Original Article :

The Influence of Demographic Factors on Transformational Leadership Style with Quality of Nursing Care in Riyadh Second Health Cluster, Saudi Arabia

Amira Y.Boshra[1], Juhayyir abdullah almutairi[2].

1. Department of Nursing, College of Nursing, Majmaah University.
2. Register nurse, Almatar Health Center. Al Majmaah.

Received on Nov 01, 2024, accepted for publication on Dec 03, 2024, dx.doi.org/10.5455/mjhs.2025.02.007

Corresponding Author:

Amira Yahia Boshra, Department of Nursing, College of Nursing, Al-Majmaah 11952, Saudi Arabia, a.yahia@mu.edu.sa .Orcid Number: https://orcid.org/0000-0003-4498-370X

OPEN ACCESS Distributed under Creative Commons CC BY-NC-ND 4.0

Abstract

Background and Aims:

Leadership involves the capacity to inspire individuals to dedicate their optimal efforts toward a shared objective, irrespective of their personal investment in the outcome. This study aimed to determine the Influence of Demographic Factors on Transformational Leadership Style with Quality of Nursing Care in Riyadh Second Health Cluster, Saudi Arabia.

Methods:

A quantitative cross-sectional correlation research design was used in this investigation. Convenience sampling was used to choose 350 nurses as participants for the investigation. The nurses' perceptions of transformational leadership and the quality of nursing care were evaluated using the Global Transformational Leadership Scale and the Quality Nursing Care Scale. A 52-item online survey that participants self-administered through Google Forms was used to collect data. Data analysis, the Statistical Package for Social Sciences (SPSS, IBM Version 24) used descriptive statistics, and means, frequencies, percentages, and standard deviations (SD) were calculated. Inferential statistics, such as chi-square analysis and regression, were employed.

Result:

It shows each variable's mean, S.D, t/F, and p values. The p values indicate the statistical significance of the difference in mean scores between groups of each variable. There was a significant difference in Educational Qualifications. A p-value of 0.05, how many hours do you work per week p-value of 0.04, and workplace A p-value of 0.02. The quality of nursing care scale was found to be significantly correlated with factors such as age p-value of 0.03, type of care unit p-value of 0.02, and weekly work hour's p-value of 0.000.

Conclusion:

A strong positive link was found between demographic factors, transformation leadership, and the quality of nursing care. There was a significant association between the transformational leadership scale and educational qualification, workplace, and how many hours you work per week. The quality of nursing care scale was found to be significantly correlated with factors such as age, type of care unit, and weekly work hours.

Key words:

Demographic Factor, transformational leadership, nursing care, Riyadh, Saudi Arabia

Introduction:

Leadership involves the capacity to inspire individuals to dedicate their optimal efforts toward a shared objective, irrespective of their personal investment in the outcome [1]. Effective leadership includes the ability to guide, motivate, and direct others toward the achievement of goals [2]. Leadership styles represent how managers engage with their teams [3]. The literature indicates various leadership philosophies, including transactional, laissez-faire, authentic, participative, servant, and autocratic leadership styles, are effective across diverse fields, including nursing[3,4]. However, each leadership style encapsulates distinct facets of leadership and provides a unique perspective on the dynamics between leaders and followers, which may not be effective for each situation [3].

The transformational leadership style is an effective leadership style due to its relationship with efficient management, which helps cultivate a culture of patient safety [5]. Transformational leaders develop a shared vision for their organisation and drive their team to strive toward achieving that goal. These leaders also aggressively seek creative solutions to problems, challenge conventional wisdom and demonstrate respect and appreciation for all individuals [6, 7] posited that transformative leaders significantly impact their teams' commitment levels by encouraging work cultures conducive to their team's professional and personal development. This ability makes transformative leaders especially useful in sustaining a mindset dedicated to quality patient care in a hospital setting [7]. The skills and focus of the staff, the resources and conditions of the practice environment, and the leadership style demonstrated all affect the quality of nursing care in a hospital setting[7,8].

Nurses who are also transformational leaders put nurses and nursing first, maintain a positive attitude while facing challenges, connect with their teams, set a good example, and are dedicated to a robust code of ethics [9]. These dynamic leaders inspire others to join them in achieving their organisational goals and their aspirations for the future of nursing [10].

The study was carried out in Riyadh at the Laban Health Center. The average (transformational leadership dimension) was found to be 3.95, which is regarded as a "high level" in the study. This indicates that the respondents thought the transformational leadership dimensions were extremely high. A "high" mean (dimensions of healthcare) of 4.60 indicates that participants agree[11].

Although transformative leadership has been linked to higher-quality nursing care, little is known about how demographic factors affect this leadership style and

how it affects the quality of nursing care in Saudi Arabia. To determine the elements that lead to high-quality nursing care in the country, more investigation is required. These kinds of studies will give administrators and legislators important information they can use to create healthcare policies that will improve patient outcomes and healthcare delivery in Saudi hospitals.

Although other leadership styles may positively impact the quality of nursing care, the scope of this current study focuses on assessing the Influence of Demographic Factors on Transformational Leadership Style on the Quality of Nursing Care in Riyadh Second Health Cluster, Saudi Arabia.

Method:

Study Design:

This was a quantitative cross-sectional correlation research study. This design facilitates data collection during a predetermined session in which records of the phenomena under investigation are gathered.

Study Setting:

This study was conducted at selected hospitals in the second health cluster of Riyadh Region, Saudi Arabia.

Study Population, Sampling Technique, and Sample Size:

The study subjects were nurses in selected hospitals in the second health cluster of Riyadh, Saudi Arabia, which employs 3,900 staff nurses. Participants were selected for the study through convenience sampling. Researchers use convenience sampling to gather information from a large group of people who can be conveniently contacted which could not be representative of the target population.

Stephen Thompson's formula (α = 0.05, 95% confidence interval [CI], N = 3,900), provided below, was used to determine the minimum sample size:

$$n = \frac{N \times P(1-P)}{[[N-1 \times (D^2 \div Z^2)] + P(1-P)]}$$

$$n = \frac{3900 \times 0.50(1-0.50)}{3900 - 1x\left(\frac{0.0025}{3.84}\right) + 0.50(1-0.50)} = 350 \text{ nurses}$$

Through this calculation, a sample of 350 nurses was deemed necessary for the current study.

Research Instrument:

The Quality of Nursing Care Scale developed by Tsogbadrakh et al. (2021) 12, and the Global Transformational Leadership Scale, developed by Tangatarova and Gao (2021) 5, were used in the current study to evaluate the quality of nursing care. The Global Transformational Leadership Scale is a robust and precise 7-item tool used to evaluate nurse managers' transformational leadership capacities. The researcher conducted a pilot study a summary of findings for the Transformational Leadership Scale, and Quality of Nursing Scale. The Cronbach's alpha value was excellent, ex-

ceeding the satisfactory value of 0.97 and 0.99 for the Transformational Leadership and Quality of Nursing Scale, respectively.

Data Collection:

Data collection in this study was conducted using a 52-item self-administered online questionnaire distributed via Google Forms. The questionnaire contained a 9-item demographic characteristics section with questions designed to collate demographic data, a transformational leadership assessment section containing the 7-item Global Transformational Leadership Scale, and a quality of nursing care assessment section containing the 36-item Quality Nursing Care Scale.

Data Analysis:

For the quantitative data analysis, the Statistical Package for Social Sciences (SPSS, IBM Version 24) was used. To fulfil the research objectives, descriptive statistics, means, frequencies, percentages, and standard deviations (SD) were calculated. Inferential statistics, such as chi-square analysis and regression, were employed to examine the link between the respondents' attitudes toward the quality of nursing care and transformational leadership. A significant correlation or link was demonstrated by results below the significance level of P = 0.05.

Ethical Considerations:

All ethical and administrative considerations were addressed before the commencement of the study. Following a thorough review of the ethical standards for research practices and the completion of a research ethics form, the Institutional Review Board (IRB) of the Kingdom of Saudi Arabia's Ministry of Health approved the study, and IRB number 23-545C was assigned. Consent and authorization were gained from all nurses who agreed to participate in the survey.

Results:

Table 1: Socio-demographic characteristics of respondents N=350:

CATEGORY	SUB-CATEGORY	FREQUENCY DISTRIBUTION	
		N	%
Gender	Female	263	75.1
	Male	87	24.1
Age	18 - 25	67	19.1
	26 - 35	187	53.4
	36 - 45	82	23.4
	More than 45 years	14	4.0
	Mean	31.78	
	S.D	7.09	
'Marital Status'	'Single'	97	27.7
	'Married'	171	48.9
	'Divorced'	64	18.3
	Widow/Widower	18	5.1
Educational Qualification	Diploma	111	31.7
	Bachelor	203	58.0
	Post Graduate Degree	36	10.3
Work Experience	0 – 2 years	17	4.9
	3 – 5 years	72	20.6
	6 – 10 years	140	40.0
	More than 10 years	121	34.6

Nationality	Non-Saudi	25	7.1
	Saudi	325	92.9
Unit of Care	Emergency unit	79	22.6
	General Outpatient clinics	69	19.7
	Inpatient Department	51	14.6
	Pediatric	72	20.6
	Psychiatric	5	1.4
	Surgery	74	21.1
How many hours do you work per week	Less than 50 hours	126	36.0
	More than 50 hours	224	64.0
Work Place	Al Yammah Hospital	101	28.9
	King Fahad Hospital	131	37.4
	King Khaled Hospital	84	24.0
	Tumair General Hospital	34	9.7

S.D = standard deviation.

Table 1 displays a comprehensive overview of the demographics and workplace characteristics of 350 nurses who participated in the survey. The majority of surveyed nurses are female, constituting 75.1% of the total respondents; examining the age distribution, a substantial 53.4% of respondents fall within the 26-35 age range with a mean age of 31.78, marital status data reveals that 48.9% of nurses are married, while 27.7% are single.

The educational composition manifests as a diverse tapestry, wherein 58.0% of the surveyed nurses hold a bachelor's degree, work experience is a vital aspect, and the survey indicates that 40% of nurses have experience in the 6 – 10 years range. The distribution based on nationality highlights the prevalence of Saudi nationals, comprising 92.9% of the surveyed participants.

Analysing the unit of care distribution, 22.6% of nurses work in the Emergency unit, and a notable 64.0% of respondents work more than 50 hours per week; Workplace distribution indicates balanced representation across Al Yammah Hospital (28.9%), King Fahad Hospital (37.4%), King Khaled Hospital (24.0%), and Tumair General Hospital (9.7%).

Part Two: Association of Demographics and Factors of Transformational Leadership Scale.

Table 2: Influence of Demographic Factor on Transformational Leadership Scale N=350:

CATEGORY	SUB-CATEGORY	Mean	S.D	t/F value	P value
'Gender'	Female'	3.88	0.78	^{F} 0.92	0.33
	'Male	3.85	0.86		
'Age'	'25 – 18'	3.92	0.88	^{t} 0.49	0.68
	'35 – 26'	3.90	0.76		
	'45 – 36'	3.79	0.85		
	More than 45 years	3.78	0.67		

'Marital Status'	Single	3.94	0.74	t 1.07	0.36
	Married	3.79	0.88		
	Divorced	3.96	0.71		
	Widow/Widower	3.94	0.55		
'Educational Qualification'	Diploma	3.68	0.85	t 5.40	0.005
	Bachelor	3.93	0.77		
	Post Graduate Degree	4.12	0.70		
'Work Experience'	'years 2 – 0'	3.70	1.20	t 0.39	0.75
	'years 5 – 3'	3.93	0.76		
	'years 10 – 6'	3.86	0.84		
	'More than 10 years'	3.88	0.72		
'Nationality'	Non-Saudi	4.16	0.91	F 0.06	0.80
	Saudi	3.85	0.79		
'Unit of Care'	Emergency unit	3.92	0.77	t 1.38	0.22
	General Outpatient clinics	3.75	0.79		
	Inpatient Department	3.73	0.92		
	Pediatric	3.97	0.67		
	Psychiatric	4.42	0.44		
	Surgery	3.90	0.88		
How many hours do you work per week'	Less than 50 hours	3.66	0.81	F 4.13	*0.04
	More than 50 hours	3.99	0.77		
'Work Place	Al Yammah Hospital	3.86	0.77	t 4.87	*0.002
	King Fahad Hospital	4.05	0.75		
	King Khaled Hospital	3.63	0.81		
	Tumair General Hospital	3.81	0.96		

F(Independent Sample T-Test), t (One Way ANOVA).

Table 2 presents the relationship between socio-demographic and work-related characteristics with the perception of transformational leadership scale. It shows each variable's mean, S.D, t/F, and p values. There was a significant association between the transformational leadership scale and educational qualification p-value of 0.005, workplace p-value of 0.02, and how many hours you work per week value of 0.04. There was no significant association between the transformational leadership scale and age, gender, marital status, work experience, nationality, and unit of care.

Results show that nurses who work in

King Fahad Hospital experience a higher perception of transformational leadership than other nurses 4.05.

Part Three: Association of Demographics and Factors of Quality of Nursing Care Scale.

Table 3: Influence of Demographic Factor on Quality of Nursing Care Scale N=350:

CATEGORY	SUB-CATEGORY	'Mean'	'S.D'	't/F value'	'P value'
'Gender'	Female	4.09	0.45	F 2.70	0.10
	Male	4.01	0.41		
'Age'	25 - 18	4.12	0.48	t 2.95	*0.03
	35 - 26	4.11	0.38		
	45 - 36	3.94	0.49		
	More than 45 years	4.03	0.65		
'Marital Status'	Single	4.11	0.42	t 0.79	0.49
	Married	4.03	0.52		
	Divorced	4.09	0.26		
	Widow/Widower	4.02	0.27		
'Educational Qualification'	Diploma	4.13	0.46	t 1.91	0.14
	Bachelor	4.03	0.43		
	Post Graduate Degree	4.09	0.45		
'Work Experience'	'years 2 – 0'	3.94	0.64	t 0.73	0.53
	'years 5 – 3'	4.09	0.53		
	'years 10 – 6'	4.09	0.46		
	'More than 10 years'	4.04	0.33		
Nationality	Non-Saudi	4.12	0.59	F 7.44	0.007
	Saudi	4.06	0.43		
Unit of Care	Emergency unit	4.20	0.55	t 2.59	*0.02
	General Outpatient clinics	4.05	0.34		
	Inpatient Department	4.02	0.42		
	Pediatric	4.00	0.27		
	Psychiatric	4.35	0.42		
	Surgery	4.01	0.53		
How many hours do you work per' week	Less than 50 hours	4.13	0.54	F 15.96	*0.000
	More than 50 hours	4.03	0.38		
'Work Place	Al Yammah Hospital	4.07	0.34	t 0.04	0.98
	King Fahad Hospital	4.06	0.31		
	King Khaled Hospital	4.08	0.63		
	Tumair General Hospital	4.05	0.63		

F (Independent Sample T-Test), t (One Way ANOVA).

Table 3 presents the relationship between socio-demographic and work-related characteristics and the quality of nursing care scale. It shows each variable's mean, S.D, t/F, and p values. The quality of nursing care scale was found to be significantly correlated with factors such as age p-value of 0.03, type of care unit p-value of 0.02, and weekly work hour's p-value of 0.000. The quality of nursing care scale did not significantly correlate with factors such as gender, marital status, level of education, work experience, or workplace.

Discussion:

Nurses play a fundamental role within healthcare systems, addressing immediate and long-term patient needs through direct nursing care. Therefore, nurses must receive effective leadership that can facilitate the achievement of organisational objectives and ensures the delivery of high-quality patient care[3]. This study assessed the influence of transformational leadership style on the quality of nursing care within selected hospitals in the second health cluster of Riyadh, Saudi Arabia. The findings revealed a predominant presence of female participants, underscoring the prevalent gender association within the nursing profession, which often entails significant caregiving responsibilities[13].

In terms of the relationship between demographic characteristics and transformational leadership, the results of this study unveiled that educational qualification, workplace, and weekly working hours were significantly related to the results of the Transformational Leadership Scale. This finding corresponds with the discoveries of [14], who identified a substantial link between transformational leadership, job designation, and the type of nursing unit. According to [15], nurse supervisors may adapt their leadership styles based on the unique requirements and care contexts of different nursing units or workplaces, alongside the associated workload demands.[16] similarly noted that educational attainment and job position were associated with perceptions of transformational leadership. The correlation between educational level and transformational leadership suggests that individuals with varying educational backgrounds may exhibit differing transformational leadership attributes, meaning those with advanced educational qualifications might possess the skills or knowledge conducive to demonstrating more effective leadership behaviours [17].

Furthermore, the nature of the workplace environment may shape the expression of transformational leadership traits, as specific organisational cultures or structures can either facilitate or impede the practice of transformational leadership principles. Additionally, the number of

hours worked per week could influence one's capacity to engage in transformational leadership behaviours, with heavier workloads potentially constraining the time and energy available for leadership activities[18]. The outcomes of this study underscore the multifaceted nature of factors influencing leadership behaviours within healthcare settings and emphasise the need for further research to understand the intricacies of transformational leadership dynamics comprehensively.

Moreover, nurses from diverse cultural backgrounds may bring unique perspectives and practices to their care, influencing communication styles, patient interactions, and care delivery methods[19,20]. Likewise, the unit of care assignment may significantly impact nursing care quality, given the varying patient populations, care needs, and staffing levels across different units within healthcare facilities[20]. Lastly, the association with weekly working hours underscores the potential impact of extended shifts on nursing care quality, as longer hours could lead to fatigue, burnout, or decreased attentiveness, potentially compromising the quality of care nurses provide.

Conclusion:

The study concludes to underscore the critical role of transformational leadership as a management approach for healthcare organisations, indicating a robust positive correlation between transformational leadership and the A strong positive link was found between demographic factors, transformation leadership, and the quality of nursing care. There was a significant association between the transformational leadership scale and educational qualification, workplace, and how many hours you work per week. The quality of nursing care scale was found to be significantly correlated with factors such as age, type of care unit, and weekly work hours.

Limitation:

It is crucial to recognise the limitations of this study when interpreting the findings:

1. The current study relied on a convenience sample, which could reduce the generalisability of the results and may lead to selection bias.
2. The cross-sectional nature of the surveys restricts the ability to establish causal relationships regarding the observed associations.
3. Future research should incorporate a longitudinal study design to gain a more in-depth understanding of the causal effects of transformational leadership on nurses' quality of care.

Implication:

1. Policies influenced by transformational leadership principles can foster a culture of continuous improvement

and innovation in healthcare settings. Transformational leaders can drive policy changes that emphasize teamwork, professional development, and a patient-centered approach[21].

2. This can lead to the implementation of policies that support structural empowerment, organizational commitment, and a focus on outcomes.
3. Nurses under transformational leaders are likely to experience higher job satisfaction, feel valued, and perform beyond minimum expectations.
4. Secondly the results of the study can provide a background in the formulation of nursing policies.

References:

1. Specchia ML, Cozzolino MR, Carini E, et al. Leadership styles and nurses' job satisfaction. Results of a systematic review. Int J Environ Res Public Health. 2021;18(4). doi:10.3390/ijerph18041552
2. Alilyyani B, Kerr MS, Wong C, Wazqar DY. An integrative review of nursing leadership in Saudi Arabia. Nurs Open. 2022;9(1). doi:10.1002/nop2.1117
3. Alaqeli E, Altarhuni A, Almabrook N. Impact of Leadership Styles on Job Performance; from Nurse's Points of View at Benghazi Medical Centre. Khalij-Libya Journal of Dental and Medical Research. Published online 2021. doi:10.47705/kjdmr.215209
4. Sadler FMBRCL. 7 Leadership Styles in Nursing- Which is Your? https://www.relias.com/blog/7-leadership-styles-in-nursing.
5. Sfantou DF, Laliotis A, Patelarou AE, Sifaki-Pistolla D, Matalliotakis M, Patelarou E. Importance of leadership style towards quality of care measures in healthcare settings: A systematic review. Healthcare (Switzerland). 2017;5(4). doi:10.3390/healthcare5040073
6. Moon SE, Van Dam PJ, Kitsos A. Measuring transformational leadership in establishing nursing care excellence. Healthcare (Switzerland). 2019;7(4). doi:10.3390/healthcare7040132
7. Boamah SA, Spence Laschinger HK, Wong C, Clarke S. Effect of transformational leadership on job satisfaction and patient safety outcomes. Nurs Outlook. 2018;66(2). doi:10.1016/j.outlook.2017.10.004
8. Karaca A, Durna Z. Patient satisfaction with the quality of nursing care. Nurs Open. 2019;6(2). doi:10.1002/nop2.237
9. Anonson J, Walker ME, Arries E, Maposa S, Telford P, Berry L. Qualities of exemplary nurse leaders: Perspectives of frontline nurses. J Nurs Manag.

2014;22(1). doi:10.1111/jonm.12092

10. Brewer CS, Kovner CT, Djukic M, et al. Impact of transformational leadership on nurse work outcomes. J Adv Nurs. 2016;72(11). doi:10.1111/jan.13055
11. Alharbi, Abdullah Ayed. The Impact of Transformation Leadership on Improving Quality Health Service in a Health Center Laban in Riyadh Region. Journal of Health Sciences and Nursing. 2022; 8(11)
12. Tsogbadrakh B, Kunaviktikul W, Akkadechanunt T, et al. Development and psychometric testing of quality nursing care scale in Mongolia. BMC Nurs. 2021;20(1). doi:10.1186/s12912-021-00586-3
13. Bernardes MLG, Karino ME, Martins JT, Okubo CVC, Galdino MJQ, Moreira AAO. Workplace violence among nursing professionals. Revista Brasileira de Medicina do Trabalho. 2021;18(3). doi:10.47626/1679-4435-2020-531
14. Salam HA, Dumit NY, Clinton M, Mahfoud Z. Transformational leadership and predictors of resilience among registered nurses: a cross-sectional survey in an underserved area. BMC Nurs. 2023;22(1). doi:10.1186/s12912-023-01192-1
15. Olu-Abiodun O, Abiodun O. Perception of transformational leadership behaviour among general hospital nurses in Ogun State, Nigeria. Int J Afr Nurs Sci. 2017;6. doi:10.1016/j.ijans.2017.02.001
16. Sarıköse S, Türkmen E. The relationship between demographic and occupational variables, transformational leadership perceptions and individual innovativeness in nurses. J Nurs Manag. 2020;28(5). doi:10.1111/jonm.13060
17. Meng H. Analysis of the Relationship between Transformational Leadership and Educational Management in Higher Education Based on Deep Learning. Comput Intell Neurosci. 2022;2022. doi:10.1155/2022/5287922
18. Morf M, Bakker AB. Ups and downs in transformational leadership: A weekly diary study. European Management Journal. 2024;42(2). doi:10.1016/j.emj.2022.12.007
19. Kaihlanen AM, Hietapakka L, Heponiemi T. Increasing cultural awareness: Qualitative study of nurses' perceptions about cultural competence training. BMC Nurs. 2019;18(1). doi:10.1186/s12912-019-0363-x
20. Kwame A, Petrucka PM. A literature-based study of patient-centered care and communication in nurse-patient interactions: barriers, facilitators, and the way forward. BMC Nurs.

2021;20(1). doi:10.1186/s12912-021-00684-2

21. Khan H, Rehmat M, Butt TH, Farooqi S, Asim J. Impact of transformational leadership on work performance, burnout and social loafing: a mediation model. Future Business Journal. 2020;6(1). doi:10.1186/s43093-020-00043-8