

# A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Complications of Instrumental Delivery and Their Management Among Staff Nurses Working in Maternity Units of Selected Hospitals at Bagalkot

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**Abstract:** Instrumental Vaginal delivery remains an important facet modern obstetric practice, accounting 7.4 - 16.4% of all deliveries across a spectrum of Indian hospitals. Forces and ventouse are used for instrumental delivery. Hence the study was aimed to evaluate the effectiveness of structured teaching programme on knowledge regarding complications of instrumental delivery and their management among staff nurses. An evaluative research approach with pre experimental one group pre - test post - test design without control group was used in the present study. Researcher has used convenient sampling technique to select 50 staff nurses for the present study. Data were collected using structured knowledge questionnaire by following interview method. Researcher has systematically organized the data and analyzed by descriptive and inferential statistics. The study concluded that structured teaching program was found to be effective in improving the knowledge of staff nurses regarding complications of instrumental delivery. Researcher has recommended for the future researchers to conduct the similar study in a large scale.

**Keywords:** Structured Teaching programme, Staff Nurses, Instrumental delivery, Nursing education and Obstetrical complications

## 1. Introduction

Instrumental vaginal delivery is a vaginal delivery that is assisted by the use of forceps or a vacuum extractor.<sup>1</sup> Operative vaginal delivery is required in times of maternal or fetal distress to assist in childbirth as an alternative to caesarean section.<sup>2</sup> Its use has decreased over the years in comparison to caesarean section.<sup>2</sup> Studies in different hospitals in Karnataka have reported IVD rates ranging from 1.39% to 1.88%. For example, one study at a tertiary care hospital in Mandya found that 95 out of 500 deliveries (1.9%) were instrumental deliveries, with 74 vacuum - assisted and 21 forceps - assisted. Another study at a tertiary care teaching hospital in South India found 1.39% instrumental vaginal deliveries. The two main instruments used are rotational forceps and vacuum extractors, each with different complication risks. Possible complications introduced with the use of instruments for the mother include pelvic floor injury, anal sphincter injury,<sup>3</sup> Operative vaginal delivery for the newborn, more common with the use of a vacuum, is cephalohematoma,<sup>4</sup> Newborns undergoing operative delivery have a higher likelihood of experiencing shoulder dystocia, a delivery emergency that may lead to further injury such as brachial plexus palsy.<sup>5</sup> Scalp and facial injuries leading to fractures and bleeding may be possible.<sup>6</sup> The management aspect of instrumental delivery involves the careful assessment, planning, execution, and follow - up of an assisted vaginal birth using tools like the vacuum extractor (ventouse) or forceps. Maternal exhaustion Medical conditions (e. g., cardiac disease) where pushing is contraindicated Fetal indications:

Non - reassuring fetal heart rate Prolonged second stage of labor Mal position that can be corrected Prerequisites Before performing instrumental delivery, Position of the fetal head is known Presentation is cephalic, Pelvis is deemed adequate, Power is adequate or supplemented. Passage is fully dilated, membranes ruptured. Patient consents and understands the procedure. Choose the appropriate instrument: forceps or vacuum. Ensure resuscitation equipment is available. Inform pediatrician/neonatal team if fetal compromise is suspected, Prepare for potential conversion to cesarean if unsuccessful. Consent and Communication, Explain the reason, process, risks, and alternatives, Obtained informed consent, Ensure adequate analgesia.<sup>6</sup>

## 2. Methodology

Present study was aimed to assess the effectiveness of structured teaching program on knowledge regarding complications of instrumental delivery and their management among staff nurses working in maternity units of selected hospitals in Bagalkot. A non experimental descriptive approach with one group pretest posted without control group design was used in the present study. Investigator has selected 50 staff nurses working in Srushti maternity Hospital by following convenient sampling technique. Researcher has collected the data following interview schedule with the help of structured knowledge questionnaire. Alternative hypothesis was formulated stating there will be a significant difference between pretest and post- test knowledge course of staff nurses regarding

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complications of instrumental delivery and their management. Informed ascent was obtained by children and a formal permission has been taken by director Srushti Hospital Bagalkot and from Institutional ethical committee.

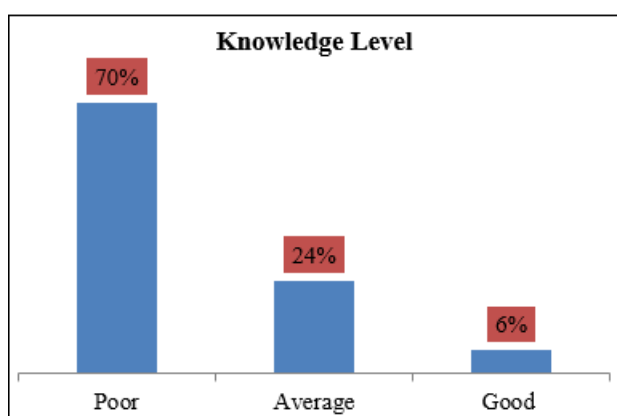
### 3. Result

**Section I:** Frequency and percentage distribution of staff nurses according to their Socio - demographic characteristics

Sl. No	Demographic characteristics	Category	Frequency	Percentage
1	Age in years	21 - 25	06	12
		26 - 30	17	24
		31 - 35	19	38
		36 - 40	8	16
2	Qualification	GNM Nursing	12	24
		PB B. Sc Nursing 13	13	26
		Basic B. Sc Nursing	16	32
		M. Sc Nursing	09	18
3	Religion	Hindu	25	50
		Muslim	15	30
		Christian	10	20
4	Experience in Years	1 - 12 Months	5	10
		1 - 3 Years	11	22
		3 - 5 years	22	44
		5 Years & above	12	24
5	Type of Hospital in which experience is taken	Govt. Hospital	12	24
		Private Hospital	12	24
		Polyclinic	13	26
		Maternity Units	13	26
8	Attended in service education	Yes	39	78
		No	11	22
9	Source of information	Television	09	18
		News paper	11	22
		Internet	22	44
		Periodical publications	08	16

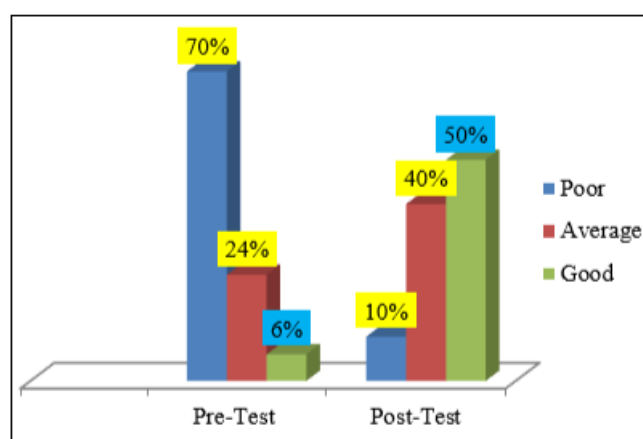
**Section II:** Assessment of Knowledge regarding complication of instrumental delivery and their management

Level of knowledge	Range of Score	Frequency	Percentage
Poor	Zer - 50%	35	70
Average	51 - 75%	12	24
Good	75% & above	03	06
Total		50	100



**Section III:** Effectiveness of STP on Knowledge regarding complication of instrumental delivery and their management

Level of knowledge	Range of Score	F	%	F	%
		Pre - Test	Post - Test	Pre - Test	Post - Test
Poor	Zer - 50%	35	70	05	10
Average	51 - 75%	12	24	20	40
Good	75% & above	03	06	25	50
Total		50	100	50	100



Significant difference between the Pre - test and Post- test knowledge scores of staff nurses

Test	Table "t" value	Mean	Std. error	Mean Diff	Sd Diff	Paired "t" Value
Pre - Test (X <sub>1</sub> )	2.010	6.64	0.39	13.64	2.73	34.93
Post - Test (X <sub>2</sub> )		20.28				

As the calculated t value **34.93** was much higher than table 't' value **2.010** the research hypothesis is accepted. i. e **H<sub>1</sub>** - There will be a significant difference between the pre - test and post - test knowledge scores of staff nurses regarding complications of instrumental delivery and their management. Findings revealed that post - test knowledge scores are higher than pre - test knowledge score, hence there is a significant difference between pre - test and post -

test knowledge scores, and structured teaching programme is found to be effective.

**Section IV:** Association between the two variables was found by Chi square test. There was a significant association between demographic variables such as age in years, qualification, religion, experience in years, type of hospitals in which experience is taken, attended in - service education and sources of information with knowledge of staff nurses regarding complications of instrumental delivery and their management.

#### 4. Conclusion

With above facts researcher has concluded that the structured teaching program on knowledge regarding complications of instrumental delivery and their management has proved to be effective in improving their knowledge and it is simple and easy to administer to the participants.

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