Pakistan Journal of Applied Psychology (PJAP), 2022, Vol. 3, No. 2, 388-409
DOI: https://doi.org/10.52461/pjap.v3i2.1887 **Original Research**

Influence of Religious Orientation on Mental Health among Middle Adults: Role of Mysticism

Kinza Khalid[1], Najma Iqbal Malik[1] & Irsa Fatima Makhdoom[1]*

Abstract

This research investigates the impact of various religious orientations— intrinsic, extrinsic, and quest—on mental health factors such as well-being, depression, anxiety, and stress among middle-aged adults in Punjab. The study involved 400 participants, equally split by gender, using a purposive convenient sampling method. Standardized scales including the Muslim Religious Orientation Scale (MROS) (Anwar et al., 2019), The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Tennant et al., 2007), Depression Anxiety Stress Scale (DASS) (Lovibond & Lovibond, 1995), and Hood's Mysticism Scale, 8-Item version (Streib et al., 2021) were administered to assess religious orientation, mental well-being, psychopathology, and mysticism respectively. The results indicated positive correlations between religious orientation and both mental well-being and mysticism, and negative correlations with psychopathological symptoms. Furthermore, regression analyses confirmed that all three religious orientations significantly predicted better mental well-being and lower levels of psychopathology. Mysticism was found to significantly mediate the relationship between religious orientation and mental health outcomes. These findings could guide medical practitioners in tailoring treatment plans that consider patients' religious beliefs, potentially enhancing therapeutic outcomes.

Keywords: *Religious orientation; mental health; mysticism*

Corresponding Author:
Najma Iqbal Malik, Professor, Department of Psychology, University of Sargodha, Punjab Pakistan

Correspondence Email:
najmamalik@gmail.com

Introduction and Literature Review

Religion has an important role in an individual's personal and social life. It is vital for adequate human development as they provide meaning to the mysteries of human existence. Religion is considered as the ultimate source that can bring happiness in human life, rationalize and defend inhuman brutal treatment and identify unfair belief systems (Belzen, 1996). Religion portrays a moral net along with an organized system of symbols, practices beliefs with the deliberate intention of being close to Allah (Metthews, 1996). In a global and secular society, the role of religion in mental health is debated, with studies showing various benefits (Diener et al., 2011). Religious orientations, categorized as intrinsic, extrinsic, and quest by Allport and Ross (1967) and further developed by Batson et al. (1993), influence mental health by integrating faith into personal, social, or exploratory dimensions. Rabin and Koenig (2002) emphasize religious orientation as an individual's approach towards spirituality, impacting daily life and moral conduct. Whitley and Kite (2009) also explore how motivational aspects of religious practice affect psychological well-being. Individuals with an intrinsic orientation deeply integrate their faith into daily life, leading to enhanced well-being, optimism, social support, and a purpose-driven existence (Argyle, 2005;

[1] *Department of Psychology, University of Sargodha, Punjab Pakistan*

Lewis & Cruise, 2006). This orientation correlates with positive health outcomes, fostering mental resilience and life satisfaction (Smith et al., 2004; Masters et al., 2005; Holt et al., 2007; Mela et al., 2008; Merrill et al., 2012; Foong et al., 2020). Contrarily, extrinsic orientation has been traditionally viewed negatively, as it often involves using religion for personal benefit (Allport, 1950; Dezutter et al., 2006; Lewis et al., 2005). However, recent insights suggest that extrinsic motivations might also support mental health by fostering strong social networks within religious communities (Cohen, 2004; Salsman et al., 2005).

Quest orientation, characterized by an ongoing reinterpretation and questioning of faith, is linked with psychological flexibility and resilience, enabling individuals to navigate life's adversities more effectively (Van Dyke & Elias, 2007; Maltby & Day, 2003). This orientation encourages a dynamic engagement with faith, continuously seeking deeper understanding and meaning.

Mental health encompasses more than the absence of illness; it involves realizing personal potential, coping effectively with stress, working productively, and contributing to one's community (Raja et al., 2009). Religious orientations significantly enhance these facets of mental health by providing coping mechanisms through spiritual practices, offering a sense of community, and enhancing overall well-being (Spilka et al., 2003; Cook, 2020; Koenig, 2009; Ismail & Deshmukh, 2012; Khaki & Sadeghi Habibabad, 2021).

Mysticism plays a crucial mediating role between religiosity and mental health, offering transformative experiences of transcendence that contribute to profound psychological peace, joy, and fulfillment (Canda et al., 2019; Ryckman et al., 2004). Hood et al. (1993) categorized mysticism into extrovertive, introvertive, and interpretative dimensions, each influencing the individual's life and mental health in unique ways.

The positive effects of religiosity on mental health have been documented across various cultural contexts, demonstrating its correlation with life satisfaction and well-being among diverse demographic groups (Tiliouine and Belgoumidi, 2009; Abdel-Khalek, 2007; Miller and Kelley, 2005; Sözer and Eskin, 2023). In Pakistan, where the population heavily relies on religious coping mechanisms during health crises, the benefits of religious orientation on mental health are especially significant (Shafiq, 2020; Sohail et al., 2020).

Key empirical studies frame this discussion, including Adamu (2006), who observed a strong correlation between strict religious orientation and improved mental health among Nigerian workers. Research by Maltby and Day (2003) and Baetz et al. (2002) highlighted how intrinsic religiosity fosters lower depression levels and greater psychological resilience. The quest orientation's ability to help individuals manage adversity through continuous spiritual exploration has also been emphasized as beneficial for mental health (Maltby & Day, 2003). The role of mystical experiences in mental health, deeply entrenched in both personal and communal religious practices, has been extensively explored by scholars like William James and contemporary researchers such as Hood (Hood, 2013; Hood et al., 2009, 2018). These experiences often lead to ineffability, a loss of ego, and a profound connection to something greater than oneself, which are integral to psychological health and personal growth.

Research Gap

Research on the relationship between religiosity and mental health has largely focused on older adults and Western contexts (Clayton-Jones et al. 2019; Paulk 2017) with less attention to middle-aged adults in Pakistan, a predominantly Muslim country. The proposed study is novel in integrating the constructs of religious orientation, mental health, and mysticism within the Pakistani context. This research aims to address gaps in how religion influences health among Pakistani Muslims, in a setting where severe illness often coincides with significant financial burdens. The study seeks to contribute to a more comprehensive global understanding of religion's role in health.

Rationale of the study

This study examines the impact of religious orientation on mental health among middle-aged Pakistani Muslims, highlighting the role of mysticism as a mediator. It explores how Islamic religious heritage aids in coping with stress (Haque, 2004) and contrasts how Muslims in Pakistan integrate religion versus non-Muslims and Westerners. Findings suggest religious engagement enhances social and academic outcomes and serves as a coping tool in adversity (Walker, 2020), while non-religious individuals often experience higher psychological distress (Chen et al., 2020). The study underscores the influence of religious beliefs on mental well-being in this specific demographic (Pierce Jr et al., 2007; Wills et al., 2003).

Objectives

1. To identify the relationship between religious orientation, mental health and mysticism.
2. To check the mediating role of mysticism between religious orientation and mental health.

Hypotheses

Hypotheses of the current study which is in line with the literature review are as follows:

Hypothesis 1: *Intrinsic religious orientation will positively predict mental health.*

Hypothesis 2: *Extrinsic religious orientation will negatively predict mental health.*

Hypothesis 3: *Quest religious orientation will positively predict mental health.*

Hypothesis 4: *Mysticism will mediate the relationship of religious orientation and mental health.*

Materials and Method

Research Design

A cross-sectional research design was used in this study.

Sample size and sampling

The current study was conducted on a sample of (N = 400) middle adults of age range 36 to 55 years which were further categorized into (n = 200) men and (n = 200) women. G power analysis for sample adequacy also confirmed that the sample size of 400 is sufficient to draw inferences from data in the present study. The current study sample was approached through a purposive sampling technique and a random sampling technique was used to obtain the sample.

Participants Characteristics

The data were collected from educated Muslim individuals across Punjab, excluding non-Muslims and those with chronic illnesses. The sample consisted largely of middle-class status, with a mix of Shia (28%) and Sunni (50.8%) participants, and a notable percentage not identifying with any sect (21.2%). The majority of participants were married (91.8%), lived in urban areas (83.5%), and were from nuclear families (75.5%). Employment status was nearly split, with 45.8% employed and 54.2% unemployed.

Measures

Muslim Religious Orientation Scale (MROS). Muslim religious orientation scale (Anwar et al., 2019) was used to measure the three aspects of religious orientation i.e., extrinsic religious orientation, intrinsic religious orientation and quest religious orientation. It consists of 22 items on a five-point Likert scale varying from 0 = total disagreement to 4 = complete acceptance. MROS has total .90 Cronbach alpha and .94, .74 and .60 Cronbach alpha for extrinsic, quest and intrinsic sub-scales respectively (Anwar et al., 2019).

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS), developed by Tennant et al. in 2007, measures mental health through 14 items assessing both hedonic and eudemonic aspects, such as positive affect, relationships, and functioning. It uses a 5-point Likert scale, with scores ranging from 14 to 70, where higher scores indicate greater mental well-being. The reliability of the scale is supported by a Cronbach's Alpha of 0.89.

Depression Anxiety Stress Scale (DASS). The Depression Anxiety Stress Scales (DASS), developed by Lovibond and Lovibond in 1995, is a 21-item self-report inventory designed to measure three psychological factors: depression, anxiety, and stress. It employs a 4-point Likert scale ranging from 0 (did not apply at all) to 3 (applies very much), with specific items assigned to each factor without any reverse scoring. The reliability of the scale is confirmed with Cronbach's Alpha values of 0.71 for depression, 0.79 for anxiety, and 0.81 for stress.

Hood's Mysticism Scale, 8-Item versions. Hood's Mysticism Scale, specifically the brief 8-item version developed by Streib et al. in 2021, categorizes mystical experiences into three subscales—introvertive, extravertive mysticism, and interpretation—using a 5-point accuracy scale. The scale shows high reliability with scores ranging from .86 to .90.

Procedure

The research proposal received ethical approval from the University of Sargodha's Department of Psychology and was conducted in various settings including homes, universities, hospitals, and mosques. Informed consent was obtained from participants who were individually briefed about the study's purpose and completed questionnaires with guidance available from the researcher. Confidentiality of participant data was assured, and the research used convenient sampling with 442 out of 460 distributed questionnaires returned, excluding 42 for irregular response patterns. Data was analyzed using SPSS-22 after screening for validity and normalcy assumptions. Participants were thanked for their essential contributions to the psychological study.

Analysis Plan

Collected data was initially screened with purpose of data cleaning and afterward 400 total questionnaires were analyzed with SPSS-22. For hypothesis testing psychometric analysis of study scales were done to determine mean, standard deviation and alpha reliabilities. Pearson's correlation was computed to determine the correlation between variables. Afterwards, regression analyses were conducted to determine causal relationship pattern, prediction and mediation by using PROCESS Macro by Hayes.

Results

Table 1. Means, standard deviations, alpha reliability and correlations among study variables (*N* = 400).

Variables	M	SD	α	1	2	3	4	5	6	7	8	9	10	11	12	13
1.RO	79.67	14.36	.88	-	.80***	.91***	.73***	.60***	-.31***	-.28***	-.32***	-.25***	.19***	.18***	.10	.19***
2.Intrinsic	25.44	5.39	.91		-	.64***	.32***	.61***	-.41***	-.41***	-.44***	-.27***	.23***	.16**	.11*	.31***
3.Extrinsic	35.05	6.99	.77			-	.52***	.53***	-.24***	-.22***	-.24***	-.20***	.07	.11*	.03	.05
4.Quest	19.18	5.05	.71				-	.30***	-.11*	-.05	-.11*	-.15**	.18***	.21***	.12*	.13*
5.MWB	50.69	11.92	.92					-	-.59***	-.56***	-.58***	-.47***	.27***	.23***	.14**	.32***
6.DASS	21.23	13.21	.92						-	.94***	.90***	.91***	-.07	-.04	.02	-.15**
7.Depression	6.72	5.06	.87							-	.79***	.78***	-.07	-.03	.03	-.15**
8.Anxiety	5.99	4.53	.83								-	.70***	-.08	-.05	.01	-.16**
9.Stress	8.51	4.83	.74									-	-.05	-.03	.01	-.09
10.Mysticism	24.99	7.10	.86										-	.88***	.83***	.91***
11.Introvertive	8.83	3.01	.67											-	.58***	.69***
12.Extrovertive	6.23	2.06	.56												-	.68***
13.Interpretation	9.92	3.00	.76													-

Note. RO = religious orientation; MWB = mental well-being; DASS = depression anxiety stress scale.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 1 reveals that alpha reliabilities for scales used in the study among middle adults ranged from .56 to .92, with extrovertive mysticism having the lowest (.56) and DASS and mental well-being the highest (.92) reliabilities. Significant positive correlations were found between religious orientations (intrinsic, extrinsic, quest), mental well-being, and all mysticism subscales, while showing negative correlations with the DASS and its subscales. Mysticism also correlated positively within its own subscales and showed significant negative correlations with DASS depression and anxiety.

Table 2. Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Mental Health through Mysticism (*N* = 400).

Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Mental Well-Being through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Mental Well-Being through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Mental Well-Being through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROI	MI	.09**	.03	.14	ROI	ME	.04*	.00	.08	ROI	MInter	.17***	.12	.23
MI	MWB	.38	-.04	.81	ME	MWB	-.35	-.97	.27	MInter	MWB	.47	-.03	.97
ROI	MWB	1.25***	1.07	1.43	ROI	MWB	1.25***	1.07	1.43	ROI	MWB	1.25***	1.07	1.43

ROI through MI	MWB	.03	.00	.08	ROI through ME	MWB	-.01	-.05	.01	ROI through MInter	MWB	.08	-.01	.18
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Depression through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Depression through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Depression through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROI	MI	.09**	.03	.14	ROI	ME	.04*	.00	.08	ROI	MInter	.17***	.12	.23
MI	Depression	.10	-.11	.31	ME	Depression	.40*	.10	.72	MInter	Depression	-.32*	-.57	-.07
ROI	Depression	-.35***	-.44	-.26	ROI	Depression	-.35***	-.44	-.26	ROI	Depression	-.35***	-.44	-.26
ROI through MI	Depression	.01	-.01	.03	ROI through ME	Depression	.02	-.00	.04	ROI through MInter	Depression	-.06	-.10	-.01
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Anxiety through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Anxiety through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Intrinsic on Anxiety through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROI	MI	.09**	.03	.14	ROI	ME	.04*	.00	.08	ROI	MInter	.17***	.12	.23
MI	Anxiety	.07	-.12	.26	ME	Anxiety	.27*	.00	.55	MInter	Anxiety	-.22	-.44	.00
ROI	Anxiety	-.35***	-.43	-.27	ROI	Anxiety	-.35***	-.43	-.27	ROI	Anxiety	-.35***	-.43	-.27
ROI through MI	Anxiety	.01	-.01	.03	ROI through ME	Anxiety	.01	-.00	.03	ROI through MInter	Anxiety	-.04	-.08	.00
Standardized Path Coefficients for Direct and Indirect Effects of Religious					**Standardized Path Coefficients for Direct and Indirect Effects of Religious**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious**				

Orientation Intrinsic on Stress through Mysticism Introvertive					**Orientation Intrinsic on Stress through Mysticism Extrovertive**					**Orientation Intrinsic on Stress through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	*β*	95%CI		Predictor Variable	Outcome Variable	*β*	95%CI		Predictor Variable	Outcome Variable	*β*	95%CI	
			LL	UL				LL	UL				LL	UL
ROI	MI	.09**	.03	.14	ROI	ME	.04*	.00	.08	ROI	MInter	.17***	.12	.23
MI	Stress	.04	-.18	.25	ME	Stress	.20	-.11	.51	MInter	Stress	-.14	-.39	.11
ROI	Stress	-.23***	-.32	-.14	ROI	Stress	-.23***	-.32	-.14	ROI	Stress	-.23***	-.32	-.14
ROI through MI	Stress	.00	-.01	.02	ROI through ME	Stress	.01	-.00	.03	ROI through MInter	Stress	-.02	-.06	.01

Note. MWB = Mental Well-Being; ROI = Religious Orientation Intrinsic; MI = Mysticism Introvertive; ME = Mysticism Extrovertive; MInter = Mysticism Interpretation
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2 outlines the effects of intrinsic religious orientation on mental health, with a significant direct positive impact on mental well-being and negative impacts on depression, anxiety and stress in middle-aged adults, with model variances explained being 37%, 17%, 19% and 7% respectively. Mysticism as a mediator had a significant indirect effect on mental well-being via introvertive mysticism, and on depression via interpretation mysticism, but showed no significant indirect effects on anxiety or stress. The findings demonstrate varied impacts of different types of mysticism on mental health outcomes, with no significant effects from mysticism on anxiety or stress.

Figure 1

Mysticism Introvertive mediating the relationship between Religious Orientation Intrinsic and Mental Well-Being among Middle Adults

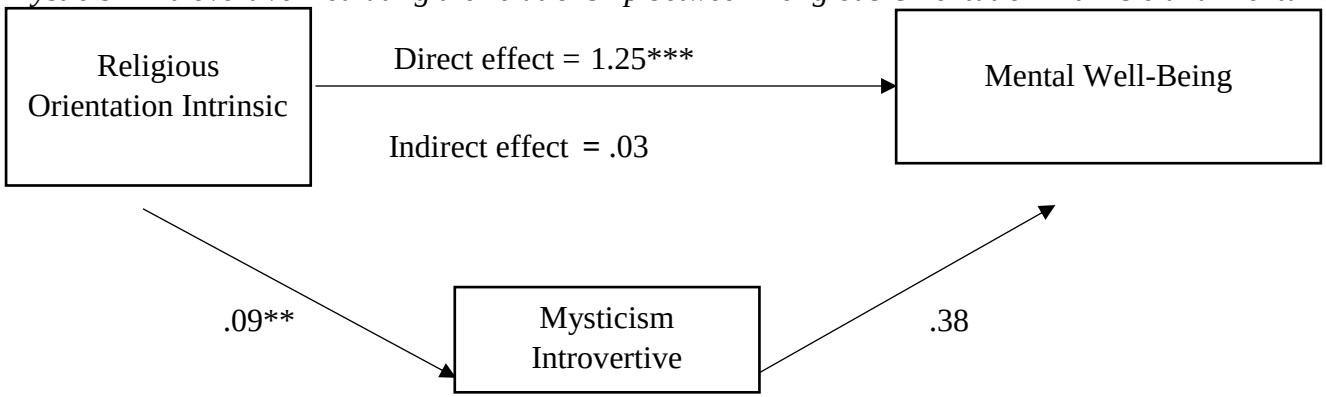


Figure 2

Mysticism Interpretation mediating the relationship between Religious Orientation Intrinsic and Depression among Middle Adults

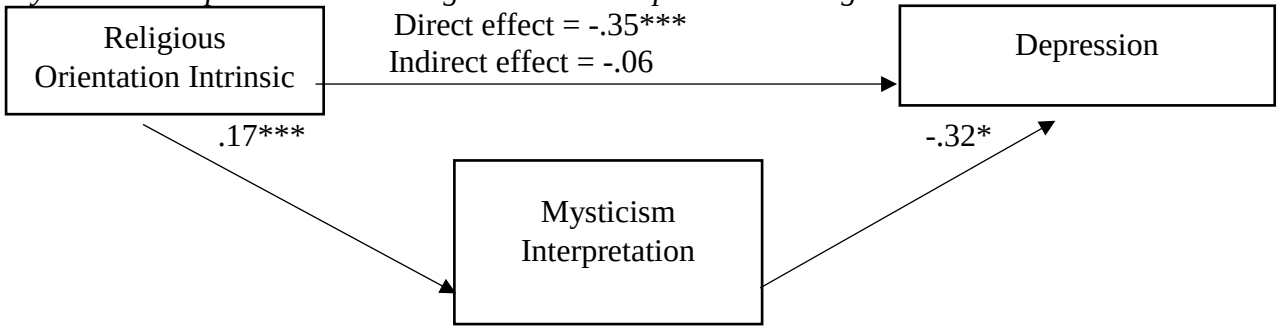


Table 3. Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Mental Health through Mysticism (*N* = 400).

Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Mental Well-Being through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Mental Well-Being through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Mental Well-Being through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	*β*	95%CI		Predictor Variable	Outcome Variable	*β*	95%CI		Predictor Variable	Outcome Variable	*β*	95%CI	
			LL	UL				LL	UL				LL	UL
ROE	MI	.04*	.00	.09	ROE	ME	.01	-.02	.04	ROE	MInter	.02	-.02	.06
MI	MWB	-.07	-.51	.36	ME	MWB	-.83**	-1.46	-.21	MInter	MWB	1.62***	1.13	2.10
ROE	MWB	.89***	.76	1.02	ROE	MWB	.89***	.76	1.02	ROE	MWB	.89***	.76	1.02
ROE through MI	MWB	-.00	-.02	.02	ROE through ME	MWB	-.01	-.04	.02	ROE through MInter	MWB	.03	-.05	.11

Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Depression through Mysticism Introvertive			**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Depression through Mysticism Extrovertive**			**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Depression through Mysticism Interpretation**		
	β	95%CI		*β*	95%CI		*β*	95%CI

Predictor Variable	Outcome Variable		LL	UL	Predictor Variable	Outcome Variable		LL	UL	Predictor Variable	Outcome Variable		LL	UL
ROE	MI	.04*	.00	.09	ROE	ME	.01	-.02	.04	ROE	MInter	.02	-.02	.06
MI	Depression	.20	-.02	.42	ME	Depression	.55***	.23	.87	MInter	Depression	-.64***	-.88	-.39
ROE	Depression	-.16***	-.23	-.09	ROE	Depression	-.16***	-.23	-.09	ROE	Depression	-.16***	-.23	-.09
ROE through MI	Depression	.00	-.00	.00	ROE through ME	Depression	.00	-.00	.00	ROE through MInter	Depression	-.00	-.01	.00
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Anxiety through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Anxiety through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Anxiety through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROE	MI	.04*	.00	.09	ROE	ME	.01	-.02	.04	ROE	MInter	.02	-.02	.06
MI	Anxiety	.17	-.03	.36	ME	Anxiety	.42**	.13	.71	MInter	Anxiety	-.53***	-.75	-.31
ROE	Anxiety	-.16***	-.22	-.09	ROE	Anxiety	-.16***	-.22	-.09	ROE	Anxiety	-.16***	-.22	-.09
ROE through MI	Anxiety	.01	-.00	.02	ROE through ME	Anxiety	.00	-.01	.02	ROE through MInter	Anxiety	-.01	-.04	.01
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Stress through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Stress through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Extrinsic on Stress through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROE	MI	.04*	.00	.09	ROE	ME	.01	-.02	.04	ROE	MInter	.02	-.02	.06
MI	Stress	.11	-.11	.32	ME	Stress	.29	-.02	.61	MInter	Stress	-.35**	-.59	-.11

ROE	Stress	-.14***	-.20	-.07	ROE	Stress	-.14***	-.20	-.07	ROE	Stress	-.14***	-.20	-.07
ROE through MI	Stress	.01	-.00	.02	ROE through ME	Stress	.00	-.01	.01	ROE through MInter	Stress	-.01	-.03	.01

Note. MWB = Mental Well-Being; ROE = Religious Orientation Extrinsic; MI = Mysticism Introvertive; ME = Mysticism Extrovertive; MInter = Mysticism Interpretation
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 3 reveals that extrinsic religious orientation significantly and directly impacts mental health among middle adults, positively affecting mental well-being (β = .89) and negatively impacting depression (β = -.16), anxiety (β = -.16), and stress (β = -.14). Mysticism has mixed direct effects; interpretation mysticism enhances mental well-being (β = 1.62) and reduces depression (β = -.64) and anxiety (β = -.53), whereas extrovertive mysticism generally worsens outcomes except in anxiety where it has a positive effect (β = .42). The explained variances in mental well-being, depression, anxiety, and stress are 29%, 5%, 6%, and 4% respectively, indicating the significant but varying influence of these factors on different aspects of mental health.

Table 4. Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Mental Health through Mysticism (*N* = 400).

Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Mental Well-Being through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Mental Well-Being through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Mental Well-Being through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	*β*	95%CI		Predictor Variable	Outcome Variable	*β*	95%CI		Predictor Variable	Outcome Variable	*β*	95%CI	
			LL	UL				LL	UL				LL	UL
ROQ	MI	.13***	.07	.18	ROQ	ME	.05*	.01	.09	ROQ	MInter	.08*	.02	.13
MI	MWB	-.02	-.52	.48	ME	MWB	-.97**	-1.69	-.25	MInter	MWB	1.60***	1.04	2.16
ROQ	MWB	.65***	.43	.86	ROQ	MWB	.65***	.43	.86	ROQ	MWB	.65***	.43	.86
ROQ through MI	MWB	-.00	-.06	.06	ROQ through ME	MWB	-.05	-.12	-.00	ROQ through MInter	MWB	.12	.02	.25
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Depression through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Depression through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Depression through Mysticism Interpretation**				

Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROQ	MI	.13***	.07	.18	ROQ	ME	.05*	.01	.09	ROQ	MInter	.08*	.02	.13
MI	Depression	.16	-.06	.40	ME	Depression	.58***	.25	.91	MInter	Depression	-.63***	-.88	-.37
ROQ	Depression	-.05	-.15	.05	ROQ	Depression	-.05	-.15	.05	ROQ	Depression	-.05	-.15	.05
ROQ through MI	Depression	.02	-.00	.05	ROQ through ME	Depression	.03	.00	.06	ROQ through MInter	Depression	-.05	-.10	-.01
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Anxiety through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Anxiety through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Anxiety through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROQ	MI	.13***	.07	.18	ROQ	ME	.05*	.01	.09	ROQ	MInter	.08*	.02	.13
MI	Anxiety	.15	-.05	.35	ME	Anxiety	.44**	.15	.74	MInter	Anxiety	-.53***	-.75	-.30
ROQ	Anxiety	-.10*	-.19	-.01	ROQ	Anxiety	-.10*	-.19	-.01	ROQ	Anxiety	-.10*	-.19	-.01
ROQ through MI	Anxiety	.02	-.01	.05	ROQ through ME	Anxiety	.02	.00	.05	ROQ through MInter	Anxiety	-.04	-.08	-.00
Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Stress through Mysticism Introvertive					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Stress through Mysticism Extrovertive**					**Standardized Path Coefficients for Direct and Indirect Effects of Religious Orientation Quest on Stress through Mysticism Interpretation**				
Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI		Predictor Variable	Outcome Variable	β	95%CI	
			LL	UL				LL	UL				LL	UL
ROQ	MI	.13***	.07	.18	ROQ	ME	.05*	.01	.09	ROQ	MInter	.08*	.02	.13
MI	Stress	.12	-.10	.34	ME	Stress	.32*	.00	.63	MInter	Stress	-.35**	-.60	-.11

ROQ	Stress	-.15**	-.24	-.05	ROQ	Stress	-.15**	-.24	-.05	ROQ	Stress	-.15**	-.24	-.05
ROQ through MI	Stress	.02	-.01	.04	ROQ through ME	Stress	.02	-.00	.04	ROQ through MInter	Stress	-.03	-.06	-.00

Note. MWB = Mental Well-Being; ROQ = Religious Orientation Quest; MI = Mysticism Introvertive; ME = Mysticism Extrovertive; MInter = Mysticism Interpretation
* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4 shows that Quest religious orientation positively influences mental well-being directly (β = .65) and also indirectly through mysticism interpretation (β = .12), while having varied effects on depression, anxiety, and stress in middle-aged adults. Extrovertive mysticism negatively impacts mental well-being (β = -.97), yet has positive indirect effects on depression and anxiety. Interpretation mysticism enhances mental well-being (β = 1.60) and reduces depression, anxiety, and stress significantly. Overall, the Quest orientation shows significant direct and indirect effects on mental health mediated through different aspects of mysticism.

Figure 3

Mysticism Extrovertive mediating the relationship between Religious Orientation Quest and Mental Well-Being among Middle Adults

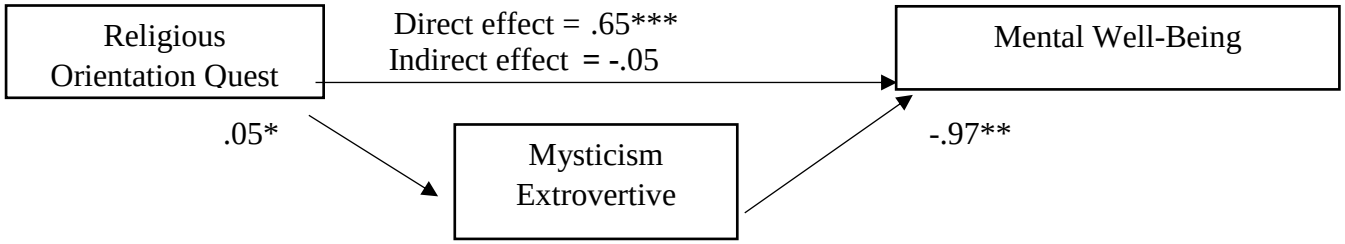


Figure 4

Mysticism Interpretation mediating the relationship between Religious Orientation Quest and Mental Well-Being among Middle Adults

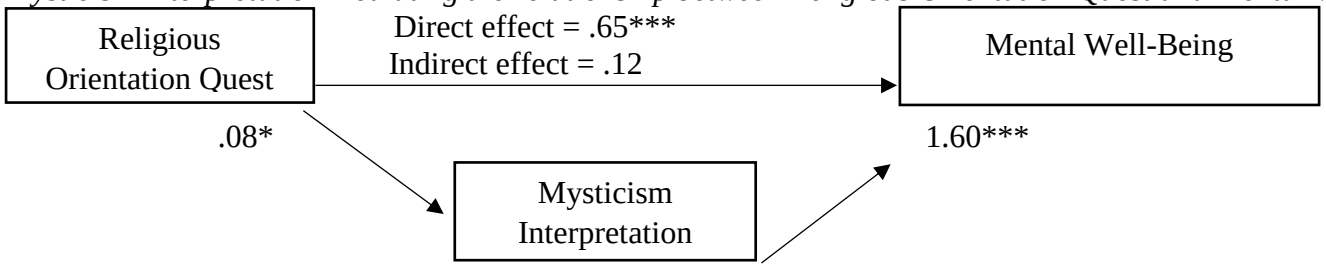


Figure 5

Mysticism Extrovertive mediating the relationship between Religious Orientation Quest and Depression among Middle Adults

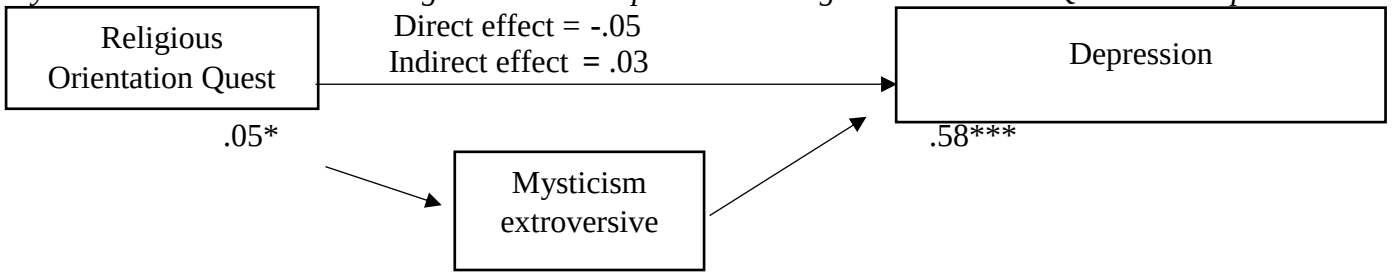


Figure 6

Mysticism Interpretation mediating the relationship between Religious Orientation Quest and Depression among Middle Adults

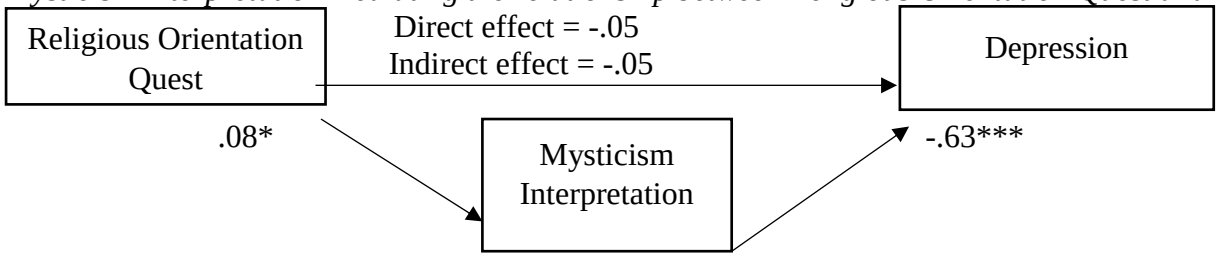


Figure 7

Mysticism Extrovertive mediating the relationship between Religious Orientation Quest and Anxiety among Middle Adults

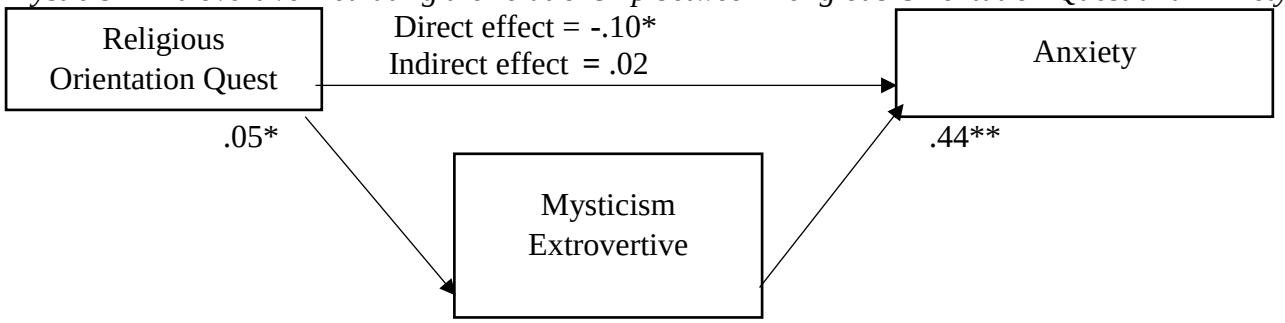


Figure 8

Mysticism Interpretation mediating the relationship between Religious Orientation Quest and Anxiety among Middle Adults

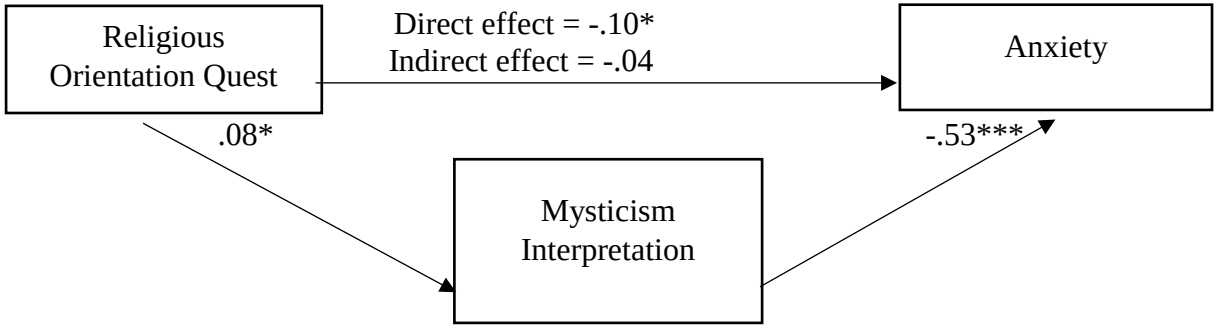
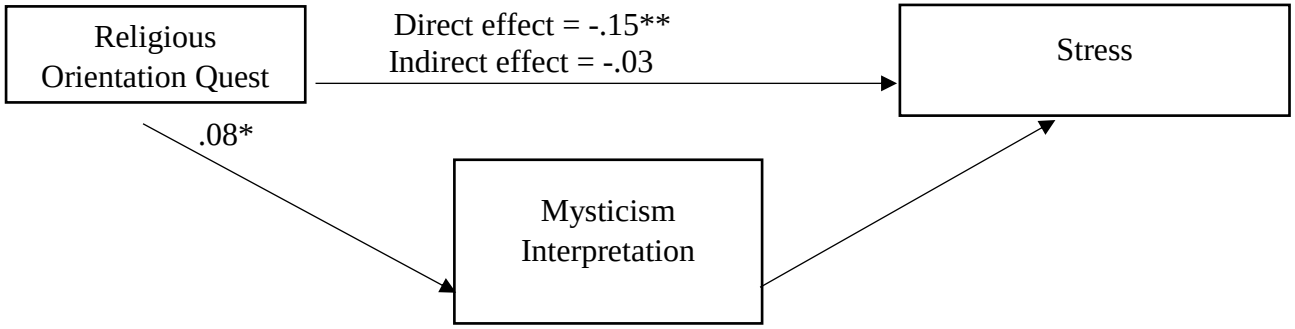


Figure 9

Mysticism Interpretation mediating the relationship between Religious Orientation Quest and Stress among Middle Adults



Discussion

This study investigated the impact of different religious orientations— intrinsic, extrinsic, and quest—on mental health among middle-aged adults, with a focus on the mediating role of mysticism. The results confirmed that intrinsic religious orientation positively influences mental health, aligning with previous literature suggesting that such orientation involves a deep, personal integration of religion which enhances well-being (Garssen et al., 2021). Argyle (2005) and Lewis and Cruise (2006) noted that individuals with an intrinsic orientation tend to live their religion deeply, enhancing their optimism, social support, and overall life satisfaction.

Contrary to expectations, the study found that extrinsic religious orientation, which Allport (1950) described as using religion for self-serving ends such as social status, also positively predicted mental health. This could be reinterpreted as seeking social support within religious communities, a behavior linked to positive mental health outcomes (Cohen, 2004; Salsman et al., 2005). According to research on social networks and social capital, enhancing a person's social network is good for their health (Giordano & Lindstrom, 2010; Schultz et al., 2008). Such networks can significantly enhance well-being, suggesting a beneficial link between social religiosity and mental health (Diener & Seligman, 2004; Ariandi et al., 2018).

The third orientation, quest, was associated with a continual search for meaning and was found to positively impact mental health. This aligns with Van Dyke and Elias's (2007) view that quest-oriented individuals use their spirituality as a coping mechanism, fostering resilience against negative life events and contributing to better mental health. However, the contemporary analyst discovered religion and prosperity as beneficent and benevolent fundamentals of mental well-being (MahdiNejad et al., 2020; Pastwa-Wojciechowska et al., 2021).

Furthermore, the study established that mysticism mediates the relationship between religious orientation and mental health. Individuals with a strong intrinsic orientation were more likely to engage in mysticism (Chen et al., 2012; Hunter & Merrill, 2013; Stokes, 2021), which in turn enhanced their mental well-being. This finding supports the notion that deeper religious engagement, characterized by intrinsic and mystical experiences, promotes psychological health. This research demonstrates that mystical experiences can significantly enhance mental health, corroborating findings from prior studies (Hood, 1974; Hood, 1975; Kangaslampi, 2023). Despite being viewed positively across various religious traditions and described as joyous and useful, empirical research, including questionnaire-based studies, sometimes indicates a connection between mysticism and psychological maladjustment (Stace, 1960; Ghorbani & Watson, 2007; Francis et al., 2017). This duality suggests that while mysticism is acknowledged as beneficial in philosophical contexts, its psychological impacts can vary (Ghorbani et al., 2007; Van der Tempel & Moodley, 2020), illustrating its complex role in mental health and supporting its potential as a mediating factor in mental well-being.

Conclusion

The present research was dedicated to multi-dimensional concern of understanding the influence of religious orientation (intrinsic, extrinsic and quest) on mental health and role of mysticism. According to results all the instruments used in present study were applicable in Pakistani culture and had sound psychometric properties. The findings of present study revealed that more religious individuals have better mental health outcomes among middle adults. It was also found that mysticism significantly mediates the relationship of religious orientation and mental health among middle adults.

Limitations and Suggestions

The current study utilized a cross-sectional design, limiting its ability to discern causal relationships and differentiate between cohort effects and normative development. The reliance on self-report measures might compromise the accuracy of data due to potential respondent bias. While the study drew from a large sample within Punjab, its findings are not generalizable across Pakistan or beyond the Muslim population. Additionally, it did not control for potentially confounding demographic variables like medical conditions, marital status, employment, education, menopausal status in women, and family system.

Implications of study

This study explores the impact of three religious orientations (intrinsic, extrinsic, and quest) on the mental health of Pakistani Muslim middle adults, providing insights that can inform spiritually sensitive counseling practices (Hodge, 2001). The findings highlight the importance of psychological flexibility in managing depression and anxiety, suggesting that religious orientation may influence mental health outcomes (Barlow & Durand, 2008; Soriano et al., 2004; Hayes et al., 2006). These insights are crucial for mental health professionals in Pakistan, where the mental health infrastructure is underdeveloped. Additionally, the results could help policymakers develop strategies to foster interfaith harmony and support the mental well-being of the community.

Conflict of Interest: There was no significant conflict of interest in this research.

Funding Disclosure: There was no funding disclosure in this research.

Author's Contribution: Kinza Khalid (Data collection, Analysis and Writeup) Najma Iqbal Malik (Conceptualization, Design and Final review), and Isra Fatima Makhdoom (statistical analyses and data interpretation)**.**

References

Abdel-Khalek, A. M. (2007). Religiosity, happiness, health, and psychopathology in a probability sample of Muslim adolescents. *Mental Health, Religion and Culture*, *10*(6), 571-583. https://doi.org/10.1080/13674670601034547

Adamu, V. Y. (2006). Religious orientation, health locus of control and percieved stress among hospital workers in Abuja Nigeria. *IFE Psychologia: an International Journal*, *14*(2), 205-224.https://hdl.handle.net/10520/EJC38660

Allport, G. W. (1950). *The individual and his religion: a psychological interpretation.* Macmillan.

Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology, 5*(4), 432–443.

Andersen, M., Schjoedt, U., Nielbo, K. L., & Sørensen, J. (2014). Mystical experience in the lab. *Method & Theory in the Study of Religion*, *26*(3), 217-245.https://doi.org/10.1163/15700682-12341323

Anwar, M., Malik, N. I., & Atta, M. (2019). Development and validation of Muslims religious orientation scale. *Pakistan Journal of Psychology*, *50*(1), 3.

Argyle, M. (2005). *Psychology and religion: An introduction*. Routledge.

Ariandi, V., Hadi, F., & Irawan, D. (2018). Sistem Pendukung Keputusan Dalam Penentuan Suku Cadang Yang Laris Pada Kharisma Motor Dengan Metoda Topsis Dan Bordadi. *JurnalKomtekInfo (KomputerTeknologiInformasi)*, *5*(1), 11-22.

Baetz, M. I. L., Larson, D. V. B., Marcoux, G., Bowen, R., & Grif fin, R. (2002). Canadian psychiatric inpatient religious commitment: An association with mental health. *The Canadian Journal of Psychiatry*, *47*(2), 159-166.https://doi.org/10.1177%2F070674370204700206

Barlow, D. H., & Durand, V. M. (2008). *Psicopatologia: uma abordagem integrada*. Cengage Learning.

Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective*. New York: Oxford University Press.

Belzen, J. A. (1996). Beyond a classic? Hjalmar Sundén's role theory and contemporary narrative psychology. *The International Journal for the Psychology of Religion*, *6*(3), 181-199.https://doi.org/10.1207/s15327582ijpr0603_6

Canda, E. R., Furman, L. D., & Canda, H. J. (2019). *Spiritual diversity in social work practice: The heart of helping*. Oxford University Press, USA.

Chen, Y., Kim, E. S., & VanderWeele, T. J. (2020). Religious-service attendance and subsequent health and well-being throughout adulthood: evidence from three prospective cohorts. *International journal of epidemiology*, *49*(6), 2030-2040. https://doi.org/10.1093/ije/dyaa120

Chen, Z., Zhang, Y., Hood, R. W., & Watson, P. J. (2012). Mysticism in chinese christians and non-christians: Measurement invariance of the mysticism scale and implications for the mean differences. *International Journal for the Psychology of Religion, 22(2), 155–168.* doi:10.1080/10508619.2011.638586

Clayton-Jones, D., Haglund, K. A., Schaefer, J., Koenig, H. G., & Dalmida, S. G. (2019). Use of the spiritual development framework in conducting spirituality and health research with adolescents. *Journal of Religion and Health*. https://doi.org/10.1007/s10943-018-00752-z.

Cohen, S. (2004). Social relationships and health. *American Psychologist*, *59*(8), 676-684.

Cook, C. C. (2020). Spirituality, religion & mental health: exploring the boundaries. *Mental Health, Religion & Culture*, *23*(5), 363-374. https://doi.org/10.1080/13674676.2020.1774525

Dezutter, J., Soenens, B., & Hutsebaut, D. (2006). Religiosity and mental health: A further exploration of the relative importance of religious behaviors vs. religious attitudes. *Personality and Individual Differences*, *40*(4), 807-818.https://doi.org/10.1016/j.paid.2005.08.014

Diener, E., & Seligman, M. E. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, *5*(1), 1-31. DOI: https://doi.org/10.1111/j.0963-7214.2004.00501001.x

Diener, E., Tay, L., & Myers, D. G. (2011). The religion paradox: If religion makes people happy, why are so many dropping out? *Journal of Personality and Social Psychology, 101*(6), 1278–1290. https://doi.org/10.1037/a0024402

Foong, H. F., Hamid, T. A., Ibrahim, R., & Haron, S. A. (2020). The association between religious orientation and life satisfaction in older adults living with morbidity and multimorbidity: a gender perspective in Malaysia. *Psychogeriatrics*, *20*(6), 891-899.https://doi.org/10.1111/psyg.12614

Francis, L. J., Ok, U., & Robbins, M. (2017). Mystical orientation and psychological health: a study among university students in Turkey. *Mental Health, Religion & Culture*, *20*(4), 405-412. https://doi.org/10.1080/13674676.2017.1328403

Garssen, B., Visser, A., & Pool, G. (2021). Does spirituality or religion positively affect mental health? Meta-analysis of longitudinal studies. *The International Journal for the Psychology of Religion*, *31*(1), 4-20. https://doi.org/10.1080/10508619.2020.1729570

Ghorbani, N., & Watson, P. J. (2007). Mysticism and self-determination in Iran: multidimensional complexity of relationships with basic need satisfaction and mindfulness. Manuscript under review.

Ghorbani, N., Watson, P. J., & Rostami, R. (2007). Relationship of self-reported mysticism with depression and anxiety in Iranian Muslims. *Psychological Reports*, *100*(2), 451-454.https://doi.org/10.2466%2Fpr0.100.2.451-454

Giordano, G. N., & Lindstrom, M. (2010). The impact of changes in different aspects of social capital and material conditions on self-rated health over time: a longitudinal cohort study. *Social Science &Medicine*, *70*(5), 700-710.https://doi.org/10.1016/j.socscimed.2009.10.044

Griffin, D. R. (2002). Scientific Naturalism, the Mind-Body Relation, and Religious Experience. *Zygon®*, *37*(2), 361-380.https://doi.org/10.1111/0591-2385.00433

Haque, A. (2004). Psychology from Islamic perspective: Contributions of early Muslim scholars and challenges to contemporary Muslim psychologists. *Journal of Religion and Health*, *43*(4), 357-377.https://doi.org/10.1007/s10943-004-4302-z

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, *44*(1), 1-25. https://doi.org/10.1016/j.brat.2005.06.006

Hodge, D. R. (2001). Spiritual assessment: A review of major qualitative methods and a new framework for assessing spirituality. *Social Work*, *46*(3), 203-214.https://doi.org/10.1093/sw/46.3.203

Holt, C. L., Clark, E., & Klem, P. R. (2007). Expansion and validation of the spiritual health locus of control scale: factorial analysis and predictive validity. *Journal of Health Psychology, 12*(4), 597-612.https://doi.org/10.1177/1359105307078166

Hood Jr, R. W. (1974). Psychological strength and the report of intense religious experience. *Journal for the Scientific Study of Religion*, 65-7. DOI: .https://doi.org/10.2307/1384801

Hood Jr, R. W. (1975). The construction and preliminary validation of a measure of reported mystical experience. *Journal for the Scientific Study of Religion*, 29-41. DOI: https://doi.org/10.2307/1384454

Hood Jr, R. W., Hill, P. C., & Spilka, B. (2018). *The psychology of religion: An empirical approach*. Guilford Publications.

Hood Jr, R. W., Morris, R. J., & Watson, P. J. (1993). Further factor analysis of Hood's Mysticism Scale. *Psychological Reports, 73*(3_suppl), 1176-1178.https://doi.org/10.2466%2Fpr0.1993.73.3f.1176

Hood, R. W. (2013). Theory and methods in the psychological study of mysticism. *International Journal for the Psychology of Religion, 23*(4), 294-306.https://doi.org/10.1080/10508619.2013.795803

Hood, R. W., Jr., Hill, P. C., & Spilka, B. (2009). *The psychology of religion: An empirical approach (4th ed.).* New York, NY: Guilford Press.

Hunter, B. D., & Merrill, R. M. (2013). Religious orientation and health among active older adults in the United States. *Journal of religion and health, 52*(3), 851-863.https://doi.org/10.1007/s10943-011-9530-4

Ismail, Z., & Desmukh, S. (2012). Religiosity and psychological well-being. *International Journal of Business and Social Science, 3*(11).

Kangaslampi, S. (2023). Association between mystical-type experiences under psychedelics and improvements in well-being or mental health–A comprehensive review of the evidence. *Journal of psychedelic studies*, *7*(1), 18-28. https://doi.org/10.1556/2054.2023.00243

Khaki, A., & Sadeghi Habibabad, A. (2021). Investigating the effect of religious and Islamic teachings on the calmness and mental health in educational spaces. *Journal of religion and health*, *60*(4), 2632-2645. https://doi.org/10.1007/s10943-020-01022-7

Koenig, H. G. (2009). Research on religion, spirituality, and mental health: A review. *The Canadian Journal of Psychiatry*, *54*(5), 283-291.https://doi.org/10.1177%2F070674370905400502

Lewis, C. A., & Cruise, S. M. (2006). Religion and happiness: Consensus, contradictions, comments and concerns. *Mental Health, Religion and Culture, 9*(03), 213-225.https://doi.org/10.1080/13694670600615276

Lewis, C. A., Maltby, J., & Day, L. (2005). Religious orientation, religious coping and happiness among UK adults. *Personality and Individual Differences, 38*(5), 1193-1202.https://doi.org/10.1016/j.paid.2004.08.002

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression

and Anxiety Inventories. *Behaviour Research and Therapy*, *33*(3), 335-343.https://doi.org/10.1016/0005-7967(94)00075-U

Luhrmann, T. M., Nusbaum, H., & Thisted, R. (2013). "Lord, teach us to pray": Prayer practice affects cognitive processing. *Journal of Cognition and Culture*, *13*(1-2), 159-177.https://doi.org/10.1163/15685373-12342090

MahdiNejad, J. E. D., Azemati, H., & Sadeghi Habibabad, A. (2020). Religion and spirituality: Mental health arbitrage in the body of mosques architecture. *Journal of Religion and Health*, *59*, 1635-1651. https://doi.org/10.1007/s10943-019-00949-w

Maltby, J., & Day, L. (2003). Religious orientation, religious coping and appraisals of stress: Assessing primary appraisal factors in the relationship between religiosity and psychological well-being. *Personality and Individual Differences*, *34*(7), 1209-1224.https://doi.org/10.1016/S0191-8869(02)00110-1

Maltby, J., & Day, L. (2004). Should never the twain meet? Integrating models of religious personality and religious mental health. *Personality and Individual Differences*, *36*(6), 1275-1290.https://doi.org/10.1016/S0191-8869(03)00215-0

Maltby, J., Houran, J., & McCutcheon, L. E. (2003). A clinical interpretation of attitudes and behaviors associated with celebrity worship. *The Journal of Nervous and Mental Disease*, *191*(1), 25-29.

Masters, K. S., Lensegrav-Benson, T. L., Kircher, J. C., & Hill, R. D. (2005). Effects of religious orientation and gender on cardiovascular reactivity among older adults. *Research on Aging*, *27*(2), 221-240. https://doi.org/10.1177%2F0164027504270678

Mela, M. A., Marcoux, E., Baetz, M., Griffin, R., Angelski, C., & Deqiang, G. (2008). The effect of religiosity and spirituality on psychological well-being among forensic psychiatric patients in Canada. *Mental Health, Religion and Culture*, *11*(5), 517-532.https://doi.org/10.1080/13674670701584847

Merrill, R. M., Steffen, P., & Hunter, B. D. (2012). A comparison of religious orientation and health between Whites and Hispanics. *Journal of Religion and Health*, *51*(4), 1261-1277.https://doi.org/10.1007/s10943-010-9432-x

Metthews, D. (1996). *The Spiritual Dimensions of Medicine.* In Seminar Presentation. Loma Linda, CA: Loma Linda University Medical Center

Miller, L., & Kelley, B. S. (2005). Relationships of religiosity and spirituality with mental health and psychopathology. *Handbook of the Psychology of Religion and Spirituality*, 460-478.

Nelson, J. M. (2009). *Psychology, religion, and spirituality*. Springer Science & Business Media.

Park, C. L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues*, *61*(4), 707-729.https://doi.org/10.1111/j.1540-4560.2005.00428.x

Pastwa-Wojciechowska, B., Grzegorzewska, I., & Wojciechowska, M. (2021). The role of religious values and beliefs in shaping mental health and disorders. *Religions*, *12*(10), 840. https://doi.org/10.3390/rel12100840

Paulk, M. E. (2017). Understanding the role of religion in medical decision making. *Journal of Oncology Practice*, *13*(4), 219–220. https://doi.org/10.1200/JOP.2016.020693.

Pierce Jr, J. D., Cohen, A. B., Chambers, J. A., & Meade, R. M. (2007). Gender differences in death anxiety and religious orientation among US high school and college students. *Mental Health, Religion & Culture*, *10*(2), 143-150.https://doi.org/10.1080/13694670500440650

Rabin, B. S., & Koenig, H. G. (2002). Immune, neuroendocrine, and religious measures. *The link between religion and health: Psychoneuroimmunology and the faith factor*, 197-249.

Raja, S., Sunder, U., Mannarath, S. C., Gibson, K., Kermode, M., & Devine, A. (2009). *An Introduction to Mental Health*. Melbourne: National Institute for Global Health.

Ryckman, R. M., Thornton, B., Van Den Borne, B., & Gold, J. A. (2004). Intrinsic-extrinsic religiosity and university students' willingness to donate organs posthumously. *Journal of Applied Social Psychology*, *34*(1), 196-205.https://doi.org/10.1111/j.1559-1816.2004.tb02544.x

Salmanpour, H., & Issazadegan, A. (2012). Religiosity orientations and personality traits with death obsession. *International Journal of Psychological Studies*, *4*(1), 150.http://dx.doi.org/10.5539/ijps.v4n1p150

Salsman, J. M., Brown, T. L., Brechting, E. H., & Carlson, C. R. (2005). The link between religion and spirituality and psychological adjustment: The mediating role of optimism and social support. *Personality and Social Psychology Bulletin*, *31*(4), 522-535.https://doi.org/10.1177/0146167204271563

Schultz, J., O'Brien, A. M., & Tadesse, B. (2008). Social capital and self-rated health: Results from the US 2006 social capital survey of one community. *Social Science &Medicine*, *67*(4), 606-617.https://doi.org/10.1016/j.socscimed.2008.05.002

Shafiq, S. (2020). Perceptions of Pakistani community towards their mental health problems: a systematic review. *Glob Psychiatry*, *3*(1), 1-23.https://doi.org/10.2478/gp-2020-0001

Smith, M. H., Richards, P. S., & Maglio, C. J. (2004). Examining the relationship between religious orientation and eating disturbances. *Eating Behaviors*, *5*(2), 171-180.https://doi.org/10.1016/S1471-0153(03)00064-3

Sohail, M. M., Mahmood, Q. K., Sher, F., Saud, M., Mas'udah, S., & Ida, R. (2020). Coping through religiosity, spirituality and social support among Muslim chronic hepatitis patients. *Journal of Religion and Health*, *59*(6), 3126-3140.https://doi.org/10.1007/s10943-019-00909-4

Soriano, F. I., Rivera, L. M., Williams, K. J., Daley, S. P., & Reznik, V. M. (2004). Navigating between cultures: The role of culture in youth violence. *Journal of Adolescent Health*, *34*(3), 169-176.https://doi.org/10.1016/j.jadohealth.2003.07.015

Sözer, Ö. T., & Eskin, M. (2023). Religiosity, identity confusion, and psychological well-being in Turkish university students: The moderating role of religious orientation. *Journal of religion and health*, *62*(2), 984-1006. https://doi.org/10.1007/s10943-022-01625-2

Spilka, B., Hood, R. W., Hunsberger, B., & Gorsuch, R. (2003). *The psychology of religion: An empirical approach*. Guilford Press.

Stace, W. T. (1960). *Philosophy and Mysticism*.Lippincott.

Stokes, S. (2021). Individual Differences in Religiosity and Related Constructs after Exposure to Mystical-Type Experiences.

Streib, H., Klein, C., Keller, B., & Hood, R. (2021). The Mysticism Scale as a Measure for Subjective Spirituality: New Results with Hood's M-Scale and the Development of a Short Form. In *Assessing Spirituality in a Diverse World* (pp. 467-491). Springer, Cham.

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., ... & Stewart-Brown, S. (2007). The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation. *Health and Quality of life Outcomes*, *5*(1), 1-13.https://doi.org/10.1186/1477-7525-5-63

Tiliouine, H., & Belgoumidi, A. (2009). An exploratory study of religiosity, meaning in life and subjective wellbeing in Muslim students from Algeria. *Applied Research in Quality of Life*, *4*(1), 109-127.https://doi.org/10.1007/s11482-009-9076-8

Van der Tempel, J., & Moodley, R. (2020). Spontaneous mystical experience among atheists: Meaning-making, psychological distress, and wellbeing. *Mental Health, Religion & Culture*, *23*(9), 789-805. https://doi.org/10.1080/13674676.2020.1823349

Van Dyke, C. J., & Elias, M. J. (2007). How forgiveness, purpose, and religiosity are related to the mental health and well-being of youth: A review of the literature. *Mental Health, Religion and Culture*, *10*(4), 395-415.https://doi.org/10.1080/13674670600841793

Walker, A. R. (2020). "God is my doctor": mindfulness meditation/prayer as a spiritual well-being coping strategy for Jamaican school principals to manage their work-related stress and anxiety. *Journal of Educational Administration*, *58*(4), 467-480. https://doi.org/10.1108/JEA-06-2019-0097

Whitley, B., & Kite, M. (2009). *The psychology of prejudice and discrimination* (2nd ed.). Belmont, CA: Wadsworth.

Wills, T. A., Yaeger, A. M., & Sandy, J. M. (2003). Buffering effect of religiosity for adolescent substance use. *Psychology of Addictive Behaviors*, *17*(1), 24.https://psycnet.apa.org/doi/10.1037/0893-164X.17.1.24