Relationship of Religiosity with Mental Health and Life Satisfaction in Students of Arak University of Medical Sciences, Arak, Iran

Hasan Jafaripoor1, Mahin Ghomi2, Zahra Moslemi3*, Seyd Abdollah Mahmoodi1, Bahman Tavan1, Azame Moslemi4

1 Islamic Theology Group, School of Medicine, Arak University of Medical Sciences, Arak, Iran.
2 Educational Sciences Department, Educational Sciences & Psychology Faculty, Allameh Tabatabaei University, Tehran, Iran.
3 Educational Sciences & Psychology Department, Human Sciences Faculty, Arak University, Arak, Iran.
4 Biostatistics Group, School of Medicine, Arak University of Medical Sciences, Arak, Iran.

Abstract

Background and Objectives: Considering the prominent and unique role of medical students as future makers of the health status of society, provision and identification of factors affecting their mental health and life satisfaction is obligatory. The present study investigated the relationship of religiosity with mental health and life satisfaction in the students of Arak University of Medical Sciences, Arak, Iran.

Methods: This descriptive-correlational study was conducted on 341 students in 2017-2018. The study population was selected with regard to gender through stratified random sampling method. The data were collected by standard questionnaires, including religiosity questionnaire by Glock and Stark, as well as mental health and life satisfaction by Diner et al. The data were analyzed using Pearson correlation, independent t-test, and multiple regression analysis.

Results: Results of Pearson correlation test showed no significant relationship between religiosity and mental health (r=0.061; P=0.270). However, life satisfaction demonstrated a statistically positive relationship with religiosity and all its dimensions (e.g., theological, experiential, consequential, and ritual domains) (r=0.154; P=0.005). There was also a statistically negative relationship between life satisfaction and mental health (decrease in test score) (r=-0.501; P=0.000). Moreover, a significant difference was observed between male and female students in terms of mental health (P<0.05). In this regard, male students had higher mental health than female students.

Conclusion: Consideration of the role of religion and religious components in life satisfaction and educational emphasis on these issues can help to improve life satisfaction and mental health among students.

Keywords: Religiosity, Mental Health, Life Satisfaction.

Introduction

Religiosity is a pragmatic system based on beliefs which were sent from God to guide humans to divine perfection and growth. It also involves individual and social dimensions that include integrative beliefs, approaches, and behaviors and provide individuals with a sense of wholeness (1). Among all religiosity definitions, the definition presented by Glock and Stark has received higher attention on the part of researchers. They consider religiosity as a concept which includes five domains, namely ideological, ritual, emotional, consequential, and scientific dimensions. The ideological dimension involves the beliefs that are accepted by the followers of a religion. The ritual dimension covers the practical domain of a religion, such as praying and participating in holy rituals, that each follower is expected to perform. Furthermore, the
emotional dimension is related to establishing a relationship with a holy existence. The consequential dimension refers to the consequences of religious beliefs, practice, experience, and knowledge in everyday life of each individual and his/her relationships. The intellectual dimension demonstrates the awareness of religious principles and the Holy Book. It is expected that the followers of each religion are aware of such principles (2).

The function of religion is to resolve the spiritual issues and consequently give meaning to human life. Religion is effective in the reduction of mental pressure and has important functions, such as the establishment of a sense of hope and intimacy with others, emotional peace, self-thriving opportunity, and closeness to God, thereby solving various problems (3). According to the World Health Organization (WHO), the concept of health extends beyond the absence of a mental disorder. In this regard, it includes mental well-being, self-efficacy, independence and autonomy, sufficiency and efficiency, social relationships, and development of potential mental and emotional abilities (4).

Mental health is the ability to have a harmonious relationship with others, modification and alteration of personal and social environment, logical resolution of personal inclinations and contradictions, and meaning and goal in life (5). Upon entering the university, students encounter different problems, such as being far from family, entrance to an immense system, financial issues, intense rivalry, lack of interest in the field of study, dormitory problems, and concerns about job prospect. In addition to all these difficulties, medical students are exposed to special problems, such as the abundance of clinical activities, mental pressure of hospital atmosphere, patients’ problems, sequential night shifts, extra study material, and long educational course. Hence, it seems that they are more prone to mental health disorders than other university students.

Mental health plays an important role in guaranteeing the dynamicity and efficiency of society (6). Mental health of a society, especially that of the effective and productive social groups, is vital to its dynamicity, growth, and development (7). Medical students have a prominent and exclusive role due to being regarded as one of the important constituents of sanitation and healthcare chain (6). This underscores the significance of mental health provision, as well as the identification and eradication of negative elements affecting the mental health of this population (7).

Religion is a psychological concept that is able to affect the human performance in life (8). Benjamin Reich, the father of psychiatry, admitted that the role of religion in mental health is similar to oxygen for respiration (9). Accordingly, the studies addressing this issue have reported a correlation between religiosity and mental health (10-13). Moreover, Vaillant et al. investigated the relationship between religiosity and mental health among 224 male students of Harvard University, United States, in a longitudinal study. The results of the mentioned study revealed that religiosity has a positive and significant relationship with psychological, physical, and social wellbeing. They proposed religion as the biggest health source, especially in people who lack personal sources and social support (14). The religiosity of an individual and his/her commitment to religious rituals and doctrine can be one of the most important and effective elements in mental health (8).

Life satisfaction is a prominent mental state that is observed in each individual with proper psychological health (15). Life satisfaction means the general attitude and evaluation of an individual regarding the whole life. Moreover, it is the reflection of the balance between one’s ambitions and present status. Accordingly, a higher balance signifies higher life satisfaction (5). Life satisfaction is necessary for a full, efficient, and agreeable life (16). Hence, it provides favorable conditions for human development and is a factor in individual success and progress. This construct is also one of the predictors of mental health (17).

In a study, Habib et al. showed that religion was correlated with life satisfaction (18). In addition, the results of a study carried out by...
Lima C. and Putnam were indicative of higher life satisfaction among religious people (19). In the same vein, the Iranian studies have also emphasized the presence of a significant relationship between religiosity and life satisfaction (17,20,21). Life satisfaction has important social consequences, as well as individual effects. For example, the existence of this emotion can guarantee individual and social health (22).

It can accelerate the development process by raising hope and optimism and eradicating such senses as impotence, isolation, and distrust among people. It also guarantees the survival of society by raising the sense of belonging and commitment (21).

Dissatisfaction leads to isolation, distrust, and waste of social resources by raising pessimism in individuals. If this sense lingers, it can negatively affect the next generations (21). The medical students comprise a considerable population of the country and have a significant effect on the formation of social movements due to their skills and expertise. The students a significant influences their satisfaction with other domains, including economic, social, political and cultural dimensions. Therefore, it seems essential to perform accurate scientific research to recognize the elements of students of research to receive order to help them successfully solve life crises by presenting helpful and practical solutions (22).

These days, we witness stressful experiences which can endanger our mental health and life satisfaction, thereby causing mental discomfort. Under this condition, the factor that can contribute to humans and prevents from their destruction and downfall under high pressure is religiosity. It has an effective role and position in the realm of mental health and life satisfaction that affect various dimensions of human life.

Universities, as important and sensitive organizations, cannot be indifferent to student development in terms of religious and moral values. Since mental health is stimulus of social communications, it seems necessary to pay more attention to the factors improving this health dimension. Religiosity in the religious society of Iran is an inherent value, and its role in vital and important categories like health is undeniable.

With regard to the Islamic and religious nature of Iranian people and authorization of an Islamic regime on this country, the investigation of religiosity and its relationship with various life dimensions is an issue of paramount importance. Therefore, this study examined the relationship of religiosity with life satisfaction in the students of Arak University of Medical Sciences, Arak, Iran.

**Methods**

This descriptive-correlational study was carried out on the students of Arak Medical Sciences during 2016-2017. A total of 341 students were selected out of the 3,055 students studying in this university using Krejcie and Morgany table. The study population was selected from six faculties, including medicine, dentistry, nursery and midwifery, paramedical, health, and rehabilitation, with regard to gender utilizing randomized multistage sampling technique.

The inclusion criterion was willingness to fill out the questionnaire. On the other hand, the exclusion criteria were the unwillingness to cooperate and non-completion of the questionnaire. Data collection was accomplished using three questionnaires, namely religiosity, public health (GHQ-8), and life satisfaction Questionnaires.

1. Religiosity questionnaire: The religiosity questionnaire was developed by Glock and Stark in 1965. This instrument consists of 26 items in four dimensions, including theological \((n=7)\), ritual \((n=7)\), experiential \((n=6)\), and consequential \((n=6)\).

Each item is rated on a 5-point Likert scale ranging from completely agree to completely disagree. The final score is obtained by summing up the scores of 6 items and has a range of 0-104. The reliability of this tool was approved rendering a Cronbach’s alpha coefficient of 0.83.

In addition, the theological, experiential, consequential, and ritual dimensions had the Cronbach’s alpha coefficients of 0.81, 0.75,
0.72, and 0.83, respectively. Furthermore, Rabbani et al. reported the Cronbach’s alpha coefficients of 0.84, 0.66, 0.71, and 0.82 for theological, experiential, consequential, and ritual dimensions, respectively (23).

2. Public Health Questionnaire: This questionnaire is used to detect the people with psychological disorders. This instrument consists of 28 items in 4 domains (each having 7 items), including somatic symptoms, anxiety and sleep dysfunction, social dysfunction, and depression.

The items are rated on a 4-point Likert scale (no, a little, much, and very much) ranging from 0-3. Accordingly, each domain has a score range of 0-23 with the minimum and maximum scores of 0-84 for the whole scale. In this regard, the score ranges of 0-22, 23-40, 41-60, and 61-84 signify no, mild, moderate, and severe mental disorders, respectively.

A significant point in the questionnaire is that obtaining a high score in this scale represents more disease symptoms or lower general health. On the other hand, a lower score shows fewer disease symptoms and consequently higher general health (24).

In a study performed by Taghavi (2008), the validities of the four domains of the aforementioned questionnaire, including somatic symptoms, anxiety and sleep dysfunction, social dysfunction, and depression were reported as 86%, 85%, 72%, and 82%, respectively. In addition, the reliability of the mentioned domains were confirmed by obtaining the Cronbach alpha coefficients of 92%, 69%, 88%, and 89%, respectively (25).

3- Life Satisfaction Questionnaire: The life satisfaction questionnaire was designed by Diner et al. in 1985. This tool entails five phrases which are rated on a 7-point Likert scale from completely disagree to completely agree. This instrument has the minimum and maximum scores of 5 and 45, respectively (17). In a couple of studies performed by Parpooshi et al. (21) and Motevallian et al. (17), a Cronbach’s alpha coefficient of 0.87 was reported for this questionnaire.

Ethical considerations

This study was based on ethics principles and confirmed by the Ethics Committee of Arak University of Medical Sciences (IR.ARAKMU.REC.1396.65). The questionnaires were distributed in classes among the students of six faculties after making the necessary arrangements with the lecturers.

Prior to the study, the students were informed about the aim of the research. After obtaining informed consent about participating in the study and assuring the students of the confidentiality terms, they took part in the study voluntarily and with full satisfaction. In order to observe ethical considerations with regard to anonymity, the names of the participants were not mentioned.

Statistically analysis: The data was analyzed in SPSS software (version 21) utilizing Pearson correlation coefficient test (to examine the relationship between the study variables) and independent t-test (to investigate the difference in the mean scores between the two genders).

Result

Out of 341 distributed questionnaires, 332 cases were analyzed, 204 (61.4%) and 128 (38.6%) of which were filled out by female and male students, respectively.

In addition, 145 (43.7%), 147 (44.3%), 21 (6.3%), 8 (2.4%), and 6 (1.8%) participants were in the age ranges of 18-20, 21-23, 24-26, 27-30, and >30 years, respectively; however, the age group of 5 (1.5%) subjects was unspecified.

Considering the frequency distribution of the samples in the faculties, 107 (32.2%), 40 (12%), 110 (33.1%), 23 (6.9%), 34 (10.2%), and 18 (5.4%) subjects were recruited from the faculties of medicine, health, nursery and midwifery, paramedicine, dentistry, and rehabilitation, respectively.

With regard to marital status, 293 (88.3%) subjects were single, and 37 (11.1%) cases were married; however, there was no information in this regard for 2 (0.6%) participants. Furthermore, 184 (55.4%) subjects lived in the dormitory, and 181 (54.5%) students had spent three semesters,
Relationship of Religiosity with Mental Health

Table 1. Correlation coefficients of religiosity and its dimension scores with mental health and life satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Religiosity (total score)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Theological dimension</td>
<td>0.845</td>
<td>P=0.000</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Experiential dimension</td>
<td>0.854</td>
<td>P=0.000</td>
<td>0.759</td>
<td>P=0.000</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. Consequential dimension</td>
<td>0.787</td>
<td>P=0.000</td>
<td>0.563</td>
<td>P=0.000</td>
<td>0.518</td>
<td>P=0.000</td>
</tr>
<tr>
<td>5. Ritual dimension</td>
<td>0.834</td>
<td>P=0.000</td>
<td>0.561</td>
<td>P=0.000</td>
<td>0.591</td>
<td>P=0.000</td>
</tr>
<tr>
<td>6. Mental health</td>
<td>0.061</td>
<td>P=0.270</td>
<td>0.105</td>
<td>P=0.059</td>
<td>0.079</td>
<td>P=0.153</td>
</tr>
<tr>
<td>7. Life satisfaction</td>
<td>0.154</td>
<td>P=0.005</td>
<td>0.142</td>
<td>P=0.010</td>
<td>0.147</td>
<td>P=0.008</td>
</tr>
</tbody>
</table>

while other (n=151, 45.5%) were in the fourth or upper semester.

In this study, the mean of grade point average was 16.45±1.41 (range: 11.8-19.68). It should be noted that these figures were obtained from the information presented by the students in the questionnaire. The mean religiosity score of the students was obtained as 62.83±18.61. In addition, the means core of mental health was estimated at 23.83±12.44, indicating mild disorders. Furthermore, the students had the mean life satisfaction score of 21.69±7.07.

According to the results presented in Table 1, the total religiosity score and the scores of its dimensions (i.e. Theological, experiential, consequential, and ritual) had no significant correlation with mental health (r=0.061; P=0.270).

However, there was a statistically positive relationship between total religiosity score and life satisfaction (r=0.154; P=0.005). Additionally, theological (r=0.142; P=0.010), experiential (r=0.147; P=0.008), consequential (r=0.159; P=0.004), and ritual (r=0.135; P=0.015) dimensions of the religiosity scale were positively correlated with life satisfaction.

Table 2. Results of independent t-test on the difference between female and male students regarding religiosity, mental health, and life satisfaction

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean ± standard deviation</th>
<th>DF</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Females</td>
<td>Males</td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>17.05±63.48</td>
<td>20.95±61.81</td>
<td>330</td>
</tr>
<tr>
<td>Mental Health</td>
<td>12.97±25.12</td>
<td>11.27±21.75</td>
<td>326</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>7.00±21.56</td>
<td>7.19±21.89</td>
<td>324</td>
</tr>
</tbody>
</table>

In this regard, those who had higher religiosity had higher life satisfaction as well. Additionally, there was a statistically negative relationship between the total score of religiosity and mental health (r=-0.501; P=0.000) (reduction of scores in the test). In this respect, the students with higher life satisfaction enjoyed better mental health.

According to the results of Table 2, there was no significant difference between male and female students in terms of religiosity and life satisfaction. However, a significant difference was observed between the two genders considering mean mental health. In this regard, male students had better mental health in comparison with female students.

Discussion

The aim of this study was to investigate the relationship of religiosity with mental health and life satisfaction in the students of Arak University of Medical Sciences. According to the results, mental health showed a significant correlation with total religiosity score and its dimensions (i.e., theological, experiential, consequential, and ritual).

No reports were found in the literature supporting our results regarding the lack of correlation between the mentioned variables. However, our results are in line with those reported by Madmali et al (26) observing no significant correlation between depression and religiosity. Furthermore, Kashfi et al. (27) reported no significant relationship between general health score and religious attitude.

In line with our results, Ghazanfari et al. (26) showed that a religious attitude has no effect on the reduction of anxiety and depression. Moreover, Daryl et al. and Okuno et al. demonstrated that religious beliefs have no significant relationship with mental health indices.

In a qualitative meta-analysis, Moria Almedia et al. reviewed the literature regarding the relationship between religion and mental health. The findings of this meta-analysis revealed that in most studies, no significant relationship was reported between...
mental health indices and religious behaviors (28).

However, the results of most of the previous studies emphasized on the existence of a correlation between religiosity and mental health. In a study entitled religiosity and mental health. Abdizarin et al. reported a significant correlation between religiosity and mental health (10).

In another study performed by Meshkati et al. under the title of “the relationship between religiosity and mental health physical education students and sport sciences Islamic Azad University, Isfahan branch”, a significant relationship was observed between religiosity dimensions and mental health in students (12).

In addition, a significant correlation was reported between mental health and religiosity in another study carried out by Abdel-Khalek, entitled “Happiness, health, and religiosity among Lebanese young adults” (13).

To clarify the results of this study, it can be said that religious people indubitably have higher mental and behavioral health, as well as spirituality. Moreover, they feel more peaceful, secure, and happy in comparison with those with weak faith (29).

However, various factors can cause stress in students in educational environments. Some of these factors include the abundance of homework, lack of interest in subjects, use of inappropriate teaching methods by instructors, weak performance of university officials, and students’ weak study skills and procrastination. This condition even deteriorates if the student is not equipped with the necessary skills and strategies to cope with stress (30). Their stress leads to physical and mental diseases, impairs performance and adaptability, and induces anxiety and depression in students (31).

Therefore, it seems that a similar variable can exert various effects in different environments. These effects depend on many factors which need the implementation of more studies. The relationship between religiosity and mental health cannot be considered as one-sided and apart from other factors effect.

In the current study, life satisfaction was found to have a significant correlation with religiosity and its dimensions (i.e., theological, experiential, consequential, and ritual). In other words, those who had more religiosity had higher life satisfaction.

These results are in compliance with the findings obtained by Motevallian et al. showing that religiosity has a significant relationship with life satisfaction in Mazandaran University, Iran (17). It is also in concordance with the results reported by Parpoochi et al. who demonstrated that religiosity has a statistically positive effect on life satisfaction (20). In the same vein, Hejazi et al. revealed a positive relationship between religiosity and life satisfaction (21).

In a study carried out by Gabriella Habib et al. entitled “Religion and life satisfaction: Analyzing the relationship between B.A. students in Trinidad”, religiosity was positively associated with life satisfaction (18).

Religious faith can affect life by providing a foundation to make life meaningful in order to make progress in different dimensions. Moreover, religiosity makes individuals confident that life is integrated, regulated, and purposeful. Principally, faith has a profound effect on human essence, since it boosts self-confidence, human power and also creates peace of mind. Moreover, it helps people live more hopefully and purposefully and have a meaningful life without any sense of absurdity (28).

Other results showed a significant relationship between mental health and life satisfaction. In this regard, those with higher mental health had higher life satisfaction. Likewise, Rezaee et al. demonstrated a significant relationship with mental health (4). In a study entitled “Life Satisfaction and Mental Health in Chinese Adults”, Bao et al. emphasized the association between mental health and life satisfaction (32).

Farrokhi also showed that life satisfaction had a dramatic effect on mental health (33). In addition, Besharat et al. showed that a statistically positive relationship between life satisfaction and general health (34).

In agreement with our findings, Guney et al. introduced life satisfaction as one of the important mental health dimensions (35). Life satisfaction is one of well-being elements;
therefore, the enhancement of this state increase directly boosts mental and physical health (34).

People who have higher life satisfaction use more effective and suitable coping strategies, experience positive and deeper emotions, and enjoy higher general health (36). Life satisfaction improves individual’s performance in life and social roles. This factor increases positive emotions, such as happiness and hope, and reduction of negative emotions, like stress and depression (5).

The results of the current study showed a significant difference between male and female students in terms of mental health. In this respect, males had higher mental health as compared to females. This result was also in accordance with those obtained by Hadavi et al. and Rajabzadeh et al. which was indicative of a lower level of mental health in females than in males (37,38).

In agreement with our results, Biro et al. showed that female students had more mental disorders than their male counterparts (39). This result might be due to the higher vulnerability of females who are affected by the conditions and changes in the environment that can dramatically influence their mental health (16, 24, 23, 40).

Our study population was limited to the students of Arak University of Medical Sciences which affects the result generalizability. Moreover, the data were collected based on self-reports. Hence, the interpretation of the results must be performed with caution.

**Conclusion**

Religiosity as a strong stimulus is in the center of human life and is bound with a good feeling and life satisfaction. On the other hand, life satisfaction is one of the important indices in mental health. Students are considered selective individuals in terms of talent, creativity, and perseverance and are the most important wealth of each society. The health of this population has a determinative role in their development process.

Health is a necessary condition for playing social roles. Regarding the study results, the recognition of determinative variables plays a remarkable role in the promotion of psychological health. Therefore, it is suggested to implement educational workshops on life satisfaction (providing thinking and behavioral patterns focused on spirituality, coping strategies, adaptability, and mental health) in order to boost mental health in students.

In addition, it is recommended to compare religiosity, mental health, and life satisfaction in students before and after entering university and provide suitable backgrounds in these institutes for performing spiritual activities.

**Conflict of interest**

The authors of the current study declare no conflict of interest for this investigation.

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Relationship of Religiosity with Mental Health


