ORIGINAL RESEARCH

The Impact of Leadership Styles of Nurse Managers on Nurses' Motivation and Turnover Intention Among Jordanian Nurses

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Aim: The purpose of this study is to examine the relationship between leadership styles of nurse managers, nurses' motivation, and turnover intentions among Jordanian nurses.

Design: A descriptive correlational cross-sectional study using a self-administered questionnaire was conducted.

Methods: A convenience sampling technique was utilized to select the required .sample A sample of 170 registered nurses working at private hospitals in Jordan was surveyed. Moreover, a questionnaire of Path–Goal Leadership, Multidimensional Work Motivation Scale, and Turnover Intention Scale was used to assess leadership styles of nurse managers, nurses' motivation and turnover intention among the participants. Descriptive and inferential tests were used to ask the research questions.

Results: The participants perceived the supportive leadership style as the highest (M = 24.4, SD = 4.66). The mean work motivation among participants was 87.12, and the mean turnover intention was 22.01. Nurses' motivation has a positive correlation with all leadership styles. Years of experience predict the nurses' work motivation. Among the leadership styles; two of them significantly predict nurses' work motivation (supportive style) p < 0.001, and (achievement-oriented style) p < 0.001. Finally, the highest correlation coefficient was noticed between work motivation and achievement-oriented style (r = 0.46, p < 0.001) by moderate positive correlation, and the lowest correlation coefficient was between work motivation and directive style (r = 0.29, p < 0.001), whereas the results revealed that turnover intention was not significantly correlated with any of the leadership styles.

Conclusion: The results present a unique theoretical underpinning that highlights the factors that affect nurses' turnover intention. So, these findings could be used as guide for policy makers to establish organizational policies toward satisfying nurses' motivation and quality of life to enhance their retention. Besides, enriching the factors that may enhance nurses' motivation and reduce their turnover intention.

Keywords: leadership styles, nursing managers, nurses' motivation, turnover intention

Background

Nursing management is a process that requires special training, characteristics, and skills. Effective leadership style directs nursing practice to perform the highest level of care, support evidence-based practices (EBP), and maintain quality of healthcare at all administrative levels.[1] A leadership style can reflect the managers' capabilities, which in turn have an essential role in the work environment and staff performance.[2] Moreover, nursing leaders can practice the most appropriate leadership styles according to the working environment, leadership values, and organizational culture.[3] Improving team motivation is an essential task in the rapidly changing healthcare services sector, especially in the nursing profession.[4,5] Thus, suitable leadership styles should be implemented to manage the new structure effectively and enhance the team's motivation.[6]

Work motivation is related to staff retention, which keeps them at their jobs over time.[7] Also, staff retention lowers the costs of recruiting, hiring, and orienting new employees.[8] Because many countries are currently experiencing a shortage of skilled health professionals. The loss of any health professional, particularly doctors and nurses, has detrimental effects on the health of the people in that country.[9] It was found that non-productive health professionals have been known to leave

their jobs, either by leaving regional and underserved areas for work in larger cities or by migrating to other countries in search of more attractive job opportunities.[10]

Employee turnover has become one of the most pressing problems confronting most organizations; consequently, this problem requires special consideration because it has the potential to negatively impact the organizational success.[11] AlBattat, Som, Helalat, Sciences[12] reported that a high level of turnover intention is not a positive sign for the company. Internally, it affects the organization's expenses, employee productivity, and leads to dissatisfaction, and poor efficiency. It would also negatively affect the organization's reputation, medical errors and hospitalization.[13]

Among the searched literature, it was shown that turnover intention among health professionals and nurses in particular is determined mainly by conflict management styles used by nurse managers,[14] prevailing organizational culture,[15] nursing work environment,[16] quality of nursing work life and satisfaction,[17,18] and authentic leadership as well.[19]

Jordan, as many countries, suffers from a high turnover among nurses, which reached about 36.6%.[17] This has a huge negative impact on the quality of patient's care and increase mortality and infection rates as well (McHugh et al 2014). Besides, an increment in turnover intentions is witnessed, which indicates that turning over among nurses is a serious problem that is still unresolved in Jordan. Also, nursing managers' leadership styles and their association with staff nurses' motivation and turnover intention had been the subjects of several previous studies that were interested in investigating the association between these concepts.[20,21] However, studies that investigate the association between all these variables are still rare in Jordan.

The ambiguity about the nature of the relationship between nursing managers' leadership styles, staff nurses' motivation, and turnover intention is still not explored enough in the Jordanian health care sector. Such ambiguity would not be helpful in terms of improving nurses' work motivation or reducing their turnover intentions. Less work motivation among nurses, as well as high turnover intention, have an impact on the quality, continuity, and cost of patient care.[22]

Work motivation and turnover intention are important aspects in the working environment, and it seems that it is related to the work environment. Leadership styles that are adopted by the nursing managers are expected to be one of the main determinants of the workplace environment that contribute to nurses' work motivation and turnover intention. Worldwide, numerous research studies were conducted to investigate the relationship between nursing leadership styles, nurses' motivation, and turnover intention, such as a study was conducted by Magbity et al in 2020 in which they found that participative and transformational leadership styles decrease turnover intention, while autocratic and laissez-faire leadership styles increase turnover intention.[23] However, in the Jordanian context, they are still limited. A variety of factors stimulate the need for investigating the relationship between leadership styles, nurses' work motivation, and turnover intention.

Internationally, many researchers had studied the current variables (leadership styles, motivation and turnover intention; such as in Saudi Arabia a study was conducted by Al-Altheeb in 2020 in which he found a statistically significant relationship between both transformational leadership and paternalistic and employee motivation at work).[24] Moreover, the current variables were also studied among nurses in Egypt by Elewa in 2021[25] in which he found that around half of the participants had moderate level of motivation as well as a positive statistically significant correlation between nurses' perceptions of their managers' leadership practices and nurses' motivation and intention to leave was existed.

Significance

The findings of this study could be useful to the nursing profession, to set the plans that help managers apply the most appropriate leadership styles to improve motivation and reduce turnover intention among their staff. This will consequently have an impact on the overall efficiency of the healthcare process. Additionally, policymakers could be affected by the findings of this research, as they might feel the importance of selecting the appropriate leadership style to lead nurses in the clinical field. Finally, patients being cared for in hospitals will get the maximum benefit from the results of the current study by maintaining seamless care being rendered by highly motivated nurses. In addition to that, it was found that using transformational and supportive leadership style had a strong positive influence on patient satisfaction and patient safety outcomes as well.[26] Thus, the purpose of this study is to examine the relationship between leadership styles of nurse managers' and nurses' motivation and turnover intentions among Jordanian nurses.

The Research Questions and Hypotheses

- What are the leadership styles that are most commonly used by nurse managers from the perspectives of Jordanian nurses?
- What are the scores of work motivation and turnover intention among Jordanian nurses?
- Is there a relationship between the leadership styles used in healthcare facilities and Jordanian nurses' work motivation and turnover intention?
- Can we predict Jordanian nurses' work motivation and turnover intention based on their socio-demographics and work-related factors?
- What are the unique contributions of leadership styles on Jordanian nurses' work motivation and turnover intention from the perspective of nurses employed in working settings?
- Hypothesis: Health professional who perceive their leaders as supportive will be more motivated and have less intention to leave than those who perceive their leaders as autocratic.

Conceptual and Operational Definitions of Variables

A leadership style can be defined as a leader's behavioral characteristics employed to guide, direct, motivate, and manage groups of people,[27] in which it is operationally measured through the use of Path-Goal Leadership Questionnaire.[28] While motivation was defined as the mechanism of initiating, maintaining and guiding goal-directed behaviors, the behavior is activated by the social, biological, emotional, and cognitive forces involved by motivation,[27] and operationally it was measured by the Multidimensional Work Motivation Scale (MWMS).[29] Finally, the turnover intention was defined conceptually as an employee's voluntary intention to change jobs. Turnover intention of employees refers to an employee to leave the job he/she is doing currently,[30] and operationally, it was measured using the Turnover Intention Scale (TIS 6).[31]

Conceptual Framework

Path-goal leadership theory[32] was adopted to guide the current study, in which leaders are using the following leadership styles: participative, supportive, directive, and achievement-oriented. Leaders can certainly use one of these leadership styles to influence their subordinates' knowledge and experiences. Furthermore, a proper attitude must be used in order to respond swiftly to subordinates' expectations, requirements, and desires.

For the participatory leadership, leaders who value their employees' contributions and opinions engage in participatory behavior. Linski highlighted the participatory approach by stating that employees at all levels are encouraged to offer ideas for defining and creating institutional goals, problem-solving, and other actions that may have a direct impact on them.[33] This could be accomplished by fostering open lines of communication and information flow between leaders and subordinates at all levels.

Supportive leadership is a kind of leadership that provides emotional support to subordinates. Supportive leaders are concerned about their employees' well-being and personal goals. Supportive leaders are known for their warm, approachable demeanor as well as their attention to the comfort and personal requirements of their followers.[34]

Directive leadership as a leader's expectations for a subordinate's performance on a specific task, as well as directions and instructions. When a leader uses a directive style, he or she will offer subordinates specific tasks and instructions on how to execute them. The leader will also explain to subordinates how to execute the assignment and task schedules. The leader will also establish performance standards, establish clear rules and regulations, and set unambiguous performance expectations for subordinates.[34]

The achievement-oriented leadership method gives followers clear and demanding goals to work toward. This leadership style provides a high-quality aim for followers and encourages them to keep striving for better, furthermore, the leader exudes a great level of trust in his or her followers.[34]

The multi-dimension motivation is divided into five dimensions: (1) Demotivation is the lack of enthusiasm for a task. (2) Extrinsic regulation refers to dedication to activities for purposes other than getting rewards, praise, avoiding punishment and/or disapproval, boosting self-esteem, or achieving a personally desired objective. (3) Identified regulation, which relates to an activity's performance because it identifies with its value or meaning, making this type of

internalization variable. (4) Introjected regulation is the control of conduct by internal forces such as ego-involvement, shame, and guilt. (5) Intrinsic Motivation, which is the ability to engage in a self-directed activity because it is interesting and pleasurable.[29]

Literature Review

Among the searched and recent literature, it was obviously found by Bella et al in 2022 in an integrative review that aimed to summarize conceptual models of nurses' organizational well-being and identify common variables among them, and they concluded that there is no consensus in the nursing literature on an all-encompassing conceptual model of nurses' organizational well-being or on working environment characteristics to be studied or monitored for defining nurses' well-being; which it was implied that reaching to a consensus on the definition of nurses' organizational well-being model and its variables could facilitate nursing management in monitoring and intervening on nurses' work-life quality and in improving nursing performance and caring outcomes.[35]

Moreover, in a study that was conducted by Wu et al in 2020, in which they concluded that transformational leadership in the workplace could reduce nurses' burnout, and a positive spiritual climate increases meaningfulness in their work, which in turn might help in nurse retention. So, it is clear that health care leaders should look beyond transformational leadership to maintain a positive and supportive clinical climate in order to decrease nurses' intention to leave.[36]

Additionally, it was shown in a study that was conducted by Fiorini et al in 2022, which a correctly judged leadership style of the head nurses would enhance the organizational context experienced by nurses and in turn will improve nursing-sensitive outcomes.[37] So, adopting a supportive and motivational leadership will certainly enhance the staff performance and retention as well.

Finally, it was shown in Jordan in a study that was conducted by Alfaouri et al in 2021 that there are many factors besides leadership styles that enhance nurses' retention and decrease their intention to leave such as staffing levels and job satisfaction.[38] So, this study is highly relevant to the current study in which nurse leaders could conduct evidence-based staffing plans in order to manage nurse-to-patient ratio to decrease intention to leave among nurses and enhance satisfaction as well.

Methods

Design

The current study used a descriptive correlational cross-sectional design.

Sample and Settings

The target population of the study is registered nurses who are working in the private hospitals in Jordan. Convenience sampling technique was employed to recruit the participants who met the inclusion criteria. Participants were recruited if they were registered nurses, working at bedside nursing, and full-time employment. Whereas, nurses are excluded if they were newly employed for less than a year, have an administrative position, or if they were still on probation after resigning. For estimating the sample size, G-power software was used to calculate the required sample size. Using a power estimate of 0.80, with alpha set at 0.05, and a medium effect size (0.15), and for a total of 15 possible predictors, it is estimated that for a multiple linear regression analysis the required sample size is 134 participants. To compensate for possible missing data, an additional 30 nurses were invited to participate with a total sample size of 170 nurses.

The study is conducted in four private hospitals. These hospitals are located in Amman and have relatively similar working circumstances. The four hospitals have similar bed capacity, census rates, and homogeneous work environments in addition to that all of them were comprehensive and referral hospitals. The reason behind choosing private hospitals is that nurses working in governmental or military hospitals have more restrictions about leaving their jobs and consequently this might affect the level of experiencing turnover intentions, in addition to that, it was more convenient to the principal investigator to reach those hospitals under the impact of Coronavirus (COVID-19) pandemic.

Instruments

Socio-demographic and Work History, the following socio-demographic and work-related variables were collected (age, gender, marital status, educational level, monthly income, years of experience, working area, and shift rotation system).

Path–Goal Leadership Questionnaire, The Path-Goal Leadership Questionnaire is a self-administered questionnaire about respondents' perspectives regarding their direct supervisors in relation to the four Path-Goal leadership styles: directive, supportive, participative, and achievement-oriented leadership styles. The questionnaire consisted of 20 items on a seven-point Likert scale. Five elements were used to assess each managerial leadership style, with scores ranging from five to thirty-five.[28]

The four styles have the following scoring system: Directive style: a common score is 23, with scores above 28 considered high and scores below 18 considered low. Supportive style: a typical score is 28, with scores above 33 considered high and scores below 23 considered low. Participative style: a typical score is 21, with scores above 26 considered high and scores below 16 considered low. Achievement-oriented personality: a common score is 19, with scores above 24 considered high and scores below 14 considered low. Cronbach's Alpha Coefficients for the Path-Goal Theory questionnaire were previously tested and considered good and ranged from 0.73 to 0.79, as follows: Achievement-oriented scale 0.76, directive scale 0.73, supportive scale 0.78, and participative scale 0.79.[39] In the current study, the internal consistency reliability was assessed by Cronbach's Alpha Coefficients 0.87.

It is worth noting here that the researchers want to measure these leadership styles rather than to measure the most common styles used by nurse managers; in order to have the holistic view of managers from the perspectives of nurses as well as to shed light on all leadership styles adopted by nurse managers in clinical settings.

The Multidimensional Work Motivation Scale (MWMS) was used to assess motivation.[29] The MWMS consists of five dimensions and 19-items, on a 7-point Likert scales in which 1 = not at all for this reason; 2 = very little; 3 = a little; 4 = moderately; 5 = strongly; 6 = very strongly; 7 = completely for this reason.

Gagné, Deci[40] tested convergent and discriminant validity, in which managerial behaviors and job design impact autonomous motivation more than directed motivation. Autonomous motivation, in turn, is thought to improve employee efficiency. In relation to reliability, the majorities of studies reported alpha coefficients above 0.80.[29] The scale has no cut point, with higher scores reflecting higher work motivation. In the current study, the internal consistency reliability was assessed, and Cronbach's Alpha Coefficients = 0.91.

Turnover Intention Scale (TIS-6). The turnover intention scale is used in this study to assess individual turnover intentions. The TIS-6 includes six items,[31] which aims to ascertain the extent to which the participant intends to stay in the organization through answering the 6 questions using a 5-point Likert scale that describe the participant's turnover intention for the work in the last 9 months. The scale's Cronbach's Alpha coefficient was 0.93, which was a high-reliability score.[41] A higher score indicates higher turnover intentions.[42] In the current study, the internal consistency reliability by Cronbach's Alpha Coefficients = 0.73.

Data Collection Procedure

At the first step after obtained ethical approval, the purpose and significance of the study were explained to the nurse managers in the targeted hospital. Through nurse managers, the telephone numbers of all eligible nurses were collected. Then, these nurses invited to participate in the study. The purpose and significance of the study were explained to the participants, and it was ensured that participation is entirely voluntary, and their responses will be kept strictly confidential.

Data were collected between August and October 2021. Participants received the electronic form of the questionnaire through WhatsApp. The data were collected electronically through Google forms. The questionnaires were provided to the study participants in their original English language.

Data Analysis

The statistical package of social sciences (SPSS) version 25 (IBM, Chicago, IL, USA) was used for data analysis. The reverse-scored items of the questionnaires were re-coded. All data were checked for normality as well as all pre-requisite assumptions for statistical tests were checked and assured, besides data were managed appropriately

for outliers and missing data as well. Descriptive statistics (mean, standard deviations, frequencies and percentages) were used to describe the sample as well as the main research outcome variables. Pearson's correlation was used to test the association between the main study variables. Multiple linear regression was used to predict nurses' work motivation and turnover intention.

Ethical Considerations

The ethical approval from the faculty of nursing at Zarqa University with number (17/2021) and the targeted hospitals were obtained before collecting the data. Institutional review board (IRB) from the targeted hospitals were obtained. Participants provided informed consent as they started filling out the questionnaires. Moreover, the current study fully complies with the declaration of Helsinki that means all ethical principles were maintained including but not limited to confidentiality and anonymity of the participants were ensured by no use of identifiers, disclosing results in aggregate, and guaranteeing that data will not be used for other purposes, risks/benefits of the study were given for the participants. The expected time to complete the questionnaires is about 20 minutes. The participants were informed that they have the right to withdraw from the study at any time they prefer to as well as there was no risk upon participating in this study.

Results

Sample Characteristics

The study sample consisted of 170 nurses, where most of them were females 58.8% (n = 100), the average age of participants was 32.67 (SD = 6.81) years. The age category for most of the participants was (25–35 years) 54.7% (n = 93), the majority of participants had a monthly income of (501–800 JD) 55.3% (n = 94). Additionally, 37.6% (n = 64) of the participants have (more than 10 years) of experience. Most of the participants were married 50.6% (n = 86), and more than half of the participants 59.4% (n = 101) have bachelor's degree. The majority of the participants 41.2% (n = 70) work in (Medical-surgical wards), and about half of them 52.9% (n = 90) work in (A/B/C) shift rotation system, as presented in Table 1.

Table 1 Description of the Participants' Socio-Demographics and Work-Related Factors

Percentage	Frequency	M(SD)	Group	Variable
Age	–	32.67(±6.81)	–	–
Monthly income	Less than 500 JD		50	29.4
	501–800 JD	–	94	55.3
	More than 800 JD	–	26	15.3
Years of experience	1–5 years	–	47	27.6
	6–10 years	–	59	34.7
	More than 10 years	–	64	37.6
Gender	Male	–	70	41.2
	Female	–	100	58.8
Marital status	Single	–	63	37.1
	Married	–	86	50.6
	Divorced	–	13	7.6
	Widowed	–	8	4.7
Educational level	High diploma	–	26	15.3
	Bachelor's degree	–	101	59.4
	Master's degree	–	37	21.8
	Doctoral degree	–	6	3.5
Working area	Medical-surgical ward	–	70	41.2
	Emergency room	–	53	31.2
	Critical care unit (ICU, CCU)	–	47	27.6
Shift rotation system	A, B, C shift	–	90	52.9
	Day/nightshift	–	80	47.1

Abbreviations: ICU, intensive care unit; CCU, coronary care unit; A, morning shift; B, evening shift; C, night shift.

Table 2 shows that the highest scores for leadership style as reported by the staff were supportive style (M = 24.4, SD = 4.66). However, the lowest leadership style was participative style (M = 23.58, SD = 4.48). Also, the mean of work motivation among nurses was 87.12 (SD = 17.61). Regarding the turnover intention, the results revealed that the mean was 22.01 (SD = 4.79). On the other hand, the results of Pearson correlation analysis revealed that work motivation has a significantly positive correlation with directive, supportive, participative, and achievement-oriented style (r = 0.293, 0.440, 0.350, 0.462, p < 0.001 respectively). Also, the turnover intention was not significantly correlated with any of the leadership styles, as presented in Table 3.

The study used multiple linear regression test in order to predict work motivation and turnover intention through socio-demographics and work-related factors. Concerning work motivation, the predictors were years of experience, which years of experience is accompanied by a 2.3 unit increase in work motivation (F = 3.91, p=0.002), and there are no predictors for nurses' turnover intention, as presented in Table 4. In addition, Table 5 shows hierarchical multiple linear regression to predict the unique impacts of leadership styles on Jordanian nurses' work motivation and turnover. After controlling the years of experience, we revealed the significant ability of the overall model to predict motivation (F = 14.237, p < 0.001). After entering the four leadership styles in the model, two of them were statistically significant predictors of nurses' work motivation supportive (β = 0.288, P = 0.001), and achievement-oriented style (β = 0.324, P = 0.001).

Discussion

Results of the current study revealed that the supportive leadership style is the most commonly used by nurse managers, and the participative style is the less commonly used one. This may be due to the fact that the majority of nurses in this study have a high number of years of experience in the clinical field, and it is possible that their experience encouraged their managers to use a supportive style with them, as they might feel them as peers, and be more confident in their capabilities.

Additionally, this finding is consistent with previous studies where they reported supportive style as the most commonly used style by nurse managers.[43,44] It is suggested that leaders rely on leadership styles that motivate team members to work harder and as reported in a study conducted in five hospitals in the eastern region of Ghana nurse managers used a variety of leadership styles depending on the context, and in this study, researchers found that supportive leadership style was the most common among the managers, followed by achievement-oriented leadership style.[45] Nurses in this study have a high rate of turnover intention and a low rate of motivation. This may be due to several factors

Table 2 Scores of the Leadership Styles, Work Motivation, and Turnover Intention

Variables	Minimum	Maximum	Mean	Std. Deviation
Leadership style				
Supportive style	8	33	24.43	4.66
Directive style	8	35	24.06	4.83
Achievement oriented style	10	34	23.91	4.99
Participative style	10	33	23.58	4.48
Work motivation	41	128	87.12	17.61
Turnover intention	8	30	22.01	4.79

Table 3 The Relationship Between Each Leadership Style and Work Motivation

Factors		Directive Style	Supportive Style	Participative Style	Achievement Oriented Style
Work motivation	r	0.293*	0.440*	0.350*	0.462*
	P-value	0.00	0.00	0.00	0.00
Turnover intention	r	0.01	0.07	0.12	0.06
	P-value	0.88	0.34	0.13	0.46

Note: *Correlation is significant at the (p-value < 0.001).

Table 4 Predicting Nurses' Turnover Intention and Work Motivation Based on Socio-Demographics and Work-Related Factors

Predictors	B	Std. Error	T	Sig*
Predictors of nurses' work motivation				
Years of experience	2.304	−0.331	−3.143	0.002*
Age	2.582	0.169	1.754	0.081
Gender	2.787	−0.122	−1.559	0.121
Marital status	1.918	0.009	0.107	0.915
Educational level	2.033	0.095	1.164	0.246
Monthly income	2.512	0.072	0.765	0.445
Working area	1.644	−0.057	−0.747	0.456
Shift rotation system	2.758	0.100	1.279	0.203
Predictors of nurses' turnover intention				
Age	0.155	0.718	1.581	0.116
Gender	0.060	0.775	0.755	0.452
Marital status	−0.036-	0.533	−0.420	0.675
Educational level	0.009	0.565	0.108	0.914
Monthly income	0.119	0.698	1.243	0.216
Years of experience	−0.102	0.457	−1.325	0.187
Working area	−0.018-	0.457	−0.225	0.823
Shift rotation system	0.031	0.767	0.388	0.699

Note: *Statistically significant at the (p-value < 0.05).

Table 5 Predicting Nurses' Work Motivation and Turnover Intention Based on Leadership Styles

Predictors	B	Std. Error	T	Sig*
Predictors of nurses' work motivation				
Directive style	−0.021	0.337	−0.226	0.822
Supportive style	0.288	0.330	3.288	0.001*
Participative style	−0.001	0.365	−0.015	0.988
Achievement oriented style	0.324	0.344	3.330	0.001*
Predictors of nurses' turnover intention				
Directive style	−0.099	0.106	−0.930	0.354
Supportive style	0.044	0.106	0.426	0.670
Participative style	0.151	0.117	1.377	0.170
Achievement oriented style	−0.005	0.110	−0.042	0.967

Note: *Statistically significant at the level of ($p < 0.05$).

affecting the work environment and workload that might contribute to the low level of motivation and the high turnover intention level.

Moreover, the current study is in line with the study of Rahbi, Khalid, and Khan[46] where a similar level of motivation was reported. In fact, motivating employees are an essential factor to achieve an institution's goals and do their work well. In agreement with Alaqeli & Omar (2022), supportive leadership could motivate the nurses, sense of recognition and motivation is highly affecting nurses productivity and retention. A possible explanation for this could be that the beneficial impact of feeling being supported on subordinates and creating a supportive environment will increase expectations from subordinates. Also, the results revealed that turnover intention was not significantly correlated with (directive style, supportive style, participative style, or achievement-oriented style). This finding is consistent with a previous Jordanian study, which reported no correlation between the leadership styles used in health care facilities and the turnover intention among Jordanian nurses.[47]

Additionally, the years of experience were the only factor among the socio-demographic and work-related factors that were able to predict the nurses' work motivation. On the other hand, findings of the current study revealed that socio-demographic

variables and work-related factors were unable to predict nurses' turnover intention, so the turnover intention score was not affected by social-demographic and work-related factors in the present study. This might be due to other factors rather than those assessed that could have more contribution to turnover intention. This is consistent with other previous studies that reported no relationship between socio-demographics and the intention to leave the organization.[48,49]

Moreover, the findings of the current study revealed that leadership styles predict nurses' motivation, in which achievement-oriented style was the most likely to predict the motivation. This is consistent with the study of Asamani, Naab, and Ofei,[50] which indicated that directional, supportive, participatory, and achievement-oriented leadership styles influence staff motivation. It is suggested that leaders rely on leadership styles that motivate team members to act and recommended that the leader needs to act. With integrity, setting clear priorities, interacting efficiently, recognizing team members' achievements, and motivating them to provide better care.

Finally, it was revealed in the current study that socio-demographic variables and work-related factors were unable to predict nurses' turnover intention, which is considered a very

unusual result, and this result is different from the result of Abubakar et al in 2014 in which they found that age, gender, education, experience and tenure are statistically significant predictors of nurses' turnover and intention to leave.[51] And this contradicting result might be due to the small sample size of the current study which might affect the generalizability of the results as well as the data were emerged from only private sectors in Jordan in which it can threaten the generalizability of the current results.

One of the most important issues that should be addressed is the implication of COVID-19 prior to and during the data collection phase of the current study, in which it affects the turnover intention of nurses in one way or in another due to the massive psychological impact of COVID-19 on health professionals and nurses in particular. Additionally, it was shown in a systematic review that was conducted by Ulpinar et al in 2022 that approximately one-third of nurses working during COVID-19 pandemic had thoughts about intending to leave their jobs.[52]

Limitations

Despite its strength, the results of this study are subject to several limitations. First, the study utilized a cross-sectional survey design, and a convenience sampling technique that would limit the generalizability of study results, and the generation of any causal conclusions. Second, participants' data are subject to self-report bias as data were collected via a self-administered questionnaire. Third, the study represents only private hospitals, and this will limit the generalization of findings to nurses working in other healthcare facilities; moreover, private and governmental hospitals could have different working conditions; that's why this is a truly addressed limitation for the current study. Lastly, investigating specific leadership styles that are not the most used by nursing leaders such as authentic or transformational styles could be considered as a limitation.

Conclusions

The current study can add significantly to the body of knowledge in which it shed the lights on the crucial role of healthcare managers in developing and implementing formal mentorship programs in clinical settings including training about managerial skills and supportive leadership styles. Additionally, it highlighted the managers' roles in focusing on the issue of high turnover rates among nurses and to work on enriching the factors that may raise their motivation and reduce the turnover intention. Besides, this study adds to the body of knowledge in highlighting the role of health policy makers in fostering a highly supportive and magnet working environment for all health professionals and nurses in particular. Finally, the current study provides empirical evidences to support nursing practice and retain motivated nurses in order to provide excellent and high-quality care.

Data Sharing Statement

The authors confirm that the data supporting the findings of this study are available within the article.

Institutional Review Board Statement

This study was approved by the Research Ethics Committee at the Faculty of Nursing/Zarqa University.

Informed Consent Statement

Implied consent was obtained from the participants, and the researcher assured voluntary participation for the subjects. Also, the questionnaire was disseminated without names or corporation numbers to assure participant anonymity and data confidentiality.

Acknowledgments

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Funding

Disclosure

The authors declare no conflict of interest related to publication of this research.

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