

## Original Research

# The Relationship between Preoperative Anxiety and Religious Beliefs in Patients in Peymaniyeh Hospital in Jahrom in 2017

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## Abstract

**Introduction:** Since the diseases affect the both body and mind along with anxiety, may be associated with poor treatment outcomes and prolonged recovery process and postoperative complications. So in this study we investigated The Relationship between preoperative anxiety and religious beliefs.

**Methods:** This study is a cross-sectional descriptive study in which 209 patients admitted to hospitals affiliated to Jahrom University of Medical Sciences entered the study. The data collection tools in this study were the Spielberger Anxiety Questionnaire and the Religious Beliefs Questionnaire. Data analysis was performed using descriptive and analytic statistical tests at a significance level of  $P < 0.05$ .

**Results:** According to the results of the Pearson correlation coefficient between preoperative anxiety variables and religious beliefs in hospitalized patients in Jahrom's Peymaniyeh Hospital, it was observed that there was not any significant relationship between religious beliefs score and Trait anxiety ( $r=0.067$ ,  $p = 0.396$ ) and state anxiety ( $r=0.086$ ,  $p=0.270$ ).

**Conclusion:** In the present study, there was no significant relationship between preoperative anxiety variables and religious beliefs in hospitalized patients, so it is recommended that further studies be conducted in this field.

**Keywords:** Preoperative Anxiety, Surgery, Religious Beliefs, Hospital, Patients

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## Introduction

Today, surgery is a common treatment for many diseases and injuries (1). Surgery is always a great experience for the patient and his family (2), which is accompanied by several psychological complications for patients (3), among which mental disorders and anxiety are the most common (4). In 2001, the World Health Organization (WHO) examined mental disorders in various countries and found that

mental disorders, especially anxiety, were seen in 38.6 percent of people in developing countries and 83.2 percent in industrialized countries (5). Anxiety is a distressing state of mind or a feeling of helplessness related to a threatening situation or anticipation of an unknown threat to oneself or others (6). Anxiety begins when the patient is aware of the need for surgical treatment and peaks at the time of hospitalization (8). Anxiety before

surgery is a common public phenomenon seen in almost all patients awaiting surgery (9). Kim et al. (2010) stated that its incidence is more than 60% of patients (10). Anxiety harms tissue healing and repair; besides, consuming too much mental and physical energy during anxiety can lead to fatigue and cause a series of biochemical activities in the body that stimulate the autonomic system, muscle tension, and increase production Corticosteroids (11); it may stimulate the sympathetic system to increase heart rate, increase blood pressure, reduce blood flow to the wound, and constrict arteries (12). If anxiety is not controlled or get prolonged, it may lead to increased protein breakdown, reduced wound healing, increased risk of infection, altered immune responses, and electrolyte and fluid imbalances, and changes in sleep patterns (13). These factors prolong hospital stay and delayed patient discharge (14); also, the presence of anxiety during the preoperative period may attribute to gastric ulcer (15) and reduces patients' satisfaction with the treatment and nursing care ( 16). But one of the things that play a very important role in the prevention of psychotherapeutic disorders is religion and religious beliefs (17,18). Today, most scholars believe that religion has undeniable effects on the health of the body and other aspects of human life. Religion is considered a factor in psychological well-being, and the lack of religion or adherence to religious beliefs in any religion or profession is associated with high levels of

depression and suicidal ideation. It has been suggested that people who have religious beliefs or perform religious acts are more likely to experience anxiety and psychological diseases than those who do not have religious beliefs (21,22). Religion is so important to nurture the health of the human soul that it is like breathing air. Religion helps a person understand the meaning of life's events, especially those that are painful and anxious. Religion (23). Joint research between religious and professional groups in the field of mental and medical health has found that spirituality and religious attitudes are associated with positive outcomes in physical and mental health (24, 25). Systematic review studies have also shown that religious interference and spirituality are associated with better health outcomes (26). Thus, several findings support appropriate attention to spirituality in treatment. Although the need to address religious and spiritual issues in treatment is becoming increasingly apparent, there is still a traditional resistance by many physicians to a variety of personal and professional contexts (27). But new studies have examined the use of religious confrontation during stressful events such as cancer treatment, surgery, kidney transplantation, and have shown that the use of religious confrontation is generally effective and can help patients survive and recover (28,29). Various studies have shown conflicting results on the relationship between religious beliefs and anxiety (32-30). Helping patients to safely achieve improved mental

health may be easily possible through the religious beliefs. Therefore, a study investigating the relationship between anxiety before surgery and religious beliefs in patients admitted to Peymaniyeh Hospital in Jahrom city in 2017 has been designed.

## Method

This research is a cross-sectional descriptive study that was conducted in 2017 in Peymaniyeh Educational and Medical Center of Jahrom city. After obtaining permission from the Medical Ethics committee and the officials and the director of Peymaniyeh Hospital, the researcher collected samples who were patients admitted to different wards of Peymaniyeh Hospital. The sampling method was random from different wards. The sampling method was such that the researcher distributed the questionnaires equally in 5 wards of Peymaniyeh Hospital. After entering each ward, the questionnaire was given to the hospitalized patients and information was collected. The data collection tool consisted of three questionnaires:

1- Demographic information questionnaire included: age, gender, marital status, type of job, level of education.

2- Spielberger State-Trait Anxiety Inventory (STAI) that was developed by Spielberger in 1970. Spielberger's anxiety questionnaire contains 40 questions, from questions 1 to 20 dedicated to state anxiety and from questions 21 to 40 are regarding the trait anxiety section. Answers are in the 4-likert scale scoring options of: "never", "sometimes", "generally",

"too much". And the questions related to trait anxiety are given in the same way as the 4 scoring options, which are: "rarely", "sometimes", "most of the time", and "almost always" (33). Finally, each question scores are summed in each section (minimum 20, maximum 80 for each section). Spielberger et al. (1970) reported that Cronbach's alpha coefficient for the state anxiety subscale was 0.92 and for the trait anxiety subscale was 0.90. The test-retest coefficient was also obtained for the state anxiety subscale equal to 0.62 and for the trait anxiety subscale equal to 0.68.

3- The religious beliefs questionnaire prepared by Golriz et al. in 1974 has an interpretation of the Allport test and consists of 25 questions. The reliability of this study was obtained through correlation with 80% Allport test (34). Allport and Ross prepared this test in 1970 and it was translated and standardized in Iran in 2008 (reviewed in 35). Its internal reliability was obtained using Cronbach's alpha coefficient of 71%. Each question has five scales (score of 0 to 4) based on the Likert scale, with a total score of 100. Response options were as follows: "excellent", "good", "average", and "poor", respectively. In the case of a total score of 76-100 was defined as excellent religious attitude, 51-75 as good, 26-50 as moderate, and 25 and below as poor religious attitude (36).

## Inclusion and exclusion criteria

Criteria for admission to the study include: patients admitted to different wards of Peymaniyeh Hospital, age between 20 and

50 years and the ability to read and write, and exclusion criteria include: non-cooperation to participate in the study, incomplete filling in the questionnaire.

### Data analysis

Descriptive indicators (frequency distribution, mean, standard deviation) and analytical statistics (independent statistical tests, Pearson and analysis of variance) were used to describe the data. SPSS software version 21 was used to analyze the data.

### Results

Based on the results of the descriptive statistics, it was found that the majority of the people in the study (57.7%) belonged to men. Also, in terms of marital status, the majority of respondents (57.7%) were married, in terms of the level of education, the majority had high school degree (49.2%); in terms of occupation the majority (35.3%) had a freelance job. The subjects in this study had an average age of 34.22 years and a standard deviation of 15.35 years, with the lowest age being 16 years and the highest age being 86 years. Also, the majority of respondents (36.6%) were in the age group of 21 to 30 years. Table 1 shows the descriptive statistics of demographic variables.

### Preoperative anxiety:

The results of the study of the subjects in terms of the degree of state and trait anxiety along with the mean and standard deviation of these characteristics are presented separately in Table 2. According to the results of the study,

the average state anxiety level was  $44.96 \pm 7.57$  and the trait anxiety levels was  $44.54 \pm 8.17$ .

According to the results of the independent t-test, there was no significant difference between the average anxiety of women and men for state and trait anxiety ( $t(187) = -0.688$ ,  $p = 0.492$ ;  $t(187) = 0.861$ ,  $p = 0.391$ , respectively). However, there was a significant difference between the average anxiety of single and married people ( $t(187) = -2.807$ ,  $p = 0.006$ ). There was also a significant difference between the mean trait anxiety of single and married individuals ( $t(187) = -2.273$ ,  $p = 0.024$ ).

According to the results of one-way analysis of variance between the mean state and trait anxiety of people with different educational levels ( $F(3,179) = 1,274$ ,  $p = 0.285$ ;  $F(3,179) = 1,567$ ,  $p = 0.199$ , respectively) There was no significant difference between the mean state anxiety of people with different occupations ( $F(5,178) = 1,927$ ,  $p = 0.092$ ) and the mean trait anxiety of individuals with other occupations ( $F(5,178) = 1,138$ ,  $p = 0.342$ ). There was a significant difference between the mean state anxiety of individuals in different age groups ( $F(5,180) = 2,621$ ,  $p = 0.026$ ). However, no significant difference was observed between the mean trait anxiety of individuals in different age groups ( $F(5,180) = 1.995$ ,  $p = 0.081$ ).

According to the results, the people in the study had an average Religious beliefs of  $59.73 \pm 8.50$  (Table 2). Based on the results of the independent t-test, no significant difference was observed between the mean of religious

beliefs of men and women ( $t(187) = -1.153, p = 0.250$ ). But there was a significant difference between the average religious beliefs of single and married people ( $t(187) = -2.556, p = 0.011$ ).

Based on the results of one-way analysis of variance, there was no significant difference between the average religious beliefs of people with different educational levels ( $F(3,179) = 1.255, p = 0.291$ ), between the average religious beliefs of people in different occupations ( $F(5,178) = 1.237, p = 0.293$ ) And between the mean religious beliefs in different age groups ( $F(5,180) = 1.187, p = 0.318$ ).

### **The relationship between religious beliefs and preoperative anxiety:**

According to the results of Pearson correlation coefficient between pre-operative anxiety variables and religious beliefs in hospitalized patients of Jahrom city hospital, it was observed that there wasn't any significant relationship between religious beliefs score and state anxiety ( $r = 0.067, p = 0.396$ ) and There was no difference between religious beliefs and trait anxiety ( $r = 0.086, p = 0.270$ ).

### **Discussion:**

The present study showed that there is no significant relationship between the score of religious beliefs and anxiety. In line with the results of this study, Kalkhoran and colleagues reported a relationship between religious beliefs and preoperative anxiety but did not find this relationship to be significant (37).

Also in Koenig et al.'s study, listening to religious radio and television programs had a negative relationship with physical health and, contrary to expectations, a positive relationship with depression (38). In contrast to the present study, the results of the study of Tajbakhsh et al. showed that spiritual-religious care has a significant effect on reducing the fear of patients before cardiac surgery (39). Bussing's study also showed that religion and spirituality were considered as an important source of physical and mental fitness in chronically ill patients (40). Study Koenig showed that beliefs and religious activities can improve mental health, reduce the rate of suicide, anxiety, and depression, speed of recovery from depression, increased health, hope and optimism, more social support, creating purpose and meaning in life and the satisfaction and stability of family life (38). Findings of Aghajani's study in hemodialysis patients indicated that spiritual counseling caused a decrease in the median mental anxiety and depression in the intervention group (41). Various studies have shown a positive correlation between spiritual health, religious orientation, and religious beliefs with better mental physical performance and higher self-esteem (42). Also, there was a significant relationship between religiosity and recovery from heart surgery and it was found that those who had stronger religious beliefs had fewer complications and shorter hospital stays (43). Another study that examined the link between religious activity and depression in older people with cancer



showed that among blacks with cancer, religious activity included performing religious duties, religious attachment, and watching or listening to religious programs are associated with lower levels of depressive symptoms (44). Besides, it has been shown that the use of the effect of religious confrontation in general, both at specific times and over time, has had better adaptive effects for both groups of patients and their relatives (43, 45). The reasons for the better situation in patients who have better beliefs can be found in the hope and purpose of life and the attitude and fear of death among religious people (46).

The present study showed that there is a significant difference between the average religious beliefs of men and women. Unlike our study, a study by Barati et al. showed that the level of religious beliefs in women was significantly higher than in men. Similarity has been shown in several other studies that women had higher levels of religious beliefs than men. Although this difference may not be clinically significant. In an epidemiologic perspective, the reason for this difference can be justified in the interaction between anxiety caused by surgery and greater fear in women, possibly due to a lack of better understanding of religious questions in women (47,48).

In the present study, the score of the religious attitude of most research wards was higher than average. Soltani et al.'s study also showed that the spiritual experiences of the patients under

study were higher than the average level, which is consistent with the results of this study (49).

The results showed that there is a positive and significant relationship between age and religious belief, which is consistent with the results of the study of Soltani et al. (49). As

People get old, they are progressing to the final stages of their spiritual and psychological development and have a clearer and more meaningful view of their lives. On the other hand, the cultural and religious context in Iran is such that older people have a broader religious-spiritual perspective.

The present study was observational and in terms of determining the causal relationship between anxiety and religious belief may not provide a strong reason for causality, but it can provide an overview to the field of interventional studies in patients' beds, especially in providing treatment for incurable diseases with a long hospital stay. This study was conducted cross-sectional, so it cannot express causal relationships between variables alone. Also, the results of the study are based on patients' reports of their condition, and this can lead to a percentage of errors. This is one of the most important limitations of this study.

## Conclusion

In the present study, there was no significant relationship between preoperative anxiety variables and religious beliefs in hospitalized patients, so it is recommended that further studies be conducted in this area.

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## Conflict of interest

There is no conflict of interest for the authors of this article.

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## Tables and Charts:

**Table 1:** Descriptive statistics of demographic variables

Variable	Categories	Number	Frequency
Gender	Man	109	57.7
	Female	80	42.3
marital status	Single	80	42.3

	Married	109	57.7
Level of Education	High school	90	49.2
	Diploma	40	21.9
	Bachelor	47	25.7
	Master's degree and higher	6	3.3
Job Type	Freelance	65	35.3
	Farmer	10	5.4
	Employee	21	11.4
	Unemployed	28	15.2
	housewife	43	23.4
	manual worker	17	9.2
Ages	20 years and less	27	14.5
	21 to 30	68	36.6
	31 to 40	39	21
	41 to 50	25	13.4
	51 to 60	14	7.5
	61 and above	13	7

**Table 2.** Mean and standard deviation of patients' anxiety and Religious beliefs

		state anxiety		Trait anxiety		Religious beliefs	
		mean	Standard deviation	mean	Standard deviation	mean	Standard deviation
Gender	male	44.73	7.29	44.99	7.79	59.14	8.80
	Female	45.51	8.30	43.95	8.77	60.58	8.08
marital status	Single	43.18	7.29	42.94	7.64	58.05	9.02
	Married	*46.34	7.88	*45.64	8.41	*61.18	7.78
Level of Education	High school	45.46	7/64	44.92	8.17	60.14	8.69
	Diploma	45.78	8.86	45.57	8.66	58.02	9.40
	Bachelor	43.13	6.66	42.24	7.02	60.88	7.42
	Master's degree and higher	43.06	7.80	43.83	7.90	56.12	6.96
Job Type	Freelance	45.81	8.28	45.53	8.62	59.35	9.73
	farmer	43.36	7.80	43.90	6.75	57.51	5.76
	Employee	43.20	5.31	42.76	4.70	59.84	7.06
	Unemployed	41.96	7.26	42.21	6.95	57.65	9.57
	housewife	46.85	7.57	44.67	9.22	62.21	6.94
	manual worker	45.73	7.36	46.80	8.64	59.25	8.13
Ages	20 years and less	43.15	6.85	42.13	8.17	58.75	9.90

	21 to 30	44.20	7.25	43.91	7.23	58.78	8.02
	31 to 40	44.60	8.50	44.51	8.58	59.84	9.10
	41 to 50	48.12	7.36	46.53	7.90	59.95	7.95
	51 to 60	*50.05	6.36	49.52	10.23	60.75	7.08
	61 and above	44.64	8.50	43.82	7.09	64.73	8.26

\* Significant statistical result with p value <0.05.