

Empowering Nursing Leadership: Assessing the Influence of a Transformational Leadership Educational Program

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ABSTRACT

Objective: This study aimed to evaluate the impact of a Transformational Leadership Educational Program on the sense of responsibility among nursing leaders in Mosul city. The main objective was to assess the effectiveness of the program in improving knowledge about transformational leadership and the sense of responsibility among nursing leaders. **Methods:** A quasi-experimental design was employed, with 60 nursing leaders participating in the study. The educational program consisted of four phases: Assessment, Development, Implementation, and Evaluation. Data were collected using three validated instruments assessing knowledge about transformational leadership: a transformational leadership questionnaire and a sense of responsibility questionnaire. Statistical analysis included ANOVA with repeated measures, Friedman, Post Hoc Test (Dunn's), and Pearson coefficient. **Results:** The Interventional Group significantly improved the percentage of participants endorsing transformational leadership dimensions post-intervention. Intellectual stimulation, individualised consideration, and inspirational motivation showed substantial enhancement. The Control Group exhibited stable or slightly decreased percentages. **Conclusion:** The Transformational Leadership Educational Program positively influenced nursing leaders' perception of transformational leadership, particularly in critical dimensions. The study suggests that educational interventions can effectively enhance leadership skills and foster a heightened sense of responsibility among nursing leaders. Rigorous statistical analyses supported the robustness of the findings.

Keywords: Educational Program; Experimental Design; Nursing Leaders; Quasi- Leadership Development; Sense of Responsibility; Transformational Leadership

INTRODUCTION

In recent years, leadership in the healthcare sector, especially in nursing, has been closely examined and transformed (Fletcher, Read, & D-Adderio, 2023; Ghorbani *et al.*, 2023). Innovative leadership approaches, such as transformational leadership, have gained attention for improving organisational outcomes and individual performance (Al-Thawabiya *et al.*, 2023; Agustin, 2018).

The study is critical because it could provide valuable insights into healthcare leadership, particularly in the context of nursing in Mosul city (Attia & Ibrahim, 2023; Hamarash *et al.*, 2023). As healthcare systems evolve, the role of nursing leaders becomes increasingly crucial in ensuring high-quality patient care and efficient clinical operations. Understanding how a Transformational Leadership Educational Program influences the sense of responsibility among nursing leaders is essential for refining leadership development initiatives and optimising the overall effectiveness of healthcare management in Mosul City.

Numerous studies have examined leadership in healthcare settings (Almohtaseb *et al.*, 2021; Dellefield & Madrigal, 2022; McRae, 2017; Viitala, 2014; Villacarlos & Daño, 2020). However, there is a significant gap in understanding leadership in the specific context of Mosul city. Mosul's unique socio-cultural and organisational dynamics may affect how leadership development programs are received and their effectiveness. It is essential to investigate this gap to tailor leadership interventions to the local context, address the specific needs and challenges faced by nursing leaders in Mosul, and ultimately improve the healthcare delivery system in the city.

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This study aims to fill this gap by providing a comprehensive understanding of the impact of a Transformational Leadership Educational Program on the sense of responsibility among nursing leaders in Mosul city.

METHODOLOGY

The research design for this study was a quasi-experimental approach, specifically chosen to meet the study's objectives and constraints. A quasi-experimental design is practical and feasible when a randomised controlled trial may present challenges or ethical concerns. This design is particularly useful when there are limitations in randomising participants for practical or ethical reasons, but it still allows for a systematic investigation of the intervention's impact. The study included a cohort of 60 nursing leaders purposively selected from Mosul Teaching Hospitals based on specific eligibility criteria. This deliberate selection process ensured that the participants met predetermined criteria relevant to the study's objectives. The inclusion criteria for participant selection involved carefully considering factors essential for the study's focus. The criteria may have encompassed characteristics such as leadership roles within the healthcare setting, a minimum threshold of experience, or affiliation with specific departments within the teaching hospitals. These criteria were established to ensure the relevance and applicability of the study findings to the target population of nursing leaders. By employing purposive sampling, the study aimed to assemble a cohort of participants who met the prerequisites for inclusion and represented the diversity and nuances inherent in nursing leadership roles within Mosul Teaching Hospitals.

This approach allows for a more targeted and meaningful exploration of the impact of the Transformational Leadership Educational Program on the sense of responsibility among nursing leaders. The first data collection tool, Tool I, was the Nursing Leaders' Knowledge Questionnaire on Transformational Leadership and Sense of Responsibility. This questionnaire was developed with guidance from seminal works by Harrison (2014), Hoffart *et al.* (2011), and Lauermaun and Karabenick (2013), as well as insights from recent literature. It consisted of three sections. Part I aimed to capture essential characteristics of the nursing leaders under study. Part II focused on assessing knowledge related to transformational leadership principles. Part III included a knowledge test targeting the participants' understanding of a sense of responsibility. The scoring system for this tool was simple, assigning one point for each correct response and zero for incorrect answers. Cumulative scores were then used to categorise participants into different levels of knowledge: good (>75%), fair (60-75%), and poor (<60%). This comprehensive questionnaire was a robust means to assess nursing leaders' knowledge across crucial dimensions of transformational leadership and the sense of responsibility.

The Nursing Leaders' Transformational Leadership Questionnaire, also known as Tool II, was meticulously developed by the researcher. The questionnaire was designed to assess transformational leadership from the perspective of educators, incorporating insights from authoritative sources such as Harrison (2014), Bryant (2015), and recent relevant literature. It consists of 43 items organised into four dimensions, comprehensively evaluating nursing leaders' aptitude for transformational leadership. The scoring system categories participants into high (>75%), moderate (60-75%), and low (<60%) levels based on their scores. By integrating perspectives from established scholars and recent literature, this questionnaire has emerged as a robust and detailed tool tailored to capture the intricacies of transformational leadership as perceived by nursing leaders in the educational context. The educational program consisted of four phases: Assessment, Development, Implementation, and Evaluation. In the Assessment Phase, the researcher carefully measured the existing levels of knowledge, understanding of transformational leadership, and sense of responsibility among the participating leaders. Moving to the development phase, instructional objectives were carefully formulated based on the assessed needs and a comprehensive review of relevant literature. The educational content covered fundamental concepts of transformational leadership, its multidimensional aspects, associated benefits, and elements related to leaders' sense of responsibility. Transitioning into the implementation phase, the researcher effectively communicated program objectives, fostering an environment conducive to active participation. Finally, the evaluation phase involved a comprehensive assessment using designated tools (I, II, and III) both before and immediately after program implementation. Importantly, this evaluation revealed significant improvements in leaders' knowledge, transformational leadership competencies, and sense of responsibility, confirming the effectiveness of the educational program in enhancing key aspects of nursing leadership. The instruments used in this study underwent a thorough validation process led by experienced experts in the field. Understanding the importance of ensuring the tools' validity, these experts rigorously examined and approved the instruments'

relevance, clarity, and appropriateness. Their comprehensive validation added a layer of robustness to the study's methodology, confirming the suitability of the tools in effectively measuring the intended constructs. In order to assess the reliability of the tools used in the study, the researchers conducted Cronbach's Alpha test. This statistical measure allowed the researcher to evaluate the consistency of the items within each instrument quantitatively. A high Cronbach's Alpha coefficient would indicate that the measurement tool is reliable and internally consistent. This thorough evaluation ensured confidence in the reliability of the study's instruments and minimized measurement error to accurately reflect the intended constructs in the collected data. Statistical Analysis: IBM SPSS software version 20.0 was used for data analysis. Quantitative data were presented using mean, range, and standard deviation. Tests such as ANOVA with repeated measures, Friedman test, Post Hoc Test (Dunn's), and Pearson coefficient were employed, with significance set at the 5% level.

Ethical Consideration

The research protocol received ethical approval from the Ninevah Institutional Review Board (IRB) Nineveh University, Iraq with reference number CCMRE-NUR-23-5 on 11th August, 2023.

RESULTS

The characteristics of the research participants are shown in Table 1, which is separated into the Interventional Group and the Control Group. The mean age for the Interventional Group was 35.6 years with a standard deviation (SD) of 2.78, while for the Control Group, the mean age was 33.9 years with an SD of 4.51. The Interventional and Control Groups had an equal gender distribution, with 60% male and 40% female in each group. In terms of experience, most participants in both groups had over 20 years of experience (Interventional Group: 46.6%, Control Group: 46.6%). In the Interventional Group, 36.7% had 11-20 years of experience, and 16.7% had 1-10 years of experience. In the Control Group, 30% had 11-20 years of experience, and 23.4% had 1-10 years of experience. The distribution of participants across departments was also equal in both groups, with 50% from the Critical Department and 50% from the General Department. Figure 1 illustrates the percentages of participants in both groups who supported each dimension of transformational leadership before (pre) and after (post) the intervention. In the Interventional Group, the percentage increased from 48% pre-intervention to 52% post-intervention. In the Control Group, the percentage slightly decreased from 46% pre-intervention to 44% post-intervention. The Interventional Group saw an increase from 42% pre-intervention to 46% post-intervention, while the percentage remained stable at 43% before and after the intervention in the Control Group. The percentage in the Interventional Group increased from 44% pre-intervention to 47% post-intervention. In the Control Group, there was a slight increase from 45% pre-intervention to 44% post-intervention. Both groups showed an increase in the percentage endorsing idealised influence, with the Interventional Group increasing from 50% pre-intervention to 52% post-intervention and the Control Group increasing from 49% pre-intervention to 49% post-intervention. These findings suggest that the intervention positively impacted the perceived levels of transformational leadership in the Interventional Group, particularly in intellectual stimulation, individualised consideration, and inspirational motivation.

Table 1: Characteristics of the Study Subjects

	Interventional Group		Control Group	
Mean + SD	35.6 + 2.78		33.9 + 4.51	
Variables	No	%	No	%
Gender	No	%	No	%
Male	18	60	18	60
Female	12	40	12	40
Years of Experience	No	%	No	%
1-10 years	5	16.7	7	23.4
11-20 years	11	36.7	9	30
<21 years	14	46.6	14	46.6
Department	No	%	No	%
Critical	15	50	15	50
General	15	50	15	50

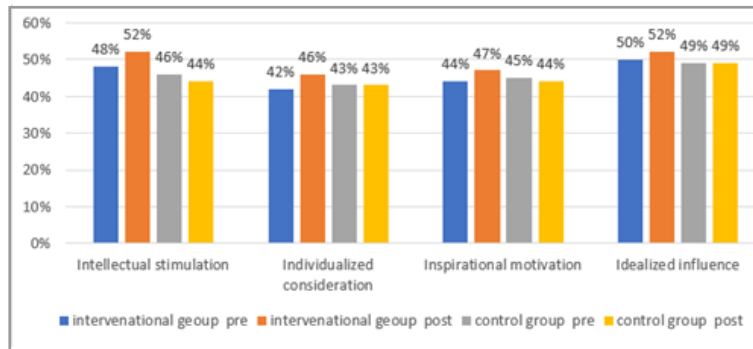


Figure 1: Pre and Post Test of the Program

DISCUSSION

Please remember the following text

The study's results provide valuable insights into the impact of the Transformational Leadership Educational Program on the perceived levels of transformational leadership among nursing clinical educators. The discussion will focus on key findings related to participants' characteristics, changes in transformational leadership dimensions, and the overall implications of the intervention.

The demographic characteristics of the study participants were crucial in ensuring the comparability of the Interventional and Control Groups. The equal distribution of gender, similar years of experience, and even representation across departments suggest that any observed changes in transformational leadership can be attributed to the educational program rather than baseline group differences. Advanced leadership strategies, like transformational leadership, are becoming more and more popular since they enhance both individual and organizational performance (Magon *et al.*, 2023).

The pre-and post-intervention percentages for each dimension of transformational leadership revealed noteworthy changes. In the Interventional Group, there were positive shifts in intellectual stimulation, individualised consideration, and inspirational motivation. These improvements signify that the educational program successfully influenced nursing clinical educators' perceptions and behaviours in key aspects of transformational leadership. The importance of nursing leaders in maintaining effective clinical operations and high-quality patient care is growing as healthcare systems change (Sulaiman *et al.*, 2023). In order to improve patient outcomes and achieve health, interdisciplinary care teams and population health management techniques are essential (Paulus & Kurosaka, 2024).

The increase from 48% to 52% in the Interventional Group indicates a positive response to the program's focus on fostering intellectual curiosity, critical thinking, and innovation among nursing clinical educators. This result aligns with the literature emphasising the importance of intellectual stimulation in transformational leadership (Bryant, 2015). The percentage's stability at 43% in the Control Group, compared to the increase from 42% to 46% in the Interventional Group, suggests that the educational program effectively enhanced educators' ability to provide individualized support and consideration to their students. This aligns with the transformational leadership principle of recognising and addressing individual needs (Lauermann & Karabenick, 2013). The positive shift from 44% to 47% in the Interventional Group indicates that the program inspired educators and instilled a sense of purpose and enthusiasm. This aligns with the literature highlighting the role of inspirational motivation in fostering a positive and motivated work environment (Bryant, 2015; Ariani *et al.*, 2022). Both groups showed positive changes in the endorsement of idealised influence. The Interventional Group increased from 50% to 52%, while the Control Group maintained at 49%. This suggests that the program had a notable impact on educators' perceived role modelling and influence, contributing to their credibility and trustworthiness (Bass & Riggio, 2006).

CONCLUSION

The Transformational Leadership Educational Program positively impacted the perceived levels of

transformational leadership among nursing clinical educators. The improvements in intellectual stimulation, individualised consideration, and inspirational motivation indicate that specific interventions can effectively enhance leadership behaviours in educational settings. These findings add to the ongoing discussion about the role of leadership development programs in promoting positive organisational cultures and improving educational outcomes.

Implications and Future Scope

The results suggest that specific educational programs can positively impact the transformational leadership behaviours of nursing clinical educators. Since transformational leadership is linked to improved organisational outcomes and student satisfaction (Harrison, 2014), investing in such programs could help enhance the overall quality of nursing education. Future studies could focus on assessing the long-term sustainability of the observed changes and the program's effects on other outcomes, such as student performance and satisfaction. Furthermore, exploring the program's adaptability to different cultural and organisational contexts would help generalise the findings.

Conflict of Interest

The authors declare that they have no competing interests.

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