The Relationship between Resiliency and Five Dimensions of Personality in Nurses and Paramedical staff in Lar and Gerash Hospitals

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Abstract

Background: Resiliency is considered as a coping method for nurses in dealing with work problems. Because different personality characteristics also cause different responses by nurses in coping with challenges, this study was conducted to investigate the relationship between personality traits and resilience in Nurses and Paramedical staff in Lar and Gerash hospitals.

Methods: This is a cross-sectional study. The research sample consisted of 160 nurses and paramedical staff in Lar and Gerash hospitals that were selected by convenience sampling strategy. To measure the variables, NEO Personality Inventory (NEO-FEI) and Connor - Davidson Resiliency Scale (CD-RISC) were used. Data were analyzed using Pearson correlation coefficient in SPSS version 25 software.

Results: Statistical analysis showed that extraversion personality traits (r=0.680, P<0.001), openness to experience (r=0.452, P<0.001), agreeableness (r=0.298, P<0.001), and conscientiousness (r=0.635, P<0.001) had a positive and significant correlation with the resiliency variable, and it was only the trait of neuroticism (r=-0.749, P<0.001) that had an inverse and significant correlation with the resiliency variable.

Conclusion: In the nursing profession, resiliency is a key element in improving the mental health of nursing staff and helping them to cope better with their stress, challenges and difficulties. Therefore, awareness of the effect of the nurses' personality traits leads to better management, and since resilience is an educable and changeable variable, problems with nurses who lack effective personality traits can be improved by increasing resiliency.

Introduction

Traumatic and stressful events are experienced by all human beings. However, not all people are affected by clinical disorders and stress. In such cases, the question is: what are these individual characteristics that protect them from stress? One of these features can be resilience.[1]

Resilience is characterized by a person's response to stressful life events or continuous exposure to stress.[2] It helps people to cope with difficulties and stressful life conditions and protects them from mental disorders and life problems[3] because those who are resilient are more likely to adapt to the problems and use problem-solving techniques when dealing with traumatic events.[4] They are more optimistic about events[5] and report lower levels of frustration and loneliness.[6] In addition, people with higher levels of resilience are more productive and efficient.[7]

However, resilience has a multifaceted nature. Thus, one may be resilient in one dimension but not in the other.[8] Among the issues raised in the field of resilience is the role of personality traits and individual characteristics. According to the Differential Copping-Choice model, personality affects stress-related processes through impact on the extent of coping with stress, on the type of response to it, or on both contexts.[9] Because specific personality traits encourage the individuals to use different coping strategies, individuals respond differently to stress.[10]

Among the most well-known psychological approaches to personality, the five-factor pattern of personality traits includes neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness.[11]

Rahmati et al. in Iran found that spiritual and religious intervention increases the resiliency of families of patients admitted to intensive care units.[12] In recent years, the study of resilience in the field of nursing has expanded[13-15] and more research is needed on resilience.[11] Perhaps, the tendency toward research on resilience is because protective factors play an important role in one's life.[11] The role of high endurance in resilient individuals supports the idea that firm and resilient individuals are able to move backward from obstacles and difficulties and adapt to theorems. High levels of resilience are extremely important in stressful, overworked, inappropriate, and unreliable environments.[16]

In hospitals, nurses and paramedical staff are regularly confronted with a variety of outpatient and inpatient care, and it is important that these people experience such adverse events without having to become involved or have ongoing mental illness, or depression and other mental disorders. Rather, solving and dealing with such issues always maintain mental health, so that they can continue to work well in their profession.

The health and well-being of the personnel dealing with high-risk cases is essential to their lives and jobs. The concept of resilience is one of the key terms in well-being and is an important factor which helps the nurses, paramedical staff, and people in high-risk jobs to cope with the stresses, challenges, and difficulties of their work.[12]

Various researches have been conducted on resilience in nurses,[14, 17, 18] but less attention has been paid to the study of the relationship between resilience and different dimensions of personality; therefore, the researchers decided to investigate the relationship between personality traits and resiliency in hospital nurses and paramedical staff. Such research implies preparing better educational programs to support and improve the well-being and health of nurses as well

as training students for such jobs. They can also be selected for different positions in the hospitals based on their personality. In addition, a specific personality profile will be obtained from nurses and hospital caregivers, who hold related training courses and classes to increase their readiness to encounter the risks and resilience.

Methods

This is a cross-sectional descriptive study in which the relationship between personality characteristics and resilience variables in nurses was evaluated. Before being recruited in the study, the participants received a thorough explanation of the design and objectives of the study and those willing to participate provided written informed consent.

In this study, after coordinating with relevant authorities in the Hospital and Faculties of Larestan and Gerash University of Medical Sciences and justifying the goals of the project, during a meeting the authorities of the city were justified and nurses from different hospitals were asked to cooperate in the implementation process. After explaining the design and consent of the members and observing the ethics of the research, we asked them to fill out the questionnaires of resilience, personality characteristics and demographic information. The present study was approved by the Code of Ethics IR.LARUMS.REC.1395.1.

A similar study was used to determine the sample size.[11] Considering the significance level of 5%, statistical power of 80%, and design effect of 1.3, we estimated the final sample size to be 160 subjects. Short form Neo Five-Factor Inventory (NEO-FFI) questionnaire was used to measure the personality traits. The test consists of 60 Likert expressions with 5 spectra including completely rejected, rejected, neutral, accepted, and fully accepted. The test measures five indicators of extraversion, openness to experience, neuroticism, agreeableness, and conscientiousness. The examiners must have at least 9 formal education classes. Each item is scored from 0 to 4.[19] NEO-FFI Personality Questionnaire was administered by McKerry and Costa to 208 American students with a three-month interval whose reliability coefficients ranged from 0.75 to 0.83. The long-term validity of this questionnaire has also been evaluated. A 6-year study on the scales of neuroticism, extraversion, and openness to experience showed the coefficients of validity of 0.57 to 0.83 in personal reports as well as in the couples' reports.[20]

The Resilience Questionnaire also contains 25 items developed by Conner and Davidson.[21] In this test, the minimum score is 0 and the maximum 100. The results of a pilot study on the psychometric

properties of this scale confirmed its reliability and validity.[4] In this study, Cronbach's alpha coefficient of reliability was estimated 0.87. The mean score on this scale was 52. If the test score is higher than 52, the resiliency will be higher and if the test score is closer to zero, the resiliency will be lower.[22] Data were analyzed using Pearson correlation coefficient in SPSS version 25 software.

Results

From 160 participants in this study, 84.40% were women and 70% were married. The mean age of the participants was 34/39±7/84 years old and their mean work experience was 11/45±7/49 (Table 1).

The descriptive findings of the NEO questionnaire showed that the highest mean was the resilience and lowest the neuroticism average in Gerash city (Table 2).

Pearson correlation coefficient was used to measure the relationship between psychological indices; the results showed that there was a significant relationship between resilience and neuroticism index, so that for one unit increase in resilience score, neuroticism index decreased about 74 percent. It also showed a direct and significant relationship between resilience index and extraversion variables, openness to experience, agreeableness and conscientiousness, with a 1% increase in the resilience index score increase by 68%, 45%, 29%, and 63% of extraversion, openness to experience, agreement, management and conscientiousness variables, respectively (Table 3).

Discussion

Nurses have different personalities and come into the workplace with different personality traits that can lead

Table 1: Demographic and clinical characteristics of the study participants

Variable		Descriptive index[*]
Gender		
	Men	25 (15.60)
	Women	135 (84.40)
Living Location		
	Lar	110 (68.80)
	Greash	50 (31.20)
Marital Status		
	Single	48 (30.00)
	Married	112 (70.00)
Education		
	Diploma	17 (10.60)
	Associate Degree	2 (1.20)
	BA	134 (83.80)
	MSc	7 (4.40)
Employment Status		
	Official	48 (30.00)
	Employment contract	72 (45.00)
	Training course	27 (16.90)
	Contractual	13 (8.10)
Organization Status		
	Paramedic	18 (11.20)
	Nurse	137 (85.60)
	Supervisor	5 (3.10)

[*]Frequency (%)

Table 2: Descriptive indices associated with NEO personality questionnaire

Variable		Descriptive index[*]
Lar City	Resilience	59.6±15.04
	Neuroticism	22.47±7.81
	Extraversion	29.37±7.59
	Openness to experience	26.59±5.53
	Agreeability	29.60±4.17
	Conscientious	35.12±6.37
Gersh City	Resilience	61.18±15.56
	Neuroticism	21.00±6.42
	Extraversion	27.96±6.15
	Openness to experience	24.30±3.61
	Agreeability	30.44±3.86
	Conscientious	36.34±4.90

*Mean±SD

Table 3: Comparison of the Relationship between Psychological Indicators Using Pearson Correlation Coefficient

Dimensions of resilience		Dimensions of resilience					
		Resilience	Neuroticism	Extraversion	Openness to experience	Agreeability	Conscientious
Resilience	Pearson Correlation Coefficient	1	-0.749	0.680	0.452	0.298	0.653
	P value	-	<0.001	<0.001	<0.001	<0.001	<0.001
Neuroticism	Pearson Correlation Coefficient	-0.749	1	-0.728	-0.454	-0.372	-0.546
	P-value	<0.001	-	<0.001	<0.001	<0.001	<0.001
Extraversion	Pearson Correlation Coefficient	0.680	-0.728	1	0.532	0.136	0.435
	P value	<0.001	<0.001	-	<0.001	0.086	<0.001
Openness to experience	Pearson Correlation Coefficient	0.452	-0.454	0.532	1	0.002	0.361
	P value	<0.001	<0.001	<0.001	-	0.975	<0.001
Agreeability	Pearson Correlation Coefficient	0.298	-0.372	0.136	0.020	1	0.379
	P value	<0.001	<0.001	0.086	0.975	-	<0.001
Conscientious	Pearson Correlation Coefficient	0.635	-0.546	0.435	0.361	0.379	1
	P value	<0.001		<0.001	<0.001	<0.001	-

to different levels of occupational stress and these factors can affect their mental health.[23] Resilience, on the other hand, makes it possible for a person to use his or her existing capacity to achieve success in life in difficult conditions, despite the risk factors, and to use these challenges as opportunities for empowerment.[24]

The purpose of this study was to investigate the relationship between personality traits and resiliency in nurses and paramedical staff. The results of this study showed that there was a significant relationship between resiliency index and neuroticism, so that for one unit increase in the resilience score, neuroticism index decreased by 74%. Neurotics are prepared for negative emotions and poor coping with impulse control problems.

People with high scores in neuroticism, due to poor cognitive appraisals, do not give themselves the opportunity to think and review the issue and do not understand the situation correctly; thus, they use ineffective coping style.[25] In the study of Tarverdizadeh et al., there was a significant and inverse relationship between resiliency and neuroticism.[25]

In explaining this finding, it can be stated that neuroticism is an instrument that is prepared for negative emotions and poor coping with impulse control problems. These conditions cause one to misunderstand the situation and thus use inadequate confrontational styles.[25] Stress vulnerability is one of the traits of neurotic individuals, so it is not surprising that resiliency has a negative relationship with neuroticism and those individuals with high

neuroticism get low scores on resilience scale.[25]

Neuroticism is a personality factor that has a high emotional stability and low anxiety on one side and, on the other side, emotional instability and high anxiety. People with high scores on this factor have higher irrational emotions and less ability to control impulsive behaviors and weaknesses in coping with problems.[25] Thus, neuroscientists are less resilient to dealing with stressful issues.[23]

This can be added because nurses have high occupational stress, compared to nurses with high neuroticism scores because traits such as negative and irrational thoughts, anxiety, depression, and low self-esteem decrease the control over their work. However, poor service quality and errors increase; as a result, their stress increases, which also decreases the mental health.[23]

In the present study, there was a direct and statistically significant relationship between resilience and extraversion, so that 1 unit increase in the resiliency index score leads to 68% increase in extroversion variable. Individuals' tendency to be positive, assertive, energetic, intimate, and sociable are characteristics of those with an extroversion factor.

Having flexible thinking and broader behavioral options in extroverted individuals increases their exposure to stress. High levels of extraversion are also compatible with adversity, as extroverts are more likely to seek support and succeed. The results are in line with those of Gholipour et al.'s study.[26]

In the present study, a significant statistical relationship was observed between resilience and openness to experience. One unit increase in resiliency index score resulted in a 45% increase in openness to experience. People with high-score are open to the experience of both the inner world and the outside world, and their lives are rich in experience; they are diversified, have mental curiosity and independence in judgment, and their other qualities are imagination and beauty.[25]

In the study conducted by Izadabadi et al. and Farah Bijari et al., there was no significant relationship between the two variables of resilience and openness to experience. Researchers argue that being an experienced person and ability to adapt to new changes and experiences in life do not mean being prepared to fight positive and negative changes in the environment, and many welcome multiple experiences but in a cristical situation they are not capable of adapting to new circumstances.[1] However, the results of this study are in line with the results of Gholipour et al.'s study which found a significant and direct relationship between resilience and openness to experience.

In explaining this finding, the researchers argue that people who score higher on this scale have a higher level of desire to search for new topics and gain new experiences. These people explore different social contexts, thereby exploring different areas including social problems. They get a lot of information. Being aware of potential problems can make people more prepared to deal with their issues when they are actually exposed and in fact be more resilient.[25]

There was a statistically significant relationship between resilience and agreeableness. A 1 point increase in the resiliency index score led to a 29% increase in the agreeableness variable. In the study by Izadabadi et al. and Farah Bijari et al., there was a significant relationship between the two variables of resilience and agreeableness. In this case, since agreeableness emphasizes interpersonal relationships (such as extroversion), it can be concluded that interpersonal relationships, the acquisition of social support, and the existence of a strong social network affect resilience.[1] In this case, it can be added that agreeable people are basically kind, sympathetic with others and willing to help, and believe that others are mutually supportive.[25]

Also, in the present study, there was a direct and significant relationship between resilience index and variables with conscientiousness, so that a 1 point increase in resiliency index results in 63% increase in conscientiousness. The best description for this factor is the concept of determination; a conscientious, purposeful, willing, determined person is trustworthy. Due to their outstanding characteristics such as

high self-efficacy, order in life, high responsibility, self-regulation, pre-operative thinking, delayed gratification, observance of rules and norms, and organization and prioritization assignments, conscientious people have a proper cognitive appraisal of their actual abilities, so they are better able to handle stressors.[24, 25, 26]

In the study by Tarverdizadeh et al., there was a significant and direct statistical relationship between resilience and conscientiousness.[25] In explaining this relationship, it can be said that high-responsibility individuals have strong self-efficacy and are more likely to adopt an active problem-solving approach to overcome stress.[27, 28]

One of the limitations of this study was the high number of questions in the questionnaires, which led to an extension of time that could affect the accuracy of the participants' responses. Another limitation of this study was the low sample size and it was possible to compare if other groups were included in the study. It is recommended that more studies should be conducted with higher sample size and different target groups to find out more accurate resilience dimensions.

Conclusion

In the nursing profession, resiliency is a key element in improving the mental health of the nursing staff and helping them to cope better with their stress, challenges and difficulties. Therefore, awareness of the effect of the nurses' personality traits will lead to better management and since resilience is an educable and changeable variable, problems with nurses who lack effective personality traits can be improved by increasing resiliency.

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