# Effects of transformational leadership style based on educational intervention regarding knowledge of head nurses for improvement of job performance with Metabolic syndrome

*Maryam Rehman[a], Heera Zaman[a], Ume Habiba[a]*

[a] The University of Faisalabad, Pakistan

Correspondence: Maryam.rehman1122@gmail.com

## ABSTRACT

**Background and Objectives:** Transformational leadership skill (TLS) plays a crucial role in hospital management and administration. Unfortunately, healthcare provides (HCPS) lack the essential awareness of transformational leadership skill (TLS). There is a dire need to adopt different strategies to improve their knowledge and skills. To assess the improvement in the knowledge and skill about transforaminal leadership among head nurses after intervention of transformational leadership.

**METHODOLOGY:** A quasi-experimental study included 30 head nurses, designated with a multi stage cluster random sampling technique. 4 months of structured session were organized in two shifts (morning and evening). Pertinently, pre intervention and post intervention were organized for 4 months for i.e. 6 hours per week, 1 hours per day.

**RESULTS:** The present study showed that transformational leadership knowledge and skill have a significant impact on head nurses' performance. Insufficient pre intervention scores of the study participants explain inadequate knowledge. After the 4 months (one hours/per day) sessions, there was a highly significance improvement in the knowledge 88.5% and skills ($P<0.001$), df = 30 of head nurses regarding transformational leadership.

**CONCLUSION:** The current study show that head nurses had inadequate knowledge regarding transformational leadership. The knowledge was significantly improved after intervention of transformational teaching and training session. The addition of consistent training programs in the curriculum may ensure leadership skill to enhance the quality of nursing care as well as the commitment of employes. There for, it is concluded that knowledge and skill are significant predictors of the head nurses job performance.

**KEYWORDS:** Transformational leadership, head nurses, knowledge

## INTRODUCTION

Effective leadership is fundamental in the healthcare sector to ensure the delivery of optimal patient care and to achieve organizational success. Leaders who are adaptable, innovative, and have a dynamic approach can drive improvements in system effectiveness, ultimately leading to better patient care and organizational productivity (Hargett et al., 2020). In the healthcare sector, nurses stand as the frontline caregivers, serving as the primary point of contact for patients and orchestrating the delivery of care.

Among the different leadership styles and practices, transformational leadership is the most prevalent in the nursing field. This relational style fosters trust and respect between professionals and their leader, inspiring them to exceed formal expectations to meet organizational objectives (Afsar & Umrani, 2020). A transformational leader is someone who develops future vision, innovates, and inspires staff to achieve organizational goals (Mushtaq et al., 2024).

Transformational leadership has emerged as a key leadership style for enhancing the proficiency and efficiency of nurses in healthcare organizations. The American Organization of Nurses Executives (AONE) states that transformational leadership is the preferred style for nurses, believing that such leaders play a crucial role in strengthening health systems globally. Transformational leadership is characterized by the 5Is: idealized influence, idealized behavior, inspirational motivation, intellectual stimulation, and individualized consideration (Moghadam et al., 2020).

Vol. 01, Issue 02, April-June, 2024

The impact of transformational leadership intervention on head nurses working in hospitals is a complex and multifaceted area that requires comprehensive understanding. By delving into recent research findings, this study aims to provide a holistic view of the influence of transformational leadership on nurses' job satisfaction, patient care quality, and organizational dynamics. The insights gathered from this investigation can contribute to the development of effective leadership strategies tailored to the unique demands of healthcare environments (Asif et al., 2019).

Objective: To assess the effects of transformational leaderships styles among nurse leader according to effects of transformational leadership style based educational intervention regarding knowledge of head nurses for improvement of job performance.

## METHODOLOGY

**Study design:** A quasi-experimental study design could be suitable, specifically a nonrandomized controlled trial with pre-and post-tests.

**Study Setting:** The study was be conducted in Ali Fatima Hospital Lahore.

**Duration of Study:** This study was completed within 5 months after receiving approval letter on the ethical review committee. 5 months (12 February 2024- 10 June 2024).

**Sample Size:** Sample size of 30 head nurses was calculated with 95% confidence level

**Sampling Technique:** Convenient sampling was used for nurses can be attributed to the ethical considerations and availability of participants in each setting.

**Study Population:** Target population of the present study were Pakistani nurses (clinical nurses) who are employed at Ali Fatima Hospital, Lahore.

Sample Selection:

Inclusion criteria:

• Currently holding a leadership position (e.g., head nurse, nurse manager, or department head) in a private hospital in Pakistan.

• Having at least 5 years of experience in nursing leadership roles.

• Responsible for leading nursing teams and making decisions that impact patient care.

• Willing to participate in the research study and provide informed consent.

Exclusion criteria:

• Not currently working in Ali Fatima hospital.

• Less than 5 years of experience in nursing leadership roles.

• Not holding a leadership position (e.g., staff nurse, nurse educator, or researcher).

• Not willing to participate in the research study or unable to provide informed consent.

• Select a sample of head staff nurses who meet the inclusion criteria and provide informed consent.

Study Tool:

Data Collection Tools: The following tools were used by the researchers for data collection:

I. Transformational leadership questionnaire (Knowledge related questionnaire)

II.Nurses' Job Performance (Questionnaire)

Tool I: Transformational leadership questionnaire (Knowledge related questionnaire)

Transformational leadership questionnaire was related to multiple choice question was structure by the researcher based on the review of related material. Questionnaire will be consisted on 10 multiple choice questions.

Tool II: Nurses' Job Performance ( Questionnaire)

Nurse job performance was evaluated with observational questionnaire to evaluate job performance of staff nurses.

Data collection procedure:

1. For Head Nurses: Pre data was collected before intervention transformational leadership then after 16 weeks data was collected immediate after intervention.

2. For Staff Nurses: Pre data was collected though observation questionnaire from staff nurses before intervention and then after 04 months, data was collected from staff nurses with the same instruments. Observation check list was used for the collection of job performance of staff nurses.

Method for collection of Data: The head nurses were grouped together according to their department location. Sixteen head nurses were in one group and ninety-six in 16 groups. Researcher was collected the data from both categories of nursing cadre such as head nurses and staff nurses.

Data analysis procedure:

Data were collected through structured questionnaire and analyzed by using statistical package for social science (SPSS) version 25 software. Descriptive statistics was displayed in frequency, percentage, mean, and standard deviation. The paired sample t test was used to compare the mean of one group. Paired samples t test was used to analyze the data in pre and post difference. A value of $p < 0.05$ was measured significant.

Ethical Consideration:

• Informed consent: Prior informed consent will be obtained from all participants

• Confidentiality: Participants confidentiality and

anonymity will be strictly maintained

• Ethical: Approval: Ethical clearance will be sought from the relevant institutional review board.

• The protentional benefits of the study for the participants to increase the knowledge, skill and job performance regarding transformational leadership.]

## RESULTS

In this chapter data analysis and data interpretation was discussed by the tables and graph, shows that the demographics, independent and dependent variables.

Table 1 (Demographic characteristics of participants (Head Nurses n=10) Age of Head Nurses )shows that 40% research participants were between the age of 26-30 years were between 20-25 years of age group, 20.0% were between 31-35 years of age and 10.0% were between 36 years and above age of group.

Table 2 (Distribution of Research Participants with respect to Departments ) shows that 20% research participant belong to Emergency Department, every 10% participant belong to Medical ICU and others departments.

Table 3 (Educational Status of Research Participant ) shows that in relation to qualification 50% head nurses have bachelor degree in nursing,

40% research participants are diploma holder, and 10.0% research participants have master degree.

Table 4 (Experience of research Participants) indicate that 40% head nurses had their leadership experience between 6-10 years, 30% research participant had their leadership experience between 1-5 years, and 20.0% head nurses had their leadership experience between 11 years and above.

Table 5 (Statistical of Head nurses Knowledge Perception about Transformational Leadership Skills) A paired-samples t-test was conducted to evaluate the impact of the Head nurses knowledge perception about Transformational Leadership Skills. A very highly significant mean difference was found between pre-knowledge and post-knowledge scores of head nurses on Idealized Influence (II), t (10) = 0.00, p =0.000 with Mean and SD (0.40 + 0.516 vs 1.00 + 0.000) for I realize that others are proud to be associated with me, t (10) = - 2.236, p =0.000 with Mean and SD (0.40 + 0.516 vs 1.00 + 0.000) for I do well for the team beyond my interest., t (10) = -2.236, p =0.000 with Mean and SD (0.70 + 0.4.834 vs 0.90 + 0.316) for I perform in a way to maintain the respect of others. It is evident from he above results hat Idealizes Influence (II) has a significant effect on head nurses about transformational leadership skill.

A very highly significant mean difference was found between pre-knowledge and post-knowledge scores of head nurses on Inspirational Motivation (IM), t (10) = -3.674 , p =0.000 with Mean and SD (0.30 + 0.483 vs 0.90 + 0.316) for I talk optimistically about the future, t (10) = -3.000, p =0.000 with Mean and SD (0.40 + 0.516 vs 0.90 + 0.316) for I provide recognition / rewards when others reach their goals, t (10) = -4.583, p =0.000 with Mean and SD (0.20 + 0.422 vs 0.90 + 0.316) for I help others finding purposeful meaning in their work. It is evident from he above results hat Inspirational Motivation (IM) has a significant effect on head nurses about transformational leadership skill.

A very highly significant mean difference was found between pre-knowledge and post-knowledge scores of head nurses on Intellectual Stimulation (IS), t (10) = -2.236 , p =0.000 with Mean and SD (0.40 + 0.516 vs 0.90 + 0.316) for I satisfy when others meet agreed-upon standards, t (10) = -4.586, p =0.000 with Mean and SD (0.20 + 0.422 vs 0.90 + 0.316) for I provide others with new ways of looking at puzzling the things. It is evident from he above results hat Intellectual Stimulation (IS) has a significant effect on head nurses about transformational leadership skill.

A very highly significant mean difference was found between pre-knowledge and post-knowledge scores of head nurses on Individual Consideration (IC), t (10) = -4.583, p =0.000 with Mean and SD (0.20 + 0.422 vs 0.90 + 0.316) for I manage time for teaching and training, and t (10) = -1.809, p =0.000 with Mean and SD (0.50 + 0.527 vs 0.90 + 0.316) for I entertain others as an individual rather than fellow of a team.  It is evident from he above results hat Individual Consideration (IC) has a significant effect on head nurses about transformational leadership skill.

## Table: Demographic characteristics of staff nurses

| Demographic | F | % |
|---|---|---|
| **Age** | | |
| 20 - 25 years | 11 | 55.0 |
| 26 - 30 years | 6 | 30.0 |
| 31 - 35 years | 2 | 10.0 |
| 36 and above | 1 | 5.0 |
| **Department** | | |
| Medical ICU | 3 | 15.0 |
| Emergency department | 4 | 20.0 |
| Medicine ward | 2 | 10.0 |
| Surgical ward | 3 | 15.0 |
| Nephrology ward | 2 | 10.0 |
| Ophthalmology ward | 1 | 5.0 |
| Orthopedic ward | 1 | 5.0 |
| Pead's ward | 3 | 15.0 |
| Gynae ward | 1 | 5.0 |
| **Total** | **20** | **100.0** |
| **Educational Status** | | |
| General Nursing (Diploma) | 9 | 45.0 |
| Bachelor of Science in Nursing | 8 | 40.0 |
| Master of Science in Nursing | 3 | 15.0 |
| **Years of experience** | | |
| 1 - 5 years | 14 | 70.0 |
| 6 - 10 years | 6 | 30.0 |
| 11 years and above | 00 | 00.0 |

Table 5 shows that 55.0% research participants were between 20-25 years of age group, 30.0% were between 26-30 years of age group, 10.0% were between 31-35 years of age group, and 5.0% were between 36 years and above of age group.

Most of 20% the staff nurses were belong to Emergency department, 15% from Medical ICU, Surgical ward and Pead's ward; and 5-10% from other units of Ali Fatima Hospital.

Educational status in relation to qualification 45% staff nurses have diploma holder,40% have bachelor degree in nursing, and 15% have master degree holder.

Data indicate that 70% staff nurses had their charge nurse experience between 1-5 years, and 30% had their nursing experience between 6-10 years.

## Table: Demographic characteristics of staff nurses

| Job performance element | Before intervention Mean $\pm$ SD | After intervention Mean $\pm$ SD | t | p |
|---|---|---|---|---|
| 1.The nurse-led educational programs in this hospital have improved my knowledge and skills | $2.00 \pm 1.026$ | $4.30 \pm 0.657$ | -7.667 | 0.000 |
| 2.I feel motivated to provide high-quality care as a result of participating in nurse-led educational activities | $2.10 \pm 0.968$ | $4.20 \pm 0.768$ | -7.0141 | 0.000 |
| 3.The transformational leadership style of nurse educators positively influences my work performance | $2.05 \pm 0.826$ | $4.20 \pm 7.68$ | -8.134 | 0.000 |
| 4.I believe that nurse-led education enhances teamwork and collaboration among nursing staff | $2.15 \pm 0.745$ | $4.30 \pm 0.657$ | -10.987 | 0.000 |
| 5.Participating in nurse-led educational initiatives has increased my job satisfaction | $2.00 \pm 0.649$ | $4.40 \pm 0.681$ | -10.790 | 0.000 |
| 6.I feel empowered to implement innovative practices in patient care due to nurse-led education | $2.40 \pm 0.503$ | $4.80 \pm 0.410$ | -15.771 | 0.000 |
| 7.The quality of patient care in this hospital has improved as a result of nurse-led educational programs | $1.80 \pm 0.834$ | $4.50 \pm 0.688$ | -10.699 | 0.000 |
| 8.I enable others to think about old problems in new ways | $2.00 \pm 0.973$ | $4.40 \pm 0.681$ | -9.037 | 0.000 |
| 9.I think intuitions is the best guide in making decision | $1.75 \pm 0.851$ | $4.20 \pm 0.616$ | -6.666 | 0.000 |
| 10.I tell others what to do if they want to be rewarded for their work | $2.20 \pm 0.1056$ | $4.20 \pm 0.768$ | -11.600 | 0.000 |
| Total | $20.4500 \pm 2.70429$ | $43.5000 \pm 3.79057$ | -19.500 | 0.000 |

A highly statistically significant difference ($p < 0.000$) A paired-samples t-test was conducted to evaluate the impact of the intervention on staff nurses. A very highly significant mean difference was found between pre-intervention and postintervention scores of staff nurses on Ali Fatima Hospital, t (20) = -7.667, p =0.000 with Mean and SD (2.00 + 1.026 vs 4.30 + 0.657) for the nurse-led educational programs in this hospital have improved my knowledge and skills, t (20) = -7.0141, p =0.000 with Mean and SD (2.10 + 0.968 vs 4.20 + 0.768) for I feel motivated to provide high-quality care as a result of participating in nurse-led educational activities, t (20) = -8.134, p =0.000 with Mean and SD (2.05 + 0.826 vs 4.20 + 7.68) for the transformational leadership style of nurse educators positively influences my work performance, t (20) = -10.987, p =0.000 with Mean and SD (2.15 + 0.745 vs 4.30 + 0.657) for I believe that nurse-led education enhances teamwork and collaboration among nursing staff, t (20) = -10.790, p =0.000 with Mean and SD (2.00 + 0.649 vs 4.40 + 0.681 ) for Participating in nurseled educational initiatives has increased my job satisfaction, t (20) = -15.771, p =0.000 with Mean and SD (2.40 + 0.503 vs 4.80 + 0.410 ) for I feel empowered to implement innovative practices in patient care due to nurse-led education, , t (20) = -10.699, p =0.000 with Mean and SD (1.80 + 0.834 vs 4.50 + 0.688) for The quality of patient care in this hospital has improved as a result of nurse-led educational programs, t (20) = -9.037, p =0.000 with Mean and SD (2.00 + 0.973 vs 4.40 + 0.681) for I enable others to think about old problems in new ways, t (20) = -6.666, p =0.000 with Mean and SD (1.75 + 0.851 vs 4.20 + 0.616) for I think intuitions is the best guide in making decision, and t (20) = -11.600, p =0.000 with Mean and SD (2.20 + 0.1056 vs 4.20 + 0.768) for I tell others what to do if they want to be rewarded for their work.

## DISCUSSION

Transformational leadership is a modern leadership style. In this style visionary leaders face challenges by challenges workers and take ownership of their work with wisdom. They play their role more than their performance beyond expectancy of institute is required. Therefore, transformational leadership interventional program has been accomplished for supporting head nurses to perform role of manager effectively and efficiently. Transformational leadership knowledge and skills intervention are support and encouragement for head nurses to perform mana

gerial role confidently and successfully.

The study has two magnitudes one is related to head nurses and other is linked with staff nurses job performance. Both nursing workforce has a crucial role in patient care therefore; transformational leadership style must be practiced by the nurses to overcome the health issues in clinical setting.

Current study revealed that there was statistical significant 91% improvement in the knowledge of head nurse (n=10) regarding transformational leadership at post- intervention program as compared to pre-intervention program. There was highly statistical difference among knowledge of head nurses. Most of the head nurses were diploma holder and they were very interested in this topic. Head nurses have ability to gain knowledge gain easily. The results were comparable with, how conducted study transformational leadership educational program for have a nurses and its effects on nurses job performance revealed that that there was statistical 74% improvement in knowledge of staff nurses (n=20) regarding transformational leadership at postintervention program.

A study of Abd – Elrhaman & Abd – Allag0, (2018) revealed that there was statistical 71.8% improvement in the knowledge of head nurses (n=103) regarding transformational leadership at post – intervention program as compared by 58.4 % result of the pre – intervention.

A study by LEODORO J. LABRAGUE, (2020) revealed that there was statistical 51% result of improvement in the job satisfaction of staff nurses (n=190) regarding transformational leadership at pre-intervention program as compared by 67% results of post intervention. (10-20)

## CONCLUSION

Successful transformational leadership intervention by the researcher

- Improved knowledge and skills among head nurses post-intervention compared to pre-intervention
- Significant enhancement in transformational leadership knowledge and skills of head nurses' job performance post-intervention
- Post-intervention shows higher percentages, mean, and standard deviation compared to pre-intervention.

RECOMMENDATION:

The current study provides several recommendations based on its findings: Organize In-Service Training and Educational Programs: Hospitals should conduct regular in-service training and educational programs on transformational leadership for head nurses. These programs can help refresh and enhance the knowledge and skills of head nurses, enabling them to effectively lead and manage nursing teams.

Consider Training Courses as Prerequisite: Hospitals should consider making training courses on transformational leadership a prerequisite for head nurses before they assume leadership positions. This ensures that head nurses are equipped with the necessary knowledge and skills to excel in their roles from the outset. Replication of Research on Larger Sample Sizes: Further research should replicate the current study on a larger sample size to increase generalizability and validate the findings across a broader population of head nurses. Investigate Effects on Nurses' Working Behavior: Future research studies should investigate the effects of transformational leadership programs on the working behavior of nurses, particularly in tertiary care hospital settings. Understanding how these programs influence nurses' behavior can provide valuable insights for improving patient care and organizational outcomes.

Arrange Meetings for Discussion: Hospital administrators should arrange meetings with nurse leaders and staff nurses to discuss various challenges and programs faced in different departments. This collaborative approach fosters communication, promotes teamwork, and allows for the identification and resolution of issues affecting nursing practice.

In summary, these recommendations aim to further promote the adoption and implementation of transformational leadership practices among head nurses, ultimately enhancing patient care quality and organizational effectiveness in healthcare settings.

## REFERENCES

1. Akbiyik, A., Korhan, E. A., Kiray, S., & Kirsan, M. (2020). The Effect of Nurses 'Leadership Behavior on the Quality of Nursing Care and Patient Outcomes. Creative Nursing, 26(1), 8-18.

2. Asif, M., Jameel, A., Hussain, A., Hwang, J., & Sahito, N. (2019). Linking transformational leadership with nurse-assessed adverse patient outcomes and the quality of care: assessing the role of job satisfaction and structural empowerment. International journal of environmental research and public health, 16(13), 2381

3. Al-Thawabiya, A., Singh, K., Al-Lenjawi, B. A.,

& Alomari, A. (2023). Leadership styles and transformational leadership skills among nurse leaders in Qatar, a cross-sectional study. Nursing open, 10(6), 3440-

4. Broome ME, Marshall ES. Leading Across Systems of Care and in the Larger Community. Transformational Leadership in Nursing: From Expert Clinician to Influential Leader 2020: 319.

5. Enwereuzor, I. K., Ugwu, L. I., & Eze, O. A. (2019). How transformational leadership influences work engagement among nurses: Does person–job fit matter? Western Journal of Nursing Research, 40, 346–366

6. El-Sayed, M. (2021). The Impact of Job Commitment on the Relationship between Organizational Culture and Sustainable Development. Open Access Library Journal, 8(02), 1.

7. Hargett, C. W., Doty, J. P., Hauck, J. N., Webb, A. M., Cook, S. H., Tsipis, N. E., Neumann, J. A., Andolsek, K. M., & Taylor, D. C. (202O). Developing a model for effective leadership in healthcare: A concept mapping approach. Journal of Healthcare Leadership, 9, 69–78.

8. Harb B, Sidani D. Transformational leadership for organizational change in the Lebanese public sector. Problems and Perspectives in Management 2019; 17(2): 205-16.

9. Kalil, S. I., & Sliman, W. M. (2019). Head NURSES'Knowledge and practice of nursing assignment and its relation to staff nurses' job satisfaction. IOSR Journal of Nursing and Health Science (IOSR-JNHS), 8(2), 74-85.

10. Moghadam MHV, Mohammadi M, Bazaey GA. Investigating effect of transformational leadership on employees' and administrators' satisfaction of telecommunication general department of disstrict 3. Journal of management and accounting studies 2020; 8(2): 24-30.

bd-Elrhaman ESA, Abd-Allah NA. Transformational Leadership Educational Program for Head Nurses and its Effect on Nurses' Job Performance. Am J Nurs Sci. 2018;7(4):127-136.

Mushtaq K, Hussain M, Perveen K. Impact of Transformational Leadership Intervention of Head Nurses among Front-Line Soldiers (Staff Nurses) Working in Government Hospital. J Pak Med Assoc. 2022;72(5):960-964.

13. Abdelhafiz IM, Alloubani AM, Almatari M. Impact of Leadership Styles Adopted by Head Nurses on Job Satisfaction: A Comparative Study between Governmental and Private Hospitals in Jordan. J Nurs Manag. 2016;24(3):384-392.

14. Boamah SA, Laschinger HK, Wong C, Clarke S. Effect of Transformational Leadership on Job Satisfaction and Patient Safety Outcomes. Nurs Outlook. 2018;66(2):180-189.

15. Al-Yami M, Galdas P, Watson R. Leadership Style and Organizational Commitment among Nursing Staff in Saudi Arabia. J Nurs Manag. 2018;26(5):531-539.

16. Asiri SA, Rohrer WW, Al-Surimi K, Da'ar OO, Ahmed A. The Association of Leadership Styles and Empowerment with Nurses' Organizational Commitment in an Acute Health Care Setting: A Cross-Sectional Study. BMC Nurs. 2016;15:38.

17. Wang H, Chontawan R, Nantsupawat R. Transformational Leadership: Effect on the Job Satisfaction of Registered Nurses in a Hospital in China. J Adv Nurs. 2012;68(2):444-451.

18. Morsiani G, Bagnasco A, Sasso L. How Staff Nurses Perceive the Impact of Nurse Managers' Leadership Style in Terms of Job Satisfaction: A Mixed Method Study. J Nurs Manag. 2017;25(2):119-128.

19. Saleh U, O'Connor T, Al-Subhi H, Alkattan R, Al-Harbi S, Patton D. The Impact of Nurse Managers' Leadership Styles on Ward Staff. Br J Nurs. 2018;27(4):197-203.

20. Cummings GG, Tate K, Lee S, et al. Leadership Styles and Outcome Patterns for the Nursing Workforce and Work Environment: A Systematic Review. Int J Nurs Stud. 2018;85:19-60.

**Authors Contributions:**