

# The relationship between personality dimensions with resiliency and sense of coherence with respect to the role of spiritual health in the patients' candidate for eye surgery

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## ABSTRACT

**Introduction:** This research aimed to determine the relationship between personality dimensions with the rate of resiliency and internal cohesion regarding the intermediary role of spiritual health in candidate patients for eye surgery. **Methods:** The method used in this is of correlation type, and statistical population in this project included all eye patients chosen for eye surgery who were examined at technical eye clinics in Tehran. The statistical sample included 200 patients from the statistical population who were chosen through a targeted sampling method. The data collection tools were Conner and Davidson's tolerance questionnaire (2003), Maccary and Costa's personality questionnaire (1985), Antonowski's internal cohesion scale (1970), and Politzin and Elison's spiritual health questionnaire (1982). The research hypotheses were examined through regression analysis, Pearson's correlation, and path analysis. **Results:** The results showed that the calculated fit indices of the structural model of the research were correlated with the five dimensions of personality and internal cohesion of patients undergoing eye surgery with respect to the mediator role of spiritual health with 88% confidence. Investigation of path analysis coefficients showed a significant relationship between exogenous and intermediary variables on resiliency and internal cohesion (P value = 0.00). **Conclusion:** According to the results of the research, the spiritual health variable plays a significant mediating role for exogenous and endogenous variables in this model. Therefore, personality traits not only directly influence resilience and internal cohesion but also indirectly influence spiritual well-being.

**Keywords:** Eye surgery, personality dimensions, resiliency, spiritual health

## Introduction

The eyes are the most sensitive part of the body, and at the same time, they are susceptible to many environmental hazards.

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However, over 92% of our life information is received through the eyes, and other members only have a limited ability to replace the eye (such as the ear or the sense of touch). According to the latest World Health Organization estimates, 565 million people worldwide have visual impairments, with approximately 29 million of them blind (with a prevalence of 1 to 2 million people annually), which means that 91% of the world's population is affected by problems.<sup>[1]</sup>

Undoubtedly, eyes and their function are very important elements of human existence, and the health of the eyes and perfect vision can greatly affect the physical and mental health of any person. Decreased visual ability leads to decreased motor activity, which reduces the quality of life.

Studies on personality types and resilience, internal cohesion, and their spiritual health have been done in many areas such as diabetes, heart disease and so on, but in the field of ocular diseases, no specific research has been done on the above variables, and the lack of such research is clearly felt.

There are many variables that can assess different aspects of the role of the spirit in a variety of diseases and how they are dealt with. In the present study, we intended to investigate the role of personality dimensions, resilience, internal cohesion, as well as the mediating role of spiritual health in ophthalmic patients undergoing eye surgery.

Many studies have shown that the degree of resilience and internal cohesion of patients is directly related to their personality type. Therefore, in the present study, we examined the five dimensions of personality in patients undergoing eye surgery, to evaluate their resilience and internal cohesion compare them in different personality types, and investigate the correlations between the above variables.

Resilience is one of the normal concepts and constructs of interest and the study of positive psychology. Resilience enables one to benefit from their adaptive skills and make stressful opportunities an opportunity for learning and growth. People with resilience are resilient and flexible, adapt to their changing environment, and return to recovery quickly after the stressors are removed.

In fact, resilience is generally regarded as an attribute related to character, personality, and coping ability that implies empowerment, flexibility, ability to master or return to normal mode after facing severe stress and challenge.<sup>[1]</sup> Resilience, of course, is not just about resilience to threatening conditions and not being passive in dealing with hazardous conditions, it is related active and productive in its peripheral environment. In other words, resilience is one's ability to balance mental health in dangerous conditions.<sup>[2]</sup>

In addition, researchers believe that resiliency is a form of self-healing with positive emotional and cognitive consequences.<sup>[3]</sup>

Resilience is the ability to adapt successfully and respond positively to adverse and threatening conditions. A sense of cohesion expresses one's belief in the ability to cope with different situations that enhances the sense of independence and self-esteem and promotes health-related behaviors and performance improvement.<sup>[4]</sup>

Structural personality cohesion comprises three components: perception, management ability, and meaning. Understanding makes one feel confident that nothing negative or surprising has happened and that life can go well, reasonably, and as expected. The component of management ability reflects the feeling of having the resources needed to solve the problem, and ultimately, a meaningful feeling that expresses how valuable a person is to his or her life, and how emotional it is.

Cohesion sense is an internal experience that grows gradually during youth until it is reflected as a sustainable quality. It is notable that the intensity of the sense of cohesion is influenced by the external and reactive factors and events that an individual exhibits in these events.

One of the most important cultural and social factors related to mental health in recent decades is spiritual health. Spirituality is the supreme dimension of human existence that has been imposed on all human beings to reach perfection. Spiritual health provides a harmonious connection between the internal forces and creates peace, symmetry, and harmony in life, as well as a sense of close connection with self, God, society, and the environment. In fact, spiritual health is the newest dimension of health, which has both religious and existential health dimensions. Religious health reflects a relationship with God or infinite power, and existential health represents the relationship of the individual with himself, others, and the environment, which can be seen as the ability to integrate different aspects of existence and make different choices. The key question that arises here is whether or not there is a relationship between personality dimensions and resilience and internal cohesion regarding the mediating role of spiritual health in patients undergoing eye surgery.

## Materials and Methods

This study was a descriptive correlational study that assessed the relationship between personality types with resilience and internal cohesion. We also examined the role of spiritual health as an intermediary variable by modeling the pattern. The statistical population of this study was ophthalmology patients who were candidates for ophthalmic surgery referred to specialized eye clinics in Tehran.

The sampling method was purposive.

$$\frac{Z^2 \times S^2}{d^2} = N$$

$$\frac{1.96^2 \times 0.05^2}{0.07^2} = \frac{0.9604}{0.0049} = 196$$

After calculating the above formula, the sample size was 196 persons.

### Conner and Davidson's resiliency questionnaire

The questionnaire developed by Conner and Davidson (2003)<sup>[4]</sup> for measuring the resilience of individuals has 25 items. Conner and Davidson (2003) calculated the internal consistency reliability coefficient of this test through Cronbach's alpha in the range of 0.76 to 0.90 and also calculated the test-retest reliability coefficient equal to 0.81. To determine the validity of this first scale, correlation of each score with total score except for item 3 showed coefficients between 0.41 and 0.64. Cronbach's alpha coefficient was used to determine the reliability of the Conner and Davidson's self-resilience scale, with a reliability coefficient between 0.89 and 0.93 Cronbach's alpha for this questionnaire. Conner and Davidson (2003)<sup>[4]</sup> calculated 0.76 Cronbach's alpha for this questionnaire in the study.

### Neo personality questionnaire

McCrae and Costa (2016)<sup>[5]</sup> first developed a questionnaire called Neo with 86 questions. They then prepared 260-question and 60-question forms to measure personality traits. This questionnaire has been used in different societies and is a good tool for measuring personality traits. In a study of 208 students, McCrae and Costa (2016)<sup>[5]</sup> reported the reliability coefficients of five personality traits from the 60-item female material short-form test using Cronbach's alpha ranging from 0.75 to 0.83. Reliability of this questionnaire in men and women applying for divorce in Ahvaz city by Cronbach's alpha was between 0.66 and 0.90 and by split method between 0.51 and 0.82 and for normal men and women by Cronbach's alpha between 0.60 and 0.84 and calculated by the split method between 0.64 and 0.80.

### Antonovsky's internal cohesion scale

This scale is a 50-question questionnaire developed. This questionnaire has three subscales to measure the degree of perceived, manageable, and meaningful events of the individual. The internal cohesion questionnaire has good internal consistency, and Cronbach's alpha coefficient of the whole scale is 0.935, for the significant subscale is 0.927, for the manageable subscale is 0.650, and for the intelligible subscale is 0.886.

### Paulotzin and Ellison spiritual health questionnaire

In the 20-question questionnaire on spiritual well-being, 10 items measure a person's religious health and the other 10 questions measure a person's existential health. The spiritual health score is the sum of these two subgroups with a range of 20–20. The answers to these questions are categorized as a six-point Likert, from strongly disagree to fully agree. This questionnaire was administered to 283 nursing students of Iran, Tehran, and Shahid Beheshti Universities in 2005 by Mojgan Abbasi in 2005.<sup>[6]</sup> For this questionnaire, R = 0.82 was reported. Research findings:

Results showed that 46.5% of patients were female, and 44.5% were male. Also, 9% of people did not answer this question.

Table 1 shows the statistical description of the scores for the research variables including tilt and elongation along with the

mean and standard deviation indices of the maximum and minimum scores. Given that the values of skewness and elasticity of the data are between +2 and -2, it results that the variables have a normal distribution.

The results of the correlation matrix indicated that there was a positive and significant correlation between resiliency [Table 2] in patients undergoing eye surgery with extraversion, flexibility, and responsibility and there was a significant negative correlation between resilience in patients undergoing eye surgery with neuroticism with 99% confidence. However, there was no significant correlation between pleasantness and resilience among the subjects evaluated.

Results of the correlation matrix [Table 3] indicated that there was a positive and significant correlation between internal cohesion and flexibility dimension in patients undergoing eye surgery with 99% confidence. There was a positive and significant correlation between internal cohesion and dimensions of responsibility and pleasantness in patients undergoing eye surgery with 95% confidence. There was also a significant negative correlation between internal cohesion and neuroticism in patients undergoing eye surgery with a significant psychological dimension with 99% confidence. However, there was no significant correlation between extraversion and internal cohesion among the subjects evaluated.

The results of the correlation matrix showed that there was a positive and significant correlation between spiritual health and resiliency in surgical candidates with 99% confidence [Table 4].

Results of the correlation matrix showed that there was a positive and significant correlation between spiritual health and internal cohesion in patients undergoing surgery with 99% confidence.

Results of the correlation matrix showed that there was a positive and significant correlation between spiritual health in patients undergoing eye surgery with dimensions of extraversion, resilience and responsibility with 99% confidence and 95% confidence with pleasantness [Table 5]. Also, there was a significant negative correlation between spiritual well-being in patients undergoing eye surgery with 99% confidence of neuroticism.

Path analysis and structural equations were used to investigate the mediating role of spiritual health in the relationship between five dimensions of personality and internal cohesion of patients undergoing eye surgery. The model investigated along with the indicators for model fit is presented below. The indices related to the model are presented in the following table.

Index of Chi-square ratio with the degree of freedom ( $\chi^2/df$ ) confirms model's fitting. This value is smaller than 3 and shows the fitting of the model with the data [Table 6]. The Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) are smaller than the

**Table 1: Descriptive statistics of the research variables scores**

	Statistical index	Tilt	Elongation	Standard deviation	Minimum	Maximum
Psychosis	-0.322	0.669	38,26	5.98	22	58
Extraversion	0.201	-0.567	37.04	5.54	25	49
Pleasantness	-0.379	0.454	37.70	4.32	24	48
Flexibility	0.189	-0.141	38.21	4.65	28	51
Responsibility	0.464	-0.252	40.38	6.98	25	58
Resiliency	-0.446	0.228	41.76	12.26	14	71
Internal cohesion	-1.21	1.33	138.74	17.50	70	189
Mental health	0.284	0.026	72.37	8.64	49	97

**Table 2: Correlation matrix between five personality dimensions and resilience rate in patients undergoing eye surgery**

Statistical indicators	Psychosis	Extraversion	Pleasantness	Flexibility	Responsibility
Pearson correlation	-0.517**	0.336**	0.067	0.217**	0.765**
Significance level	0.00	0.00	0.609	0.00	0.00
Number	200	200	200	200	200

\*\* $(p < 0.01)$

**Table 3: Correlation matrix between five dimensions of personality and internal cohesion in eye surgery candidate patients**

Statistical indicators	Psychosis	Extraversion	Pleasantness	Flexibility	Responsibility
Pearson correlation	-0.924**	0.131	0.139*	0.930**	0.168*
Significance level	0.013	0.065	0.049	0.00	0.018
Number	200	200	200	200	200

\* $(p > 0.05)$  and \*\* $(p < 0.01)$

**Table 4: Correlation matrix between spiritual health and resilience, spiritual health, and internal cohesion in patients with eye surgery**

Attributes evaluated	n	Pearson correlation	Significance level
Spiritual health and resilience	200	0.536**	0.006
Spiritual health and internal cohesion	200	0.928**	0.024

\*\* $(p < 0.01)$

related criterion (0.08), and finally, Goodness-of-fit index (GFI), Comparative fit index (CFI), Normed fit index (NFI), and Relative Fit Index (RFI) are larger than the related criterion (0.9). Taken together, considering the sum of the fitted indices, the structural model of the research is fitted to the data.

## Discussion

Correlation matrix results show that there is a positive and significant correlation between resiliency in patients undergoing eye surgery and extraversion, flexibility and responsibility dimensions, and there is a negative and meaning between resiliency and neuroticism dimension. However, there was no significant correlation between being pleasant and resilience among the subjects evaluated. Given the negative relationship between neuroticism and resilience, individuals with negative emotions such as fear, sadness, arousal, and anger as an attribute are likely to have less power to control impulses and have a lower degree of compromise with others and stressful situations.

Personality traits that do not include resilience are as follows: a) low activity level, b) not being responsive to people, c) weak

communication skills, d) lack of motivation to recover, e) lack of internal control, f) lack of concentration, g) Pessimism, h) lack of self-confidence and self-assurance, i) lack of environmental protection. These traits reflect neuroticism personality.

The results showed that there was a positive and significant correlation between internal cohesion in patients undergoing eye surgery with flexibility, responsibility, and pleasantness. There was also a significant negative correlation between internal cohesion in patients undergoing eye surgery and neuroticism. However, there was no significant correlation between extraversion and internal cohesion among the subjects evaluated.

The results are consistent with the results of Hashemi (1390). In this regard, Hashmi stated that spiritual beliefs illuminate the purpose of life and provide comfort in painful and threatening situations.

There is a positive and significant correlation between spiritual well-being and resilience in patients undergoing surgery. People with high spiritual health can be more adapted to problems and tensions. The decline in spiritual health leads to feelings of loneliness, stress, and loss of meaning in life.<sup>[4,7]</sup>

Having faith increases people's tolerance for adversity and helps them overcome challenges and changes in their lives. Transcultural communication has also been mentioned as an individual supportive factor in creating and facilitating resilience, and religious beliefs serve as a support for greater adaptation. Spirituality is also a key factor in nurturing resilience.



**Table 5: Correlation matrix between five dimensions of personality and spiritual health in candidate patients for eye surgery**

Statistical indicators	Neuroticism	Extraversion	Pleasantness	Flexibility	Responsibility
Pearson correlation	-0.922**	0.210**	0.168*	0.989**	0.270**
Significance level	0.00	0.00	0.018	0.00	0.00
Number	200	200	200	200	200

\*(p&gt;0.05) and \*\*(p&lt;0.01)

**Table 6: Model fitting indices for model fit**

Variable	Fitting index	$\chi^2/df$	GFI	NFI	RMSEA	CFI	RFI	IFI	SRMR
Acceptable range		$\leq 3$	>0.9	<0.08	>0.9	>0.9	>0.9	<0.08	
Resilience	Observed amount	0.342	0.925	0.923	0.058	0.954	0.908	0.954	0.048
Internal cohesion	Observed amount	0.724	0.91	0.93	0.07	0.968	0.925	0.974	0.054

There was a positive and significant correlation between spiritual health and internal cohesion in patients undergoing surgery. Asgari and Shafiee's (2017)<sup>[8]</sup> results are consistent with the subject of predicting the quality of life in the elderly based on internal cohesion, mindfulness, and spiritual intelligence. The results showed that there is a positive and significant relationship between spiritual health and internal cohesion. Internal cohesion is associated with well-being and psychological stress because people with high internal cohesion perceive the world as predictable, controllable, and meaningful, and view stressors as important challenges that are worth facing. Therefore, they can come up with appropriate ways to overcome the situation.<sup>[9]</sup>

There was a positive and significant correlation between spiritual health in patients undergoing eye surgery with extraversion, flexibility, responsibility, and acceptability. There was also a significant negative correlation between spiritual well-being in patients undergoing eye surgery and neuroticism. Similar research on older people shows that older people who regularly attend religious services have a healthier immune system than those who do not. They are also more likely to have consistently lower blood pressure. Patients undergoing open-heart surgery and whose religious beliefs make them feel empowered and relaxed are three times more likely to be alive after surgery than those who do not have a religious affiliation.

Path analysis and structural equations were used to investigate the mediating role of spiritual health in the relationship between five dimensions of personality and internal cohesion of patients undergoing eye surgery. The results of the study showed that the overall structural fit of the research model with the data was 99% with the confidence of the calculated fitting indices. Stephan, Y. (2009). Spiritual health is one of the key elements in the four dimensions of health and is a determining factor. Spiritual health can be described as an effective and solid solution in all stages of life.<sup>[10]</sup> Unpleasant stressful situations like getting sick can be one of those special situations.<sup>[11]</sup> Jones-Mason *et al.* stated that spiritual health is one of the most important principles in the process of treatment of various diseases.<sup>[11]</sup> According to the theory of spiritual well-being, communication with oneself, others, and sanctities empower one's soul. In explaining this finding, it can be said that if

people are spiritually healthy, they will be more active in dealing with life's challenges, such as illnesses and stressful situations because spiritual well-being can bring about inner peace, so it can increase one's cohesion by reducing disturbances and be involved in racism and resiliency improvement. Spiritual health, on the other hand, can be more effective in improving one's cohesion by increasing individual responsibility, and by reducing neuroticism, resulting in better internal cohesion. Spiritual health is a coping force for successful and easy confrontation when faced with challenges and stress. Individuals are rescued from weakness and frustrations when they believe that they are not alone in facing problems, and they can better focus their energy on helping others solve their problems. In relation to others and their support, a new structure of relationships and bonds is formed that is effective in creating conditions of internal cohesion and improving resilience. In other words, people with spiritual well-being can facilitate the promotion of their psychological well-being.

## Conclusion

It can be concluded that spiritual health variable plays a significant mediating role for exogenous and endogenous variables in this model. Therefore, personality traits not only directly influence resilience and internal cohesion but also indirectly influence spiritual well-being.

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## Conflicts of interest

There are no conflicts of interest.

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