evident in all psychological constructs except for Integrative Self-Knowledge. Significant moderation effects appeared for Integrative Self-Knowledge, Mindfulness, Self-Esteem, and Depression. The top panel of Figure 2 indicates that the Extrinsic Personal Orientation tended to reflect better psychological adjustment when MER was high and at least slightly poorer mental health when MER was low.

Finally, both the Extrinsic Social Orientation and MER combined to explain variance in all psychological variables except for Mindfulness (see the bottom of Table 2). In each instance, MER predicted better, and the Extrinsic Social Orientation predicted poorer psychological functioning. For Mindfulness, the only association was a positive linkage with MER. On step 3, moderation effects once again appeared for Integrative Self-Knowledge, Mindfulness, Self-Esteem, and Depression (see bottom panel of Figure 2). In each instance, the problematic adjustment implications of the Extrinsic Social Orientation became

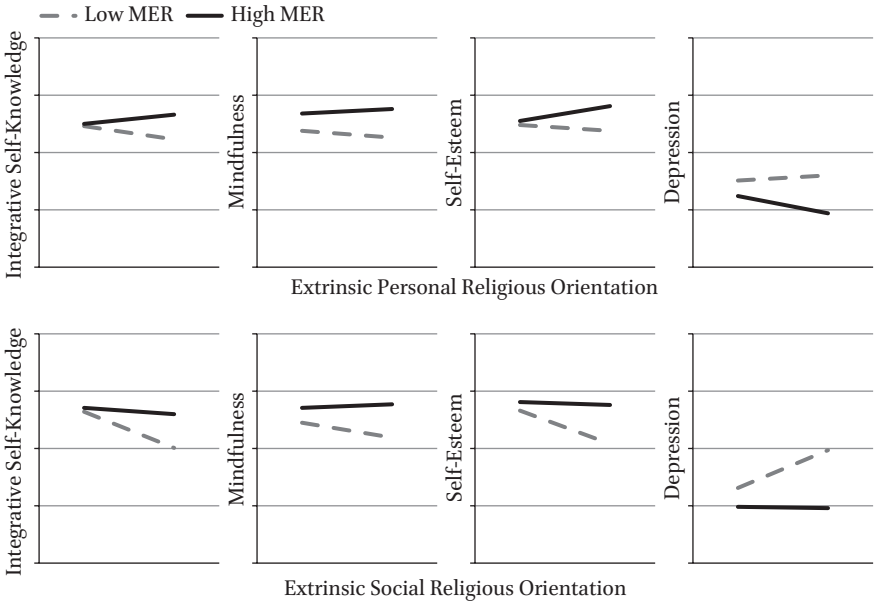


FIGURE 2 Muslim Experiential Religiousness (MER) moderation of Extrinsic Personal and Extrinsic Social relationships

clearer when MER was low. In other words, higher levels of MER obscured the mental health liabilities associated with the Extrinsic Social motivation.

Mediation

For mediation to occur, the independent variable of a model must predict a potential mediator (Baron & Kenny, 1986). In analyses controlling for age and gender, MER in fact exhibited direct associations with the Intrinsic ($\beta = .69, p < .001$), Extrinsic Personal ($\beta = .71, p < .001$), and Extrinsic Social ($\beta = .36, p < .001$) Religious Orientations. Mediation analyses, therefore, examined models in which each religious orientation was an independent variable with MER serving as the mediator.

Mediation also requires an association between the independent and dependent variables. Multiple regression results for the three religious orientations mirrored the patterns of partial correlations presented Table 1. With the Intrinsic Orientation, therefore, dependent variables included the two other Religious Orientations and all six psychological scales. Dependent variables for the Extrinsic Personal Orientation were the Extrinsic Social Orientation, Mindfulness, Self-Esteem, Self-Compassion, and Depression. Mediation models for

the Extrinsic Social Orientation examined Integrative Self-Knowledge, Self-Control, Self-Esteem, and Anxiety as dependent variables.

Results of mediation analyses appear in Table 3. In this table, a significant indirect effect identifies MER as a mediator of the independent and dependent variable relationship. The total effect represents the overall relationship between the independent and dependent variables, and the direct effect describes this same association after accounting for the influence of MER. When mediation occurs, a nonsignificant direct effect demonstrates full mediation, and a still significant direct effect indicates partial mediation.

TABLE 3 MER mediation of religious orientation independent variable relationships with other measures

<u>Independent Variable</u>		<u>Indirect</u>		<u>Direct</u>		<u>Total</u>
<u>Dependent Variables</u>	ΔR^2	<u>Effect</u>	CI-LL	CI-UL	<u>Effect</u>	<u>Effect</u>
<u>Intrinsic Orientation</u>						
Extrinsic Personal Orientation	.16***	.52*	.39	.64	.29***	.81***
Extrinsic Social Orientation	.04***	.25*	.16	.36	.13*	.38***
Integrative Self-Knowledge	.00	-.03	-.11	.04	.15**	.12**
Mindfulness	.02***	.12*	.06	.18	.03	.15***
Self-Control	.00	.01	-.05	.07	.10*	.11***
Self-Esteem	.00	-.01	-.08	.07	.19***	.19***
Self-Compassion	.01*	.06*	.01	.12	.06	.12***
Anxiety	.00	.01	-.08	.10	-.17**	-.16***
Depression	.01*	-.08*	-.15	-.00	-.21***	-.29***
<u>Extrinsic Personal Orientation</u>						
Extrinsic Social Orientation	.01**	.11*	.04	.16	.26***	.36***
Mindfulness	.03***	.11*	.06	.16	-.02	.09***
Self-Esteem	.01**	.06	-.01	.11	.02	.08**
Self-Compassion	.03***	.09*	.05	.14	-.04	.05*
Depression	.03***	-.12*	-.18	-.07	-.03	-.15***
<u>Extrinsic Social Orientation</u>						
Integrative Self-Knowledge	.02**	.04*	.02	.07	-.16***	-.12***
Self-Control	.03***	.04*	.02	.07	-.11***	-.07**
Self-Esteem	.04***	.06*	.03	.09	-.13***	-.07*

TABLE 3 MER mediation of religious orientation independent variable relationships with other measures (*cont.*)

<u>Independent Variable</u> Dependent Variables	ΔR^2	Indirect		Direct		Total Effect
		Effect	CI-LL	CI-UL	Effect	
Anxiety	.02***	-.05*	-.08	-.02	.13***	.08*

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

Note. Mediation analyses maintained the conventional focus on unstandardized regression coefficients (B). Tests of indirect effects used 95% confidence intervals (CI) that were bias corrected and based upon 1000 bootstrap samples. Lower limits (CI-LL) and upper limits (CI-UL) of the confidence intervals that do not include 0 identify a significant indirect effect at the .05 level. All analyses control for age and gender.

As Table 3 makes clear, MER affected relationships observed for all three Religious Orientations. MER fully mediated Intrinsic Religious Orientation connections with Mindfulness and Self-Compassion and partially mediated its linkages with the two other religious motivations and Depression. For the Extrinsic Personal Orientation, full mediation appeared with Mindfulness, Self-Esteem, Self-Compassion, and Depression and partial mediation with the Extrinsic Social Orientation. Suppression rather than mediation effects were obvious for all four Extrinsic Social relationships. In other words, MER suppressed and thus ameliorated the problematic influences of the Extrinsic Social Orientation on Integrative Self-Knowledge, Self-Control, Self-Esteem, and Anxiety.

Group Contrasts

A multivariate analysis of covariance (MANCOVA) controlled for gender and age and examined religious and psychological differences among the Islamic seminarians, university students, and office workers. Significant overall effects appeared, Wilks' Lambda = .768, $F(22, 1138) = 7.30$, $p < .001$. Table 4 demonstrates that seminarians scored higher than the two other groups on MER, all three Religious Orientations, and depression and scored lower on Integrative Self-Knowledge, Self-Control, and Self-Esteem. Workers scored higher than the two other groups on Mindfulness.

MANCOVA procedures also uncovered significant differences in the covariance among measures across the three groups, Box's $M = 313.72$, $F(132, 766440.91) = 2.31$, $p < .001$. The theoretically important question was whether relationships for MER differed across groups. Table 3 presents these results as

TABLE 4 Group mean differences in religious and psychological functioning and in correlations of Muslim Experiential Religiousness (MER) with other Measures

Measure	Group M and S.E.M.				Partial Correlation with MER		
	Seminarians	Students	Workers	F	Seminarians	Students	Workers
MER	3.96 + .07 ^a	3.46 + .08 ^b	3.46 + .09 ^b	13.69 ^{***}	-	-	-
Intrinsic Orientation	3.79 + .06 ^a	3.22 + .06 ^b	3.18 + .07 ^b	29.68 ^{***}	.70 ^{***}	.69 ^{***}	.63 ^{***}
Extrinsic Personal	3.75 + .08 ^a	3.32 + .08 ^b	3.33 + .10 ^b	8.03 ^{***}	.69 ^{***}	.74 ^{***}	.63 ^{***}
Extrinsic Social	2.69 + .07 ^a	2.05 + .07 ^b	1.96 + .08 ^b	27.82 ^{***}	.23 ^{***}	.43 ^{***}	.34 ^{***}
Integrative Self-Knowledge	3.39 + .05 ^a	3.64 + .06 ^b	3.61 + .06 ^b	5.93 ^{**}	.20 ^{**}	.13	.00
Mindfulness	3.47 + .05 ^a	3.52 + .05 ^a	3.72 + .06 ^b	5.23 ^{**}	.35 ^{***}	.33 ^{***}	.10
Self-Control	3.32 + .05 ^a	3.51 + .05 ^b	3.53 + .06 ^b	5.08 ^{**}	.10	.19 [*]	.19 [*]
Self-Esteem	3.48 + .05 ^a	3.76 + .06 ^b	3.66 + .06 ^b	6.58 ^{**}	.24 ^{***}	.15 [*]	.16 [*]
Self-Compassion	3.16 + .04	3.19 + .05	3.07 + .06	1.40	.10	.29 ^{***}	.14
Anxiety	2.83 + .06	2.72 + .06	2.90 + .07	1.55	-.14 [*]	-.15 [*]	-.08
Depression	2.36 + .06 ^a	2.16 + .06 ^b	2.18 + .07 ^{a,b}	3.04 [*]	-.43 ^{***}	-.27 ^{***}	-.23 ^{**}

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

Note. All analyses controlled for gender and age. Descriptive statistics are the means and the standard error of the means ($M \pm SEM$). Means with different letter superscripts define significant post-hoc comparisons.

well. Five of 10 MER relationships were statistically significant and in the same direction across all three groups. Only seminarians displayed a significant MER positive correlation with Integrative Self-Knowledge and a nonsignificant linkage with greater Self-Control. MER predicted greater Self-Compassion only in university students and failed to predict lower Anxiety only in office workers.

Discussion

Previous research suggests that a Muslim religious spirituality can be understood within a 3-1 Model in which spirituality *initiates*, *invigorates*, and *integrates* religion. The present Iranian study offered straightforward support for this model by examining the Muslim spirituality of MER in relationship with

Intrinsic and Extrinsic Personal Religious Orientations. Results for the Extrinsic Social Orientation also suggested that an analysis of Muslim spirituality within the 3-1 conceptual framework may usefully clarify religious processes with ambiguous religious and psychological implications.

Intrinsic and Extrinsic Personal Orientations

With regards to initiating influences, positive MER correlations with Intrinsic and Extrinsic Personal Orientations conformed with the 3-1 Model in suggesting that Muslim spirituality can cause and can also be caused by Muslim religiosity. As hypothesized, Islamic seminarians scored higher than university students and office workers on MER, and their higher Intrinsic and Extrinsic Personal religious motivations would also be expected under the influences of a reciprocal causality between spirituality and religiosity. Religious spirituality, therefore, seemed plausibly identified as a factor that initiated the seminarian pursuit of a religious career.

Significant moderation effects confirmed that MER invigorated the positive potentials of the Intrinsic and Extrinsic Personal motivations. Moderation effects were obvious in Intrinsic linkages with Integrative Self-Knowledge, Mindfulness, Self-Esteem, Anxiety, and Depression and in Extrinsic Personal relationships with all these measures except for Anxiety. Moderation procedures also uncovered the possibility that these two religious motivations can predict poorer rather than better mental health when Muslim religious spirituality is low.

Mediation analyses revealed integration effects because MER at least partially integrated or connected the Intrinsic and Extrinsic Personal motivations with their positive influences. MER partially mediated the Intrinsic tie with the religious adjustment of the Extrinsic Personal Orientation and with the psychological advantage of lower Depression. Full mediation effects also appeared for Intrinsic linkages with greater Mindfulness and Self-Compassion. In addition, MER fully mediated Extrinsic Personal connections higher Mindfulness, Self-Esteem, and Self-Compassion and lower Depression. Full mediation effects, therefore, were more common for the Extrinsic Personal Orientation, perhaps suggesting that Muslim spiritual religiosity was more central in the psychological integration of the Extrinsic Personal than the Intrinsic Religious motivation.

Extrinsic Social Orientation

As in previous Iranian studies, the Extrinsic Social Orientation had ambiguous implications. In correlations, the Extrinsic Social Orientation predicted higher MER, Intrinsic, and Extrinsic Personal scores. MER also partially mediated

Extrinsic Social linkages with these two other religious motivations. The suggestion, therefore, was that the Extrinsic Social Orientation defined at least some variance in religious adjustment.

On the other hand, psychological maladjustment was obvious in Extrinsic Social partial correlations that were negative with Integrative Self-Knowledge, Self-Control, and Self-Esteem and positive correlation with Anxiety. Moderation procedures included a step in which MER and the Extrinsic Social Orientation served as simultaneous predictors of other constructs, and these results uncovered additional Extrinsic Social linkages with lower Self-Control and greater Depression. Significant moderation effects then demonstrated that problematic mental health associations of the Extrinsic Social Orientation with Integrative Self-Knowledge, Mindfulness, Self-Esteem, and Depression appeared only at lower levels of MER. Mediation results made it clear as well that MER suppressed Extrinsic Social linkages with lower Integrative Self-Knowledge, Self-Control, and Self-Esteem and with higher Anxiety.

In short, the Extrinsic Social Orientation once again proved to be ambiguous. This scale predicted more adjusted religious functioning while displaying linkages with psychological maladjustment. Moderation and mediation results then made it clear that the religious spirituality of MER was important in ameliorating the problematic mental health implications of this religious motivation. Among other things, these data suggested that contrasts in the mental health implications of the Extrinsic Social Orientation across studies may be influenced sample differences in Muslim religious spirituality.

Group Contrasts

Again, the higher MER and religious motivations of Islamic seminarians conformed with the 3-1 Model. Deserving additional emphasis, however, were findings that seminarians also self-reported greater psychological maladjustment. Seminarians scored lower than both other groups on Integrative Self-Knowledge, Self-Control, and Self-Esteem. In addition, they were lower than office workers in their Mindfulness and higher than university students in their Depression.

These mental health differences were noteworthy for at least three reasons. First, they most importantly demonstrated that the higher religious spirituality of MER was not a sufficient condition for promoting better mental health. If it had been sufficient, seminarians would have been psychologically healthier than the two other groups. Second, MER, nevertheless, seemed to operate as an adaptive influence across all three groups. Five of seven MER correlations with psychological measures were significant and suggestive of mental health benefits in seminarians. This pattern appeared in six of seven correlations

for university students and in three of seven relationships for office workers. Third, previous studies have yielded inconsistent results with seminarians displaying sometimes better, poorer, or similar adjustment in comparison to university students (e.g., Ghorbani et al., 2014a, 2014b; Ghorbani et al., 2016). Mean, and also correlation, differences between groups appear to require additional research that can account for variations in results across samples before they can be explained. Most importantly, however, MER relationships with psychological adjustment in all three groups confirmed the general validity of the 3-1 Model.

Of further interest were findings that university students and office workers were largely, though not wholly similar. The two groups did not differ in their average MER and religious motivations. They also scored similarly on six of seven psychological measures with the only contrast being the higher Mindfulness of office workers. MER displayed significant linkages with Mindfulness, Self-Compassion, and Anxiety only in university students, but parallels appeared in the four other MER relationships with psychological constructs. Hence, only subtle differences appeared between these two groups, suggesting that findings for Iranian university students may be at least somewhat generalizable to the wider population.

Limitations

Results of this study suggested the usefulness of the 3-1 Model for understanding Muslim religious spirituality. As with any project, procedural limitations, nevertheless, suggest a need for interpretative caution. Three cautions may deserve special emphasis. First, this study examined Muslims living within the overwhelmingly Shiite society of Iran. Generalization of the 3-1 Model to other Muslim societies or to Muslims living as a minority community elsewhere will require additional studies conducted in these other cultural contexts.

Second, desirability response sets might encourage those living in a Muslim society to self-report higher levels of both religiosity and spirituality. Such tendencies might not be limited to social desirability response sets (Jones & Elliott, 2017) but also to desires of religious individuals to describe their faith in more favorable terms (Abu Raiya, 2017). The degree to which such social and theological desirability response sets might influence research into religious spirituality needs to be examined. Perhaps especially interesting would be their possible influences on the Extrinsic Social Orientation.

Third, the 3-1 Model presumes that Muslim spirituality exerts causal effects on Muslim religiosity and vice versa, and findings from this investigation supported that possibility. At the same time, all results were essentially correlational; and correlation cannot establish causation. Relationships between the

spirituality of MER and religiosity could have been the product of their covariance with some other, unexamined variable. Attempts to establish causation will require the use of other research designs.

Conclusion

This investigation most importantly illustrated the heuristic potential of a 3-1 Model of Muslim Religious Spirituality. In a diverse sample of Iranian Muslims, data specifically identified MER as a spiritual bonding with God that seemed to initiate, invigorate, and integrate the adjustment associated with Intrinsic and Extrinsic Personal Religious Orientations. The Extrinsic Social Orientation instead predicted psychological maladjustment, and MER worked against rather than for the invigoration and integration of these liabilities. These Extrinsic Social results consequently seemed to reveal the potentials of a religious spirituality to counter disturbances that may accompany Muslim religious commitments.

Most generally, the 3-1 Model seeks to offer guidance for research into an explicitly religious spirituality. Of obvious interest would be attempts to determine if the model generalizes to Christian, Hindu, Buddhist, and other traditions of religious spirituality. In addition, the model presumes that an explicitly religious spirituality can and should be differentiated from generic spirituality. Needing analysis, therefore, are predictions that a truly generic spirituality should on average be at least equal to or perhaps higher in the spiritual-only type than in the both spiritual and religious type and that this index of generic spirituality should produce less robust 3-1 effects. The question also remains whether similar or different models would be useful in clarifying other possible interactions between the presence and absence of religion and spirituality. What processes, for example, initiate, invigorate, and integrate the functioning of those who are religious but not spiritual, spiritual but not religious, or neither religious or spiritual? Research that attempts to answer these kinds questions might promote greater understanding in the psychology of religion.

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