

Original Article

Prediction of Rehabilitation Nurses' Psychological Well-Being Through Personality Traits and Defense Mechanisms

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Objectives: In clinical practice, nurses who have shown consternation at the psychological well being are more motivated in practice. The stigma of needing mental health care remains a concern for most people. The purpose of the study was to predict the psychological well-being of rehabilitation nurses based on personality traits and defense mechanisms.

Methods: In a co relational research, the participants consisted of all married female nurses in rehabilitation hospitals of the Qom city. The sample size estimated by Tabachnik and Fidel method 114 and with Overestimate attain to 120 people. The participants were selected by cluster random sampling method. Data collected by Ryff's Scales of Psychological well-being, Big Five Personality Inventory short form (NEO FFI) and defense style questionnaire (DSQ - 40). Data analyzed by Pearson correlation coefficient and multivariate regression by the use of SPSS software (V20).

Results: Analysis of research data indicated that traits of extroversion ($P \leq 0.01$), neuroticism ($P \leq 0.01$), agreeableness ($P \leq 0.01$), mature defensive style ($P \leq 0.01$) and immature defense style ($P \leq 0.01$) could explain variance of psychological well-being of nurses significantly.

Discussion: Considering to the findings of this research can concluded that personality traits and defense styles be able to predict the psychological well-being significantly.

Keywords: psychological well-being, nurses, personality traits, defense mechanisms

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Introduction

Health and well-being is an integral component of one's identity and affects every aspect of life. In fact, well-being is integration of all existential aspects of a person, including spiritual aspect. Empirically, mental health and mental illness are not on the opposite ends of a single continuum. Mental illness symptoms related inversely with well-being and mental health symptoms (1). Approximately the 1960s emerged new perspectives that insisted on preventing of psychological problems rather than treating them. Mental health models focused mainly on the positive aspects of health, Such as human potentials, personal growth, well-being and increase well-being. In fact, the emergence of positive psychology changes approach of psychologists from the medical or pathological to positive models about of mental health. In the new approach, someone has a mental health or psychological well-being that has features such as self-esteem, broad social

interaction, feeling of self-efficacy and autonomy (2). One of the main models that conceptualize and operationalize psychological well-being is Ryff et al multi-dimensional models. Carol Ryff defines psychological well-being as a person attempts to fulfill his true potential. This model has been formed and developed by integrates theories of Maslow's concept of self-actualization, Rogers' view of the fully functioning person, Jung's formulation of individuation, Allport's conception of maturity, Erikson's psychosocial stage model, Buhler's basic life tendencies, Neugarten's executive processes of personality, and Jahoda's concept of mental health (3). Ryff's theory includes six basic dimensions of psychological well-being: Autonomy (A sense of independence and effectiveness in the live events and having an active role in behaviors), environmental mastery (Sense of dominate on the environment, external activities and effective use of the opportunities), personal growth (Sense of

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sustainable growth and achieving new experiences as a creature that has potential talents.), positive relations with others (Satisfaction and intimacy of the relationship with others and understand the importance of these attachments.), purpose in life (Having purpose in life and the belief that past and present life is significant.), and self-acceptance (Positive attitude and acceptance of various aspects such as good and bad features and feeling positive about past life) (2).

The nature of some occupations and experiences is such that inevitably creates problems in people; so that may be threaten their mental health. Recently positive psychologist Focus on Personal and mental capabilities that the person to help them be able to resist in difficult situations and not damaged. As well as in experience of difficult or critical conditions people improvement in terms of personality. Professions of medical because are responsible to provide comfort and treatment of patients, are influenced by stress. This tension is in the nursing profession over other medical professions. Nursing because of the emotional demands that are expect of these people and it is likely that they will experience intense emotional states, is a challenging profession (4). Studies show that efforts taken to explain the concept of well-being, focused on the role of indicators of well-being in two intrapersonal and interpersonal levels. Pekrun et al introduce personality traits as an interpersonal effective source of the well-being (5). Allport considered personality traits to be predispositions to respond, in the same or a similar manner, to different kinds of stimuli. In other words, traits are consistent and enduring ways of reacting to our environment (6). Although there are many models of personality traits but Five Factor Model of personality traits is the most important and influential most used models in research in personality of recent decades (4). Five Factor Model that introduced by Robert McCrae and Paul Costa has been of interest to researchers as an important framework for understanding the structure of human behavior. In addition, it considered an important variable to explain behavior. This model consists of five relatively stable factors of neuroticism (tendency to experience anxiety, stress, hostility, impulsivity and low self-esteem), extraversion (Tendency to positivity, courage and energetic), openness (Tendency to curiosities, flexibility and wisdom), agreeableness (Tendency to forgiveness, kindness, generosity and empathy) and conscientiousness (Tendency to be regular, efficient,

self-regulation, development-oriented and reasonable) (5).

Studies demonstrate a strong and significant correlation between psychological well-being and personality traits (7-9). Some Studies suggests that personality traits are able to explain the psychological well-being (4,5).

Freud considered defense style (Rate of use defense mechanisms in compared with others) as main variable to identify the personality Pathology and adaptation (10). Defense mechanisms are regulator automatic processes that reduce cognitive dissonance and sudden changes in internal and external reality by Impact on the how to perceive threatening events (11). According to Vaillant defense mechanisms: 1) are relatively unconscious, 2) often create barriers against psychopathology, 3) with the aim of healing, often affects the mental structures 4) suppress, denial and distort the internal and external reality. So often seem irrational and bizarre (11). Andrews et al. according to Vaillant's hierarchical classification have divided 20 mechanisms into three mature, neurotic and immature defense styles. Mature defense style are adaptive, normal and efficient confrontation methods. However, the neurotic and immature defense styles are non-adaptive and inefficient confrontation methods (12). In addition to the mature defensive style is associated with physical and mental health (13). Immature defense styles is associated with many negative health indicators such as personality disorders and depression (14). Finally, according to reviewed above and as well as Robert McCrea, Paul Costa and Bush theoretically believe that understanding how the combination of personality traits and defense mechanisms in prediction of phenomena such as mental health and life success is very important. Defense styles and personality traits associated with health and psychopathology (15). In addition, attention to the important and stressful occupation of nursing, taking into account the psychological needs of nurses and identify the factors that lead to mental health and psychological well-being in nursing, is very important. Considering the lack of coherent research that examines these variables together, this study was performed aims to predict the psychological well-being of nurses based on personality traits and defense styles.

Methods

This study was descriptive co relational. Statistical population included all married female nurses in hospitals of Qom city, Iran. The sample size estimated by Tabachnik and Fidel method 114 and with overestimate attain to 120 people. The participants were selected by cluster random sampling method. Criteria for entering the study Included: be married and being female. For describing the data was used the descriptive statistics techniques such as frequency distribution table and to analyze data and predict the criterion variable was used multiple regression method. All of these operations performed using SPSS software (version 20). Measures Ryff's scale of Psychological well-being (RS-PWB): He designed this scale. The original version of the scale consisted 120 items. However, in later review was designed shorter version (84, 54,42,40,24,18,14,9,3 items) (16). Since Ryff believes that the 84-item version compared to the other versions is the ability to determine the psychological well-being (2); in this study was used the 84-item version. This scale (84-item version) consists of six subscales of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth that each of them contains 14 items. The answer to each item based on 6 degrees range (from strongly disagree to strongly agree). A higher score indicates a good psychological well-being. To determine the total scores of Psychological well-being, sum the scores of all item subscales (2). In this study, was used of total score for psychological well-being. The correlation between the scale of psychological well-being with Satisfaction with life scale (SWLS), Oxford Happiness Inventory (OHI) and Rosenberg Self-Esteem Scale (RSES), was estimated respectively, 0.47, 0.58 and 0.46. In Iran reliability coefficient of Psychological well-being scale 82.0 and subscales of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth, by test-retest

method was estimated respectively, 0.71, 0.77, 0.78, 0.77, 0.70 and 0.78 that significant statistically (17). Defense Style Questionnaires (DSQ - 40): Andrews et al defense styles questionnaire have 40 items. Assessed 20 defense mechanisms at three levels mature, neurotic, and immature based on a 9 degree scale (from strongly disagree to strongly agree). immature defense style, including mechanisms such as projection, passive-aggressive, acting out, isolation, devaluation, autistic fantasy, denial, displacement, dissociation, somatization, rationalization, splitting; mature defense style, including mechanisms such as sublimation, humor, anticipation, suppression and neurotic defense style, including mechanisms such as pseudo-altruism, idealization, reaction formation, undoing (12). In Iran Cronbach's alpha coefficient have reported for each of the mature, immature and neurotic styles, respectively, 0.75, 0.73 and 0.74 (18).

Big Five Personality Inventory Short Form (NEO FFI): Costa and McCrae (1992) developed this scale. It consists of 60 items grouped into five subscales: Extraversion, Neuroticism, Agreeableness, and Openness to experience and Conscientiousness. Each subscale has 12 items. Response to items based on five-point Likert scale (completely agree=0, agree=1, no comment=2, disagree=3 and completely disagree=4). Costa and McCrae (1992) have reported Cronbach's alpha coefficient between 0.68 to 0.86 (for neuroticism). This scale is standardization in Iran by Grossi, reliability coefficient of this scale by test-retest on 208 students at the interval of three months is reported for Neuroticism, extraversion, openness, agreeableness and conscientiousness, respectively 0.83, 0.75, 0.80, 0.79 and 0.79 (19).

Results

Indexes of mean and standard deviation of variables personality traits, defense style and psychological well-being as well as sample size in each has are shown in Table (1).

Table 1. Descriptive data of studied variables

Variables	Subscales	N	S.D	Mean
PWB	-	120	29.006	324
	Neuroticism	120	4.430	22.31
	Extroversion	120	4.146	26.58
Personality Trait	Agreeableness	120	4.972	25.73
	Openness	120	4.11	26
	Conscientiousness	120	3.952	28.22
Defense Style	Mature	120	10.077	39.68
	Immature	120	18.401	110.13
	Neurotic	120	9.34	39.65

The correlation coefficient between personality traits and defense style with psychological well-being has shown in Table (2). The results of Table (2) shows that correlation coefficient between the components of personality traits (extraversion, neuroticism, conscientiousness Agreeableness) and components of defense styles (mature, immature and neurotic)

with psychological well-being of nurses is significant. There are positive correlation between the traits of extraversion, agreeableness, conscientiousness and mature defense style with PWB; whereas, the correlation between the traits of neuroticism, immature and neurotic defense styles with PWB are negative.

Table 2. Correlation between predictor variables and psychological well-being

	Variables	Sig.	df	r
PWB	Neuroticism	0.000	119	-0.35
	Extroversion	0.000	119	0.57
	Agreeableness	0.000	119	0.50
	Openness	0.294	119	0.05
	Conscientiousness	0.000	119	0.30
	Mature	0.000	119	0.55
	Immature	0.000	119	-0.36
	Neurotic	0.05	119	-0.23

According to Table (3), there is a significant positive correlation (0.768) between personality traits and defense mechanisms with the psychological well-being of nurses. To predict psychological well-being by personality traits and defense style was used regression analysis. Regression analysis shows that

the model used to predict the criterion variable is significant ($F(8, 111) = 19.961, P \leq 0.001$). In addition, predictor variables can explain 0.59 of psychological well-being changes Table (3).

Table 3. Results of regression analysis to predict the psychological well-being

	Sum of squares	df	Mean squares	F	R squares	R	Sig.
Regression	59066.863	8	7383.358	19.961	0.59	0.768	0.000
Residual	41056.729	111	369.88				
Total	100123.592	119					

To determine which of the predictor variables were effective in explaining the psychological well-being of nurses was used the test regression coefficients (beta). The results (Table 4) show that between personality traits subscales of neuroticism, extraversion and agreeableness with regression

coefficients, respectively, -0.302, 0.340, and 0.145 and between defense style subscales of mature and immature, with coefficients regression respectively 0.209 and -0.272 can significant predict psychological well-being of nurses.

Table 4. Regression analysis for predictor variables of psychological well-being

	Un-standardized Coefficient (B)	Std. Error	Standardized Coefficient (B)	t	Sig.	VIF
Constant	299.571	22.041		13.592	0.000	
Neuroticism	-1.974	0.435	-0.302	-4.53	0.000	1.197
Extroversion	2.38	0.549	0.34	4.332	0.001	1.302
Agreeableness	0.847	0.507	0.145	1.67	0.006	1.964
Openness	0.449	0.455	0.064	0.986	0.326	1.212
Conscientiousness	-0.087	0.548	-0.012	-0.16	0.874	1.549
Mature	0.609	0.229	0.209	2.63	0.000	1.547
Immature	-0.428	0.102	-0.272	-4.191	0.000	1.119
Neurotic	-0.054	0.214	-0.017	-0.251	0.802	1.3

In order to investigate the lack of co linearity, between the predictor variables was used the VIF score (VIF scores above 10 indicate a problem). In

the model of present study, all of the VIF scores are smaller than 10; so it confirms the lack of co linearity in regression model.

Discussion

The present study purpose to predict psychological well-being of nurses based on personality traits and defense style. The results of this study revealed that among five personality traits, traits of extraversion, neuroticism and agreeableness, and among defensive style, the styles of mature and immature can significantly explained the variance of psychological well-being. Neuroticism correlated with psychological well-being and was able negatively predict it. To explain this result theoretically, people with high neuroticism are prone to negative emotions such as anxiety and depression. They are perception the mild failures hopelessly, threatening and difficult. Such features can limit and block positive relationships with others, self-worship, self-actualization, purpose life and personal growth (20). This result is consistent with previous results (4,5,7). Extroversion could significant negatively predict the psychological well-being. Extroverts enjoy being around others, talkative and cheerful, and the tendency to experience positive emotions. However, introverts need less external stimulation. They are quiet, taciturn and prefer to be alone or with a small group of close friends; therefore are more expose to negative emotions (20). This result consistent with the results of the study (5) that showed extroversion significant positively predicted the number of components of psychological well-being (self-acceptance, personal growth and environmental mastery); As well as consistent with results of the study (7) that revealed extraversion significantly predicted all of psychological well-being components. In this study trait of agreeableness could significant positively predict the psychological well-being. Theoretically, People with high agreeableness are friendly, generous, kind and cooperative, as well as they have optimistic view to nature of human. Individuals with low agreeableness more attention to their personal interests than match the others. They are toward others suspicious, antagonistic and hostile (20). Result of this study consistent with results of the study of (7), which showed the trait of agreeableness significant negatively correlated the autonomy, environmental mastery, self-acceptance, positive relations with others, personal growth and purpose life. As well as this result consistent with the results of the study of (5) which revealed the trait agreeableness predict the positive relationships with the others and self-acceptance. Trait of conscientiousness was positively associated with the psychological well-being, but was not able

significantly explain it. Trait of openness trait did not show significant correlation with the psychological well-being. So could not account and predict the psychological well-being.

Defense styles studied along personality traits in explaining the psychological well-being. Theoretically, mature defense mechanisms and styles are associated with the physical and mental health consequences. Several studies support the assumption that people's physical and mental health significantly associated with their defense mechanisms (21). The result of this study suggest that mature defense style can positively and immature defense style can negatively predict the psychological well-being. Direct research not been done on the relationship between defense styles with the psychological well-being. However, some research has been performed in relation to these findings indirectly. For example, in a study (14) demonstrated that addicts relative to the normal people more use neurotic and immature defense styles than mature defense style. In the study of (22) found that immature mechanisms are dominant defenses for people with depression, neurotic mechanisms are dominant defenses for people with anxiety disorders, and mechanisms mature are dominant defenses for normal people. Also in the study of (15) showed that depressed people different with non-depressed in use of neurotic and immature defense mechanisms.

Conclusion

Results indicated that considering that nurses experience same and difficult working conditions, personality traits and defense mechanisms could explain and predict psychological well-being. People who use of mature defense style in stress and anxiety situations have better psychological well-being than the people who use of neurotic and immature defense styles. Personality traits destruction or facilitate the process of adaptation and psychological and physical health by affecting person's interpretations of events. People who have adaptive traits such as high extraversion, high agreeableness, down neuroticism will be better in the psychological well-being.

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