

# An Observational Study to Assess the Surgical Asepsis among Nurses Working in Narayana General Hospital, Nellore, Andhra Pradesh

V. Jayanthi<sup>1</sup>, Dr. Indira Arumugam<sup>2</sup>, Latha. P<sup>3</sup>

<sup>1</sup> Professor, Department of OBG Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, India

<sup>2</sup> Professor & Principal, Department of MSN, Narayana college of Nursing, Nellore, Andhra Pradesh, India

<sup>3</sup> Professor, Department of OBG Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, India

## ABSTRACT

**Background:** Surgical asepsis refers to destruction of organisms before they enter the body, it is used in caring for open wounds and in surgical procedure. Surgical asepsis is the medical practice of maintaining sterility whenever dressing wound or performing any kind of surgery to prevent cross infection. Aseptic technique are used in infection control to prevent cross infection between health care worker and between patients. **Aim:** The aim of the study was to assess the level of knowledge and practice of staff nurses regarding surgical asepsis. **Objectives:** 1. To assess the practice regarding surgical asepsis. 2. To find an association between practice with socio demographic variables. **Methodology:** 100 staff nurses working in NMCH, Nellore were selected by using convenience sampling method. **Results:** Regarding the level of practice among staff nurses, 10(10%) of them had good practice 80(80%) of them had moderate practice and 10(10%) had poor practice.

**Keywords :** Practice, Surgical Asepsis, Staff Nurses.

## I. INTRODUCTION

Surgical asepsis refers to destruction of organisms before they enter the body, it is used in caring for open wounds and in surgical procedure. Surgical asepsis is the medical practice of maintaining sterility whenever dressing wound or performing any kind of surgery to prevent cross infection. Aseptic technique are used in infection control to prevent cross infection between health care worker and between patients.<sup>1</sup>

Aseptic technique is a set of specific practices and procedures performed under carefully controlled conditions with goal of minimizing contamination by pathogens. The effectiveness of infection control practices depends on nurse's conscientiousness and consistency in nursing effective aseptic technique. It

is human nature to forget key procedural steps, on when hurried, to take shortcuts that break aseptic procedures.<sup>2</sup>

The nurse follows certain principles and practices including standard precautions to prevent and control of infection and its spread. During daily routine care the nurse uses basic medical aseptic techniques to break the infection chain for example, use gloves and masks during dressing change to break the entry of pathogens.<sup>3</sup>

A key difference between the operating room and other clinical environment is that the operating room has high standards of sterility at all times, while most other settings are not designed to meet such standards. Surgical asepsis, all known as sterile technique. Surgical asepsis is most strictly applied in the

operation room because of the direct and often extensive disruption of skin and underlying tissue.<sup>4</sup>

Surgical asepsis help to prevent or minimize post-operative infection. The patient is prepared by shaving hair from surgical site, cleansing with a disinfectant such as iodine applying sterile drops. Sterile surgical clothing or protective devices such as gloves, face masks and transparent eye face shields serve as a barrier against microorganism and donned to maintain asepsis in the operating room.<sup>5</sup>

National health care central services and sterile processes week to be celebrated in October 16/02/2002. The American Society for health care central services professionals announced this week. The salient working principle of CSSD to ensure adequate control of cross infection are responsibility for that supervision of sterilization takes should be clearly defined, clearly understood. Aseptic techniques training aims at teaching health care workers to create a sterile environment without the presence of harmful microorganisms any instrument and equipment that is used on a patient must be sterilized cleaning disinfection and sterilization are good practices, although on their own they do not keep pathogens completely away.<sup>6</sup>

Practicing aseptic techniques is the best way to keep an area sterile and to prevent spread of infection. The operating rooms come highest level of asepsis required, nonetheless wards, and other clinical areas also need to free of infections. The high dependent and vulnerable patients are placed here for care.<sup>7</sup>

### NEED FOR STUDY

The infection is due to the involvement of pathogenic organisms. It occur not only in communicable disease but also in surgical asepsis is approximately 2,40,000 addition residents of long term care facilities become infected each year with anticipated growth of elderly population this number may increase to approximately 7,50,000 by 2010.<sup>8</sup>

The most widely incidence of nosocomial around infection is more in patients mostly. The bacterial organism are responsible from various studies. It is revealed that staphylococcus infection rate is 41.3% E.coli infection rate 29.5% and pathogens according for 70.5% and 80.2% patient with positive culture.<sup>9</sup>

Issues in aseptic technique challenge every perioperative practitioner equally challenging to creatively, present information to large group of staff members in a way that facilitates learning. The process is used to address practice issues in aseptic technique and to present educational in service programs to a large number of staff members and health care workers.<sup>10</sup>

Kanchana.M (2010) conducted a study on aseptic technique among staff nurses. The result shows that the program was efficient to enhance the knowledge skills on nursing procedures related to sterile technique. The low costs and simple structure teaching program may improve the quality of nursing in the hospital practice. 25.4% nurses were followed sterile techniques during the procedures.<sup>11</sup>

There are >30 million major operations performed in hospitals each year in the United States. The incidence of post-operative complications ranges from 6% for patients undergoing non cardiac surgery. >30% for patients undergoing high risk surgery.<sup>12</sup>

**Adams JS & Korniewicz DM (2010)** a study was conducted with preoperative nurses are expected to demonstrator strict adherence with asepsis principles to prevent surgical site infections as breaching of these principles poses a serial risk of infection to surgical patients. A descriptive study was conducted with a convenience sample of 87 perioperative personal to desire self-reported compliance with the principles of asepsis during surgery. The results a sizable percentage of participants indicated that they never or severely observe in the sterile field during surgery with surgical instruments (39.7%) (n=35) perioperative scrub RNS were less likely to wear shoe covers during surgical procedure than ORTS (m=3.42 and 4.17) concluded compliance and noncompliance with the principle of asepsis.<sup>13</sup>

#### **STATEMENT OF PROBLEM:**

Observational study to assess the surgical asepsis among nurses working in Narayana General Hospital, Nellore, A.P.

#### **OBJECTIVES:**

- 1) To assess the level of practice staff nurses regarding surgical asepsis.
- 2) To determine the association between level of practice with demographic variables among staff nurses.

#### **DELIMITATIONS**

The study is limited to staff nurses;

- Working in Narayana Medical College Hospital in Nellore.
- The study limited to four weeks.

## **II. METHODS AND MATERIAL**

#### **Research Approach:**

A quantitative approach was adopted to determine the research study.

#### **Research Design:**

The present study was conducted by using descriptive research design.

#### **Setting:**

Setting of the study was conducted at Narayana Medical College Hospital, Nellore.

#### **Population:**

**Target population:** All staff nurses.

**Accessible population:** Staff nurses working in Narayana Medical College Hospital, Nellore.

**Sample:** Staff nurses working in Narayana Medical College Hospital, Nellore and who fulfilled the inclusion criteria.

#### **Sampling Technique:**

Non-probability convenience sampling technique was adopted for the study.

**Sample Size:** The sample size selected for the present study includes 100 staff nurses.

#### **Criteria for Sample Collection:**

#### **Inclusion Criteria**

- The staff nurses who are willing to participate in the study.
- The staff nurses who are available during data collection.

#### **Exclusion Criteria**

- Subjects who are not willing to participate in the study.
- Subjects who are working in OPD.

#### **Description of the tool**

Part A → Demographic data consisting of items namely age, sex, education, religion, designation, experience, religion, income and working hours.  
 Part – II: An observational checklist to assess the practice of staff nurses surgical asepsis which consists of 35 statements.

**Variables of the study:**

**Independent variable:** Staff nurses.

**Dependent variable:** Level of practice.

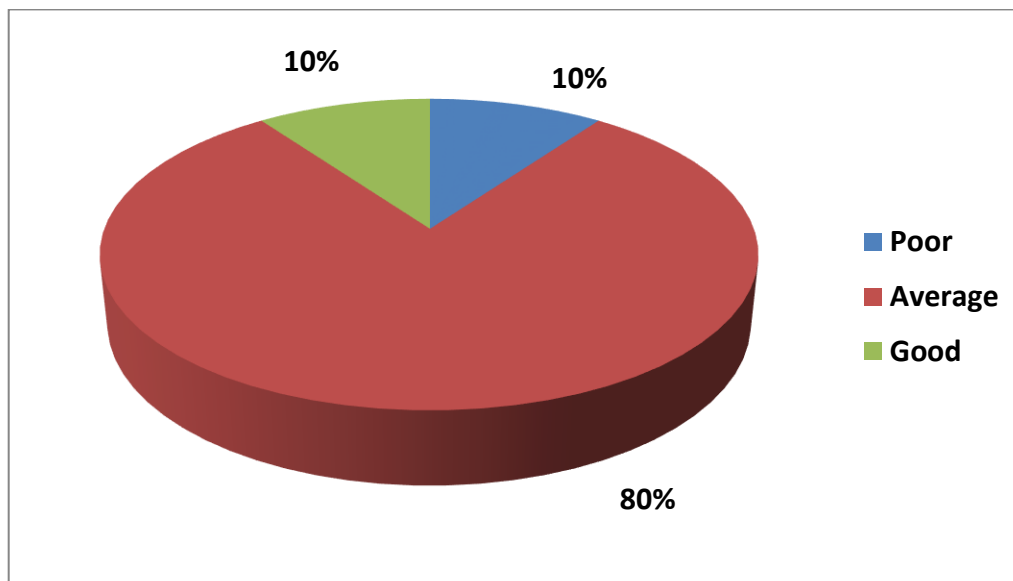
**Score interpretations:**

### III. DATA ANALYSIS AND DISCUSSION

**Table-1 :** Frequency and percentage distribution of level of practice among staff nurses.

(N=100)

Level of Knowledge	Frequency (F)	Percentage (%)
Good practice	10	10
Moderate practice	80	80
Poor practice	10	10



**Fig 1.** Frequency and percentage distribution based on level of practice among staff nurses.

**Table 2 :** Frequency and percentage distribution of Mean and Standard deviation of practice.

(N=100)

CATEGORY	MEAN	S.D
Level of practice	13.67	3.6

**Table 3 :** Association between level of knowledge and socio demographic variables among staff nurses.

(N=100)

S. No	Demographic Variables	Poor practice		Moderate practice		Good practice		Chi Square
		F	%	F	%	F	%	
1.	<b>Working hours:</b>							C=19.121 T=14.03 Df=4 P<0.05 S*
	a. 7 years	4	4	73	76	8	8	
	b. 8 yrs.	5	5	6	6	2	2	
	c. 12 yrs.	1	1	1	1	-	-	
2.	<b>Education</b>							C=19.4 T=15.2 Df=6 P<0.05 S*
	a. ANM	1	1	1	1	-	-	
	b. GNM	4	4	73	73	8	8	
	c. B.Sc.(N)	5	5	6	6	2	2	

**MAJOR FINDINGS OF THE STUDY**

- ✓ Regarding the level of practice among staff nurses, 10(10%) of them had good practice 80(80%) of them had moderate practice and 10(10%) had poor practice.
- ✓ Among 100 staff nurses, the mean practice score was 13.67 with standard deviation of 3.6.

**IV. CONCLUSION**

Hence it can be concluded that majority of the staff nurses (80%) had moderate practice regarding surgical asepsis. Hence there is an immense need to implement an educational programme for all staff nurses regarding surgical asepsis.

**V. REFERENCES**

- [1]. Carol Jaylor, “Text book of fundamentals of nursing”, 4th edition, published by Lippincott, Page no.84-86.
- [2]. Hay more J (2006) surgical care in ICU patient American Journal of nursing 102 (4) 44-46.
- [3]. Latha.P, A study to assess the knowledge regarding discharge procedure among staff nurses and nursing students in NMCH, Nellore, Narayana Nursing Journal, 2017, 6(3), 10-13.
- [4]. Joyc T M.Blake, “Text book of medical and surgical nursing”, 6th edition, published by Harcourt, Page no.110-115.
- [5]. Riya Mathew, P Latha, N.Subhashini, Dr. Indira Arumugam A study to assess the knowledge regarding INC norms for B.sc.Nursing programme among nursing students in Narayana college of nursing, Nellore, International Journal of Academic Research and Development, 2017, 2(4), 655-656.

- [6]. P.Latha, Anju mol, Level of Knowledge regarding IPR among staff nurses and students at NMCH, Nellore, 2016, 5(3), 19-21.
- [7]. Arundathi S, Latha P, Dr. Indira Arumugam A study to assess the knowledge on factors affecting nursing practices among nursing staffs in NMCH at Nellore, International Journal of Advance Research in Nursing, 2019; 2(1), 17-20.
- [8]. P.Latha, Anjaly Joseph, Dr.S.Indira Knowledge regarding recording & reporting among staff nurses and nursing students at NMCH, Nellore, International Journal of Applied Research, 2016, 2(11), 436-438.
- [9]. J Samhitha, Latha P, Dr. Indira Arumugam, A study to assess the knowledge on objective structured practical examination (OSPE) among B.sc Nursing students at selected college, Nellore, International Journal of Midwifery and Nursing Practice, 2018; 1(1), 16-18.
- [10]. Lippincott (2000) "Manual of nursing practice;" 8th edition; Jaypee publication; New Delhi; p945-p954.
- [11]. Stotts, NA (2006) Clinical practice of surgery American Journal of nursing 104 (18) 40-45).
- [12]. Tincy Thomas, P. Latha, Dr. Indira S, B. Kavitha, Knowledge regarding INC norms for post basic B.Sc nursing programe among faculty in Sree Narayana Nursing, Nellore, Andhra Pradesh, International Journal of Academic Research and Development, 2017, 2(4), 338-340.
- [13]. Ashoic Jain, Nightingale Nursing Times, January–June, 2011, volume 6, Issue–10, Page no: 30-32.

**Cite this article as :**

V. Jayanthi, Dr. Indira Arumugam, Latha. P, "An Observational Study to Assess the Surgical Asepsis among Nurses Working in Narayana General Hospital, Nellore, Andhra Pradesh", International Journal of Scientific Research in Science and Technology (IJSRST), Online ISSN : 2395-602X, Print ISSN : 2395-6011, Volume 6 Issue 2, pp. 713-718, March-April 2019. Available at doi : <https://doi.org/10.32628/IJSRST1962119>  
Journal URL : <http://ijsrst.com/IJSRST1962119>