

## A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Prevention Of Central Line Associated Bloodstream Infection Among Nursing Students At Selected College Of Nursing Kanpur

# Mrs. Jyoti Moiz\*1, Mr. Shashwat Karamchandani², Ms. Alka³, Ms. Himanshi³, Ms. Monika³, Ms. Stuti³, Mr. Vivek³

\*1 Associate Professor, Regency Institute Of Nursing

## \*Correspondence Author:

Mrs. Jyoti Moiz Associate Professor, Regency Institute Of Nursing

Email ID: Sonidinna2525@gmail.com

Cite this paper as: Mrs. Jyoti Moiz, Mr. Shashwat Karamchandani, Ms. Alka, Ms. Himanshi, Ms. Monika, Ms. Stuti, Mr. Vivek, (2025) A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Prevention Of Central Line Associated Bloodstream Infection Among Nursing Students At Selected College Of Nursing Kanpur. *Journal of Neonatal Surgery*, 14 (11s), 865-867.

#### **ABSTRACT**

A Central Line Associated Bloodstream Infection is a serious infection that occur when germ enter the bloodstream through the central line, health care providers must use stringent infection control practice each time they insert or check the line or change the dressing patient who get a Central Line Associated Bloodstream Infection have a fever and might also how red skin and soreness around the central line. (2) PROBLEM STATEMENT -

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTION AMONG NURSING STUDENTS AT SELECTED COLLEGE OF NURSING KANPUR.

#### **OBJECTIVE OF THE STUDY**

To assess the knowledge regarding prevention of Central Line Associated Bloodstream Infection among nursing students at selected college of nursing at Kanpur.

To assess the effectiveness of structured teaching programme may improve the knowledge regarding prevention of Central Line Associated Blood Stream Infection.

To determine the association between pre-test knowledge score regarding prevention of Central Line Associated Blood Stream Infection with their selected demographic variable.

## Methodology:

Research Approach- Evaluative Quantitative Research Approach

Research Design -quasiexperimental research design

The result reveals that the mean value of knowledge score 537 in pre-test is 8.95 mean and SD is

2.09 and mean value of knowledge score 1347 in post-test is 22.45 mean and SD is 1.24. The 't' test shows that the t = 46.14 and P(1.68) is <0.05 thus that the Planned teaching programme was effective' The knowledge score of pre-test mean 8.95, mean percentage 35.85%, calculates t-value 46.144 The knowledge score of post-test mean, mean percentage 19.46%.

## 1. INTRODUCTION

A Central venous catheter (CVC) also known as a Central line, Central venous line, or Central venous access catheter is, a catheter into a large vein catheter can be placed in veins in the neck (internal jugular vein), chest (subclavian vein or axillary vein), groin (femoral vein), or through vein in the arms (also known as a PICC line, or peripherally inserted central catheters) it is used to administer medication or fluids that are unable to be taken by mouth or would harm a smaller peripheral vein, obtain blood test (specifically the "central venous oxygen saturation") and the measure central venous pressure. (1) Prevention of Central Line Associated Bloodstream Infection remains are measure for clients' safety and cost. In fact, the Central Line Associated Bloodstream Infection rate is proposed as an indicator for quality of care in ICUs in several countries<sup>2</sup>

<sup>&</sup>lt;sup>2</sup>Assistant Professor, Regency Institute Of Nursing

<sup>&</sup>lt;sup>3</sup>UG Students Regency Institute Of Nursing

#### 2. NEED FOR THE STUDY

Central line-associated bloodstream infections (CLABSIs) are a serious complication of central venous catheters (CVCs), contributing to increased morbidity and mortality rates in hospitalized patients, particularly in intensive care units (ICUs). CLABSIs are associated with prolonged hospital stays, increased treatment costs, and resource utilization, placing a significant burden on the healthcare system. The purpose of this study was to evaluate the effectiveness of teaching programme among staff nurses regarding MLC. The purpose of this study is to fill this gap by evaluating the effectiveness of a training program designed to improve the prevention and treatment knowledge of CLABSI

## 3. PROBLEM STATEMENT

A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Prevention Of Central Line Associated Bloodstream Infection Among Nursing Students At Selected College Of Nursing Kanpur.

#### **OBJECTIVE OF THE STUDY**

- 1. To assess the knowledge regarding prevention of Central Line Associated Bloodstream Infection among nursing students at selected college of nursing at Kanpur.
- 2. To assess the effectiveness of structured teaching programme may improve the knowledge regarding prevention of Central Line Associated Blood Stream Infection.
- 3. To determine the association between pre-test knowledge score regarding prevention of Central Line Associated Blood Stream Infection with their selected demographic variable.

#### 4. METHODOLOGY

RESEARCH APPROACH- evaluative quantitative research approach

RESEARCH DESIGN -quasiexperimental research design

RESEARCH SETTING -B.Sc. Nursing 4<sup>TH</sup> semester students of Regency Institute of Nursing, Kanpur.

**INDEPENDENT VARIABLE-** Independent variable is the variable that stands alone and is not dependent on any other in this study the independent variables are the structured Questionnaire.

**DEPENDENT VARIABLE-** knowledge of central line associated blood stream infection among B.Sc. Nursing 4<sup>TH</sup> semester students of Regency Institute of Nursing Kanpur.

**DEMOGRAPHIC VARIABLE-** Age, Gender, Parents profession related to medical profession, Ever attended any teaching programme in last, Any previous information about CLABSI, Have you ever heard about CLABSI by your teachers in your college.

Population for the present study was entire B.Sc nursing students.

## SAMPLING SIZE

The investigator selected a total of 60 B.Sc. Nursing 4<sup>TH</sup> semester students based on inclusion criteria.

## 1. SAMPLING TECHNIQUE

The sample was selected through a purposive technique.

- **2. INDEPENDENT VARIABLE-** Independent variable is the variable that stands alone and is not dependent on any other in this study the independent variables are the structured Questionnaire.
- **3. DEPENDENT VARIABLE-** Dependent variable is the outcome variable of interest, the variable that is hypothesized to depend on or caused by another variable. In this study dependent variables are knowledge of central line associated blood stream infection among B.Sc. Nursing 4<sup>TH</sup> semester students of Regency Institute of Nursing Kanpur.
- **4. DEMOGRAPHIC VARIABLE-** Age, Gender, Parents profession related to medical profession, Ever attended any teaching programme in last, Any previous information about CLABSI, Have you ever heard about CLABSI by your teachers in your college.

## DEVELOPMENT AND DISCRIPTION OF TOOL

## 5. RESULT AND DISCUSSION

Major findings of the study were-

**Section- A:** Description of demographic characteristics of the student.

Section- B: Analysis of level of knowledge regarding Central Line Associated Blood stream Infection.

Journal of Neonatal Surgery | Year: 2025 | Volume: 14 | Issue: 11s

**Section- C:** Analysis of effectiveness of structured teaching programme on knowledge regarding Central Line Associated Bloodstream Infection.

**Section- D:** Analysis of association between pre-test knowledge and selected baseline variables.

**Section- A:** Description of demographic characteristics of the student.

Majority of the 34 nursing students (57%) were for 21–23 years.

Majority of the 45 nursing students (75%) were female.

Majority of the 43 nursing students (72%) parents profession were non-medical.

Majority of the 26 nursing students (44%) were not attended any teaching programme in previous mouths.

Majority of the 27 nursing students (45%) had information about CLABSI from college.

Majority of the 58 nursing students (96%) heard about CLABSI by your teachers in college.

Section- B: Analysis of level of knowledge regarding Central Line Associated Blood stream Infection.

Level of knowledge in B.Sc Nursing 4<sup>th</sup> semester students pre-test 78% students had poor knowledge and 47 frequency, 22% students had average knowledge and 13 frequency, Non of the students have good knowledge in pre-test.

Level of knowledge in B.Sc Nursing 4<sup>th</sup> semester students post-test 8% students had average knowledge and 5 frequency, 92% students had good knowledge and 55 frequency, Non of the students have poor knowledge in post-test.

**Section- C:** Analysis of effectiveness of structured teaching programme on knowledge regarding Central Line Associated Bloodstream Infection.

The result reveals that the mean value of knowledge score 537 in pre-test is 8.95 mean and SD is

2.09 and mean value of knowledge score1347 in post-test is 22.45 mean and SD is 1.24.

The 't' test shows that the t = 46.14 and P(1.68) is <0.05 thus that the Planned teaching programme was effective'

The knowledge score of pre-test mean 8.95, mean percentage 35.85%, calculates t-value 46.144 The knowledge score of post-test mean, mean percentage 19.46%.

## 6. CONCLUSION

On the basis of findings of the study it was concluded that after Planned teaching program on knowledge regarding prevention of clabsi was cleared to the primary school teachers which was indicated by significant increase in post-test.

#### REFERENCES

- [1] Allison B, Nasia S (2009). Catheter-related Bloodstream Infection Dis
- [2] O gurady, N.P., Alexander m., Burns, L.A, Dellinger E.P, Garland, J., Heard ,S.O., & Raad, 1.1 (2011) ;Guidelines for the prevention of intravascular catheter related infection
- [3] Ceballos , K. , waterman K., Hulett ,T., & makic m. B.f (2013):- nurses -driven quail improvement intervention to reduce hospital acquired infection in the NICU advances in neonatal care , 13(3) 154 -163
- [4] Stubblefield H.hospital acquired (NOSOCOMIAL INFECTION), Jan 2014.
- [5] Berenholtz sm, Pronovost Pj, Lipsett PA, Honson D, Erasing K, Farley JE, Milanvich S, Garrett- Mayer E, Winters BD, Rubin HR, Dorman T, PERL TM. Eliminating catheter -related bloodstream infections in intensive care units crit care Med 2004,2:2014-2020 doi: 3-10.1097/01.CCM 0000142399.70913.2F
- [6] Burke J.P. Infection control a problem for patient safety. New Eng. J. Med. 348, 7, 651656, 2003.