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### RESEARCH ARTICLE

#### PAPER

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#### Abstract

**Introduction:** Natural child birth is the birth without routine medical intervention particularly anesthesia. Natural child birth attempts to minimize the medical intervention particularly use of anesthetic medication and surgeries such as episiotomies, forceps and caesarean section. Benefits of Natural birthing are faster recovery after the birth and less vaginal tearing since the women will push instinctively during the delivery and shorter the pushing time, ability to change the birthing position, decreased risk of needing of risky intervention avoid side effect associated with the epidural and ability to bond and breastfeed the child immediately.

**Aim of this study:** To assess the knowledge of nursing officers before the awareness programme on natural birthing, To assess the effectiveness of awareness programme on knowledge regarding natural birthing among nursing officers and to find out the association between pre-test knowledge with the selected demographic variable.

**Methodology:** A Quantitative research approach was adopted under the study. The study was conducted in selected hospitals of Dehradun. Convenient sampling technique was used to select the sample. The sample comprised of 40 nursing officer. The tools developed and utilized for the study was semi structured knowledge questionnaire regarding natural birthing. It was prepared to determine the knowledge of nursing officers regarding natural birthing in selected hospital of Dehradun. Awareness programme was also prepared to determine its effectiveness.

**Result:** The study revealed that the mean post test-test knowledge score (29) of nursing officers regarding natural birthing were higher than the mean pre-test knowledge (18.02). In pre-test majority of participants 7(17.5%) of nursing officers had below average knowledge, 28(70%) had average knowledge and 5(12.5%) had above average knowledge and in the post-test assessment 4(10%) of nursing officers had average knowledge, 36(90%) had above average level of knowledge regarding natural birthing and no one was in below average of knowledge.

**Conclusion:** The study concludes that the planned nursing intervention is an effective strategy in improving knowledge of nursing officers regarding natural birthing and more educational strategies can be

undertaken to enhance the knowledge of nursing officers. The purpose of the present study was to find out the level of knowledge regarding natural birthing in selected hospitals in Dehradun.

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## **Introduction:-**

The term natural birth was coined by obstetrician Grantly Dick Read upon publication of book natural child birth in 1933.(wikipedia, 2021) The term “natural birth” historically has been used to describe childbirth without medication.(Erica Hersh,2019) Natural childbirth is a way of giving birth that lets nature take its course. This may include; going through labor and delivery without the help of medication including pain relievers such as Epidurals, using few or no artificial medical interventions such as fetal monitoring. (Larissa Hirsh 2022)

Natural child birth is the birth without routine medical intervention particularly anesthesia. Natural child birth attempts to minimize the medical intervention particularly use of anesthetic medication and surgeries such as episiotomies, forceps and caesarean section.(wikipedia) From start( when to conceive) to finish(how to deliver), pregnancy is full of personal choices (Maressa Brown, 2021). Human reproduction guarantees the continuation and evolution of human species. In general, human birth are divided into four categories ; natural delivery, assisted delivery, cesarean section due to social factors , cesarean section due to medical factors. (Hongyan Chen and Dingliang Tan, 2019)

Natural child birth is the inevitable physiological process of the human reproduction and it has various positive effects like in spontaneous labor the first contact between mother and baby is timely which is very important for maintaining mother and child coordination and the child’s psychological development. (Hongyan Chen and Dingliang Tan, 2019). Historically the natural rate of maternal mortality meaning of without surgical or pharmaceutical intervention and has been estimated at 1500/10000 births (Wikipedia, 2023)

An unmedicated childbirth is an entirely achievable and reasonable goal for about 85% of pregnant women. The other 15% have health complication that put them in a high-risk category, and they need certain interventions.( Berit Thrkelson, Renie Bache et.all,2020) People with low risk pregnancy are the best candidates for a natural delivery. High risk pregnancy are, age is less then 35 years, Drug abuse Alcohol abuse, Previous C-section, Medical conditions such as Diabetes, Preeclampsia or Blood clotting issues, Multiple foetus.( Erica Hersh; 2019)

About 40% of women who deliver vaginally does not given choice of epidural anesthesia. Some of these women planned for a natural birth while others have gone this route simply because there was no time for an epidural. (Robin Elise Weiss, 2021). In some cases, this means having some medical intervention, such as foetal heart monitoring, or not having medical intervention at all. This type of birth can take place in a birthing centre with a midwife or hospital (Erica Hersh, 2019).

Pain medication can affect labour, such as speeding it up or slowing it down, it can also have effects on the mother, such as lowering blood pressure or causing nausea. Other women choose a ‘Natural delivery because they want more control over the labour process, including their pain management. Natural birth without giving pain medication or intervention can make women feel empowered, but you have to consider many factors before deciding on the drug free birth. Here are some advantages and disadvantages -

Faster recovery after the birth and less vaginal tearing since the women will push instinctively during the delivery and shorter the pushing time, ability to change the birthing position, decreased risk of needing of risky intervention avoid side effect associated with the epidural and ability to bond and breastfeed the child immediately. Helping baby to breath during the labour the baby produce a stress hormone called catecholamines it is known as the fight and flight hormone produced in response to stressful or threatening situation. Catecholamines help with respiratory adaptations (Maressa Brown, 2021)

Promoting a strong immune system as new born have a weak immune system and need all the help they need to protect them from outer environment. Increase energy to the baby. Increase oxygen level to the baby. Promote mother and baby relationship.(Marisa Cohen, Jennifer L. W. Fink and Nicole Harris,2019). Many moms who have given choice for a unmedicated birth enjoy knowing exactly without their bodies are capable of without medication.

Many women find comfort in the ability to move during labour as a way to cope with pain, Pushing may be more effective, women will be able to get out of bed and walk around sooner post birth.(Maressa Brown, 2021)

The major drawbacks of natural birth is to manage pain without medical assistance. Physical pain must diminish from the experiences of childbirth. Natural childbirth may not be possible for women with high risk pregnancies. Due to medical reasons the pregnant mother may need interventions or drugs. Potential for prolonged labour if the mother is tired anxious or depressed. In case of natural home births the mother and the baby may not have access to medical services in case of emergency. .(Marisa Cohen, Jennifer L. W. Fink and Nicole Harris, 2021)

Some women find the pain is much more intense than they anticipated. In emergency general anesthesia may be needed,since C- section is likely necessary. If planning for home birth, there is a two to three times greater risk of perinatal death when compared with a hospital birth.( Maressa Brown, 2021)

Every delivery has a risk of complications, such as heavy blood loss or tissues with the umbilical cord. These complications may be harder to detect or treat without medical interventions. (Erica Hersh, 2019) Professor Miller said “Only 28.7% of the women experienced a normal birth. Our analysis found that those who had received standard care, public midwifery continuity care or private midwifery care were all more likely to have a normal birth. We also found that women had a higher chance of a normal birth if, they lived outside major cities, could move freely throughout labour, received continuity of care in labour and birth, did not have procedures to augment their labor, did not have their baby continuously electronically monitored during labour, or gave birth not lying flat. (Queensland university of Technology, 2018 )

Let labour start spontaneously ,if the pan to have baby at a hospital or birthing centre, doctor can help to choose the best time to go for delivery. There are several methods are used to relieve pain including Breathing techniques, massage, warm bath, acupressure etc. Recovery after any type of childbirth depends on the individual.( Erica Hersh,2019)

Antenatal care is essential for protecting the health of women and their unborn children. Through antenatal care, pregnant women can also access micronutrient supplementation, treatment for hypertension to prevent eclampsia, as well as immunization against tetanus. Antenatal care can also provide HIV testing and medications to prevent mother-to-child transmission of HIV.(UNICEF, 2019)

Good nutrition during pregnancy can help to keep you and your developing baby healthy. Your need for certain nutrients (such as iron, iodine and folate) increases when you are pregnant.( BetterHealth channel,2021) When a woman eats well during her pregnancy, she reduces the chances of complications such as anemia, low birth weight, and birth defects. Eating well can also help with unpleasant pregnancy symptoms. (Benefits of Health Eating during pregnancy, NJPA, 2022)

Exercise during pregnancy helps to alleviate many of the common problems of pregnancy. It improves circulation, which helps prevent constipation, haemorrhoids, varicose veins, leg cramps, and swelling of the ankles. It also prevents back pain by strengthening the muscles that support the back, exercise has been shown to improve mood, It also allows to to sleep better **and** helps prepare for childbirth.(American pregnancy association, 2022)

Sanitation is a very significant aspect for women who are about to deliver a baby as there was an association between sanitation and adverse pregnancy outcome. Education on sanitation practices is the need of the hour as much as it needs to follow (Patel Ratna et.al., 2019). Effects of sanitation practices on adverse pregnancy outcomes in India: a conducive finding from recent Indian demographic health survey, BMC pregnancy and childbirth 2019.)

Mental Health of the mother during is also essential thing to be taken care of, if the mother is stressed all the time the birthing process can be affected. If the home environment is violence or abuse it also affects the pregnancy. During the labour one of her family members should be there to support her. (BMC pregnancy and child birth 2019)

### **Background of the study**

According to new research from the World Health Organization (WHO), caesarean section use continues to rise globally, now accounting for more than 1 in 5 (21%) of all childbirths. This number is set to continue increasing over the coming decade, with nearly a third (29%) of all births likely to take place by caesarean section by 2030, the

research finds. Worldwide caesarean section rates have risen from around 7% in 1990 to 21% today, and are projected to continue increasing over this current decade. If this trend continues, by 2030 the highest rates are likely to be in Eastern Asia (63%), Latin America and the Caribbean (54%), Western Asia (50%), Northern Africa (48%) Southern Europe (47%) and Australia and New Zealand (45%), the research suggests (WHO, 2021)

The fifth NFHS (National Family Health Survey) — done in two phases between June 2019 and January 2020, and January 2020 and April 2021, and released by the health ministry Wednesday — showed that the national C-section rate is 21.5 per cent, higher than what the World Health Organization terms “ideal”, 10-15 per cent. At the national level, 47.4 per cent babies born in the private sector are being delivered by surgical methods, as compared to just 14.3 per cent in the government sector. Experts say there could be several reasons for the growing disparity, among them, the increased health insurance coverage in India since the launch of the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana in (National Family Health Survey, 2018).

Total percentage of C-sections (14.9%) is on par with the WHO’s standard (10-15%); and out of the total reported C-sections, about 17.7% are conducted at private facilities in Uttarakhand. (State Fact Sheet Uttarakhand - District Level Household Survey 2021)

### **Need of the study**

Childbirth facing a crisis because medical professionals turned natural physiological process into a medical emergency. They were doing things which were not necessary because they thought at that time they were right, and C-section have been rising and women all over has been subjected to disrespect and abuse, not given choices to do things. Respectful maternity care is a basic human right for every child bearing women. The way we are born and the way we give birth matters, because birthing experience of women leaves her with memories either empower her or scar her for life. Long term influence on her future health and her baby. Birth memories are long lasting and imprinted on a women’s mind till she lives. (Dr. Evita Fernandez, 2019)

There can be so many bad impacts occur on mother as well as baby after the caesarean delivery. The prevalence of maternal mortality and maternal morbidity is higher after caesarean section than after vaginal birth. Caesarean section is associated with an increased risk of uterine rupture, abnormal placentation, ectopic pregnancy, stillbirth, and preterm birth, and these risks increase in a dose–response manner. There is emerging evidence that babies born by CS have different hormonal, physical, bacterial, and medical exposures, and that these exposures can subtly alter neonatal physiology. Short-term risks of CS include altered immune development, an increased likelihood of allergy, atopy, and asthma, and reduced intestinal gut microbiome diversity. The persistence of these risks into later life is less well investigated, although an association between CS use and greater incidence of late childhood obesity and asthma are frequently reported. (Jane Sandall, Rachel M. Tribe, et al. 2018)

Excessive bleeding that may require a blood transfusion, Infections such as endometritis (an infection of the womb lining), Injury to the bladder, Bowel injury, Reactions to anesthesia or the medicines, Deep vein thrombosis (formation of blood clots, especially in the deep veins of the legs or pelvic region), Potential risk in future pregnancies such as problems with the placenta or the need for a future cesarean delivery. (Shazia Allarakha, 2020.)

Sensory perception refers to the processing by the human brain of objective sensory inputs that have been transduced by the sensory organs. Research has indicated that, compared with natural childbirth, caesarean section has negative impacts on children’s senses of smell, touch, and visual ability. Sensory integration plays a crucial role in children’s learning ability and social adaptability. Studies have found that the sensory integration ability of children born by caesarean section is worse than that of children born by natural childbirth. Attention deficit hyperactivity disorder (ADHD) is characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning (American Psychiatric Association, 2013).

### **Problem Statement**

“A study to assess the effectiveness of awareness programme regarding Natural Birthing among Nursing Officers working in maternity unit in selected Hospital, Dehradun”.

### **Objectives:-**

1. To assess the pre- test and post- test knowledge of nursing officers regarding the awareness programme on natural birthing.

2. To assess the effectiveness of awareness programme on knowledge regarding natural birthing among nursing officers.
3. To find out the association between pre-test knowledge with the selected demographic variable.

### **Hypothesis**

**H 1-** The mean post-test knowledge score of nursing officers will be significantly higher than their mean pre-test knowledge score of Natural Birthing.

**H 2-** There will be significant relationship between post-test and post-test knowledge of nursing officers regarding natural birthing.

**H3-** There will be significant association between pre-test knowledge score of nursing officers with selected demographic variables.

### **Research approach**

In this study quantitative research approach was used.

### **Research design**

In this study Experimental research design is used to assess the knowledge of nursing officers regarding natural birthing.

### **Research setting**

This study is conducted in selected hospitals of Dehradun.

### **Population**

In this study the population was nursing officers.

### **Sample**

In this study nursing officers were the samples.

### **Sample size**

In this study the sample size is 40 nursing officers.

### **Sample techniques**

The sampling techniques used for this study is convenience sampling technique because it was easier to get the information when the samples willingly contributes in the study.

### **Sample criteria**

Sample criteria refers to the essential characteristics of a subject or respondent such as ability to read and write response on the data collection instruments.

### **Inclusion**

1. Nursing officers those are working in maternity unit.
2. Nursing officers willing for study.
3. Nursing officers knows Hindi and English languages.

### **Exclusion**

1. Those who are not willing to participate in the study.
2. Nursing officers of other then maternity unit.

### **Variables**

Three two of variables are included in this study-

1. Dependent variable- knowledge
2. Independent variable- Nursing officers.

### Data collection techniques

We are the students of DIMS College have been on a research project of topic -“A study to assess the effectiveness of a video assisted teaching programme on knowledge regarding natural birthing among nursing officers working in a maternity unit in selected hospital of Dehradun”

1. We firstly taken the permission from our Principal to start with the project.
2. Later on, the final permission was taken from Pandit Deen Dayal Upadhyaya (Coronation )hospital and Krishna Medical Center for accomplishment of our research project.
3. Data collection is done from 4/02/2023 to 19/02/2023 in Dehradun.
4. Data collected through the sample via semi structured questionnaire and then plan for video assisted teaching programme for sample for updating their knowledge.

### Description of the tool

1. The tool consists of two sections.
2. **Section 1- Demographical data**
3. It contains six demographic item such as nursing officer’s age, their qualification, type of hospital where they work, experience, income and working ward.
4. **Section 2- Self structured questionnaire**
5. It consists of 34 multiple choice questions related to ‘Natural Birthing’.

### Validation of the tool

The tool will be submitted to medical and nursing profession. The tools sent to 5 experts for validation. The experts will be requested to give valuable suggestions for the purpose of developing a better and relevant tool to perform the study. Necessary changes were done on the basis of expert suggestions and tools will be finalized.

### Reliability of the tool

Reliability is the degree of consistency and accuracy with which an instrument measures the attribute or variable for which it is design to measure. The tool was administered on 4 sample and reliability was established by split half technique by using Karl Pearson’s correlation coefficient formula and Spearman Brown Prophecy formula.

The reliability of the tool was found to be ( $r = 0.72$ ) for knowledge questionnaire. The tools were found to be reliable.

### Organization and Presentation of data

Analysis interpretation was done as per the objectives of the study and the hypothesis were formulated. Descriptive and inferential were used for the analysis o data.

The data and findings have been organized under the following sections-

#### Section 1:- Findings related to demographic characteristics of subject.

- Frequencies and percentages were computed to describe the sample characteristics of the subject.

#### Section 2:- Findings related to the knowledge level of Nursing Officers.

- Mean, median, standard deviation of the pre-test and post-test knowledge score was computed.
- Paired t-test value computation to determine the significance of difference between mean pre-test and post-test knowledge score.
- Frequency and percentage computation to determine the level of knowledge o subject.

#### Section 3:- Findings related to association between pre-test scores with selected demographic variables.

- Chi square computation to determine association between pre test knowledge score with selected demographic variables .

### Section 1

#### Findings related to demographic characteristics of the nursing officers.

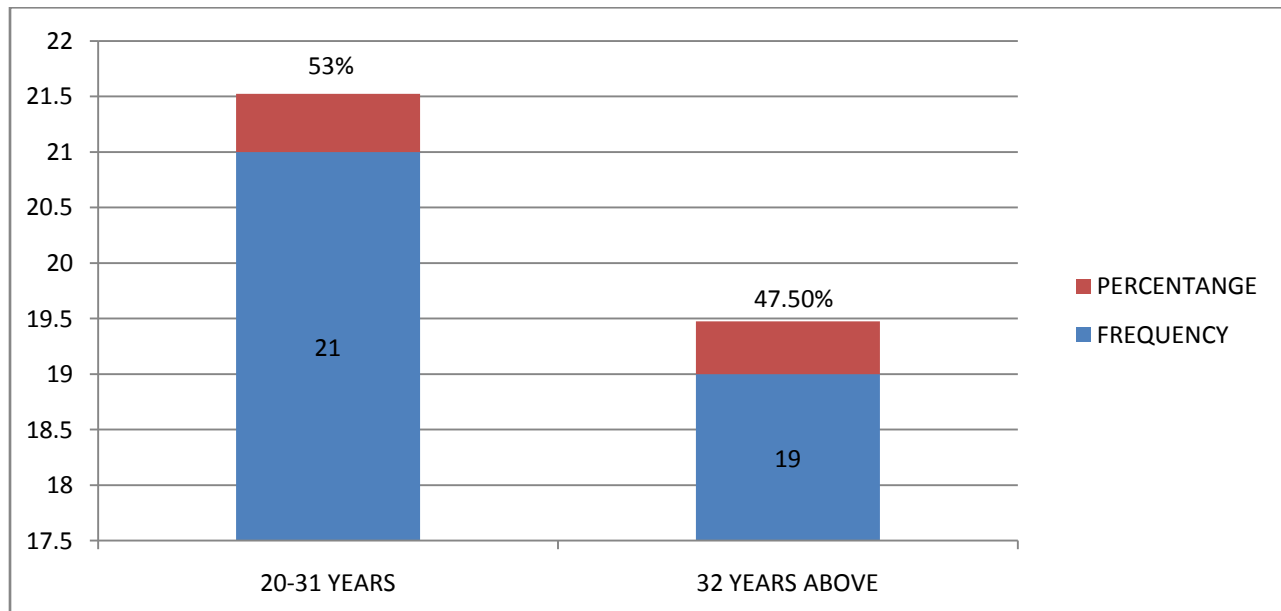
The section describes the demographics characteristics of the Nursing Officers. The sample consists of 40 Nursing Officers working in selected Hospitals of Dehradun. The data obtained describes the sample characteristics pertaining to their age, qualification, hospital, experience, income and working unit.

Frequency and percentage distribution of sample by the characteristics are presented in table diagrams respectively.

**Table 1:-**

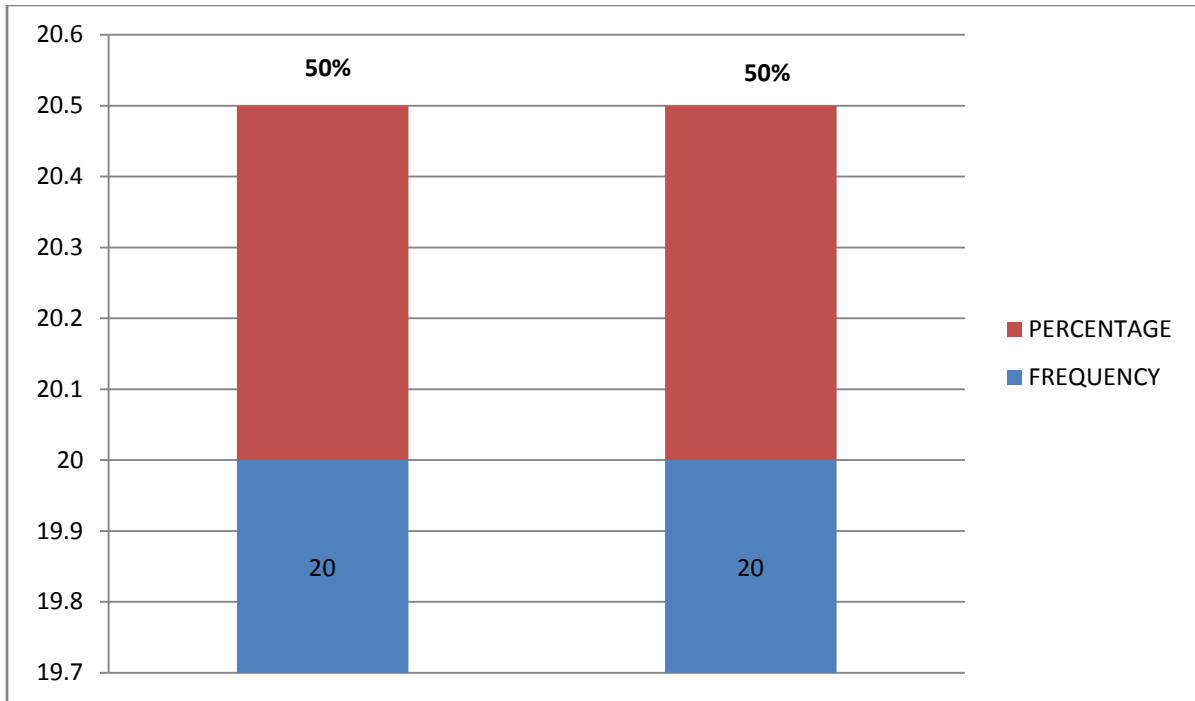
S.NO	SAMPLE CHARACTERISTIC	FREQUENCY	PERCENTAGE
1	Age		
A	20-30	21	52.5%
B	31 years above	19	47.5%
2	Qualification		
A	G.N.M	20	50%
B	B.SC. Nursing	20	50%
3	Hospital		
A	Government	18	45%
B	Private	22	55%
4	Experience		
A	Fresher to 3 years	20	50%
B	More than 3 Years	20	50%
5	Income		
A	15,000 – 30,000	22	55%
B	Above 30,000	18	45%
6	Ward		
A	Obstetrical Ward	22	55%
B	Labour room	18	45%

The data presented in Table 1 depicts that the majority of Nursing Officers 21(52.5%) are between 20-31years age group. The number of nursing officers are equal 20(50%) in qualification either B.Sc. Nursing or G.N.M.. Majority of them 22(55%) are working in Private Hospitals. The number of nursing officers are equal in experience either in fresher to 3years or more than 3 years of age group 20 (50%). And in case of income majority of the Nursing Officers 22(55%) have between 15,000- 30,000 monthly income and most of them 22(55%) are working Obstetrical ward.



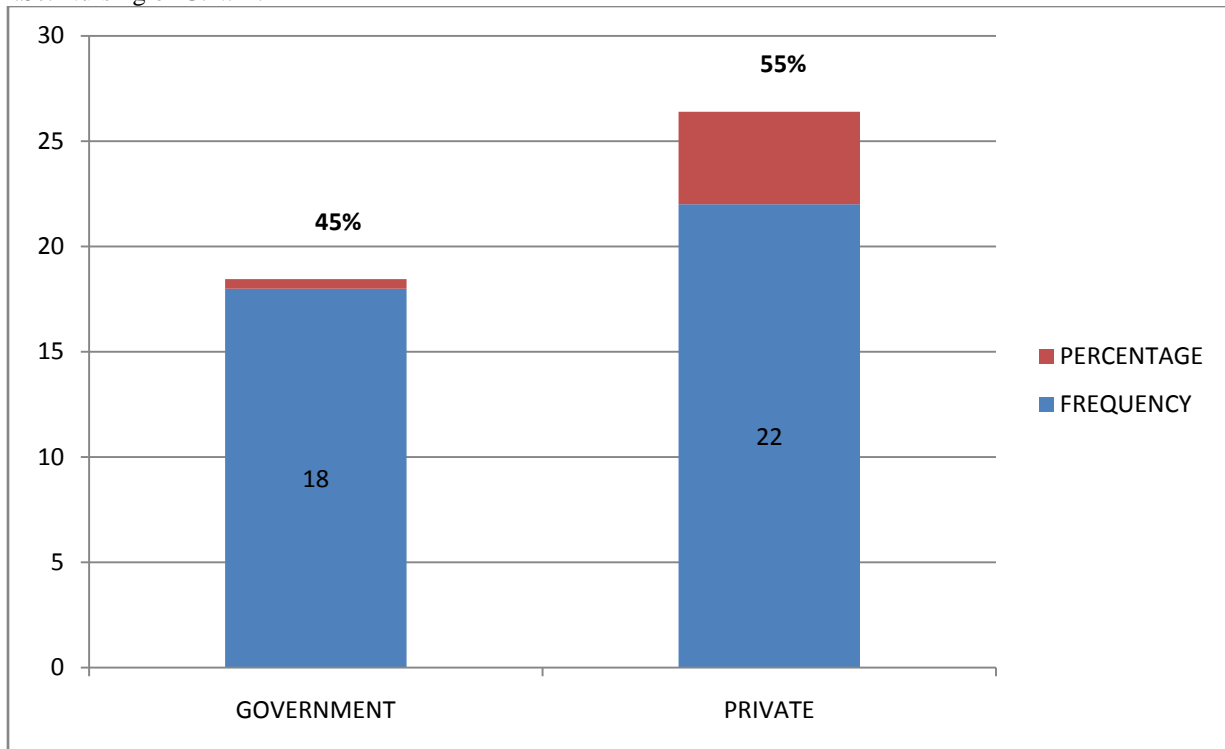
**Figure 2:-** Column diagram showing distribution of sample by age.

The data presented in figure:2 depicts that the majority of Nursing Officers 21(52.5%) are between 20-31years age group and 19(47.5%) are above 32 years.



**Figure 3:-** Column diagram showing distribution of sample by qualification.

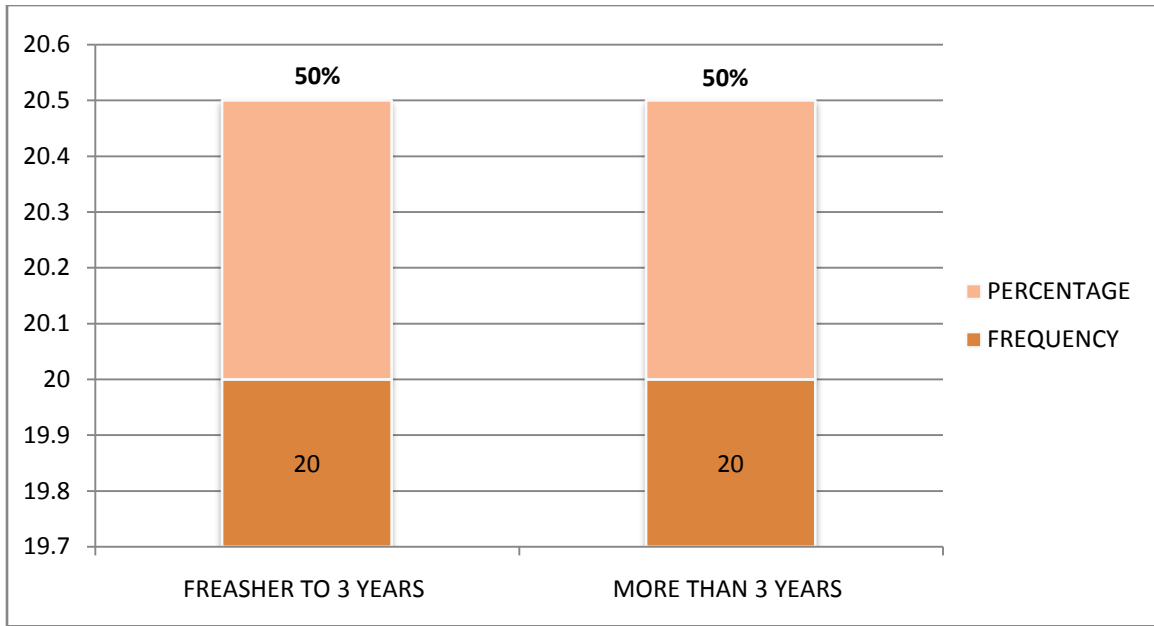
The data presented in figure:3 shows that the number of nursing officers are equal 20(50%) in qualification either B.Sc. Nursing or G.N.M.



**Figure 4:-** Column diagram showing distribution of sample by hospital.

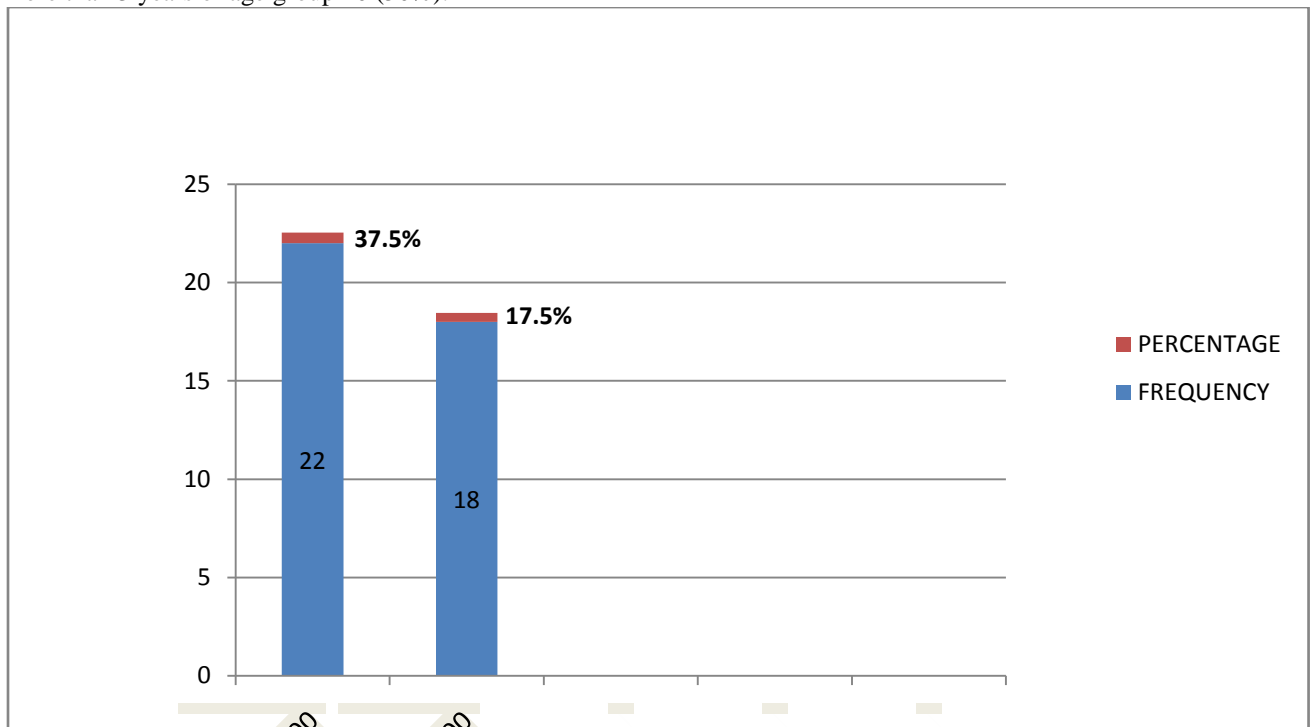
The data in figure:4 shows that the majority of nursing officers 22(55%) are working in Private Hospitals and 18(45%) are working in government hospital.





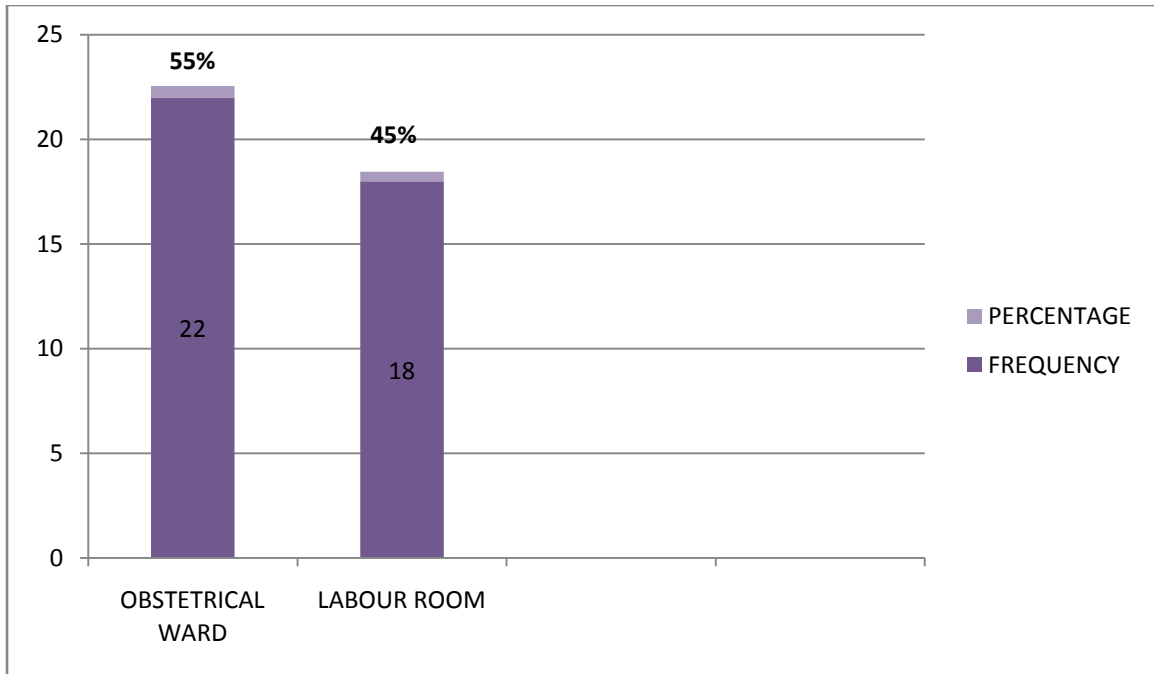
**Figure 5:-** Column diagram showing distribution of sample by experience.

The data in figure:5 shows that the number of nursing officers are equal in experience either in fresher to 3 years or more than 3 years of age group 20 (50%).



**Figure 6:-** Bar graph diagram showing of sample by income.

The data represented in the figure:6 shows that majority of the Nursing Officers 22(55%) have between 15,000-30,000 monthly income and 18(17.5%) earn above 30,000.



**Figure 7:-** Column diagram showing distribution of working ward of sample.

The data in figure:7 shows that most of nursing officers 22(55%) are working Obstetrical ward and 18(45%) are working in labour room.

**Section 2**

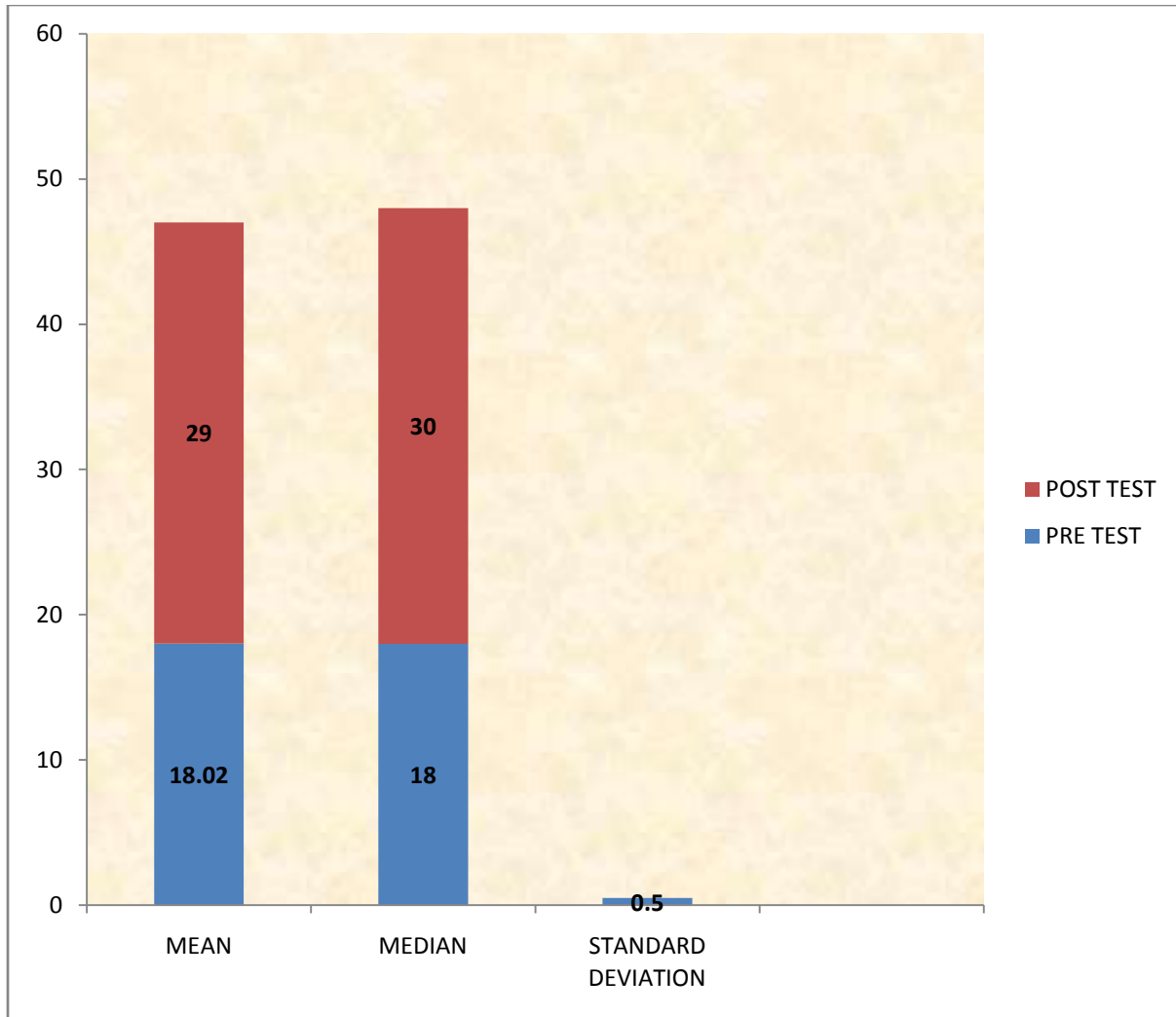
**Findings related to the knowledge level of the Nursing officers.**

This section describe the findings related to effectiveness of video assisted teaching program regarding Natural Birthing among Nursing Officers in selected hospitals of Dehradun. The pre-test and post-test knowledge obtained through semi structured knowledge questionnaire are described and analyzed using descriptive and inferential statistics. There were 34 knowledge question with one correct response in each question was given 1 mark the maximum possible marking was 34 that is presented in table.

**Table 2:-** Mean, median, standard deviation of pre-test and post- test knowledge score of the Nursing Officers regarding Natural Birthing. n=40

Knowledge scores	Mean	Median	Standard deviation
Pre-test	18.02	18	0.50
Post-test	29	30	0.35

The data presented in the table 2 depicts the mean of the post-test (29) is higher than pre-test (18.02). The value of median of post-test (30) that is higher than the value of pre-test. It shows the video assisted teaching program was effective for Nursing Officers to gain knowledge regarding Natural Birthing.



**Figure 8:-** Pyramid diagram showing mean, median, standard deviation of pre-test and post-test.

The data presented in figure:8 depicts the mean of the post-test (29) is higher than pre-test (18.02). The value of median of post-test (30) that is higher than the value of pre-test. It shows the video assisted teaching program was effective for Nursing Officers to gain knowledge regarding Natural Birthing.

**Table 3:-** Mean, mean difference, standard deviation difference, paired t-test of pre-test and post-test regarding Natural Birthing. n=40

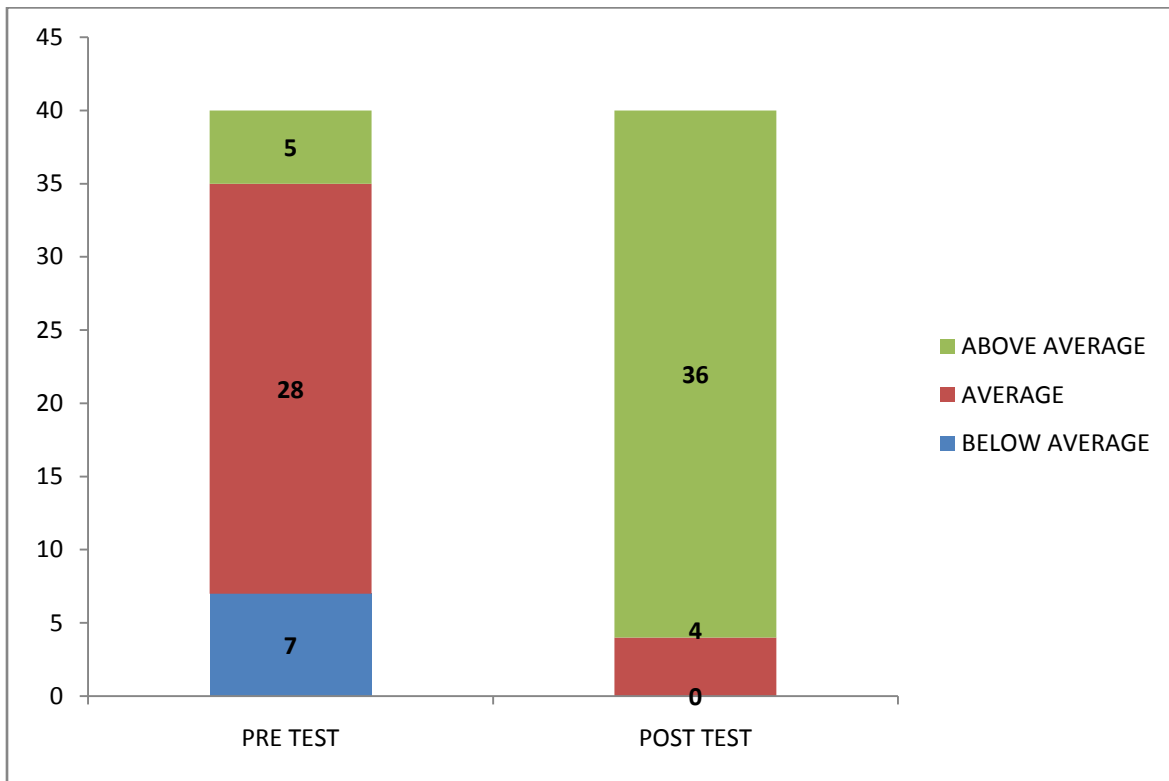
Total no of question	Minimum and maximum marks	Knowledge	Mean	Mean difference	Standard deviation difference	df	Calculated value of paired t- Test	Tabulated value of paired t test	Significance
Q1-Q34	1-34	Pre test	18.02	10.98	0.15	01	-34.41	6.314	P<0.05
		Post test	29						

The post-test mean knowledge score was significantly greater than the pre-test mean knowledge score .The calculated value of paired t test is -34.41 which is less than the tabulated value of (6.314) of paired t test so it is significant at 0.05 level. It is concluded that there is significant difference between pre-test and post- test knowledge score of nursing officers regarding natural birthing.

**Table 4:-** Findings of the frequency and percentage distribution of pre-test and post-test knowledge of Nursing Officers regarding Natural Birthing. n=40

KNOWLEDGE LEVEL	SCORE	PRE TEST		POST TEST	
		FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
Below average	0-11	7	17.5%	0	0%
Average	12-23	28	70%	4	10%
Above average	24-34	5	12.5%	36	90%

Table 4 shows that in pre-test 28(70%) of respondents have average level of knowledge and 7(17.5%) of respondents have below average level of knowledge. In post-test 36(90%) of respondents had above average level of knowledge and 4(10%) of the respondents had average level of knowledge.



**Figure 9:-** Column diagram showing knowledge scores of pre-test and post-test.

Figure:9 shows that in pre-test 28(70%) of respondents have average level of knowledge and 7(17.5%) of respondents have below average level of knowledge. In post-test 36(90%) of respondents had above average level of knowledge and 4(10%) of the respondents had average level of knowledge.

**Section 3**

**Findings related to association between pre-test score with selected demographic variables.**

This section describes the association between the pre-test knowledge score with each demographic variable.

**Table 5:-** Chi square value showing pre-test knowledge score association with selected demographic variables of nursing officers. n=40

Demographic variable	KNOWLEDGE		Df	Chi square	Table value of chi square	P value
	Below median	Above median				
1.AGE(IN YEARS )						

a) 20-31 b)32 years above	07 09	14 10	01	0.8187	3.841	0.365557
<b>2. QUALIFICATION</b>						
a) GNM b)B.SC Nursing	10 06	10 14	01	1.6667	3.841	0.196706
<b>3.HOSPITAL</b>						
a)Government b)Private	08 08	10 14	01	0.2694	3.841	0.603761
<b>4. EXPERIENCE</b>						
a)Fresher-3 yrs b)More than 3 yrs	06 10	14 10	01	1.6667	3.841	0.196706
<b>5.INCOME</b>						
a)15,000-30,000 b)Above 30,000	08 08	14 10	01	0.2694	3.841	0.603761
<b>6. WARD</b>						
a)Obstetrical ward b)Labor	10 08	12 10	01	0.0041	3.841	0.949062

#### Significance at 0.05 level

This data in table-5 shows the significant association between knowledge and the age of the nursing officers ( $x^2=0.8187$ ), qualification of nursing officers ( $x^2=1.6667$ ), type of hospital ( $x^2=0.2694$ ), experience of nursing officers ( $x^2=1.6667$ ), Income of nursing officers ( $x^2=0.2694$ ), and working ward of nursing officers ( $x^2=0.0041$ ) as evidence by significance at 0.05 level there is no significant association between age, qualification, type of hospital, experience, income and working ward.

#### Discussion:-

##### 1 To assess the pre- test and post- test knowledge of nursing officers regarding the awareness programme on natural birthing.

In the present study pre-test assessment by level of knowledge revealed that 7(17.5%) of nursing officers had below average knowledge, 28(70%) had average knowledge and 5(12.5%) had above average knowledge. The overall mean, median and standard deviation of pre-test knowledge score were 18.02, 18, and 0.50 regarding natural birthing. The pre-test score shows that most of nursing officers have inadequate knowledge.

The similar study was conducted by Zeinab Heidari, Shahnaz Kohan.(2015). The results showed that the 74.20% of midwifery students had a high level of knowledge about natural childbirth and the majority of nursing students had moderate (52.40%) and high (40.5%) levels of knowledge about natural childbirth.

##### 2. To assess the effectiveness of awareness program on knowledge regarding natural birthing among nursing officers.

In the present study, post test assessment by level of knowledge revealed that 4(10%) of nursing officers had average knowledge, 36(90%) had above average level of knowledge regarding natural birthing and no one was in below average of knowledge. In post-test knowledge score the mean is 29, median is 30 and standard deviation is 0.35. In the present study the mean post-test score was 29 and mean difference was 10.98. It represents that awareness program is sufficient for gain knowledge.

The similar study was conducted by Tabssum Irshad et. all(2016). The result shows that The mean post-test skill score (102.3) was higher than the mean pre-test skill score (55.3) of staff nurses with a mean difference of 47.

### 3. To find out the association between pre-test knowledge with the selected demographic variable.

In the present study the significant association between knowledge and the age of the nursing officers ( $\chi^2=0.8187$ ), qualification of nursing officers ( $\chi^2=1.6667$ ), type of hospital ( $\chi^2=0.2694$ ), experience of nursing officers ( $\chi^2=1.6667$ ), Income of nursing officers ( $\chi^2=0.2694$ ), and working ward of nursing officers ( $\chi^2=0.0041$ ) as evidence by significance at 0.05 level there is no significant association between age, qualification, type of hospital, experience, income and working ward regarding Natural Birthing.

The similar study was conducted by Prof Manimegalai et. all.(2022). The findings of the study showed that post-test mean knowledge score was higher than the pre-test mean score. Thus, the difference in the level of knowledge was found to be significant at  $p<0.001$  level. 28-32 years staff nurses and more than 10 years' experience staff nurses are having significant association with knowledge score at the level of  $p<0.05$  and  $p<0.001$  respectively.

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