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Research Paper

Structural Modeling of the Relationship Between Religious Adherence and Mental Health Mediated by Psychological-spiritual Transformation

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ABSTRACT

Background and Objectives: Religious adherence, or being religious, refers to the degree of belief or commitment to the beliefs and practices of a systematic religion, which can help improve people's mental health in various fields. This research was conducted to determine the mediating role of psychological and spiritual transformation in the relationship between religious adherence and mental health.

Methods: This is descriptive-analytical research of the structural equation type. The statistical population included 300 students who were selected using a multi-stage cluster sampling method among the universities of Qom City, Iran. To measure the variables, the psycho-spiritual transformation scale, the general health questionnaire (GHQ), and the religious adherence questionnaire (RAQ) were used.

Results: The correlation between religious adherence and mental health variables was found to be 0.463, with a significance level of 0.01. Also, structural equations were used to determine the mediating role of psychological and spiritual transformation in the relationship between religious adherence and mental health. The results showed that the standardized factor loading of the religious adherence component was 0.42, and the beta value of this component was 0.17. Also, the level of psychological and spiritual transformation was 0.69 (P=0.01). Based on these findings, the variable of psycho-spiritual development level predicts 69% of the relationship between religious adherence and mental health.

Conclusion: The results showed that religious adherence can have either an increasing or decreasing effect on mental health, depending on the mediating role of psychological and spiritual transformation. Therefore, the impact of the relationship between religious adherence and mental health varies according to the level of psychological-spiritual transformation in individuals. The findings suggest that the higher the level of psychological-spiritual transformation, the greater the mental health experienced by individuals.

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Introduction

The issue of health has been discussed since the dawn of humanity. Whenever it is mentioned, its physical aspect is considered, while other aspects, particularly the psychological aspect, receive less attention. One of the axes of evaluating the health of different societies is the mental health of that society. According to the World Health Organization (WHO), mental health can be defined as a state of complete physical, mental, and social health (not just illness and disability) [1]. Mental health encompasses a sense of well-being, confidence in one's abilities, self-reliance, capacity for competition, intergenerational belonging, and the self-actualization of potential intellectual and emotional abilities [2]. Mental health is both a knowledge and an art that helps people adapt to their environment by employing psychologically and emotionally correct methods and choosing more favorable approaches to solving their problems. Therefore, attention to mental health is of particular importance [3].

Various factors affect people's mental health, which have been investigated in various studies. However, one factor that can significantly impact the mental health of individuals in society and has garnered increasing attention in recent decades is spirituality, with many studies conducted on this topic [4, 5]. Spirituality, as a construct, is constantly evolving and is affected by cognitive transformation. Although a limited number of theorists in the field of religion and religious faith have proposed theories, an examination of the existing literature reveals patterns that attempt to explain religion through transformational events. These models emphasize that spirituality evolves in parallel with cognitive transformation and social-psychological transformation [6].

Genia showed a positive correlation between the levels of psychological and spiritual transformation and internal religious orientation, as well as a negative correlation with external religious orientation [7].

In this regard, Jan Bozorgi et al. [8], considering the stages of psychological and spiritual transformation identified by Genia, emphasize that the intervention methods for clients in the stage of self-religion—i.e. the lowest stage of psychological and spiritual transformation—differ from those used in other stages of transformation. In the lower stages of psycho-spiritual transformation, individuals attribute human characteristics to God, magically identify themselves with an omnipotent being, and tend to align closely with religious precepts and symbols. However, they feel very guilty about their behavior and anger, and this guilt prevents them from internalizing values. These people also have limited flexibility and do not easily accept religious diversity [8].

Studies show that spirituality is associated with lower rates of depression, anxiety, suicide, dementia, and stress-related diseases, as well as mixed relationships with severe forms of mental illness, such as schizophrenia and bipolar disease. Specifically, spirituality has shown small positive correlations with depression and lower anxiety in both the United States and other countries and cultures, both in adolescents and adults. Also, in the United States and elsewhere, and among adolescents and adults, spirituality is associated with lower levels of suicidal ideation, suicide attempts, and completed suicides. Regarding more severe forms of mental illness, spirituality can interact with schizophrenia symptoms and serve as a risk factor or a protective factor [9]. Numerous therapies that incorporate spirituality have been offered in healthcare settings, and their effectiveness in improving psychological outcomes has been supported by meta-analyses. Spirituality is a distinct, potentially creative, and universal dimension of human experience that emerges both in the mental consciousness of individuals and within societies [10]. Also, spirituality is experienced as fundamentally or ultimately important and is thus related to issues of meaning and purpose in life, truth, and values [4, 10].

Spirituality includes the components of religious adherence, reason, and the God delusion, which have been increasingly considered in recent years and contribute to improving people's mental health across various fields [11]. In this research, we aimed to investigate the component of religious adherence. Religious adherence is a construct that reflects the cognitive, emotional, and behavioral acceptance of religion. It can alter a person's attitude toward the world and enhance their ability to adapt to unfavorable, stressful, and unpredictable conditions [12].

Methods

This study is descriptive and employs structural equation modeling. The statistical population included 300 students from the universities of Qom City in 2023. A sample of 300 individuals was selected using the multistage cluster sampling method and Cochran's formula.

The formula used for determining the sample size was as follows (Equation 1):

1. $n=\frac{Nz^2\,pq}{Nd^2+Z^2\,pq}$

Sampling

Among the ten universities of Qom City, four universities were randomly selected. Then, two colleges were randomly selected among the selected universities, and four classes were randomly selected from each college, with all individuals in those classes constituting our statistical sample.

Research tool

Psycho-spiritual transformation scale:

Deljou et al. [13] developed this questionnaire based on the clinical criteria for psychological clients reported by Genia (1996) [14], incorporating cultural and religious orientations. This tool has 15 items, with each item offering four options that correspond to the stages of psychological and spiritual transformation. In the preliminary phase of the current research, the validity and reliability of this questionnaire were examined, and Cronbach's α was calculated. To check the internal consistency of this scale in the Iranian population, Sarabadani Tafarshi and Jan Bozorgi [15] administered it to 341 female students, resulting in a Cronbach's α coefficient of 0.88.

General health questionnaire (GHQ-28)

Goldberg and Hiller designed this questionnaire in 1979 to diagnose mild mental disorders. Currently, there are 60-, 30-, 22-, and 12-item forms of this questionnaire. Its 22-item form used in this study has four subscales (physical symptoms, anxiety, social dysfunction, and depression). The questions of this questionnaire were answered on a four-point Likert scale. Several studies have been conducted in the country involving statistical populations of students, employees, and other groups. For Mehrdadi's sample (2017) [3], a reliability coefficient of 0.94 was reported. Taghavi (2001) obtained reliability coefficients for the GHQ based on three methods—retesting, binomialization, and Cronbach's α —of 0.93, 0.70, and 0.90, respectively. Also, the concurrent validity of the GHQ was reported to be 0.55 through simultaneous implementation with the Middlesex hospital questionnaire, and the correlation coefficients between the subscales of this questionnaire with the total score were satisfactory and ranged from 0.72 to 0.87. Therefore, the mental health scale demonstrates good reliability and validity [16].

Religious adherence questionnaire (RAQ)

John Bozorgi [5] designed this questionnaire, which contains 60 questions and measures religious behaviors in clinical and research settings. This test controls religious variables in interventions that use religious methods in some capacity. This test measures three factors: Religious adherence, ambivalence, and religious non-adherence. The questionnaire is graded on a five-point Likert scale from strongly agree [5] to strongly disagree [1]. Cronbach's α coefficient was reported as 0.816, with an internal consistency coefficient of 0.878 for religious adherence, 0.678 for ambivalence, and 0.725 for the religious non-adherence factor, all indicating high reliability for this questionnaire. Also, to calculate the criterion validity, the initial form of this test, before factor analysis, was reported to have a correlation of 0.47 with Allport and Ross's religious orientation test [17], which is significant at the level (P>0.001) [18].

Pearson's correlation coefficient, multiple regression, and structural equation modeling were employed to analyze the data. Additionally, where necessary, descriptive statistical methods such as Mean±SD were utilized. All stages of statistical analysis were conducted using SPSS software, version 23 and AMOS software, version 26. All research ethics were observed in all stages of the research, including the principle of voluntariness, whereby participation in completing the questionnaires was not mandatory, and the principle of confidentiality, which ensured that the data were used solely for research purposes.

Results

In this study, 300 university students in Qom City were examined. The demographic information of the samples showed that 36 individuals were under 20 years old, 87 individuals were between 21 and 30 years old, 148 individuals were between 31 and 35 years old, and 29 individuals were over 35 years old. Among the participants, 96 were boys and 204 were girls.

Table 1 shows the mean mental health score along with its components, including physical symptoms, anxiety, social functioning, and depression. The mean mental health score was 39.73, while the means for its components are 10.02 for physical symptoms, 11.06 for anxiety, 8.20 for social functioning, and 10.45 for depression. The skewness and kurtosis values, which are <±2, indicate that the data do not exhibit significant dispersion; therefore, the data distribution tends to be normal.

Table 1. Central indices and distribution of mental health and its components

Variables	Kurtosis	Skewness	Maximum Score	Minimum Score	Mean±SD	Frequency
Mental health	0.114	0.578	68	20	39.73±9.68	300
Physical symptoms	0.218	0.656	18	5	10.02±3.21	300
Anxiety	0.359	0.673	20	5	11.06±1.83	300
Social function	0.399	0.011	12	4	8.2±1.98	300
Depression	1.1	1.04	21	5	10.45±3.48	300
Religious adherence	0.553	1.05	300	90	208.04±49.56	300

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Table 2 presents the measurement indices of the measurement model and the optimal limit of the structural pattern (model fit). The values of the fit indices indicate an appropriate fit for the model. The chi-square ratio divided by the degrees of freedom was equal to 2.643, which was less than the permissible value of 3 The RMSEA value was equal to 0.07, which is less than 0.08, and the CFI value is equal to 0.97, which is greater than 0.9. Based on these values and data extracted from the estimation of the AMOS model, it can be concluded that the fit of the model is in a suitable state.

It also presents the correlation matrix for mental health and its components, as well as spiritual factors and its components, along with the psychological and spiritual variables. The correlation levels of the spiritual components (religious adherence, reason, and God delusion) with the mental health variable (physical symptoms, anxiety, social functioning, and depression) are 0.35, 0.18, and 0.26, respectively. This indicates that the spiritual components (religious adherence, intellect, and God delusion) are correlated with all four components of mental health (physical symptoms, anxiety, social functioning, and depression) at a significance level of 0.01. Also, a positive correlation was observed between psycho-spiritual transformation and mental health, with a reported value of 0.91. A significant relationship is also noted between this variable and mental health at a confidence level of 0.95.

Using Pearson's correlation coefficient, the correlation between religious adherence and mental health variables was found to be 0.463, with a significance level of 0.01. A relationship was observed between religious adherence and mental health, indicating a strong positive correlation. This means that as religious adherence increases, mental health also improves.

Table 2. The measurement indicators of the measurement model and the optimal limit of the structural model (model fit)

Index	Reported Value	Optimal Limit
Root mean square residual (RMR)	0.072	~0
Standardized mean squared residuals (SRMR)	0.081	~0
Goodness of fit index (GFI)	0.96	≥0.9
Normed fit index (NFI)	0.95	≥0.9
Non-normed fit index (NNFI)	0.97	≥0.9
Incremental fit index (IFI)	0.98	≥0.9
Comparative fit index (CFI)	0.97	≥0.9
Root mean square error of approximation (RMSEA)	0.07	≤0.1
Chi-square/degree of freedom	2.643	<3

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Using structural equations and the standardized factor loadings, the religious adherence component was equal to 0.42, and its beta value was 0.17. The beta value of the psycho-spiritual transformation level was equal to 0.69, with a significance level of 0.01. Thus, psychological-spiritual transformation predicts 69% of the relationship between religious adherence and mental health with a confidence level of 95%.

Discussion

The results showed a significant relationship between religious adherence and mental health. Our results were compared with the results of previous studies. While it may not be possible to find research that directly compares the results of this study, the findings can be somewhat consistent with the studies conducted by John Bozorgi [18], Aslani and Faraji [19], Esmaili-Shahzade-Ali-Akbari et al. [20], Sarabadani Tafarshiand Jan Bozorgi [15], Mehrdadi [3], Rouhani et al. [21] Garssen et al. [22], and Lucchetti et al. [23] and Balboni et al. [24].

Also, a significant relationship was observed between spiritual components (religious adherence, intellect, and God delusion) and mental health.

The results of the research of John Bozorgi [18] showed a direct relationship between religion and mental health. The more internal the religious orientation, the higher the level of mental health. Conversely, as a person's religious orientation becomes more external, feelings of fatigue and physical symptoms increase. Additionally, a more external religious orientation is associated with higher levels of anxiety and insomnia. The strongest correlation is observed with the variables of depression and suicidal tendencies; as these feelings increase, the religious orientation tends to become more external.

The results of Aslani and Faraji's research [19] and Esmaili-Shahzade-Ali-Akbari et al. [20] showed that religious programs can play a crucial role in people's mental health. Also, the results of Garssen et al. [22] indicated that among the eight predictors of spirituality/religiosity identified, only participation in public religious activities and the importance of religion were significantly related to mental health.

Based on the results obtained from the present research, the level of psychological-spiritual transformation serves as a mediating variable that explains the relationship between religious adherence and mental health.

This result was also compared with the results of previous studies. While it may not be possible to find research that directly compares the results of this study, the findings can be somewhat aligned with the studies conducted by John Bozorgi [18], Sarabadani Tafaroshi and John Bozorgi [15], Mehrdadi [3], Rouhani et al. [18]. The research results of Garssen et al. [21], Lucchetti et al. [23], and Balboni et al. [24] were also consistent with these findings.

Considering that many previous studies have shown the increasing or decreasing effect of religious adherence on mental health, this research, by confirming the results of previous studies, adds the mediating role of psychological-spiritual transformation in the relationship between these variables.

Conclusion

Psychological-spiritual transformation, as a mediating variable, has a direct and significant relationship with mental health. Also, a significant relationship is observed between religious adherence and mental health; therefore, it is recommended to teach the principles of psychological-spiritual transformation through family education sessions, enabling families to support the psychological-spiritual transformation of their children. This, in turn, will contribute to the growth of all children as they learn these principles. Furthermore, it is suggested to incorporate the development program of psychological-spiritual transformation into the educational curricula of schools and universities, thereby helping to enhance the level of psychological-spiritual transformation among students and fostering the overall psychological-spiritual growth of community members.

Ethical Considerations

Compliance with ethical guidelines

This article was approved by the Department of Psychology, Faculty of Humanities, Qom Branch, Islamic Azad University, Qom, Iran (Code: IR.IAU.QOM.RES.1402.148).

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Authors' contributions

All authors equally contribute to preparing all parts of the research.

Conflict of interest

The authors declared no conflict of interest.

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