



A study to assess the effectiveness of planned teaching programme on knowledge regarding water birth among 3rd year GNM student nurses of the selected colleges at Nagpur city

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Abstract

The child birth need not be a painful process, where women have to undergo unendurable pain because in the present-day underwater deliveries can reduce the labor pain by 70 percent which is the method for reducing painful delivery. Water delivery procedure is the best in form of reducing pain and can be widely used by spreading knowledge and awareness regarding the process. Water birth is a safe method for painless delivery, which takes place in pool or a tub filled with warm water. Water being a cooling agent helps the mother to relax physically and mentally.

Methodology: The study is based on quantitative research approach this was a quasi-experimental one group pre-test post-test research design. The setting of the study was VSPM Madhuribai Deshmukh Institute of Nursing Education, Lata Mangeshkar Hospital, Dighod Hills, Nagpur, sample size was 60. Sampling technique was non probability convenience sampling for the sample. The tool was structured questionnaire. This was pre-test. The planned teaching programme was organized for the student and after 7th day of pre-test and planned teaching programme the post-test is been conducted to assess the change in knowledge.

Result: The level of knowledge were seen in 5 categories i.e poor, average, good, very good, excellent. The assessment of level of pre-test knowledge of GNM 3rd year student nurses reveals that highest percentage of respondent 40 (66.67%) had average knowledge with their score ranging between 7-12 and 14 (23.33%) had good knowledge with their score ranging between 13-18, while 6 (10%) had poor knowledge with their score ranging between 0-6. The assessment of level of post-test knowledge of GNM 3rd year student nurses reveals that the highest percentage of respondent 35 (58.33%) had very good knowledge with their score ranging between 19-24 and 12 (20%) had excellent knowledge with their score ranging between 25-30, while 13(21.66%) had good knowledge with their score ranging between 13-18. There is no association between the knowledge score and the demographic variables.

Conclusion: The study reveals that there was deficit knowledge regarding water birth in pre-test. The post-test knowledge was increased which reveals that planned teaching programme was effective on knowledge regarding water birth.

Keywords: Effectiveness, planned teaching, knowledge, water birth, 3rd year GNM student nurses

Introduction

Child birth is the crucial moment in a woman's life, she becomes a mother. Though the end result is rewarding the process of labor is painful ^[1].

The child birth need not be a painful process, where women have to undergo unendurable pain because in the present-day underwater deliveries can reduce the labor pain by 70 percent which is the method for reducing painful delivery. 80 percent of pregnancies in the world are normal and these mothers can have under water deliveries ^[1].

Water delivery procedure is the best in form of reducing pain and can be widely used by spreading knowledge and awareness regarding the process.

Alternative approach to child birth is more popular than ever. Water, acupuncture and acupressure, and hypnosis are some of the ways expectant mothers are coping with labor pain. Water birth is becoming increasingly popular worldwide. Water birth is a safe method for painless delivery, which takes place in pool or a tub filled with warm water. Water being a cooling agent helps the mother to relax physically and mentally ^[2].

Water birth should always occur under the supervision of a

health care provider only. Researchers found out that there are many benefits to giving birth in the water, there are greater comfort and mobility for the mother, reduction of pressure on the abdomen: it helps mother to conserve her energy, promotes deeper relaxation, water relaxes the pelvic floor muscles, water can be an effective way to stimulate dilation of the cervix and facilitates a dysfunctional labor, water can reduce the need for drugs to artificially stimulate labor, helps in lowering of blood pressure, moisture in the air makes it easier to breathe and can be helpful to women with asthma, empowerment of the mother and greater involvement of the father and enhanced family relationships ^[3].

Background of the history

Water delivery is already popular in west, they started practicing since 1985 and Monadnock community hospital in Peterborough introduced a standard protocol in the year 1991.

In India water birth is emerging as a promising alternative to painful traditional delivery method and started practicing since 2003. According to report of Phoenix hospital in Delhi states that "nearly 45 women opting for water birth

approaches since last years. On an average this hospital handles two water birth every month^[4].

In India water birth made its foray in 2003. Tulip women health care centre has the privilege of delivering the first water baby in INDIA the baby boy Nishant Prabhudesai was born in October 2003, in India it is currently practiced in Delhi, Goa, Cochin and Hyderabad.

The birth of your baby is one of the most important events of your entire life. It will have far reaching consequences that effects your most intimate family relationships for many years to come. Water birth is a gift that lasts a life time it can optimize your birth & create your own personal miracle of love and empowerment safe, gentle, joyous water birth is available to you now what could be more important. The death of a woman while pregnant or within 42 days of delivery, miscarriage or termination of pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from the accidental or incidental causes is defined as maternal death. India accounts 20% of the world's maternal deaths^[4].

The maternal mortality ratio is incredibly high in India, that is 450 maternal deaths per 100,000 live births. Every year about 78,000 mothers die in childbirth and from complications of pregnancy in India, according to UNICEF. So the goal given to India is reduce the maternal deaths to 109 per 100,000 live births by the year 2015.

Title of study

To assess the knowledge regarding water birth among 3rd year GNM student nurses of the selected colleges at Nagpur city.

Problem Statement

"A study to assess the effectiveness of planned teaching programme on knowledge regarding water birth among 3rd year GNM student nurses of the selected colleges at Nagpur city."

Objectives

- To assess the existing knowledge regarding water birth among 3rd year GNM student nurses of the selected colleges at Nagpur city.
- To assess the effectiveness of planned teaching programme on knowledge regarding water birth.
- To find out the association between level of post-test knowledge regarding water birth with the selected demographic variables among 3rd year GNM student nurses.

Research Approach: Interventional approach was used in this study.

Research Design: A one group pre-test and post-test design was chosen for the study.

Setting of the study: The setting of this proposed study was 3rd year GNM students Nurses of selected colleges at Nagpur city. The study was conducted in selected colleges at Nagpur city.

Population

In this study the population was 3rd year GNM student nurses.

Target Population: The target population for the present

study was 3rd year GNM students in selected colleges at Nagpur city.

Accessible Population: The accessible population for the study was 3rd year GNM students of selected colleges at Nagpur city.

Sampling Technique

The sampling technique used in this study was non-probability convenience sampling.

Sampling Size

In this study sample size is 60, 3rd year GNM nurses students were selected from colleges at Nagpur city.

Criteria for sampling

Inclusion Criteria

- 3rd year GNM student nurses who are willing to participate in the study.
- 3rd year GNM student nurses who are available at time of data collection.
- 3rd year GNM student nurses who can speak and read English language.
- 3rd year GNM student nurses who are already having some knowledge of water birth.

Exclusion Criteria

- 3rd year GNM student nurses who are not present at the time of study.
- 3rd year GNM student nurses who are not willing to participate in the study.

Variable of the study

Dependent Variable

It is response, behaviour or outcome that the researcher wants to predict or explain changes in the dependent variable are presumed to be caused by the independent variable.

In this study dependent variable is knowledge regarding water birth.

Independent Variable

An independent variable is a stimulus or activity that is manipulated by researcher to create an effect on the dependent variable.

In this study independent variable is the planned teaching regarding water birth.

Tool Preparation

A tool is an instrument or equipment used for collection of data

1. Demographic variables
2. Structured questionnaire

Development of the tool

The investigator developed the tool after updating theoretical knowledge by reviewing relevant literature on water birth. The investigator's own experience, theoretical knowledge and guidance from the expert along with the review of literature helped in developing the tool necessary for the study.

The following tools developed for the study

- Demographic variables

- Knowledge questionnaire
- Planned teaching

Description of the Tool

A structured questionnaire will be used for data collection. The questionnaire will be consist of:

Section A: Distribution of student nurses with regards to demographic variables.

Section B: Assessment of existing knowledge regarding water birth among student nurses.

Section C: Effectiveness of planned teaching programme on knowledge regarding water birth among student nurses.

Section D: Association of knowledge of water birth with selected demographic variable

Scoring Scale

Poor	0-6
Average	7-12
Good	13-18
Very Good	19-24
Excellent	25-30

Validity

In order to obtain content validity, the tool and planned teaching was given to 09 experts in the field of nursing, for validity and 9 experts gave it back After receiving opinions from the experts and consultation from the guide some modifications were done in framing the item and same were incorporated into the tool and Planned teaching. In demographic variables modification in question no 4,6,7,8 and in questionnaire the modification in question no. 5, 11.

Data Collection

Investigator had taken permission from the concern authority of the selected colleges at Nagpur city and then investigator had an approach to the sample was introduce herself and informed them about the nature of the study so as to ensure better co-operation during the data collection. The investigator had approach the 3rd year GNM student nurses and explain the proposed study and how it would beneficial for them. Informed consent had taken from sample. Investigator makes the sample comfortable and orients them to study. Investigator was administering the questionnaire to them, and doubts were clarified. Once the questionnaire is completed investigator collect them back each sample required maximum time of 30 minutes to complete the questionnaire.

Main Study Data Collection: was conducted from 26th June 2021 to 3rd July 2021. After the pre test the planned teaching was given on same day. Post test was administered with the same questionnaire on 7th day.

The collection of data was performed within the stipulated time. After the data gathered the researcher will thank the entire study sample as well as authorities for their co-operation.

Section A

Percentage wise distribution of subjects with regard of their demographic variables

This section deals with percentage wise distribution of subjects according to their demographic variables. A

convenience sample of 60 subject was drawn from the study participants, who were selected from the colleges at Nagpur city. The data was obtained to describe the subject characteristics including age, gender, previous knowledge.

Table 1: Percentage wise distribution of subject with regards to age. (n=60)

Demographic variables (age)	Frequency	Percentage (%)
Below 20 years	1	1.66
21 years	38	63.33
22 years	13	21.66
Above 22 years	8	13.33
Total		99.98

Table Description: The above table revealed that 1(1.66%) of students were aged below 20 years, 38 (63.33%) were aged 21 years, 13 (21.66%) were aged 22 years and 8 (13.33%) were age above 22 years.

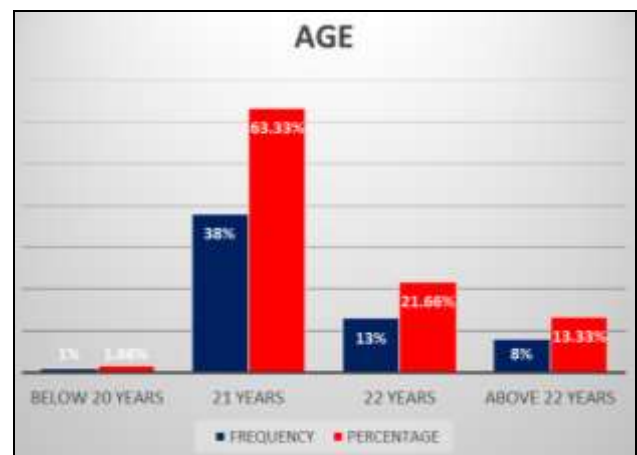


Fig 1: Percentage wise distribution of subject with regards to age

Table 2: Percentage wise distribution of subject with regard to Gender. (n= 60)

Demographic variable (Gender)	Frequency	Percentage (%)
Male	6	10
Female	54	90
Total	60	100%

The above table revealed that 6 (10%) of students were male and 54 (90%) of student were female.

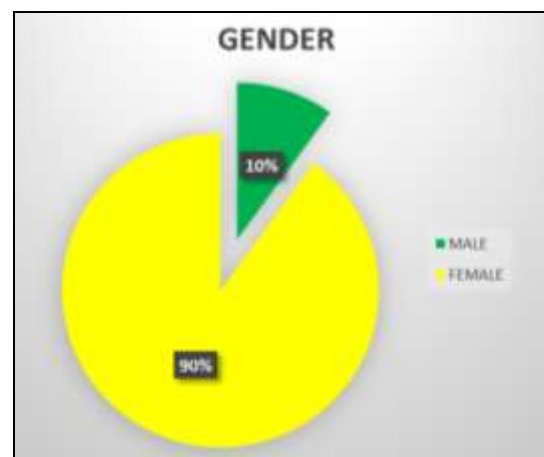


Fig 2: Percentage wise distribution of subject with regard to Gender.

Table 3: Percentage wise distribution of any information received regarding water birth

Any information	Frequency	Percentage
Yes	25	42%
No	35	58%
Total	60	100%

The above table revealed that 25 (41.66%) of students goes with yes i.e having knowledge regarding water birth, and remaining 35 (58.33%) of students goes with no.



Fig 3: Percentage wise distribution of any information received regarding water birth

Table 4: Percentage wise distribution of, if yes source of knowledge 25 people said yes, that they have previous knowledge regarding water birth.

Source of knowledge	Frequency	Percentage (%)
Family and friends	0	0
Mass media	15	25
Health personnel	7	11.66
other	3	5

The above table describes that 0 (0%) does not received any information from family and friends, 15 (25%) had received information from mass media regarding water birth, 7

(11.66%) had received information from health personnel, and 3 (5%) had received information from other source.

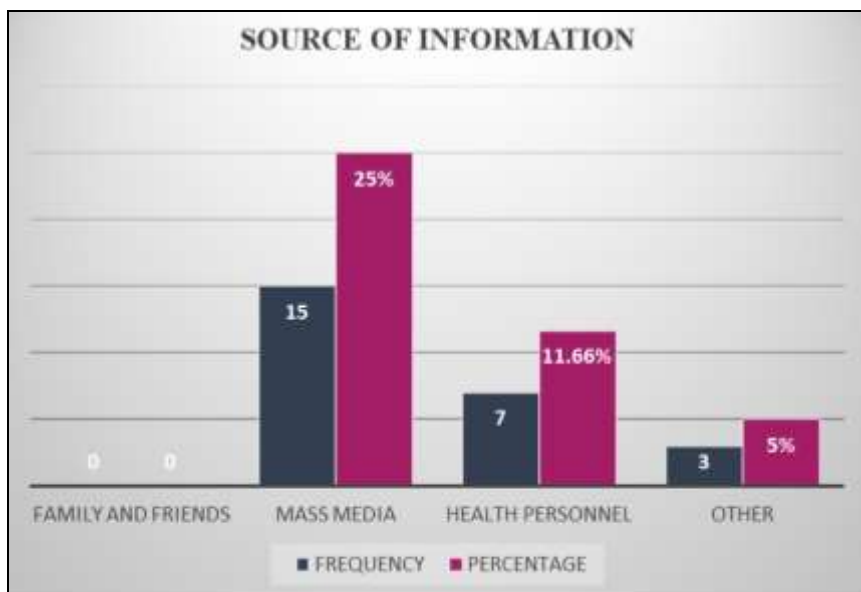


Fig 4: Percentage wise distribution of, if yes source of knowledge, that they have previous knowledge regarding water birth.

Section B

Assessment of existing knowledge regarding water birth among 3rd year GNM students

This part deals with the assessment of existing knowledge

regarding water birth among 3rd year GNM students. The level of knowledge is divided under following heading of poor, average, good, very good, excellent.

Table 5: Assessment of existing knowledge regarding water birth among 3rd year GNM student nurses (n=60)

Level of knowledge score	Score Range	Percentage Score	Pre-Test	
			Frequency	Percentage
Poor	0-6	0-20%	6	10%
Average	7-12	23.33-40%	40	66.67%
Good	13-18	43.33-60%	14	23.33%
Very Good	19-24	63.33-80%	0	0
Excellent	25-30	83.33-100%	0	0
Minimum Score	3			
Maximum Score	15			
Mean Score	10.27			
Mean Percentage	34.24%			

The above table shows that the assessment of level of pre-test knowledge of GNM 3rd year student nurses reveals that highest percentage of respondent 40 (66.67%) had average knowledge with there score ranging between 7-12 and 14

(23.33%) had good knowledge with there score ranging between 13-18, while 6 (10%) had poor knowledge with there score ranging between 0-6.

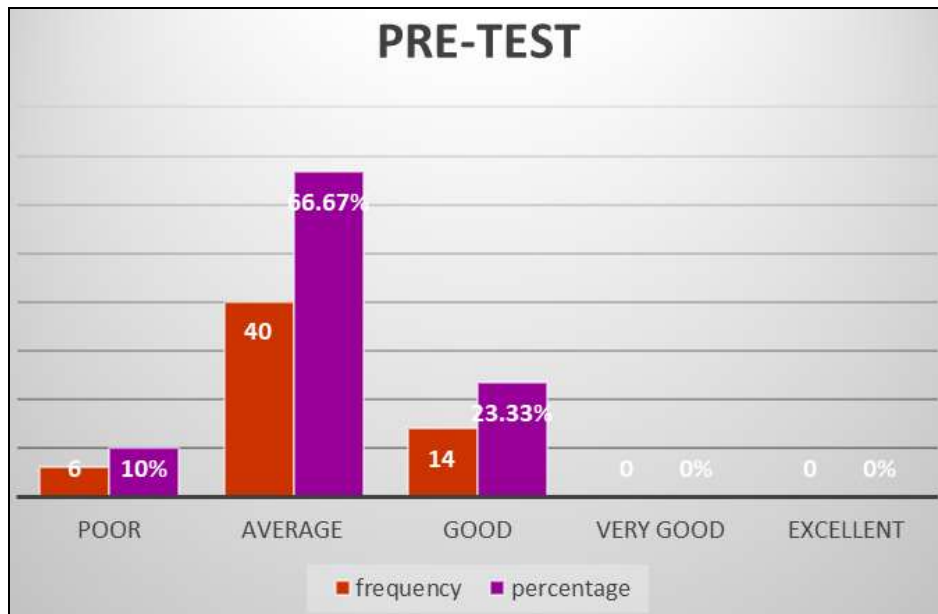


Fig 5: Assessment of existing knowledge regarding water birth among 3rd year GNM student nurses

Table 6: Assessment of post-test knowledge regarding water birth among 3rd year GNM student nurses (n=60)

Level of knowledge score	Score Range	Percentage Score	Post-Test	
			Frequency	Percentage
Poor	0-6	0-20%	0	0
Average	7-12	23.33-40%	0	0
Good	13-18	43.33-60%	13	21.66
Very Good	19-24	63.33-80%	35	58.33
Excellent	25-30	83.33-100%	12	20
Minimum Score	16			
Maximum Score	28			
Mean Score	21.4			
Mean Percentage	71.33%			

The above table shows that the assessment of level of post-test knowledge of GNM 3rd year student nurses reveals that the highest percentage of respondent 35 (58.33%) had very good knowledge with their score ranging between 19-24 and

12 (20%) had excellent knowledge with their score ranging between 25-30, while 13(21.66%) had good knowledge with their score ranging between 13-18.

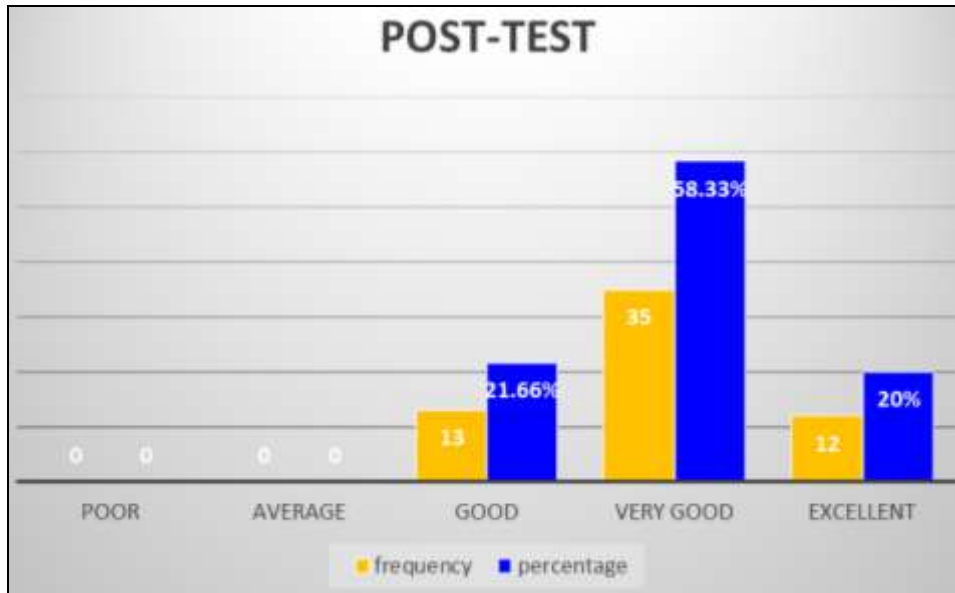


Fig 6: Assessment of post-test knowledge regarding water birth among 3rd year GNM student nurses

Section D

Table 7: Association of knowledge regarding water birth among 3rd year GNM student nurses with selected demographic variables

Demographic Variables	Frequency	Poor	Average	Good	Very Good	Excellent	Chi-Square Test	T- Value	D.F	P-Value	Significance
Age											
a) below 20 yr.	1	0	0	0	1	0	2.908	21.03	12	0.99	S > 0.05
b) 21 yr.	38	0	0	9	23	6					
c) 22 yr.	13	0	0	3	7	3					
d) above 22 yr.	8	0	0	1	4	3					
Gender											
a) male	6	0	0	0	5	1	2.193	9.49	4	0.70	S > 0.05
b) female	54	0	0	13	30	11					
Any Information Received											
a) Yes	25	0	0	7	12	6	1.464	9.49	4	0.83	S > 0.05
b) No	35	0	0	6	22	7					
Source of information											
a) Family and friends	0	0	0	0	0	0	4.197	21.03	12	0.97	S > 0.05
b) Mass media	15	0	0	6	7	2					
c) Health personnel	7	0	0	1	3	3					
d) others	3	0	0	2	1	3					

(n=60)

The above table described the association between post-test value and selected demographic variables at 0.05 level of significance by using chi square test. The age is not associated with the level of knowledge of students regarding water birth as calculated value was found smaller than table value. Hence reject H1 (alternative) hypothesis.

So there is no significant association between age and the level of knowledge. The gender is not associated with the level of knowledge of students regarding water birth as calculated value was found smaller than table value. Hence reject H1(alternative) hypothesis. So there is no significant association between gender and the level of knowledge.

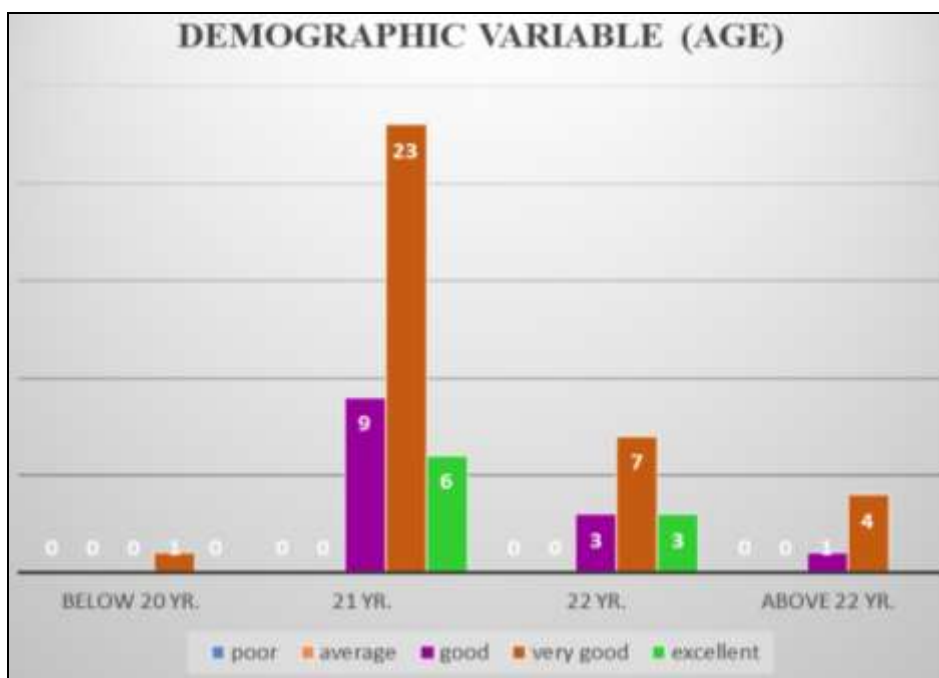


Fig 7: Association of knowledge regarding water birth among 3rd year GNM student nurses with selected demographic variables (AGE)

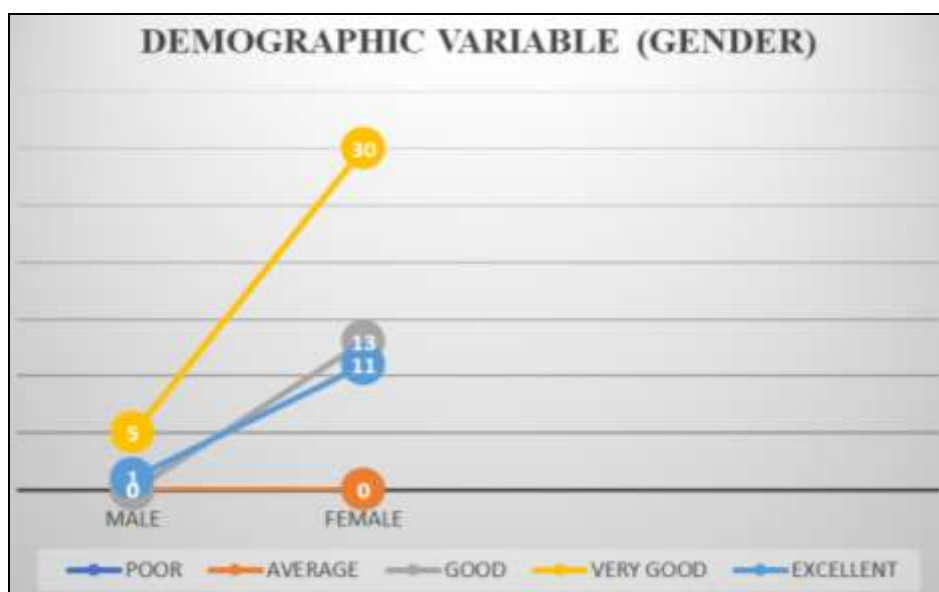


Fig 8: Association of knowledge regarding water birth among 3rd year GNM student nurses with selected demographic variables (Gender)

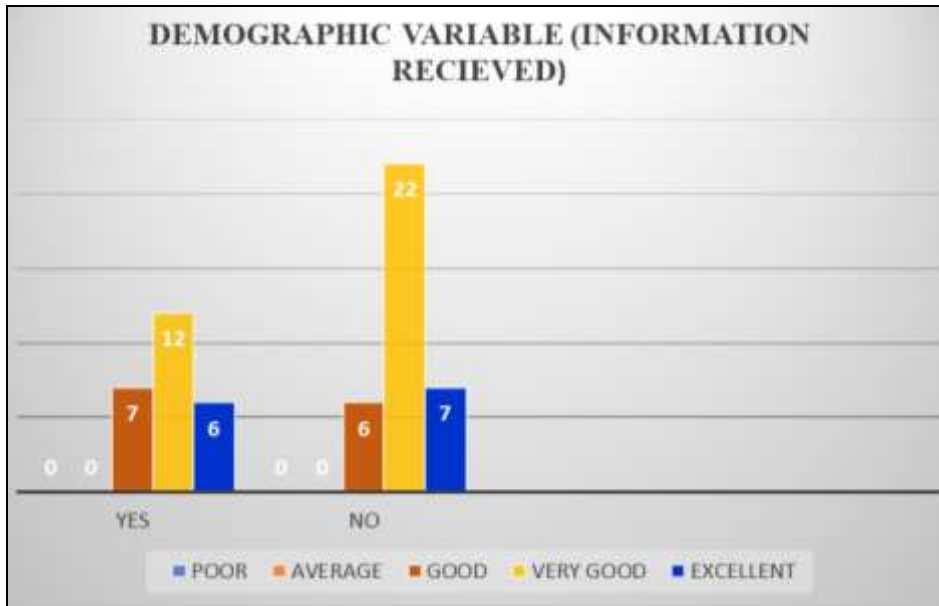


Fig 9: information received regarding water birth among 3rd year Gnm student nurses with selected demographic variables (Information Received)

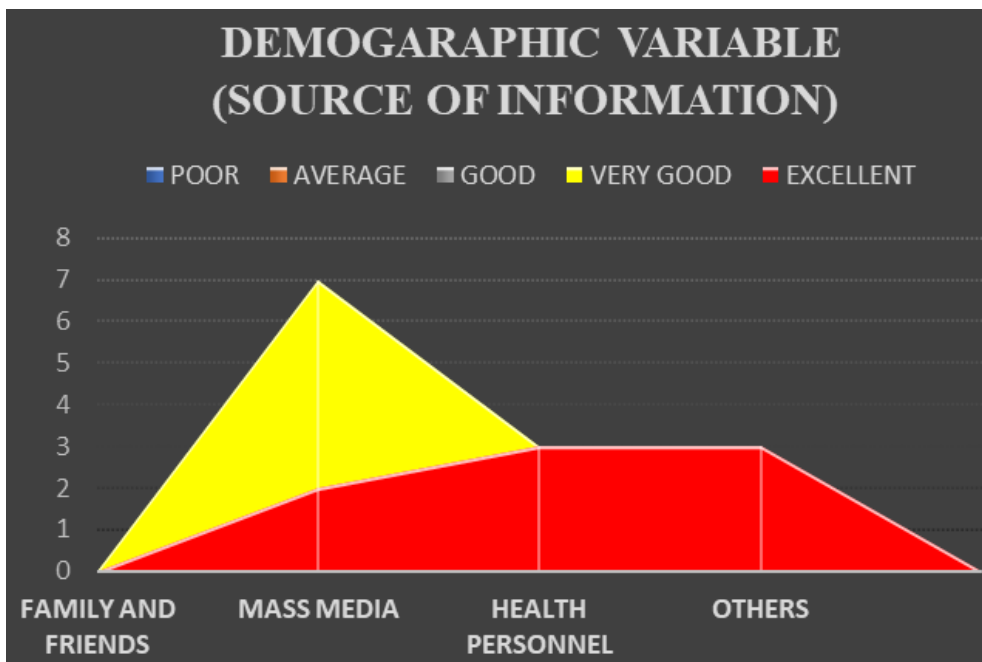


Fig 10: Association of knowledge regarding water birth among 3rd year GNM student nurses with selected demographic variables (Source of information)

This chapter deals with the analysis and interpretation of the calculated data the descriptive statistics and inferential statistics are used to analyze the data as per the objective of the study. All relevant information regarding research findings is covered in this chapter.

Discussion

In pre test 6(10%) student nurses have poor knowledge, 40 (66.67%) student nurses have average knowledge, 14 (23.33%) student nurses have good knowledge regarding water birth and no one has very good and excellent knowledge regarding water birth.

In post-test assessment of knowledge regarding water birth after planned teaching in which 0 (0%) student nurses have

poor and average knowledge, 13 (21.66%) student nurses have good knowledge, 35(58.33%) student nurses have very good knowledge and 12(20%) student nurses have excellent knowledge regarding water birth.

Acknowledgement

“Gratitude is a currency that we can mint for ourselves, and spend without fear of bankruptcy.”

-Fred De Witt Van Amburgh

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References

1. Jude Jenifer J. Rose Feb 2012
<http://52.172.27.147:8080/jspui/bitstream/123456789/8485/1/J.%20JUDE%20JENIFER%20ROSE.pdf>
2. https://www.slideshare.net/mobile/Apollo_Hospitals/a-study-to-assess-the-effectiveness-of-planned-teaching-programme-on-water-birth-among-adolescent-girls-in-a-selected-college-at-mangalore
3. http://www.rguhs.ac.in/cdc/onlinecdc/uploads/05_N256_33876.doc
4. <http://ijone.org/scripts/IJONE%20Jan-Mar%202019%20.pdf> pg no. 124