



The Role of Personality Traits in the Psychological Capital of Nurses with the Mediation of Career Path Adaptability

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Abstract

Background: With the development of the positive psychology approach and changes in the work setting, attention to personality traits, psychological capital, and career path adaptability have played a role in the success of employees more than before.

Objectives: The role of personality traits in the psychological capital of nurses was mediated by career path adaptability.

Methods: The present study was applied in terms of purpose, descriptive in terms of method, and correlational in terms of type. The statistical population of this study included all the nurses of Tehran University of Medical Sciences in 2022. Hereby, 220 nurses were selected from the selected hospitals through voluntary sampling. Data collection tools included Neuroticism, Extraversion, and Openness (NEO) Personality Inventory (2000), and Career Adapt-Abilities Scale (CAAS) (2012), and psychological capital questionnaire (PCQ) (2007). Data were analyzed by structural equation modeling using SPSS and AMOS24 at a significance level of $P < 0.05$.

Results: Pearson's correlation test showed a significant relationship between personality traits, psychological capital, and career path adaptability. Also, the results of the Sobel test showed that career path adaptability plays a mediating role between personality traits and psychological capital ($P < 0.05$).

Conclusions: Nurses' personality traits should be considered to select nurses. Nurses who have desired career path adaptability can better adapt to job changes, which leads to an increase in their psychological capital.

Keywords: Personality Traits, Psychological Capital, Career Path Adaptability

1. Background

Nurses enter the workplace with different personality traits and experience different events in their job and can have a certain attitude and tendency toward different aspects of their workplace (1). Having a job requires a certain mental and personality ability. According to their personality traits, people can have a certain attitude and tendency toward different aspects of their workplace (2). Personality traits play an important role in people's job choices, and Holland's theory emphasizes the existence of harmony between personality traits and job settings for job selection and job adaptation (3). The five-factor model of personality is used to describe personality traits. It includes five traits of neuroticism (negative emotions and anxious relationships), extroversion (lively and social), openness (thinking and creative), conscientiousness (responsible, focused, and organized), and agreeableness

(thoughtful, kind, and supportive) (4). A study showed that 59% of health professionals around the world are nurses, and only one-third of them are satisfied with their jobs (5). Also, it was reported in a study that 44.2% of nursing students did not have a personality suitable for their job (6). Therefore, selecting a job depends on the suitability of the personality traits of the employee and the job, and the compromise and harmony between the type of personality and the type of environment cause more compatibility with the job (3).

Psychological capital is a positive psychological state and a flexible approach to life, whose four components are self-efficacy, hope, resilience, and optimism. Each of these constructs is considered a positive psychological capacity (7). Psychological capital is defined as a person's belief in his abilities to achieve success, insist on achieving goals, create positive documents about himself and

endure problems (8). This is characterized by traits such as having the necessary self-confidence to succeed in challenging tasks, creating positive documents about success, insisting on achieving goals, and changing the paths to achieve goals when necessary (7). Researchers believe that psychological capital has a positive effect on job attitude and behavior and its components are positively related to job performance (8). Employees, who have higher psychological capital with a greater understanding of organizational support, are more receptive to organizational changes and strive to achieve success (9). Psychological capital is a significant intra-individual effect reported by researchers on nurses' work engagement (10). Psychological capital has a strong positive relationship with job attitude and performance (11), psychological well-being (12), and clinical performance (13) and a negative relationship with pessimism, stress, and negative anxiety of employees (14, 15). Psychological capital is a psychological source that has a positive effect on the enthusiasm and job performance of employees. It describes the positive aspects of nurses' job status that is related to nurses' work involvement and their psychological well-being (16) and plays a protective role in nurses (13).

Because of their specific job status, nurses need high job adaptability to the workplace (17). The statistics in Iran show that the problem of hospitals is not only the recruitment and selection of nurses, but also the main problem is their retention (18). One of the reasons for leaving the job of nurses can be due to the lack of career path adaptability (19). Currently, career path adaptability has put changing conditions in front of the employees in such a way that people are forced to create and change in themselves or the environment in order to achieve the desired results. Therefore, career path adaptability is very important in an age that is characterized by changes (20). Career path adaptability is one of the new concepts in the field of occupational counseling, which is characterized by a person's readiness and sources to do work and cope with work transition and personal injury (21). Career path adaptability means the readiness to deal with unpredictable tasks, presence in ambiguous work roles and quick adaptation to work changes, which has been introduced as an important skill for directing and making decisions as well as in the work setting (22). Career path adaptability has four components: concern, control, curiosity, and confidence, which refer to orientation, responsibility, exploring opportunities, and the individual's belief in the ability to overcome problems, respectively (17). It has been reported in a study that career path adaptability has a positive relationship with psychological capital (23). Career path adaptability and its

dimensions require different coping behaviors in which personality can play a significant role (20). In a study, Yousefi showed that personality played a decisive and more effective role in explaining the variance of career path adaptability (24).

It seems that currently, nurses are employed in positions that do not match their personality traits, which will lead to lack of adaptability and a reduction in psychological capital in the future. Career path adaptability and psychological capital can reduce the tendency of nurses to leave their jobs and provide conditions for greater job satisfaction and performance. Therefore, despite the central importance of career path adaptability for nurses, no study was found in the country emphasizing the mediating role of this variable with the psychological capital and personality traits of nurses.

2. Objectives

The present study was conducted to investigate the mediating role of career path adaptability in the relationship between personality traits and psychological capital of nurses.

3. Methods

The method of the present study is descriptive and correlational. The statistical population of the present study consisted of all the nurses of Tehran University of Medical Sciences in 2022. Five hospitals were selected from 16 hospitals (Imam Khomeini, Shariati, Baharloi, Sina and Farabi). Cramer's rule was used to estimate the sample size. Then, 220 nurses were selected by non-random (voluntary) sampling method. The study inclusion criteria were employment as a nurse for at least one year, official and contractual employment, willingness to participate in this study, and not having a managerial position (nursing manager or supervisor). The study exclusion criterion was nurses who filled out the questionnaires incompletely.

3.1. NEO Personality Inventory

The inventory was provided by McCrae and Costa (1992) in which the five big personality factors, including openness, neuroticism, extroversion, agreeableness, and conscientiousness, are measured. There are 60 items and 12 articles for each factor. Cronbach's alpha values were reported as 0.86, 0.73, 0.56, 0.68, and 0.87, respectively. In a study, Cronbach's alpha values were reported as 0.82, 0.69, 0.76, 0.73, and 0.70 for neuroticism, openness, conscientiousness, agreeableness, and extroversion, respectively (2).

3.2. Career Path Adaptability

The scale was provided by Savickas (2012) with the cooperation of 13 countries. This scale has 24 questions that measure four dimensions of career path adaptability (concern, control, curiosity, and confidence). The scale is based on a 5-point Likert scale from completely agree to completely disagree. The highest score is 120, whereas the lowest score is 20. In a study, the mean Cronbach's alpha coefficient among 13 countries has been reported for the concern (0.83), control (0.74), curiosity (0.79), and confidence (0.85). This coefficient was for the scale, which varied from 0.87 to 0.96 among the 13 countries mentioned (20). In a study confirmatory factor analysis (CFA) was used to confirm the validity of this questionnaire. The homogeneity of career path adaptability was also obtained from Cronbach's alpha of 0.91 and retest coefficient of 0.92 after a four-week interval (25).

3.3. Psychological Capital Questionnaire

This questionnaire was prepared by Luthans and includes 24 questions and four subscales of hope, resilience, optimism, and self-efficacy, in which each subscale contains six items, and the subject is entitled to the items on a 6-point Likert scale from completely disagree to completely agree. The maximum score is 144, and the minimum score is 24. In a study, Cronbach's alpha of the psychological questionnaire was reported to be 0.88 and 0.87 (8).

4. Results

The demographic information of the sample indicated that gender (98 men and 122 women), age (36 people under 25 years old, 84 people between 26 - 35 years old, 74 people between 36 and 45 years old, and 26 people 46 years old and above), an education level (139 people had a bachelor's degree, 81 people had a master's degree), work experience (102 people had 1 - 10 years of work experience, 68 people had 11 - 20 years of work experience and 50 people had 21 - 30 years of work experience).

Descriptive indices of research variables showed that the mean and standard deviation of neuroticism was 28.92 ± 8.57 , 39.95 ± 6.97 for extroversion-introversion, 34.60 ± 4.71 for openness, 37.11 ± 5.15 for agreeableness, 41.73 ± 6.17 for conscientiousness. Also, the mean and standard deviation (SD) of career path adaptability is 86.06 ± 16.71 and 106.55 ± 17.87 for psychological capital.

For inferential statistics, assumptions of multivariate normality, linearity, and multiple collinearity were checked, confirming the assumptions. Correlation coefficient was used for the relationship between the

indicators of personality traits, career path adaptability and psychological capital (Table 1).

Table 2 shows the direct effect of personality traits on the adaptability of the career path and psychological capital.

Table 3 shows the mediating and indirect effects on the psychological capital of nurses through personality traits with the mediation of career path adaptability have been reported.

5. Discussion

The present study was conducted to investigate the role of personality traits in psychological capitals with the mediation of career path adaptability. The study results showed that personality traits have a direct relationship with psychological capital and career path adaptability. Also, this relationship has been established indirectly through the mediating role of career path adaptability in the relationship between personality traits and psychological capital (Figure 1). The study results are consistent with the results of studies on the relationship between personality traits, psychological capitals, and career path adaptability (20, 24, 26-28).

According to the results of the present study, it can be said that nurses who have low neuroticism have good control over their behaviors and perform well regarding patients and clients due to their low anxiety, lack of irrational thoughts, and high self-esteem. However, high neuroticism causes an increase in mistakes and failure to provide appropriate services to nurses, which leads to a decline in nurses' job performance (19). Psychological capital makes people believe in their abilities and be optimistic about the situation, which leads to a greater sense of satisfaction (29). Employees with psychological capital tend to think independently, have high self-esteem, and be very responsible and creative. Therefore, with the increase in neuroticism, the psychological capital reduces. Since optimism gives nurses hope for the future, they face challenges without fear or hesitation. While those with neuroticism tend to be depressed, not pay attention to the future, and expect negative events (16). Career path adaptability shows the individual's readiness and sources to deal with tasks and unexpected sudden changes in different job roles. Those with adaptability, when faced with barriers, have a high ability to find alternative paths to achieve their goals (24), which can be related to psychological capital.

Also, to explain this result, it can be said that one of the traits of a good nurse is extroversion. Extroverted nurses have good social relations with colleagues and people around them, which can cause them to work more

Table 1. Correlation Matrix Between Research Variables

Matrix of Variables	1	2	3	4	5	6	7
Neuroticism	1						
Extroversion	-0.655**	1					
Openness	-0.370**	0.431**	1				
Agreeableness	-0.709**	0.584**	0.378**	1			
Conscientiousness	-0.471**	0.640**	0.095	0.396**	1		
Career path adaptability	-0.702**	0.575**	0.243**	0.508**	0.399**	1	
Psychological capital	-0.639**	0.697**	0.279**	0.407**	0.644**	0.480**	1

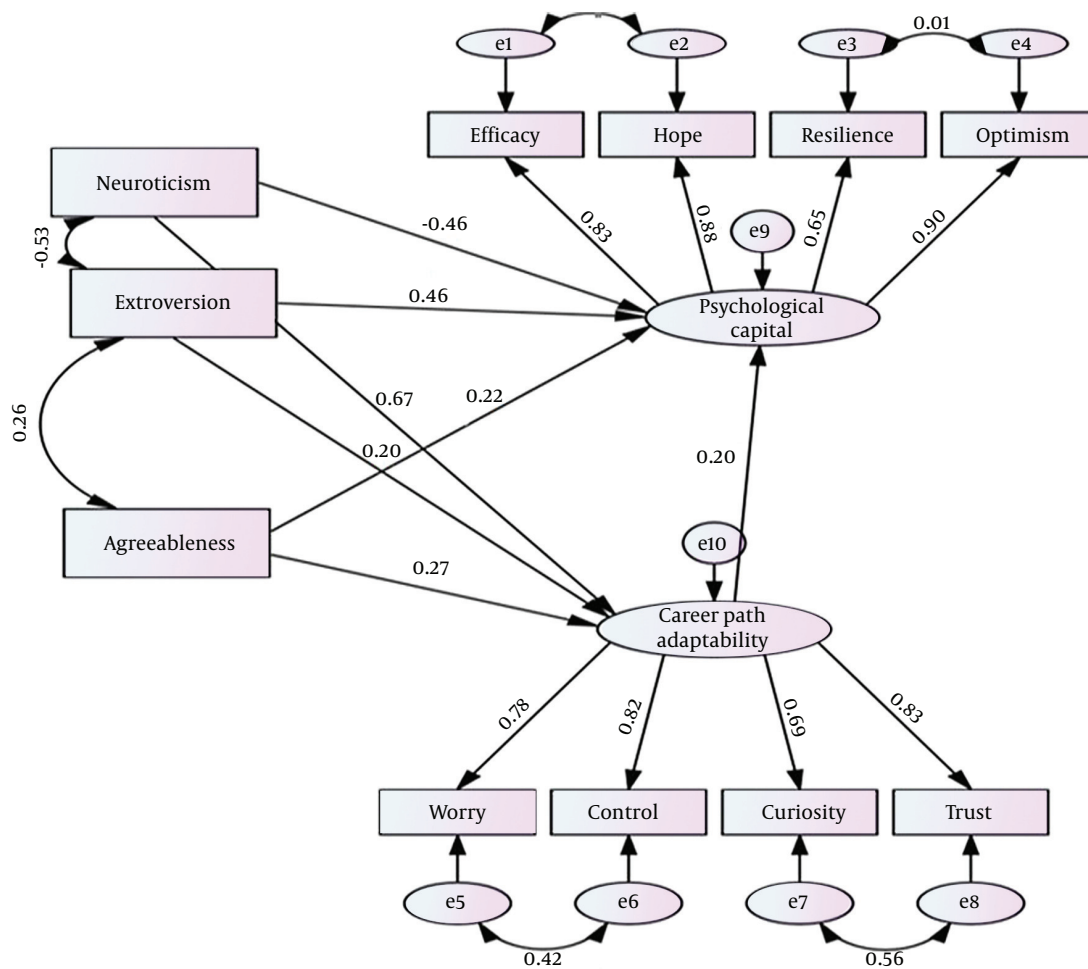


Figure 1. Path coefficients of the mediating model of career path adaptability in the relationship between personality traits and psychological capital of nurses.

Table 2. Direct Effects on Research Variables

Independent Variable	Dependent Variable	Effect Size	t
Neuroticism		-0.67	-5.341
Extroversion	Career path adaptability	0.20	2.396
Agreeableness		0.27	3.104
Neuroticism		-0.46	-3.238
Extroversion	Psychological capital	0.46	3.485
Agreeableness		0.22	2.380
Career path adaptability	Psychological capital	0.20	2.251
RMSEA = 0.042; CFI = 0.95; GFI = 0.96; $\chi^2(df) = 2.423$; df = 34; $\chi^2 = 82.395$			

Table 3. Sobel Test Results for Mediating and Indirect Effects

Predictor Variable	Mediator Variable	Criterion Variable	Indirect Coefficient	Z	P-Value
Neuroticism			0.194	4.238	
Extroversion	Career path adaptability	Psychological capital	0.04	2.785	> 0.05
Agreeableness			0.054	3.179	

efficiently and adaptable. Extraverted nurses do more tasks in less time and by focusing on the positive aspects of situations, they experience less fatigue and stress and more positive emotions in their jobs, which can lead to adaptability. Therefore, it can be expected that extroverted nurses are more successful in their work. As a result, they experience higher levels of job adaptability and establish a better relationship with the environment (28). Since extroverted people tend to be sociable, and in the theory of psychological capital, the positive judgment of a person's social abilities, as well as continuous communication with others to deal with problems, have been emphasized, a relationship is found between these two variables (13).

According to the results of the present study, it can be said that nurses who are high in agreeableness naturally experience empathy and tend to enjoy serving and taking care of others. Agreeable people have confidence and prefer to cooperate rather than compete with others (24). Therefore, nurses with a high level of adaptability will perform better than others. Therefore, this trait leads to psychological capital and better adaptability of nurses.

5.1. Conclusions

According to the study results, career path adaptability plays a mediating role between personality traits and psychological capital. Personality traits are related to psychological capital, and psychological capital leads to job adaptability of nurses by creating cognitive confidence and by creating positive and optimistic expectations. Career path adaptability enables the employees to adapt themselves in the best way to the changes in the work

setting and career path transitions and avoid the negative consequences caused by the lack of fit with the job, which is related to the personality traits and psychological capital of nurses.

Finally, it can be said that personality traits, career path adaptability and psychological capital of nurses work continuously and interrelatedly. Therefore, it is suggested to select nurses with positive personality traits, and provide more social and psychological support to nurses in order to improve their psychological capital and career path adaptability. One of the limitations of this study is that this study was conducted only on nurses of Tehran University of Medical Sciences and the results can be generalized to this population. The present study was quantitative and correlational and only investigated the relationship between variables. As a result, causal interpretation cannot be given. It is suggested that researchers conduct qualitative research in this field to elaborate on and describe the issue.

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Footnotes

Authors' Contribution: Study concept and design: The current research is taken from the doctoral

thesis of the first author, which was approved by the Research Vice-Chancellor of Islamic Azad University, Roudhan Branch (Tehran), and all authors had the same role; Acquisition of data: R.C and A.S; Analysis and interpretation of data: R.C and F.D; Drafting of the manuscript: R.C and F.D; Critical revision of the manuscript for important intellectual content: A.S; Statistical analysis: R.C; Administrative, technical, and material support: R.C; Study supervision: R.C and F.D.

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