

Studying the Relationship between Nurses' Burnout and the Empowering Behaviors of Nursing Leaders

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Abstract

Job burnout reduces the quality of life, functional level, and organizational commitment of nurses and increases the intention to leave the job. According to various studies, empowering employees and involving them in decision-making reduces job burnout. The present study was conducted to determine the relationship between the empowering behaviors of nursing leaders and the burnout of nurses. In this study, the participants were 165 nurses who were selected using the available method. To collect data, the empowering behaviors of the leader's questionnaire and the Maslach job burnout questionnaire were used. Data analysis was done using Pearson's correlation coefficient and multiple linear regression in SPSS23 software. Pearson's correlation coefficients showed an inverse relationship between the scores of dimensions of the empowering behaviors of nursing leaders and the scores of emotional exhaustion and depersonalization of nurses' job burnout questionnaire ($P < 0.001$). Also, a direct relationship between the scores of the dimensions of the empowering behaviors questionnaire of nursing leaders and individual success was seen ($P < 0.001$). Based on the results of the present study, the empowering behaviors of the leaders in the studied hospital were average. The higher the empowering behaviors of the leaders, the more the job burnout of nurses decreases in different dimensions.

Keywords: Nurses, Empowering behaviors, Job burnout, Nursing leaders

Introduction

Burnout syndrome is a serious problem related to chronic exposure to job stress. The concept of job burnout was proposed for the first time in 1970, to explain the process of physical and mental deterioration in employees of educational centers of social care and emergency services [1-3]. Burnout is a three-dimensional concept whose three dimensions include emotional exhaustion, depersonalization, and decreased personal achievement. Emotional exhaustion is the feeling of physical overexertion and emotional exhaustion caused by constant interaction with staff and clients. Depersonalization includes a negative and pessimistic attitude toward clients and a decrease in personal achievements, a negative evaluation of oneself, especially in dealing with clients [4, 5].

Nursing is known as one of the most stressful jobs with high burnout. The level of burnout in nurses is higher than in other specialties, and nurses who work in high-stress departments, such as special care for children and oncology, report a higher level of burnout [6]. Job burnout reduces the quality of life, performance level, and organizational commitment of nurses and increases the intention to leave the job [7, 8]. Some symptoms are seen

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in nurses who suffer from burnout, which include chronic fatigue, emotional instability, headaches, insomnia, and communication problems [9, 10].

Increasing awareness about the factors related to burnout is important to find ways to prevent it and can have a positive effect on the health of employees and the quality of care [11, 12]. In the studies that are conducted on the workplace and the effect of the environment on outcomes, burnout is usually recognized as a nursing outcome, but burnout and its causes and related factors and the impact on individuals, organizations, or patients are always these studies are not specified [5]. Identifying the risk factors related to burnout facilitates the creation of burnout prevention programs for nurses [9]. In the health sector, burnout and leadership are closely related. Various studies have shown that empowering employees and involving them in decision-making reduces job burnout [13]. The limited participation of nurses in decision-making creates a high level of stress, reducing job satisfaction, and organizational commitment imposes a high cost on the organization, which can lead to job burnout and leaving work or even leaving the profession by nurses [14]. The use of empowering behaviors by leaders is essential in having effective teamwork. Effective empowering behaviors of leaders make employees feel empowered, independent, and motivated. Empowered employees can have more responsibilities and work more effectively [15].

Nursing supervisors and managers play a very important role in empowering employees. Empowerment is one of the essential functions of nursing leaders that creates a productive work environment culture and as a result safe and quality care [16, 17]. Recently, supervisors have been asked to act as leaders in the management of nursing functions. They are obliged to make positive changes in the work environment and empower nurses so that they can have the best results for patients, employers, and organizations [7]. Having the necessary structures to promote empowerment, including the empowering behaviors of leaders, may lead to the experience of empowerment in employees [18]. The present study was conducted to determine the relationship between the empowering behaviors of nursing leaders and the job burnout of nurses.

Materials and Methods

The present study is descriptive and correlational, and the research population included nurses working in special care units (CCU and ICU). According to the study of Mudallal *et al.* [7] in Jordan and according to the correlation coefficient between the leader's empowering behaviors score and the individual success score ($r = 0.230$) with a confidence coefficient of 95% ($Z_{1-\alpha/2} = 1.96$) and the power of the test 80% ($Z_{1-\beta} = 0.85$) of the required sample volume was calculated as 165 nurses.

Sampling was done by available methods. The criteria for entering the study included having at least 6 months of work experience in one of the special care units. The data collection tool included three questionnaires. The first questionnaire was related to demographic characteristics (age, gender, education level, marital status, number of children, work experience, and type of employment). The second questionnaire was used to determine the empowering behaviors of leaders. Empowering leadership behaviors were introduced by Arnold in 2000. This questionnaire consists of 23 questions, which includes 3 dimensions of collaborative decision-making with 6 questions, informing with 6 questions, and coaching with 11 questions. The participatory decision-making role is a manager's use of input and information from group members in decision-making, to the extent that managers allow employees and encourage them to participate in making decisions for the organization. The role of informing is to spread the organization's extensive information to the manager so that the employees are aware of the decisions and information and feel valued. The role of coaching is face-to-face communication and the process of two-way influence in monitoring the actions of employees and guiding them to achieve success [16]. The scoring of the questionnaire is based on the Likert scale from (1 completely disagree to 5 completely agree). The minimum and maximum scores obtained from the questionnaire are 23 and 115, respectively, and higher scores indicate better empowering behaviors of leaders. In the present study, the value of Cronbach's alpha was calculated as 0.718 for the participative decision-making dimension, 0.924 for the information dimension, 0.963 for the coaching dimension, and 0.961 for the total score of empowering behaviors of leaders, which indicates the appropriate reliability of this questionnaire. The third questionnaire included Maslam's job burnout questionnaire, which was used to measure nurses' job burnout. This questionnaire consists of 22 items, whose scoring is based on a Likert scale from 0 (never) to 6 (very much) and includes 3 subscales. 9 items are related to the emotional exhaustion subscale, 5 items are related to the depersonalization or depersonalization subscale, and 8 items are related to personal success subscale. The scores of each subscale are summed, and a higher score in the subscale of emotional exhaustion and depersonalization indicates more burnout and a higher score in the subscale of personal success indicates less burnout [7]. Pisanti *et al.*'s [19] study showed that this tool has acceptable validity and reliability for measuring nurses' burnout. In Modalal's study, Cronbach's alpha coefficient for all three scales of this tool was in the range of 0.77 to 0.93 [7]. In the present study, Cronbach's alpha was calculated as 0.951 for the emotional exhaustion dimension, 0.885 for the depersonalization dimension, 0.849 for the personal success dimension, and 0.940 for the total job burnout score, which indicates the adequate reliability of this questionnaire.

In this study, written informed consent was obtained from the nurses who met the criteria for entering this research, and 180 questionnaires were distributed among the nurses and they were requested to complete the questionnaires in the form of self-reporting. Of these, 165 questionnaires were fully answered and collected by the researcher. Data analysis was done with SPSS23 software. To evaluate the relationship between the dimensions of the burnout questionnaire and the dimensions of the empowering behaviors of nursing leaders, Pearson's correlation coefficient was used. Multiple linear regression was used to determine the variables predicting the score of job burnout dimensions in nurses. In this way, the burnout score as dependent variables and demographic variables (age, gender, work history, education level, marital status, employment status, workplace, history of physical or mental illness, and number of children) as well as the empowering behaviors score nursing leaders and its dimensions were considered as independent (predictor) variables. The method of entering the variables into the Stepwise regression model was considered.

The normality of the frequency distribution of the quantitative variables was evaluated by the Kolmogorov-Smirnov non-parametric test and also by calculating the skewness and kurtosis indices, and no violation of this assumption was found ($P > 0.05$). The value of the Durbin-Watson statistic was obtained in the range of 1.885 to 2.246, and since this statistic is between 1.5-2.5, so the assumption of independence of errors was also established. The histogram of the errors showed a normal distribution with zero mean. Also, the p-p plot diagrams showed that the errors have a normal distribution. The plots of ZRRED versus ZRESID did not have a clear pattern, indicating a uniform distribution of points around the regression plane. Also, the condition index was smaller than 10, which indicated the lack of significant multicollinearity between the independent variables. The level of significance in the tests was considered 0.05.

Results and Discussion

In this study, 165 nurses working in special departments were studied. The mean and standard deviation of the examined nurses' age was 36.7 ± 73.20 years and in the age range of 24 to 53 years. Also, 104 (63%) nurses were female and 61 (37%) were male. Most of the nurses (59.4%) were married.

The findings of the study showed that the mean and standard deviation of the empowering behaviors of nursing leaders is 72.26 ± 19.68 (in the range of 23 to 115), which shows that the empowering behaviors of the leaders are average. The mean and standard deviation of the scores of the empowering behaviors of nursing leaders including collaborative decision-making, informing, and coaching were obtained as 18.73 ± 4.43 , 19.35 ± 5.75 , and 34.18 ± 11.21 , respectively. Also, the mean and standard deviation of the scores of job burnout subscales including depersonalization, personal success, and emotional exhaustion were obtained as 23.92 ± 6.52 , 25.28 ± 8.77 , and 38.36 ± 13.01 , respectively. Pearson's correlation coefficients showed an inverse relationship between the scores of the dimensions of the empowering behaviors of nursing leaders and the scores of the dimensions of emotional exhaustion and depersonalization of the nurses' burnout questionnaire. This means that with the increase in the leader's empowering behaviors score, the nurses' emotional exhaustion and depersonalization scores have decreased. In other words, the higher the empowering behaviors of the leaders, the less the job burnout in terms of emotional fatigue and depersonalization of the nurses. Also, a direct relationship between the scores of the empowering behavior questionnaire of nursing leaders and individual success was seen. This means that with the increase in the leader's empowering behavior score, the individual success score has also increased. In other words, the higher the empowering behaviors of the leaders, the lower the burnout in the dimension of individual success (Table 1).

Table 1. The correlation coefficient of creating a questionnaire of leaders' empowering behaviors and job burnout in nurses (n = 165).

| Dimensions of the questionnaire | Number of items | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Collaborative decision making | 6 | 1 | 0.718 | 0.740 | 0.856 | 0.496 | 0.464 | 0.596 |
| Notification | 6 | 0.718 | 1 | 0.767 | 0.891 | 0.523 | 0.561 | 0.481 |
| Coaching | 11 | 0.740 | 0.767 | 1 | 0.960 | 0.516 | 0.541 | 0.569 |
| Total empowerment score | 23 | 0.856 | 0.891 | 0.960 | 1 | 0.558 | 0.577 | 0.599 |
| Disfigurement | 5 | 0.496 | 0.523 | 0.516 | 0.558 | 1 | 0.391 | 0.856 |
| Individual success | 8 | 0.464 | 0.561 | 0.541 | 0.577 | 0.391 | 1 | 0.425 |
| Emotional exhaustion | 9 | 0.596 | 0.481 | 0.569 | 0.599 | 0.856 | 0.425 | 1 |

In the case of depersonalization, only the number of children variable was determined as a predictor. Thus, for nurses who did not have children compared to nurses who had 2 or more children, their depersonalization score

was on average 0.842 higher ($B = 0.842$, confidence interval 95%, $P = 0.686$), and nurses who had one child compared to nurses who had 2 or more children, their depersonalization score was on average 3.024 higher ($B = 3.024$, confidence interval 95%, $P = 0.017$). The coefficient of determination in the regression model was $R^2 = 0.367$. This means that the number of children variable can explain about 37% of the changes in the personality deformity dimension score (**Table 2**).

Table 2. Multiple linear regression results of variables predicting the depersonalization scale score in nurses.

| Variable | B | Confidence interval 95% | t | p | |
|--------------------|----------|-------------------------|---------------|-------|-------|
| Number of children | 0 | 0.842 | 4.956, -3.273 | 0.404 | 0.686 |
| | 1 | 3.024 | 0.559, 5.488 | 2.425 | 0.017 |
| | ≥ 2 | Reference | - | - | - |

Marital status variables (single compared to divorced or widowed ($B = 7.125$, confidence interval 95%, $P = 0.046$), married compared to divorced or widowed ($B = 4.831$, confidence interval 95%, $P = 0.060$)) were determined as predictors of the individual success dimension. The coefficient of determination in the regression model was calculated as $R^2 = 0.428$. This means that about 43% of the changes in the nurses' success dimension can be explained by the demographic variable of marital status as well as the coaching scale score (**Table 3**).

Table 3. Multiple linear regression results of variables predicting individual success scale score in nurses.

| Variable | B | Confidence interval 95% | t | p | |
|----------------|---------------------|-------------------------|---------------|-------|-------|
| Marital status | Single | 7.125 | 14.130, 0.120 | 2.011 | 0.046 |
| | Married | 4.831 | 9.878, -0.216 | 1.892 | 0.060 |
| | Divorced or widowed | Reference | - | - | - |
| Coaching | 0.248 | 0.432, 0.064 | 2.667 | 0.009 | |

Regarding the dimension of emotional exhaustion, marital status variables (single compared to divorced or widowed ($B = 10.843$, confidence interval 95%, $P = 0.030$), married compared to divorced widower ($B = 9.365$, confidence interval 95%, $P = 0.010$)), the number of children (no children compared to 2 or more children ($B = 2.324$, confidence interval 95%, $P = 0.566$), 1 child compared to 2 children or more ($B = 5.384$, confidence interval 95%, $P = 0.028$)), collaborative decision making dimension score ($B = 1.219$, confidence interval 95%, $P < 0.001$), and coaching dimension score ($B = 0.282$, confidence interval 95%, $P = 0.032$) was determined as predictor. The coefficient of determination was calculated for the regression model $R^2 = 0.492$. In other words, by the variables of marital status and the number of children, as well as the scores of the dimensions of collaborative decision-making and coaching, up to 49% of the changes in the emotional exhaustion dimension of nurses can be explained (**Table 4**).

Table 4. Multiple linear regression results of variables predicting nurses' emotional exhaustion scale score.

| Variable | B | Confidence interval 95% | t | p | |
|-------------------------------|---------------------|-------------------------|----------------|---------|-------|
| Marital status | Single | 10.843 | 20.641, 1.045 | 2.188 | 0.030 |
| | Married | 9.365 | 16.424, 2.307 | 2.623 | 0.010 |
| | Divorced or widowed | Reference | - | - | - |
| Number of children | None | 2.324 | 10.309, -5.660 | 0.575 | 0.566 |
| | 1 | 5.384 | 10.167, 0.600 | 2.225 | 0.028 |
| | ≥ 2 | Reference | - | - | - |
| Collaborative decision making | 1.219 | 1.815, 0.623 | 4.042 | > 0.001 | |
| Coaching | 0.282 | 0.539, 0.024 | 2.164 | 0.032 | |

The present study was conducted to determine the relationship between the empowering behaviors of nursing leaders and the burnout of nurses. The results of the present study showed that there is an inverse relationship between the scores of the dimensions of the empowering behaviors of nursing leaders and the scores of the dimensions of emotional exhaustion and depersonalization of the nurses' burnout questionnaire. This means that with the increase in the leader's empowering behaviors score, the nurses' emotional exhaustion and depersonalization scores have decreased. In other words, the higher the empowering behaviors of the leaders, the

less the job burnout in terms of emotional exhaustion and depersonalization of the nurses. Also, a direct relationship between the scores of dimensions of the empowering behavior questionnaire of nursing leaders and individual success was seen. This means that with the increase in the leader's empowering behavior score, the individual success score has also increased. In other words, the higher the empowering behaviors of the leaders, the lower the burnout in the dimension of individual success. In this regard, Mudalal *et al.*'s study in Jordan showed that the empowering behaviors of nursing leaders reduce nurses' burnout [7].

In the meta-analysis study of Cañadas-De la Fuente *et al.* [20] regarding nurses, a direct and positive result was seen between gender and job burnout. So job burnout was higher in men, single or divorced nurses, and nurses without children. In Qu and Wang's study [21], burnout was higher in single and childless nurses. The results of the study by Cañadas-De la Fuente *et al.* [10] showed that marital status and work shift are predictors of at least one of the dimensions of job burnout.

The results of the present study showed that the higher the empowering behaviors of the leaders, the less the job burnout of nurses. In a review study conducted by Dall'Ora and Saville [22], there was ample evidence that positive work communication and support from coworkers and leaders may play a protective role against burnout. Also, in line with the present study, the results of the systematic review study conducted by Wei *et al.* [23] showed that nursing leaders have a very important role in reducing nurses' burnout through empowering and involving nurses and creating a healthy work environment, they can reduce burnout.

The results of Laschinger and Fida's study [8] also showed that the quality of working conditions created by leaders can play an important role in the experience of burnout, followed by negative health and organizational results. In this regard, the results of Çavus and Demir's study showed that when hospital managers provide organizational structures in a way that empowers nurses, a better fit is created between nurses' expectations of the quality of work life and organizational goals, and as a result, job burnout decreases [24].

Conclusion

Based on the results of the present study, the empowering behaviors of the leaders were moderate. The higher the empowering behaviors of the leaders, the more the job burnout of nurses decreases in different dimensions. Therefore, it is suggested to hold training sessions for head nurses and emphasize that empowering behaviors can have an important effect in reducing nurses' burnout. It is also possible to explain empowerment and its dimensions to the supervisors and managers and remind them that burnout of nurses not only has a negative and destructive effect on the quality of their personal life but also a negative effect on the quality of their work and the care provided to them. Therefore, by trying to reduce the burnout of nurses, the quality of patient care can also be increased, which is one of the important goals of the organization.

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