

Original paper

The Influence of Leadership Styles on Burnout among Nurses

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Abstract

Background: A common condition known as nurse burnout is characterized by decreased vitality of nurses, leading to emotional exhaustion, decreased motivation, and feelings of dissatisfaction. This can lead to decreased effectiveness in their profession. Although reducing fatigue is commonly associated with leadership style, it is unclear whether some leadership philosophies are more successful than others. This study designed to explore the link between dimensions of burnout dimension and leadership styles among nurses at Karbala City Teaching Hospitals.

Methods: A correlational descriptive study was conducted convenience sample method of 324 nurses in Karbala City, Iraq. Data collection was performed using a self-administer questionnaire. The first part contained items on participants' characteristics, the second part was perceived leadership styles in the health sector questionnaire and the third part was the Maslach Burnout Syndrome Inventory questionnaire.

Results: Most participants were relatively young, with the majority (75%) between 20 and 35 years old, Females comprised a larger portion of the sample (nearly 70%) than males. Results indicated a particular correlation between leadership style and lower burnout among nurses.

Conclusion: Leadership style has a relationship to high or low burnout depending on the leadership style followed by the nursing officer.

Keywords: leadership styles, burnout, nurses

Introduction

Chronic fatigue can arise as a result of prolonged stress at work. Compared to stress, fatigue has a greater negative impact on the health of the individual, as well as on the health of those close to him and at work. It also comes at a significant cost. There is strong evidence of burnout in the healthcare sector, specifically in nursing, as well as in other helping-related professions [1]. The term burnout was first used in the United States in the 1970s to describe the work and mental health problems experienced by customer service representatives [2].

Burnout is a condition that is perceived to be caused by constant stress at a job that has not been successfully managed, and burnout has been recognized as a mental health problem by the World Health Organization [3]. Nurse managers have a critical role in reducing burnout among nurses in all departments, and their daily responsibilities differ from those of clinical nurses. Hence, it is crucial to study the impact of professional burnout on

nurse managers, identify potential risk factors, and determine its prevalence, similar to studies conducted on nurses in various departments [4].

The primary function of management in healthcare organizations is to coordinate human and material resources to achieve organizational goals. It addresses the four pillars of leadership: planning, organizing, controlling, and leadership [5]. Leadership is a key component of effective management that greatly influences the efficiency of healthcare organizations in accomplishing their work [6]. Leaders exhibit a pattern of behavior that seeks to achieve goals by coordinating the efforts of others and maximizing personal interests. In addition, it is crucial to shaping the overall work atmosphere and how workers view their jobs [7].

Caring for employees, leading at the unit and organizational levels, being present, and setting a good example all take a lot of effort. In hospitals, leadership is an essential element in the delivery of coordinated and integrated health care. Structural measures influenced by nurse manager leadership styles are believed to be important determinants of

nurse job satisfaction, morale, productivity, and retention [8]. The leadership style of an organization is one of the factors that play an important function in growing or slowing down the hobby and dedication of people within side the organization, responsibilities that nursing leaders should assume (9-10). Healthcare settings, such as those with positions such as nurse manager, nurse consultant, and nurse educator, require a culture of leadership. However, possessing leadership capabilities alone is not enough to ensure a company's performance. University institutions vary in their approach to preparing students, especially when it comes to the transition from the classroom to the career [11].

The study was based on the theory of behavioral leadership, the behavioral leadership theory proposed by Kurt Lewin and colleagues (1939) identifies three different leadership styles, particularly in decision-making. Authoritarian leaders make their own decisions. They do not consult their supporters or involve them in the decision-making process. Once a decision is made, they implement it and expect it to be followed. The researchers found that decision-making was less creative under autocratic leadership [12]. Democratic leadership style is the process of recognizing the respect and value of each employee and then making decisions. This type of leadership involves listening, understanding, and effective conversations with employees, this type of leadership includes honesty, trust, equality, and openness among leaders [13].

Laissez-faire leadership is a "free leader" who does not lead the group but rather leaves the group entirely to its own devices. In other words, the leader has little control and less supervision over his subordinates. However, some studies criticize the laissez-faire leadership style, which they believe has a negative impact on the organization. A laissez-faire leader can plunge team members into chaos, disarray, and inefficiency, leading to workers being laid off and labeled as inconvenient [14-15].

Kurt Lewin's Chang's theory can help leaders evaluate the traits of their constituents and the need for corporate reform. This method also guides incremental transformations of leaders of hospital plans to educate nursing room heads to improve their performance [16]. The article by Gil Monti and Pirro (1997), as cited by García Rivera, states that burnout syndrome is the result of a combination on of elements including personality traits and work environment pressures. This author states that chronic work stress can lead to burnout [17]. According to Maslach's (1976) later theory, burnout occurs when people experience negative and distant reactions toward others and loss of idealization as a result of

emotional exhaustion; Decreased personal success due to decreased efficiency and performance at work; and negative and distant reactions toward others as a result of emotional exhaustion [18].

Burnout affects approximately 59.1% of clinical nurses to some degree, and its onset and severity are influenced by a variety of elements, including social, environmental, and personal factors [19]. Nurse leaders have a significant impact on nursing staff, other members of the healthcare team, and patient care through effective leadership and coaching. Executive leaders play an important role in shaping the culture and policies, setting standards and structure for conflict management, as well as how conflicts are perceived and resolved [20].

This research aims to examine whether leadership styles are associated with nurses' levels of burnout among nurses working in teaching hospitals in the city of Karbala. Also seeks to assess the extent of burnout experienced by nurses.

Materials and Methods

Study subjects:

The study was conducted with nurses from four teaching hospitals in Holly Karbala City, Iraq, from the 26th of September 2023 to August 2024. The sample size was estimated according to Richard Geiger [21]:

$$n = \frac{\left(\frac{d}{z}\right)^2 x (p)^2}{1 + \frac{1}{N} \left(\left(\frac{z}{d}\right)^2 x (p)^2 - 1\right)}$$

Where, n = represents the sample size and N = represents the population size

p = represents the coefficient of difference between the members of the population and is equal to 0.50
d = represents the percentage of acceptable error in the sample, which is equal to:

If the confidence level is 95% = 0.05

If the confidence level is 99% = 0.01

z= represents the standard score corresponding to the level of confidence:

If the confidence level is 95% = 1.96, If the confidence level is 99% = 2.58

Data were collected from nurses who worked in four teaching hospitals in Karbala City (Al-Imam Al-Hussein Medical City, Al-Imam- Hassan Al-Mujtaba Teaching Hospital, Karbala Teaching Hospital for Children and also Obstetrics and Gynecology Teaching Hospital). The target population was 2015 nurses working in four teaching hospitals. The population of nurses from each hospital was 725,272,483,535, respectively, the sample size was 324 nurses, and the number of nurses samples in each hospital, was 97,70,86,71, respectively.

Data collection tools

The questionnaire was designed by the researcher according to the previous studies [22-23], related to variables included in the current study. The researcher uses an instrument consisting of three parts, demographic information data, leadership styles questionnaire, and Maslach Burnout Inventory to measure the problem statement.

The first part: the socio-demographic sheet includes nurse's age, sex, social status, work shift, income, current workplace, period of employment, and educational level. The second part: the leadership styles survey consists of 15 items, which include autocratic style: from 1 to 5 democratic style from 6 to 10, and Laissez-faire from 11 to 15. The paragraphs of the scale are built in the form of statements that ask about the nurse's perceptions of their nursing leaders and are asked to answer once for each paragraph. The answer depends on the statements on a sliding scale: strongly agree (5), agree (4) neutral (3), disagree (2), and strongly disagree (1).

The third part is the Maslach Burnout Syndrome Inventory questionnaire (1981). It consists of 3 indicators, namely emotional exhaustion (EE), depersonalization (DP), and personal-achievement (PA). It contains 22 items. Some of the items are positively worded (4, 7, 9, 12, 17, 18, 19, and 21) and the other are negatively worded (1, 2, 3, 5, 6, 8, 10,11,13,14, 15, 16, 20, and 22). They distributed in three subscales: emotional exhaustion (nine items: 1, 2, 3, 6, 8, 13, 14, 16, and 20), personal achievement (eight items: 4, 7, 9, 12, 17, 18, 19, and 21), and depersonalization (five items: 5, 10, 11, 15, and 22). The paragraphs of the scale are built in the form of statements that ask about the individual's feelings about their profession and are asked to answer once for each paragraph. The answer depends on the statements on a sliding scale: 0 (never); 1 (once a year); 2 (once a month); 3 (several times a month), 4 (once a week),5 (several times a week), and 6 (every day). According to the Maslach Burnout Scale, individuals who score high on both emotional exhaustion and depersonalization and low scores on the personal accomplishment dimension suffer from burnout.

According to this scale, the individual is not classified based on suffering or does not suffer from psychological burnout. The classification is when a total of 33 or less is High-level burnout, a total between 34 and 39 is moderate-level burnout, and a total greater than 40 is Low-level burnout. This classification is based on his degree of burnout ranges between high, moderate, or low as shown in the following;

Emotional Exhaustion (EE) (total 17 or less: Low-level burnout, total between 18 and 29 inclusive: moderate level burnout, total over 30: High-level burnout), Depersonalization (DP) (total 5 or less: Low-level burnout, total between 6 and 11 inclusive: moderate level burnout, total of 12 and greater: High-level burnout), Personal Accomplishment (PA).

Ethical considerations

This study was approved by the Ethics Committee of the College of Nursing, University of Kerbala, on November 13, 2023, with approval number UOK.CON.23.004. A legal document requesting permission from the College of Nursing at the University of Kerbala to collect data addressed to the Kerbala Health Directorate. An official document was sent from the Kerbala Health Directorate to the teaching hospital in the city center. All nurses were informed of the purpose of the study, confidentiality of data, and their freedom to withdraw from the study, and their personal written informed consent was obtained.

Statistical analysis

The data analysis for this study was generated using The Statistical Package for the Social Sciences software, version 28.0 (IBM, SPSS, Chicago, Illinois, USA), and the Real Statistics Resource Pack software for Mac (Release 7.2) of the resource pack for Excel 2016 of copyright (2013 – 2020). Descriptive statistics were performed on the participants' data of each group. Values were illustrated by n (%) for categorical. The distribution of data was checked using the Shapiro-Wilk test as a numerical means of assessing normality. Spearman correlation is used to investigate the correlation between leadership with burnout. T-test was used to adjust other risk factors including age, and gender (male, female). The 95% confidence intervals (95%CI) were also determined for all variables.

Results

Cronbach's alpha was used to measure the internal consistency of study tools results indicated that Leadership styles tool (Autocratic leadership style, Democratic leadership style, and laissez-faire leadership style) (0.8, 0.78, and 0.7, respectively), have relatively high internal consistency for each groups have 5 questions, and also burnout scale (emotional exhaustion depersonalization, and personal accomplishment) was 0.76, 0.77, and 0.75, respectively. Questions had relatively high internal consistency.

Demographic characteristics

The age range of the participants was 20-50 years. Most of them were relatively young, with (75%)

between 20 and 35 years old. The healthcare workers were employed across four major medical centers in Karbala including Al Imam Al-Hussein Medical City, Al- Imam Al- Hassan Al- Mujtaba Teaching Hospital, Kerkala Teaching Hospital for Children and Obstetrics and Gynecology Teaching Hospital, as presented in Figure 1.

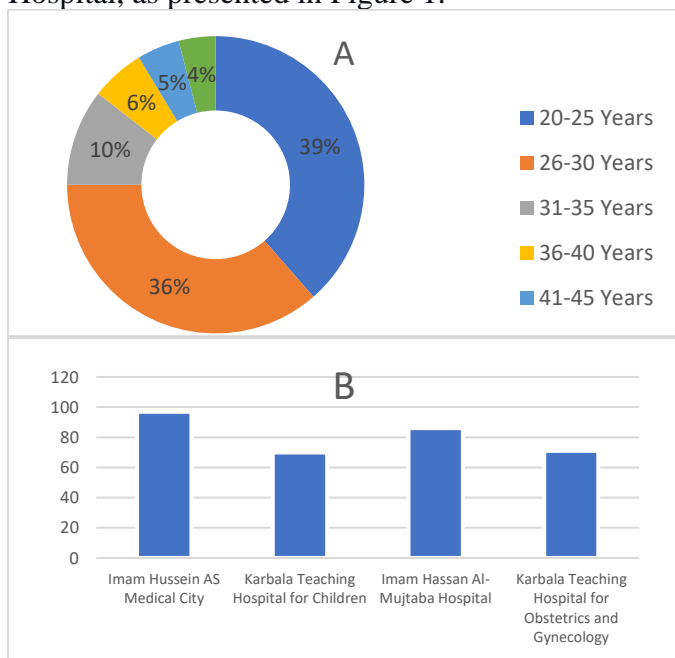


Figure 1. The percentage of the participants based on (A) The Age groups (B) Current workplaces

Females comprised a larger portion of the sample (nearly 70%) compared to males. Single individuals made up the largest group (41.7%), followed by married individuals (55.6%) (Figure 2).

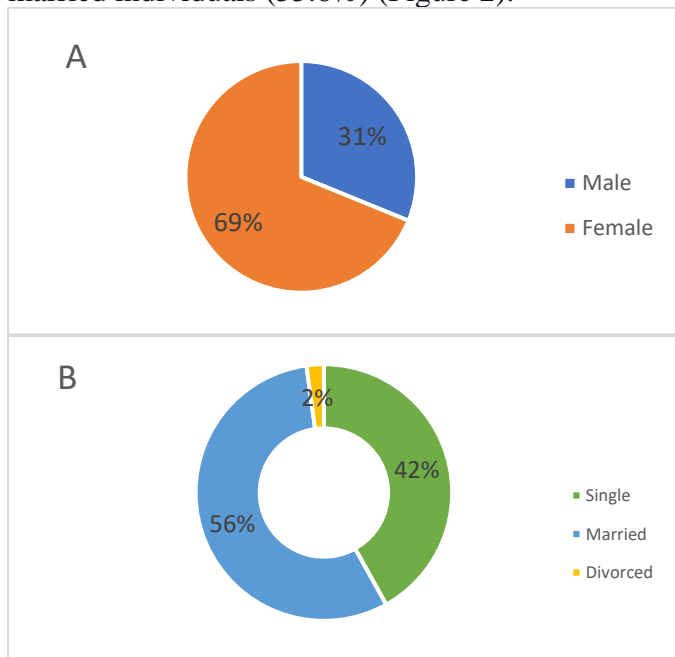


Figure 2. The percentage of the participants based on (A) Sex (B) Marital status

Most of the participants (over 60%) reported having sufficient income, while a significant minority

(almost 30%) indicated having limited financial resources. The distribution of participants was balanced between holders of secondary school certificates, diplomas, and bachelor’s degrees, while there was no sample of holders of doctoral degrees (Figure 3).

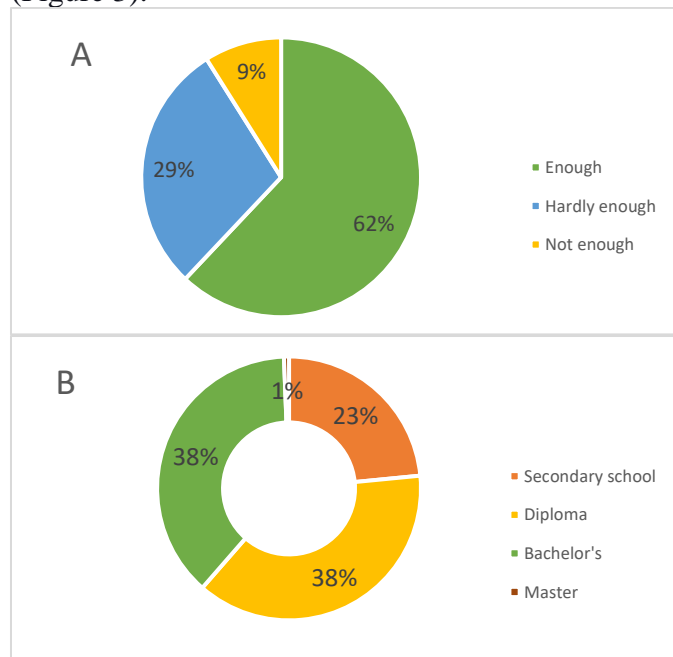


Figure 3. The percentage of the participants based on (A) Income (B) educational level

Over 40% had been employed for 1-3 years, with the remaining participants spread across other employment durations. Regarding the work shifts, they were nearly evenly divided between mornings and evenings (Figure 4).

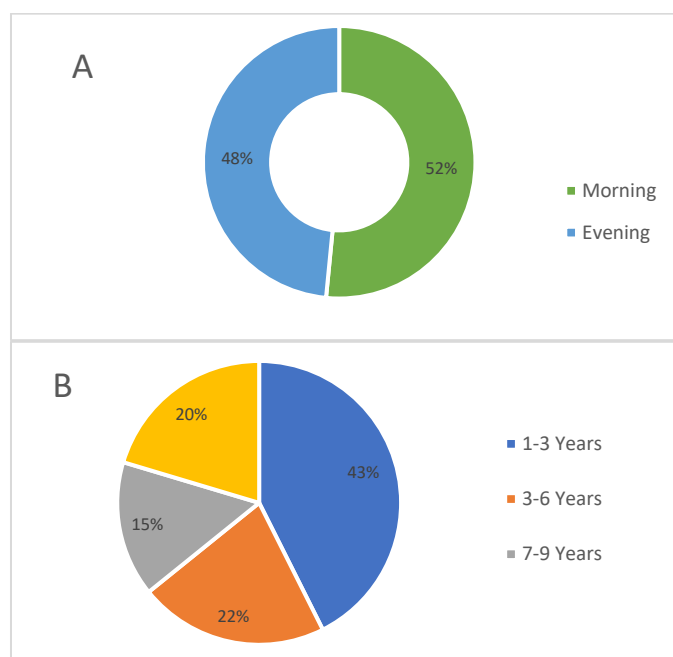


Figure 4. The percentage of the participants based on (A) Work shift (B) period of employment

According to Table 1, 35.5% of respondents expressed extreme emotional tiredness, which is indicative of burnout. Furthermore, the majority (51.9%) showed low depersonalization, indicating low burnout. Nearly 19% expressed extreme depersonalization (indicating burnout), and a sizable portion (29.3%) showed moderate depersonalization. Additionally, a significant level of burnout was indicated by the vast majority (97.2%), indicating a low sense of accomplishment in their employment.

In Table 2, the correlation between leadership style and burnout (emotional tiredness, depersonalization, and personal achievement) in nurses was shown to be particularly significant. Specifically, there was a direct and highly statistically significant relationship between the Democratic leadership style and emotional exhaustion and depersonalization.

In Table 3, several demographic factors were associated with nurses' emotional exhaustion. Nurses in younger age groups, females, single individuals, and those with a Bachelor's degree reported higher levels of exhaustion. Also, emotional exhaustion appears to be highest in nurses with 3-6 years of experience. Statistics show significant variation between emotional exhaustion and age groups. Nurses in the 20-25 age group indicated a high amount of emotional exhaustion, with levels decreasing in older age groups. Females reported significantly higher emotional exhaustion compared to males. Regarding marital status, single nurses reported significantly higher emotional exhaustion

compared to married nurses. Also, there was a significant difference in emotional exhaustion by educational level. Bachelor's nurses had more exhaustion, followed by those with a Secondary School diploma, and then those with a Diploma. Master's nurses had low emotional exhaustion (although the sample size in this group was very small). On the other hand, the employment period showed a significant association with emotional exhaustion. Nurses with 3-6 years of experience reported the highest exhaustion, followed by those with 1-3 years. Emotional exhaustion then decreased with longer tenures.

In Table 4, the study identified income level and shift as factors potentially influencing nurses' sense of personal accomplishment. Nurses with greater financial strain and those working evening shifts reported feeling a greater sense of accomplishment. Nurses who reported having "enough" income felt a significantly lower sense of personal accomplishment compared to those who reported having "hardly enough" or "not enough" (p = 0.028). This may suggest that financial strain motivates nurses and fosters a greater sense of achievement when they can meet their needs. Nurses with 3-6 years of experience reported the highest personal accomplishment. Morning shift nurses reported significantly lower personal accomplishments compared to evening shift nurses (p = 0.003). This may be due to factors like workload distribution or staffing differences between shifts. As for depersonalization, the results showed that there were no statistically significant relationships between depersonalization and demographic information.

Table 1. Burnout Dimension Assessment

Burnout dimensions	Categories	No (%)	Mean	Assessment
Emotional exhaustion (level)	Low- burnout	96 (29.6)	25.5	High-level burnout
	Moderate-burnout	113 (34.9)		
	High- burnout	115 (35.5)		
Depersonalization (level)	Low- burnout	168 (51.9)	6.2	Low-level burnout
	Moderate-burnout	95 (29.3)		
	High- burnout	61 (18.8)		
Personal Achievement (Level)	Low-burnout	4 (1.2)	12.3	High-level burnout
	Moderate-burnout	5 (1.5)		
	High-burnout	315 (97.2)		

Table 2. Correlation between Leadership Style and Burnout

Spearman's rho		Emotional exhaustion	Depersonalization	Personal Achievement
Autocratic leadership style	r	0.085	0.085	-0.083
	P-value	0.125(NS)	0.128(NS)	0.135(NS)
Democratic leadership style	r	-0.223	-0.215	0.024
	P-value	<0.001(S)	<0.001(S)	0.666(NS)
laissez-faire leadership style	r	0.015	0.068	0.075
	P-value	0.782(NS)	0.222(NS)	0.179(NS)

Results are presented as r: correlation, p<0.05 considered significantly different, (S)= Significant, (NS)= Non significant

Table 3. Relationship between Nurses' Burnout / Emotional Exhaustion and their Demographic Data

Variable	Categories	Emotional exhaustion		P value
		N	Mean±SD	
Age groups (Years)	20-25 Years	125	27.79±11.87	0.007
	26-30 Years	118	25.63±12.29	
	31-35 Years	34	21.59±10.34	
	36-40 Years	19	23.63±13.67	
	41-45 Years	15	21.27±12.72	
	46-50 Years	13	21.00±9.17	
Sex	Male	101	23.55±12.19	0.047
	Female	223	26.43±11.94	
Social status	Single	135	27.77±12.61	0.012
	Married	180	23.68±11.54	
	Divorced	7	26.71±7.02	
	Widow	2	37.50±7.78	
Educational level	Secondary school	76	25.11±11.24	0.004
	Diploma	123	22.97±11.72	
	Bachelor's	123	28.45±12.28	
	Master	2	20.50±23.33	
Period of employment	1-3 Years	138	26.38±11.97	0.001
	3-6 Years	70	29.16±12.54	
	7-9 Years	50	23.30±12.56	
	More than 10 Years	66	21.61±10.07	

Table 4. Relationship between Nurses' Burnout / Personal Accomplishment and their Demographic Data

Variable	Group	Personal achievement		P value
		N	Mean±SD	
Income	Enough	201	11.20±9.66	0.028
	Hardly enough	94	13.43±9.39	
	Not enough	28	16.18±12.58	
Period of employment	1-3 Years	138	10.97±8.70	0.05
	3-6 Years	70	14.89±10.83	
	7-9 Years	50	11.58±9.63	
	More than 10 Years	66	12.67±11.28	
Type of Shift	Morning	167	10.66±8.71	0.003
	Evening	157	13.96±10.91	

Discussion

The relationship between leaders' behavior and subordinates' and their concomitant burnout has received increased scholarly attention. Leadership style has a significant influence on how subordinates manage stress. Burnout may result from a nurse's very demanding job and duty. An effective leadership style is one way to try to reduce the burnout experienced by nurses. Nurses' needs can be met through compassionate leadership, which will enhance performance [17, 24].

A Study at Shahid Dr. Faghihi Hospital, Shiraz, Iran, A random sample of 207 nurses. Burnout scores for emotional exhaustion were above average [27.26], for depersonalization were low (5.96), and for reduced personal accomplishment were high (30.85). Laissez-faire leadership had a significant negative relationship with reduced personal accomplishment ($P = 0.004$) [25]. Using stratified random sampling, a total of 251 nurses working on COVID-19 wards were included in this descriptive correlational analysis. According to the results,

40.6% reported feeling emotionally exhausted (EE), 41.8% reported feeling moderately exhausted (EE), and 50.2% reported feeling highly depersonalized (DP). Furthermore, the majority of nurses (55.8%) reported a decline in their accomplishments (PA), with 27.5% showing a moderate decline in their PA. There was a statistically significant negative relationship between job satisfaction and performance efficiency ($r = -0.394$, $p < .001$) [26].

A convenience sample of 407 registered nurses from 11 hospitals was recruited. According to the results, The Jordanian nurses in this study exhibited relatively high levels of both emotional exhaustion (mean = 31.50, SD = 12.84) and depersonalization (mean = 15.24, SD = 6.87) and moderate levels of PA (mean = 32.30, SD = 10.98). 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. Although the 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 [27]. In another study, there was a relationship between leadership style with emotional exhaustion ($p = 0,000$), leadership style with depersonalization ($p = 0,000$), and leadership style with low self-actualization ($p = 0,000$). Approximately, half of the participants indicated moderate burnout syndrome, i.e. 47 people (45.2%), and it is known that there are 104 people from leadership style categories in democracies suffering from moderate burnout syndrome up to 45 people (43.3%). Based on statistical tests using known Spearman Rho ($p\text{-value } 0.000 < 0.05$) which means democratic leadership style related to nurse executive burnout syndrome in the inpatient room of Bajawa Regional Hospital [28]. The results show that 55% of participants were between 31 and 40 years old, 90% were married, 55% were women, 53.3% had nurse education, and 56.6% had worked for more than ten years. According to statistical studies, there is a significant relationship between leadership style and burnout syndrome in nurses ($P=0.047 < @=0.05$). In addition, 43.3% of individuals reported experiencing severe burnout syndrome. According to the analysis, 76.9% of individuals suffering from high psychological burnout prefer the authoritarian leadership style of the health center head. Furthermore, 50% of nurses who reported low burnout also demonstrated a *laissez-faire* leadership style [29].

An exploratory descriptive study with a cross-sectional approach using a sample of 485 nurses in medical and surgical units of three public hospitals in East Java Province. It was applied to identify burnout syndrome and a socio-demographic questionnaire was used to assess the demographics of respondents. The result was that a high level of burnout was identified in 34.8% of participants in the emotional exhaustion (EE) domain, 24.3% in the depersonalization (DP) domain, and 24.5% in the low personal accomplishment (RPA) domain. Correlation analysis showed that marital status and work experience were associated with EE ($P < 0.05$); Functional status and age were associated with DP ($P < 0.05$); Marital status was associated with RPA ($P < 0.05$) [30].

The majority of responders, specifically 34 nurses (85%), reported experiencing moderate burnout. The burnout dimension analysis reveals that 27 nurses (67.5%) experience emotional tiredness, 31 nurses (77.5%) experience depersonalization and 29 nurses (72.5%) experience a drop in achievement [31]. At Al-Razi Psychiatric Hospital, Iran, demographic and professional nurses' burnout variables were measured. Results indicated that age,

hours worked per week, nursing skills, management experience, and work experiences accounted for 30% of the variance in depersonalization. Formal work was significantly associated with emotional exhaustion ($P < 0.04$). Gender was also significantly associated with lower personal accomplishment ($P < 0.006$) [32].

In the study, the researcher reviews a mix of national and international research studies relevant to this field of study. It is very clear that studies related to the healthcare sector are rare in the Middle East region in general and Iraq in particular. The researcher tried hard to obtain as many studies as possible, but unfortunately, only a few were found. The study had several limitations, including insufficient literature a lack of research studies related to the full title of the study, Lack of cooperation from the nursing staff due to work pressure and apparent tension while carrying out their duties.

Conclusion

There is a notable relationship between nurse manager's leadership styles and burnout levels. Effective leadership styles share behavioral patterns consistent with the standards of the positive leadership framework, including ethical considerations, positive behaviors, promoting equity, and promoting healthy relationships among nurses. Also, this study investigated the relationship between various demographic characteristics and depersonalization, another indicator of burnout, among nurses

The study findings can guide the creation of education and training programs that focus on the leadership style of nurse leaders. Identifying the secondary influences of nurse managers' leadership styles and the characteristics that mediate them is critical for developing interventions for staff nurses. Among the recommendations made by the researcher were providing support and resources to manage stress and promote self-care practices among nurses. In addition, promoting a positive work environment and culture may help prevent burnout among nurses and improve their overall well-being. Focusing on selecting the nursing leader in particular based on certain characteristics and high morals aims to achieve psychological stability and lift the burden on the nursing staff.

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Author contributions: Conceptualization: I.N.H. participated in developing the core idea and research plan with (S.D.N), **Methodology:** I.N.H. collaborated with S.D.N. to design the data collection methods, including questionnaire self-reporting method. **Formal analysis and investigation:** I.N.H. collaborated with S.D.N. to analyze the quantitative data. **Writing:** I. N. H., **Resource:** I. N. H., **Supervision:** S.D.N. was the main supervisor in supervising the research project.

Declaration of nurses' consent: All participants were voluntary and signed a consent form.

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