

A Study to Assess the Knowledge and Practices of Staff Nurses Regarding Aseptic Technique During Normal Vaginal Delivery at Selected Government Hospitals of Haryana

Priyanka¹, P. Tamil Selvi², Rachna Mutneja³

¹Senior Nursing Tutor, ²Prof. Principal, Ved Nursing College, Baroli, Panipat, Haryana, India;

³Dept. of OBG, Dr. Prem Hospital, Panipat, Haryana, India

ABSTRACT

Background: Aseptic techniques is a set of specific practices and procedures performed under carefully control condition with the goal of minimizing contamination by pathogens. A report of WHO in 2008 states that 50-60% of all death occur within the first month of life due to poor aseptic techniques in the labour room.

Aim: The aim of the study was to assess the knowledge and practices of staff nurses regarding aseptic technique during normal vaginal delivery at selected government hospitals of Haryana.

Methodology: The Non-experimental Descriptive Design was used in the present study which includes 60 staff nurses of civil hospital Panipat, Jind and Sonipat which were selected by non-probability convenience sampling technique.

Data Collection: The data was collected from subject to assess the knowledge and practices of aseptic technique during normal vaginal delivery by using self-structured knowledge questionnaire and self-structured observation checklist. Data collected was analysed and interpreted by using descriptive and inferential statistics.

Findings: The mean, median and standard deviation for pre-test knowledge was 24.80, 24.5 and 3.726 respectively. The mean, median and standard deviation for observation checklist score was 49, 0.954 and 0.954 respectively. There was no significant co-relation found between knowledge and practices. The Karl-pearson co-relation value is ($r = -0.120$) and there is a negative co-relation between knowledge and practices which was less than table value (0.254) at p value is 0.361.

Conclusion: The study findings revealed that most of the staff nurses had good knowledge, adequate practices regarding aseptic techniques during normal vaginal delivery. The staff nurses must have adequate knowledge and practices regarding aseptic techniques for conducting normal vaginal delivery.

Keywords: Assess the knowledge, Practices regarding aseptic techniques during normal vaginal delivery.

Introduction

Women health and development are the indicators of National Health and Development. Similarly, mother's health is the bulwark of her family, the foundation of community and social progress.¹ Pregnancy and childbirth are the major cause of maternal mortality and morbidity.² Child birth is viewed as an important life

event. Care during child birth is immense and it requires knowledge and skill on the part of the care givers, quality services if rendered in the labour room, not only enhances safe delivery but also prevents complications that may endanger the life of the mother.³

During the birth both mother and fetus are particularly vulnerable to infection. Although there is evidence that strict antisepsis is unnecessary if the birth is straightforward, meticulous aseptic technique must be observed when preparing sterile equipment such as episiotomy scissors. Surgical gloves should be worn during the birth for the protection of both mother and midwife.⁴ Aseptic technique is a set of specific

Corresponding Author:

Ms. Priyanka

Senior Nursing Tutor, Ved Nursing College, Panipat

Email: priyankaraman919@gmail.com

practices and procedures under carefully controlled conditions with the goal of minimizing contamination by pathogens.⁵ Knowledge and practice of aseptic techniques is vital in reducing the morbidity and mortality associated with infections.

Objectives

1. To assess the knowledge of staff nurses regarding aseptic technique during normal vaginal delivery.
2. To assess the practices of staff nurses regarding aseptic techniques during normal vaginal delivery.
3. To find out co-relation between knowledge and practices of staff nurses regarding aseptic technique during normal vaginal delivery.
4. To find out association between the mean knowledge and practices score of staff nurses with their selected socio-demographic variable.

Materials and Method

In this study, Non-experimental Descriptive design was used to carry out the study. The sample size considered for the present study was 60 staff nurses from the various government hospitals by using non-probability convenience sampling technique. The tool used in the study to evaluate the knowledge and

practice regarding aseptic techniques during normal vaginal delivery is divided into three sections. **Tool 1:** Demographic data of the participants; **Tool 2:** Self-structured knowledge questionnaire regarding aseptic techniques during normal vaginal delivery; **Tool 3:** Self-structured Observation Checklist.

Results

SECTION 1: Description of study participants: The maximum patients were from age group of 31-40 years. The maximum staff nurses are married i.e. 80% (48). Maximum were GNM staff nurses i.e. 62% (37). Staff nurses having 6-10 years of total clinical experience i.e. 40% (24). Majority of staff nurses having 3-5 years of experience in midwifery i.e. 42% (25).

Section II: Knowledge scores obtained by the subjects regarding aseptic techniques during normal vaginal delivery

Table 1: Showing Frequency & Percentage of knowledge score n = 60

Knowledge Score	Frequency	Percentage
Good	38	63.33%
Average	22	36.67%
Poor	0	0.00%
TOTAL	60	100%

Table 2: Showing Mean, Median, Range and S.D of knowledge score (n = 60)

Descriptive statistics	Mean	Median	S.D.	Maximum	Minimum	Range	Mean%	Possible Gain%
Knowledge score	24.80	24.5	3.736	30	18	12	82.67	17.33

Maximum = 30, Minimum = 0

Section III: Practice scores obtained by the subjects regarding aseptic techniques during normal vaginal delivery

Table 3: Showing Frequency & Frequency percentage of Practice score n = 60

Practice Score	Frequency	Percentage
High	60	100.00%
Average	0	0%
Low	0	0%
TOTAL	60	100%

Table 4: Showing mean, median, range and S. D. of Practice score (n = 60)

Descriptive statistics	Mean	Median	S.D.	Maximum	Minimum	Range	Mean%	Possible Gain%
Observation checklist score	49.15	49	0.954	50	47	3	98.30	1.70

Maximum = 50, Minimum = 0

Section- IV Analysis and interpretation of data in order to find the co-relation between knowledge score and practice score.

Pearson's Correlation	Knowledge	
	Knowledge Score	Observation Checklist Score
Mean	24.8	49.15
SD	3.736	0.954
N	60	
Correlation	-0.120	
Table Value	0.254	
P Value	0.361	
Result	Not Significant	

Section - V Analysis and interpretation of data in order to find the association of assessed knowledge score of staff nurses with selected demographic variable.

Table 5: Association of assessed knowledge with age, marital status, professional qualification, total clinical experience and experience in midwifery of staff nurses

Levels		Levels (N = 60)			Association with Knowledge Score				
Variables	Options	Good	Average	Poor	Chi Test	P Value	df	Table Value	Result
Age in Years	20-30 Years	16	6		1.540	0.463	2	5.991	Not Significant
	31-40 Years	14	9						
	41-50 Years	8	7						
	Above 50 Years	0	0						
Marital Status	Married	29	19		NA				
	Unmarried	9	3						
	Divorced	0	0						
	Widow	0	0						
Professional Qualification	GNM	27	10		10.465	0.015	3	7.815	Significant
	B.Sc Nursing	7	2						
	Post B.Sc Nursing	4	8						
	MSc Nursing	0	2						
Total clinical Experience	0-5 Years	15	6		3.123	0.373	3	7.815	Not Significant
	6-10 years	16	8						
	11-15 years	3	5						
	>15 years	4	3						
Experience in Midwifery	0-2 years	12	5		0.918	0.821	3	7.815	Not Significant

Discussion

The study was supported by a study conducted by Devi B and Tamang R (2014) to assess knowledge on practice of aseptic technique during delivery among 60 health professionals in selected government hospitals of sikkim and found that knowledge regarding Bio-medical waste management (87%), definition of asepsis, aseptic technique, infection (86%), aseptic technique in labour room (77%) and asepsis in stages of labour (59%) was found to be better whereas asepsis during delivery (57%) was found to be less. There was a significant association between knowledge on practice of aseptic technique during delivery with years of experience in labour room as seen by chi square value ($p < 0.05$)⁶

Another study which supports the present study was conducted by Jyoti Bala (2009) to assess practices of 60 staff nurses (selected by purposive sampling) regarding infection control in MCH area of selected hospitals in Ludhiana, Punjab. Observational checklist was developed to collect the data. The final result revealed that most of the staff nurses have unsatisfactory practices (61.66%) regarding infection control measures. The final result depicted that the level of practices were not appropriate to the standard.⁷

Conclusion

It is concluded that most of the subjects have good knowledge and adequate practices regarding aseptic techniques during normal delivery.

Recommendations

- An observational study can be conducted to assess the practice among staff nurses regarding aseptic techniques during normal vaginal delivery.
- Similar kind of study can be conducted by using large sample in order to make the study generalizable.
- A comparative study can be conducted to assess the effectiveness of structured instructional module regarding aseptic techniques during normal vaginal delivery.

Ethical Clearance: Taken from Ved Nursing College, Baroli, Panipat (Haryana)

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Conflict of Interest: Nil

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