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EFFECTIVENESS OF NURSES-LED EDUCATION ON KNOWLEDGE REGARDING POST OPERATIVE RECONSTRUCTIVE FLAP CARE AND ITS MANAGEMENT AMONG NURSING OFFICERS WORKING IN SURGERY WARD IN SELECTED HOSPITAL AT KANPUR, UP

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ARTICLE HISTORY	ABSTRACT
Received on: 24-07-2026 Revised on: 16-08-2026 Accepted on: 02-10-2026	Post operative reconstructive flap care and its management among nursing officers working in surgery ward. It work to education about the how to prevent and has an important role in enabling the effectiveness of Structured teaching programmed as an independence nursing intervention. The objective of the study is to assess the level of knowledge regarding post operative reconstructive flap and its management among nursing officers working in surgery ward in selected hospitals. The research design adopted was One Group Pre-test and Post-test design. The study had been conducted in selected hospitals. A quasi- experimental study was conducted to assess the effectiveness of nurses-led education on knowledge regarding post operative reconstructive flap care and its management among nursing officers working in surgery ward in selected hospital at Kanpur, UP. A total 60 sample were collected by using Non-Probability Purposive Sampling Technique through self-structured knowledge questionnaire, the data collected and analyzed and descriptive on inferential statistics. The result of the study showed that post-test mean score (20.7) was high when compared to the pre-test mean score at (14.45). The obtained "t" value 0.67 was greater than t-value (2.00) & df 59 which was $p < 0.50$ level which shows significance differences between pre-test and post-test level of knowledge hence the formulated research Hypothesis H_1 was accepted and Null Hypothesis H_{01} was rejected.
Keywords: Post Reconstructive flap care, Management, Nursing Officer, Nurse Led Education.	
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INTRODUCTION

Reconstructive surgery has undergone significant development in recent decades, and flaps have emerged as a fundamental tool in the reconstruction of soft tissue defects. These procedures allow the transfer of healthy vascularized tissue from one region of the body to another, with the goal of restoring form, function and aesthetics. Flaps have become a widely used technique in various fields of medicine, including plastic surgery, ontological surgery and traumatology [1]. The present review article aims to provide a detailed overview of flaps in reconstructive surgery, exploring their definition, indications, complications and appropriate management. In addition, the advantages and challenges associated with its use will be discussed, and the most recent advances in the field will be presented. A comprehensive approach to these issues will enable healthcare professionals to make informed decisions in the choice and execution of flaps in reconstructive

surgery, thereby improving outcomes and optimizing patient care and satisfaction [2].

A reconstructive flap is a section of tissue (skin, muscle, fat, or bone) that is moved from one area of the body to another while retaining its own blood supply. Reconstructive flap surgery is a crucial surgical procedure used to repair defects caused by trauma, burns, cancer surgery, congenital deformities, or chronic wounds [3].

Successful implementation of flaps requires thorough planning, specialized surgical skills, and a multidisciplinary approach. The choice of the right flap type is based on several factors, such as the location and size of the defect, the availability of local tissue, and the quality of vascularization required. In addition, in-depth knowledge of regional anatomy, microsurgery and vascular anastomosis techniques are critical to achieving optimal results [4].

A specialized surgical procedure called reconstructive flap surgery is used to replace and repair body tissues that have

been lost as a result of trauma, burns, infections, tumor excision, congenital defects, or persistent wounds that do not heal. This process involves moving a living tissue fragment-such as skin, muscle, fascia, subcutaneous tissue, or bone-from a donor site to a recipient site while preserving the donor site's blood supply [5].

NEED FOR THE STUDY

The improvement of knowledge regarding Reconstructive flap care and its management among Nursing officers working in Burns unit, Skin ward, Reconstructive and Plastic Surgery Unit have an important role in enabling the effectiveness of Structured teaching programmed as an independence nursing intervention. The objective of the study is to assess the level of knowledge regarding reconstructive flap care and its management among Nursing officers working in surgery ward at selected hospital [6].

Reconstructive flap failure rates are generally low (often under 5%) in major centers, but postoperative complication requiring nurse intervention are common, with approximately 5% to 25% of free flap necessitating re-exploration due to circulatory compromise within the first 72 hr. Vigilant, nurse-led monitoring is the primary factor in salvaging compromised flap, with success rates often exceeding 95% when managed by specialized nursing staff [7].

Accordingly, the early detection of vascular compromise and prompt intervention are indispensable to increase flap survival rates. Such monitoring strategies are commonly integrated into the preoperative algorithm, with clinical examination still being considered the gold standard for routine free flap monitoring. Microsurgical free tissue transfer has vastly expanded the reconstructive surgeon repertoire and enabled us to think of a variety of reconstructive possibilities, which would have been impossible to conceive in the pre-microsurgical era. Most large series of free flaps published over the last two decades have cited success rates in the range of 95-99%. Nevertheless, microsurgical free tissue transfer is a technically demanding exercise which requires meticulous attention to planning and execution. In spite of improving equipment, better training facilities and a large amount of experience; failures and complications still do occur and these can be a source of considerable heartburn to the surgical team as well as a great deal of anguish to patients and their well-wishers [8].

Reconstructive surgery is performed to treat structures of the body affected aesthetically or functionally by congenital defects, developmental abnormalities, trauma, infection, tumors or disease. It is generally done to improve function and ability, but may also be performed to achieve a more typical appearance of the affected structure. Reconstructive surgery is generally covered by most health insurance policies, although coverage for specific procedures and levels of coverage may vary greatly [9].

To restore joint anatomy and function in the hands, vascularized joint transfers are used. The esophageal, laryngeal, urethral, vaginal, etc. anatomy can be restored with visceral flaps. Perforator-based free flaps have been widely used in reconstruction in recent years due to their inherent ability to cover any type of defect. Perforator flaps are now widely used in reconstructive surgery due to advancements in microsurgical instruments [10].

PROBLEM STATEMENT

"Effectiveness of nurses-led education on knowledge regarding post operative reconstructive flap care and its management among nursing officers working in surgery ward in selected hospital at Kanpur, UP".

OBJECTIVE OF THE STUDY

To assess the existing knowledge level regarding post operative reconstructive flap care and its management among nursing officers working in surgery ward in selected hospital at Kanpur, UP.

To evaluate the effectiveness of nurses-led education on knowledge regarding post operative reconstructive flap care and its management among nursing officers working in surgery ward in selected hospital at Kanpur, UP.

To find out the association between pre-test knowledge score regarding post operative reconstructive flap care and its management among nursing officers with their selected socio demographic variables.

HYPOTHESIS

"A hypothesis is an assumption statement about the relationship between two or more variable that suggest an answer to the question."

H01- There is no significant difference between pre-test and post-test knowledge score regarding reconstructive flap care and its management.

H02- There is no significant association between pre-test level of knowledge on reconstructive flap care and its management with their selected socio demographic variable.

H1- There is a significant difference between the pre-test and post-test knowledge score of nursing officers after the implementation of the nurses-led education.

H2- There is significant association between the pre-test knowledge score of reconstructive flap and its management with their selected demographic variable.

RESEARCH APPROACH

For the present study, a Quasi experimental design assesses the effectiveness of nurses-led education on knowledge regarding postoperative reconstructive flap care and its management among nursing officers working in selected hospital, Kanpur UP.

Research Design: Research design was the Quasi experimental one group pre-test and post-test research design.

Setting of the Study: The study has been conducted in Rama hospital and Research Centre, SAAI hospital and Mercy hospital, Kanpur, UP.

Variables: Variables are measurable characteristics that influence or determine that outcomes of research study.

The identification of variables helped in systematic observation, data collection and analysis of patient outcomes.

Independent Variables: In this present study a nurses-led education on knowledge regarding postoperative reconstructive flap and its management was the independent variables.

Dependent Variables: Knowledge of nursing officers regarding postoperative reconstructive flap care and its management was the dependent variables.

Demographic Variables

The characteristics and attributes of study subjects are considered demographic variables.

Demographic variables are characteristics of a population that described its composition and structure such as age, gender, marital status, educational status, year of experience in surgical ward, monthly family income, previous knowledge about postoperative reconstructive flap care and its management.

Population: Population of the present study was nursing officers working in surgery ward.

Targeted Population

Targeted population in the present study was the nursing officers working in surgery ward in selected hospitals, Kanpur, UP.

Accessible Population: Nursing officers working in the surgery ward at selected hospitals like Rama Hospital and research centre, Saaii Hospital, Mercy Hospital were accessible population in the present study.

Sample - In this study, the sample were nursing officers working in surgery ward at selected hospital Kanpur UP. Who fulfilled the sampling criteria for the present study.

Sample Size - The sample size in present study were 60 nursing officers working in surgery ward at selected hospitals Kanpur UP.

Sample Technique-Non probability convenient sampling techniques was used to select all nursing officers for the present study.

Sample Criteria-Criteria sampling involves selecting that need some predictor mixed criterion of importance.

Inclusion Criteria –

Nursing officers:

- Who's age between 21 to 40 years.
- Who all are working in the surgery ward.
- Who willing to participate.

Exclusion Criteria

Nursing officers;

- Who all are working other than surgery ward.
- Who was not present at time of study.

Method of Data Collection: The tool used to collect the data will be demographic performed and nurses-led education on knowledge questionnaire regarding the postoperative reconstructive flap care and its management among nursing officers working in surgery ward in selected hospitals at Kanpur, UP.

Section A: Frequency and percentage wise distribution of demographic variables of nursing officers working in surgery ward.

Section B: Distribution of nursing officers working in surgery ward according to the pre-test ad post-test level of knowledge regarding post operative reconstructive flap care and its management.

Majority of Nursing officers according to their age group was 48.33% (21-25 years)

Majority of Nursing officers according to their gender was 63.33% (38 female).

Majority of Nursing officers according to their Marital status 51.66% (31 married).

Majority of Nursing officers according to their years of experience in surgery ward 1-5 years 58.33%

Majority of Nursing officers according to their monthly family income 56.66%

Majority of Nursing officers according to their previous knowledge 90%

SECTION-B

Table 01: Distribution of nursing officers according to their pre-test and post-test level of knowledge post operative constructive flap care and its management.

S. No.	Level of knowledge	Pre-Test F %		Post-Test F %	
1.	Inadequate knowledge (0-14)	33	55%	1	1.7%
2.	Moderate knowledge (15-22)	19	31.7%	14	23.3%
3.	Adequate knowledge (23-30)	8	13.3%	45	75%
	TOTAL	60	100%	60	100%

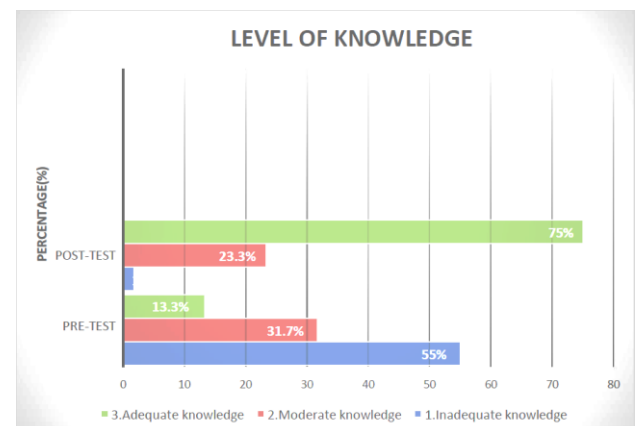


Figure 01: Diagram showing percentage wise distribution of the Nursing officers according to Pre-test and Post-test level of knowledge on the use of postoperative reconstructive flap care and its management.

Diagram shows that comparison of pre-test and post-test level of knowledge. In pre-test among the nursing officers, 33 sample (55%) had inadequate level of knowledge, 19 sample (31.7%), had moderate level of knowledge, 8 sample (13.3%) had adequate level of knowledge, and in post-test among the subject 1 sample (1.7%) had inadequate level of knowledge, 14 sample (23.3%), had moderate level of knowledge, 45 sample (75%) had adequate level of knowledge.

SECTION-C

Table 02: Effectiveness of Nurses-Led Education on Knowledge Regarding Post Operative Reconstructive Flap Care and Its Management among Nursing Officers Working In Surgery Ward.

S. No.	Knowledge level	Mean	Mean Difference	Standard Deviation	Paired "t" value	'p' value
1.	Pre-test	14.45	6.3	6.7	4.92	1.671
2.	Post-test	20.7		7.195		S*Significant

SECTION-D

The association of demographic variable with pre-test score of knowledge by using chi square test revealed that there statically no significant association with the type of hospitals but there is statistically significant association with, Age

group, Source of information, but there was no significant association with gender, marital status, educational status, years of experience, monthly family income, and previous knowledge. Hence, Research Hypothesis (H2) was accepted and Null Hypothesis (H02) was rejected.

NURSING IMPLICATION

The finding of the study has several implications which are discussed in these areas of nursing services, nursing education, nursing administration, and nursing research. Nursing services.

The implication of nursing services is that nurses play an important role in the awareness nurse-led education among nursing officers in hospital settings to update their knowledge. The findings of the study can be disseminated to motivate nurses to engage in awareness programs. Nursing education

The nurse education can recommend this topic to the nursing officers for health education activities of surgery ward setting to increase the knowledge level of nursing officers working in surgery ward regarding post operative reconstructive flap care and its management the finding will help the nursing to understand the need be equipped with adequate knowledge.

ADMINISTRATION NURSING

The findings of the study help nurse administration take appropriate measures to provide knowledge to nursing officers working in surgery ward in hospital settings regarding post operative reconstructive flap care and its management continuous quality assessment can be conducted to improve the quality of education provided to nursing officers working in surgery ward in hospital setting.

NURSING RESEARCH

Nursing practices need to be based on scientific knowledge because nurses face numerous challenges while delivering health services to people. This underscores the need to encourage further research on the postoperative reconstructive flap care and its management. The study's findings help to motivate and initiate research related effectiveness of nurse-led education on knowledge regarding post operative reconstructive flap care and its management among nursing officers working in surgery ward.

RECOMMENDATION

- A Study can be undertaken with a large sample to generalize the findings.
- An experimental study can be undertaken with control group.
- A comparative study can be done between the private hospital nursing officers on knowledge regarding post operative reconstructive flap care and its management.
- A study can be conducted to assess the knowledge, attitude and practice among nursing officers on knowledge regarding post operative reconstructive flap care and its management.

LIMITATIONS

The study was limited to assess the knowledge among nursing officers on knowledge regarding post operative reconstructive flap care and its management.

The study lacked the control group that did not receive any specific knowledge regarding post operative reconstructive flap care and its management.

No attempted was made to follow up on the nursing officers regarding post operative reconstructive flap care and its management.

CONCLUSION

On basis of findings of the study, it was concluded that after nurse led education post operative reconstructive flap care and its management among nursing officer concept clear to the nursing officer which was indicated by significant increase in post-test mean knowledge scores.

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Nil

CONFLICT OF INTEREST

Not Declared

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AUTHOR CONTRIBUTION

All authors are contributed equally

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