Nurses' Burnout: The Influence of Leader Empowering Behaviors, Work Conditions, and Demographic Traits

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Abstract

Nurse burnout is a widespread phenomenon characterized by a reduction in nurses' energy that manifests in emotional exhaustion, lack of motivation, and feelings of frustration and may lead to reductions in work efficacy. This study was conducted to assess the level of burnout among Jordanian nurses and to investigate the influence of leader empowering behaviors (LEBs) on nurses' feelings of burnout in an endeavor to improve nursing work outcomes. A cross-sectional and correlational design was used. Leader Empowering Behaviors Scale and the Maslach Burnout Inventory (MBI) were employed to collect data from 407 registered nurses, recruited from 11 hospitals in Jordan. The Jordanian nurses exhibited high levels of burnout as demonstrated by their high scores for Emotional Exhaustion (EE) and Depersonalization (DP) and moderate scores for Personal Accomplishment (PA). Factors related to work conditions, nurses' demographic traits, and LEBs were significantly correlated with the burnout categories. A stepwise regression model–exposed 4 factors predicted EE: hospital type, nurses' work shift, providing autonomy, and fostering participation in decision making. Gender, fostering participation in decision making, and department type were responsible for 5.9% of the DP variance, whereas facilitating goal attainment and nursing experience accounted for 8.3% of the PA variance. This study highlights the importance of the role of nurse leaders in improving work conditions and empowering and motivating nurses to decrease nurses' feelings of burnout, reduce turnover rates, and improve the quality of nursing care.

Introduction

The shortage of health care providers is a major concern worldwide. A 2006 World Health Organization (WHO) report addressed the issue of the health care provider shortage, particularly the shortage of nurses, and how it will interfere with national and international efforts to enhance the health and well-being of the global population.[1] The nursing profession in Jordan, as in other countries, is facing an increase in the annual turnover rate among Jordanian nurses as a result of labor migration, the low number of females selecting a nursing career,[2-4] and unattractive work conditions,[5] which has led to a shortage of skilled and experienced nurses and a young nursing workforce. This nursing shortage has been associated with both work and personal conditions, such as unrealistic job expectations, poor work conditions, work demands that exceed resources, poor collegial relationships, increased work hazards, and poor autonomy and control over practice.[1-4] In addition to shortage, health care sector in Jordan has special situation of massive increase in demand on health care services with ineffective supply of resources—as a result of

Syrian crisis (around 25% of present Jordanian population are Syrians' refugees). This has strengthened nurses' feelings of dissatisfaction and burnout. Abundant studies have documented the negative impact of burnout. Burnout lowers nurses' quality of life, performance level, and organizational commitment and increases their intention to leave the job.[6] As well, burnout increases turnover rates and negatively affects the quality of nursing care.[4,7-11] Thus, it is important to assess burnout levels among Jordanian nurses specially with the situation of lack of studies in this field in Jordan.

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Meanwhile, organizational characteristics and leader behaviors—that empower nurses to use their knowledge, behaviors, and skills to control their work—can improve organizational commitment, job satisfaction, and quality of care[9,12-18]; increase trust in management; and reduce the level of nurse burnout.[9,13] Structural empowerment was found to be important for both nurses' job satisfaction and quality of patient care as mediated by professional practice environment characteristics.[13-15,19] In addition, both structural and psychological empowerments were found to be important for decreasing burnout and subsequently increasing intent to stay.[20-22] Empowering leadership style (leading by example, informing, and showing concern with team) reduces nurses' feelings of emotional exhaustion and depersonalization through the mediation of trust in the leader and organization.[23]

Indeed, leadership is considered a key factor in creating workplace empowerment and a positive work environment.[9]

Previous studies have revealed that various personal and work-related variables are associated with nurses' feelings of burnout. Recently, head nurses have been required to serve as leaders rather than simply managing nursing functions; they are tasked with creating positive change in the work environment and motivating and empowering nurses to achieve the best outcomes for clients, employees, and the organization.[23-25] Thus, leaders' empowering behaviors are logically an important element in creating a professional practice environment, decreasing nurses' burnout, and improving the quality of nursing care. Despite this, few studies have discussed these variables in Jordan. The aims of this study were thus as follows: first, to assess the level of burnout among Jordanian nurses and, second, to examine the influence of leader empowering behaviors (LEBs) on nurses' feelings of burnout, while controlling variables related to work conditions and nurses' demographics to better understand the importance of nurse leaders' role in mitigating the impact of burnout and consequently reducing turnover rates.

Leader Empowering Behaviors

Power generally reflects the ability to control or influence others' behaviors and attitudes.[26] In a work environment, power is the ability to attain, organize, and control resources, information, and support to achieve organizational goals.[27] The term *workplace empowerment* refers to employees' ability to access the resources, information, and support needed to perform their work and to gain the opportunity to learn and develop.[27,28] Empowerment can be achieved in the work environment through LEBs.[29] Four categories of LEBs were developed by Conger and Kanungo in 1988, and in 1994, Hui added another category (Providing autonomy and freedom from bureaucratic restrictions) and provided a conceptual definition for each category[30]:

- *Enhancing the meaningfulness of work*: leader behaviors that infuse employees' work with purpose and give meaning to their contributions, thereby increasing employees' sense of worth and motivating them.
- *Fostering opportunity to participate in decision making*: leader behaviors that allow employees to express their opinions and share in decisions related to their work.
- *Expressing confidence in high performance*: leader behaviors that demonstrate confidence in employees' abilities to fulfill expectations of high performance and that recognize employees' accomplishments.
- *Facilitating the attainment of organizational goals*: leader behaviors that improve employees' skills and knowledge and provide required resources for effective performance.
- *Providing autonomy and freedom from bureaucratic restrictions*: leader behaviors that minimize the constrains of rules, restrictions, and commands to allow efficiency and creativity.

Hui found that LEBs have both direct and indirect influences on employees' performance and that they significantly influence workplace empowerment. In nursing, LEBs are positively associated with nurses' feelings of empowerment in acute care settings; in addition, both LEBs and workplace empowerment are effective in decreasing workplace tension and improving work effectiveness.[31] Moreover, Greco et al found that LEBs have an indirect influence on emotional exhaustion via the mediation of structural empowerment and the areas of work life (workload, control, reward, community, fairness, and values).[32]

Burnout

Burnout is a common psychological phenomenon among nurses. It is characterized by a decline in physical, emotional, and psychological energy resulting from work-related stress[33-35] that leads to cynicism toward clients and colleagues and feelings of low self-efficacy.[36] Burnout may arise because of work overload; a lack of resources, control, and justice; value conflicts; and the absence of a sense of community.[34] Burnout includes 3 key aspects:

- *Emotional Exhaustion (EE)*: the state of being physically and emotionally exhausted by work stress, which is characterized by low energy, fatigue, depression, hopelessness, and helplessness.[33-35]
- *Depersonalization (DP)*: the interpersonal aspect of burnout that manifests in unfeeling, negative behaviors toward others, and detachment from caring and instructions.[33-35]
- *Low Personal Accomplishment (PA)*: the state of negatively evaluating ones' self as being incompetent, unsuccessful, and inadequate; consequently, employees exhibit low levels of contribution to their work.[33-35]

In fact, burnout is a costly problem for both organizations and employees because manifestations of burnout—including reductions in physical and psychological energy, insomnia, headache, fatigue, and depression—lead to an increase in absenteeism and turnover rates and consequently have negative effects on the quality of care.[14,34,37,38] Thus, nurse burnout has been studied widely. Abundant studies have examined the influence of different variables on burnout as part of efforts directed to reducing this phenomenon. Lower levels of burnout are associated with professional practice environment characteristics,[6] social support,[39] and structural and psychological empowerment.[9,13,14,19-22] High levels of burnout are linked to work overload,[21,39] job dissatisfaction,[6,38,39] and turnover.[40] Some demographic characteristics are associated with high levels of burnout: low education levels, night-shift work,[41] and male gender with married marital status.[39]

Materials and Methods

Design

A cross-sectional, descriptive, correlational design was used to explore the influence of head nurses' empowering behaviors on nurse burnout.

Sample and Setting

The sample size was estimated using statistical power procedures. The researcher assumed relatively high power (0.80) to reflect higher precision, small effect size (0.03) with alpha (0.05).[42] The estimation was based on the F test: Multiple Regression - omnibus (deviation of R^2 from zero), fixed model through specific software G*Power 3.1.6 for Windows. The estimated sample size was 364 participants.

The data for this study were collected from nurses employed at different teaching, private, and public—Ministry of Health (MOH)—hospitals in Jordan. The hospitals with the greatest capacity (more than 150 beds) were selected from each sector because these hospitals affect the highest number of health service providers and consumers. A convenience sample of 407 registered nurses from 11 hospitals was recruited. The inclusion criteria were as follows: registered nurses who had at least 6 months of experience in the investigated area (nurse managers not included), and who had the ability to read and understand English. English is the official language of nursing education in Jordan.

Ethical Considerations

The researchers received ethical approval to use the study instruments. Institutional review board (IRB) approval was obtained from the university (Hashemite University) and from each hospital that participated in the study. Each participant was informed of the purpose of the study, the estimated time required to complete the questionnaires, and their right to withdraw without penalty. Returning the completed questionnaires was considered to signify written agreement to participate in the study. To keep anonymity, the questionnaires did not include any information regarding the participant identity. After the nurses completed the questionnaires, the questionnaires were coded with numbers and kept in a sealed box.

Measurement

The data for this study were collected using the following tools.

Maslach Burnout Inventory (MBI). The MBI–Human Services Survey was used to measure nurse burnout. This instrument consists of 22 items that employ a 7-point Likert scale ranging from 0 "never" to 6 "every day" to operationalize 3 dimensions of burnout: Nine items are used to measure EE, 5 items are used to measure DP, and 8 items are used to measure PA.[43] The responses for each subscale were summed, and high scores for EE and DP indicated higher levels of burnout, while high scores for PA indicated lower levels of burnout.[35] The instrument has been found to be valid and reliable in various studies.[33-40,43] For this study, the reliability coefficients (Cronbach's alpha) for the 3 subscales ranged from 0.77 to 0.93.

Leader Empowering Behaviors Scale. In 1994, Hui developed a scale to empirically examine nurses' perception of their leaders' empowering behaviors. The scale consists of 27 items designed to address the 5 categories of LEBs: (1) 6 items are used to measure the meaningfulness of work, for example, "My leader makes me believe that my work can "make a difference" in this organization"; (2) 5 items are used to assess participation in decision making, for example, "My leader provides many opportunities for me to express my opinions"; (3) 5 items are used to assess the expression of confidence in employees, for example, "My leader always shows confidence in my ability to do a good job"; (4) 6 items are used to evaluate the facilitation of organizational goal attainment, for example, "My leader helps me identify what I need in order to achieve my performance goals"; and (5) 5 items are used to evaluate providing autonomy and freedom from bureaucratic restrictions, for example, "My leader encourages me to cut through the bureaucracy to get things done." The response options for each item range from 1 "strongly disagree" to 7 "strongly agree." The responses for each subscale were summed to obtain an overall LEBs score. High scores reflected high levels of LEBs.[30]

The LEBs scale was found to be valid and reliable in many studies in which it was used, and the Cronbach's alpha values for the overall scale and subscales ranged from 0.71 to 0.96.[30-32] For this study, the Cronbach's alpha values for the overall scale and the subscales ranged from 0.89 to 0.95.

Nurses' demographic and work characteristics. The following nurse demographic traits were included: gender, age,

education level, marital status, and years of experience as a staff nurse. Work characteristics included hospital type, department type, nursing care model, head nurse leadership style, nurse's work shift (either fixed on A—morning shift from 8 AM to 4 PM; or rotating on different shifts A, B, C; or day, night), and department daily census (the average number of inpatients in the department).

Data Collection

The study data were assembled by trained research assistants, during the first 5 months of 2015. The research assistants were present in the hospital setting during the data collection process to answer any questions related to the study. Nearly 460 registered nurses were invited to participate. The response rate was approximately 88.5% (407 out of 460).

Analysis

By screening the data, few random missing data were detected and treated by imputation. Actually, no univariate or multivariate missing data were identified in this study. Descriptive and inferential statistics were employed in the analysis. Frequencies were used to describe the demographic characteristics and work conditions of the sample. Stepwise regression analysis was used to understand the influence of the head nurses' (leaders') empowering behaviors, work conditions, and nurses' traits on nurses' feelings of burnout. Before conducting the regression model, the researchers examined the data for multiple regression assumptions. To reduce potential statistical errors, the following inferential statistics were performed to determine the factors that may influence nurse burnout: (1) Pearson correlation coefficients (Pearson r) were used to assess the relationship between nurse burnout and various continuous variables, including LEBs, daily census, age, and nursing experience and (2) an 3 × 8 multivariate analyses of variance (MANOVA) was used to analyze the categorical variables for the nurses' demographic characteristics and work conditions. Having 3 subscales of dependent variable (burnout) supports using MANOVA rather than multiple ANOVA tests to reduce the risk of type I error. To determine significant differences among groups, post hoc analysis (Tukey) was used. However, preliminary analysis did not reveal violations for the MANOVA assumptions, such as normality and linearity of the dependent variables, homogeneity of variance, and independency of variables.

Results

Demographic and Work Condition Variables

The descriptive statistics, comparisons of means, and correlations among the study variables are presented in Tables 1

and 2. A total of 407 registered nurses participated in the study. Approximately 57% (n = 233) of the participants were female. The mean age of the nurses was 29.78 years (SD = 6.51) and ranged from 22 to 53 years. The nurses had approximately 7.22 mean years (SD = 6.20) of experience, and approximately half of the nurses were married (n = 216, 53.07%). Most of the nurses in the study (n = 373, 91.65%) had a baccalaureate degree and were working either on rotating shifts (A, B, C or day and night) (n = 287, 70.52%) or on a fixed A shift (n = 120, 29.48%).

The data for this study were collected from hospitals in 3 health care sectors: MOH (n = 145, 35.63%), private (n = 204, 50.12%), and teaching (n = 58, 14.25%). The nurses were recruited from different departments: Approximately 237 (58.23%) were working in general medical and/or surgical departments, 88 (21.62%) were working in intensive care units, and the remaining nurses were working in obstetric, maternity, or pediatric departments. The average daily census for these departments was 19.85 patients (SD = 17.61). In terms of nursing care model, approximately 155 (30%) of the nurses were assigned to total patient care, whereas 174 (42.75%) were assigned to teams. According to the results, 158 (38.82%) of the head nurses adopted a democratic leadership style, 92 (22.60%) were autocratic, and 74 (18.18%) of the head nurses employed a permissive leadership style.

Nurse Burnout

The Jordanian nurses in this study exhibited relatively high levels of both EE (mean = 31.50, SD = 12.84) and DP (mean = 15.24, SD = 6.87) and moderate levels of PA (mean = 32.30, SD = 10.98). Nearly 61% (n = 248) of the nurses scored higher than 27 for EE—the cut point for severe EE[34]—and approximately 65% (n = 265) of the nurses scored higher than 13 for DP, which is the cut point for severe DP.[34] However, 43% (n = 175) of the nurses had low scores (less than 31)—the cut point for nurses' feelings of low PA,[34] which indicates high levels of burnout (Table 3).

MANOVA test revealed a significant main effect for 5 factors on the 3-burnout categories: gender, $F_{(3, 403)} = 12.516$, $P \le .01$, partial $\eta^2 = 0.081$; work shift, $F_{(3, 403)} = 3.644$, $P \le .05$, partial $\eta^2 = 0.026$; department type, $F_{(3, 403)} = 3.499$, $P \le .01$, partial $\eta^2 = 0.025$; nursing care model, $F_{(9, 401)} = 2.356$, $P \le .05$, partial $\eta^2 = 0.017$; and hospital type, $F_{(6, 401)} = 8.735$, $P \le .01$, partial $\eta^2 = 0.061$ (Table 1).

Separate analysis of variance (ANOVA) tests were conducted for each individual dependent variable to understand the influence of significant factors on each category of burnout. The study results indicated that the main factors that influence nurses' feelings of EE were as follows. The first was *hospital type* ($F = 11.10$, $P \le .01$), which was highest among the nurses who were working in MOH hospitals. The second was *department type* ($F = 3.77$, $P \le .05$), and the highest scores were observed for nurses in intensive care units. The third factor was *nurse's work shift* ($F = 3.01$, $P \le .05$);

Table 1. Nurses' Burnout in Relation to Nurse Characteristics and Work Conditions (N = 407).

Characteristics	n (%)	EE Mean	SD	DP Mean	SD	PA Mean	SD	Wilk Λ	F	df	Partial η^2
Nurses traits											
Gender								0.915	12.516**	3, 403	0.085
Male	174 (42.75)	30.92	12.43	14.15	6.98	33.30	10.72				
Female	233 (57.25)	31.93	13.15	16.69	6.46	30.95	11.22				
Marital status								0.981	0.854	9, 401	0.006
Single	179 (43.98)	30.32	13.32	14.63	6.71	31.91	11.41				
Married	216 (53.07)	32.51	12.46	15.65	6.95	32.79	10.57				
Divorced	9 (2.21)	31.44	10.73	18.00	7.68	30.78	12.59				
Widowed	3 (0.74)	29.00	16.70	13.67	6.66	24.33	10.41				
Level of education								0.993	0.887	3, 403	0.007
Baccalaureate	373 (91.65)	31.44	12.97	15.13	6.94	32.12	10.99				
Master	34 (8.35)	32.12	11.53	16.44	6.00	34.26	10.92				
Work conditions											
Work shift								0.974	3.644*	3, 403	0.026
Fixed A	120 (29.48)	34.55	13.56	15.88	7.54	33.88	11.22				
Rotating	287 (70.52)	30.22	12.33	14.97	6.56	31.63	10.83				
Department								0.926	3.499**	3, 403	0.025
Medical and surgical	237 (58.23)	31.42	12.37	15.90	6.68	32.69	10.95				
Intensive care units	88 (21.62)	34.77	13.79	15.93	7.01	31.46	10.51				
Maternity	43 (10.57)	28.12	12.35	12.44	8.06	32.79	11.26				
Pediatric	39 (9.58)	28.33	12.63	12.74	4.89	31.23	12.14				
Nursing care model								0.949	2.356*	9, 401	0.017
Total patient care	155 (30.08)	32.55	13.03	15.06	7.19	32.92	10.09				
Team	174 (42.75)	29.80	12.50	15.52	6.97	32.20	11.50				
Functional	70 (17.20)	32.77	13.13	14.56	5.85	31.36	11.88				
Unclear	8 (1.97)	36.88	11.39	18.30	6.50	30.38	8.73				
Leadership style								0.965	1.576	3, 403	0.012
Autocratic	92 (22.60)	33.57	13.04	16.55	6.83	32.25	11.67				
Democratic	158 (38.82)	29.39	12.33	14.74	7.03	32.33	11.16				
Permissive	74 (18.18)	32.95	14.17	15.31	6.00	32.19	10.73				
Situational	83 (20.40)	31.90	12.02	14.65	7.29	32.58	10.15				
Hospital type								0.881	8.735**	6, 401	0.061
MOH	145 (35.63)	35.27	13.83	16.34	7.70	32.23	10.30				
Private	204 (50.12)	27.45	8.92	14.60	6.66	35.95	11.83				
Educational	58 (14.25)	29.97	12.44	14.72	4.81	31.30	8.71				

Note. Shadowed areas reflect the results of post hoc test (Tukey). EE = Emotional Exhaustion; DP = Depersonalization; PA = Personal Accomplishment.
*MANOVA is significant at α = 0.05, 2-tailed test. **MANOVA is significant at α = 0.01, 2-tailed test.

nurses who were on fixed A shifts had higher EE scores than those who were rotating on different shifts (Table 1). In addition, EE was positively correlated with *age* ($r = 0.111$, $P \leq .05$) and *nursing experience* ($r = 0.117$, $P \leq .05$) and negatively correlated with the LEB of *participating in decision making* ($r = -0.110$, $P \leq .05$) (Table 2).

Nurses' feelings of DP was significantly associated with *department type* ($F = 5.28$, $P \leq .01$)—the highest level of DP was observed for intensive care unit nurses—and with *gender* ($F = 3.79$, $P \leq .01$), as female nurses had higher

scores for DP than male nurses (Table 1). In addition, DP was negatively correlated with the 3 categories of leadership empowering behaviors: *enhancing the meaningfulness of work* ($r = -0.132$, $P \leq .01$), *expressing confidence in employees' performance* ($r = -0.106$, $P \leq .05$), and *fostering opportunity to participate in decision making* ($r = -0.101$, $P \leq .05$) (Table 2).

In relation to PA, the results revealed a significant influence for *hospital type* ($F = 4.11$, $P \leq .05$) and *gender* ($F = 2.15$, $P \leq .05$); male nurses exhibited better scores for PA

Table 2. Correlations Between Nurses' Burnout, Empowerment, Demographics, and Department Characteristics Among Registered Nurses in Jordanian Hospitals (N = 407).

| | | | Pearson *r* | | |
| | | | Nurses' burnout | | |
Study variables	Mean	SD	EE	DP	PA
Nurse age	29.78	6.51	0.111*	−0.009	0.131**
Nurse experience	7.22	6.20	0.117*	0.007	0.161**
Daily census rate	19.85	17.61	0.086	0.040	0.037
Empowerment					
Total empowering behaviors	116.76	36.33	−0.071	−0.083	0.230**
Meaningfulness of work	26.94	9.27	−0.093	−0.132**	0.181**
Participating in decision making	20.98	7.84	−0.110*	−0.101*	0.179**
Confidence in employees	21.84	7.31	−0.066	−0.106*	0.212**
Facilitating goal accomplishment	25.69	8.56	−0.041	−0.039	0.251**
Providing autonomy	21.32	6.86	−0.006	0.017	0.231**

Note. EE = Emotional Exhaustion; DP = Depersonalization; PA = Personal Accomplishment.
*Correlation is significant at α = 0.05, 2-tailed test. **Correlation is significant at α = 0.01, 2-tailed test.

Table 3. Distribution of Maslach Burnout Inventory Scores Among Jordanian Nurses (N = 407).

| | | | Burnout | | |
| | | | Low | Moderate | Severe |
Burnout categories	Mean	SD	n (%)	n (%)	n (%)
Emotional Exhaustion	31.50	12.84	51 (12.53)	108 (26.54)	248 (60.93)
Depersonalization	15.24	6.87	42 (10.32)	100 (24.57)	265 (65.11)
Personal Accomplishment	32.30	18.98	145 (35.62)	87 (21.38)	175 (43)

than female nurses (Table 1). In addition, PA was reliably and positively correlated with *all categories of LEBs, age*, and *nursing experience* (Table 2).

Although the results show significant correlation values, they are quite low; this could be related to both effect size and sample size. Based on Cohen (1988), the effect size for correlation test in this study ranged from small 0.1 to medium 0.3; hence, results of this study need to be taken with caution.[42]

Predictors of Burnout

Three separate stepwise regression analyses were performed to identify the predictors of the 3 categories of burnout. All the significant variables associated with each burnout category and all the LEB categories were entered into the regression analysis model in Step 1. However, some variables were omitted such as age, which was correlated with nursing experience, and "overall empowering behaviors," which encompasses the other behaviors. For EE, the overall model was significant for 4 variables: hospital type, which was responsible for 3% of the variance in EE; nurse's work shift;

providing autonomy; and fostering participation in decision making. Regarding DP, 3 variables were significant predictors of DP: gender, fostering participation in decision making, and department type. These variables accounted for 5.9% of the variance in DP. The regression model for PA was significant for 2 variables: facilitating goal attainment and nursing experience. These variables predicted 8.3% of the total variance in PA (Table 4). LEBs were associated with the 3 categories of burnout. However, the predictive power of the 3 categories was lower than that observed in previous studies.[8-11,14,20,39]

Discussion

This study demonstrates that most Jordanian nurses suffer high levels of burnout as reflected by their high levels of EE and DP and moderate levels of PA. This result strengthens the findings of a previous Jordanian study conducted by Hamaideh[39] and sheds light on nurse burnout as an extensive problem in Jordan; if the compass is directed toward improving health care system outcomes, then efforts must be made to decrease burnout. However, Jordan is not alone; nurse

Table 4. Predictors of Nurses' Burnout as Perceived by Jordanian Nurses (N = 407).

Burnout	Predictors	B	Adjusted R^2	R^2 change	F	df	P
EE	Hospital type	−1.957	0.030	0.032	13.527	1/405	.000
	Working shift	−3.767	0.042	0.014	5.898	1/404	.016
	Providing autonomy	0.326	0.062	0.013	5.701	1/403	.017
	Participating in decision making	−0.390	0.051	0.011	4.861	1/402	.028
DP	Gender	−2.535	0.031	0.033	14.008	1/405	.00
	Participating in decision making	−0.102	0.048	0.019	8.081	1/404	.00
	Department type	−0.836	0.059	0.013	5.789	1/403	.01
PA	Facilitating goal accomplishment	0.323	0.061	0.063	27.304	1/405	.00
	Nursing experience	0.277	0.083	0.024	10.844	1/404	.00

Note. Predictors of nurses' burnout final model produced at α = 0.05. EE = Emotional Exhaustion; DP = Depersonalization; PA = Personal Accomplishment.

burnout is a worldwide problem, and abundant research studies of burnout have revealed moderate to severe burnout among nurses.[8,32,38,44-46] High levels of burnout among Jordanian nurses could be related to poor work conditions, such as work overload, unfairness, lack of resources and control, low collegial support,[6,8,39,43,47] and uncooperative and unsupportive leaders, as well as to personal and social factors.[39,41,43]

In this study, the researchers investigated the influence of LEBs, nurses' work conditions, and nurses' demographic characteristics on nurses' feelings of burnout. As the findings demonstrate, nurses on fixed A shifts reported higher levels of EE and DP than nurses who were rotating on different shifts; this is perhaps because nurses on fixed A shifts are typically overloaded with both clinical and managerial responsibilities. Nurses with high workloads are more likely to develop burnout.[6,8,10,39] Conversely, the nurses on fixed A shifts reported higher levels of PA, and this result is consistent with Demir and colleagues' findings[41] suggesting that nurses on fixed A shifts are typically more experienced nurses who contribute more to their work and have a better understanding of their role, which enhances their feelings of PA.

The level of burnout was significantly different among the 3 types of Jordanian hospitals included in this study: The nurses who were working in MOH hospitals exhibited the highest levels of EE and DP and the lowest levels of PA compared with nurses who were working in teaching and private hospitals. Indeed, those 3 health sectors have been found to be different in terms of their organizational traits.[17,48] Nurses from private hospitals perceive their hospitals as a favorable environment in terms of better hospital organization, support for quality of care, leadership and collegial support, staffing and resource capability, and nurse-to-patient ratio, as well as low daily census rate.[48] This indicates that organizational traits could be a significant factor for burnout in Jordan, which supports the findings of Leiter and Laschinger[47] and Van Bogaert and his colleagues.[10,11] However, further investigations are needed in this field.

According to the present study, intensive care unit nurses and medical/surgical nurses exhibited significantly high levels of both EE and DP, and this may be associated with high workload, continual interactions with patients who are suffering, and the need to cope with complex technology. Greco et al and Gillespie and Melby found that medical/surgical nurses were more exhausted than nurses working in other hospital departments.[32,44] These significant results suggest that more attention is needed to support nurses in these departments by increasing human and informational resources and improving nurses' leadership skills and feelings of PA.

Although nursing care model, leadership style, and daily census rate are important work-related variables, they were not significant variables for nurse burnout in the present study. Further studies of leader behaviors and their influences on different outcomes are recommended. In addition, daily census rate did not correlate significantly with burnout; this result was incongruent with other studies.[6,8,39] However, census rate did not adequately represent workload in this study; thus, it is recommended that future studies use nurse-to-patient ratio and standardize the level of disease acuity.

In relation to demographic traits, the results reveal that female nurses reported higher levels of EE and DP and lower levels of PA than male nurses. This result supports the findings of some previous studies.[3,49,50] High levels of burnout among female nurses could be associated with their complex roles in Jordan: In addition to their professional responsibilities, females have more social responsibilities related to home and family than males.[51,52] Furthermore, more than 65% of the Jordanian population are children and women who require female nurses to meet their health needs.[4] Indeed, it is not accepted culturally in Jordan for male nurses to work in females departments or pediatric departments where the mothers are rooming with their children. The health sector in Jordan is suffering from a shortage of female nurses because fewer females are choosing nursing as a career[2,4] and because female nurses leave the nursing profession early after marriage, which has led to increased workloads in the departments in which

female nurses work. Indeed, poor staffing is associated with higher workloads, unstable work environments, and negative outcomes.[47,53] However, efforts are now being directed toward increasing the number of female nursing students in Jordan.

This study reveals that high levels of burnout, as represented by high levels of EE, are positively associated with increases in age and nursing experience; this could be related to the increase in both social and professional responsibilities that accompany increases in age and experience. However, age and experience are also positively associated with PA, which could be related to increases in nurses' satisfaction with their contribution to their work. This result corresponds to the findings of Demir et al and Patrick and Lavery.[37,41] The authors of these studies recommend that, for older and more experienced nurses, redesigning of a work scheduling—for example, a regular short-term breaks during their work duration, make voluntary overtime, decrease workload, and enhance control over their practice—is required because they become to be more vulnerable to EE while their self-esteem and self-efficacy on performances grow as times go on.

Despite the significant influence of marital status[39] and education level[41] on nurse burnout observed in previous studies, this study's results did not support those of prior studies. However, this may be related to the small samples in some categories, which therefore could not exhibit sufficient statistical impact. For example, only 34 of the 407 participants had a master's degree, and only 12 of the participants were divorced or widowed.

The results of this study demonstrate the significant influence of LEBs on the categories of nurse burnout. Fostering opportunity to participate in decision making was the behavior that had the strongest negative influence on EE. The 3 LEBs—enhancing the meaningfulness of work, fostering opportunity to participate in decision making, and expressing confidence in high performance—had a negative influence on nurses' feelings of DP. By contrast, all the categories for LEBs positively contributed to the nurses' feelings of PA. These results indicate that nurses' feelings of empowerment will reduce their feelings of burnout. These results are consistent with all previous studies related to empowerment and burnout.[9,14,16,20,22,28,31,32] In fact, this result supports the importance of the leader role in the nursing work environment.

Finally, this study endeavored to identify the factors that may influence nurse burnout by using stepwise regression analysis. The most important factor for EE was hospital type, which suggests that the nursing work environment may play an important role in nurses' feelings of burnout. In addition, 2 of the LEBs were influential factors for EE: providing autonomy and fostering opportunity to participate in decision making, which indicates that nurses' lack of autonomy and control over their practice may initiate feelings of burnout. In relation to DP, 3 factors were found to be influential: gender, fostering opportunity to participate in decision

making, and department type. In fact, sharing in decisions related to work provides nurses with a feeling of importance regarding their contribution to work, which improves their attitudes toward patients. Moreover, 2 factors predicted PA: leader's role in facilitating goal attainment and nursing experience. Achieving organizational goals is important for nurses' PA as it offers evidence of their success in their work, and this feeling is enhanced by increases in experience. However, the low predictive power observed in this study indicates that other factors may play a mediator role between LEBs and burnout or that, in contrast to nursing in North America, nursing in Jordan is not a female-dominated profession, which makes empowerment different in Jordan than in other countries. Therefore, further studies are suggested to understand the nature of nursing empowerment in Jordan. Additional studies are also recommended to examine the impact of other variables on burnout and the mediation role of factors such as work environment traits, trust in leader and organization, and structural empowerment. The results of the present study suggest that nurses' work conditions and demographic traits and LEBs are important factors for nurses' feelings of burnout. Strategies to decrease burnout in Jordan are important for retaining experienced nurses, increasing the number of females in the nursing profession, and improving the quality of nursing care.

Limitations and Implications

This study addresses the influence of LEBs, nurses' work conditions, and nurses' demographic characteristics on nurses' feelings of burnout. Although the results of this study are robust, the study has some limitations: Because nonprobability sampling was used, the sample size in some categories was not sufficient to reveal a statistical effect, which may limit the generalizability of the results. Also, both partial η^2 and R^2 coefficients show weak effects which may decrease the generalizability of related results; hence, results of this study must be taken with caution.

Future studies are encouraged to use larger and more representative samples for all the analyzed variables to improve the generalizability of the findings.

The results suggest that nurse managers and policy makers should improve nursing work conditions using the following strategies: reduce nurses' workload through appropriate staffing, improve access to information, distribute resources fairly, provide professional development opportunities, and improve nurses' leadership skills such as decision making and empowerment. In addition, more experience should not be sufficient to obtain a managerial position in nursing; nursing leadership is an advanced role that requires nurse leaders to have at least a master's level of education to contribute effectively to shaping the future of health care.[54] Additional efforts are needed to attract more females to study and practice nursing, and nurse managers should endeavor to enhance the quality of life for working women

by offering self-scheduling[32] and part-time opportunities and by providing child care services and transportation.

This study raised the issue of burnout as a research priority, and further research is required to assess the unique impact of different factors on burnout, such as work environment, salary, daily distance traveled to work and child care for working mothers. In addition, more clinical trial and intervention studies are suggested to develop programs to reduce work stress as a strategy for attracting nurses, improving quality, and achieving optimal organizational outcomes.

Conclusion

The present study suggests that nurses' work conditions and demographic traits and LEBs are significant factors for nurse burnout. The results of this study highlight the importance of the leadership role in creating a positive work environment by enhancing the meaningfulness of work, enabling employees to participate in decisions related to their work, expressing confidence in employees' abilities to perform at a high level, facilitating goal attainment, and providing autonomy. In addition, attracting more female nurses to the profession may be achieved by improving nurses' work conditions, which may enable nurses to remain in the profession longer. These approaches are expected to decrease nurse burnout and consequently contribute to ongoing efforts to reduce the nursing shortage and improve the quality of care provided.

Declaration of Conflicting Interests

Funding

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