



The relationship between religious attitude, spiritual intelligence and anxiety among medical students

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Journal of Research & Health

Social Development & Health Promotion

Research Center

Vol. 6, No. 4, Sep & Oct 2016

Pages: 397- 404

DOI: 10.7508/jrh.2016.04.004

Original Article

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Received: 19 Sep 2014

Accepted: 29 Nov 2014

How to cite this article: Khaleghkhah A, Babaei Menghari MM. The relationship between religious attitude, spiritual intelligence and anxiety among medical students. *J Research & Health* 2016; 6(4): 397- 404.

Abstract

In the industrial age, many people are faced with stress. Religion and spirituality can be effective in reducing stress. The aim of this study was to do relationship between religious attitudes and spiritual intelligence and anxious among medical students. The research method was structural equation model. The purpose of this study is applied design. The population was 1,232 medical students. 290 students were selected by multistep random sampling method. The research instruments were Khodayari's religious attitudes questionnaire, Abdollahzadeh et al.'s spiritual intelligence questionnaire and Spielberger's state/trait anxiety questionnaire. There is negative relationship between religious attitudes and anxiety. There is negative relationship between spiritual intelligence (understanding and communication with the source of life) with anxiety. Regression analysis showed that understanding and communication with the source of life, worship, behavior and human life, social issues and worldviews and beliefs predict students' anxiety. The results of path analysis showed that understanding and communication with the source of existence, worship, worldviews, ideologies and social issues of human life through changing behavior and effect on students' anxiety indirectly but human life and behavior has directly effect on students' anxiety. On the other hand, understand and communicate with the source of life and social issues through the sacrifice of human life and behavior can have indirect effect but worship can have direct effect on human life and behavior. The findings of this study emphasized on the use of religious attitude and spiritual intelligence in students' anxiety.

Keywords: Anxiety, Attitude, Spirituality, Intelligence

Introduction

Anxiety is common phenomenon in contemporary societies which is closely related to the development of human societies and individuals' mental health. Anxiety includes the unpleasant experience of fear and emotions in

the situations which person feels is evaluated [1]. Anxiety at stable level is adapted and necessary response to stress that prepares the individual for action when faced with danger. During anxiety, the individual has unpleasant

and often vague sense of anxiety that is associated with physical or psychological symptoms [2]. Most of the time anxiety is just a kind of problem and disorder, but it can sometimes paralyze the life and interfere the way the individual wish to live; however, there is a hope that the person can change his feelings [3]. Reducing stress can push people towards peace. Various factors can be effective in reducing anxiety. One of the factors in reducing anxiety is spirituality and spiritual intelligence. Spiritual intelligence is essential in human life. Spirituality is way by which the life and surrounding world can be better and deeper understood. Since spirituality plays an important role in humans' mental health, and by researchers especially psychologists has been considered [4]. Spirituality can reduce psychosocial problems in situation assessment, cognitive assessment, coping activities, and supportive resources and so on [5]. Thus, students also have the potential to reduce stress that part of their daily activities devoted to spiritual practices to reduce stress and show virtues like forgiveness, acknowledgement, modesty, compassion, and wisdom [6]. Such cases can reduce their stress and improve their performance. Spiritual intelligence clears the mind and associates soul with the underlying context of being [7].

Religious attitude is another variable of this research that affects the anxiety of students. The belief that there is God who controls position and oversees the people which reduces the anxiety associated with the situation to great extent; in this way the majority of faithful people would describe their relationship with God as very close friend and they believe that through reliance and appeal to God we can control the effects of uncontrollable situations in some ways [8]. In recent years, scientific research findings in various fields, particularly medicine, psychology and sociology coordinated with religious propositions are increasing with sudden acceleration [9]. Accordingly, it has been assumed for long time that there would be positive relationship between religion, spirituality, and mental

health. Recently, religious psychologists have gained many experimental supports in this regard [5]. The findings of so far conducted studies have shown that religion play significant role in mental health improvement and mental disorder reduction such as anxiety and depression and also psychological adaptability. Most studies have shown that there is significant relationship between attitudes, religious beliefs, and mental health [10]. Researchers suggest that the use of religious and spiritual beliefs has relationship with the reduction of anxiety and depression levels [11-13]. Bahrami Ehsan concluded that there is significant relationship between religious orientation and psychological adjustment variables, self-esteem, and mental health [14]. Alborzi and Samani concluded that the by increasing the religious attitudes, anxiety and stress in people would be reduced [15]. Effective communication with God and spiritual intelligence reduce stress, anxiety, depression and as result, it would increase mental health [16-19]. The results of Beyrami and Movahedi's study show that there is a negative relationship between spiritual intelligence with anxiety and depression [20]. Conclusion of evidence shows that there is relationship between religious attitude and spiritual intelligence and anxiety, but rarely studies show the causal relationship among these components. Hence, if these structures are associated with each other in a logical framework, the model will be appropriate.

According to above, the importance and necessity of the statement of spirituality and religious attitudes in reducing anxiety is felt in different aspects in the present era. One of the requirements in the field of anthropology is attention to spiritual dimension of human being from scientists' perspective, especially the World Health Organization that has recently defined man as biological, psychological, social, and spiritual creature. The resurgence of spiritual practice and the search for clearer understanding of faith and its application in daily life as well as the scope of spirituality and religion in

every aspects of human life requires the re-evaluation of the role of religion in mental health. The study of spirituality is in progress in today's various fields such as medicine, psychology, anthropology, and cognitive sciences [21].

On the other hand, in college, especially medical students, due to dealing with more stressors (such as heavy courses, long term course of study, etc.) and the need for proper adjustment, they are required to be equipped with more mental health and self-reliance to progressively succeed in school and ultimately in their professions. Challenges in college can provide sources of stress for them and endanger their health [22]. Hence, this research seeks to find a relationship between religious attitudes and spiritual intelligence with anxiety among the students.

Method

This study is a descriptive research method and structural equations. In terms of its objective, it is of an applied research.

The statistical population of study includes undergraduate students of Ardabil University of Medical Sciences in 2014 in the fields of Public Health, Professional Health, Medicine, Dentistry, Anesthesiology, Environmental Health, Radiology, Laboratory Sciences, and Pharmacy. Size of statistical population includes 1232 participants. The multi-stage sampling method was used to collect data. Thus, the required information for the major field, level of education, the year of entrance, and sex were provided b University Faculty of Education and separate colleges; 290 participants were selected by using the multi-stage random sampling with proportional allocation method and Cochran Formula ($\alpha = 0.05$, acceptable error of 0.05, and $p=q=0.05$. that among those participants, due to the incompleteness of respondents' questionnaire, 273 questionnaires participants were analyzed. Religious Attitude Questionnaire: In order to collect the data about religious attitude, the Religious Attitude Questionnaire, was used which was developed by Khodayarifard

and colleagues in 1999 in University of Tehran. This questionnaire contains 40 items. The items of the questionnaire should be completed in 5-point Likert scale from (1) Completely disagree to (5) Completely agree. This questionnaire has six different aspect of religious attitudes entitled as: worship, morals and values, effect of religion on life and human behavior, social issues, worldviews and beliefs, religion and science. The reliability of the questionnaire was obtained as 92% which has been reported in the study of Khodayarifard [23]. In this study, the internal consistency reliability (Cronbach's alpha) was equal to 89%.

Spiritual Intelligence Questionnaire: This test has been standardized by Abdollahzadeh, Keshmiri, and Arabameri [24]. The Preliminary 30-items questionnaire was developed by designers of test and was performed on 30 students. The reliability of the test in the preliminary phase by alpha level was equal to 0.87. In item analysis by Loop method, 12 items were omitted. The final version of the questionnaire was had 29 items. which measures the two components of a) understanding and communicating with the source of life and b) the spiritual life with reliance on inner core [24]. The reliability of the questionnaire in this study was calculated by using internal consistency (Cronbach's alpha) ($\alpha = .83$).

Spielberger's State-Trait Anxiety Inventory: Spielberger State-Trait Anxiety Inventory was used to collect data about anxiety. The depression test is paper-pencil testing tool that includes 40 items. The first 20 questions are about state anxiety and 20 the second questions are about trait anxiety. In response to these items, some options are provided for the respondents and they are supposed to choose the best option which matches with their feelings. These options include: very low, low, high, very high. Some items were reversely scored. These items are as follows: 1, 2, 5, 8, 10, 11, 15, 16, 19, 20, 21, 23, 26, 27, 30, 33, 34, 36, and 39. The alpha coefficient for the measures of Trait and State

are 92% and 90% respectively [25]. In this study, reliability was 88% ($r=.88$). The data were analyzed by SPSS-21 and LISREL-8.80 (Student) by using Pearson correlation, simultaneous multiple regression and path analysis.

Results

Results Table 1 shows that the components of the religious attitudes with anxiety of students are negative in 99% confidence level. By increasing the religious attitudes of students, their anxiety would be decreased.

Table 1 The correlation coefficient between the components of the religious attitudes with anxiety of students

Subscale	1	2	3	4	5	6	7
Worship	-						
Ethics and values	0.490*	-					
The impact of religion in the lives of humankind	0.588*	0.654*	-				
Social issues	0.434*	0.454*	0.539*	-			
Transferability and credibility ideology	0.287*	0.416*	0.526*	0.478*	-		
Science and Religion	0.456*	0.603*	0.688*	0.518*	0.508*	-	
Anxiety	-0.334*	-0.192*	-0.192*	-0.369*	-0.351*	-0.274*	-

* $p < 0.01$

Table 2 Correlation between spiritual intelligence with anxious students

Subscale	1	2	3
Understanding the relationship with God	-		
Spiritual life	0.739*	-	
Anxiety	-0.284*	-0.303*	-

* $p < 0.01$

Results Table 2 shows that there is negative relationship between components of spiritual

intelligence with anxiety in 99% confidence level.

Table 3 Spiritual intelligence regression coefficients and religious attitudes in prediction of anxiety

	Non-standard coefficients		Standardized coefficients	t	Sig.
	B	Error	Beta		
Constant	139.50	4.33		32.14	0.001
Understanding the relationship with God	-0.426	0.219	-0.166	-1.94	0.052
Spiritual life	-0.228	0.145	-0.136	-1.57	0.118
Worship	-0.982	0.258	-0.257	-3.80	0.001
Ethics and values	0.346	0.280	0.09	1.234	0.218
Behavior and life	1.631	0.383	0.381	4.257	0.001
Social issues	-1.20	0.281	-0.288	-4.27	0.001
Ideology and beliefs	-0.804	0.243	-0.220	-3.30	0.001
Science and Religion	-0.412	0.30	-0.110	-1.37	0.170

Beta values for each of the variables was considered to test significant share of spiritual intelligence and religious attitudes in prediction of anxiety and it was obvious that share of understanding and relationship with God, worship, behavior and human life, social issues and ideologies and beliefs in prediction of anxiety is significant (Respectively: $p < 0.01$ Beta= -0.220, -0.288, 0.381, -0.257, -0.166). The role of other variables in the prediction of anxiety was not significant (Table 3).

In this study, researcher's path analysis diagram to illustrate the arrangement was not given adequate theory variables. In this case, multivariate regression is one of the ways in which we can make some set of variables. This means that at first a variable as the dependent variable (anxiety) was considered and then we obtain Beta by using the computer output, then we omitted those Beta which was not significant and identified the greatest remaining beta and we considered it as dependent variable (behavior and human life) and in this time we found the beta of these new dependent variable and omitted meaningless beta. In this way we have continued the operation till we has reached the last dependent variable and the last remaining variable or variables considered as exogenous variables that ultimately make the following variables were obtained. As shown in the following diagram, social issues and significant

positive correlation with the behavior of human life (Beta=0.24 and $t = 2.50$) and its relation is direct, positive and significant with worship (Beta= 0.44 and $t = 2.14$). Understanding and communication with the source being has direct and significant relationship with worship (Beta=0.24 and $t = 2.23$) and its relation with behavior and human life is direct, positive and significant (Beta= 0.16 and $t = 2.43$). Ideology and beliefs has significant, positive relationship with behavior of human life (Beta= 0.18 and $t = 2.07$). Worship has significant, positive relationship with the behavior of human life (Beta= 0.29 and $t = 2.61$). Behavior and human life has significant and negative relationship with anxiety (Beta= 0.82 and $t = 3.13$). Behavior and human life is the relationship between social issues, understanding and communication with the source of life, worldview and beliefs, worship with the mediation of anxiety. In other words, social issues, understanding and communication with origin of the universe and beliefs and ideology about has indirect effect on anxiety. On the other hand, worships mediate relationship between understanding and communication with origin of the universe human life and behavior. In other words, social issues and the understanding and communication with origin of the universe have indirect effect on behavior and human life. Chi square for Structural Equation Model

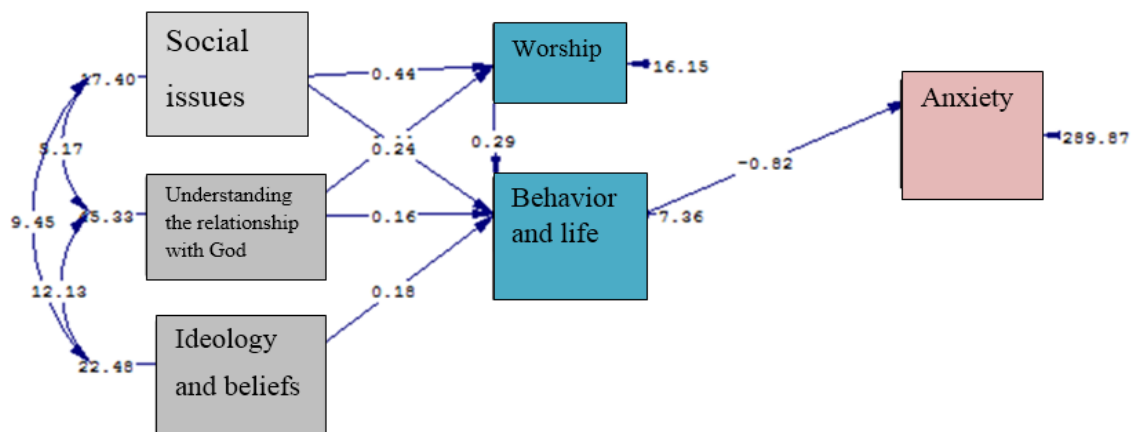


Figure 1 Coefficient of path analysis religious attitude, spiritual intelligence with anxiety

of social issues and the understanding and communication with origin of the universe,

ideology and beliefs, worship, human life and behavior and anxiety

Table 4 Goodness of fit indexes for structural modeling of social issues, understanding the relationship with God, ideology and beliefs, worship, behavior and life and anxiety

Chi square	df	Chi-square proportion to df	Level of significance	RMSEA *	GFI **	AGFI ***	RMR ****
13.57	5	2.74	0.02	0.65	0.94	0.91	0.02

*Root mean square error of approximation

**Goodness of fit index

***Adjusted goodness of fit index

****Root mean square residual

Table 4 shows the ratio chi square with degrees of freedom is equal to 2.74 and is less than 3; The RMSEA index value equal to 0.65 and less than 0.8, the value indices GFI and AGFI are close to a RMR value equal to 0.02 and is very small, so the value of this index is a good fit.

Discussion

In this study, the modeling between religious attitudes, spiritual intelligence, and anxiety was assessed among the students of medical sciences in Ardabil University of Medical Sciences. There is negative relationship between the components of religious attitudes of students with anxiety by using Pearson's correlation coefficient at confidence level of 99%. The results of regression analysis also predicted the component of religious attitudes (worship, social issues, behavior and human life and worldview and beliefs) for the students' anxiety. As the results of path analysis shows, worship, social issues and worldviews and beliefs through behavior and human life indirectly affect the students' anxiety. The results of this study is consistent with the studies [10] on the relationship between attitudes and religious beliefs and mental health; [11-13] studies about relationship between the religious attitude and spiritual beliefs and depression and anxiety's level; [14] study about relationship between religious attitude and mental compatibility, self-esteem and mental health; [15] study about enhancing religious attitudes which would reduce depression and stress. In interpreting these findings, it can be said that religious beliefs may play significant role which can reduce mental disorders and related problems such as stress, depression, anxiety. Strengthening religious beliefs at all stages of life is a preventive measure to reduce mental disorders. Religious training and beliefs can

lead people to growth and perfection and, also mental health. Faith in God would make human being capable of destroying the areas of anxiety in him. Also, by considering the importance of students' mental health, society and universities should use programs to strengthen the students' religious values.

Another finding of this study showed that there was negative relationship between the components of spiritual intelligence and students' anxiety by using the Pearson correlation coefficient at confidence level of 99%. The based on results of regression analysis, also component of spiritual intelligence (understanding and communication with the source of life) predict students' anxiety. As the results of path analysis understanding and communication with the source of life through human life and behavior indirectly affect students' anxiety. The results of this study are consistent with the results of studies of [16-20]. In interpreting these findings, it can be said that spiritual intelligence represents a series of abilities and capacities which would increase the adaptability and also, human health [26]. Those who have higher spiritual intelligence possess higher mental health because of three reasons: the first, religion creates coherent belief system that allows people to discover the meaning of life and hope for the future [27]. Spiritual beliefs allow people to give meaning to adversity, stress and inevitable losses that occur in their lives. The second, participation in religious affairs provided social support to individuals. The third, spiritual beliefs are often associated with healthier lifestyle. Spiritual intelligence also creates meaning and purpose to life. People who have sense of significance and purpose of life would cope with the situations in the crisis with and hope to God enables them to experience less

psychological distress [28]. It can also be said that spiritual belief system allows individuals to give meaning to adversity, stress and inevitable losses that occurs in life cycle and be hopeful and optimistic to the next life where there is no such difficulties [29]. Perhaps the reason for this would be that individuals' feelings towards supernatural phenomena can provide psychological support and there would also be spiritual support that cannot be measured in phenomenological terms. Because of nature of transcendent spiritual experience, people with spiritual beliefs are constantly communicate with understanding of their own life experiences that include the spiritual and divine interventions and these interventions can change live events, thoughts and behavior and gainfully on how to handle the adverse events. Also, when people need counselor who helps to cope with the pressure of life, spiritual intelligence can help them find meaning in stressful situations and this coping can be described as attempt to find meaning in stressful situations [20]. The growth of spiritual intelligence allows getting new understanding of self and self-confidence. Spiritual intelligence will help us to have stable self and can reduce fears and anxiety and also deeply communicate with others [20]. The results of present research will help professionals and psychologists to consider spiritual intelligence as predictors of stress, anxiety and depression, and improve students' mental health. In this way, students understand their mental health pathological problems and present better performance in dealing with harmful situations by use of spiritual intelligence. The rich environments that stimulate the intellectual questions can enhance and strengthen the spiritual intelligence. Hence, holding seminars and workshops in this field can provide the opportunity for students to achieve this goal.

Conclusion

According to the results of this study and effect of religious attitude on anxiety, it is suggested that the necessary efforts should be done to promote young peoples' religious beliefs and strengthening the spiritual and also religious attitudes should be included in life skill training programs at

universities.

Limiting the population of this study to students of medicine in Ardabil University of Medical Sciences, data collection by using questionnaire, using modeling approach that does not provide the possibility to infer a causal results are some of limitations of present study. Based on the results of this study, it is recommended that this study be repeated at lower levels.

According to this study, researchers concluded that the components of religious attitude and spiritual intelligence's components predict students' anxiety.

Acknowledgments

The authors gratefully acknowledge the all students who completed the questionnaires of this study.

Contribution

Study design: AKh

Data collection and analysis: MMBM

Manuscript preparation: AKh, MMBM

Conflict of Interest

"The authors declare that they have no competing interests."

Funding

The author (s) received no financial support for the research, authorship and/or publication of this article.

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