Medical Science

pISSN 2321–7359; eISSN 2321–7367

Leadership styles and job satisfaction among nurses of medical-surgical departments in the Qassim region hospitals in Saudi Arabia

Mohammed Abdullah Alrasheedi[1], **Fahad Moteb Alrashaidi**[2], **Mahmoud Abdel Hameed Shahin**[3*]

To Cite:
Alrasheedi MA, Alrashaidi FM, Shahin MAH. Leadership styles and job satisfaction among nurses of medical-surgical departments in the Qassim region hospitals in Saudi Arabia. Medical Science, 2022, 26, ms199e2281. doi: https://doi.org/10.54905/disssi/v26i123/ms199e2281

Authors' Affiliation:
[1]Nursing department, Bukayriyah General Hospital in Qassim Region, Bukayriyah 52725, Saudi Arabia
[2]Public Health Department, Qassim Health Affairs and the Ministry of Health, Buraydah 52367, Saudi Arabia
[3]Department of Nursing, Mohammed Al-Mana College for Medical Sciences, Dammam 34222, Saudi Arabia; ORCID: https://orcid.org/0000-0001-5145-3702

[*]**Corresponding Author**
Department of Nursing, Mohammed Al-Mana College for Medical Sciences, Dammam 34222,
Saudi Arabia
Email: mahmood81us@yahoo.com, m.shahin@machs.edu.sa

Peer-Review History
Received: 06 May 2022
Reviewed & Revised: 08/May/2022 to 24/May/2022
Accepted: 25 May 2022
Published: 30 May 2022

Peer-review Method
External peer-review was done through double-blind method.

URL: https://www.discoveryjournals.org/medicalscience

This work is licensed under a Creative Commons Attribution 4.0 International License.

ABSTRACT

Objective: To discover the type of leadership style (transformational vs. transactional) of nurse leaders and how it affects the work satisfaction of Medical-Surgical nurses working in public hospitals in Qassim Region, KSA. *Methods:* A cross-sectional design was used to collect data over three month's duration. The following tools were utilized to be able to have an outcome of the research study; a multifactorial leadership questionnaire (MLQ) and a job satisfaction survey (JSS) with a demographic's datasheet. The convenience sampling technique was employed for this study and the study recruited exactly 437 participants. This study was conducted in MOH hospitals; King Fahad Specialist Hospital (KFSH), Buraydah Central Hospital (BCH), and King Saud Hospital (KSH) in Qassim Region, KSA. The study used SPSS software to analyze the numeric data via using the following tests: descriptive analysis, Cronbach's alpha, Pearson correlation, and Linear regression. *Results:* The result showed that leadership style was significant predictor of nurses' job satisfaction; transformational leadership ($t = 3.50$, $p < 0.01$) was more effective for predicting job satisfaction than transactional leadership ($t = 2.43$, $p < 0.05$). The result of JSS was measured by 36 items using a 6-point Likert scale, and the overall score was $M = 3.49 \pm 1.30$, a moderate level. *Conclusion:* To sum up, this study recommended improving leadership style among nurse managers, administrators, and supervisors, more particularly, the adoption of the transformational technique to improve staff job satisfaction, encourage them to stay in their current job, and enhance their self-progress in the profession.

Keywords: Nurses, Job Satisfaction, Leadership Styles, Medical-Surgical Department, Qassim Region, and Saudi Arabia.

DISCOVERY SCIENTIFIC SOCIETY
Copyright © 2022 Discovery Scientific Society.

1. INTRODUCTION

As a multifaceted framework, hospitals in Saudi Arabia could be a significant enabler of work fulfillment among staff nurses. Healthcare delivery includes

nurses assuming different roles. As expected, nurse supervisors arrange, coordinate, control, and assess the general unit or division and staff nurses' task execution. Nurturing supervisors should guarantee that a secure environment encourages the development of a trusting relationship related to the provision of quality care (Abdelhafiz et al., 2015). Nursing investigations underpin the significance of leadership style, as it plays a basic part in involving staff nurses (Manning, 2016). Staff nurses' recognition of nurse supervisors' leadership conduct and the affiliation to the staff nurses' basic enablement is vital to the progression of awareness of the leadership role of nurse supervisors (Khan et al., 2018).

Staff nurses are the backbone of any healthcare system, and their labor is diverse and demanding. When performing their job in any healthcare setting, staff nurses encounter numerous drawbacks and difficulties and deal with different types of clients. Job satisfaction is defined as how much an employee likes their job or the task they are told to do; it does not relate to how work can be done very well or how much effort the employee exerts (Hughes, 2006). Job satisfaction could lead staff to become more productive, innovative, and determined to maintain the quality of the service provided to the patients. Job satisfaction is a necessary factor in managing the workforce of any healthcare system (Kumari and De, 2015). Satisfaction at work is a vital component in taking charge of the labor force in any institution or organization, including the healthcare setting (Lee et al., 2020). The complete extent of the leadership model presents behaviors or practices that can be utilized by nursing directors, managers, supervisors, bosses, or leaders in driving their supporters to attain the joint achievement of the key performance indicators of the organization, including its vision, goals, and objectives (El Dahshan et al., 2017).

Grossman and Valiga (2020) noted that "such worlds desperately call for new leaders", Leaders encourage others with insights into what can be achieved. The intense healthcare environment puts pressure on the relationship between the nursing leader and staff towards job satisfaction. Staff nurses lack absolute leadership in hospital settings. To advance and survive in the healthcare tumult, staff nurses and management must establish positive and mutual relationships that favor efficiency, productivity, and work satisfaction. Krishnan (2005) stated that leadership style enhances the aim towards attainment beyond planned goals by employees in the organization. This kind of leadership style transforms the followers' emotions, attitudes, and goals into specific performances based on their abilities (Northouse, 2021).

Burns (1978) in his study has defined the transactional leadership style as one that involves motivation and directing to attain followers' self-interest through the alternatives of punishments and rewards. This style is very useful when the organization is in a stable state and the learning objectives aim to maintain balance (Bucic et al., 2010). A transactional leader can increase employee performance especially when it is measured quantitatively and when rewards and punishments are provided impartially. Transformational leadership has been linked with job fulfillment among staff nurses (Abualrub and Alghamdi, 2012). There has been a link between the nurse managers' leadership styles and nurses' satisfaction in the workplace (Alloubani et al., 2015). It has been established that leaders assume an essential part in promoting job gratification among staff nurses (Choi et al., 2016). As a result, a manager's power is transforming, and that has been shown as modification from the transactional leadership style to the transformational leadership style (Avolio and Bass, 2001).

Studies have stated that transformational leadership reduced burnout among nursing staff (Bushra et al., 2011). Transformational leadership in nursing certainly affects the caring practice, which in the end also affects the health of individual patients in particular, and the community and the healthcare system in general. Tale (2010) Categorized transformational leadership styles to 1) Intellectual stimulation: Encourages employees' creativity and innovation with certain limitations and resolution using current approaches and for old cases. 2) Individual consideration: Encouragement and support based on the employee-employer relationship, such as teaching, mentoring, or coaching, in the approaches to teaching and sharing knowledge and ideas. 3) Inspirational motivation: The leader gives the employee clear insight into the meaning of the task and challenging tasks. 4) Idealized influence leaders: Role models who take the lead to understand and focus on completing the task. 5) Attributed charisma: The ability to convince followers to admire and respect them through the way they act and speak.

The present investigation focused on the transactional and transformational styles of the nurse manager and their effect on medical and surgical floor nurses' satisfaction levels at work in selected Ministry of Health (MOH) hospitals in the Qassim region in KSA. The focus on nursing managers is essential, as the nursing workforce is a fundamental element of healthcare services and the quality of patient care in all healthcare settings. There is a dearth of data on the determination of the leadership styles perceived by nurse leaders in KSA and their impact on subordinate nurses' work satisfaction and how it contributes to the health of the working environment.

Thus, the current study presents new information on this topic that will strengthen and build knowledge and can contribute to establishing a healthy work environment, and acquiring further information and understanding of nursing leadership styles within the following MOH hospitals of the Qassim region: King Fahad Specialist Hospital (KFSH), Buraydah Central Hospital (BCH), and King Saud Hospital (KSH), and its impact on the insight of nurses about their satisfaction at the medical-surgical departments.

Study Aims

The main purpose of this study was to discover the leadership styles of nurse leaders and how they affect the work satisfaction of nurses working in medical-surgical departments of selected governmental hospitals in Qassim Region, KSA. To achieve the goal of the study, the following objectives were specified: Discover the sociodemographic characteristics of the nurses working in medical and surgical Departments of selected governmental hospitals in the Qassim Region. Explore the leadership style (transformational vs. transactional) of nurse leaders at the medical-surgical Departments of selected governmental hospitals in the Qassim Region.

Assess the level of job satisfaction of nurses working in medical-surgical Departments of selected governmental hospitals in the Qassim Region. Examine the nurse managers' leadership style relationship with job satisfaction of nurses working in medical-surgical Departments of selected governmental hospitals in the Qassim Region.

Significance of the study

The outcome of this investigation will assist nurse leaders in selecting the best leadership style, either transactional or transformational, that they think will best improve nurses' work satisfaction. When nurse leaders implement strategies to improve staff nurses' satisfaction with their work rate, it will potentially prevent turnover and burnout. Nurses with higher work satisfaction will perform better which will result in the provision of excellent quality of care and safety to patients.

Furthermore, nursing schools can capitalize on the outcomes of their research by assimilating its recommendations into their curriculum. The use of research in nursing schools is geared towards the development of the nursing curriculum. The results can be implemented in the hospitals of Saudi Arabia to have both indirect and direct benefits for the research, nurses, and nurse managers. Additionally, the current study results can be good literature and can form a basis for future research in the field of nursing management and leadership.

2. METHODOLOGY

Research Design

We used a quantitative, descriptive, cross-sectional design to observe the interconnections between nurse managers' leadership styles and their effect on staff satisfaction. We used a correlation design as well to assess the association between both the nurse managers and leadership style to work satisfaction among staff nurses.

Target Population

The target population in this study was registered nurses working on the medical-surgical floors of governmental hospitals with >300-bed capacity. The hospitals involved in this study were KFSH, BCH, and KSH.

Setting

The study was implemented in the medical-surgical floors of three MOH hospitals: King Fahad Specialist Hospital (KFSH), Buraydah Central Hospital (BCH), and King Saud Hospital (KSH) in Qassim Region, Saudi Arabia.

Sampling and sample

The convenience sampling technique was utilized to select the participants. A total of 437 nurses were included in the quantitative research design.

Data collection tools

In this study, we used two main tools: the Multifactorial Leadership Questionnaire (MLQ) designed by Avolio and Bass (1995) and the Job Satisfaction Survey (JSS) designed by Spector (1985). The original designers permitted us to use these questionnaires. The MLQ 5X questionnaire includes nine subscales that have been validated in several healthcare settings around the world (Avolio and Bass, 1995). MLQ-5X was designed and created to measure the different kinds of behaviors for the healthcare manager that would best match their satisfaction. Furthermore, the MLQ was recently used to examine the array to which nurse leaders demonstrated responses linked with both the transformational and transactional leadership styles. The tool has 36 items correlated to leadership style, with nine items linked to leadership outcomes.

The MLQ was used for measuring nurse managers in a variety of leadership categories. The tool describes the features of a transformational leader and benefits nurse managers in discovering how they perceive themselves and how the staff nurses and other healthcare team members perceive them. The MLQ is a deep-rooted tool that has been expansively examined and validated.

The MLQ manual displays robust evidence for validity. Furthermore, the tool also reinforces the nine-factor leadership model, tested in stable and homogeneous conditions. The reliability scores for the subscales range from moderate to good, in keeping with the manual for the numerical values of the tool's reliability and validity.

Job Satisfaction Survey (JSS) was employed to quantify the nine scopes of work satisfaction. These dimensions included: payment, promotion, fringe benefits, co-workers, communication, supervision, contingent rewards, operating procedure, and nature of work. Concerning its validity, the Spearman Correlation coefficient is 0.44, with a *p*-value of 0.005. This is suggestive of significantly high predictive validity. Regarding its reliability, the general Cronbach's alpha value of the tool was equal to 0.86. This is indicative of the goodness of fit in the overall reliability.

The JSS comprises thirty-six items with nine subscales to calculate the nursing staff's attitudes towards their nursing job and some specific aspects of their job. The individual subscales are weighed with four items, and the summation of the score is calculated from all items. The JSS uses a summated assessment scale construct with a five-point Likert scale with categories (Strongly disagree; Disagree; neither agree nor disagree; Agree; strongly agree).

Translation Technique

This study used a multi-language survey (Arabic and English) which was suitable for both native and foreign workers within the organizations, as it would allow better generalization of the results. The survey was not translated, as the pre-existing design was already in both languages, meaning it was useful to use in this study, as it was translated via back-translation by the designer.

Study procedures

Upon receiving the suitable ethical approvals from the General Directorate of Health Affairs in Al-Qassim Region, the researcher visited the three selected hospitals individually and met the managers of each to arrange a time when the researcher could collect the consent forms. On this visit, the researcher also provided the manager with a package that included information sheets and consent forms for the institution to distribute to potential participants. The researcher then returned to the hospitals one week later and collected the information of all potential participants via the consent forms from the reception. Once the questionnaire had been established, links were sent to the participants as the surveys were distributed through Google forms. Tools testing and the data collection process generally have taken about three months extended from November 2020 to February 2021.

Ethical considerations

This study sought and received ethical approval from the regional research ethics committee of the Health Ministry represented by the General Directorate of Health Affairs in the Qassim Region (Ethics Approval # 1349705-7-1441). The participants were provided with an information package to be fully informed of the study. We also ensured that the participants were able to ask any questions they might have about the research that might influence their participation. We ensured that all participants were fully informed of their participation in this specific study and were aware of their roles in the questionnaires and their effect on the research. Furthermore, we also ensured that the participants were aware of their rights and their effect on the research.

We ensured that the participants' information was securing, and also ensured that the participants understood that the study was voluntary and that they were allowed to withdraw at any time. To stress anonymity and confidentiality in the study, each participant was assigned a code and date rather than a name for their identity to remain unknown, and any participant information was kept secure.

Data Analysis

We used SPSS 23.0 for questionnaire analysis. The data followed a normal distribution pattern; in turn, based on the study outcomes, we used parametric rather than non-parametric tests (Bryman and Cramer, 2009). The validity was tested by the internal consistency method using the Pearson correlation between the items and the total degree of the scale, and reliability was tested using Cronbach's alpha coefficient. The frequencies, percentage, mean, and standard deviation (SD) were computed for the items, styles, and total of the scales; they were also used to describe the demographic factors. Linear regression has been conducted to test the research hypotheses (the effect of the leadership style on nurse staff satisfaction; dependent variable [DV]). A p-value < 0.01 was considered statistically significant.

3. RESULTS

This study involved 437 nurses working in the medical-surgical departments of the selected hospitals; 55.6% were male and 44.4% were female, while 60.2% were Saudi and 39.8% were non-Saudi. Age was measured by four groups; most participants were in the 30–39-year group (42.3%). In terms of education, 59.7% held bachelor's degrees in nursing and 39.4% had diplomas. Overall, 36.8% had 2–5 years of work experience and 32.6% had 5–10 years of experience. Regarding the workplace, 37.3% were working at KFSH, 36.6% were working at BCH, and only 26.1% were working at KSH (Table 1).

Table 1 Demographic Information (N = 437)

Factor		n	%
Gender	Female	194	44.4
	Male	243	55.6
Nationality	Non-Saudi	174	39.8
	Saudi	263	60.2
Age	20–29	130	29.7
	30–39	185	42.3
	40–49	95	21.7
	>50	27	6.2
Education Level	Bachelor	270	59.7
	Diploma	172	39.4
	Master	4	0.9
Years of experience	2–5	161	36.8
	5–10	141	32.3
	10–15	93	21.3
	>15	42	9.6
Hospital	King Saud Hospital	114	26.1
	King Fahad Specialist Hospital	163	37.3
	Buraydah Central Hospital	160	36.6

Table 2 shows that the transformational leadership style has been measured via five dimension/style scales using a 5-point Likert scale (Frequently, if not always = 4, to Not at all = 0). The overall mean of the transformational leadership style was M = 2.18 ± 1.04, a moderate level. Idealized Attributes (IA) and Inspirational Motivation (IM) had the highest mean scores (M = 2.20 ± 1.10, and M = 2.20 ± 1.08, moderate level, respectively). Idealized Behaviors (IB) was ranked third (M = 2.18 ± 1.07, moderate level), followed by Individual Consideration (IC) (M = 2.17 ± 1.09, moderate level) and Intellectual Stimulation (IS) (M = 2.15 ± 1.06, moderate level). However, the difference was very small.

Table 2 Descriptive Analysis of Transformational Leadership Styles (N = 437)

Style	No	(n/%)	Not at all	Occasionally	Sometimes	Fairly often	Frequently, if not always	Pearson (*r*)	Mean ± SD
Idealized Attributes (IA)	1	n	59	82	94	147	55	0.83**	2.20 ± 1.10
		%	13.5	18.8	21.5	33.6	12.6		
	2	n	58	81	88	152	58	0.84**	
		%	13.3	18.5	20.1	34.8	13.3		
	3	n	47	75	93	160	62	0.84**	
		%	10.8	17.2	21.3	36.6	14.2		
	4	n	50	79	94	150	64	0.83**	
		%	11.4	18.1	21.5	34.3	14.6		

Idealized Behaviours (IB)	1	n	52	77	96	164	48	0.82**	2.18 ± 1.07
		%	11.9	17.6	22	37.5	11		
	2	n	55	79	81	167	55	0.83**	
		%	12.6	18.1	18.5	38.2	12.6		
	3	n	50	82	95	161	49	0.84**	
		%	11.4	18.8	21.7	36.8	11.2		
	4	n	51	88	94	153	51	0.85**	
		%	11.7	20.1	21.5	35	11.7		
Inspirational Motivation (IM)	1	n	54	85	87	152	59	0.82**	2.20 ± 1.08
		%	12.4	19.5	19.9	34.8	13.5		
	2	n	56	84	91	152	54	0.82**	
		%	12.8	19.2	20.8	34.8	12.4		
	3	n	45	85	107	149	51	0.87**	
		%	10.3	19.5	24.5	34.1	11.7		
	4	n	51	70	82	170	64	0.84**	
		%	11.7	16	18.8	38.9	14.6		
Intellectual Stimulation (IS)	1	n	58	87	91	146	55	0.78**	2.15 ± 1.06
		%	13.3	19.9	20.8	33.4	12.6		
	2	n	51	81	101	161	43	0.80**	
		%	11.7	18.5	23.1	36.8	9.8		
	3	n	55	80	94	156	52	0.86**	
		%	12.6	18.3	21.5	35.7	11.9		
	4	n	51	82	88	165	51	0.84**	
		%	11.7	18.8	20.1	37.8	11.7		
Individual Consideration (IC)	1	n	53	78	97	155	54	0.84**	2.17 ± 1.09
		%	12.1	17.8	22.2	35.5	12.4		
	2	n	54	81	104	144	54	0.84**	
		%	12.4	18.5	23.8	33	12.4		
	3	n	45	89	102	157	44	0.86**	
		%	10.3	20.4	23.3	35.9	10.1		
	4	n	54	87	83	149	64	0.86**	
		%	12.4	19.9	19	34.1	14.6		
Total mean ± SD									2.18 ± 1.04
Cronbach's alpha								0.95	

**Correlation is significant at the 0.01 level (2-tailed)

Table 3 shows that the transactional leadership style was measured using two-dimension/style scales using a 5-point Likert scale (Frequently, if not always = 4, to Not at all = 0). The overall score was M = 2.12 ± 1.02, a moderate level. Management-by-Exception (Active) (MBEA) achieved the highest mean score (M = 2.13 ± 1.03, moderate level), followed by Contingent Reward (CR) (M = 2.11 ± 1.08, moderate level). However, the difference was small.

As represented in Table (4), the job satisfaction scale was measured by 36 items using a 6-point Likert scale (Agree very much =6 to Disagree very much =1). Job satisfaction had two factors (intrinsic and extrinsic). Intrinsic job satisfaction had four domains (Contingent reward, Promotion, Nature of work, and Communication), while the extrinsic job satisfaction had five domains (Pay, Benefits, Supervision, Operating procedure, and Coworker). The mean score for the extrinsic job satisfaction was slightly lower than that for the intrinsic job satisfaction (M=3.48±1.30 vs. 3.49±1.32).

Table 3 Descriptive Analysis of Transactional Leadership Style (N = 437)

Style	No	n/%	Not at all	Occasionally	Sometimes	Fairly often	Frequently, if not always	Pearson (*r*)	Mean ± SD
Contingent Reward (CR)	1	n	76	101	74	122	64	0.66**	2.11 ± 1.08
		%	17.4	23.1	16.9	27.9	14.6		
	2	n	55	97	86	146	53	0.80**	
		%	12.6	22.2	19.7	33.4	12.1		
	3	n	48	90	105	138	56	0.83**	
		%	11	20.6	24	31.6	12.8		
	4	n	55	75	91	161	55	0.81**	
		%	12.6	17.2	20.8	36.8	12.6		
Management-by-Exception (Active) (MBEA)	1	n	60	84	93	152	48	0.67**	2.13 ± 1.03
		%	13.7	19.2	21.3	34.8	11		
	2	n	46	94	96	152	49	0.79**	
		%	10.5	21.5	22	34.8	11.2		
	3	n	61	87	84	154	51	0.77**	
		%	14	19.9	19.2	35.2	11.7		
	4	n	47	90	92	159	49	0.78**	
		%	10.8	20.6	21.1	36.4	11.2		
Total mean ± SD									2.12 ± 1.02
Cronbach's alpha								0.93	

**Correlation significance at the 0.01 level (2-tailed)

Table 4 The Descriptive Analysis of Job Satisfaction (N=437)

Job satisfaction type	Dimension	n/%	Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much	Pearson (*r*)	Mean± SD
Extrinsic	Pay	n	102	86	33	55	108	53	0.68**	3.41±1.36
		%	23.3	19.7	7.6	12.6	24.7	12.1		
		n	67	79	63	73	115	40	0.78**	
		%	15.3	18.1	14	16.7	26.3	9.2		
		n	59	77	80	79	112	30	0.80**	
		%	13.5	17.6	18	18.1	25.6	6.9		
		n	61	67	53	90	116	50	0.80**	
		%	14	15.3	12	20.6	26.5	11.4		
	Benefits	n	72	80	57	82	103	43	0.77**	3.51±1.35
		%	16.5	18.3	13	18.8	23.6	9.8		
		n	65	66	69	82	123	32	0.80**	
		%	14.9	15.1	16	18.8	28.1	7.3		

		n	64	84	47	91	106	45	0.82**	
		%	14.6	19.2	11	20.8	24.3	10.3		
		n	54	74	57	85	121	46	0.82**	
		%	12.4	16.9	13	19.5	27.7	10.5		
	Supervision	n	63	69	45	79	125	56	0.75**	3.50±1.33
		%	14.4	15.8	10	18.1	28.6	12.8		
		n	80	93	60	67	104	33	0.77**	
		%	18.3	21.3	14	15.3	23.8	7.6		
		n	65	85	61	79	115	32	0.81**	
		%	14.9	19.5	14	18.1	26.3	7.3		
		n	65	71	56	93	116	36	0.78**	
		%	14.9	16.2	13	21.3	26.5	8.2		
	Operating procedure	n	65	87	60	84	111	30	0.80**	3.49±1.38
		%	14.9	19.9	14	19.2	25.4	6.9		
		n	79	78	57	91	103	29	0.81**	
		%	18.1	17.8	13	20.8	23.6	6.6		
		n	48	81	40	90	122	56	0.83**	
		%	11	18.5	9.2	20.6	27.9	12.8		
		n	61	90	45	98	111	32	0.86**	
		%	14	20.6	10	22.4	25.4	7.3		
	Co worker	n	57	72	50	86	115	57	0.79**	3.51±1.34
		%	13	16.5	11	19.7	26.3	13		
		n	59	67	66	74	124	47	0.81**	
		%	13.5	15.3	15	16.9	28.4	10.8		
		n	63	84	47	86	122	35	0.81**	
		%	14.4	19.2	11	19.7	27.9	8		
		n	51	72	57	79	139	39	0.81**	
		%	11.7	16.5	13	18.1	31.8	8.9		
Extrinsic (Mean ±SD)										3.48±1.30
Intrinsic	Contingent reward	n	63	80	59	78	116	41	0.80**	3.43±.38
		%	14.4	18.3	14	17.8	26.5	9.4		
		n	60	94	55	89	104	35	0.79**	
		%	13.7	21.5	13	20.4	23.8	8		
		n	55	74	61	96	110	41	0.82**	
		%	12.6	16.9	14	22	25.2	9.4		
		n	66	68	61	87	118	37	0.82**	
		%	15.1	15.6	14	19.9	27	8.5		
	Promotion	n	78	72	48	83	111	45	0.79**	3.48±1.36
		%	17.8	16.5	11	19	25.4	10.3		
		n	61	90	62	84	95	45	0.78**	
		%	14	20.6	14	19.2	21.7	10.3		
		n	73	80	62	88	95	39	0.83**	
		%	16.7	18.3	14	20.1	21.7	8.9		
		n	83	85	57	78	103	31	0.81**	
		%	19	19.5	13	17.8	23.6	7.1		

	Nature of work	n	82	77	69	81	104	24	0.78**	3.59±1.36
		%	18.8	17.6	16	18.5	23.8	5.5		
		n	83	74	60	77	109	34	0.81**	
		%	19	16.9	14	17.6	24.9	7.8		
		n	65	78	54	84	128	28	0.79**	
		%	14.9	17.8	12	19.2	29.3	6.4		
		n	74	79	62	83	105	34	0.82**	
		%	16.9	18.1	14	19	24	7.8		
	Communication	n	60	69	68	82	121	37	0.81**	3.46±1.38
		%	13.7	15.8	16	18.8	27.7	8.5		
		n	77	87	56	77	110	30	0.82**	
		%	17.6	19.9	13	17.6	25.2	6.9		
		n	55	69	52	82	111	68	0.82**	
		%	12.6	15.8	12	18.8	25.4	15.6		
		n	63	80	59	78	116	41	0.79**	
		%	14.4	18.3	14	17.8	26.5	9.4		
Intrinsic (Mean± SD)										3.49±1.32
JOB SATISFACTION (Mean± SD)										3.49±1.30
Cronbach alpha										0.97

**Correlation significance at the 0.01 level (2-tailed)

When we measured the mean score of each domain of the extrinsic and intrinsic job satisfaction scale in Figure 1, we noticed that the overall mean score was (M=3.49±1.30, reflecting a moderate level of job satisfaction). Moreover, the mean extrinsic job satisfaction score was 3.48±1.30 (moderate level), while the mean intrinsic job satisfaction score was 3.49±1.32 (moderate level). The "nature of the work" scored the highest among the job satisfaction domains of the participants, while the lowest mean job satisfaction was scored for the "payment" the participants receive.

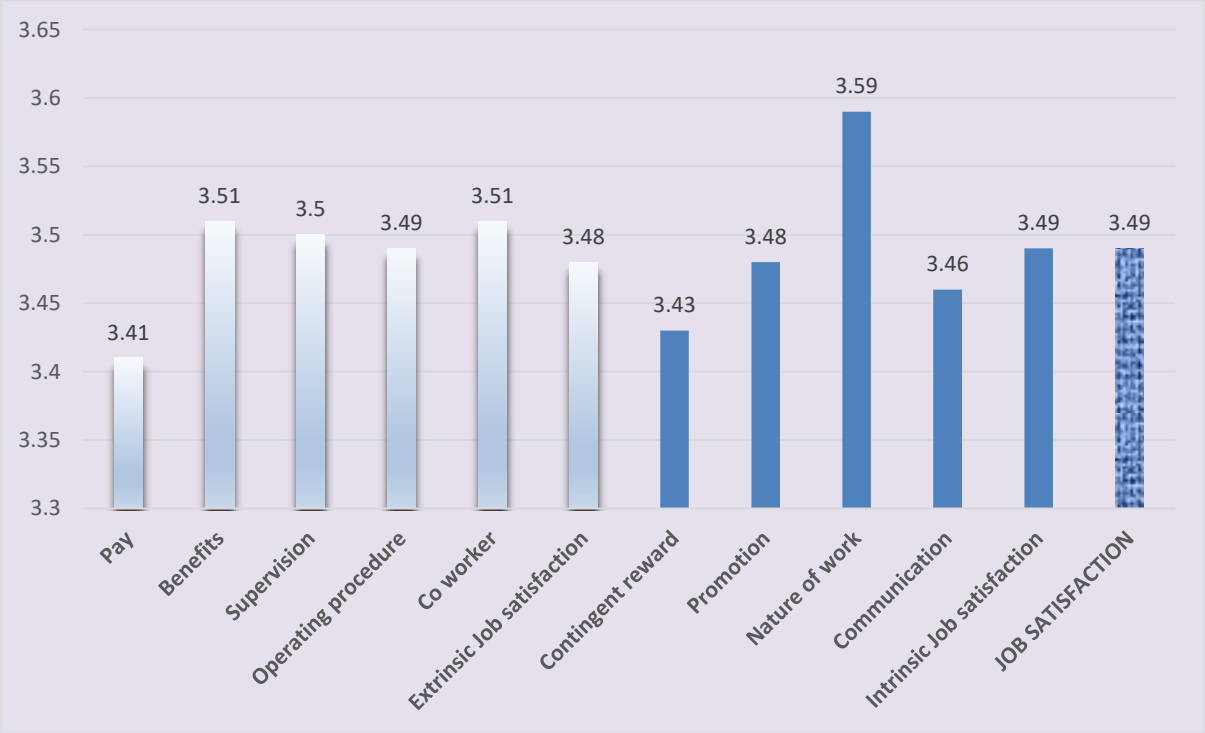

Figure 1 Mean scores of Job Satisfaction

The correlation test was used to identify the direction of the relationship between job satisfaction and the leadership styles from one side, and the relationship strength from the other side. As shown in Table (5), there was a very strong and positive correlation between job satisfaction and the transformational leadership styles (r=0.677, p<0.05), also the relationship between the transformational leadership styles' dimensions and job satisfaction ranged from (r=0.664, p<0.05) for Idealized Attributes (IA) to (r=0.637, p<0.05) for Individual Consideration (IC) meaning that the more transformational leadership styles of nurse managers, the greater job satisfaction the staff nurses had.

There was a very strong and positive correlation between job satisfaction and transactional leadership styles (r=0.671, p<0.05). Concerning the dimensions of the transactional leadership styles relation to job satisfaction, it was found to be (r=0.647, p<0.05) for Management-by-Exception (Active) (MBEA), and (r=0.643, p<0.05) for Contingent Reward (CR), which means that the more adopted transactional leadership style by nurse managers, the higher the job satisfaction of their subordinate nurses.

Table 5 The relationship between the multifactorial leadership styles and Job satisfaction (N=437)

Variables	Job satisfaction
Idealized Attributes (IA)	0.664*
Idealized Behaviors (IB)	0.653*
Inspirational Motivation (IM)	0.644*
Intellectual Stimulation (IS)	0.659*
Individual Consideration (IC)	0.637*
Transformational	0.677*
Contingent Reward (CR)	0.643*
Management-by-Exception (Active) (MBEA)	0.647*
Transactional	0.671*

*Significant relationship at p<0.05

Table 6 shows the results of the linear regression that was conducted to predict the nurses' job satisfaction based on the managers' style of leadership (transactional and transformational). Although leadership style was significant, transformational leadership ($t = 3.50$, $p < 0.01$) was more effective for predicting job satisfaction than transactional leadership ($t = 2.43$, $p < 0.05$).

Table 6 Prediction of Transformational and Transactional Leadership Styles for Nurses' Job Satisfaction (N = 437)

Predictor variable	*ß*	SE-*b*	Beta	*t*	*p*	95% CI	
						Lower	Upper
Transformational	0.51	0.15	0.41	3.50**	0.00	0.22	0.8
Transactional	0.36	0.15	0.28	2.43*	0.02	0.07	0.66

Note: Job satisfaction was the dependent variable. ß is the unstandardized coefficients; SE-b is the standard error.
***Significant at 0.01 level; *significant at 0.05 level. R2 = 0.47; adjusted R2 = 0.36.*

4. DISCUSSION

The nursing profession is becoming overwhelming, stressful work accompanied by rising burnout rates and mental fatigue. Laranjeira, (2012) stated that work stress affects physical and mental capabilities and nursing retention rates. Hannan et al., (2018) pointed out that, stress related to the healthcare profession contributes to poor job gratification, fatigue, bullying, burnout, and an increased rate of truancy from work. Increasing worker satisfaction with their current job is the solution to meeting the challenges of quality results, patient contentment, and retaining nurses at hospitals (Almalki et al., 2012). In 1982, the American Nurses Association (ANA) examined which hospitals were successful in retaining healthcare professionals and were credited as having good reputations as good places to work with and that provided good nursing care (Kramer, 2010). The study showed that 41 hospitals across the USA were credited as attractive hospitals to employees. The results showed that these hospitals were attractive in part due to leadership techniques that focused on nursing leadership characteristics as a means of ensuring job contentment and retention among staff.

The present study is supported by a descriptive study by Cox (2015), wherein 442 nursing department staff of regional medical centers participated in the study, and comprised staff nurses, executives, managers' assistants, licensed practical nurses, and administrative staff. Up to 64% of the staff participated, where 275 questionnaires were returned and utilized in the leadership style study. The researchers were motivated to determine how staff nurses understand management styles, what management styles the staff preferred, and if relationships were established between the perceived leadership style of the nurse manager and the staff nurses' job gratification. The MLQ (2016) was utilized to determine leadership style as either transactional or transformational. Perceived and intended management techniques were calculated by using the profile of organizational characteristics developed in 1978 by Rensis Likert Associates (Likert and Likert, 1978).

Job satisfaction was measured initially through the scales for the measurement of work attitudes and aspects of psychological well-being that were developed in 1979. The components measured included leadership, motivation, communication, decision-making, goals, and control. The total sum of job satisfaction included extrinsic satisfaction, interpersonal satisfaction, engagement needs, and intrinsic satisfaction. Spreitzer's Psychological Empowerment Instrument (SPEI) was utilized to determine empowerment concerning meaning, competence, impact, and self-determination (Fuller et al., 1999).

Research on leadership had begun around the 20th century (Broome and Marshall, 2020). Many ideas have been formed regarding the concept of leadership since then. Early theorists pinpointed leadership as either individual or environmental, with no connection between the two. The focus was on the development of theory rather than the effect of relationships. It was not until later that the scientists studied what abilities, traits, sources of power, and situations determined leadership capabilities and how groups were affected to attain goals and objectives. Wren, (2013) Differentiated between management and leadership stating that leadership is a wider concept and could happen any time the followers' attitudes were affected. Management referred to managers of organizations working with others to attain common goals. Lately, researchers have seen leadership as a component of role and differentiation and have performed their studies based on particular audiences. For example, studies have been performed in hospitals to determine the factors influencing job satisfaction. Campbell et al., (2016), reported that 75% of staff investigated singled out management style as the premier factor in staff nurse satisfaction. Lin et al., (2015), discovered that the transformational leadership style was more preferred rather than the transactional leadership style and that managers showing transformational characteristics had satisfied staff nurses.

The transformational leadership style includes the following characteristics: (a) idealized influence (attributed), (b) idealized influence (behavior), (c) inspirational motivation, (d) mind stimulation, and (e) individual consideration. Magnet hospitals applying the transformational leadership style first described by Burns (1978) have lower turnover ratings and increased satisfaction among nursing staff (Kramer and Schmalenberg, 1991). Lo et al., (2015), noted that leaders play a significant role in allocating responsibility rather than focusing on authority and command when dealing with subordinates. Besides, a leader's capabilities might contribute to a good leadership style in the organization (Mosadeghrad and Ferdosi, 2013). Indeed, a good leader leads his/her subordinates and performs to their best ability (Goleman, 2018). Such leaders must have the ability to function with good standing, honesty, efficiency, and communicate with employees clearly (Aronson et al., 2013). An effective leadership style can contribute to the success of the task at hand (Gharehbaghi and McManus, 2003).

Amanchukwu et al., (2015), indicated that the right leadership technique yields employee satisfaction, and it is a good indicator that a better style might lead to employees working efficiently and effectively. Here, leaders should share the organization's values, mission, and vision to motivate employees (Borkowski et al., 2011). Besides, a leader is a person who can guide and direct his/her employees in the workplace (Naile and Selesho, 2014). The detected strong relationship between the work satisfaction of the floor's nurses and the transformational managers' leadership style was supported by various research studies. Lo et al., (2015), stated that a transformational leader is more efficient in responding to change rather than one who applies the transactional style. A transformational leadership style and employees' performance with the organization's goals and objectives can create a compliant and satisfactory work environment (Swindell and Twigg, 2013). A transformational leader focuses more on building good relationships with their subordinates, while transactional leaders are more task-oriented, with complying with the task is of high importance to them.

5. CONCLUSION

The participant nurses were selected from different hospitals and different medical or surgical floors, meaning that all of them encounter different leadership styles and approaches and have different perceptions of the leadership styles adopted by their managers. The majority of the staff had a moderate response to the five dimensions of transformational leadership styles; however, the difference between each dimension was small. The leadership style is a significant factor affecting the work satisfaction level of

floor staff. The results suggest that being a transformational leader is more effective than being a transactional leader and will participate to increase staff nurses' job satisfaction. This means that when a leader applies a transformational approach, staff would likely have higher job satisfaction and be encouraged to stay in their current job, so retention rates would increase subsequently.

Recommendations

The improvement of leadership style among nurse managers, administrators, and supervisors is recommended, such as the adoption of the transformational technique to encourage staff to stay in their current job and inhibit self-progress in the profession. Nurses' managers and executives are in the proper position to enhance their leadership techniques and develop a friendlier approach to dealing with their staff. Training and staff development should be conducted to provide quality service to the stakeholders. Programs that would increase work satisfaction among staff nurses should be developed to reduce employee turnover rates. Furthermore, future researchers may wish to conduct a similar study that would enrich the findings of the present study by taking a larger sample size, with the inclusion of more departments and units of the hospitals, and by covering other regions of Saudi Arabia.

Limitations

The research design of this study cannot determine causality (cause and effect) as the cross-sectional study design is defined as being exposed to bias with the criteria for eligibility. As a result, this may disregard participants who attain different insights particularly, when responding to the study questionnaire. With regards to the sampling technique, this research study has employed a non-probability sampling technique, specifically the convenience sampling method. The use of this sampling technique may cause large parts of the population to be disregarded. As a result, this may lead to several issues. Firstly, this method may cause an inability to generalize the results of the survey to the population as a whole. Furthermore, it may also cause a possibility of under-or over-representation of the population. Likewise, it may lead to biased results, which is why various individuals choose to take part in the study while some do not. Furthermore, poorly selected distribution channels can cause data to become biased, with low response rates in addition to a group of other likely issues that may occur. As a result, participants may become decreasingly likely to be fully engaged in the survey part of the study for more than 10 minutes as opposed to other research methods. Therefore, the sampling technique of this study has several constraints in comparison to other methods such as randomized sampling.

Ethical approval

The study proposal was approved by the regional research ethics committee of the General Directorate of Health Affairs in Al-Qassim Region (Ethics Approval number: 1349705-7-1441).

Authors' contributions

MAS managed the correspondence for the study, performed final editing, and submitted the manuscript for publishing. MAA conceived and designed the study and performed the statistical analyses. FMA collected the data, drafted the paper, and reviewed the manuscript. All authors provided input to the manuscript and approved the final version.

Abbreviations

(BCH) Buraydah Central Hospital, (JSS) Job Satisfaction Survey, (KFSH) King Fahad Specialist Hospital, (KSA) Kingdom of Saudi Arabia, (KSH) King Saud Hospital, (MLQ) Multifactorial Leadership Questionnaire, (MOH) Ministry of Health, (SPSS) Statistical Package for the Social Sciences.

Funding

This study has not received any external funding.

Conflicts of interest

The authors declare that there are no conflicts of interests.

Data and materials availability

All data associated with this study are present in the paper.

REFERENCES AND NOTES

1. Abdelhafiz IM, Mah'd Alloubani A, Klaledeh M, Mutari N, Almukhtar MM. Impact of leadership styles among head nurses on level of job satisfaction among staff nurses. Eur Sci J 2015; 11.
2. Abualrub RF, Alghamdi MG. The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. J Nurs Manag 2012; 20:668-78.
3. Alloubani A, Abdelhafiz I, Abughalyun Y, Edris E, Almukhtar M. Impact of leadership styles on leadership outcome (effectiveness, satisfaction and extra effort) in the private healthcare sector in Jordan. Eur Sci J 2015; 11:286-98.
4. Almalki MJ, FitzGerald G, Clark M. Quality of work life among primary health care nurses in the Jazan region, Saudi Arabia: a cross-sectional study. Hum Resour Health 2012; 10:1-13.
5. Amanchukwu RN, Stanley GJ, Ololube NP. A review of leadership theories, principles and styles and their relevance to educational management. Management 2015; 5:6-14.
6. Aronson ZH, Shenhar AJ, Patanakul P. Managing the intangible aspects of a project: The effect of vision, artifacts, and leader values on project spirit and success in technology-driven projects. Project Management J 2013; 44:35-58.
7. Avolio B, Bass B. Multifactor Leadership Questionnaire TM 1995. Available from: https://www.mindgarden.com/16-multifactor-leadership-questionnaire.
8. Avolio BJ, Bass BM. Developing potential across a full range of Leadership Tm: Cases on transactional and transformational leadership: Psychology Press; 2001.
9. Borkowski N, Deckard G, Weber M, Padron LA, Luongo S. Leadership development initiatives underlie individual and system performance in a US public healthcare delivery system. Leadersh Health Serv 2011; 24:268-80.
10. Broome ME, Marshall ES. Transformational Leadership in Nursing, From Expert Clinician to Influential Leader. 3rd Ed. ed: Springer Publishing Company; 2020.
11. Bryman A, Cramer D. Quantitative data analysis with SPSS 14, 15 & 16: A guide for social scientists: Routledge/Taylor & Francis Group; 2009.
12. Bucic T, Robinson L, RAMBURUTH P. Effects of leadership style on team learning. J Workplace Learn 2010; 22:228-48.
13. Burns J. Leadership, Cass Canfield book. New York: Harper & Row 1978.
14. Bushra F, Ahmad U, Naveed A. Effect of transformational leadership on employees' job satisfaction and organizational commitment in banking sector of Lahore (Pakistan). Int j Business Social sci 2011; 2:261-7.
15. Campbell JW, Lee H, Im T. At the expense of others: Altruistic helping behaviour, performance management and transformational leadership. Public Management Review 2016; 18:795-818.
16. Choi SL, Goh CF, Adam MBH, Tan OK. Transformational leadership, empowerment, and job satisfaction: the mediating role of employee empowerment. Hum Resour Health 2016; 14:1-14.
17. Cox R. Addressing healthy lifestyle behaviours amongst young people in out-of-home care: Deakin University; 2015.
18. El Dahshan MEA, Youssef HA, Aljouaid M, Babkeir RA, Hassan WB. Effect of nurse managers leadership styles on organizational commitment of nurses working at Taif Governmental Hospitals in Kingdom of Saudi Arabia. Global J Management Business Res 2017; 17:1-15.
19. Fuller JB, Morrison R, Jones L, Bridger D, Brown V. The effects of psychological empowerment on transformational leadership and job satisfaction. J Soc Psychol 1999; 139:389-91.
20. Gharehbaghi K, McManus K. The construction manager as a leader. Leadership and management in engineering 2003; 3:56-8.
21. Goleman D. What makes a leader? Military leadership: Routledge 2018; 39-52.
22. Grossman SC, Valiga TM. The new leadership challenge: Creating the future of nursing: FA Davis; 2020.
23. Hannan E, Breslin N, Doherty E, McGreal M, Moneley D, Offiah G. Burnout and stress amongst interns in Irish hospitals: contributing factors and potential solutions. Ir J Med Sci 2018; 187:301-7.
24. Hughes VM. Teacher evaluation practices and teacher job satisfaction: University of Missouri-Columbia; 2006.
25. Khan BP, Griffin MTQ, Fitzpatrick JJ. Staff nurses' perceptions of their nurse managers' transformational leadership behaviors and their own structural empowerment. J Nurs Adm 2018; 48:609-14.
26. Kramer M, Schmalenberg FC. Job satisfaction and retention. Insights for the '90s. Part 2. Nursing 1991; 21:51-5.
27. Kramer M. Organizational socialization: Joining and leaving organizations: Polity Press; 2010.
28. Krishnan VR. Transformational leadership and outcomes: Role of relationship duration. Leadership Organization Develop J 2005; 26:442-57.
29. Kumari SSMH, De ACA. The nursing shortage impact on job outcome (the case in Sri Lanka). J Competitiveness 2015; 7:75-94.
30. Laranjeira CA. The effects of perceived stress and ways of coping in a sample of Portuguese health workers. J Clin Nurs 2012; 21:1755-62.

31. Lee SE, MacPhee M, Dahinten VS. Factors related to perioperative nurses' job satisfaction and intention to leave. Jpn J Nurs Sci 2020; 17:e12263.
32. Likert JG, Likert R. Profile of a School: Rensis Likert Associates, Incorporated; 1978.
33. Lin P-Y, MacLennan S, Hunt N, Cox T. The influences of nursing transformational leadership style on the quality of nurses' working lives in Taiwan: a cross-sectional quantitative study. BMC Nurs 2015; 14:1-9.
34. Lo MC, Azlan MA, Ramayah T, Wang YC. Examining the effects of leadership, market orientation and leader member exchange (LMX) on organisational performance. Eng Economics 2015; 26:409-21.
35. Manning J. The influence of nurse manager leadership style on staff nurse work engagement. J Nurs Adm 2016; 46:438-43.
36. Mosadeghrad AM, Ferdosi M. Leadership, job satisfaction and organizational commitment in healthcare sector: Proposing and testing a model. Mater Sociomed 2013; 25:121-6.
37. Naile I, Selesho JM. The role of leadership in employee motivation. Mediterr J Soc Sci 2014; 5:175-82.
38. Northouse PG. Leadership: Theory and practice: Sage publications; 2021.
39. Spector PE. Measurement of human service staff satisfaction: Development of the Job Satisfaction Survey. Am J Community Psychol 1985; 13:693-713.
40. Swindell JR, Twigg NW. Transformational Leadership and Union Citizenship Behavior. Leadership Organizat Managem J 2013; 2013:92-113.
41. Tale S. Leadership style and job satisfaction among nurses: University Utara Malaysia; 2010.
42. Wren JT. The Leader's Companion: Insights on Leadership Through the Ages: Free Press; 2013.