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Investigating the Relationship between Resiliency and Psychological Well-Being of Nurses in ICU & NICU of University Hospitals of Shiraz in 2012

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ABSTRACT

Background: Human resources, especially nurses, have a significant role in health care services due to the nature of their service and their direct relationships with patients. In this regard, nurses are encountered with higher stressful factors resulting from their responsibilities in providing ease and comfort for patients. Resiliency is one of the main purposes of health promotion and is considered to be a protective agent. Moreover, psychological well-being refers to striving for perfection in order to realize the potential and real individual talents and abilities. This study aims to determine the relationship between resiliency and psychological well-being of nurses in ICU & NICU of Shiraz in 2017.

Methods: This is a descriptive-correlational research. The statistical society consists of 150 nurses working in ICU & NICU of university hospitals in Shiraz. The tools of data collection were psychological well-being and resiliency questionnaires. The collected data were analyzed via SPSS software and descriptive-inferential statistics.

Results: According to the Table, 86% of the subjects are females, and 14% are males; 53.4% of them are single, and 44.6% of them are married; 84% of them have bachelor degree, and 16% of them have master degree. Average age and work experience of the subjects are 31.38 and 4.79 years, respectively. Average resiliency and psychological well-being scores of the nurses are estimated to be 66.03 ± 16.72 and 119.55 ± 24.35, respectively. Their significant relationship was approved by Pearson test P = 0.002).

Conclusion: The results indicated that resiliency and psychological well-being of the nurses have significant relationship; with an increase in resiliency, their psychological and mental health increases. Therefore, some programs and interventions are recommended for nurses in order to improve their resiliency, and consequently, promote their psychological well-being.

Introduction

Human resources are the essential components of health care system. Their key roles are highlighted in preservation and development of social health. The direct and close relationship of human resources with individual well-being is one of the most significant sustainable development areas in human societies.[1] One of the resources is the group of nurses which form 70% of health care team. Therefore, their well-being is of great importance.

Health has always been an important issue in human history. However, its physical dimension has been mostly focused on, not other psychological dimensions.[2] Psychological well-being refers to sufficient dominance and skill in relation with the surrounding environment, especially love, work, and entertainment.[2] Positive psychology has attracted the attention of many researchers during the last few decades.[3] This viewpoint emphasizes capabilities and belongings of an individual; it also believes that health, positive psychological well-being and understanding its nature can improve life quality and actualize the latent talents.[4] Psychological well-being refers to striving for perfection in order to realize the potential and real individual talents and abilities.[5]

One of the main structures which affect psychological well-being is resiliency.[6] Nowadays, resiliency has a specific role in psychological well-being areas and has been introduced in researches and theories for more than two decades. In fact, resiliency is capacity and ability of a person in endurance against difficult conditions along with preservation of psychological well-being and its improvement.[7] Moreover, resiliency is a process, ability, or consequence for positive compatibility with threatening and complex situations.[8] It also refers to active and constructive participation in the surrounding environment which creates an ability for a biological-psychological balance against dangerous situations, and provides a successful compatibility for the person. Resiliency is one of the main purposes of health promotion and is considered to be a protective agent.[6] Resilient people not only survive, but also become successful. The ability to survive and become dominant over difficulties is exactly the main definition of resiliency. People with high levels of resilience have higher self-confidence and enjoy better psychological compatibility in comparison with people with low levels of resiliency.[9] Therefore, by enhancing resiliency, people can resist and overcome stressors, anxieties and factors that cause many of their psychological problems.[10]

Nursing is a kind of job which is always encountered with numerous stressful factors in the workplace. The nature of this job is interwoven with a combination of roles related to technical activities, professional skills, human relationships, and empathy. Each of these items are followed by multiple responsibilities for the nurse. In this regard, Cahudry believes that nursing is one of the stressful professions. National Institute of Health (NIH) among 130 occupations, nurses ranked 20th in referral to physicians for problems related to physical and mental health problems.[11] Therefore, it seems that nurses are always exposed to physical and psychological disorders and negative stresses due to the sensitivity of their occupational responsibilities and their continuous interaction with patients.[12]

The researcher is now trying to investigate the relationship between resiliency and psychological well-being in nurses of the ICU & NICU as an important step towards improving their health. This study aims to determine the relationship between resiliency and psychological well-being of nurses in ICU & NICU of Shiraz.

Materials and Methods

This is a descriptive-correlational research. The statistical society consists of all the

nurses working in ICUs (NICU, Dialysis, and CCU) of university hospitals in Shiraz. The research environment is university hospitals if Shiraz including Namazi Hospital. Entrance criteria of the research are nurses working in ICUs & NICU, 2 years work experience, conscious consent about participating in the research, and bachelor degree or higher in nursing; the exit criteria is a history of family problems, and the removal criteria is refusal from filling the questionnaires. The samples were selected via simple random method and sample size was estimated to be 150 nurses based on G*Power3 software (α = 0.05, power = 80%, effect size = 0.56).[11] Before executing the research, the proposal was approved in graduate program and ethics committees of Yazd University of Medical Sciences with ethical code of IR.SSU.REC.1296.145. A list of working nurses was prepared by referring to nursing office of the province and the qualified nurses were identified. Afterwards, the researchers referred to the qualified nurses and explained the proposal form them in order to take a written and conscious consent. After further explanation of research objectives, psychological well-being and resiliency questionnaires were distributed among the nurses in order to be filled in one week. The questions and the way of completing the questionnaires were clarified. Reef Psychological Well-Being Questionnaire was used for data collection. Reef had designed this questionnaire in 1980 including 54 questions and 6 sub-scales. In further analysis, shorter forms of questions 84, 54, and 18 were also provided. In the present study, a version of the questionnaire with 54 questions and 6 sub-scales was used. Sub-scales of this questionnaire are: 1- self-acceptance, 2- positive relationships, 3- independency, 4- dominance over the environment, 5- purposefulness in life, and 6- personal growth. Each question includes a 6-point scale ranging from 1 to 6 (strongly agree, somewhat disagree, disagree, agree, somewhat agree, and strongly agree). In this questionnaire, some questions are scored directly, and some of them are scored in reverse. In order to calculate the score of each sub-scale, a total of all the scores of the questions related to that sub-scale are calculated. By adding the scores of 54 questions, the score of psychological well-being can be calculated. Higher score indicates better psychological well-being. Content and structural validity were approved in different studies. [12] Each of the 6 sections include 9 questions with 6 minimum and 56 maximum scores. In the present study, Conner-Davidson resiliency questionnaire is used. This questionnaire consists of 25 statements. The answers are scored based on Likert scale from 0: never to 4: almost always. In order to calculate total score of the questionnaire, scores of all the questions are added. The final score will range from 0 to 100. The higher the score, the higher the resiliency of the respondent is, and vice versa. Cut-off score of this questionnaire is 50. In other words, a higher than 50 score indicated people with acceptable resiliency. The level of resiliency increases with increase of cut-off score, and vice versa. Validity and reliability of this questionnaire are approved in Iran.[13] SPSS software version 20, descriptive statistics (mean, variance, standard deviation, and frequency), independent T-test, variance analysis, and Pearson correlation test are used for data analysis. It should be noted that normal distribution of the data were analyzed via Kolmogorov-Smirnov test ($P = 0.05$).

Results

According to the Table, 86% of the subjects are females, and 14% are males; 53.4% of them are single, and 44.6% of them are married; 84% of them have bachelor degree, and 16% of them have master degree. Average age and work experience of the subjects are 31.38 and 4.79 years, respectively. Average resiliency score of the nurses is estimated to be 66.03 ± 16.72 with minimum obtained score of 20 and maximum 99.

Table 1. Mean and standard deviation of total score of psychological well-being and its dimensions

Psychological well-being	Mean	Standard Deviation	Minimum Score	Maximum Score	Minimum Score of the Questionnaire	Maximum Score of the Questionnaire
Self-acceptance	17.32	5.75	6	24	6	54
Positive relationships	16.94	3.57	7	22	6	54
Independency	24.57	4.8	16	34	6	54
Dominance over the surrounding Environment	17.82	3.25	11	29	6	54
Purposefulness in life	19.17	6.21	6	26	6	54
Individual promotion	23.73	5.31	13	35	6	54
Total psychological well-being	119.55	24.35	73	158	36	324

The results of statistical independent T-test and Pearson test indicated that average resiliency score has no significance difference or relationship with demographic information (gender, marital status, education, age, and work experience) (P > 0.05).

Mean and standard deviation of total psychological well-being are estimated to be 119.5 ± 24.35 which are presented in Table 1.

The results of statistical independent T-test and Person indicated that total score of psychological well-being has a significant difference with demographic information only in education level (P = 0.003, T = 3). Therefore, psychological well-being score of bachelor nurses is estimated to be 115.29 ± 25.87, and score of master nurses is estimated to be 127.82 ± 18.72. No significant difference was observed regarding gender, marital status, age, and work experience (P > 0.05).

The results of Pearson statistical analysis indicated that resiliency and psychological well-being have direct relationship and correlation. With an increase in mean score of resiliency, psychological well-being increases as well (Table 2).

Discussion

The results of analysis indicated that in terms of demographic information, most of the subjects were females and single with bachelor degree. According to the results, mean and standard deviation of resiliency score are estimated to be 66.03 ± 16.72. Since minimum score is 0, maximum score is 100, and cut-off score is 50, it can be said that resiliency of the subjects is slightly higher than average level. However, it is so far from optimal resiliency. Other studies indicated average resiliency of the nurses. Guo et al. conducted a study on burnout and its relationship with resiliency in nurses; they reported average resiliency for the nurses which indicates the need for further studies in this field.[14] Moreover, Amini et al. analyzed the relationship between resiliency and occupational burnout of the nurses. They concluded that mean and standard deviation of resiliency was 61.52 ± 16.26. Minimum resiliency score of the nurses was 23, and maximum score was 97.[15]

Table 2. The relationship between mean and standard deviation of resiliency score, and mean and standard deviation of psychological well-being score

Pearson correlation	Resiliency	Self-Acceptance	Positive Relationships	Independency	Dominance Over the surrounding environment	Purposefulness in Life	Individual Promotion	Total Psychological Well-Being
Sig		0.228	0.242	0.166	0.115	0.169	0.187	0.255
(2-tailed)		0.005	0.003	0.042	0.161	0.038	0.022	0.002
N		150	150	150	150	150	150	150

Algerin V et al., in their analysis of nurses' occupational stress, compatibility, and resiliency, indicated resiliency score of the nurses to be 72.68 ± 12.79 which is considered to be average. [16] Pourafzal et al. reported resiliency score of nursing students to be 66.96 ± 12.79. It indicates that nearly 90% of the students obtained high resiliency score which is so promising with regard to their major.[17] Ren et al. claimed that mean and standard deviation of nurses' resiliency in their study is 59.99 ± 13.59 which is evaluated to be significantly lower than resiliency level of ordinary people.[18]

Resiliency score resulting from this study had no significant difference with other groups regarding demographic information. Most of the papers in the review of literature have focused on gender which indicated no significant difference. Khodabakhshi et al. conducted a study on occupational burnout of the nurses based on psychological resiliency which indicated that males have higher resiliency in comparison with females, but this difference is not significant].[19] Vetter et al. also claimed that there is no significant difference in resiliency of male and female students.[20]

According to the results, psychological well-being score is estimated to be 119.55 ± 24.35 which is indicative of low psychological well-being regarding minimum 36 and maximum 324 scores. It is so far from optimal and acceptable psychological well-being. Furthermore, regarding different dimensions of psychological well-being, it is observed that self-acceptance, positive relationships, dominance over the surrounding environment, and purposefulness in life obtained low scores, but independency and individual promotion obtained average scores. Similar studies have evaluated psychological well-being of the nurses to be average. Zadhasan et al. estimated the scores of different dimensions of psychological well-being in nurses. The score of purposefulness in life is 31.44 ± 9.64, self-acceptance is 31.67 ± 10.20, positive relationships is 31.50 ± 9.68, independency is 30.44 ± 8.34, dominance over the surrounding environment is 30.15 ± 9.22, individual promotion is 34.27 ± 99, and total score of well-being is 189.49 ± 50.11. It should be noted that they used Reef questionnaire including 84 questions.[21] Babalola et al. reported a positive psychological well-being for 84.5% of the nurses.[22]

According to the results of this study, total score of psychological well-being has a significant difference with demographic information only in education level, so that bachelor master nurses had obtained higher scores in comparison with bachelor nurses. Van der Heijden believes that work place conditions has the highest relationship with psychological well-being of nurses.[23] Yousefi and and Khayatian claimed that there is no significant difference between psychological well-being of nurses working in cancer, obstetrics and gynecology, and internal wards of the hospital.[24] Moreover, Kavosi et al. reported no significant difference between psychological well-being of nurses working in different wards of the hospital.[25] Arafa believes that one of the predictors of psychological well-being in nurses is work experience.[26]

The results of Pearson test indicated that resiliency and psychological well-being are correlated, so with an increase in the score of resiliency, mean score of psychological well-being increases. These results are consistent with the reported results of Souter et al.[27] and Salvatore et al.[28]

Psychological well-being of people with high resiliency is better than people with low resiliency. Furthermore, the reported results of Mortazavi's study indicate significant and average relationship between resiliency and psychological well-being. Jackson et al. (2007) also stated that nurses can have the ability to resist psychological pressures using resiliency as a tool.[29]

Conclusion

According to the results, there is a significant

relationship between psychological well-being and resiliency, so that with an increase in resiliency, psychological well-being increases as well. Therefore, some strategies should be taken into consideration in order to improve nurses' resiliency, and as a consequence, improve their psychological well-being. In this way, their mental health can be promoted.

Conflict of Interests

Authors have no conflict of interests.

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