

## A Study to assess the Effectiveness of Safe Delivery Application Among GNM 3<sup>rd</sup> year Students in Jagannath Gupta Institute of Nursing Sciences, Kolkata, WB

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### Abstract

**Background:** Childbirth is an intense event and strong emotions both positive and negative can be brought to the surface. Labour is a process, where women give birth to the child. The most wonderful moment in women's life is during labour, as most women and their families experience greatest excitement during labour. The anticipated period of uncertainty, anxiety and fear, ends with beautiful birth of the baby. Clearly, the support and care they receive during this time is critical. Childbirth is a divine process and women should be supported during labor. Thus the overall aim of caring for women during labour and birth is to engender, a positive experience for the women and her family, while maintaining their health, preventing complications and responding to emergencies promptly.

**Aim:** To assess the effectiveness of safe delivery application among final year nursing students in JINS, Kolkata.

**Objectives:** 1. To assess the pre and post-test knowledge score of safe delivery application. 2. To find association between pre-test knowledge score of nursing students with selected demographic variables. 3. To compare mean pre-test and mean post-test knowledge score before and after utilisation of safe delivery app.

**Materials:** A total of 50 subjects were chosen for the study. The instrument used to generate necessary data were structured questionnaire for knowledge assessment. The research design selected for the study was pre-experimental research design. It consists of 6 questions from demographic variables and 45 questions for the knowledge assessment. The study was concluded at the Jagannath Gupta Institute of Nursing Sciences, Budge-Budge, Kolkata.

**Result:** The mean post-test knowledge score 34.255 was higher than the mean pre-test knowledge score 22.72. The mean difference between post-test and pre-test knowledge score was highly significant. In pre-test median was 23 and standard deviation 2.983. In post-test median was 35 and standard deviation was 2.726.

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**Conclusion:** The study has shown that majority of the subjects had inadequate knowledge regarding the usage of safe delivery application however the knowledge has significantly improved after that administration of structured education through Safe Delivery Application. Hence it was concluded that structured education about safe delivery application improved the knowledge of subjects.

**Keywords:** Labour, Childbirth, Complication, Labour, Birth, Critical, Safe delivery application

## INTRODUCTION

A safe delivery application in obstetrical nursing is a digital platform designed to support the secure and timely transportation of essential healthcare services and supplies specifically related to maternal and newborn care. In obstetrical nursing, where timely interventions can be critical to the health of both the mother and baby, such an application plays a vital role in ensuring that necessary resources reach patients and healthcare providers without delay. This could include the delivery of emergency medical supplies, medications, blood products, and equipment required for labor and delivery, as well as postpartum care.

## BACKGROUND

Health workers in many low income countries are not adequately trained to deliver pregnant women safely. One of the main drivers of maternal and newborn mortality and morbidity in India is a lack of quality of care in health facilities. The maternal mortality rate is 52/100000 live births in India (2023) and neonatal mortality rate is 21.7 deaths per/1000 live births in India (2023). In response to this, safe delivery application (SDA) has been developed on 11th December, 2017 in New Delhi by Shri JP Nadda, union minister of health and family welfare & Shri SP Shukla, minister of Finance.

## AIM & OBJECTIVES

To assess the effectiveness of safe delivery application among GNM 3<sup>rd</sup> year nursing students.

To assess the pre & post-test knowledge score of safe delivery application.

To compare pre-test and post-test knowledge score before and after utilization of safe delivery application.

## HYPOTHESIS

**H<sub>0</sub>:** There is no significant difference between pre-test and post test score of knowledge.

**H<sub>1</sub>:** There is a significant difference between mean pre-test and mean post-test knowledge score.

## MATERIAL METHOD

**Study Design:** Pre-experimental research design.

**Study Setting:** Jagannath Gupta Institute of Nursing Sciences, Kolkata.

**Study Population:** Final year nursing students (GNM 3<sup>rd</sup> year).

**Sample Size:** 50.

## SAMPLING CRITERIA

### Inclusive Criteria

1. GNM 3<sup>rd</sup> year nursing students.
2. Students who are having smart phone.

### Exclusive Criteria

1. Student who are not available and accessible on that time.
2. Students who have already got champion certificate from safe delivery application.
3. Students those who are not willing to participate in study.

## STATISTICAL ANALYSIS PLAN

- Descriptive Statistics:
  - Mean
  - Median
  - Standard deviation
- Inferential Statistics
  - Paired t-test

## RESULT

**Table 1:** Comparison between pre and post-test knowledge among GNM 3<sup>rd</sup> year Students in Jagannath Gupta Institute of Nursing Sciences

N=50

Variables	Pre test			Post test		
	Mean	SD	Mean%	Mean	SD	Mean %
Knowledge	22.72	2.983	50.48	34.25	2.726	76.11

This table 3.1 shows that post Mean knowledge level of students was 76.11% with Standard Deviation 2.726 which is higher than pre-test knowledge level

50.48% with Standard Deviation 2.983. This indicate that there is significant different between pre-test and Post-test knowledge level.

**Table 2:** Paired t-test

N=50

Paired t'-test	Mean	Standard Deviation	Standard Error Mean	Degree of Freedom	t-Value	Significance (2 Sided)
Knowledge Score	Pre-test	1.9800	.14142	.02000	9	17.349
	Post-test	1.1200	.32826	.04642		

## DISCUSSION

The data findings have been organized and finalized according to the plan for data analysis and are presented under the following sections.

Part I: Description of the demographic variables of safe delivery application.

Part II: Analysis of pre-test and post-test knowledge scores of final year nursing students regarding SDA.

## CONCLUSION

The main aim of the study was to assess the effectiveness of safe delivery application among final year nursing students. The following conclusion was drawn based on the finding of the study:

Mean percentage of knowledge score in the pre-test was 22.72 with mean and SD of 2.983, which has increased after administration of education about safe delivery application among final year nursing students with mean percentage of knowledge score in the post-test by 34.255 with mean and SD of 2.726. The study was found to be effective in improving the effectiveness structured education on knowledge regarding SDA among final year nursing students.

**Conflict of Interest:** NIL

**Funding:** Self funded

### Ethics Declaration

Ethical permission granted from Institutional Ethics Committee Jagannath Gupta Institute of Medical Sciences & Hospital, Budge budge, Kolkata, West Bengal.

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