



*Research article*

## **Self-esteem and self-confidence relationship with religious tendency in families with a child suffering from cancer**

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**Abstract:** *Background:* Cancer and its diagnosis are one of the most difficult experiences of life during which the family face many spiritual crises and are looking for a definition for anguish and misery. Often the spiritual faith of the patient and their family is lost and their bond is impaired. Thus, the present study attempts to determine self-esteem and self-confidence relationship with religious tendency in families with a child suffering from. *Methods:* The present cross sectional study, which was a correlation type, was performed with cooperation of 50 parents of children suffering from cancer in 17<sup>th</sup> Shahrivar hospital in Rasht, in 2017. Gambler and Richie self-esteem, Eysenck self-confidence, and Allport's religious tendency questionnaires were used to collect data. The data were then entered in SPSS version 21 software. For comparing the variables of self-esteem score, self-confidence, external and internal religious tendency, Mann-Whitney and Kruskal-Wallis tests were used. *Findings:* Mean and SD of self-confidence score, self-esteem and religious tendency were  $97.9 \pm 6.8$ ,  $82.6 \pm 13.9$ , and  $60.1 \pm 6.8$ , respectively. Mean and SD of external and internal score of religious tendency was  $48 \pm 2.3$ , and  $39 \pm 11.3$ , respectively. Statistical tests showed that the religious tendency scores and the external and internal scores of religious tendency in terms of self-confidence (moderate self-confidence, high self-confidence) were not statistically significant ( $P > 0.05$ ). *Conclusion:* According to the findings of this study, highly self-confident parents had a higher mean score than those with moderate self-esteem. Additionally, the external score of religious tendency was higher in single parents and in the first children than in other groups. Given that the present study was conducted for the first time in Iran, it is suggested that parents of cancerous children be supported by the hospital in terms of spirituality, self-confidence and self-esteem during throughout the time of their child admission.

**Keywords:** self-esteem; self-confidence; religious tendency; child; cancer

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## 1. Introduction

Childhood cancer is used to refer to cancers diagnosed in children below the age of 15 [1]. Cancer is one of the chronic diseases and the second leading cause of death in children aged 5 to 14 years [2,3]. In the United States, more than 8,500 annual cases of cancer are diagnosed in children less than 15 years of age [4,5]. Reports indicate that 157 out of a million people in Europe are diagnosed with cancer every year [6]. In Iran, about 2% of children under the age of 14 are diagnosed with cancer [7,8]. Having a child with cancer, apart from changing the child's life, can make significant changes in the daily lives of the parents and cause them a lot of trouble [9,10]. During the course of cancer treatment, spiritual crises are created in the patient and his family, seeking to find meaning for anguish, and misery, spiritual faith of the patient and their family is lost and the bond between them is impaired due to uncertainty of survival of the patient. Patients whose spirituality is strengthened can effectively adapt to their disease and even better spend the final stages of their illness [11].

Spirituality, in other words religion, has three critical roles in the process of coping with events and problems; providing meaning for life, helping people to feel emotionally controlled when confronted with different situations, and creating a sense of self-confidence for individuals [12]. Religious beliefs impede the development of negative attitudes, mental disorders, and mental illnesses in individuals [13]. Cancer causes feelings of dependency, reduced self-confidence, increased vulnerability and disturbed thoughts, and disrupts day-to-day activities, social activities and mental relaxation, and the role of family members in calming the child and caring for her is considerably effective [14].

Cancer can affect the psychological and social characteristics of the children and even their parents. In other words, families of children with cancer experience depression, lower self-confidence, stress and emotional harm.

Children with cancer have problems in school and their education is affected by their illness. Also their parents have bigger problems, which sometimes leads to suicide [15].

Human being is a social being, whose many needs and flourishing talents are created only through the interaction between the individual and his social connections and skills [16]. Self-esteem is one of these skills that plays a large role in interpersonal relationships and strengthens behaviors such as self-confidence, independence, mental health, and self-consciousness [17]. Self-esteem means that one needs to communicate with others in order to meet his psychological and social needs, and the inability to express himself can create psychological and social harmlessness between a person with a disease with his or her family and cause anxiety and low self-confidence, depression and mental illness and incompatibility. Self-esteem can create positive energy in a person with a disease and forgetfulness of negative thoughts caused by the pain and suffering of the disease and can help to improve the social life of the affected person [18].

In the context of the correlation between self-esteem and self-confidence with religious tendency in families with a cancerous child, very limited studies have been conducted in Iran. Due to the high prevalence of cancer in Iran and the different complications and consequences of this disease, the present study was conducted to determine the relationship between self-esteem and self-confidence with religious tendency in families with a child suffering from cancer.

## 2. Methods

### 2.1. Studied population

This descriptive-analytic study which is correlational, was carried out with the help of 50 parents of children suffering from cancer in 17th Shahrivar Hospital, Rasht, in 1396. Sampling method was a gradual sampling performed over a period of four months.

### 2.2. Ethical considerations

In order to observe ethical considerations, the purpose of the study was explained to mothers and they were assured that the questionnaires would be used without mentioning the name. It should be noted this work of research was performed only after obtaining a license from the Faculty of Nursing and Midwifery of the Islamic Azad University of Isfahan (Khorasgan) and receiving the ethics code (Code of Ethics: IR.IAU.RASHT.REC.1396.9.7) from the research ethics committee of Islamic Azad University of Rasht.

### 2.3. Inclusion criteria

- Parents with at least one child below the age of 20 years with a definitive cancer diagnosis.
- Parents being aware of the definitive diagnosis of their child's cancer.
- Parent being willing to participate in the study.
- Parents not suffering from any mental illnesses.

### 2.4. Exclusion criteria

- Ruined questionnaire.
- Parents being unwilling to continue the study.

### 2.5. Data collection tool

The tools used to collect the data were three demographic questionnaires, Gambrel and Riche self-esteem questionnaire, Eysenck self-confidence questionnaire, and Allport religious tendency questionnaire.

The demographic information questionnaire includes questions such as child age, gender, financial status, rural or urban residence, educational level, number of children, time of diagnosis of cancer, type of cancer, religion, and birth order, age of the parent completing the questionnaire, and occupation of the provider of the family.

Gambrel and Riche self-esteem questionnaire: The present questionnaire is based on the self-esteem test developed by Gambrel and Riche (1975) and has 40 main items, some of which have been modified due to inconsistency with the Iranian culture. The subjects were asked to respond to questions in a five-point grading scale. Reliability of the questionnaire was calculated using Cronbach's alpha method, which was estimated to be 0.8. The validity of this questionnaire was approved by the university professors and the factorial validity of the articles in this test was reported to be between 0.39 and 0.75. The scoring scale of this questionnaire had 5 options. On this scale, the items were

scored on the basis of the values “1, 2, 3, 4, 5” and the result of the sum of the scores showed the degree self-assertiveness in the individual. Scores were aggregated and provided a general self-esteem score that can range from 22 to 110 (thus higher scores reflect higher degree of self-esteem) [19].

Eysenck self-confidence questionnaire: The self-confidence questionnaire has 30 items with a five-point Likert scale (ranging from “definitely no” to “definitely yes”), and each item valued between 1 to 5. The minimum score was 30 and maximum 150. A score of 30 to 50 shows low confidence level, a score of 50 to 100 confidence signifies moderate confidence, and a score of 100 to 150 shows that confidence is high. Its reliability coefficient was 0.88 using Cronbach’s alpha and 0.87 was used for the spin-off method [20].

Allport religious tendency questionnaire: Allport religious tendency questionnaire, contains 21 sentences that were presented to the subjects. The test questions had four options, and accordingly the questionnaire was scored on a scale of 1 to 4. The questionnaire does not have a cutoff, and the higher score the individuals obtain, the stronger is the intended adjective in them. This test has been translated and standardized in Iran in 1377 and its validity has been confirmed by John Bozrogi (1377). Using Cronbach’s alpha, its inner consistency was 0.71 and its retest reliability was 0.74 [21].

During both day and night shifts, at various working hours, we referred to the blood department of the hospital. After selecting the eligible families, parents were made aware about the research and its aims by face to face speaking for at least ten minutes. If willing to participate, parents were asked to complete a consent form. Initially, demographic and self-confidence questionnaire were given to parents, and two days later, they completed the self-esteem and religious tendency questionnaires. After excluding the ruined ones, the questionnaires were collected for analysis.

## 2.6. Statistical analysis

After data collection, the information was entered in SPSS version 21 software. For comparing the variables of self-esteem score, self-confidence, external and internal religious tendency, Mann-Whitney and Kruskal-Wallis tests were used. In order to compare the total religious tendency, the Independent T-test and ANOVA were used due to have a normal distribution. Spearman correlation coefficient was used to study the correlation between variables. Shapiro Wilk test was used to examine the normal distribution of variables. In multiple analysis, multiple linear regression model was used, using Beck's input method. The significance level of the tests was considered with  $P < 0.05$ .

## 3. Findings

54% of the children were male and 46% female, with age mean and SD of  $6.9 \pm 3.8$  years. In terms of educational status of parents, 36% had high school diplomas. 46% of the parents had two children. The mean and SD of the parents age was  $36.1 \pm 5.2$  years. For occupational status, the majority of samples were self-employed (38%) and farmers (30%).

Mean and SD of self-confidence score was  $97.9 \pm 6.8$ , with a maximum and minimum of 110 and 78. The mean and SD for self-esteem, religious tendency, and external and internal scores of religious tendency were  $82.6 \pm 13.9$ ,  $60.1 \pm 6.8$ ,  $60.1 \pm 6.8$ ,  $48 \pm 2.3$ , and  $39 \pm 11.3$ , respectively.

There was no significant relationship between religious tendency score and external and internal score of religious tendency based on the status of self-esteem ( $P > 0.05$ ) (Table1).

**Table 1.** Self-esteem status vs religious tendency score.

Studied variables	Self-esteem status (Determination)	Mean $\pm$ SD	P-Value
Religious tendency score	Moderately determined	60.30 $\pm$ 6.92	> 0.05
	Highly determined	57.67 $\pm$ 2.08	
Religious tendency external score	Moderately determined	2.30 $\pm$ 0.49	> 0.05
	Highly determined	2.67 $\pm$ 00.0	
Religious tendency internal score	Moderately determined	3.09 $\pm$ 0.40	> 0.05
	Highly determined	3.30 $\pm$ 0.23	

Note: Kruskal-Wallis test and Mann–Whitney U test

The religious tendency scores and the external and internal scores of religious tendency based on self-confidence (moderate self-confidence, high self-confidence) were not statistically significant ( $P > 0.05$ ) (Table2).

Based on statistical tests, there was no significant difference between self-confidence score and self-esteem status (high determination and moderate determination) ( $P > 0.05$ ). The statistical test showed that there was a significant correlation between the expressed score and the self-esteem ( $P < 0.05$ ), so that high self-esteem parents had a higher mean score than those with moderate self-esteem ( $P < 0.05$ ). Statistical tests showed that there was a significant correlation between self-esteem score and self-confidence ( $P < 0.05$ ), such that highly self-confident parents had a higher mean score of self-esteem than those with moderate self-confidence ( $P < 0.05$ ). (89.8  $\pm$  12 with a median of 97 against 77.5  $\pm$  12.9 with a median of 73).

**Table 2.** Religious tendency score, and religious tendency internal and external scores based on self-confidence status.

Studied variables	Self-confidence	Mean $\pm$ SD	P-Value
Religious tendency score	Moderately confident	60 $\pm$ 7.81	> 0.05
	Highly confident	60.33 $\pm$ 5.11	
Religious tendency external score	Moderately confident	2.32 $\pm$ 0.54	> 0.05
	Highly confident	2.31 $\pm$ 0.39	
Religious tendency internal score	Moderately confident	3.10 $\pm$ 0.37	> 0.05
	Highly confident	3.12 $\pm$ 0.43	

In Table 3, self-confidence scores were evaluated based on individual and social variables. There was no significant difference in confidence scores based on individual and social variables ( $P > 0.05$ ). However, it was significant based on the number of children ( $P < 0.05$ ), such that parents with two

children had a higher mean and median compared to parents with one child, or parents with three children or more (Table 3).

**Table 3.** Self-confidence score based on individual and social variables.

Individual and social variables		Self-confidence score	
		Mean $\pm$ SD	P-Value
Patient gender	Male	98.35 $\pm$ 4.97	> 0.05
	Female	97.04 $\pm$ 7.94	
Patient age	5 years or below	98.43 $\pm$ 6.30	> 0.05
	Above 5 years	97.37 $\pm$ 7.22	
Parents educational status	Illiterate	98 $\pm$ 3.46	> 0.05
	Below high school diploma	94 $\pm$ 7.90	
	High school diploma	97.78 $\pm$ 5.87	
	Higher education	99.14 $\pm$ 7.30	
Financial status	Weak	97.07 $\pm$ 6.48	> 0.05
	Moderate	98.95 $\pm$ 7.16	
Place of residence	Rasht	97.89 $\pm$ 7.56	> 0.05
	Other cities	97.84 $\pm$ 6.36	
Number of children	One	95.79 $\pm$ 7.28	< 0.05
	Two	100.52 $\pm$ 6.29	
	Three or above	95.13 $\pm$ 4.02	
Birth order	First child	96.44 $\pm$ 7.07	> 0.05
	Second Child	99.90 $\pm$ 6.35	
	Third child	96 $\pm$ 3.56	
Mother's age	Below 35 years	97.57 $\pm$ 6.76	> 0.05
	Above 35 years	98.11 $\pm$ 6.98	
Father's job	Self-employed	97.11 $\pm$ 6.22	> 0.05
	Laborer-Farmer-Unemployed	98.94 $\pm$ 6.51	
	Employee	97.46 $\pm$ 8.13	

In Table 4, information on the assessment of self-esteem scores based on individual and social variables revealed that there was no significant difference between the individual and social variables with the level of self-esteem ( $P > 0.05$ ) (Table 4).

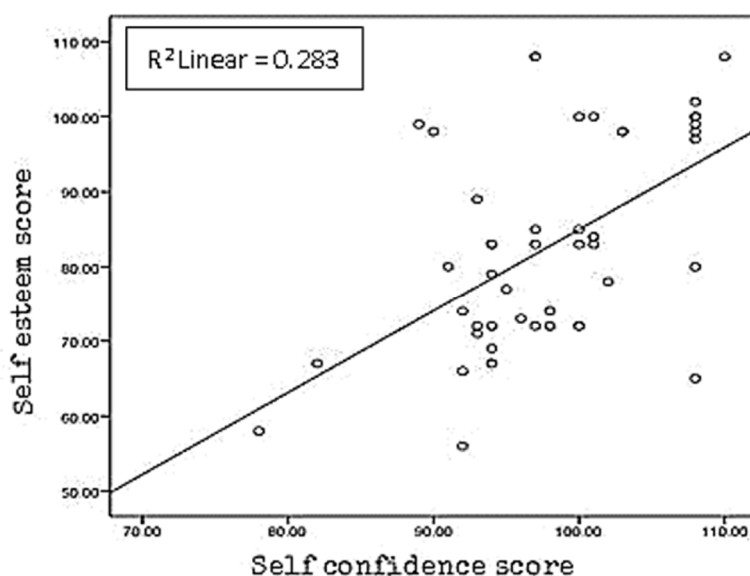
**Table 4.** Self-esteem scores based on individual and social variables.

Individual and social variables		Self-esteem score	
		Mean $\pm$ SD	P-Value
Patient gender	Male	82.57 $\pm$ 12.31	> 0.05
	Female	81.96 $\pm$ 15.12	
Patient age	5 years or below	81.52 $\pm$ 12.99	> 0.05
	Above 5 years	83.59 $\pm$ 14.77	

*Continued on next page*

Individual and social variables		Self-esteem score	
		Mean $\pm$ SD	<i>P</i> -Value
Parents educational status	Illiterate	83.67 $\pm$ 1.15	> 0.05
	Below high school diploma	83.43 $\pm$ 17.61	
	High school diploma	82.61 $\pm$ 14.97	
	Higher education	82.27 $\pm$ 13.38	
Financial status	Weak	84.34 $\pm$ 15.29	> 0.05
	Moderate	80.29 $\pm$ 11.61	
Place of residence	Rasht	80.74 $\pm$ 11.89	> 0.05
	Other cities	83.81 $\pm$ 15.04	
Number of children	One	79.37 $\pm$ 13.74	> 0.05
	Two	86.04 $\pm$ 13.66	
	Three or above	80.63 $\pm$ 14.32	
Birth order	First child	79.96 $\pm$ 13.51	> 0.05
	Second Child	86.71 $\pm$ 14.70	
	Third child	78 $\pm$ 6.38	
Mother's age	Below 35 years	80.65 $\pm$ 11.59	> 0.05
	Above 35 years	84.33 $\pm$ 15.59	
Father's job	Self-employed	83.36 $\pm$ 14.08	> 0.05
	Laborer-Farmer-	85.67 $\pm$ 15.44	
	Unemployed		
	Employee	77 $\pm$ 10.09	

Distribution of self-confidence score with self-esteem shows that based on the coefficient of determination ( $R^2 = 0.283$ ), 28.3% of the self-esteem score changes are dependent on self-confidence scores (Figure 1).



**Figure 1.** Self-confidence vs self-esteem scores distribution.

Correlation coefficient of self-esteem scores with self-confidence scores ( $r = 0.504$  and  $P < 0.0001$ ) was statistically significant and showed a direct, though moderate, correlation. Based on the information in Table 5, correlation between the religious tendencies with the score of self-esteem and self-confidence score was not statistically significant ( $P > 0.05$ ) (Table 5).

**Table 5.** Studied variables coefficient.

Studied variables		Self-esteem score	Self-confidence score	Religious external score	Religious internal score
Self-confidence score	Spearman coefficient	0.504			
	<i>P</i>	0.001			
Religious tendency external score	Spearman coefficient	-0.104	-0.004		
	<i>P</i>	0.472	0.976		
Religious tendency internal score	Spearman coefficient	-0.035	-0.021	-0.082	
	<i>P</i>	0.811	0.883	0.570	
Religious tendency score	Spearman coefficient	0.010	-0.009	-0.836	0.560
	<i>P</i>	0.944	0.944	0.000	0.000

#### 4. Discussion

The present study showed that the confidence score in the studied subjects was moderate. The study of Li et al in Australia showed that the depression rate in children surviving from cancer was higher compared to school children without cancer, while the mean self-esteem score for survivors was significantly lower than normal [22]. The results of the study by Li are not consistent with the results of the present study, considering that the majority of the subjects of this study, had a moderate self-confidence score. The reason for such inconsistency can be attributed to the difference in religious tendencies in the Iranian society. But in order to create high self-esteem among parents of cancer patients, healthcare professionals with appropriate educational interventions are required to increase the confidence of parents of children with cancer, so that they acquire a positive attitude towards the impact of cancer on their lives and their children.

In the present study, increased self-confidence score was a sign of higher self-esteem. In this regard, the results of the study by Bahreini et al, entitled "The effect of training self-esteem on self-confidence", showed that the mean scores of pre-test and post-test of components of self-confidence in the experimental group were significant with some tests, whereas no significant relationship was found between the mean scores of post-test and pre-test in the control group [23]. In the present study, the mean score for self-esteem was moderate, in regard of which, the study by Mardani et al showed that the level of self-esteem in the subjects was relatively favorable [24]. Performing a self-esteem training program is useful during counseling activities, and on the other hand, since self-esteem is a behavior that enables a person to act in his own interest, to stand without any anxiety and express his true emotions honestly [25], it is necessary for parents of children with special diseases, to strengthen



this social quality. Religious tendency was high in the present study, and the mean external score of religious tendency was moderate while the mean internal score of religious tendency was weak. The study by Pirbodaghi et al showed that the religious tendency of mothers of children with cancer was high [26], which is consistent with the results of this study. The study by Chavoshi et al demonstrated that religious tendency was internal in the staff of the university and external in ordinary people [27]. In this regard, the authors believe that the internal religious tendency can increase the ability to cope with problems and bring physical and mental health and prevent the emergence of physical and mental illness, and also can make people more satisfied with their activities. Given that families with children suffering from cancer are exposed to many stresses, and the increase in spirituality and religiosity can help meeting difficult conditions and increase the ability to deal with problems, the religious tendency score in families with a child suffering from cancer was investigated.

The findings of this study revealed that there was no significant correlation between religious tendencies and self-esteem or self-confidence score. Neither any significant relationship was found between religious tendency score and the external and internal scores of religious tendency based on the status of self-esteem. In the study of Bahrami et al, a significant correlation was found between religious tendency and self-esteem, which is not consistent with the findings of this study [28]. McNulty et al., studied self-esteem and religious tendency and their results showed that supportive factors such as self-esteem, religion and spirituality played an important role in adapting to the stressful conditions caused by chronic diseases, and the spirituality caused a decrease the rate of illness and increased life expectancy, and those who tended to spirituality responded better to treatment when faced with injury and trauma, and demonstrated less depression and anxiety [29]. The study by Vachon et al. found that cancer patients often consider their spiritual beliefs as a way of getting answers to their questions about life, values, the world around them, and why they are sick, and the reason of their suffering during illness and after illness. They also see spiritual beliefs as a way of coping with illness and reducing the suffering and pain of illness and coping with the concept of death; in contrast to patients with cancer who have less spiritual beliefs, often deal with confusion and inability to respond to the questions they have about the disease and consequently they develop depression and reduce self-confidence in the course of the disease [30]. The findings of many studies reveal that spiritual well-being and religious tendency are critical factors making life meaningful which help patients to cope with cancer, reduce their psychological distress and improve their quality of life and their mental health. Research has also confirmed that feeling of comfort and power from religious beliefs can contribute to health and feeling of well-being. Religious practices may not lead to the treatment of a patient, but can help a person to feel good, prevent some health problems and easily get rid of illness and death [31].

One of the strengths of this study is to address a functional and multifaceted issue related to child health and mental health of children with cancer, standard questionnaires and in-depth interviews with parents. It was also the first study on the relationship between self-expression and self-esteem with religious orientation in families with a child with cancer in the region [32].

## 5. Conclusion

The findings of this study showed that highly self-confident parents had a higher average score than those with moderate self-esteem. Additionally, the external score of religious tendency was higher in single parents and in the first children than in other groups. There was also a significant relationship between self-esteem and self-confidence, and increase self-esteem score was accompanied by

increased self-confidence score. However, the increase in self-confidence and self-esteem scores was not related to religious tendency. Given the fact that the assertiveness questionnaire deals with dare, the increase in the score of this questionnaire is more than expressed. Due to the fact that the present study was conducted for the first time in Iran, it is suggested that the parents of cancerous children should be supported by the hospital in terms of spirituality, self-confidence and self-expression during the period of their children admission.

### Acknowledgements

We would like to thank the parents who patiently and honestly answered the questions that made this research possible. The authors of this work would also like to express their gratitude for cooperation of the Faculty of Nursing and Midwifery of the Islamic Azad University of Isfahan (Khorasgan) and the Islamic Azad University of Rasht.

### Conflict of interest

The authors declare no conflict of interest.

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