P-ISSN: 2617-9806
E-ISSN: 2617-9814

Impact Factor: RJIF 5.2
www.nursingjournal.net

International Journal of Advance Research in Nursing

Volume 8; Issue 1; Jan-Jun 2025; Page No. 515-519

Received: 06-02-2025
Accepted: 14-03-2025

Indexed Journal
Peer Reviewed Journal

Effectiveness of video assisted teaching regarding best practices for safe patient handoffs on knowledge and practice among nurses in the perioperative setting at selected hospital in Chennai

[1]B Tamilarasi, [2]Kanimozhi M, [3]Jessy Rani M and [4]Karpagam V

[1]Principal, Madha College of Nursing, The Tamil Nadu Dr. MGR Medical University, Chennai, Tamil Nadu, India

[2]Vice Principal, Madha College of Nursing, The Tamil Nadu Dr. MGR Medical University, Chennai, Tamil Nadu, India

[3]Professor, Madha College of Nursing, The Tamil Nadu Dr. MGR Medical University, Chennai, Tamil Nadu, India

[4]M.Sc. Nursing II Year Student, Madha College of Nursing, The Tamil Nadu Dr. MGR Medical University, Chennai, Tamil Nadu, India

Corresponding Author: B Tamilarasi

DOI: https://www.doi.org/10.33545/nursing.2025.v8.i1.G.500

Abstract

In the perioperative setting, safe patient handoffs are critical to ensure continuity of care and preventing adverse events. Nurses play a vital role in this process and effective communication is key. By standardizing handoff procedures and promoting clear communication, we can reduce errors and enhance the quality of care provided to patients undergoing surgery. The study was conducted to assess the effectiveness of video- assisted teaching regarding best practices for safe patient handoffs on knowledge and practice among perioperative nurses in selected hospital at Chennai. A pre-experimental one-group pre-test post-test design was used. The study was conducted in the perioperative unit of Sree Balaji Medical College and Hospital with a sample of 30 nurses selected through purposive sampling. The pretest data was collected using a self- structured knowledge questionnaire and observation checklist for practice during the clinical handing over procedure in wards. After pretest video assisted teaching regarding best practice for safe patient handoffs was implemented for 30 minutes daily over a period of one week. The posttest data was collected using the same tool after one week. The results of the study indicated that in pretest 76.66% of the nurses had inadequate knowledge and 56.66% demonstrated inadequate practice regarding safe handoffs. In posttest, 90% of the nurses had adequate knowledge, and 93.33% exhibited adequate practice. Paired t-test results showed a significant improvement in both knowledge ($t = 28.01$, $p \leq 0.001$) and practice ($t = 9.23$, $p \leq 0.001$) post-intervention. The study concluded that the video- assisted teaching regarding best practice for safe patient handoffs could improve the knowledge and practice among perioperative nurses.

Keywords: Video- assisted teaching, safe patient handoffs, knowledge, practice, perioperative nurses

Introduction

Safe patient handoff is a critical component of quality healthcare, especially in high-risk environments such as the perioperative setting. The process of transferring essential patient information, responsibilities and care between healthcare providers referred to as "handoff" is vital in ensuring continuity of care, reducing errors and enhancing patient safety. However, communication breakdowns during handoffs are a well-documented source of preventable harm in healthcare, with serious consequences including adverse events, delayed treatments and even mortality.

In the perioperative setting, handoffs occur at multiple stages - pre-operative, intra-operative and post-operative. Given the fast-paced and complex nature of perioperative care, it is crucial for perioperative nurses to follow standardized protocols to ensure that critical patient information that is accurately communicated. Inconsistent or incomplete handoff practices can result in poor patient outcomes including surgical complications and prolonged hospital stays.

Research has shown that implementing structured handoffs protocols and educational interventions can significantly improve the safety and quality of handoffs. Among these interventions, video-assisted teaching has emerged as an effective tool in improving healthcare providers' knowledge and skills. Video-based learning offers visual and auditory representation of correct practices, making it easier for learners to understand and retain complex processes like patient handoffs. This study focuses on assessing the effectiveness of video-assisted teaching in enhancing the knowledge and practices of nurses in the perioperative setting concerning safe patient handoffs. By exploring how this teaching method impacts nurse performance, the study aims to contribute to improving patient safety and care quality in the perioperative context.

Statement of the Problem

A study to assess the effectiveness of video assisted

teaching regarding best practices for safe patient handoffs on knowledge and practice among nurses in the perioperative setting at selected hospital in Chennai.

Objectives

1. To assess the pretest and post-test level of knowledge and practice regarding best practices for safe patient handoffs among nurses in the perioperative setting.
2. To determine the effectiveness of video assisted teaching regarding best practices for safe patient handoffs on knowledge and practice among nurses in the perioperative setting.
3. To find out the association between post-test level of knowledge and practice regarding best practices for safe patient handoffs among nurses in the perioperative setting with their selected demographic variables.

Hypothesis

- **H_1:** There is a significant difference between the pretest and post-test level of knowledge and practice regarding best practices for safe patient handoffs among nurses in the perioperative setting after video assisted teaching
- **H_2:** There is a significant association between the post-test level of knowledge and practice regarding best practices for safe patient handoffs among nurses in the perioperative setting with their selected demographic variables

Methodology

Quantitative research approach was adopted for the study and pre-experimental one group pretest post-test design was selected. The study was conducted in Sree Balaji Medical College and Hospital Chennai. The sample of 30 nurses who fulfilled the inclusion criteria were selected using purposive sampling technique. The pretest data was collected using a self- structured knowledge questionnaire and observation checklist for practice during the clinical handing over procedure in wards. After pretest video assisted teaching regarding best practice for safe patient handoffs was implemented for 30 minutes daily over a period of one week. The posttest data was collected using the same tool after one week.

Results and Discussion

The collected data was analyzed by both descriptive and inferential statistics The demographic variables of nurses in perioperative setting revealed that 3 (10%) nurses were in the age group of 20-25 years, 10 (33.33%) nurses were 26-30 years, majority 14 (46.67%) were 31-35 years and 3 (10%) were more than 35 years. With regard to gender 6 (20%) were males and 24 (80%) were females. With respect to educational qualification 12 (40%) had completed diploma in nursing and 18 (60%) had completed B.Sc Nursing. According to the total years of experience 6 (20%) had less than one year, 12 (40%) had 1-3 years of experience, 8 (26.67%) had 3-5 years of experience and 4 (13.33%) had >5 years of experience. With respect to the experience in perioperative setting, 19 (63.33%) had >6 1 year and 11 (36.67%) had >1 year.

The first objective was to assess the pre-test and post-test level of knowledge and practice regarding best practices for safe patient handoffs among nurses in the perioperative setting

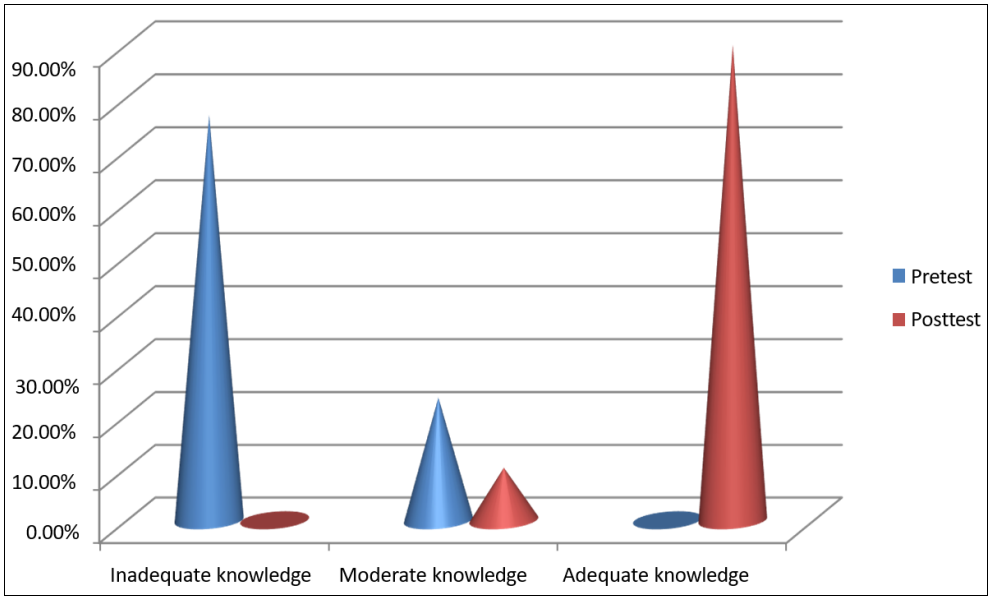

Fig 1: Percentage distribution of pre-test and post-test level of knowledge among nurses in the perioperative setting

With regards to level of knowledge, in pretest, 23 (76.67.00%) were having inadequate knowledge, 7 (23.33%) were having a moderate level of knowledge and none of them were having adequate knowledge. Whereas in posttest none of them were having inadequate knowledge, 3 (10.00%) were having moderate level of knowledge and 27 (90.00%) were having adequate knowledge.

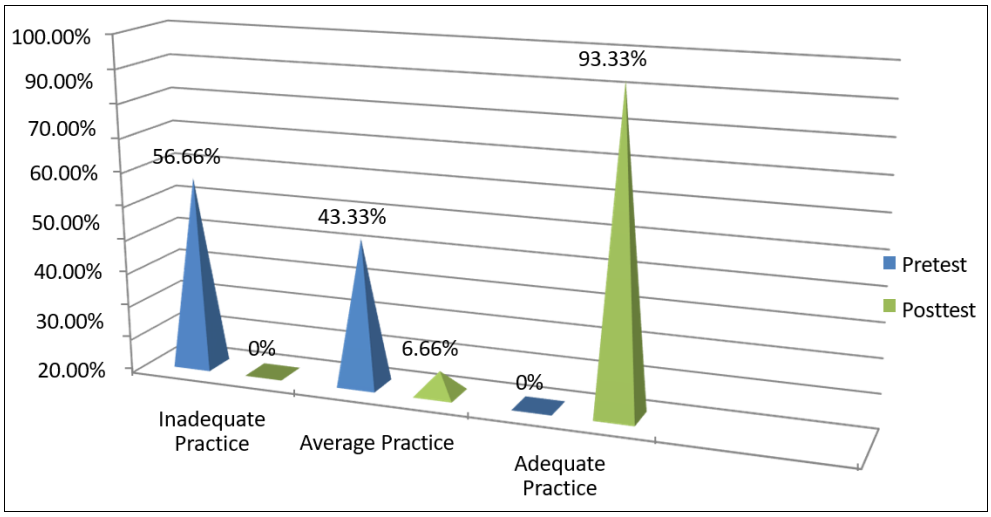

Fig 2: Percentage distribution of pre-test and post-test level of practice among nurses in the perioperative setting

With regards to level of practice, in pretest, 17 (56.67%) were having inadequate level of practice, 13 (43.33%) were having average level of practice and none of them were having adequate practice. Whereas in posttest none of them were having inadequate level of practice, 2(6.67%) were having average level of practice and 28(93.33%) were having adequate level of practice.

The results support the idea that educational interventions, especially those using audiovisual methods, are powerful tools for enhancing both theoretical understanding and practical application in clinical settings

The second objective was to determine the effectiveness of video-assisted teaching on best practices for safe patient handoffs on knowledge and practice among nurses in the perioperative setting

Table 1: Comparison of mean and standard deviation of pretest and post-test level of knowledge regarding best practices for safe patient handoffs among nurses in the perioperative setting

Level of Knowledge	Mean	Standard Deviation	Mean Difference	Paired 't' test
Pretest	13.9	5.6	9.53	**28.01*** **
Posttest	23.44	3.12		

****P*≤0.001 is very highly significant

Table 1 shows that the pretest mean score of knowledge was 13.9 with the standard deviation of 5.6 and posttest mean score of knowledge was 23.44 with the standard deviation of 3.12. The calculated paired "t" test value of 28.01 was found to be statically very highly significant at p<0.001 level. It reveals that video assisted teaching programme was found to be effective in gaining knowledge regarding best practices for safe patient handoffs among nurses in the perioperative setting.

Table 2: Comparison of mean and standard deviation of pretest and posttest level of practice regarding best practices for safe patient handoffs among nurses in the perioperative setting

Level of Practice	Mean	Standard Deviation	Mean Difference	Paired 't' test
Pretest	24.1	3.9	12.6	9.23**
Posttest	36.7	3.4		

****P*≤0.01 is very highly significant

Table 2 shows that the pretest mean score of practice was 24.1 with the standard deviation of 3.9 and posttest mean score of practice was 36.7 with the standard deviation of 3.4. The calculated paired "t" test value of 9.23 was found to be statically highly significant at p<0.01 level. It reveals that video assisted teaching programme was found to be effective in improving practice regarding best practices for safe patient handoffs among nurses in the perioperative setting.

The third objective was to find out the association between post-test level of knowledge and practices among nurses in the perioperative setting with their selected demographic variables

Table 3: Association of post-test level of knowledge among nurses in the perioperative setting with their selected demographic variables N=30

Demographic variables		Post-test level of knowledge				Chi square test
		Moderate		Adequate		
		N	%	N	%	
Age	20-25 years	1	3.33%	2	6.66%	$\chi2$=5.17 P=0.05*(S)
	26-30 years	1	3.33%	9	30%	
	31-35 years	0	0%	14	46.66%	
	More than 36 Years	1	3.33%	2	6.66%	
Gender	Male	1	3.33%	5	16.66%	$\chi2$ = 3.30 P=0.05(NS)
	Female	2	6.66%	22	73.33%	
Educational qualification	Diploma in Nursing	2	6.66%	10	33.33%	$\chi2$ =0.98 P=0.05(NS)
	B.Sc Nursing	1	3.33%	17	56.66%	

Total years of experience	<1 year	2	6.66%	4	13.33%	χ2=5.44 P=0.05*(S)
	1-3 years	0	0%	12	40%	
	3–5 years	1	3.33%	7	23.33%	
	>5 years	0	0%	4	13.33%	
Experience in perioperative setting	<1 year	2	6.66%	17	56.66%	χ2 =0.012 P=0.05(NS)
	>1 year	1	3.33%	10	33.33%	

*****$p \leq 0.05$, S-significant, NS-Not significant

The results indicated that there was a statistically significant association between the post-test knowledge levels and age ($\chi2 = 5.17$, $p = 0.05$) as well as total years of experience ($\chi2 = 5.44$, $p = 0.05$). Nurses with a increasing age and those with more years of experience performed better in the post-test, indicating that age and experience are beneficial factors for the acquisition of new information and skills.

Table 4: Association of post-test level of practice among nurses in the perioperative setting with their selected demographic variables, N=30

Demographic variables		Post-test level of practice				Chi square test
		Average		Adequate		
		N	%	N	%	
Age	20-25 years	2	6.66%	4	13.33%	χ2=8.48 P= 0.05*(S)
	26-30 years	0	0%	12	40%	
	31-35 years	0	0%	8	26.66%	
	More than 36 Years	0	0%	4	13.33%	
Gender	Male	1	3.33%	5	16.66%	χ2=1.20 P=0.05(NS)
	Female	1	3.33%	23	76.66%	
Educational qualification	Diploma in Nursing	2	6.66%	10	33.33%	χ2=3.21 P=0.05(NS)
	B.Sc Nursing	0	0%	18	60%	
Total years of experience	<1 year	1	3.33%	2	6.66%	χ2=6.82 P= 0.05*(S)
	1-3 years	1	3.33%	9	30%	
	3–5 years	0	0%	14	46.66%	
	>5 years	0	0%	3	10%	
Experience in perioperative setting	<1 year	2	6.66%	17	56.66%	χ2=1.2 P=0.05(NS)
	>1 year	0	0%	11	36.66%	

*****$p \leq 0.05$, S-significant, NS-Not significant

For practice, a significant association was found with the nurses' age ($\chi2 = 8.48$, $p = 0.05$) and total years of experience ($\chi2 = 6.82$, $p = 0.05$), suggesting that older nurses, perhaps due to greater maturity and increased clinical experience, were better able to implement the learned handoff practices effectively.

Conclusion

The study was conducted to assess the effectiveness of video assisted teaching regarding best practices for safe patient handoffs on knowledge and practice among nurses in the perioperative setting at selected hospital in Chennai. The calculated paired "t" test value of 28.01 was found to be statically very highly significant at $p<0.001$ level. The calculated paired "t" test value of 9.23 was found to be statically highly significant at $p<0.01$ level. It reveals that video assisted teaching programme was found to be effective in gaining knowledge and improving practice regarding best practices for safe patient handoffs among nurses in the perioperative setting.

Acknowledgement

Not available

Author's Contribution

Not available

Conflict of Interest

Not available

Financial Support

Not available

References

1. Abraham J, Reddy MC. Challenges to inter-departmental coordination of patient transfers: A workflow perspective. Int J Med Inform. 2010 Feb;79(2):112-122. DOI: 10.1016/j.ijmedinf.2009.12.001
2. Blais KK, Hayes JS. Professional nursing practice: Concepts and perspectives. 7th ed. Pearson; c2016.
3. Evans SM, Murray A, Patrick I, Fitzgerald M, Smith S, Cameron P. Clinical handover in the trauma setting: A qualitative study of paramedics and trauma team members. Qual Saf Health Care. 2010 Dec;19(6):e57-62. DOI: 10.1136/qshc.2009.034488
4. Gawande A. The checklist manifesto: How to get things right. Metropolitan Books; c2009.
5. Hughes RG, editor. Patient safety and quality: An evidence-based handbook for nurses. Agency for Healthcare Research and Quality (US); c2008. Available from: https://www.ncbi.nlm.nih.gov/books/NBK2651/
6. Jeffcott SA, Evans SM, Cameron PA, Chin GS, Ibrahim JE. Improving measurement in clinical handover. Qual Saf Health Care. 2009 Aug;18(4):272-277. DOI: 10.1136/qshc.2007.025486
7. Potter PA, Perry AG, Stockert P, Hall A. Fundamentals of nursing. 9th ed. Elsevier; c2016.
8. Starmer AJ, Spector ND, Srivastava R, West DC,

Rosenbluth G, Allen AD, *et al*. Changes in medical errors after implementation of a handoff program. N Engl J Med. 2014 Nov 13;371(19):1803-1812. DOI: 10.1056/NEJMsa1405556

9. Weller J, Boyd M, Cumin D. Teams, tribes and patient safety: Overcoming barriers to effective teamwork in healthcare. Postgrad Med J. 2014 Mar;90(1061):149-154. DOI: 10.1136/postgradmedj-2012-131168

How to Cite This Article
Tamilarasi B, Kanimozhi M, Rani JM, Karpagam V. Effectiveness of video assisted teaching regarding best practices for safe patient handoffs on knowledge and practice among nurses in the perioperative setting at selected hospital in Chennai. International Journal of Advance Research in Nursing. 2025;8(1):515-519.