

Research Paper

Investigating the Relationship Between Personality Traits and Job Satisfaction in Iranian Nurses During the COVID-19



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ABSTRACT

Background: Many factors can affect the job satisfaction of nurses. One of these factors is personality traits. Since the disasters such as COVID-19 can also affects the job satisfaction, this study aims to investigate the relationship between personality traits and job satisfaction of Iranian nurses during the COVID-19 pandemic.

Materials and Methods: This descriptive/correlational study was conducted in 2021-2022 on 131 nurses working in military hospitals in Tehran, Iran, during the COVID-19 pandemic. They were selected using a stratified random sampling method. Data collection tools included a demographic form, the Neo personality inventory, and the Minnesota satisfaction questionnaire. The collected data were analyzed in SPSS software, version 16.

Results: There was a statistically significant relationship between job satisfaction and personality traits of neuroticism ($P=0.02$), agreeableness ($P=0.009$), and conscientiousness ($P=0.005$). The highest correlation was related to conscientiousness ($r=0.24$), and agreeableness ($r=0.23$). Extraversion ($P=0.07$) and openness to experience ($P=0.018$) had no significant relationship with job satisfaction.

Conclusion: Job satisfaction of nurses in the study hospitals during the COVID-19 pandemic was at a moderate level. It is necessary for hospitals managers to pay attention to three personality traits of neuroticism, agreeableness, and conscientiousness in nurses to improve their job satisfaction, which can have a direct impact on the quality of nursing care.

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Introduction

Viral diseases are an important public health issue which can cause disasters. A novel coronavirus (COVID-19) which was accompanied by acute respiratory syndrome, was first seen on 31 December 2019, in Wuhan, China and reported later by the World Health Organization (WHO) as a pandemic [1, 2]. This virus was more prevalent than other coronaviruses and had high mortality rate [3]. Nurses are at the frontline of battle against these traumatic events to develop and maintain emergency care [4]. As one of the largest groups of healthcare providers, nurses were more affected by the COVID-19 pandemic due to having direct contact with infected patients. Considering the high number of work demands, lack of resources, inadequate personal protection equipment, and high risk of infection, they are vulnerable to mental health problems such as anxiety, stress, depression, insomnia, denial, anger, and fear of transmitting the virus to others [4, 5]. Their failure in providing quality care have irreparable consequences. The efficiency of healthcare centers is directly related to the performance of nurses [5].

Working during the COVID-19 pandemic caused nurses to experience physical and mental exhaustion which can affect their job satisfaction [6]. Job satisfaction is one of the most complex organizational concepts and is important for increasing organizational productivity and efficiency [7]. It refers to employees' satisfaction with work-related factors, and is deemed "subjective happiness at work" [8]. Job satisfaction in nurses is defined as the positive emotional state that nurses feel toward their job, factors related to job performance, and performance outcome [9]. Job satisfaction is closely related to nursing effectiveness. Lack of job satisfaction reduces nurses' sense of responsibility and commitment and leads to undesirable functioning like nursing errors [10]. Prior studies have identified numerous potential antecedents for job satisfaction, including organizational (e.g. empowerment, workload) and individual (e.g. personality traits) factors [11]. Personality is a multifaceted concept that encompasses a range of characteristics influencing behaviors, thoughts, motivations, morals, and emotions and has five main dimensions: Neuroticism (e.g. anxious, hostile, nervous), extraversion (e.g. sociable, fun loving, optimistic), conscientiousness (e.g. well organized, reliable, persevering), agreeableness (e.g. trusting, flexible, sympathetic), and openness to experience (e.g. originality, independence, intellectual curiosity) [7, 12, 13]. People have different personality traits [8]. A good match between personality and job is crucial for

job satisfaction [14, 15]. The result of a study showed the significant effect of personality on job satisfaction [16]. Therefore, it is crucial to consider the personality traits of individuals during the hiring process [17].

Although various studies have been conducted on the correlation between personality and job satisfaction, it is still unclear which personality traits most accurately predict job satisfaction [16, 18, 19]. The result of several studies have shown that neuroticism is the strongest predictor of job satisfaction among the big-five personality traits, and higher neuroticism is associated with lower job satisfaction [20, 21]. However, one study showed no difference between people with higher extraversion and neuroticism and other people in predicting job satisfaction [22]. In other study, conscientiousness and agreeableness were reported as important predictors of job satisfaction [23]. There are few studies that have simultaneously examined the relationship between all big-five personality traits and job satisfaction, especially during disasters [24]. Considering that during a disaster, such as the COVID-19 pandemic, nurses face a variety of work demands and personal, organizational and professional challenges [25, 26], it is difficult for them to provide services to patients, and cause them experience various psychological distress [4, 27, 28]. In this study, we aim to answer the questions "Are personality traits of nurses related to job satisfaction during" the COVID-19 pandemic? If yes, "which personality traits have a stronger relationship with job satisfaction"?

Materials and Methods

This is a descriptive-analytical study that was conducted in 2021-2022 on 131 nurses working in military hospitals in Tehran, Iran, who held a bachelor's degree or higher in nursing and had worked in COVID-19 wards for at least one month. They were selected using a multi-stage stratified random sampling method. The sample size was determined using the Cochran's formula.

The data collection tools included the standard Neo personality inventory and Minnesota satisfaction questionnaires. There was also a demographic form surveying age, marital status, number of children, religion, economic status, residence status, and type of employment. The standard Neo personality inventory was developed by Costa & McCrae in 1985, tested on 208 American students. The test re-test reliability of the inventory over a three-month period ranges from 0.75 to 0.83 and over 6 years ranges from 0.68 to 0.83 for neuroticism, extraversion, and openness to experience. The reliability coefficients for the two factors of agreeableness and

conscientiousness for a two-year period are 0.79 and 0.63, respectively. The Minnesota satisfaction questionnaire was developed in the [University of Minnesota](#) in 2009 to measure the job satisfaction of employees. This questionnaire has 19 items rated on a five-point Likert range as “strongly agree”, “agree”, “have no opinion”, “disagree”, and “strongly disagree”. The items measure 6 components of payment system, type of job, opportunities for development, organizational climate, leadership style and physical condition [29, 30].

After collecting data, the analysis was conducted in SPSS software, version 16 using non-parametric statistical tests. For demographic data, levels of job satisfaction and personality traits, frequency and percentage were used for reporting. Spearman’s correlation test was used to measure the correlation between two study variables.

Results

Most of participants were male (59.5%), working in the morning shift (41.2%), married (65.6%), having no children (46.6%), Muslim (100%), having moderate economic status (50.4%), living in their own houses (39.7%), and having permanent employment (64.1%) (Table 1). Job satisfaction was examined at three levels. In this regard, 13% had good satisfaction, 67.9% had moderate satisfaction and 19.1% had poor satisfaction (Table 2). In terms of personality traits, 90.1% of those with neuroticism, 91.6% of those with extraversion, 96.2% of those with openness to experience, and 96.2% of those with agreeableness, and 94.7% of those with conscientiousness at level 2. Few of them were at level 3 (Table 3). There was a significant relationship between job satisfaction and neuroticism ($P=0.02$), agreeableness ($P=0.009$), and conscientiousness ($P=0.005$), where the highest correlations were related to conscientiousness ($r=0.24$) and agreeableness ($r=0.23$) (Table 4).

Discussion

Job satisfaction of employees can significantly affect productivity within an organization. Also, it can job attachment and reduce absenteeism. When employees are sufficiently satisfied with their jobs, the performance and service quality of the organization can improve [31]. Various factors can cause a person to feel satisfied with his/her job. Some studies attributes job satisfaction to internal and external satisfaction [17]. Job satisfaction is also influenced by match between job and personality traits [32]. During the COVID-19 pandemic, job satisfaction of nurses was negatively affected [33]. A cross-sectional study on 256 nurses from three hospitals

in northwest of Iran showed that nurses had high work-family conflict and burnout [34]. A study conducted in Mazandaran, Iran, reported a significant increase in job burnout among healthcare professionals during the COVID-19 pandemic [35]. In another study conducted in Iran, nurses had severe symptoms of job burnout and a moderate level of resilience during the COVID-19 epidemic [36]. By examining the personality traits of nurses and its relationship with job satisfaction during this pandemic, it is possible to make predictions to reduce the work pressure of nurses and increase their job satisfaction. In this regard, this study aimed to determine the relationship between personality traits and job satisfaction of nurses working in selected military hospitals in Iran during the COVID-19 pandemic.

The results showed a significant relationship between job satisfaction and personality traits of neuroticism, agreeableness, and conscientiousness among nurses. This is consistent with the results of a study regarding agreeableness and conscientiousness traits but against its results in other personality traits [15]. Also, our findings are consistent with Hatamian et al.’s study regarding conscientiousness and agreeableness, but against its results regarding neuroticism, extraversion, and openness [37]. In our study, two personality traits of conscientiousness and agreeableness had more correlation with job satisfaction of nurses which should be more considered. This implies that nurses with greater agreeableness and conscientiousness are more likely to be satisfied with their jobs [15]. In our study, the mean job satisfaction score of nurses was 47.35, indicating their moderate job satisfaction. This is not in agreement with the results of Gholamnejad [38]. In the present study, most of nurses had level 2 extraversion, agreeableness, openness, and conscientiousness. This indicates that, for example, they are neither entirely introverted nor entirely extroverted or they are not entirely traditional and are open to new experiences. These results are against the results of Khanjani et al. [29] in terms of neurotic personality trait, but are consistent in terms of other personality traits. It is also similar to the results of Hejazi et al. [30] in terms of extraversion and openness, but non-consistent in other personality traits.

There were some limitations to this study. First, this is a descriptive/correlational study. Hence, it is difficult to accurately elucidate causal relationships between personality traits and job satisfaction. Also, due to the outbreak of COVID-19 and limitations related to questionnaire distribution and collection we used online questionnaires sent via social networks. Moreover, the possibility of response bias and lack of proper access to the internet may have affected the results.

Table 1. Demographic information of participants

Variables		No. (%)
Gender	Male	78(59.5)
	Female	53(40.5)
Work shift	Morning	54(41.2)
	Evening	5(3.8)
	Night	9(6.9)
	Rotating	42(32.1)
	Long	16(12.2)
	Evening and night	5(3.8)
	Marital status	Married
Single		45(34.4)
Number of children	0	61(46.6)
	1	27(20.6)
	2	39(29.8)
	3	4(3)
Economic status	Good	20(15.2)
	Moderate	66(50.4)
	Poor	45(34.4)
Type of employment	Permanent	84(64.1)
	Fixed-term	25(19.1)
	Temporary	1(8)
	Contract-to-hire	21(16)
Residency status	Corporate house	41(31.3)
	Rented house	38(29)
	Own house	52(39.7)

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Table 2. Frequency of job Satisfaction levels in participants (n=131)

Variable	Level	No. (%)
Job satisfaction	Good	17(13)
	Moderate	89(67.9)
	Low	25(19.1)

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Table 3. Frequency of personality traits at different levels in participants (n=131)

Variables	Level	No. (%)
Neuroticism	1	10(7.6)
	2	118(90.1)
	3	3(2.3)
Extraversion	1	2(1.5)
	2	120(91.6)
	3	9(6.9)
Openness to experience	1	1(0.8)
	2	126(96.2)
	3	4(3)
Agreeableness	2	126(96.2)
	3	5(3.8)
Conscientiousness	2	124(94.7)
	3	7(5.3)

Table 4. Correlation coefficients between job satisfaction and different personality traits

Variables	Neuroticism		Extraversion		Openness to Experience		Agreeableness		Conscientiousness	
	P	r	P	R	P	r	P	r	P	r
Job satisfaction	0.02	-0.2	0.07	0.15	0.18	0.11	0.009	0.23	0.05	0.24
Neuroticism			0.100	0.28	0	0.41	0	0.41	0.80	0.15
Extraversion					0	0.56	0	0.44	0	0.55
Openness to experience							0	0.46	0	0.35
Agreeableness									0	0.53

Conclusion

Job satisfaction of nurses working in selected hospitals during the COVID-19 pandemic in Iran is related to their personality traits of neuroticism, agreeableness, and conscientiousness. It is needed for hospital managers to pay attention to these three traits to improve the job satisfaction of nurses. It is necessary for the decisionmakers in the [Iranian Ministry of Health and Medical Education](#) to use preventive measures such as screening and in-

tervention strategies for increasing the job satisfaction of nurses, which has a direct impact on the quality of patient care. A qualitative study should be conducted to explore the structural factors that affect the job satisfaction of nurses. In addition, interventional studies should be done to determine the best intervention for increasing the job satisfaction of nurses.

Ethical Considerations

Compliance with ethical guidelines

The study was approved by the Ethics Committee of [AJA University of Medical Sciences](#) (Code: IR.AJAUMS.REC.1399.151). All participants were informed about the study objectives and signed a written informed consent form.

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Authors' contributions

The authors equally contributed to preparing this article.

Conflict of interest

The authors declared no conflict of interest.

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