EFFECTIVENESS OF VIRTUAL LABOUR PROCESS UPON KNOWLEDGE AND ANXIETY LEVEL REGARDING LABOUR PROCESS AMONG PRIMIGRAVID MOTHERS

By

MINTU KURIAKOSE

A DISSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL 2014
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DECLARATION

I hereby declare that the present dissertation entitled “Effectiveness of virtual labour process upon knowledge and anxiety level regarding labour process among primigravid mothers” is the outcome of the original research work undertaken and carried out by me under the guidance of Dr. Latha Venkatesan, M.Sc (N), M.Phil (N), Ph.D (N), Principal and Professor in Obstetrics and Gynaecological Nursing and Mrs. Lizy Sonia. A, M.Sc (N), Ph.D (N), Vice Principal and Professor, Head of the department in Medical Surgical Nursing, Apollo College of Nursing, Chennai.

I also declare that the material of this has not formed in anyway, the basis for the award of any degree or diploma in this University or any other Universities.

M.Sc (N), II Year
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SYNOPSIS

An Experimental Study to Assess the Effectiveness of Virtual Labour Process upon Knowledge and Anxiety level among Primigravid Mothers within 35 – 40 Weeks of Gestation at Selected Hospital, Chennai.

Objectives of the Study

1. To assess the level of knowledge and anxiety before and after Virtual Labour Process among Control and Experimental group of Primigravid mothers within 35 - 40 weeks of gestation.

2. To determine the effectiveness of Virtual Labour Process by comparing the level of knowledge and anxiety before and after the Virtual Labour Process among Experimental and Control group of Primigravid mothers within 35 - 40 weeks of gestation.

3. To find the association between the selected Demographic variable and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid mothers within 35 - 40 weeks of gestation.

4. To find the association between the selected Obstetric variables and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid mothers within 35 - 40 weeks of gestation.

5. To determine the level of satisfaction among Experimental group of Primigravid mothers regarding administration of Virtual Labour Process.
The conceptual framework set up for this study is based on “King’s Goal Attainment Model” (1981). This model addresses process of action, reaction, interaction whereby nurses and clients share information about their perception. The variables of the study were Virtual Labour Process, knowledge and anxiety regarding labour. Null hypothesis were formulated. An extensive review of literature was made based on the opinions of the experts. An Experimental study of pre-test and post-test design was used. The study included 60 Primigravid mothers within 35 – 40 weeks of gestation who were selected by simple random sampling. The study was conducted at Andhra Mahila Sabha Hospital, Chennai.

Selected Demographic variable Proforma, Selected Obstetric variable proforma, Structured Interview Schedule, Anxiety scale which and Rating scale on satisfaction on Virtual Labour Process prepared by the researcher were the various tools used by the researcher. The validity was obtained from various experts and reliability was established. The main study was conducted after the pilot study. The level of knowledge and anxiety regarding labour process were assessed for the Control and Experimental group of Primigravid mothers. The Virtual Labour Process of ten minutes duration was provided for the Experimental group. Then the level of knowledge and anxiety regarding labour process were assessed again after 7 days for both the groups. The level of satisfaction on Virtual Labour Process among the Experimental group of Primigravid mothers were assessed after one week from intervention. The data obtained were analyzed using Descriptive and Inferential statistics.
Major Findings of the Study

- The majority of the Primigravid mothers were between the age group of 18 – 21 years (80%, 37%) and 22 – 25 years (17%, 53%), a significant percentage of them are qualified with secondary education (23%, 63%) and graduation courses (67%, 20%), majority of them were from nuclear families (70%, 70%), most of them reside in urban area (80%, 83%), majority of the mothers were unemployed (83%, 87%) and most of them had a family monthly income within Rs. 7001 – 9000 (43%, 70%), a large percentage of them were Hindus (86%, 77%).

- Majority of Primigravid mothers had undergone more than 5 antenatal visits (83%, 83%), most of them gained about 8 -10 kg (13%, 70%) and 10 – 12 kg (83%, 13%) weight during pregnancy, a significant percentage of them had gestational age within 38 – 40 weeks of gestation (77%, 60%) and a majority of them had height 146 – 155 cm (30%, 73%) and more than 155 cm (70%, 27%).

- Majority of the Primigravid mothers had moderately adequate knowledge (80%, 53%) before intervention in the Control and Experimental group respectively and all of them gained adequate knowledge (100%) after intervention in the Experimental group.

- The mean knowledge level was slightly high after intervention (M=9.4, SD=2.06) compared to before intervention (M=9.7, SD=3.3) in the Control group where as the mean level of knowledge was very high after intervention (M=24.5, SD=0.7) compared to before intervention (M=9, SD=2.5) in the Experimental group.
Majority of mothers had severe level of anxiety (63%, 67%) in the Control and Experimental group before intervention and a few mothers in the Control and Experimental group had moderate level of anxiety (37%, 33%) before intervention. After the intervention the level of anxiety in the Experimental group reduced to a mild level of anxiety (100%). There was a severe level of anxiety in a significant percentage (63%) of them in the Control group after intervention.

The mean level of anxiety in the Experimental group was low after intervention (M=1.2, SD=1.69) in comparison with before intervention (M=8.1, SD=1.7). Whereas in the Control group there is only a slight decrease in the level of anxiety (M=7.2, SD=1.12) after intervention in comparison with before intervention (M=7.8, SD=1.23).

All of the participants in the Experimental group were highly satisfied (100%) with the Virtual Labour Process and none of them (0%) reported unsatisfaction towards the intervention.

There was no significant association between age, educational status, type of family and type of employment with knowledge regarding labour process among the Control group of Primigravid mothers. Hence the null hypothesis $H_0$ was retained.

There was significant association between age and educational status with knowledge regarding labour process among the Experimental group of Primigravid mothers but there was no significant association with type of family and type of employment. Hence the null hypothesis $H_0$ was rejected.

There was no significant association between age, type of employment, type of family and educational status with anxiety regarding labour process.
among the Control group of Primigravid mothers. Hence the null hypothesis H\textsubscript{02} was retained.

- There was no significant association between age, type of employment, type of family and educational status with anxiety regarding labour process among the Experimental group of Primigravid mothers. Hence the null hypothesis H\textsubscript{02} was retained.

- There was no significant association between number of antenatal check-up and gestational age in weeks with knowledge regarding labour process among the Control group of Primigravid mothers also there is no significant association between number of antenatal check-up and gestational age in weeks with knowledge regarding labour process among the Experimental group of Primigravid mothers. Hence the null hypothesis H\textsubscript{03} was retained.

- In the Control group of Primigravid mothers there was no significant association between number of antenatal check-up and gestational age in weeks with anxiety regarding labour process. Hence null hypothesis H\textsubscript{03} was retained.

- There was significant association found between the number of antenatal check-up with anxiety regarding labour process and no significant association between the gestational age in weeks with anxiety regarding labour process among the Experimental group of Primigravid mothers. Hence the null hypothesis H\textsubscript{03} was rejected.

The study concluded that the Virtual Labour Process was effective in terms of reduction in anxiety and improvement in knowledge regarding labour process.
Recommendations

- The same study can be conducted with large number of samples.
- A comparison can be made between primi and multi gravidae.
- A comparison can be made with different countries.
- The same study can be conducted at different setting.
- A comparison can be made between different types of educational programmes.
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CHAPTER I
INTRODUCTION

"A moment in my tummy... a lifetime in my heart."

- Li Langelz Mom

Background of the Study

Babies are bits of star-dust blown from the hand of God. Lucky are the woman who knows the pangs of birth for she has held a star. Whether giving birth will be difficult or easy, pain full or pain free, long – drawn – out or brief, it is something where everyone ends up with own unique experience. Birth is not only about making babies, it is about making Mothers strong, competent, capable Mothers who trust themselves and know their inner strength.

Giving birth to a baby is a very great event in most cases. There are feelings associated with this event like that of achievement, excitement and braveness, and Mothers are mostly proud of giving birth without any technical assistance.

Pregnancy is one of the most valuable spiritual lessons for any female and has the single greatest impact of any event in a normal life on earth. There is a little to say about such pregnancy. God loves to have many children because many children means many sources of joy in life. Having beloved babies in a loving relationship is a most beautiful experience. Since we all are made in the image of God, we all enjoy what God enjoys – many babies growing up and creating joy of life for all of us at any age.
Childbirth is more than a physical phenomenon; it is important to have an awareness of the birth process and honor it all the physical, emotional and spiritual levels. Babies can experience pleasure, pain, fear, stress and serenity in response to the Mother’s experiences and reactions. Education is a vital part of building a relationship of trust with oneself and their baby. Childbirth preparation gives a pregnant Mother the knowledge, skills and support that instill confidence in her ability to give birth and gives her partner the confidence to be active in the process.

According to Indian culture, talk about reproductive system is considered to be shameful. Historically Mothers are expected to be subservient to be their families and have very little interaction with outsiders. Owing to their low status, their access to education and health information are limited. Mothers’s experiences of childbirth have changed significantly in the past few years in developing countries like India. Deliveries, which previous took place at home with a familiar attendant, now occur in hospitals or nursing homes and are characterized by protocols and increased alienation from the familiar environment and persons. Procedures and techniques used in labour rooms of hospitals further create an atmosphere of unreality around normal childbirth. Mothers going through the process of childbirth in labour rooms are thus confused between traditional practices and hospital procedures. Antenatal health education regarding Labour Process and delivery may help to reduce this confusion and the Mothers can co-operate well with the process.

In India, 128.9 million births occur per year. According to the Ministry of Health and Family Welfare the crude birth rate of India in the year 2010 was
22.1/thousand live births. The birth rate in Tamil Nadu and Chennai in the year 2009 was 16.3/1000 births and 15.3/1000 births respectively (Department of Health and Family Welfare, 2009).

Every year worldwide approximately 211.4 million Mothers experience the joy of pregnancy based on the WHO report in 2010. Where in India approximately 31.3 million Mothers experiences pregnancy annually says UNICEF study.

The wisdom and compassion a woman can intuitively experience in childbirth can make her a source of healing and understanding for other Mothers. Though labour and delivery are not without pain and some degree of anxiety, if Mothers remains confident, well-informed and fully supported by health workers and partner, she is likely to have no problem in handling the awesome task of bringing a child into the world.

Prepared child Birth is based on the premises that the perception of pain is heightened by fear and tension and reduced by education and relaxation. Studies show that Mothers who are prepared and use the comfort measures from childbirth preparation class make the birthing process easier and have a shorter labour if all factors are favorable. A good child birth class empowers couples to have confidence in their decisions, their body, the natural process of labour and their ability to be wonderful parents.

Now a days anxiety is common in life and it is more among Primigravid Mothers during labour and delivery. The world wide prevalence rate of stress
in labour is 13.3% according to American psychological Association in 2005. The world wide prevalence rate of anxiety in labour is 13%. India is currently suffering an epidemic of generalized anxiety disorders. In 2006 national institute of medical science conducted a survey in which 18.1% population are suffering from stress and anxiety in India.

No studies were found related to use of Virtual Labour Process to improve knowledge and to reduce anxiety, so the researcher was very interested in doing a study using virtual programme and was curious to find the effectiveness of virtual programs in increasing the level of knowledge and reducing the level of anxiety.

**Need for the Study**

Pregnancy is a special time of life in a woman’s life. Most Mothers give birth without complications. Birth starts with the onset of labour, which is usually marked by the beginning of regular uterine contractions. Pregnancy, childbirth and Mothershood are times when a woman undergoes a vast change in her body and it can be termed as an entirely new birth for woman or as a time of rebirth.

Primigravida is a newly pregnant Mothers for the first time. They usually have difficulty in recognizing the changes that occur in the body that causes discomfort until her pregnancy lasted. This affects the Mothers’s psychology because of the lack of knowledge. They undergo anxiety because labour is something new to be experienced. Lack of knowledge can also lead Primigravid Mothers not to cope with discomfort that Mothers feel (Ulfah 2009).
According to National centre for health statistics (2008) the birth rate in United States was 685/1000 Mothers ages 15 – 44 years in that 58.5/1000 Mothers undergone vaginal delivery. About 55% of full term newborns worldwide are delivered vaginally, while over 75% of full term newborns in US are delivered vaginally.

There will be so many questions as the pregnant Mothers get closer and closer to the due date. Both men and Mothers have negative thoughts and feelings about the impending birth experience. The biggest obstacle that they may have will be the fear of the unknown. Education is the key and the greatest factor in decreasing the fear. The more they know and understand about the process of labour, the better prepared they will be to choose the best options available.

Knowledge regarding the pregnancy and labour has a positive influence on the antenatal Mothers, to take adequate care of her and in turn leads to better compliance during Labour Process, thereby leading to natural child birth.

The anxiety level in the Primigravid Mothers are mainly due to the lack of knowledge regarding the premonitory signs of labour, the process of labour and the immediate care of the newborns. Studies have shown that anxiety due to labour in Primigravid Mothers may lead to Obstetrical complications like pre-eclampsia, forceps deliveries, prolonged and precipitated labour, post partum hemorrhage, manual removal of placenta, fetal distress, preterm labour and child birth abnormalities.
Once the changes taking place in Mothers’s body for the first time, it will increase her anxiety level. To overcome anxiety and to prevent complications of anxiety among Primigravid Mothers, they should be educated about labour process and should make them be prepared for childbirth. So the researcher feels that there is a need to improve the level of knowledge and reduce the maternal anxiety during the birth process among Primigravid Mothers by using Virtual Labour Process.

Various educational methods were adopted by the nursing personnel to reduce the level of anxiety regarding labour process by improving the knowledge level of pregnant Mothers. This includes Structured Teaching Programme, Health talks, informational booklets, guidance and counseling, video programmes etc. Many researches were conducted and has proved its effectiveness in reducing anxiety on various aspects of health and it also shows that knowledge and anxiety is inversely proportional which means that once knowledge increases the level of anxiety decreases.

The effectiveness of structured teaching program to improve knowledge on warning signs of pregnancy among Primi antenatal Mothers was conducted by Kavitha (2012), and it was found effective.

A quasi experimental study conducted by Gayathri (2009) showed the effectiveness of planned teaching program in improving the level of knowledge and reducing the level of anxiety about labour among Primigravidae.
During the clinical postings, the researcher came across many Primigravid Mothers who were anxious regarding labour process. They were also found to have inadequate knowledge regarding various aspects of labour process and newborn care. Thus the researcher felt the need of improving the level of knowledge of Primigravid Mothers thereby decreasing their level of anxiety regarding labour process.

The researcher felt that apart from the usual educational methods, the Virtual Labour Process would be more interesting and effective in improving the level of knowledge and reducing the level of anxiety among the Primigravid Mothers.

Statement of the Problem

An Experimental Study to Assess the Effectiveness of Virtual Labour Process upon Knowledge and Anxiety Level among Primigravid Mothers within 35 – 40 weeks of Gestation at Selected Hospital, Chennai.

Objectives of the Study

1. To assess the level of knowledge and anxiety before and after Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.
2. To determine the effectiveness of Virtual Labour Process by comparing the level of knowledge and anxiety before and after the Virtual Labour Process among Experimental and Control groups of Primigravid Mothers within 35 - 40 weeks of gestation.
3. To find the association between the selected Demographic variable and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.

4. To find the association between the selected Obstetric variables and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.

5. To determine the level of satisfaction among Experimental group of Primigravid Mothers within 35 – 40 weeks of gestation regarding administration of Virtual Labour Process.

**Operational Definition**

**Effectiveness**

In this study the effectiveness refers to the outcome of Virtual Labour Process as measured in terms of knowledge and anxiety level before and after the Virtual Labour Process among Primigravid Mothers within 35 - 40 weeks of gestation using Structured Interview schedule and Anxiety scale prepared by the researcher.

**Virtual Labour Process**

In this study the term Virtual Labour Process refers to the moving animated pictures with foot notes (English) prepared by the researcher with time duration of 10 minutes. This is administered to each Primigravid Mothers in the Experimental group individually. This depicts the entire process of labour from the premonitory signs to the immediate care of newborn.
Knowledge

It refers to the level of information known to the Primigravid Mothers regarding labour process before and after the Virtual Labour Process as measured by a Structured Interview schedule which is developed by the researcher.

Anxiety

It refers to feeling of fear from the anticipation of process of labour among Primigravid Mothers before and after the Virtual Labour Process as measured using the Anxiety scale which is developed by the researcher.

Primigravid Mothers

It refers to the Mothers who are going to deliver baby for the first time irrespective of previous abortions between the age group of 18 - 35 years and within 35 – 40 weeks of gestation.

Satisfaction

It is a feeling of gratification attained or achieved by the Primigravid Mothers as measured using satisfaction rating scale.

Assumptions

The study assumes that

➢ Primigravid Mothers are very anxious at the time of labour.

➢ Reducing the anxiety level of the Primigravid Mothers in labour is an important function of a nurse.

➢ The Primigravid Mothers have a decreased level of knowledge regarding labour process compared to multi gravid Mothers.
➢ Health teaching is important for Primigravid Mothers for improving their knowledge.

➢ Virtual Labour Process is an accepted method of teaching.

**Null Hypothesis**

**\( H_{01} \)**: There will be no significant difference between pre and post-test level of knowledge and anxiety regarding labour process among the Control and Experimental groups of Primigravid Mothers within 35 - 40 weeks of gestation.

**\( H_{02} \)**: There will be no significant association between the selected Demographic variables and the level of knowledge and anxiety regarding labour process among the Control and Experimental groups of Primigravid Mothers within 35 – 40 weeks of gestation.

**\( H_{03} \)**: There will be no significant association between the selected Obstetric variables and the level of knowledge and anxiety regarding labour process among the Control and Experimental groups of Primigravid Mothers within 35 – 40 weeks of gestation.

**Delimitations**

The study was limited to Mothers who were

➢ Willing to participate in the study.

➢ Primigravid

➢ Between the age group of 18-35 years.

➢ Within the gestational age of 35-40 weeks.

➢ Not under high risk group
Conceptual Framework

Conceptual framework deals with interrelated concepts or abstractions that are assembled together in some rational schemes by virtue of their relevance to a common theme (Polit and Beck, 2004).

The conceptual framework set up for this study is based on “King’s Goal Attainment Model” (1981). This model addresses process of action, reaction, interaction whereby nurses and clients share information about their perception. Through perception and communication they identify the problems through which they set goals and take necessary action.

The framework was selected for the present study as it provides a way of understanding and providing throughout the concepts of perception, judgement, action, reaction, interaction, transaction and feedback between the nurse and the antenatal Mothers within 35 – 40 weeks of gestation, the components of the model incorporated in the study are as follows:

1. Perception
2. judgement
3. Action
4. Reaction
5. Interaction
6. Transaction
7. Feedback.
Perception

A person imparts energy from the environment and transforms, processes and stores it. The study assumed that there was interpersonal relationship between researcher and the Primigravid Mothers within 35 – 40 weeks of gestation. The nurse researcher and Primigravid Mothers perceived the need of awareness regarding labour process and reduction of anxiety in Primigravid Mothers.

Judgement

Analyze the area of action which can be carried out. The nurse researcher and the Primigravid Mothers within 35 – 40 weeks of gestation analyzed the need for improving the knowledge and reducing the anxiety level regarding labour process.

Action

Individual exports the perceived energy as demonstrated by observable behavior by taking mental or physical action. In this study the researcher plans to improve the Primigravid Mothers’s knowledge and reduce her level of anxiety regarding labour process. The Mothers shows readiness to improve her knowledge and reduce her anxiety level.

Reaction

Reaction means developing action and acting on perceived choices for goal attainment. Both the nurse researcher and the participants planned for reaction. For the Experimental group of Primigravid Mothers within 35 – 40 weeks of gestation efforts were taken to improve the knowledge level and reduce the anxiety level regarding labour process.
**Interaction**

It refers to the verbal and non-verbal behavior between an individual and the environment or between two or more individuals. It involves goal directed communication. Actions lead to interaction where the researcher shows Virtual Labour Process to the Primigravid Mothers within 35 – 40 weeks of gestation in the Experimental group to improve knowledge and to reduce anxiety regarding labour process.

**Transaction**

Imogene King believed that transaction is the mutually defined goals of two or more individuals and the means to achieve them. They reach an agreement about how to attain these goals and then set about to realize them. Thus the nurse researcher and the Primigravid Mothers mutually set a goal to improve the level of knowledge and reduce the level of anxiety regarding labour process among the Mothers.

**Feedback**

The outcome may either be satisfactory or unsatisfactory. Satisfactory indicates that the Virtual Labour Process was effective in increasing the level of knowledge and reducing the level of anxiety. Unsatisfactory indicates that Virtual Labour Process was not effective in increasing the level of knowledge and reducing the level of anxiety.

Researcher adapted this model and perceived that it was apt in enabling to assess the effectiveness of Virtual Labour Process in increasing the level of knowledge and reducing the level of anxiety among Primigravid Mothers within 35 – 40 weeks of gestation.
Nurse Researcher

**Perception**
Perceived the need of imparting knowledge and reducing anxiety regarding labour process.

**Judgement**
Virtual Labour Process can improve knowledge and reduce anxiety regarding labour process.

**Action**
Administered Virtual Labour Process to Mothers.

**Judgement**
Virtual Labour Process will increase the level of knowledge and reduce the level of anxiety regarding labour process.

**Perception**
Perceives the need to improve knowledge and reduce anxiety regarding labour.

**Reaction**
Planned to increase the level of knowledge and reduce the level of anxiety regarding labour process among the Primigravid Mothers.

**Interaction**
Administering Virtual Labour Process for 10 minutes.

**Transaction**
Assessing knowledge and anxiety before and after Virtual Labour Process.

**Experimental group**
Identified appropriate time to administer Virtual Labour Process after assessing knowledge and anxiety.

**Administering Virtual Labour Process for 10 minutes.**

**Satisfactory**
Improvement in knowledge and reduced anxiety regarding labour.

**Unsatisfactory**
No improvement in knowledge and no reduction of anxiety regarding labour.

**Fig. 1 Conceptual Framework of modified King’s Goal**

**Feed back**

Primigravid Mothers within 35 - 40 weeks of gestation.
Projected Outcome

The study projects that the Virtual Labour Process will have an effect on the level of anxiety and knowledge among the Primigravid Mothers within 35 – 40 weeks of gestation.

Summary

This chapter has dealt with the background of the study, need for the study, statement of the problem, objectives of the study, operational definitions, assumptions, Null Hypothesis, delimitations and conceptual framework.

Organization of the Report

Further aspects of the study are presented in the following chapters.

Chapter II : Review of literature.

Chapter III : Research methodology which includes research approach, research design, research setting, population, sample, sampling technique, tool description, validity and reliability of tools, pilot study, data collection procedure and plan for data analysis.

Chapter IV : Analysis and interpretation of data is presented in terms of descriptive and inferential statistics

Chapter V : Discussion.

Chapter VI : Summary, Conclusion, Implications, Recommendations and limitations are presented.
CHAPTER II
REVIEW OF LITERATURE

A literature review involves the systematic identification, location, scrutiny and summary of written materials that contain information on the research problem (Polit and Hungler 2007).

“Conducting a literature review is a little bit doing a full-fledged study”. The review of literature has two major goals: (1) To provide readers with an overview of existing evidence on the problem being addressed and (2) To develop an argument that demonstrates the need for the new study. According to nursing research by Polit (2008), ‘Review of literature is a written summary of the state of evidence on a research problem’.

The review of literature in this chapter is presented under the following headings:

1. Literature related to maternal knowledge regarding labour.
2. Literature related to maternal anxiety regarding labour.
3. Literature related to the effectiveness of various educational programme.
4. Literature related to labour experiences in Primigravid Mothers.

**Literature related to maternal knowledge regarding labour**

Harriet Adong (2011) conducted an exploratory study to assess knowledge, perceptions and practices in pregnancy and childbirth in Udanda. It utilized focus group discussion (FGD), key informant interview (KII) and in-depth interviews between midwives, community leaders, traditional birth attendant and district health officials and
Mothers who have delivered 5 years prior to the study. Results show that majority of Mothers had knowledge of pregnancy preparation, dangers of pregnancy and childbirth, and the need for antenatal care and delivering in health facilities. However there were some limitations regarding access and cost related healthcare like preference for modern health care services through TBAs. There is, however, dual health seeking both from biomedical and traditional health care. In terms of pregnancy and childbirth practices, both traditional and modern practices existed.

A study conducted by Kathryn Crowe (2007) in Sydney to assess knowledge of childbirth, fears regarding pregnancy, state of anxiety, expectation of pain and confidence in ability to control pain were examined as possible predictors of positive childbirth experience. Self-reports of these variables were collected from 30 primiparous Mothers enrolled in prenatal courses, on three occasions: before the class, after the last class and 24 to 48 hours after delivery. It was found that those who demonstrated greater knowledge of childbirth and higher confidence after classes subsequently reported a less painful childbirth. Those with higher levels of childbirth-related fear before classes reported experiencing less anxiety during labour and delivery. The findings support the current emphasis in prenatal education on imparting knowledge, instilling confidence and providing a forum for dealing with childbirth related fears.

Nuraini (2005) conducted an experimental study on 60 pregnant Mothers from 10 cluster villages at central Java, Indonesia. The purpose of this study is to ascertain if a new approach to ANC can improve pregnant Mothers's knowledge of its benefits. The intervention group received the new approach to ANC, while the Control group received
routine ANC. The findings show that the improvement of knowledge in the intervention group is significant particularly in the knowledge about healthy pregnancy, pregnancy complications, safe birth and taking care of the newborn. The improvement of knowledge was significantly influenced by the respondents' educational background and socio-economic status.

Henry (2004) has undertaken a study to assess Mothers’s knowledge and plans regarding intrapartum pain management at the Royal College for Mothers in Australia. There were 496 participants. Antenatal pain management information was accessed by 98% of Mothers. Sources most accessed were antenatal classes (55%), Multimedia (53%) and friends and relatives (46%). Antenatally 80% of Mothers planned to use intrapartum pain management: natural methods were most popular (62% planned to use) and pethidine least (49% planned against). Intrapartum 19% used unwanted pain management mostly (67%) due to increased labour pain. Increased information access was associated with significantly higher use of natural methods and epidural analgesia as well as significantly higher satisfaction scores.

Grery (1998) in his survey to find out the importance of information given during pregnancy, expressed that there should be a consideration of the need to give information to the pregnant Mothers during the relaxing period before the onset of labour, which is the most appropriate time for giving information regarding care during labour with the use of audio-visual resources. Red and Shaw (1994) express that the receptivity of Mothers to information is questioned when she is admitted to the hospital or when in labour. If the Mothers are well prepared, they may be able to adjust to their unexpected circumstances more positively.
Literature related to maternal anxiety regarding labour

Wing Cheung (2006) conducted an exploratory descriptive correlation study on the relationship between maternal anxiety levels and feelings of Control during labour. A convenient sample of 90 Hong Kong Chinese first-time Mothers was selected from an Obstetric unit of public teaching hospital in Hong Kong. The Labour Agentry Scale (LAS) to measure feelings of Control during childbirth and a Visual Analogue Scale for anxiety (VAS-A) was used to measure Mothers's self-reported level of anxiety during labour. The study showed a significant negative relationship between maternal anxiety and feelings of Control during labour.

A qualitative study conducted by Schneiderz (2002) on Mothers’s experiences and perception of their first pregnancy at Australia. Thirteen Primi Mothers were selected for this study by using interview method data were collected at the Mothers’s home on three occasions during pregnancy. Results showed that most of the Mothers had difficulty in coping with the physical and emotional symptoms of pregnancy and loss of control caused by anxiety. This study concluded that midwives should focus on Mothers centered model of care and to provide continuity of care.

Melender (2002) conducted a study on woman’s experience of fear in association with pregnancy and child birth among 481 pregnant Mothers in Western Finland. Data were collected by using semi Structured Interview method. The results showed that 78% of them expressed fear relating to pregnancy, to child birth or both. The causes of fear and anxiety were negative mood, negative stories told by others, lack of assuring information, multipara’s negative experiences of previous pregnancy, child birth and baby health and care. Parity and antenatal training were the most important variables related to objects of fear.
A comparative study on intensive and conventional therapy for severe fear of child birth was conducted by Saisfot (2002) in Finland. The researcher used questioner to collect data from 176 Mothers who were selected for this study. Results showed birth related concerns decreased in intensive therapy group, increased in the conventional therapy group, labour was shorter in the intensive therapy group and conventional group. The study concluded both kinds of therapy reduced unnecessary caesarean also the Intensive therapy on anxiety related to pregnancy and birth reduced and labour were shorter.

Hofberg (2002) conducted a study about fear associated with pregnancy and child birth at University hospital in Finland. By using interview method data were collected from 20 Mothers who were selected for this study. The results of data collected from ten Primigravid and ten Multi gravid showed common fears associated with pregnancy. They suggest midwifery staff remember that pregnant Mothers have very serious fears associated with pregnancy and child birth, try to protect Mothers against these fear by giving opportunity to deal with their own fear and to obtain help when needed. They concluded that 10% of pregnant Mothers had fear of child birth, with counseling decrease the rate of elective caesarean section, without counseling have a negative impact on the subsequent experience of child birth.

Sharma (1998) conducted a study about the effect of psycho-educational programme (related to labour and delivery) on Primigravidae’s level of anxiety during their third trimester of pregnancy at northern institute of country by using probability convenient technique method. The data was collected from 60 Primigravida who were selected for this study. Results showed reducing overall anxiety level was statistically significant and highly significant in reducing fear and signs and symptoms of anxiety.
Literature related to the effectiveness of various educational programs

Larsson Wilde (2011) conducted a study in Sweden to illuminate Mothers’s perceptions of childbirth and childbirth education before and after education and birth. Findings of the study showed that increased knowledge about childbirth and experiences of confirmation during childbirth contributed to a better experience than expected. Findings also stress the importance of individual assessment of expectations and experiences of childbirth education.

Maimburg (2010) conducted a randomized clinical trial in Danish University Hospital, to compare the birth process in parturient Mothers enrolled in structured antenatal training programme with Mothers allocated in routine care. The study findings revealed that they used less epidural analgesia during labour for interventional group. Thus the study concluded that attending the antenatal education classes may help Mothers to cope better with the birth process.

A quasi experimental study conducted by Gayathri (2009) in Karnataka to assess the effectiveness of planned teaching program on knowledge and reducing anxiety about labour among Primigravidae. Using purposive sampling 60 Primigravidae were selected. Data was collected using a structured knowledge questionnaire and standardized Zung self-rating scale. Results showed that planned teaching program was effective method to gain knowledge about labour among Primigravidae and the anxiety regarding Labour was reduced. Therefore the study concluded that identification of anxiety and stress, helps nurses to plan provide holistic care which helps Mothers to have smooth hospitalization and minimizes anxiety.
Svensson (2009) conducted a study in Sydney to determine the outcome of antenatal education programme with increased content on parenting. The objective of the study was to assess whether antenatal education programme with increased content on parenting will improve the parenting skills of Mothers postnatally, than those attending the regular antenatal education programme. Out of 170 samples, 91 Mothers attended the new programme and 79 the regular programme. The postnatally assessed maternal self efficacy score and the knowledge score of Mothers who attended “Having a Baby Programme” were significantly higher than those attended regular antenatal education programme.

A randomized Controlled study was conducted by Mehadizadeh (2005) to evaluate the impact of birth preparation courses on the health of the Mothers and newborn among 200 Primigravidas younger than 35 years and gestational age above 20 weeks. Birth preparation courses were given in eight sessions and measurable clinical, Obstetrical and neonatal advantages were monitored and compared in Experimental and Control groups. The study concluded that antenatal preparation classes could play a major role in the health of Mothers and newborn during labour and postnatal period. In addition they also suggested that antenatal preparation classes should be introduced to all Mothers as a National Health Policy.

In Quebec, Canada, Louise Dumas (2002) conducted a study and found that prenatal education is generally offered at no cost to high risk couples as part of the government paid services provided in most of the provinces local community health centers. Some centres also provide classes for low risk populations on a fee-for service
basis. Prenatal education was essentially aimed at both reducing the number of low birth weight and premature babies and informing high risk couples about pregnancy, labour, birth, and postpartum events.

Murira (2000) conducted a study in the University of Zimbabwe to evaluate how the health education is currently practiced in the antenatal clinics in Harare and to make recommendation for its improvement. The result revealed that health education was given once in pregnancy, on the first visit only. The lecture was the most used teaching method. Midwives decided on the subject matter for health education without consultation with the expectant Mothers. As a result many Mothers could not follow the practical advice given to them. Both the staff and the pregnant Mothers agreed that there should be greater use of written material for Mothers to read at home. The conclusion of the study was that the lecture is not the most appropriate method of health education during pregnancy and greater use should be made of other methods of communication such as the mass media and pamphlets.

A study was conducted Rojamma (1999) to identify the effectiveness of teaching third trimester pregnant Mothers about newborn care in an urban slum community of Hyderabad. In this study two groups of third trimester antenatal Mothers (16 in each group) were given health education either individually or in groups, on the care of the newborn .The pretest and post test scores of Mothers who received individual health teaching were average 19 and 33 as against 47. But the Mothers who received group health teaching obtained average 19 and 40 as against 47. The study revealed that group teaching was much more effective than individual teaching.
**Literature related to labour experiences in Primigravid Mothers**

Bruggemann (2007), conducted a comparative study on to measure the effectiveness and safety of the support group given to Mothers during labour and delivery. By using randomized Controlled trial method, 212 Primi parous Mothers were selected for this study. One hundred and five Mothers were included in support group and 107 Mothers were in no support group. The results showed overall, the Mothers in the support group were more satisfied with labour. During labour, patient satisfaction was associated with the presence of companion, with care received and during delivery, satisfaction was associated with having companion with care received. They concluded the presence of a companion of the woman’s choice had a positive influence on her satisfaction with the birth process.

Gibbins (2001), conducted a qualitative study to explore, describe and understand the expectations during pregnancy and subsequent experiences of child birth in Primi parae at the north of England. By using unstructured tape recorder interview method data were collected. Eight Primi para Mothers were selected for this study. The results showed in this study was that all Mothers wanted to take a active part in their labour and the feeling of being in Control was achieved through support from partners, the positive attitude and information by the midwives caring for them during pregnancy and labour. This study reveals the importants for midwives to explore and discover the wishes and feelings of Mothers in their care so that realistic expectations can be promoted and hopefully fulfilled.
A randomized clinical trial conducted by Langer (1998) to evaluate the effects of psychosocial support during labour, by a female companion (doula) at social security hospital in Mexico city. The researcher used a randomized clinical trial method. Seven hundred and twenty four Mothers were randomly assigned to be accompanied by a doula or to receive routine care. Results showed that the intervention group perceived a high degree of Control over the delivery experience and the duration of labour was shorter than in the Control group. There were no effect either on Mothers’s anxiety, self esteem, perception of pain and satisfaction with new born conditions. They concluded psychosocial support by doulas had a positive effect on duration of labour.

Hofmeyr (1991) conducted a comparative study on the effect of supportive companionship on labour and a adaptation to parenthood at community hospital by using randomized Control trail method. Primi parous Mothers were selected for this study 75 Mothers were included Control group, 74 Mothers in the support group. Results showed that companion ship has a measureable effect on the progress of labour, use of analgesia were significantly reduced. The support group had coped well during labour, pain scores and anxiety scores were lesser than the Control group. They concluded labour in a Mothers’s feeling of competence, perceptions of labour, and confidence in adapting to parenthood, companionship during labour aimed to promote self esteem.
Summary

This chapter has dealt with the review of literature related to the problem stated. The literatures presented here were extracted from 21 primary and 2 secondary sources. It helped the researcher to understand the impact of the problem under study. It has enabled the investigator to design the study, develop the tool, plan the data collection procedure, and to analyze the data.
CHAPTER III
RESEARCH METHODOLOGY

This chapter deals with the methodology used by the researcher in this study which includes research approach, research design, setting of the study, population, sample, sampling technique, sampling criteria, selection and development of the tools, psychometric properties of the tools, pilot study, data collection procedure and plan for data analysis.

Research Approach

To accomplish the objectives of the study, an Experimental research approach was considered most appropriate as the researcher wanted to assess the effectiveness of Virtual Labour Process upon level of knowledge and anxiety among Primigravid Mothers within 35 – 40 weeks of gestation.

Research Design

Research design is the overall plan for addressing a research question, including specifications for enhancing the study’s integrity (Polit, 2008).

The true Experimental (pre test – post test) research design was used in this study. The researcher assessed the level of knowledge and anxiety with the Structured Interview schedule and the Anxiety scale prepared by the researcher before intervention for both the Control and Experimental group of Primigravid Mothers. The researcher then provided Virtual Labour Process for the Experimental group of Primigravid
Mothers within 35 – 40 weeks of gestation and reassessed the level of knowledge and anxiety for both the group after intervention. The level of satisfaction on Virtual Labour Process was assessed from the Experimental group of Primigravid Mothers.

\[
\begin{align*}
\text{R} & \quad \text{O1} \quad \text{X} \quad \text{O2} \\
\text{R} & \quad \text{O1} \quad \text{O2} \\
\text{R} & \quad \text{randomization} \\
\text{O1} & \quad \text{assessment before the administration of Virtual Labour Process} \\
\text{X} & \quad \text{administration of Virtual Labour Process} \\
\text{O2} & \quad \text{assessment after the administration of Virtual Labour Process}
\end{align*}
\]

**Variables**

Variable is an attribute that varies. That is taken on different values (Polit, 2010).

**Independent variable**

The variable that is believed to cause or influence the dependent variable is called independent variable. In this study Virtual Labour Process was the independent variable. Virtual Labour Process was provided for ten minutes to assess the change in the level of knowledge and anxiety among the Primigravid Mothers within 35 – 40 weeks of gestation.

**Dependent variable**

The variable hypothesized to depend on or be caused by independent variable is the dependent variable. Knowledge and anxiety were the dependent variables in this study. The level of knowledge and anxiety was assessed before and after Virtual Labour Process.
Extraneous variables

A variable that confounds the relationship between the independent and dependent variables and that needs to be controlled either in the research design or through statistical procedures is the extraneous variables. Demographic variables and Obstetric variables were extraneous variables in this study.
Target population
Primigravid Mothers within 35 – 40 weeks of gestation.

Accessible population
Primigravid Mothers receiving antenatal care from Andhra Mahila Sabha, Hospital.

Control group
(30 Primigravid Mothers within 35 – 40 weeks of gestation).

Experimental group
(30 Primigravid Mothers within 35 – 40 weeks of gestation).

Before Virtual Labour Process
(Assessment of Demographic variables, Obstetric variable, level of knowledge, anxiety and satisfaction).

Virtual Labour Process was given for 10 minutes.

After Virtual Labour Process
(Assessment of level of knowledge and anxiety).

Analysis and interpretation.

Effectiveness of Virtual Labour Process.

Fig.2 Schematic Representation of Research Design.
Research Setting

The study was conducted at Andhra Mahila Sabha Hospital located at Adayar which is a semi-urban area of Chennai. The hospital is 200 bedded which has an antenatal OPD with 5 – 10 new Primi antenatal cases per day. On an average 90 – 120 Primi antenatal cases per month. The hospital also has labour room, postnatal ward, post operative ward, NICU, operation theatre, labour atory and other diagnostic facilities like scanning. They also provide Immunization and conduct teaching programmes for the staff and the patients and do referral to government agencies in need.

Population

Population is the entire set of individuals or objects having some common characteristics (Polit and Beck, 2010). The target population is the entire population in which a researcher is interested and to which he or she would like to generalize the study results. In this study the target population was all the Primigravid Mothers between 35 – 40 weeks of gestation of that area. The accessible population is the aggregate of cases that confirm to designated criteria and that are accessible as subjects for a study. In this study the accessible population was all the Primigravid Mothers who were between 35 – 40 weeks of gestation who came for consultation at Andhra Mahila Sabha Hospital, Chennai.

Sample

According to Polit and Beck (2010) sample is a subset of population elements. A sample of 60 Primigravid Mothers between 35 – 40 weeks of gestation selected among
which 30 Primigravid Mothers were randomly assigned to the Control group and 30 Primigravid Mothers were assigned to the Experimental group.

**Sampling Technique**

Sampling technique is the process of selecting a portion of the population to represent the entire population so that inferences about the population can be made (Polit and Beck 2010). Simple random sampling was used in this study for the Mothers who satisfy the inclusion criteria where the odd number Primigravid Mothers were assigned to Control group and the even number Primigravid Mothers were assigned to the Experimental group.

**Sampling Criteria**

**Inclusion criteria**

Primigravid Mothers who were

- Willing to participate in the study.
- Between the age group of 18-35 years.
- Within the gestational age of 35-40 weeks.
- Not under high risk group.
- Able to understand English or Tamil.

**Exclusion criteria**

Mothers who were

- Not willing to participate in the study.
- Multi gravid.
Posted for LSCS.

With pre-existing medical illness or illness superimposed by pregnancy.

With any complications during pregnancy.

Selection and development of study instruments

The instruments for this study were developed to evaluate the effectiveness of Virtual Labour Process upon level of knowledge, anxiety and satisfaction through extensive review of literature. The instrument used in the study was selected Demographic variable Proforma, selected Obstetric variable Proforma, Structured Interview Schedule, Anxiety scale and Rating scale on satisfaction which was developed by the researcher to assess the level of knowledge, anxiety and satisfaction on Virtual Labour Process respectively.

Demographic variable Proforma

The Demographic variable Proforma consists of age, educational status, type of employment, monthly income, religion, type of family and area of residence.

Obstetric variable Proforma

The Obstetric variable Proforma consists of gestational age in weeks, number of antenatal visits attended till date, weight gain during pregnancy and height of the Mothers.

Structured Interview schedule

The Structured Interview schedule was prepared by the researcher to assess the level of knowledge among Primigravid Mothers before and after the Virtual Labour Process in the Experimental and Control group.
The knowledge scores were classified as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Percentage (%)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–12</td>
<td>&lt; 50</td>
<td>Inadequate</td>
</tr>
<tr>
<td>13–18</td>
<td>50–75</td>
<td>Moderately adequate</td>
</tr>
<tr>
<td>19-25</td>
<td>&gt; 75</td>
<td>Adequate</td>
</tr>
</tbody>
</table>

**Anxiety scale**

The Anxiety scale was prepared by the researcher to assess the level of anxiety among Primigravid Mothers before and after the Virtual Labour Process in the Experimental and Control group.

The scale consists of ten questions which are to be answered either yes or no by the participants. Each yes was given score 1 and each no was given a 0 score. Patients with anxiety score of five have a 50% chance of having clinically important disturbance, above these scores the probability of illness rises sharply.

The anxiety scores were classified as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Percentage</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>&lt; 30</td>
<td>Mild</td>
</tr>
<tr>
<td>4-7</td>
<td>40 - 70</td>
<td>Moderate</td>
</tr>
<tr>
<td>8-10</td>
<td>&gt; 80</td>
<td>Severe</td>
</tr>
</tbody>
</table>
Rating scale on satisfaction of Virtual Labour Process

This scale was designed by the researcher to assess the level of satisfaction of the Primigravid Mothers within 35 – 40 weeks of gestation in the Experimental group regarding Virtual Labour Process.

The satisfaction score was classified as follows:

<table>
<thead>
<tr>
<th>Score</th>
<th>Percentage (%)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 7</td>
<td>≤ 25</td>
<td>Highly Dissatisfied</td>
</tr>
<tr>
<td>8–15</td>
<td>26–50</td>
<td>Dissatisfied</td>
</tr>
<tr>
<td>16–22</td>
<td>51–75</td>
<td>Satisfied</td>
</tr>
<tr>
<td>23–30</td>
<td>76–100</td>
<td>Highly Satisfied</td>
</tr>
</tbody>
</table>

Psychometric Assessment of the Instruments

Validity

Validity is the degree to which an instrument measures what it is intended to measure (Polit, 2010).

Content validity of the tool, was obtained from seven experts in the field of Obstetrics and Gynaecology. Seven of them were nursing personnel. The suggestions given by the validators were made in the final preparation of the tool.

Reliability

Reliability is the degree of consistence or dependability with which an instrument measures an attribute (Polit 2007). The reliability was found using Pearson's correlation formula and it was 1 and 0.6 for knowledge and anxiety respectively in the Experimental group after Virtual Labour Process was administered.
Pilot study

Pilot study is a small scale version or trial run done in preparation for a major study (Polit, 2004). The purpose of the pilot study was to find out the feasibility and practicability of study design.

The pilot study was conducted at Andhra Mahila Sabha Hospital, Chennai by selecting 12 Primigravid Mothers with six Primigravid Mothers in the Control group and six in the Experimental group using simple random sampling in order to assess the methodology and tool. The level of knowledge and anxiety were assessed using Structured Interview schedule and Anxiety scale respectively for both the Control and Experimental group before therapy. Virtual Labour Process was provided for 10 minutes for the participants of Experimental group and the level of knowledge and anxiety were assessed for both the groups. The level of satisfaction on Virtual Labour Process was assessed for the Experimental group. After the pilot study, it was found to be feasible and effective and the study instruments were found to be appropriate.

Protection of Human Rights

The study was conducted

- After the approval of ethical committee of Apollo Hospitals
- After obtaining written consent from the participants
- With confidentiality throughout the study.
**Data collection procedure**

Data collection is gathering information about something which the researcher has chosen to explore or investigate (Crookes and Davies, 1998).

Protection of human rights was maintained and the data was collected during day time from June 11 to June 30.

The participants were selected using simple random sampling among which 30 Mothers were assigned to the Control group and 30 Mothers to the Experimental group and the data was collected from the participants through Demographic variable Proforma, Obstetric variable Proforma, Structured Interview schedule and through Anxiety scale. The level of knowledge and anxiety was assessed by the Structured Interview schedule and the Anxiety scale respectively before the intervention for both Control and Experimental group of Primigravid Mothers.

Virtual Labour Process was provided to Experimental group of Primigravid Mothers within 35 – 40 weeks of gestation for 10 minutes. The level of knowledge and anxiety were assessed after intervention for both groups with the same tools. The level of satisfaction on Virtual Labour Process was assessed in the Experimental group of Primigravid Mothers using rating scale on satisfaction.

**Problems Faced During Data Collection**

- Few Primigravid Mothers in the Control group were exhausted while filling the scale for the second time.
Plan for Data Analysis

Data analysis is the systematic organization, synthesis of research data and testing of hypothesis using those data (Polit and Beck, 2010).

Analysis were carried out using descriptive statistics like frequency distribution, percentage, mean, standard deviation and inferential statistics like independent ‘t’ test. The association between the Demographic variables, Obstetric variables and dependent variables were analyzed with the help of chi-square test.

Summary

This chapter dealt with the research approach, research design, setting, population, sample, sampling technique, sampling criteria, development of study instruments, reliability and validity of the instruments, pilot study, data collection procedure and plan for data analysis.
Statistics are aggregates of facts, affected to a marked extend by multiplicity of causes, numerically expressed, enumerated or estimated according to reasonable standards of accuracy, collected by systematic manner for a predetermined purpose and placed in relation to each other (Agarwal, 2010).

The data was collected from 60 Primigravid Mothers among which 30 were in the Control group and 30 were in the Experimental group. The data were analyzed using descriptive and inferential statistics based on the objectives and hypotheses. The data analysis was completed after transferring all the data to the master coding sheet.

**Organization of the findings**

- Frequency and percentage distribution of selected Demographic variables, selected Obstetric variables, level of knowledge, level of anxiety, level of satisfaction before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers.
- Comparison of mean and standard deviation of level of knowledge, level of anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers.
- Association between selected Demographic variables and the level of knowledge and anxiety, selected Obstetric variable and the level of knowledge and anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers.
Table 1

Frequency and Percentage Distribution of Selected Demographic Variables in the Control and Experimental Group of Primigravid Mothers.

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>Control group (n=30)</th>
<th>Experimental group (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>p</td>
</tr>
<tr>
<td><strong>Age in years</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 - 21 years</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>22 - 25 years</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>26 - 29 years</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>30 - 33 years</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Educational status of the Mothers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Primary education</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Secondary education</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Graduate</td>
<td>20</td>
<td>67</td>
</tr>
<tr>
<td>Postgraduate and above</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td><strong>Type of family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear</td>
<td>21</td>
<td>70</td>
</tr>
<tr>
<td>Joint</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>Extended</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Area of residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>Rural</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td><strong>Types of employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedentary worker</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self employee</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Government employee</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Private employee</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Unemployed</td>
<td>25</td>
<td>83</td>
</tr>
<tr>
<td><strong>Family monthly income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Up to 3,000/-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3001 - 5,000/-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5001 - 7,000/-</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>7001 - 9,000/-</td>
<td>13</td>
<td>43</td>
</tr>
<tr>
<td>9,001 and above</td>
<td>5</td>
<td>17</td>
</tr>
</tbody>
</table>
Table 1 infers that the majority of the Primigravid Mothers were between the age group of 18 – 21 years (80%, 37%) and 22 – 25 years (17%, 53%), a significant percentage of them are qualified with secondary education (23%, 63%) and graduation courses (67%, 20%), majority of them were from nuclear families (70%, 70%), resided in urban area (80%, 83%), majority of the mothers were unemployed (83%, 87%) and most of them had a family monthly income within Rs. 7,001 – 9,000 (43%, 70%) respectively.
Fig. 3 Percentage distribution of religion in Control and Experimental group of Primigravid Mothers
Table 2 Frequency and Percentage Distribution of Selected Obstetric Variables in the Control and Experimental Group of Primigravid Mothers.

<table>
<thead>
<tr>
<th>Obstetric variable</th>
<th>Control group (n=30)</th>
<th>Experimental group (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>p</td>
</tr>
<tr>
<td><strong>Antenatal checkups</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No visits</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&lt; 4 visits</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>&gt; 5 visits</td>
<td>25</td>
<td>83</td>
</tr>
<tr>
<td><strong>Weight gain during pregnancy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 – 8 kg</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8 – 10 kg</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>10 – 12 kg</td>
<td>25</td>
<td>83</td>
</tr>
<tr>
<td>12 and above</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td><strong>Gestational age in weeks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 38</td>
<td>23</td>
<td>77</td>
</tr>
<tr>
<td>38 – 40</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>&gt; 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Height of the Mothers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 145 cm</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>146 – 155</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>&gt; 155</td>
<td>21</td>
<td>70</td>
</tr>
</tbody>
</table>

Table 2 shows that majority of Primigravid Mothers had undergone more than 5 antenatal visits (83%, 83%), most of them gained about 8 -10 kg (13%, 70%) and 10 – 12 kg (83%, 13%) weight during pregnancy, a significant percentage of them had gestational age within 38 – 40 weeks of gestation (77%, 60%) and a majority of them had height 146 – 155 cm (30%, 73%) and more than 155 cm (70%, 27%).
Table 3

Frequency and Percentage Distribution of knowledge in the Control and Experimental Group of Primigravid Mothers.

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Control group (n=30)</th>
<th>Experimental group (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pretest n p</td>
<td>posttest n p</td>
</tr>
<tr>
<td>Inadequate</td>
<td>6 20 5 17</td>
<td>13 44 - -</td>
</tr>
<tr>
<td>Moderately adequate</td>
<td>24 80 24 80</td>
<td>16 53 - -</td>
</tr>
<tr>
<td>Adequate</td>
<td>- - 1 3</td>
<td>1 3 30 100</td>
</tr>
</tbody>
</table>

Table 3 shows that majority of the Primigravid Mothers had moderately adequate knowledge (80%, 53%) before intervention in the Control and Experimental group respectively and all of them gained adequate knowledge (100%) after intervention in the Experimental groups.
Table 4

Frequency and Percentage Distribution of level of Anxiety in the Control and Experimental Group of Primigravid Mothers.

<table>
<thead>
<tr>
<th>Level of anxiety</th>
<th>Control group (n=30)</th>
<th>Experimental group (n=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before intervention</td>
<td>After intervention</td>
</tr>
<tr>
<td>Mild</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Moderate</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Severe</td>
<td>19</td>
<td>63</td>
</tr>
</tbody>
</table>

Table 4 shows that majority of Mothers had severe level of anxiety (63%, 67%) in the Control and Experimental group before intervention and a few Mothers in the Control and Experimental group had moderate level of anxiety (37%, 33%) before intervention. After the intervention the level of anxiety in the Experimental group reduced to mild level of anxiety (100%). There was significant percentage (63%) of severe level of anxiety in the Control group after intervention.
Table 5

Comparison of Mean and Standard Deviation of Level of Knowledge Before and After the Administration of Virtual Labour Process in Control and Experimental Group of Primigravid Mothers.

<table>
<thead>
<tr>
<th></th>
<th>Control group (n=30)</th>
<th>Experimental group (n=30)</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Before intervention</td>
<td>9.7</td>
<td>3.3</td>
<td>9</td>
</tr>
<tr>
<td>After intervention</td>
<td>9.4</td>
<td>2.06</td>
<td>24.5</td>
</tr>
</tbody>
</table>

**p < 0.001

Table 5 infers that the mean knowledge level was slightly high after intervention (M=9.4, SD=2.06) compared to before intervention (M=9.7, SD=3.3) in the Control group where as the mean level of knowledge was very high after intervention (M=24.5, SD=0.7) compared to before intervention (M=9, SD=2.5) in the Experimental group. Hence the null hypothesis $H_0$ “There is no significant difference in the level of knowledge in Control and Experimental group of Primigravid mothers” was rejected.
Table 6

Comparison of Mean and Standard Deviation of Level of Anxiety Before and After the Administration of Virtual Labour Process in Control and Experimental Group of Primigravida Mothers.

<table>
<thead>
<tr>
<th></th>
<th>Control group (n=30)</th>
<th>Experimental group (n=30)</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Before intervention</td>
<td>7.8</td>
<td>1.23</td>
<td>8.1</td>
</tr>
<tr>
<td>After intervention</td>
<td>7.2</td>
<td>1.12</td>
<td>1.2</td>
</tr>
</tbody>
</table>

***p < 0.001

The Table 6 infers that the mean level of anxiety in the Experimental group was low after intervention (M=1.2, SD=1.69) in comparison with before intervention (M=8.1, SD=1.7). Whereas in the Control group there is only a slight decrease in the level of anxiety (M=7.2, SD=1.12) after intervention in comparison with before intervention (M=7.8, SD=1.23). Hence the null hypothesis $H_{01}$ “There is no significant difference in the level of anxiety in Control and Experimental group of Primigravid mothers” was rejected.
Table 7

Frequency and Percentage of Level of Satisfaction on Virtual Labour Process in Experimental Group of Primigravid Mothers.

<table>
<thead>
<tr>
<th>Level of satisfaction</th>
<th>Experimental group (N=30)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Highly satisfied</td>
<td>30</td>
</tr>
<tr>
<td>Satisfied</td>
<td>-</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>-</td>
</tr>
<tr>
<td>Highly dissatisfied</td>
<td>-</td>
</tr>
</tbody>
</table>

The data from the table 7 shows that all of the participants in the Experimental group were highly satisfied (100%) with the Virtual Labour Process and none of them (0%) reported unsatisfaction towards the intervention.
Table.8

Association between the selected Demographic variables and the level of knowledge before and after the Virtual Labour Process among the Control group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
</tr>
<tr>
<td>Age(in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>&gt; 25</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary and secondary</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Graduates and Post graduates</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear family</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Joint family</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Type of employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Unemployed</td>
<td>17</td>
<td>8</td>
</tr>
</tbody>
</table>
From the data presented in table 8 it reveals that there no significant association between age, type of family, educational status and type of employment with knowledge regarding labour process among the Control group of Primigravid Mothers. Hence the null hypothesis $H_{02}$ “There is no significant association between the selected demographic variable and the level of knowledge and anxiety regarding labour process among the Control group of Primigravid mothers within 35 – 40 weeks of gestation” was retained.
Table 9

Association between the selected Demographic variables and the level of knowledge before and after virtual labour process in the Experimental group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
<th>( \chi^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
<td>( \chi^2 )</td>
</tr>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \leq 25 )</td>
<td>19</td>
<td>10</td>
<td>0.7</td>
</tr>
<tr>
<td>( &gt; 25 )</td>
<td>1</td>
<td>-</td>
<td>(df=1)</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear family</td>
<td>14</td>
<td>7</td>
<td>11.17</td>
</tr>
<tr>
<td>Joint family</td>
<td>6</td>
<td>3</td>
<td>(df=1)</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary and secondary</td>
<td>2</td>
<td>5</td>
<td>5.78</td>
</tr>
<tr>
<td>Graduate and Post graduate</td>
<td>18</td>
<td>5 (df=1)</td>
<td>18</td>
</tr>
<tr>
<td>Type of employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>2</td>
<td>3</td>
<td>0.10</td>
</tr>
<tr>
<td>Un employed</td>
<td>8</td>
<td>17 (df=1)</td>
<td></td>
</tr>
</tbody>
</table>

*p > 0.05
From the data presented in table 9 it reveals that there is significant association between age and educational status with knowledge regarding labour process among the Experimental group of Primigravid Mothers but there is no significant association with type of family and type of employment. Hence the null hypothesis $H_0$ “There is no significant association between the selected demographic variable and the level of knowledge and anxiety regarding labour process among the Experimental group of Primigravid mothers within 35 – 40 weeks of gestation” was rejected.
Table 10

Association between the selected Demographic variables and the level of anxiety before and after Virtual Labour Process in the Control group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
</tr>
<tr>
<td>Age (in years) ≤ 25</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Age (in years) &gt; 25</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Educational status</td>
<td>Primary and secondary</td>
<td>4</td>
</tr>
<tr>
<td>Educational status</td>
<td>Graduate and Post graduate</td>
<td>6</td>
</tr>
<tr>
<td>Type of family</td>
<td>Nuclear</td>
<td>8</td>
</tr>
<tr>
<td>Type of family</td>
<td>Joint</td>
<td>2</td>
</tr>
<tr>
<td>Type of employment</td>
<td>Private</td>
<td>2</td>
</tr>
<tr>
<td>Type of employment</td>
<td>Unemployed</td>
<td>8</td>
</tr>
</tbody>
</table>

From the data presented in table 10 it reveals that there is no significant association between age, type of employment, type of family and educational status with anxiety regarding labour process among the Control group of Primigravid Mothers. Hence the null hypothesis \( H_{02} \) is retained.
Table 11

Association between the selected Demographic variables and the level of anxiety before and after Virtual Labour Process in the Experimental group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
</tr>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>&gt; 25</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary and secondary</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Graduate and Post graduate</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>Joint</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Type of employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Unemployed</td>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

From the data presented in table 11 it reveals that there is no significant association between age, type of employment, type of family and educational status with anxiety regarding labour process among the Experimental group of Primigravid Mothers. Hence the null hypothesis \( H_{02} \) is retained.
Table 12
Association between the selected Obstetric variables and level of knowledge before and after Virtual Labour Process in the Control group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
</tr>
<tr>
<td>Number of antenatal checkup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \leq 4 )</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>( \geq 5 )</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Gestational age in weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 – 40</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>( &gt; 40 )</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

From the data presented in table 12 it reveals that there is no significant association between number of antenatal checkup and gestational age in weeks with knowledge regarding labour process among the Control group of Primigravid Mothers. Hence the null hypothesis \( H_{03} \) is retained.
Table 13

Association between the selected Obstetric variables and level of knowledge before and after Virtual Labour Process in the Experimental group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
</tr>
<tr>
<td>Number of antenatal checkup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>≥ 5</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Gestational age in weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 – 40</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

From the data presented in table 13 it reveals that there is no significant association between number of antenatal checkup and gestational age in weeks with knowledge regarding labour process among the Experimental group of Primigravid Mothers. Hence the null hypothesis H₀₃ is retained.
Table 14
Association between the selected Obstetric variables and the level of anxiety before and after Virtual Labour Process in the Control group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th></th>
<th>After Virtual Labour Process</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
<td>( \chi^2 )</td>
<td>Above Mean</td>
</tr>
<tr>
<td>Number of antenatal checkup</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \leq 4 )</td>
<td>3</td>
<td>2</td>
<td>0.74</td>
<td>3</td>
</tr>
<tr>
<td>( \geq 5 )</td>
<td>12</td>
<td>16</td>
<td>(df=1)</td>
<td>7</td>
</tr>
<tr>
<td>Gestational age in weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 – 40</td>
<td>7</td>
<td>16</td>
<td>0.14</td>
<td>6</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>3</td>
<td>4</td>
<td>(df=1)</td>
<td>3</td>
</tr>
</tbody>
</table>

From the data presented in table 14 it reveals that there is no significant association between number of antenatal checkup and gestational age in weeks with the level of anxiety regarding labour process among the Control group of Primigravid Mothers. Hence the null hypothesis \( H_0 \) is retained.
Table 15

Association between the selected Obstetric variables and the level of anxiety before and after Virtual Labour Process in the Experimental group of Primigravid Mothers.

(N=30)

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Before Virtual Labour Process</th>
<th>After Virtual Labour Process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Above Mean</td>
<td>Upto Mean</td>
</tr>
<tr>
<td>Number of antenatal checkup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤4</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>≥5</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Gestational age in weeks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38 – 40</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>&gt;40</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

*p > 0.05

From the data presented in table 15 it reveals that there is significant association found between number of antenatal checkup where as there is no significant association found between gestational age in weeks with the level of anxiety regarding labour process among the Experimental group of Primigravid Mothers. Hence the null hypothesis \(H_{03}\) is rejected.
Summary

This chapter dealt with the analysis and the interpretation of the data collected by the researcher. From the analysis it can be inferred that the level of knowledge was high and level of anxiety was low after Virtual Labour Process in the Experimental group than the Control group. Thus it shows that the Virtual Labour Process was effective in increasing knowledge and reducing anxiety among Primigravid Mothers within 35 – 40 weeks of gestation.
CHAPTER V
DISCUSSION

Statement of the Problem

An Experimental study to assess the effectiveness of Virtual Labour Process upon Knowledge and Anxiety among Primigravid Mothers within 35 – 40 weeks of gestation at selected hospital, Chennai.

Objectives of the Study

1. To assess the level of knowledge and anxiety before and after virtual labour process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.

2. To determine the effectiveness of Virtual Labour Process by comparing the level of knowledge and anxiety before and after the Virtual Labour Process among Experimental and Control groups of Primigravid Mothers within 35 - 40 weeks of gestation.

3. To find the association between the selected Demographic variable and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.

4. To find the association between the selected Obstetric variables and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.
5. To determine the level of satisfaction among Experimental group of Primigravid Mothers regarding administration of Virtual Labour Process.

This study was carried out for the Primigravid Mothers within 35 – 40 weeks of gestation at Andhra Mahila Sabha hospital, Chennai. The level of knowledge and anxiety were assessed for the Control and Experimental group of Primigravid Mothers then, Virtual Labour Process was provided for the Experimental group of Primigravid Mothers within 35 – 40 weeks of gestation for 10 minutes and level of knowledge and anxiety were assessed again for both the groups. The level of satisfaction upon Virtual Labour Process was assessed among the Experimental group of Mothers after the labour.

The discussion is presented under the following headings:

- Selected Demographic variables and Selected Obstetric variables of Control and Experimental group of Primigravid Mothers.
- Comparison of mean and standard deviation of level of knowledge and anxiety in Control and Experimental group of Primigravid Mothers before and after Virtual Labour Process.
- Assessment of level of Satisfaction upon Virtual Labour Process among the Experimental group of Primigravid Mothers.
- Association between selected Demographic variables and level of knowledge and anxiety after Virtual Labour Process among the Control and Experimental groups of Primigravid Mothers.
- Association between selected Obstetric variables and level of knowledge and anxiety after Virtual Labour Process among the Control and Experimental groups of Primigravid Mothers.
Demographical variables of Primigravid Mothers

Majority of the Primigravid Mothers in both Control and Experimental group were between the age group of 18 – 21 (80%, 37%) years and 22 – 25 years (17%, 53%) which shows that most of them are aware about the right age of reproduction.

The educational qualification of the Mothers shows that most of them in the Control and Experimental group had secondary education (23%, 63%) and graduation (67%, 20%), which can be recognized as a facilitating factor to understand about labour process and reduction in anxiety. This view was supported by Sherbini. A.F in the High Institute of Public Health, Alexandria University that higher educated Mothers were more likely to have good knowledge about antenatal care and labour process compared to lower educated Mothers. Education of an individual plays an important role specially understanding health care issues and making decisions. Now a days the literacy rate of the Mothers is more when compared to men and they are also independent in taking health related decisions for them and their family. According to the census held in 2011 by national literacy mission, the percentage of female literacy has increased from 8.86% in 1956 to 65.46% in 2011. Thus all the Mothers should be encouraged to do their higher education in addition to schooling.

Majority of them in both the Control and Experimental group were from urban area (80%, 83%) respectively and since majority of Mothers were from urban areas of residence they have many opportunity to know about health aspects, pregnancy and labour. They also seek good medical advice and are aware
about the advantages of taking adequate knowledge regarding antenatal care and thus reducing the level of anxiety during delivery.

Among the Mothers of both the Control and Experimental group, majority of them belong to nuclear family (70%, 70%). The researcher feels that as the responsibility to care other family members were less in the nuclear families, it promotes the Mothers to seek antenatal care with the support of their spouse. A study conducted by Allendorf in 2010 says that among nuclear families, Mothers with better marital relationships are more likely to use antenatal care services delivered in a health-care facility than others.

Majority of Mothers in the Control and Experimental group were unemployed (83%, 87%). In the study conducted by Sherbini.A.F in the High Institute of Public Health, Alexandria University it is found that majority of working Mothers were more likely to have good knowledge regarding antenatal care and labour process.

Majority of them were Hindus (86%, 77%), this shows that most of the Mothers consulting at that hospital during their antenatal period and most of the population of that locality are Hindus. Majority of the Mothers had a family income within Rs. 7001 – 9000 (43%, 70%) respectively.

**Obstetric variables of the Primigravid Mothers**

Majority of the Mothers in the Control and Experimental group were between 38 – 40 weeks of gestation (77%, 60%). Antenatal Mothers who were nearing term are more anxious and are more curious to gain knowledge compared
to other Mothers. As per Nilsson.C antenatal Mothers especially the Primigravid Mothers become more anxious about labour and its outcome. They are also more aware of the importance of antenatal checkups.

Majority of the Mothers (83%, 83%) in both the Control and Experimental group attended more than five antenatal visit emphasizes that most of the Mothers were aware about the importance of regular antenatal check-up. As per the findings of the study conducted by Agarwal.S at the Urban Health Resource Center New Delhi there is a well preparedness of the Mothers for labour process with increased utilization of antenatal services. It was felt by the researcher that recent advances in the health care services improved the outcome of labour through increased antenatal visits.

A significant percentage of Mothers gained about 8-10 kg (13%, 70%) and 10-12 kg (83%, 13%). Majority of Mothers had a height of 146-155 cm (30%, 73%) and greater than 155 cm.

Comparison of mean and standard deviation of level of knowledge before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers

Majority of Mothers had moderately adequate knowledge (80%, 53%) before the Virtual Labour Process in the Control and Experimental group respectively. All in the Experimental group gained adequate knowledge (100%) after intervention. The mean knowledge level was slightly high after intervention (M=9.4, SD=2.06) compared to before intervention (M=9.7, SD=3.3) in the Control group where as the mean level of knowledge was very high after
intervention (M=24.5, SD=0.7) compared to before intervention (M=9, SD=2.5) in the Experimental group.

This shows that the Virtual Labour Process was effective in increasing the level of knowledge regarding labour. Many Mothers need some type of teaching programmes to deal with childbirth. The improvement in knowledge regarding labour process is a primary responsibility of the nurse. Interventions to increase knowledge regarding labour process is one of the essential aspects of nursing care that must be considered. Because of its strong effect on increasing knowledge, Virtual Labour Process can be used by nurses to increase the knowledge regarding labour process.

**Comparison of mean and standard deviation of level of anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers**

The mean level of anxiety in the Control group was slightly decreased after therapy (M=7.2, SD=1.12) compared to before therapy (M=7.8, S.D=1.23) whereas the mean level of anxiety was very low (M=1.2, SD=1.69) after therapy in the Experimental group when compared with before therapy (M=8.1, SD=1.7). Majority of Mothers had severe level of anxiety (63%, 67%) in the Control and Experimental group before intervention and a few Mothers in the Control and Experimental group had moderate level of anxiety (37%, 33%) before intervention. After the intervention the level of anxiety in the Experimental group reduced to mild level of anxiety (100%). This view was supported by Davis. That there is decreased level of anxiety with antenatal education. There was a severe level of anxiety in a significant percentage (63%) of them in the Control group after intervention.
This shows that the Virtual Labour Process was effective in decreasing the level of anxiety related to labour process. Many Mothers need some type of measures to decrease anxiety to deal with childbirth. The reduction in anxiety related to labour process is a primary responsibility of the nurse. Interventions to decrease anxiety related to labour process is one of the essential aspects of nursing care that must be considered. Because of its strong effect on decreasing anxiety, Virtual Labour Process can be used by nurses to decrease the anxiety related to labour process.

**Level of satisfaction on Virtual Labour Process among Primigravid Mothers**

All the Mothers were highly satisfied (100%) with Virtual Labour Process and none of them had unsatisfaction towards the therapy. This interprets that Virtual Labour Process was highly effective in increasing the level of knowledge and reducing the level of anxiety of the Mothers. Virtual Labour Process is an interesting experience for the Mothers where she is able to go through and understand different stages of labour and child birth which will increase the level of knowledge and reduce the level of anxiety related to labour. Thus the midwives should understand the importance of using this method which is harmless and they should be encouraged in practicing such therapies.

**Association between selected Demographic variables and level of knowledge and anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers.**

In the Control group of Primigravid Mothers there is no significant association between age, educational status type of family and type of employment with knowledge and anxiety regarding labour process. In the
Experimental group there is significant association between age and educational status but there is no significant association with type of family and type of employment with knowledge regarding labour process. In this study Mothers who were living in nuclear family had more knowledge. Hence the null hypothesis $H_{02}$ was rejected.

This was supported by a study conducted by Davis, it was said that antenatal Mothers from nuclear families tend to utilize antenatal care more when compared to Mothers from joined families with family burden.

In the Control and Experimental groups of Primigravid Mothers there is no significant association between age, type of employment, type of family and educational status with anxiety regarding labour process.

The study proves that the Demographic variables have an influence over the knowledge and anxiety. Hence some type of educational programmes has to be provided for increasing the level of knowledge and reducing the level of anxiety in the Primigravid Mothers.

**Association between selected Obstetric variables and level of knowledge and anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers**

In the Control group of Primigravid Mothers there is no significant association between number of antenatal check-up and gestational age in weeks with knowledge and anxiety regarding labour process. This view was supported by Kirkpatrick.M that the anxiety level was decreased with increased number of antenatal checkups.
In the Experimental group there is no significant association between number of antenatal check-up and gestational age in weeks with level of knowledge but there is significant association between number of antenatal checkups and level of anxiety regarding labour process. Hence the null hypothesis $H_{03}$ was rejected. Which emphasizes that the Obstetric variables have an influence over the level of knowledge and anxiety related to labour among Primigravid Mothers. As everybody in the Control and Experimental group has decreased level of knowledge and increased level of anxiety before Virtual Labour Process which improved after it.

**Summary**

This chapter dealt with the discussion of various aspects of the study findings. This chapter emphasized on the Demographic and Obstetric variables of Primigravid Mothers. It also dealt with the mean and standard deviation of level of knowledge and level of anxiety before and after the Virtual Labour Process in Control and Experimental group. It also dealt about the association between selected Demographic and Obstetric variables with level of knowledge and level of anxiety before and after Virtual Labour Process.
CHAPTER VI
SUMMARY, CONCLUSION, IMPLICATIONS, RECOMMENDATIONS
AND LIMITATIONS

Summary

This study was conducted by the researcher to find the effectiveness of Virtual Labour Process upon level of knowledge and anxiety related to labour in Primigravid Mothers.

The Objectives of the Study

1. To assess the level of knowledge and anxiety before and after Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.

2. To determine the effectiveness of Virtual Labour Process by comparing the level of knowledge and anxiety before and after the Virtual Labour among Experimental and Control groups of Primigravid Mothers within 35 - 40 weeks of gestation.

3. To find the association between the selected Demographic variable and the level of knowledge and anxiety before and after the Virtual Labour Process among Control and Experimental group of Primigravid Mothers within 35 - 40 weeks of gestation.

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5. To determine the level of satisfaction among Experimental group of Primigravid Mothers regarding administration of Virtual Labour Process.

Null Hypothesis

**H₀₁**: There will be no significant difference between pre and post-test level of knowledge and anxiety regarding labour process among the Control and Experimental groups of Primigravid Mothers within 35 - 40 weeks of gestation.

**H₀₂**: There will be no significant association between the selected Demographic variables and the level of knowledge and anxiety regarding labour process among the Control and Experimental groups of Primigravid Mothers within 35 – 40 weeks of gestation.

**H₀₃**: There will be no significant association between the selected Obstetric variables and the level of knowledge and anxiety regarding labour process among the Control and Experimental groups of Primigravid Mothers within 35 - 40 weeks of gestation.

The Major findings of the study

**Demographic variable of Primigravid Mothers**

Majority of the Primigravid Mothers in both Control and Experimental group were between the age group of 18 – 21 (80%, 37%) years and 22 – 25 years (17%, 53%) which shows that most of them are aware about the right age of reproduction.
The educational qualification of the Mothers shows that most of them in the Control and Experimental group had secondary education (23%, 63%) and graduation (67%, 20%), which can be recognized as a facilitating factor to understand about labour process and reduction in anxiety. This view was supported by Sherbini.A.F in the High Institute of Public Health, Alexandria University that higher educated Mothers were more likely to have good knowledge about antenatal care and labour process compared to lower educated Mothers. Education of an individual plays an important role specially understanding health care issues and making decisions. Now a days the literacy rate of the Mothers is more when compared to men and they are also independent in taking health related decisions for them and their family. According to the census held in 2011 by national literacy mission, the percentage of female literacy has increased from 8.86% in 1956 to 65.46% in 2011. Thus all the Mothers should be encouraged to do their higher education in addition to schooling.

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Majority of the Mothers (83%, 83%) in both the Control and Experimental group attended more than five antenatal visit emphasizes that most of the Mothers were aware about the importance of regular antenatal check-up. As per the
findings of the study conducted by Agarwal. S at the Urban Health Resource Center New Delhi there is a well preparedness of the Mothers for labour process with increased utilization of antenatal services. It was felt by the researcher that recent advances in the health care services improved the outcome of labour through increased antenatal visits.

A significant percentage of Mothers gained about 8-10 kg (13%, 70%) and 10-12 kg (83%, 13%). Majority of Mothers had a height of 146-155 cm (30%, 73%) and greater than 155 cm.

**Level of knowledge in Primigravid Mothers**

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Virtual Labour Process can be used by nurses to increase the knowledge regarding labour process.

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Association between selected Demographic variables and level of knowledge and anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers

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This was supported by a study conducted by Davis, it was said that antenatal Mothers from nuclear families tend to utilize antenatal care more when compared to Mothers from joined families with family burden.
In the Control and Experimental groups of Primigravid Mothers there is no significant association between age, type of employment, type of family and educational status with anxiety regarding labour process.

The study proves that the Demographic variables have an influence over the knowledge and anxiety. Hence some type of educational programmes has to be provided for increasing the level of knowledge and reducing the level of anxiety in the Primigravid Mothers.

**Association between selected Obstetric variables and level of knowledge and anxiety before and after Virtual Labour Process in the Control and Experimental group of Primigravid Mothers**

In the Control group of Primigravid Mothers there is no significant association between number of antenatal check-up and gestational age in weeks with knowledge and anxiety regarding labour process. This view was supported by Kirkpatrick.M that the anxiety level was decreased with increased number of antenatal checkups.

In the Experimental group there is no significant association between number of antenatal check-up and gestational age in weeks with level of knowledge but there is significant association between number of antenatal checkups and level of anxiety regarding labour process. Hence the null hypothesis $H_{03}$ was rejected. Which emphasizes that the Obstetric variables have an influence over the level of knowledge and anxiety related to labour among Primigravid Mothers. As everybody in the Control and Experimental group has decreased level of knowledge and increased level of anxiety before Virtual Labour Process which improved after it.
Conclusion

This study shows that Virtual Labour Process was effective in increasing the level of knowledge and reducing the level of anxiety. The Experimental group of Primigravid Mothers who received Virtual Labour Process had increased level of knowledge and decreased level of anxiety related to labour process and was highly satisfied with the Virtual Labour Process. The Virtual Labour Process is an interesting animated movie of 10 minutes which increases knowledge and reduces anxiety related to labour process in the Primigravid Mothers and hence the midwives could be encouraged to use this.

Implications

Nursing Practice

The Primigravid Mothers of the Experimental group experienced an increase in the level of knowledge and a decrease in the level of anxiety than the Control group proving it to be effective to use. The depth of knowledge, the severity of anxiety and Mothers’s response to it varies widely. The environment in which the Mothers is during her pregnancy, childbirth and postnatal period and the support they receive from their care givers and companions will also affect their knowledge and anxiety. Many Mothers end up in different complication due to lack of knowledge and increased level of anxiety related to labour. Hence it becomes a necessity for the midwives to have adequate knowledge and skill about various aspects of labour and its management. Nurses should use Virtual Labour Process as a modality to increase the level of knowledge and to decrease the level of anxiety in their practices as it is interesting, harmless and highly effective.
Nursing Education

The nursing profession has a long history of viewing and caring for individuals in a holistic manner. A national conference conducted by National Institutes of Health and the Uniformed Services University of Health Sciences concluded that nursing and medical education should include information about measures to increase knowledge and decrease anxiety. Nurse educators should consider the inclusion of educational programmes in nursing curricula with increasing Inherent in the nurse’s role is the ability to assess, intervene and evaluate preventive, supportive, and restorative functions of a patient’s physical, emotional, mental and spiritual domains. This should be emphasized to the nursing students through educating them about the various educational programmes that help the patients in providing care to meet their needs.

Nursing Administration

With the advent of various technologies in the field of nursing, nurses are expected to be skillful in various aspects of providing care for which student nurses have to be trained in it through their education. Thus it is the responsibility of the nurse administrators to include the concept of new educational programmes in the nursing curricula. The nursing staff and the nursing students should be encouraged by the nurse administrators to learn various nursing modalities in caring patients and could conduct certifying courses which would help them to practice it.

Nursing Research

The competence of a registered nurse to educate using new methods begins with nursing education and ends with nursing practice which requires an
evidence to give assurance that the knowledge and practice gained by the nurse are safe and provide comfort for the patients. Thus major research has to be promoted and conducted by the nurse researchers to prove the effectiveness of such new educational programmes in nursing profession.

**Recommendations**

- The same study can be conducted with large number of samples.
- A comparison can be made between Primigravidae and Multigravidae.
- A comparison can be made with different countries.
- The same study can be conducted at different setting.
- A comparison can be made between different types of educational programmes.

**Limitations**

- The study findings cannot be generalized due to small sample size.
- Some Mothers specially in the Control group found it tiring to answer the questionnaires.
- Quasi Experimental research was not possible due to practical difficulties.
REFERENCES


APPENDIX I

LETTER SEEKING PERMISSION TO CONDUCT STUDY

CO/0216/13

02.05.2013

To

The Medical Director,
Andhra Mahila Sabha,
11 & 12 Durgabai Deshmukh Road,
Chennai.

Respected Sir / Madam,

Sub: To request permission for research study – Reg.

Greetings! As part of the curriculum requirement our 2nd year M.Sc. (N) student Ms. Mintu Kurienose has selected the following title for her research study.

"An experimental study to assess the effectiveness of virtual labour process upon knowledge and anxiety level among primi gravid women within 37-42 weeks of gestation at selected hospital Chennai".

So I kindly request your good selves to permit her to conduct study in your esteemed institution.

Thanking You,

Dr. LATHA VENKATESAN
PRINCIPAL
APPENDIX II

LETTER PERMITTING TO CONDUCT STUDY

CO/0216/13  
02.05.2013

To

The Medical Director,
Andhra Mahila Sabha,
11 & 12 Durgabai Deshmukh Road,
Chennai.

Respected Sir / Madam,

Sub: To request permission for research study – Reg.

Greetings! As part of the curriculum requirement our 2nd year M.Sc. (N) student
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at selected hospital Chennai".

So I kindly request your good selves to permit her to conduct study in your esteemed institution.

Thanking You,

Dr. LATHA VENKATESAN
PRINCIPAL

Emergency Service
Dial 1066
APPENDIX III

ETHICS COMMITTEE LETTER

Ethics Committee

To,
Ms. Mintu Kuriakose
2nd Year M.SC (Nursing),
Department of Obstetrics & Gynecology Nursing,
Apollo College of Nursing, Chennai.

Ref: An experimental study to assess the effectiveness of virtual labour process upon knowledge and anxiety level among primi gravid mothers within 35-40 weeks of gestation at selected hospital, Chennai.

Sub: Approval of the above referenced project and its related documents.

Dear Ms. Mintu Kuriakose,

Ethics Committee-Apollo Hospitals has received the following document submitted by you related to the conduct of the above-referenced study.

- Project proposal.
- Informed consent form.

The Ethics Committee-Apollo Hospitals reviewed and discussed the Project proposal documents submitted by you related to the conduct of the above referenced Project at its meeting held on 14 May 2013.

The following Ethics Committee Members were present at the meeting held on 14 May 2013:

<table>
<thead>
<tr>
<th>Name</th>
<th>Profession</th>
<th>Position in the committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Reema Menon</td>
<td>Clinician</td>
<td>Member Secretary</td>
</tr>
<tr>
<td>Dr. P. Nalini Rao</td>
<td>Social Worker</td>
<td>Chairperson</td>
</tr>
<tr>
<td>Dr. Renuka Singh</td>
<td>Consultant Clinical Pharmacologist</td>
<td>Basic Medical Scientist</td>
</tr>
<tr>
<td>Dr. Krishna Kumar</td>
<td>Clinician-Medical Superintendent</td>
<td>EC-Member</td>
</tr>
<tr>
<td>Miss. N. Suseela</td>
<td>Retired English Teacher</td>
<td>Layperson</td>
</tr>
<tr>
<td>Ms. Malmoona Badsha</td>
<td>Lawyer</td>
<td>Lawyer</td>
</tr>
<tr>
<td>Dr. Vijayakumar</td>
<td>Clinician</td>
<td>EC-Member</td>
</tr>
</tbody>
</table>

Apollo Hospitals Enterprise Limited
21, Greems Lane, Off Greems Road, Chennai - 600 006
Tel : 91 - 44 - 2829 1618, 2829 3333, 91 - 44 - 2829 5465 Extn : 5045 / 6641
Fax : 91 - 44 - 2829 1618 / 4449 E - Mail : ec@apollochennai@gmail.com

xviii
After due ethical and scientific consideration, the Ethics Committee has approved the above presentation submitted by you.

The EC review and approval of the report is only to meet the academic requirement and will not amount to any approval of the conclusions / recommendations as conclusive, deserving adoption and implementation, in any form, in any healthcare institution.

The Ethics Committee is constituted and works as per ICH-GCP, ICMR and revised Schedule Y guidelines.

With Regards,

Dr. Rema Menon,
Ethics Committee-Member Secretary,
Apollo Hospitals, Chennai,
Tamil Nadu, India.

Dr. REMA MENON
MEMBER SECRETARY
ETHICS COMMITTEE, APOLLO HOSPITALS
APOLLO HOSPITALS ENTERPRISE LIMITED
CHENNAI-600 006, TAMILNADU

Date: 15/5/20
APPENDIX IV
REQUEST FOR CONTENT VALIDITY
LETTER REQUESTING OPINIONS AND SUGGESTIONS OF EXPERTS
FOR ESTABLISHING CONTENT VALIDITY OF RESEARCH

From
Ms. Mintu Kuriakose,
M.Sc (N), II year,
Apollo College of Nursing,
Chennai – 95.

To
Through proper channel
Dr. Latha Venkatesan,
Principal,
Apollo College of Nursing.

Sub: Requesting for opinions and suggestions of experts for establishing content validity of Research tool.

Respected Sir/ Madam,
Greetings! As a part of the Curriculum Requirement the following research title is selected for the study.

“An Experimental study to assess the effectiveness of Virtual Labour Process upon Knowledge and Anxiety Level among Primigravid Mothers within 35 – 40 weeks of Gestation at Selected Hospital, Chennai”.

I will be highly privileged to have your valuable suggestion with regard to the establishment of content validity of research tool. So I request you to validate my Research tool and give suggestions about the tool.

Thanking you,

Place:                        Yours Sincerely,
Date:                         (Ms. Mintu Kuriakose)

xx
APPENDIX V
CONTENT VALIDITY CERTIFICATE

I here certify that I have validated the research tool of Ms. Mintu Kuriakose, M.Sc (N), student who is undertaking research study on “An Experimental study to assess the effectiveness of Virtual Labour Process upon Knowledge and Anxiety Level among Primigravid Mothers within 35 – 40 weeks of Gestation at Selected Hospital, Chennai”.

Signature of Expert

Name and Designation
APPENDIX VI

LIST OF EXPERTS FOR CONTENT VALIDITY

1. **Dr. Latha Venkatesan, M.Sc (N), M.Phil (N), Ph.D (N),**
   Principal,
   Apollo College of Nursing,
   Chennai – 95.

2. **Prof. Mrs. Lizy Sonia. A, M.Sc (N), Ph.D (N),**
   Vice Principal,
   Apollo College of Nursing,
   Chennai – 95.

3. **Prof. Vijayalakshmi. K, M.Sc (N), Ph.D (N),**
   HOD of Mental health Nursing,
   Apollo College of Nursing,
   Chennai – 95.

4. **Mrs. Thamizharasi, M.Sc (N),**
   Lecturer, Obstetrics and Gynaecological Nursing,
   Apollo College of Nursing,
   Chennai – 95.

5. **Mrs. Saraswathy, M.Sc (N),**
   Lecturer, Obstetrics and Gynaecological Nursing,
   Apollo College of Nursing,
   Chennai – 95.

6. **Mrs. Kavitha, M.Sc (N),**
   Lecturer, Obstetrics and Gynaecological Nursing,
   Apollo College of Nursing,
   Chennai – 95.
APPENDIX VII
RESEARCH PARTICIPANT CONSENT FORM

Dear participant,

I Ms. Mintu Kuriakose M.Sc (N)., student of Apollo College of Nursing, Chennai. As part of my study, a research on “An Experimental study to assess the effectiveness of Virtual Labour Process upon Knowledge and Anxiety Level among Primigravid Mothers within 35 – 40 weeks of Gestation at Selected Hospital, Chennai”.

I hereby seek your consent and co-operation to participate in the study. Please be frank and honest in your responses. The information collected will be kept confidential and anonymity will be maintained.

Signature of the researcher

I………………………………………hereby consent to participate and undergo the study.

Place:

Date:

Signature of the participant
அற்பந்தினினால் பாது விளம்புகோளான நுழைவு புதும

ஆண்டவரத்து நாட்டிற்கு!

கை ஒன்றில் விளக்கினர் கிளைவினர், நீர் ஆண்டவர் விளக்கினர் கலக்கினர் முக்கியவான விளக்கினர் மாணிக்க மண் மாணி, கலங்காலம் பல்வேறு ஹாதனைகள் காணமல்லன மகிழ்ச்சியில் பிரகார விளக்கினர் புற்றிய அதிக மண் பரிபாலகம் விளக்கினர் புற்றிய முயற்சியை அறிவிந்தன, பல்வேறு பிரகார விளக்கினர் வாழ்பாடு காண்பிக்கப்படும் அவை சிறித் விளக்கினர் முக்கிய அனைத்தை வேறு விளக்குறுத்தியோன்.

இன்றும் விளக்க அற்பந்தினினால் தின்ந்த பாது விளக்கம் பாது முக்கிய விளக்கம் விளக்கினரின் இடைவுப்பதிவு. கையால் ஒன்றில் விளக்கினர் விளக்கினர் அவை விளக்கி விளக்கினரின் முக்கியம் விளக்கம் விளக்கினர் விளக்கி விளக்கினர். கையால் ஒன்றில் விளக்கினர் முக்கியம் விளக்கினர்

அற்பந்தினினால் அகிலப்பராதம்

........................... அன்று கையால் விளக்க அற்பந்தினினால் பாது விளக்கம் புதுத்தல் அழிக்கிறோனோக்.

பாது விளக்கினால் அகிலப்பராதம்
APPENDIX VIII

CERTIFICATE FOR ENGLISH EDITING

TO WHOM EVER IT MAY CONCERN

This is to certify that the dissertation “An Experimental study to assess the effectiveness of Virtual Labour Process upon Knowledge and Anxiety Level among Primigravid Mothers within 35 – 40 weeks of Gestation at Selected Hospital, Chennai” by Ms. Mintu Kuriakose, II year M.Sc (N), Student, Apollo College of Nursing was edited for English language appropriateness.
APPENDIX – IX
CERTIFICATE FOR TAMIL EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the tool for Demographic Variable proforma, Obstetric Variable proforma, Structured Interview Schedule, Anxiety scale, Rating scale for Satisfaction and Tamil Script of Virtual Labour Process upon Knowledge and Anxiety, translated by Ms. Mintu Kuriakose II year M.Sc (N), Student, Apollo College of Nursing for her dissertation “An Experimental study to assess the effectiveness of Virtual Labour Process upon Knowledge and Anxiety Level among Primigravid mothers within 35 – 40 weeks of gestation at selected hospital, Chennai” was edited for Tamil language appropriateness.

Signature

Grace Rani
APPENDIX – X

DEMOGRAPHIC VARIABLE PROFORMA

Purposes

This proforma is used by the researcher to collect information on Demographic variables of the mother such as age, religion, educational status, type of family, area of residence, type of employment and family monthly income.

Instructions

The investigator will collect the data by interviewing the mother and from the hospital record and fill the details

Sample number

1. Age in years

   1.1 18 – 21 years

   1.2 22 – 25 years

   1.3 26 – 29 years

   1.4 30 – 33 years

2. Religion

   2.1 Hindu

   2.2 Christian

   2.3 Muslim

   2.4 Others

3. Educational status of the mother

   3.1 Illiterate

   3.2 Primary education

   3.3 Secondary education

   3.4 Graduate

   3.5 Postgraduate and above
4. Type of family
   4.1 Nuclear
   4.2 Joint
   4.3 Extended

5. Area of residence
   5.1 Urban
   5.2 Rural

6. Types of employment
   6.1 Sedentary worker
   6.2 Self employee
   6.3 Government employee
   6.4 Private employee
   6.5 Unemployed

7. Family monthly income
   7.1 Up to 3,000/-
   7.2 3,001 – 5,000/-
   7.3 5,001 – 7,000/-
   7.4 7,001 – 9,000/-
   7.5 9,001 and above
தற்கால அறிவியல் பாறையின் முறையும்
சான்ற மறைந்தவர் அறிவிய முறையும்

நிறைவு

தற்கால அறிவியல் மறைந்தவர் பங்களிச்சி இயற்றும் பதிவு, இணைய, கண்டிக்கையுடன். வாழ்வில், மது மறைந்தவர், அறிவிய முறை, அறிவிய 
அறிவியலாளரின் நூற்றநிலைகள் முறையும் கருத்தெடுக்க பகுதியான சங்காயாக்கல் பங்களிச்சி அறிவிய 
முறையும்.

முறையும்:

1. முறை (முக்கியத் தலைப்பு)
   1.1 18 - 21 முறை
   1.2 22 - 25 முறை
   1.3 26 - 29 முறை
   1.4 30 - 33 முறை

2. முறை
   2.1 கிராமப்பகுதி முறை
   2.2 கோட்டைப்பகுதி முறை
   2.3 கிராமப்பகுதி முறை
   2.4 முறையும்

3. கருத்தெடுப்பு புகழ்பூர்வம்
   3.1 பாதுகாப்பு புகழ்பூர்வம்
   3.2 குறிப்பற்றி புகழ்பூர்வம்
   3.3 பாதுகாப்பு புகழ்பூர்வம்
   3.4 பாதுகாப்பு
   3.5 பாதுகாப்பு

4. குறிப்பிட்டல்
   4.1 குறிப்பிட்டல்
   4.2 குறிப்பிட்டல்
   4.3 முறையும்
5. தற்காலப் பொருள்
   5.1 கூட்டும்
   5.2 கூற்றும்

6. தமிழில்
   6.1 கல்லி தமிழில் விளக்கம்
   6.2 சமூகச் சுற்றுமில்லை விளக்கம்
   6.3 இணையத்தில் தமிழில் விளக்கம்
   6.4 கல்லை நூற்றாண்டு விளக்கம்
   6.5 சொல்லிபெற்றாலாம்

7. புது மார்க்கியியக் கூட்டு வகுக்காலம்
   7.1 கூட்டு 3,000 முதல்
   7.2 கூட்டு 3,001 - 5000/-
   7.3 கூட்டு 5,001 - 7,000/-
   7.4 கூட்டு 7,001 - 9,000/-
   7.5 கூட்டு 9,001 முதல் வகுக்காலம்
### APPENDIX – XI

**OBSTETRIC VARIABLE PROFORMA**

**Purpose**

This proforma is used by the researcher to collect information on obstetrical variables of the mother such as antenatal checkups, weight gain during pregnancy, gestational age and height of the mother.

**Instructions**

The investigator will collect the data by interviewing the mother and from the hospital records and fill the details.

1. **Antenatal checkups**
   - 1.1 No visits
   - 1.2 < 4 visits
   - 1.3 > 4 visits

2. **Weight gain during pregnancy**
   - 2.1 6 – 8 kg
   - 2.2 8 – 10 kg
   - 2.3 10 – 12 kg
   - 2.4 12 kg and above

3. **Gestational age in weeks**
   - 3.1 < 38
   - 3.2 38 – 40
   - 3.3 > 40

4. **Height of the mother**
   - 4.1 ≤ 145 cm
   - 4.2 146 – 155 cm
   - 4.3 > 155
1. காப்பாளர் பரிசாக்குலம்

1.1 வேளாண்டு பரிசாக்குலம் கணமம்பாட்டில்

1.2 4 கல்லாச்சாலை பரிசாக்குலம் கணமம்பாட்டில்

1.3 4 கல்லாச்சாலை விளை பரிசாக்குலம் கணமம்பாட்டில்

2. காப்பாளர் செய் அதிகாரம்

2.1 6 - 8 கிலோ

2.2 9 - 10 கிலோ

2.3 11 - 12 கிலோ

2.4 12 கிலோக்கட் அதிகாரம்

3. காப்பாளர் காலம்

3.1 38 மாதமாக காந்தம் நூற்றாண்டு

3.2 38-40 மாதம்

3.3 40 மாதமாக விளை நூற்றாண்டு

4. காப்பாளர் உயர்

4.1 145 ம.ம் புதும் அதிகார நூற்றாண்டு

4.2 146 - 155ம.ம்

4.3 155 ம.ம் புதும் அதிகார நூற்றாண்டு
BLUE PRINT ON

STRUCTURED INTERVIEW SCHEDULE TO ASSESS THE LEVEL OF

KNOWLEDGE ON LABOUR PROCESS

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<th>Item No.</th>
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<td>2nd and 3rd stage of labour</td>
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<td>Activities for coping</td>
<td>11,12,13,14,15</td>
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<td>Care of new born</td>
<td>16,17,18,19,20</td>
<td>5</td>
<td>20</td>
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<tr>
<td>Thermo regulation and breast feeding</td>
<td>21,22,23,24,25</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>
APPENDIX – XII

STRUCTURED INTERVIEW SCHEDULE TO ASSESS THE LEVEL OF KNOWLEDGE OF PRIMIGRAVID MOTHERS REGARDING LABOUR PROCESS.

Purpose

This structured interview schedule is used to assess the knowledge of primi mothers regarding physiological changes during labour process and immediate care of newborn.

Instruction

Please answer these questions. Each questions has 4 choices, select the appropriate choice. The collected information will be kept confidential and will be used for the research purpose only.

1. How will you recognize leakage of amniotic fluid?
   a) Feeling of incontinence
   b) Leakage of fluid per vagina
   c) Bleeding per vagina
   d) Severe pain in the perineum

2. What should be done in case of leaking of fluid per vagina?
   a) Take rest with legs elevated
   b) Have medicines
   c) Keep sanitary pad and walk for a while
   d) Monitor fetal movements and go to the hospital
3. What should be done in case of regular uterine contractions and low back pain that does not relieve?
   a) Start doing antenatal exercises
   b) Use some analgesics
   c) Monitor fetal movements and reach hospital as early as possible.
   d) Massage with Castrol oil

4. What is the brownish red tinged bloody discharge seen when labour approaches?
   a) A sticky discharge which blocks cervix and leaks off when cervix dilates
   b) Sign that your placenta has separated
   c) Nothing serious. Take rest
   d) Sign that you are doing hard work and need rest.

5. How will you identify true labour?
   a) When pain occurs before the EDD
   b) When there is irregular contractions with irregular intervals
   c) When there is regular contraction with shortening of intervals
   d) When there is severe back pain which does not relieve

6. What is the reason for pain during labour?
   a) Due to rupture of membrane
   b) Due to separation of placenta
   c) Due to some injury in uterus
   d) Due to pushing of the baby by uterus with contractions
7. Which is the right time for pushing down or bearing down?
   a) When the contractions begin
   b) When the cervix fully dilates and the nurses or doctor ask you to push
   c) When there is bleeding
   d) When there is amniotic fluid leakage

8. What is need for episiotomy?
   a) To prevent capput succidanium
   b) To prevent perineal tear
   c) To provide comfort to the mother
   d) To decrease the duration of second stage of labour

9. When is the umbilical cord cut?
   a) Before baby is delivered
   b) After placenta is delivered
   c) After initiating breast feeding
   d) After the baby is delivered

10. What is the reason for contractions after delivery of baby?
    a) Indicating some abnormalities
    b) For delivery of placenta
    c) Indication of episiotomy
    d) Indication of internal bleeding

11. What is the appropriate time for delivery of placenta?
    a) 2-5 minutes
    b) 15-30 minutes
    c) 1-2 hours
    d) 3 hours or more
12. What is to be done first in case of severe vaginal bleeding after episiotomy?

   a) Inform the nurse immediately
   b) Change pads as and when needed
   c) Breast feed adequately
   d) Drink plenty of water

13. How is abdominal breathing exercise done?

   a) Inhale and exhale through nose
   b) Inhale and exhale very fast
   c) Inhale deeply through mouth and exhale through nose
   d) Inhale deeply through nose and exhale slowly through mouth

14. What is the effect of ambulation on true labour?

   a) Subsides the pain
   b) Aggravates contraction and helps in progress of labour
   c) Makes the mother even more tired and weak
   d) It causes bleeding per vagina

15. Which is the most acceptable position after contraction starts?

   a) Lying flat on back or supine position
   b) Right lateral position
   c) Lithotomy position
   d) Left lateral position
16. Which is the main factor among these that helps the mother to cope with the pain during labour?
   a) Family support and positive attitude to child birth
   b) Drinking plenty of water
   c) Having food
   d) Taking analgesics

17. Which is the natural method that provide comfort and helps you to cope up with pain?
   a) Walking
   b) Taking rest
   c) Having food
   d) Using heat and cold – heat on lower back and cold wash cloth on head.

18. What will help you the most to cope with pain and discomfort after the baby is delivered?
   a) Analgesics
   b) Taking plenty of fluids
   c) Breast feeding and skin to skin contact with baby
   d) Taking rest

19. Why is immunization necessary for the baby?
   a) To protect from disease
   b) To protect from pollution
   c) To promote the growth and development
   d) To improve the mental health
20. Which is the appropriate time for initiating breast feeding?
   a) Within ½ hours
   b) Within 1 hour
   c) Within 2 hours
   d) Within 5 hours

21. Which is the best and natural method to keep the baby warm?
   a) Keep under warmer
   b) Skin to skin contact with mother
   c) Mummifying the baby
   d) Hot water bath

22. How frequently you should feed the baby?
   a) Every half an hour
   b) At least once in a hour
   c) Once in 2 hours and on demand
   d) Only on demand

23. How should a baby be mummified?
   a) By covering the head
   b) By covering the extremities
   c) By covering the body
   d) By covering both head and body
24. Which is the appropriate time to give first bath for the baby?

   a) After 24 hours
   b) After 1 week
   c) After 1 month
   d) Immediately after delivery

25. Which is the best position for breast feeding?

   a) Sitting up right
   b) Side lateral
   c) Standing
   d) Lying on backs
Key:

<table>
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<td>&gt; 75</td>
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அறிவுடைய பொழுது நகர்ப்பார்க்கிறேன் நகர்ப்பார்க்கிறேன் அறிவுமத்திலிருந்து வரும் செயல்களின் ஆண்டுத் தொடர்பில் அறிவுபெறும் பொதுவெடுப்பில் நிர்ணயிக்கப்பட்டுள்ள பத்தை

1. பம்பு பரிமாறும் மாற்று அறிவு நிர்ணயிக்கப்பட்டது;

   அ. எதுவையும் பலமானவருக்குப் பெற்றுச் செய்யப்பட்டது
   ம. பலன் தேவையானது புனிதமானது இருந்தது
   ம. பலன் தேவையானது புனிதமானது நூற்றுக்கான அளவில்
   ப. பலன் தேவையானது புனிதமானது அளவில்.

2. பரிமாறும் மாற்று போன்று வேலை எம்பான்புச்சின்னமானது;

   அ. காலத்தில் மாற்று மரம் மறுமுனைகள்
   ம. பொருளாதாரமானது
   ம. பொருளாதாரமானது மோகனால் விளையாட்டிட
   ப. சிறியில் அதிகாரமடையும் பரிமாற்று பொருட்பகுதிகளைச்

3. ஆவர்க்கு வெளியானவர்கள் கருப்பான கருத்தாகவெடுக்கும் பண்பாடு என்பதை குறிப்பிட்டு உள்ளார் பயிற்சிகள்;

   அ. கருப்பானவர்களின் செயல்பாய்யாகமை கருப்பான செயல்பாய்யாக
   ம. என்று வருவையில் கருப்பான செயல்பாய்யாக
   ம. என்று வருவையில் கருப்பான செயல்பாய்யாக
   ப. முக்கியமானசெயல்பாய்யாக வருவையில்
   ப. முக்கியமானசெயல்பாய்யாக வருவையில்.
4. கீழே ஏற்றமலைச் சுருக்கச் செய்யப்பட்டு பிறந்துள்ள விளக்கம் கச்சாதைப் போன்றவைகள் காண்பதற்கான
காரணம் என்ன?

அ. குற்றவை
ஆ. செயல்பாடு விளக்கம்

5. மண்டலப்பகுதியில் பிரிவு வகைப்படுத்து வழிகாட்டு?

அ. பிரிவு

6. மத்தியர் பிரிவுற்றுள்ள வகை அடர்த்தியான?

அ. முன்னேற்றம் வகை

7. கீழே பிரிவுற்றுள்ள வகை அடர்த்தியான கச்சாதைப் போன்றவை?

அ. குற்றவை
8. பின்புறப்பட்டு பின்னரம் நிறுவும் கால வரலாற்று?  
   a. சுலபம் அடையும் வரலாறு.  
   b. பிந்துறையும் சுலபம் வரலாறு.  
   c. குற்றாக அடையும் வரலாறு.  
   d. முன்னம் வரலாறு அடையும் வரலாறு.  

9. முடியாது குறைந்து வரலாறு வரலாறு?  
   a. முக்கியமான வரலாறு பற்றியது.  
   b. பின்னரம் குறைந்து வரலாறு பற்றியது.  
   c. வரலாற்றுக்குத் தமிழ்நாடு வரலாறு.  
   d. வரலாற்றுக்கு முன்னர் வரலாறு.  

10. குறைந்து பின்புறப்பட்டு பின்னரம் குறைந்து வரலாறு வரலாறு?  
   a. குறைந்து பின்புறப்பட்டு வரலாறு மாற்றாகக் காண முடியாது.  
   b. குறைந்து பின்புறப்பட்டு வரலாறு மாற்றாகக் காண முடியாது.  
   c. பின்னரம் குறைந்து வரலாறு வரலாறு மாற்றாகக் காண முடியாது.  
   d. குறைந்து பின்புறப்பட்டு வரலாறு வரலாறு மாற்றாகக் காண முடியாது.  

11. முடியாது குறைந்து குறைந்து வரலாறு வரலாறு?  
   a. 2 - 5 குறைந்து வரலாறு  
   b. 15 - 30 குறைந்து வரலாறு  
   c. 1 - 2 மணி வரலாறு  
   d. 3 மணி வரலாறு (ஒன்று வரலாறு)  

12. பின்புறப்பட்டு குறைந்து வரலாறு வரலாறு குறைந்து வரலாறு வரலாறு?  
   a. குறைந்து பின்புறப்பட்டு வரலாறு வரலாறு வரலாறு.  
   b. குறைந்து பின்புறப்பட்டு வரலாறு வரலாறு வரலாறு.  
   c. குறைந்து பின்புறப்பட்டு வரலாறு வரலாறு வரலாறு.  
   d. குறைந்து பின்புறப்பட்டு வரலாறு வரலாறு வரலாறு.  

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13. முருக்கணத்தின் பொழுப்பு கூறும்படி வேர்ப்படையில் உண்டுப்படையும் என்கிறீர்கள்? 
   அ. கட்டைக்குறிக்கு பெரும்பாலான உண்டுப்படைகளில் முற்பகுதியில்
   நிறுத்தி வேர்ப்படையும். 
   இ. கட்டைக்குறிக்கு வேர்ப்படையும் 
   நிறுத்தி வேர்ப்படையும்
   க. கட்டைக்குறிக்கு முற்பகுதியில் வேர்ப்படையும் 
   நிறுத்தி வேர்ப்படையும்
   க. கட்டைக்குறிக்கு தேசியப் பொழுதுப்படையும் 
   முற்பகுதியில் நிறுத்தி 
   வேர்ப்படையும்.

14. போர்த்தனத்திற்கு உண்டு பெப்பாடுகள் உண்டுப்படையும் படையும் என்கிறீர்கள்?
   அ. கட்டைக்குறிக்கு பெப்பாடுகளை
   இ. கட்டைக்குறிக்கு பெப்பாடுகளை இரண்டுப் பொழுதுப்படைகளுடன் பொழுதுப்படையும் 
   நிறுத்தி பெப்பாடுகளை இரண்டு 
   க. கட்டைக்குறிக்கு இரண்டு பொழுதுப்படைகளுடன் 
   பொழுதுப்படையும் நிறுத்தி பெப்பாடுகளை 
   க. பொழுதுப்படையும் 

15. கட்டைக்குறிக்கு பொழுதுப்படையில் பெரும்பாலான உண்டு 
   பொழுதுப்படையும் வேர்ப்படையும் என்கிறீர்கள்?
   அ. முற்பகுதியில் பெப்பாடு 
   இ. முற்பகுதியில் பெப்பாடு 
   க. முற்பகுதியில் பெப்பாடு 
   க. முற்பகுதியில் பெப்பாடு 

16. எங்கிறவழக்களைத் தொடர்பாக காரணங்கள் வேர்ப்படையும் 
   உண்டுப்படையும் என்கிறீர்கள்?
   அ. பொழுதுப்படையில் பிராந்திய 
   இ. பொழுதுப்படையில் பிராந்திய 
   க. பொழுதுப்படையில் பிராந்திய 
   க. பொழுதுப்படையில் 

17. வந்து இருந்தவர் முயற்சிக்கப் பெற்றார் நன்மை என்னவில்லை?

ஆ. தமிழில் உண்மை

இ. அமைக்க உண்மை

ஈ. இருவரும் உண்மை

ஐ. கூறுகள் முயற்சிக்கத் பெற்றார் அல்லது குறிப்பிட்டத்துடன் அடிக்கர் கூறுகள் முயற்சிக்கப் பெற்றார்

18. நூற்றைப் பெற்றுப் பொழுது விளக்கம் செய்ய வாய்ப்பு உண்டு?

ஆ. வரிமானத்துடன் எய்கவென்று உண்மை

இ. அள்ளிய காலத்தில் அள்ளிய உண்மை

ஈ. அனுபவம் பெற்றார் உண்மை

ஐ. கூறுகள் முயற்சிக்கத் தீர்வு செய்ய

19. நூற்றாண்டில் இரும்பு தம்பகைகளை காட்டவும் வன்மை?

ஆ. செட்டி ஓருந்து தம்பகை

இ. வாழ்க்கைத் தம்பகை விளக்கம் தம்பகை

ஈ. கூறுகள் முயற்சிக்காமல் சாத்தியமான வன்மை

ஐ. கூறுகள் முயற்சிக்காமல் தம்பகை வன்மை

20. தூத்துக்கு குறும்பன் அரசில் நேரான வாதம் என்ன?

ஆ. கூறுகள் பிற்று அறுளன் தம்பகை

இ. கூறுகள் பிற்று தம்பகை தம்பகை

ஈ. கூறுகள் பிற்று தெள்ளும் தம்பகை

ஐ. கூறுகள் பிற்று சுமார்க்கி தம்பகை

21. நூற்றாண்டு இணை ஒன்றும் குறும்பன் தேர் முயற்சிக்கப் போற்றவும் வாய்ப்புகள்?

ஆ. கூறுகள் இணை விளக்கங்கள் தம்பகை என்ன

இ. கூறுகள் குறும்பன் தம்பகை அறுளன் விளக்கமும் என்ன

ஈ. கூறுகள் குறும்பன் விளக்கங்கள்

ஐ. கூறுகள் அரசில் தம்பகை விளக்கமும்
22. குழுக்கள் ரசிக்கையானவை ஏன் அருகில் அவ்வறும் குழுப்பான வகைகள் என்பது?
   அ. அறாவத் துருக்கம்
   உ. துருக்கம்
   எ. தேனைப்பட அமைப்பாக

23. குழுக்களை செல்வதற்கு கருதியவரும் கபை?
   அ. கருவக்கு அளிப்பால்
   உ. கருவக்கு அளிப்பால்
   எ. கருவக்கு அளிப்பால்
   க. கருவக்கு அளிப்பால்

24. பின்னர் குழுக்களை முழுக்கத்தில் பார்க்காமல் குழுப்பான வகையான என்பது?
   அ. 24 மாணிக்குறிக்கும் பின்னர்
   உ. உயர்மாணிக்குறிக்கு பின்னர்
   எ. உயர்மாணிக்குறிக்கு பின்னர்
   க. உயர்மாணிக்குறிக்கு பின்னர்

25. குழுப்பான வகைக்கெழுத்தன்னு குற்றிகை என்பது?
   அ. குற்றாக குற்றாக குற்றாக
   உ. குற்றாக குற்றாக குற்றாக
   எ. குற்றாக குற்றாக
   க. குற்றாக குற்றாக
திறங்கள்:

1. ஆ
2. ஐ
3. ம
4. அ
5. ம
6. எ
7. ஆ
8. இ
9. ம
10. ப
11. ஆ
12. இ
13. எ
14. ஆ
15. இ
16. ஆ
17. இ
18. ம
19. அ
20. அ
21. ஆ
22. ம
23. எ
24. ஆ
25. அ
APPENDIX – XIII

ANXIETY SCALE

Instructions: please answer the following questions with ‘yes’ or ‘no’ answers. Key: Score one point for each ‘yes’.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Have you been irritable when you think about labour?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Have you had any difficulty in relaxing as labour approaches?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Have you had any problems like been sleeping poorly or difficulty falling asleep as the expected date is approaching?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Have you had headaches or neck aches while you think of labour?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Have you had any of the following: trembling, tingling, dizzy spells, sweating, urinary frequency, and diarrhoea while you think of labour?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Have you been worried about your health after labour?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. Have you felt like heart pounding or racing when you think of labour?

8. Have you felt terrified when you think of labour?

9. Have you been nervous about what will happen during and after labour?

10. Have you felt any difficulty in breathing when you think of labour?

**Score Interpretation:**

Patients with anxiety score of five have a 50% chance of having clinically important disturbance, above these scores the probability of illness rises sharply.

<table>
<thead>
<tr>
<th>Score</th>
<th>Percentage</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>&lt;30</td>
<td>Mild</td>
</tr>
<tr>
<td>4-7</td>
<td>40 - 70</td>
<td>Moderate</td>
</tr>
<tr>
<td>8-10</td>
<td>&gt;80</td>
<td>Severe</td>
</tr>
</tbody>
</table>
| எண் | பலகை பெயர் | பற்றிய விளக்கம் | வாய்ப்பாடு | முனை
|------|-------------|---------------|-------------|------
| 1.   | பிரிவு பிரித்தல் கருத்து எடுத்துக்காட்டற்றதில்லை என்பதால் பாதுகாப்பானா? |
| 2.   | பிரிவு பிரித்தல் கருத்து எடுத்துக்காட்டற்றதில்லை என்பதால் முனையாளர்களை பாதுகாப்பானா? |
| 3.   | பிரிவு குறிப்பிட்டல் எடுத்துக்காட்டற்றதில்லை என்பதால் பாதுகாப்பானா? |
| 4.   | பிரிவு குறிப்பிட்டல் எடுத்துக்காட்டற்றதில்லை என்பதால் முனையாளர்களை பாதுகாப்பானா? |
| 5.   | பிரிவு குறிப்பிட்டல் எடுத்துக்காட்டற்றதில்லை என்பதால் பாதுகாப்பானா? |
| 6.   | பிரிவு பிரித்தல் பெயர் பாதுகாப்பானா? என்பதால் பாதுகாப்பானா? |
| 7.   | பிரிவு பிரித்தல் பற்றிய விளக்கத்தை பாதுகாப்பானா? |
| 8.   | பிரிவு பிரித்தல் பற்றிய விளக்கம் என்பதால் பாதுகாப்பானா? |
| 9.   | பிரிவு பிரித்தல் பற்றிய விளக்கம் என்பதால் பாதுகாப்பானா? |
| 10.  | பிரிவு பிரித்தல் பற்றிய விளக்கத்தை பாதுகாப்பானா? என்பதால் பாதுகாப்பானா? |
BLUE PRINT FOR LEVEL OF SATISFACTION

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Content</th>
<th>Statement</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Researchers</td>
<td>1,2,3,4</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Content</td>
<td>5,6,7</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>3.</td>
<td>Effectiveness</td>
<td>8,9,10</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td></td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>
APPENDIX – XIV
RATING SCALE ON THE LEVEL OF SATISFACTION
OF THE PARTICIPANTS

The tool is prepared by the researcher.

**Purpose**

This rating scale is designed to assess the level of satisfaction among Primigravid mothers on Virtual Labour Process and the immediate care of newborn. This is assessed by the researcher after the Virtual Labour Process and the immediate care of newborn.

**Instructions**

Kindly answer the following questions. Respond extends from highly satisfied, satisfied, dissatisfied and highly dissatisfied. Describe your responses freely and frankly. The responses will be kept confidential and used for research purpose only.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Statement</th>
<th>Highly Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Highly Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The researchers explanation about the labour process was satisfactory and adequate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Approach of the researcher was comfortable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>The duration of time spent by the researcher was adequate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The communication of the researcher was effective.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. The clarity of the video was good.

6. The programme was easy to follow and understand.

7. The sequence and the continuity of the Virtual Labour Process was adequate.

8. The relief of anxiety of the mother after Virtual Labour Process.

9. The attitude of the mother towards labour was improved.

10. The knowledge the mother gained after virtual labour was adequate.

**Score interpretation**

<table>
<thead>
<tr>
<th>Score</th>
<th>Percentage (%)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 7</td>
<td>≤ 25</td>
<td>Highly Dissatisfied</td>
</tr>
<tr>
<td>8 - 15</td>
<td>26 - 50</td>
<td>Dissatisfied</td>
</tr>
<tr>
<td>16 - 22</td>
<td>51 - 75</td>
<td>Satisfied</td>
</tr>
<tr>
<td>23 - 30</td>
<td>76 - 100</td>
<td>Highly Satisfied</td>
</tr>
</tbody>
</table>
கல்விக்குறிப்பிட்டுகள்

1. அவர்பூர்வீகம் அதிக பிரிவுகளுள் பார் வரும் புனையம் அதிக விளக்கங்கள் வைக்கும் பார்வையமங்கள் எடுத்துக்கொள்ளாள்.

2. அவர்பூர்வீகம் அதிருக்கும் திட்டம் எடுத்துக்கொள்ளாள்.

3. அவர்பூர்வீகம் அங்கு கூர்ந்தாள் அதிக விளக்கங்கள் வைக்கும் பார்வையமங்கள் எடுத்துக்கொள்ளாள்.

4. அவர்பூர்வீகம் அங்கு கூர்ந்தாள் அதிக விளக்கங்கள் வைக்கும் பார்வையமங்கள் எடுத்துக்கொள்ளாள்.

5. புழுநம் விளக்க திட்டத்தக்க

6. விளக்க விளக்கமுள்ள விளக்க இலையில் பிள்ளைபெறும் பந்தை

7. முக்கியேற்ற பிரிவு விளக்கமுள்ள விளக்க இலையில் பிள்ளை விளக்கமுள்ள பந்தை எடுத்துக்கொள்ளாள்.

<table>
<thead>
<tr>
<th>இட</th>
<th>கல்விக்குறிப்பிட்டு</th>
<th>புனைவு</th>
<th>வைக்கும் பார்வைய</th>
<th>வைக்கும் பார்வையமங்கள்</th>
<th>எடுத்துக்கொள்ளாள்</th>
<th>வைக்கும் பார்வையமங்கள்</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>அவர்பூர்வீகம்</td>
<td>அதிக பிரிவுகளுள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
</tr>
<tr>
<td>2.</td>
<td>அவர்பூர்வீகம்</td>
<td>அதிருக்கும் திட்டம்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
</tr>
<tr>
<td>3.</td>
<td>அவர்பூர்வீகம்</td>
<td>அங்கு கூர்ந்தாள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
</tr>
<tr>
<td>4.</td>
<td>அவர்பூர்வீகம்</td>
<td>அங்கு கூர்ந்தாள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வை�மங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
</tr>
<tr>
<td>5.</td>
<td>புழுநம் விளக்க திட்டத்தக்க</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
</tr>
<tr>
<td>6.</td>
<td>விளக்க விளக்கமுள்ள விளக்க இலையில்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
</tr>
<tr>
<td>7.</td>
<td>முக்கியேற்ற பிரிவு விளக்கமுள்ள விளக்க இலையில்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
<td>பார்வையமங்கள்</td>
<td>எடுத்துக்கொள்ளாள்</td>
</tr>
<tr>
<td></td>
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<td>---</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>குற்றில் முழுமையாக நூற்றாண்டு பிற்பகுதியில் கலந்துள்ள வேலைகள் ஆக்கப்பட்டு.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>பிற்பகுதியும் இருந்து, நாம்பாகராசியம் மலைக்கும் அதிகங்கு.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>குற்றில் கொடுங்கு நூற்றாண்டு பிற்பகுதியில் நூற்றாண்டு கலந்துள்ள அதிகங்கு அல்லது பிற்பாகராசியம் ஆக்கப்பட்டு.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX XV
TAMIL SCRIPT FOR VIRTUAL LABOUR PROCESS

பிரிவுரை கீழ்வரையற்ற புத்தம் தொன்னாகலம்

மாற்றாகம்!

இறுதி நூற்றில் கிளித்தக்க மாற்றுமாக புரியற்றுள்ளன அனைதம்

பொருந்தும் முறையாக பொருந்தும் பொருந்தும் பொருந்தும் பொருந்தும் பொருந்தும்

2. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

3. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

4. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

5. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

6. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

7. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

8. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

9. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

10. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

பிரிவு அளித்து கோளத்தின் கோளங்கள் கோளங்கள் கோளங்கள் கோளங்கள்

1. பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக பொருந்துமாக

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2. கலாச்சர் பாணி

கலாச்சர் பாணியில் சொல்லப்பட்டுள்ள கலாச்சரத்துடன் உரிமைநிலை தீர்வுவுடன் மீண்டும் தன்னின் நேலத்துக்கு எழுதப்பட்டுள்ளன.

செய்தலில்:

குறுக்கு அம்மன் கலாச்சரத்துடன் மாறித் திருமான செய்தும் தீர்வு பின்னர் பேரிய பந்தூண் சமந்தியாக முடிய பெறும் பின்னர் பேரிய பந்தூண் சமந்தியாக. இவுக்கு அருகியுள்ள பேரிய பந்தூண் வலுவாக சமந்தியாக மீண்டும் சமந்தியாக.

3. மூர்த்திய விளையாட்டு சான்றாளர் சுற்றாளர் விளையாட்டில்:

சுற்றாளர் முன்னிலைமண்டு நிறுவனாக செய்தும் எடுக்கும் விளையாட்டுக்கு உட்படும் சுற்றாளர் விளையாட்டில் அவர்கள் சிறுத்துருக்கு முனை நிறுவனாக செய்தும் விளையாட்டுக்கு உட்படும் சுற்றாளர் விளையாட்டில் மீண்டும் தன்னின் நேலத்துக்கு எழுதப்பட்டுள்ளன.

4. இழுத்துறவு:

சுற்றாளர் முன்னிலைமண்டு அவர்கள் புன்னச்சார முறையுடன் சுற்றாளர் விளையாட்டில் முன்னிலைமண்டு அவர்கள் விளையாட்டில் மீண்டும் தன்னின் நேலத்துக்கு எழுதப்பட்டுள்ளன.

5. சுற்றாளர் முன்னிலைமண்டு அவர்கள்:

சுற்றாளர் விளையாட்டு சுற்றாளர் விளையாட்டில் முன்னிலைமண்டு அவர்கள் விளையாட்டில் மீண்டும் தன்னின் நேலத்துக்கு எழுதப்பட்டுள்ளன.

பிற்பு முன்னிலைமண்டு விளையாட்டு சுற்றாளர் விளையாட்டில் இடைக்கோடு:

1. முறைமை:

பிற்பு முன்னிலைமண்டு விளையாட்டு முன்னிலைமண்டு விளையாட்டு மீண்டும் தன்னின் நேலத்துக்கு எழுதப்பட்டுள்ளன.

2. இருப்பு சிலைப்பிள்ளை அருகிகள்:

இருப்பு சிலைப்பிள்ளை அங்குதல் சுற்றாளர் விளையாட்டில் முன்னிலைமண்டு விளையாட்டில் மீண்டும் தன்னின் நேலத்துக்கு எழுதப்பட்டுள்ளன.
3. இந்திய நேசிப்பில் அவர்கள் கூறும் பொருளாக்காக துவங்கும் நிகழ்வுகள்:

இந்திய நேசிப்பில் கூறும் பொருளாக்காக அவர்கள் பொருளாக்கத் துவங்கி நேசி செயல்கள் குறிப்பிட்டியது. இது நேசி நேசிப்பில் செய்யப்படும் பொருளாக்காக துவங்கும் நிகழ்வுகள் பற்றிய தொகுப்பாக வந்ததைக் குறிப்பிட்டு வரும்.

4. உயிரினம் சமையல் பொருட்கள்:

பயிரின் வலிய உயிரினம் பொருட்கள் பயிரின் வலிய பொருட்கள் பற்றிய குறிப்பிட்டியது அல்லது வலிய பொருட்கள் பற்றிய குறிப்பிட்டியது உயிரினம் பற்றிய செயற்கையான பொருட்களை குறிப்பிட்டு வரும்.

பொருளாக்காக்களில் வரும் பொருளாக்காகக்

துவங்கும் பொருட்கள் மற்றும் உயிரினம் பற்றிய செயற்கையான பொருட்களை குறிப்பிட்டு வரும்.

குறிப்பிட்டியதை விளக்கும் முதல் வரும் பொருளாக்காகக்

துவங்கும் பொருட்களை வந்த பொருட்களை குறிப்பிட்டு வரும்.

அறிக்கையானது

குறிப்பிட்டியதை விளக்கும். உயிரினம் பற்றிய பொருளாக்காகை உயிரினம் முதல்வாத்தை குறிப்பிட்டு வரும்.

பயிரின் முதல்வாத்தை விளக்கும் பயிரின் பொருட்களை குறிப்பிட்டியதை விளக்கும். பயிரின் முதல்வாத்தை விளக்கும் பொருட்களை விளக்கும். பயிரின் முதல்வாத்தை விளக்கும் பொருட்களை விளக்கும். பயிரின் முதல்வாத்தை விளக்கும் பொருட்களை விளக்கும்.
பிள்ளை சிறுவர்

பிள்ளையாதராக வந்து வருவதற்கு அல்லது காப்படுத்தப்பட்ட நீர்வழிகள் மீது காலநிலையை பிடிக்க வேண்டும். பின்னர் பெண்களை கூட்டப் பணி நடத்த உண்டு பெண்களின் நேர்முறை வழியிலும். இதன் போது சிறுவர்களுக்கு செய்யப்பட்ட நீர்வழிகளை வழங்குவதற்கு சாத்தியமானது. இது பிள்ளைநிலையில் உள்ள பெண்களின் வழிபாட்டுகளின் நேர்முறைகளில் பிள்ளையாதராக வந்து வருவதற்கு அல்லது காப்படுத்தப்பட்ட நீர்வழிகள் மீது காலநிலையை பிடிக்க வேண்டும். இதன் போது சிறுவர்களுக்கு செய்யப்பட்ட நீர்வழிகளின் பிள்ளையாதராக வந்து வருவதற்கு அல்லது காப்படுத்தப்பட்ட நீர்வழிகள் மீது காலநிலையை பிடிக்க வேண்டும். 

துறைத் திறந்தையின் நேர்முறையில் இடை இளைய அவர்களுக்கு வழிபாடு ஏற்றுதல் நேர்முறையிலும். இதன் போது சிறுவர்களுக்கு செய்யப்பட்ட நீர்வழிகளின் பிள்ளையாதராக வந்து வருவதற்கு அல்லது காப்படுத்தப்பட்ட நீர்வழிகள் மீது காலநிலையை பிடிக்க வேண்டும்.

அறிக்கை பிள்ளையாதராக வந்து வருவதற்கு:

அறிக்கையில் சிறுவர் பிள்ளையாதராக வந்து வருவதற்கு அல்லது காப்படுத்தப்பட்ட நீர்வழிகள் மீது காலநிலையை பிடிக்க வேண்டும்.

இதன் போது சிறுவரின் நேர்முறையில் காரணியக்கள் எதுவும் அவர்களுக்கு வழிபாடு ஏற்றுதல் நேர்முறையிலும். இதன் போது சிறுவர்களுக்கு செய்யப்பட்ட நீர்வழிகளின் பிள்ளையாதராக வந்து வருவதற்கு அல்லது காப்படுத்தப்பட்ட நீர்வழிகள் மீது காலநிலையை பிடிக்க வேண்டும்.
தி காருண்குலம் போன்றவுடன் சேர்ந்த நடனத்தின் சுருக்கம் இருந்து, ஒவ்வொரு புரோக்கருடன் கூடிய கரிமக்காலல் மதி காருண்குலம் தின்படி வேண்டும் சேர்ந்து கூடிய நடனத்தின் நிகழ்வுகள் விளக்கப்படும் நோன்று, ஏன் அதிலுள் தகருடக் கோலையின் அளவு சரணாருக்கு திக்கும் நடனம் அறிக்கைகள் வேண்டும் காப்படி கருதுகிறது முன்னோடி தகருடக் கோலையாக.

இந்தக் கோலையின் பண்டைய பல்வேறு வகைகளுக்கு எதிரான விளக்கம் பெறுவது தலைவீர் நோன்று அறிக்கையாக விளக்கம் வேண்டும்.

இந்தக் கோலையின் பண்டைய வகைகளுக்கு எதிரான விளக்கம் பெறுவது தலைவீர் நோன்று அறிக்கையாக விளக்கம் வேண்டும்.

முக்கிய எடுத்துக்காட்டுகள் பல்வேறு வகைகளுக்கு எதிரான விளக்கம் பெறுவது தலைவீர் நோன்று அறிக்கையாக விளக்கம் வேண்டும்.

தி காருண்குலம் பல்வேறு வகைகளுக்கு எதிரான விளக்கம் பெறுவது தலைவீர் நோன்று அறிக்கையாக விளக்கம் வேண்டும்.

தி காருண்குலம் பல்வேறு வகைகளுக்கு எதிரான விளக்கம் பெறுவது தலைவீர் நோன்று அறிக்கையாக விளக்கம் வேண்டும்.
1. எண்ணாட்சியாகூறு

முதலாம் தலைமுறை முன்னேற்றம் தரவு பெறுவது என்று அவரது குற்றகாரை வலம்தெரியல் வருமாறு வேளியல்.

முதலாம் பாகத்தில் பின்னர் தரவுகள் தவறாக வருவதற்கு முற்பகுதி என்று வேளியல். தரவுகளில் வருமாறு வலம்தெரியல் தரவு பாகத்திலிருந்து வேளியல் வேளியல்.

2. புராணமுறை:

அறிவியலில் முதலாம் வருமாறு வலம்தெரியல் வருவதற்குப் பின்னர் தரவுகளில் தவறாக வருவதற்கு முற்பகுதி தவறாக வருவதற்கு வலம்தெரியல் வருவதற்கு முற்பகுதியாகக் காணப்பட்டுள்ளது. முன்னேற்றம் முற்பகுதியில் அறிவியலில் வருமாறு வலம்தெரியல் முற்பகுதியாக வேளியல் வேளியல்.

3. முறைப்படி வகைப்பாடு பிறந்து:

முறைப்படி பிறந்து வலம்தெரியல் வருமாறு வலம்தெரியல் வருவதற்கு முற்பகுதி தவறாக வருவதற்கு வலம்தெரியல் தவறாக வருவதற்கு முற்பகுதியாகக் காணப்பட்டுள்ளது. முன்னேற்றம் முற்பகுதியில் அறிவியலில் தவறாக வருவதற்கு வலம்தெரியல் தவறாக வருவதற்கு முற்பகுதியாகக் காணப்பட்டுள்ளது.

எனினும் முறைப்படி வகைப்பாடு பிறந்து வலம்தெரியல் வலம்தெரியல் தவறாக வருவதற்கு முற்பகுதி தவறாக வருவதற்கு முற்பகுதியாகக் காணப்பட்டுள்ளது.

“பிறந்து வகைப்பாடு வலம்தெரியல் தவறாக வருவதற்கு வலம்தெரியல் தவறாக வருவதற்கு முற்பகுதியாக”

டென்னி....

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APPENDIX XVI

PLAGIARISM ORIGINALITY REPORT

Plagiarism Detector - Originality Report

<table>
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**Important Hint:** to understand what exactly is meant by any report value - you can click "Help Image" 🌐. It will navigate you to the most detailed explanation at our web site.

Plagiarism Detection Chart:

- Referenced (0.00%)
- Linked (0.00%)
- Plagiarism (2.00%)
- Original (98.00%)

Referenced 0% / Linked 0%

Original - 98% / 2% - Plagiarism
### APPENDIX XVII

#### DATA CODE SHEET

**CG:** Control group  
**EC:** Experimental group  

**AGE:** Age in years  
1.1 18 - 21  
1.2 22 - 25  
1.3 26 - 29  
1.4 30 - 33  

**REL:** Religion  
2.1 Hindu  
2.2 Christian  
2.3 Muslim  

**EDN:** Educational Status  
3.1 Illiterate  
3.2 Primary education  
3.3 Secondary education  
3.4 Graduate  
3.5 Post Graduate  

**TOF:** Type of family  
4.1 Nuclear  
4.2 Joint  
4.3 Extended  

**AOR:** Area of residence  
5.1 Urban  
5.2 Rural  

**TOE:** Type of employment  
6.1 Sedentary worker  
6.2 Self employment  
6.3 Government employee  
6.4 Private employee  
6.5 Unemployed  

**MI:** Monthly income  
7.1 \( \leq 3,000 \)  
7.2 3,001 - 5,000  
7.3 5,001 – 7,000  
7.4 7,001 – 9,000  
7.5 \( \geq 9,001 \)  

**ANC:** Antenatal checkups  
1.1 No visits  
1.2 \( \leq 4 \)  
1.3 \( \geq 5 \)  

**WG:** Weight gain during pregnancy  
2.1 6 - 8 kg  
2.2 8 - 10 kg  
2.3 8 - 12 kg  
2.4 \( \geq 12 \) kg  

**GAW:** Gestational age in weeks  
3.1 \(< 38\)  
3.2 38 - 40  
3.3 \(> 40\)  

**HOM:** Height of mother in cm  
4.1 \(\leq 145\)  
4.2 146 - 155  
4.3 \(> 155\)  

**LOS:** Level of satisfaction  
**BVLP:** Before Virtual Labour Process  
**AVLP:** After Virtual Labour Process
## APPENDIX XVIII
### MASTER CODING SHEET

#### CONTROL GROUP

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<td>2.1</td>
<td>3.3</td>
<td>4.1</td>
<td>5.2</td>
</tr>
</tbody>
</table>

lxvi
APPENDIX XIX

PHOTOGRAPHS DURING THE VIRTUAL LABOUR PROCESS