

**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)., $\overline{\text{Ph.D}}$ (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_{02} 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_{02} 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_{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_{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_{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_{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_{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 Mothers'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 Mothers 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

- 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.

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

- Understanding English or Tamil
- Receiving treatment from Andhra Mahila Sabha Hospital at the time of data collection.

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

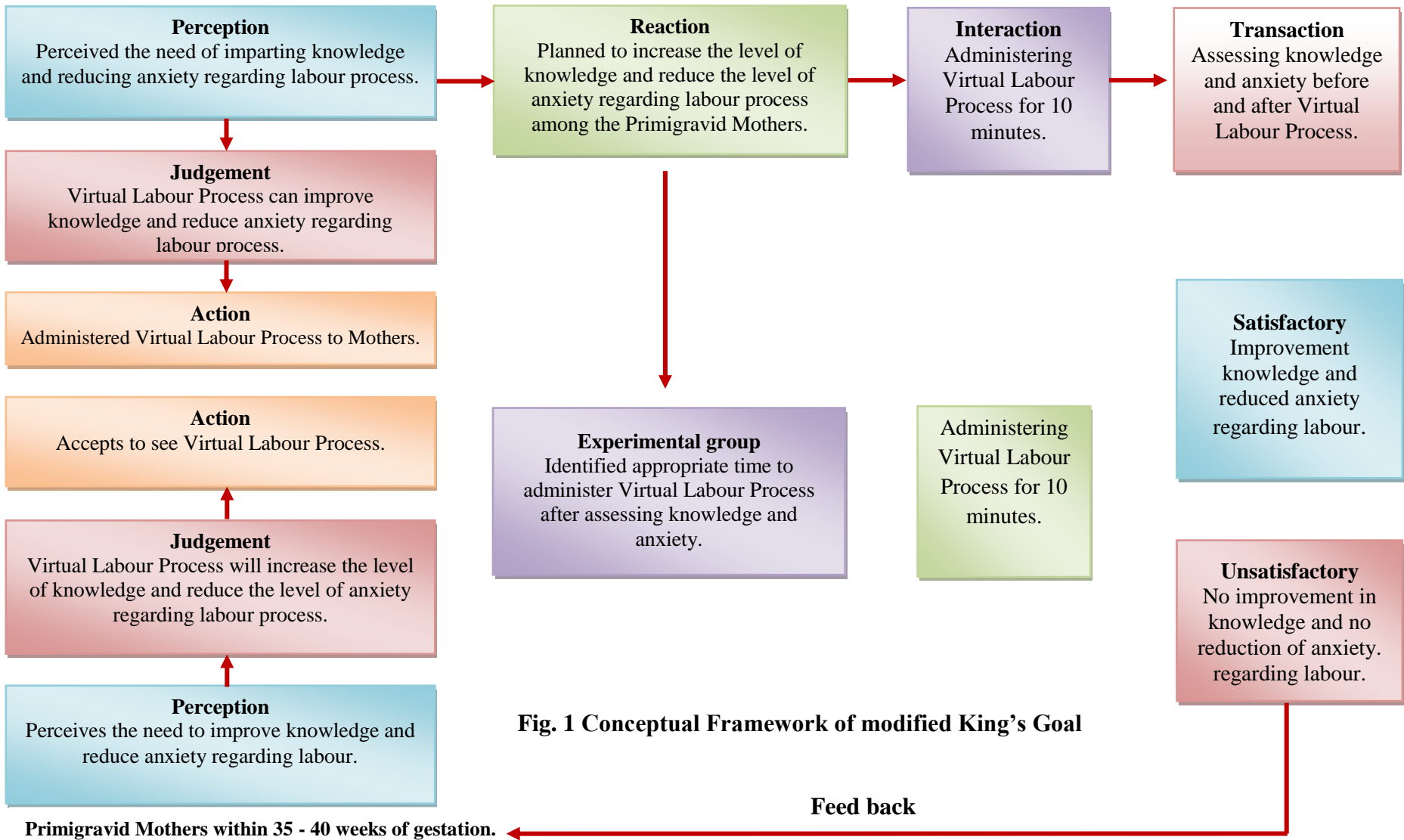


Fig. 1 Conceptual Framework of modified King's Goal

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 child birth 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 Agency 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.

R O1 X O2

R O1 O2

R - randomization

O1 - assessment before the administration of Virtual Labour Process

X - administration of Virtual Labour Process

O2 - assessment after the administration of Virtual Labour Process

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.

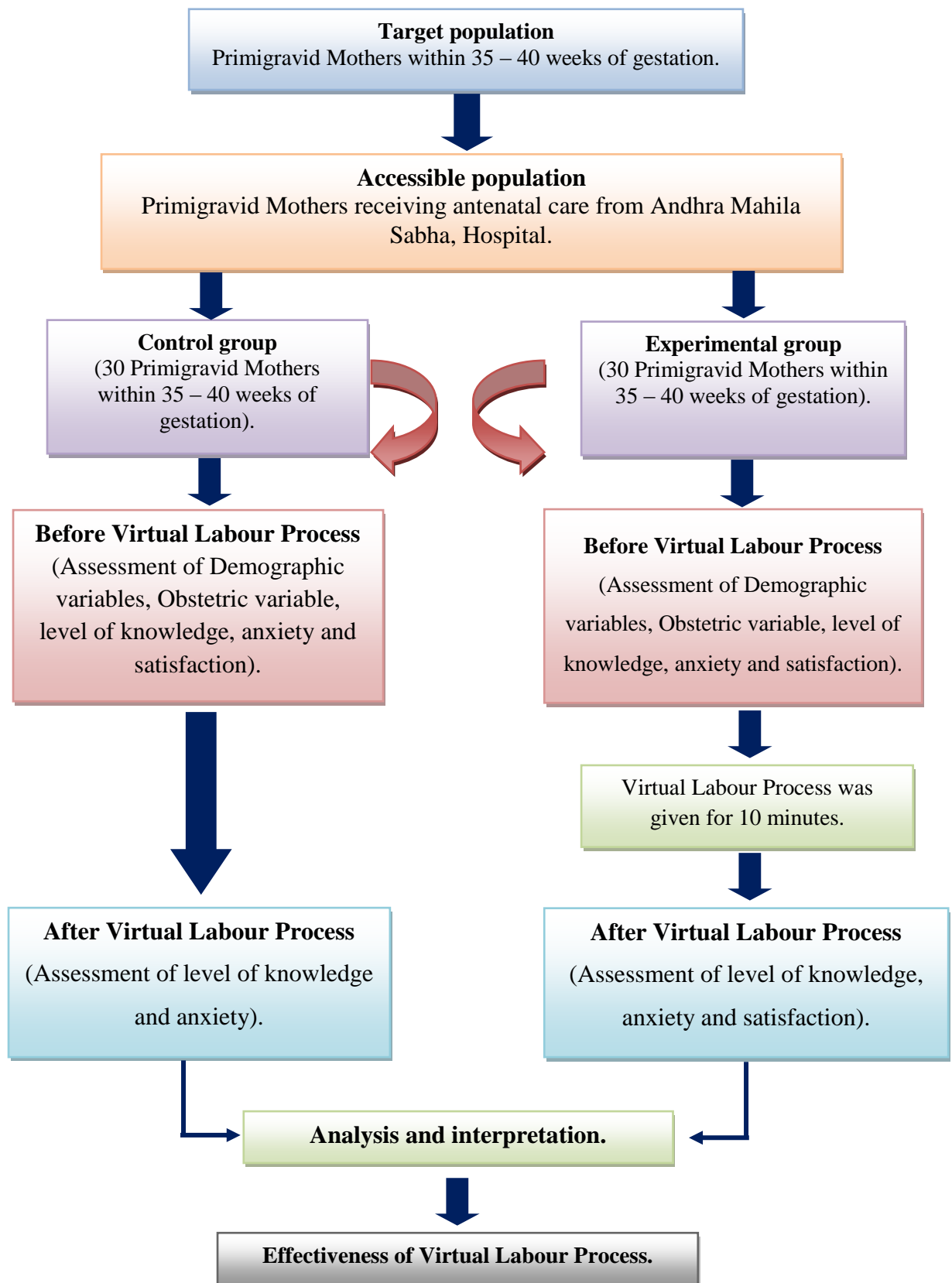


Fig.2 Schematic Representation of Research Design.

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:

Score	Percentage (%)	Interpretation
1–12	< 50	Inadequate
13–18	50–75	Moderately adequate
19-25	> 75	Adequate

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:

Score	Percentage	Interpretation
0-3	< 30	Mild
4-7	40 - 70	Moderate
8-10	> 80	Severe

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:

Score	Percentage (%)	Interpretation
> 7	≤ 25	Highly Dissatisfied
8-15	26-50	Dissatisfied
16-22	51-75	Satisfied
23-30	76-100	Highly Satisfied

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 Pearsons 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.

CHAPTER IV

ANALYSIS AND INTERPRETATION

Statistics are aggregates of facts, affected to a marked extent 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.

Demographic variable	Control group (n=30)		Experimental group (n=30)	
	n	p	n	p
Age in years				
18 - 21 years	24	80	11	37
22 - 25 years	5	17	16	53
26 - 29 years	1	3	3	10
30 - 33 years	-	-	-	-
Educational status of the Mothers				
Illiterate	-	-	-	-
Primary education	-	-	2	7
Secondary education	7	23	19	63
Graduate	20	67	6	20
Postgraduate and above	3	10	3	10
Type of family				
Nuclear	21	70	21	70
Joint	9	30	9	30
Extended	-	-	-	-
Area of residence				
Urban	24	80	25	83
Rural	6	20	5	17
Types of employment				
Sedentary worker	-	-	-	-
Self employee	-	-	-	-
Government employee	-	-	-	-
Private employee	5	17	4	13
Unemployed	25	83	26	87
Family monthly income				
Up to 3,000/-	-	-	-	-
3001 – 5,000/-	-	-	-	-
5001 – 7,000/-	12	40	3	10
7001 – 9,000/-	13	43	21	70
9,001 and above	5	17	6	20

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.

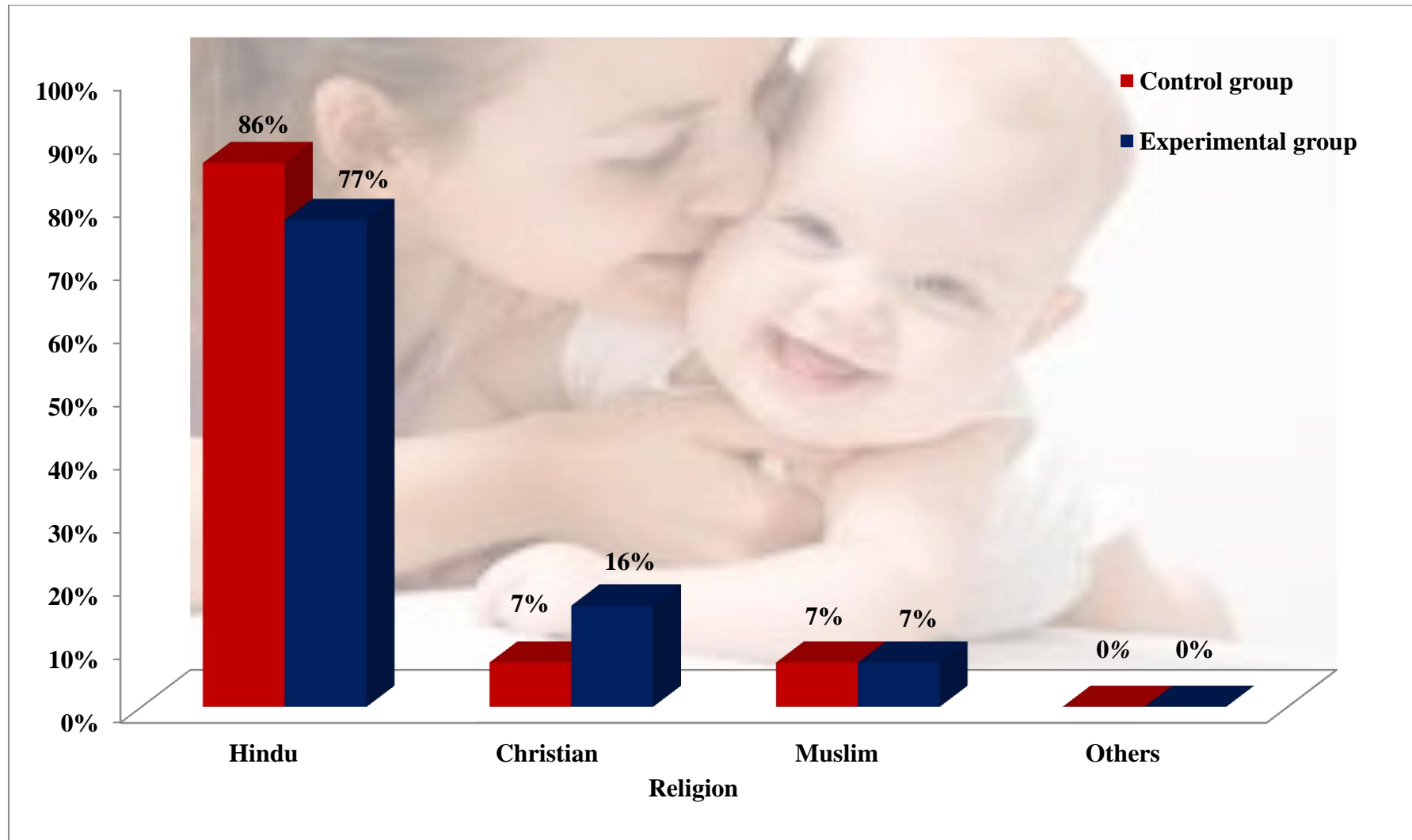


Fig.3 Percentage distribution of religion in Control and Experimental group of Primigravid Mothers

Table .2 Frequency and Percentage Distribution of Selected Obstetric Variables in the Control and Experimental Group of Primigravid Mothers.

Obstetric variable	Control group (n=30)		Experimental group (n=30)	
	n	p	n	p
Antenatal checkups				
No visits	-	-	-	-
< 4 visits	5	17	5	17
> 5 visits	25	83	25	83
Weight gain during pregnancy				
6 – 8 kg	-	-	4	13
8 – 10 kg	4	13	21	70
10 – 12 kg	25	83	4	13
12 and above	1	4	1	4
Gestational age in weeks				
< 38	23	77	18	60
38 – 40	7	23	12	40
> 40				
Height of the Mothers				
≤ 145 cm	-	-	-	-
146 – 155	9	30	22	73
> 155	21	70	8	27

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.

Level of knowledge	Control group (n=30)				Experimental group (n=30)			
	pretest		posttest		pretest		Posttest	
	n	p	n	p	n	p	n	p
Inadequate	6	20	5	17	13	44	-	-
Moderately adequate	24	80	24	80	16	53	-	-
Adequate	-	-	1	3	1	3	30	100

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.

Level of anxiety	Control group (n=30)				Experimental group (n=30)			
	Before intervention		After intervention		Before intervention		After intervention	
	n	p	n	p	n	p	n	p
Mild	-	-	-	-	-	-	30	100
Moderate	11	37	11	37	10	33	-	-
Severe	19	63	19	63	20	67	-	-

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.

	Control group		Experimental group		‘t’
	(n=30)		(n=30)		
	Mean	SD	Mean	SD	
Before					
intervention	9.7	3.3	9	2.5	1.4
After					
intervention	9.4	2.06	24.5	0.7	37.7***

***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_{01} “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.

	Control group		Experimental group		't'
	(n=30)		(n=30)		
	Mean	SD	Mean	SD	
Before intervention	7.8	1.23	8.1	1.7	1
After intervention	7.2	1.12	1.2	1.69	30***

***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.

Level of satisfaction	Experimental group (N=30)	
	n	p
Highly satisfied	30	100
Satisfied	-	-
Dissatisfied	-	-
Highly dissatisfied	-	-

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 dissatisfaction 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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above Mean	Upto Mean	χ^2	Above Mean	Upto Mean	χ^2
Age(in years)						
≤ 25	11	16	0.23	17	10	1.24
> 25	1	-	(df=1)	1	0	(df=1)
Educational status						
Primary and secondary	10	11	1.51	16	5	2.66
Graduates and Post graduates	6	3	(df=1)	4	5	(df=1)
Type of family						
Nuclear family	14	7	11.1	16	5	0.06
Joint family	6	3	(df=1)	6	3	(df=1)
Type of employment						
Private	3	2	0.10	3	2	0.25
Unemployed	17	8	(df=1)	15	10	(df=1)

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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above Mean	Upto Mean	χ^2	Above Mean	Upto Mean	χ^2
Age (in years)						
≤ 25	19	10	0.7	17	12	3.88*
> 25	1	-	(df=1)	1	-	(df=1)
Type of family						
Nuclear family	14	7	11.17	16	5	0.06
Joint family	6	3	(df=1)	6	3	(df=1)
Educational status						
Primary and secondary	2	5	5.78	2	5	5.78*
Graduate and Post graduate	18	5	(df=1)	18	5	(df=1)
Type of employment						
Private	2	3	0.10	3	2	0.25
Un employed	8	17	(df=1)	15	10	(df=1)

*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_{02} “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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above Mean	Upto Mean	χ^2	Above Mean	Upto Mean	χ^2
Age(in years)						
≤ 25	10	19	0.7	18	11	0.6
> 25	0	1	(df=1)	1	0	(df=1)
Educational status						
Primary and secondary	4	3	2	6	1	1.6
Graduate and Post graduate	6	17	(df=1)	13	10	(df=1)
Type of family						
Nuclear	8	13	0.52	13	8	0.09
Joint	2	7	(df=1)	6	3	(df=1)
Type of employment						
Private	2	3	0.1	4	1	0.39
Unemployed	8	17	(df=1)	15	10	(df=1)

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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above Mean	Upto Mean	χ^2	Above Mean	Upto Mean	χ^2
Age(in years)						
≤ 25	10	17	0.58	8	19	1.24
> 25	2	1	(df=1)	4	1	(df=1)
Educational status						
Primary and secondary	7	14	1	7	14	0.16
Graduate and Post graduate	12	4	(df=1)	3	6	(df=1)
Type of family						
Nuclear	7	14	1.03	5	16	0.06
Joint	5	4	(df=1)	3	6	(df=1)
Type of employment						
Private	0	4	2.76	-	4	1.97
Unemployed	12	14	(df=1)	10	20	(df=1)

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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above	Upto	χ^2	Above	Upto	χ^2
	Mean	Mean		Mean	Mean	
Number of antenatal checkup						
≤ 4	14	1	0.74	4	1	0.74
≥ 5	14	11	(df=1)	14	11	(df=1)
Gestational age in weeks						
38 – 40	14	9	1.28	13	10	0.28
> 40	6	1	(df=1)	5	2	(df=1)

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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above	Upto	χ^2	Above	Upto	χ^2
	Mean	Mean		Mean	Mean	
Number of antenatal checkup						
≤ 4	3	2	0.74	4	1	0.15
≥ 5	9	16	(df=1)	16	9	(df=1)
Gestational age in weeks						
38 – 40	7	11	0.09	11	7	0.41
> 40	6	7	(df=1)	9	2	(df=1)

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 H_{03} 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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above	Upto	χ^2	Above	Upto	χ^2
	Mean	Mean		Mean	Mean	
Number of antenatal checkup						
≤ 4	3	2	0.74	3	2	1.76
≥ 5	12	16	(df=1)	7	18	(df=1)
Gestational age in weeks						
38 – 40	7	16	0.14	6	17	0.48
> 40	3	4	(df=1)	3	4	(df=1)

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_{03} 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)

Demographic variables	Before Virtual Labour Process			After Virtual Labour Process		
	Above	Upto	χ^2	Above	Upto	χ^2
	Mean	Mean		Mean	Mean	
Number of antenatal checkup						
≤4	5	-	2.67	1	4	5.8*
≥5	15	10	(df=1)	19	6	(df=1)
Gestational age in weeks						
38 – 40	8	10	0.11	5	13	0.45
>40	5	7	(df=1)	5	7	(df=1)

*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. D 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 dissatisfaction 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.
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.

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.

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 of 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 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 about 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.

Level of knowledge in 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.

Level of anxiety in 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. D 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.

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.

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APPENDIX I

LETTER SEEKING PERMISSION TO CONDUCT STUDY



(Recognised by the Indian Nursing Council and Affiliated to the Tamil Nadu Dr. M.G.R. Medical University, Chennai)

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 Kuriakose 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 goodselves to permit her to conduct study in your esteemed institution.

Thanking You,

Dr. LATHA VENKATESAN
PRINCIPAL

Regd. Office : 21, Greems Lane Off, Greems Road, Chennai - 600 006. Ph : +91-44-2829 3333, 2829 0200 Website : www.apollohospitalseducation.com
Unit Office : Venagaram to Ambattur Main Road, Ayanambakkam, Chennai - 600 095. Phone : 044 - 2653 4387. Fax : 044 - 2653 4923 / 2653 4386



Emergency Service
Dial **1066**



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 Ms. Mintu Kuriakose has selected the following title for her research study.

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

Thanking You,


Dr. LATHA VENKATESAN
PRINCIPAL

OPD procedure
R Venkatesan
7-5-13

Regd. Office : 21, Greams Lane Off, Greams Road, Chennai - 600 006. Ph. : - 91-44-2829 3333, 2829 0200 Website : www.apollohospitalseducation.com
Unit Office : Vanagaram to Ambattur Main Road, Ayanambakkam, Chennai - 600 095. Phone : 044 - 2653 4367 Fax : 044 - 2653 4923 / 2653 4386



Emergency Service
Dial **1066**



APPENDIX III

ETHICS COMMITTEE LETTER

Ethics Committee



15 May 2013

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:

Name	Profession	Position in the committee
Dr. Rema Menon	Clinician	Member Secretary
Dr. P. Nalini Rao	Social Worker	Chairperson
Dr. Renuka Singh	Consultant Clinical Pharmacologist	Basic Medical Scientist
Dr. Krishna Kumar	Clinician-Medical Superintendent	EC -Member
Miss. N. Suseela	Retired English Teacher	Layperson
Ms. Maimoona Badsha	Lawyer	Lawyer
Dr. Vijayakumar	Clinician	EC-Member

Apollo Hospitals Enterprise Limited
21, Greams Lane, Off Greams 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 : ecapollochennai@gmail.com

Ethics Committee



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,

Date:

15/5/13

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, TAMIL NADU

Apollo Hospitals Enterprise Limited
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Tel : 91 - 44 - 2829 1618, 2829 3333, 91 - 44 - 2829 5465 Extn : 5045 / 6641
Fax : 91 - 44 - 2829 1618 / 4449 E - Mail : ecapollochennai@gmail.com

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)

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

ஆராய்ச்சியில் பங்கு பெருபவருக்கான ஒப்புதல் படிவம்

அன்பார்ந்த தாய்மாரே!

என் பெயர் செல்வி.மினிட்டு குரியகோஸ், நான் அப்போலோ செவிலியர் கல்லூரியில் முதுகலை செவிலியர் பயின்று வரும் மாணவி, என்னுடைய பயிற்சியின் ஒரு பகுதியாக கருவுற்று 35 முதல் 40 வாரங்களில் இரக்குமு தாய்மார்கள் மத்தியில் பிரசவ நிகழ்வுகள் பற்றிய அறிவு மற்றும் பிரசவகால நிகழ்வுகள் பற்றிய பதட்டத்தை அறியவும், மெய்நிகர் பிரசவ நிகழ்வு செயல்முறை காண்பிக்கப்பட்டு அதன் திறன் மதிப்பீடு செய்ய ஒரு சோதனை தேர்வு நடத்தப்படுகிறது.

இதனால் இந்த ஆராய்ச்சியில் நீங்கள் பங்கு பெற உங்களுடைய ஒப்புதல் மற்றும் ஒத்துழைப்பை வேண்டுகிறேன். தயவு செய்து உங்களுடைய பதில்கள் அனைத்தும் வெளிப்படையாகவும் மற்றும் உண்மையானதாகவும் இருக்க வேண்டும். உங்களுடைய பெயர் எங்கும் வெளியிடப்படமாட்டாது.

ஆராய்ச்சியாளரின் கையொப்பம்

..... என்கிற நான் இந்த ஆராய்ச்சியில் பங்கு பெற ஒப்புதல் அளிக்கின்றேன்.

பங்கு பெறுவோரின் கையொப்பம்


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.




DR. MURALEEDHARA KURUP
Lecturer in English
College of Applied Sciences (IHRD)
Mavelikkara, Alappuzha - 690 101

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 & Ravi

தலைவர் ஆசிரியர்
கனகாம்பா மெட்ரிகல் கல்லூரி
வடக்கன்குளம்
திருச்செங்கோடு மாவட்டம் - 627 112.

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

**சமூக அறிவியல் பட்டியல் மற்றும்
குடும்ப விவரங்களை அறிய உதவும் படிவம்**

நோக்கம்

இந்த படிவம் குடும்ப விவரங்களை பற்றி அதாவது வயது, மதம், கல்வித்தகுதி, தொழில், மாத வருமானம், குடும்ப வகை, குடும்ப அங்கத்தினரின் எண்ணிக்கை மற்றும் தகவல் பெறும் சாதனங்கள் பற்றி அறிய உதவுகிறது.

வரிசை எண்:

1. வயது (வருடத்தில்)

1.1 18 - 21 வயது

1.2 22 - 25 வயது

1.3 26 - 29 வயது

1.4 30 - 33 வயது

2. மதம்

2.1 இந்து மதம்

2.2 இஸ்லாமிய மதம்

2.3 கிறிஸ்துவ மதம்

2.4 மற்றவை

3. தாயின் கல்வி நிலை

3.1 படிக்காதவர்

3.2 துவக்கப்பள்ளி பயின்றவர்

3.3 மேல்நிலைப்பள்ளி பயின்றவர்

3.4 பட்டதாரி

3.5 முதுகலைப்பட்டதாரி

4. குடும்ப வகை

4.1 தனிக் குடும்பம்

4.2 கூட்டுக் குடும்பம்

4.3 மற்றவை

5. வசிக்கும் இடம்

5.1 நகரம்

5.2 கிராமம்

6. தொழில்

6.1 கூலி தொழில் செய்பவர்

6.2 சுயத்தொழில் செய்பவர்

6.3 அரசாங்க தொழில் செய்பவர்

6.4 தனியார் துறையில் வேலை செய்பவர்

6.5 வேலையில்லாதவர்

7. ஒரு மாதத்திற்கான குடும்ப வருமானம்

7.1 ரூபாய் 3,000 வரை

7.2 ரூபாய் 3,001 - 5000/-

7.3 ரூபாய் 5,001 - 7,000/-

7.4 ரூபாய் 7,001 - 9,000/-

7.5 ரூபாய் 9,001 மேல் வருமானம்

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 | <input type="checkbox"/> |
| 1.2 < 4 visits | <input type="checkbox"/> |
| 1.3 > 4 visits | <input type="checkbox"/> |

2. Weight gain during pregnancy

- | | |
|---------------------|--------------------------|
| 2.1 6 – 8 kg | <input type="checkbox"/> |
| 2.2 8 – 10 kg | <input type="checkbox"/> |
| 2.3 10 – 12 kg | <input type="checkbox"/> |
| 2.4 12 kg and above | <input type="checkbox"/> |

3. Gestational age in weeks

- | | |
|-------------|--------------------------|
| 3.1 < 38 | <input type="checkbox"/> |
| 3.2 38 – 40 | <input type="checkbox"/> |
| 3.3 > 40 | <input type="checkbox"/> |

4. Height of the mother

- | | |
|-------------------|--------------------------|
| 4.1 \leq 145 cm | <input type="checkbox"/> |
| 4.2 146 – 155 cm | <input type="checkbox"/> |
| 4.3 > 155 | <input type="checkbox"/> |

கர்ப்பகால விவரங்களின் மாதிரி படிவம்

நோக்கம்

இந்த படிவம் திருமணநிலை, திருமணமான வயது, திருமணமான முறை, பூப்பெய்திய வயது, உதிர போக்கின் சுழற்சி, கருவளர்ச்சி காலங்கள், கருவுற்றிருக்கும்போது மருத்துவ ஆலோசனைக்கு சென்ற எண்ணிக்கை

குறிப்புகள்

கீழே கொடுக்கப்பட்டுள்ள தகவல்கள் கறுவுற்றிருக்கும் பெண்ணிடம் கேட்டறிந்து ஆராய்ச்சியாளரால் நிரப்பப்படும்

1. கர்ப்பக்கால பரிசோதனை

- 1.1 அனைத்து பரிசோதனைகளும் செய்யப்பட்டுள்ளன
- 1.2 4 தடவைக்கு குறைவான பரிசோதனை செய்யப்பட்டுள்ளது
- 1.3 4 தடவைக்கு மேல் பரிசோதனை செய்யப்பட்டுள்ளது

2. கர்ப்பக்கால எடை அதிகரிப்பு

- 2.1 6 - 8 கிலோ
- 2.2 9 - 10 கிலோ
- 2.3 11 - 12 கிலோ
- 2.4 12 கிலோக்கு அதிகமாக

3. கரு வளர்ச்சிக் காலம்

- 3.1 38 வாரத்திற்கு குறைவாக உள்ளவர்கள்
- 3.2 38-40 வாரம்
- 3.3 40 வாரத்திற்கு மேல் உள்ளவர்கள்

4. தாயின் உயரம்

- 4.1 145 செ.மீ மற்றும் அதற்கு குறைவாக
- 4.2 146 - 155செமீ
- 4.3 155 செ.மீ மற்றும் அதற்கு அதிகமானவை

BLUE PRINT ON
STRUCTURED INTERVIEW SCHEDULE TO ASSESS THE LEVEL OF
KNOWLEDGE ON LABOUR PROCESS

Item	Item No.	Total no. Of items	Percentage
Physiological changes and 1 st stage of labour	1,2,3,4,5,	5	20
2 nd and 3 rd stage of labour	6,7,8,9,10,	5	20
Activities for coping	11,12,13,14,15	5	20
Care of new born	16,17,18,19,20	5	20
Thermo regulation and breast feeding	21,22,23,24,25	5	20

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 caput 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 :

1 - b	14 - b
2 - d	15 - d
3 - c	16 - a
4 - a	17 - d
5 - c	18 - c
6 - d	19 - a
7 - b	20 - a
8 - b	21 - b
9 - d	22 - c
10 - b	23 - d
11 - b	24 - a
12 - a	25 - a
13 - d	

Scoring Interpretation:

Score	Percentage (%)	Interpretation
1–12	<50	Inadequate
13–18	50–75	Moderately adequate
19-25	> 75	Adequate

**குழந்தை பெற்ற தாய்மார்களின் தாய்ப்பால் ஊட்டும் வழக்கத்தின்
அறிவைப்பற்றி வடிவமைக்கப்பட்ட நேர்க்காணல் படிவம்**

நோக்கம்:

இந்த வடிவமைக்கப்பட்ட நேர்க்காணல் படிவம் குழந்தை பெற்ற தாய்மார்களின் தாய்ப்பால் ஊட்டும் வழக்கத்தைப் பற்றிய அறிவை அறிய உதவுகிறது.

1. எப்படி பனிக்குடம் உடைந்ததை அறிந்து கொள்வீர்கள்?

- அ. சிறுநீர் வெளியேறுவதைப்போல்
- ஆ. பெண் இனப்பெருக்க உறுப்பில் இருந்து நீர் வடிதல்
- இ. பெண் இனப்பெருக்க உறுப்பில் ஏற்படும் இரத்தக் கசிவு
- ஈ. பிறப்பு உறுப்பில் ஏற்படும் வலி.

2. பனிக்குடம் உடையும் போது என்ன செய்யவேண்டும்?

- அ. கால்களை உயர்த்தி வைத்து ஓய்வு எடுத்தல்
- ஆ. மருந்து உட்கொள்ளுதல்
- இ. பஞ்சு வைத்துக்கொண்டு நடக்க வேண்டும்
- ஈ. சிசுவின் அசைவுகளை கவனித்தல் மற்றும் மருத்துவமனைக்கு செல்லுதல்

3. உங்களுக்கு தொடர்ச்சியான கர்ப்பப்பை சுருங்குதல் மற்றும் முதுகு வலி குறையவில்லை என்றால் என்ன செய்வீர்கள்?

- அ. கர்ப்பகாலத்தில் செய்யவேண்டிய உடற்பயிற்சியை செய்ய வேண்டும்
- ஆ. வலி நிவாரணி உட்கொள்ளுதல்
- இ. குழந்தையின் அசைவை கண்காணித்து கொண்டு மருத்துவமனைக்கு விரைதல்
- ஈ. விளக்கெண்ணெய் வைத்து தடவுவது

4. சிவப்பு நிறத்திலுள்ள இரத்தபோக்கு பிரசவத்தின் போது காணப்படுவதற்கான காரணம் என்ன?

- அ. கருப்பை வாய் விரிவடையும் போது பிசுபிசுப்பான திரவம்
- இரத்தத்துடன் வெளியேறுதல்
- ஆ. நஞ்சுக்கொடி பிரிவதற்கான அறிகுறிகள்
- இ. ஓய்வு எடுத்தல்
- ஈ. கடினமான வேலை செய்வதால் ஓய்வுதேவை

5. உண்மையான பிரசவ வலியை எப்படி அறிவீர்கள்?

- அ. பிரசவ வலி கணக்கிடப்பட்ட குழந்தை பிறக்கும் தேதிக்கு
- முன் வருவது
- ஆ. ஒழுங்கற்ற இடைவெளி மற்றும் ஒழுங்கற்ற கார்ப்பை சுருங்குதல்
- இ. ஒழுங்கான கார்ப்பை சுருங்குதல் மற்றும் குறைவான இடைவெளி
- ஈ. முதுகு வலி தொடர்ந்து அதிகரித்தல்.

6. எதற்காக பிரசவத்தின் போது வலி ஏற்படுகிறது?

- அ. பனிக்குடம் உடைதல்
- ஆ. நஞ்சுக்கொடி பிரிதல்
- இ. கார்ப்பையில் ஏதாவது அடிப்பட்டிருந்தால்
- ஈ. கார்ப்பை சுருங்கி விரிதலின் மூலம் குழந்தையை
- வெளியே தள்ளுவதால்

7. தாய் பிரசவத்தின் போது அழுத்தம் கொடுப்பதற்கான சரியான நேரம் எது?

- அ. கார்ப்பை சுருங்க துவங்கும் போது.
- ஆ. கருப்பை வாய் முழுமையாக விரிவடைந்த பின் செவிலியர்
- அல்லது மருத்துவரின் அறிவுரையின் படி.
- இ. இரத்தபோக்கு இருக்கும் போது.
- ஈ. பனிக்குடம் உடைந்து நீர் வெளியே வரும்போது.

8. பிறப்புறுப்பில் பிண்டவாய் திறப்பதற்கான தேவை என்ன?

அ. கேப்புட் சக்சிடினத்தை தடுக்க.

ஆ. பிறப்புறுப்பில் கிழிதல் ஏற்படுவதை தடுக்க.

இ. தாய்க்கு ஆதரவு கொடுப்பதன் மூலம்.

ஈ. இரண்டாம் நிலை பிரசவத்தின் நேரத்தை குறைப்பதற்கு.

9. எப்பொழுது தொப்புள்கொடியை வெட்ட வேண்டும்?

அ. குழந்தை பிறக்கும் முன்

ஆ. நஞ்சுக்கொடி வெளியே வந்தபிறகு

இ. முதல்முறை தாய்ப்பால் கொடுத்த பிறகு

ஈ. குழந்தை பிறந்த உடன்

10. குழந்தை பிறப்புக்கு பின்பு கருப்பை சுருங்குதலின் காரணம் என்ன?

அ. குறைபாடுகள் இருப்பதை உணர்த்துவதற்காக

ஆ. நஞ்சுக்கொடியை வெளியேற்றுவதற்கு

இ. பிண்டவாய் திறப்பு செய்ய வேண்டியதின் காரணம்

ஈ. கர்ப்பப்பையின் உள்ளே இரத்தகசிவு ஏற்படுவதன் காரணமாக.

11. நஞ்சுக்கொடி பிரசவிக்க தகுந்த நேரம் என்ன?

அ. 2 - 5 நிமிடங்கள்

ஆ. 15 - 30 நிமிடங்கள்

இ. 1 - 2 மணி நேரம்

ஈ. 3 மணி நேரம் (அ)அதற்கு மேல்

12. பிண்டவாய் திறப்பில் தையல் போட்ட பிறகு வரும் உதிர போக்கை கட்டுப்படுத்த முதலில் செய்ய வேண்டியது எது?

அ. உடனடியாக செவிலியருக்கு தெரியப்படுத்த வேண்டும்.

ஆ. சுகாதாரமான பஞ்சினை அடிக்கடி மாற்ற வேண்டும்.

இ. தாய்ப்பால் போதுமான அளவு கொடுக்க வேண்டும்.

ஈ. தண்ணீர் அதிகமாக குடிக்க வேண்டும்.

13. வயிற்றின் மூலமாக மூச்சுபயிற்சி செய்வது எப்படி?

- அ. சுவாசத்தை உள்ளிழுத்து மூக்கு வழியாக வெளியே விட வேண்டும்.
- ஆ. சுவாசத்தை உள்ளிழுத்து வேகமாக வெளியே விட வேண்டும்
- இ. சுவாசத்தை வாய்வழியாக உள்ளே இழுத்து மூக்கு வழியாக வெளியே விட வேண்டும்
- ஈ. சுவாசத்தை மூக்குவழியாக உள்ளிழுத்து வாய்வழியாக வெளியே விடவேண்டும்.

14. பிரசவத்திற்கு முன் நடப்பதனால் ஏற்படும் பயன் என்ன?

- அ. வலியை குறைக்கும்
- ஆ. கருப்பை சுருங்குதலை தூண்டிவிடுவதன் மூலமாக பிரசவம் விரைவாக நடக்க உதவும்
- இ. தாயை இன்னும் அதிக சோர்வாகவும் பலவீனமாகவும் ஆக்கும்
- ஈ. பெண் இனப்பெருக்க உறுப்பின் வழியாக உதிரப்போக்கை ஏற்படுத்தும்

15. கருப்பை சுருங்குதல் தொடங்கிய பிறகு எந்த நிலையில் படுக்க வேண்டும்?

- அ. சமநிலையில் படுப்பது
- ஆ. வலது பக்கமாக படுப்பது
- இ. சமநிலையில் படுத்து காலை உயர்வாக வைப்பது
- ஈ. இடது பக்கமாக படுப்பது

16. கீழ்காண்பவையில் வலியை தாங்க எது முக்கிய பங்கு வகிக்கிறது?

- அ. பிரசவத்தின் போது குடும்பத்தினரின் ஆதரவு மற்றும் நம்பிக்கையான மனநிலை
- ஆ. அதிகமாக தண்ணீர் குடிப்பதால்
- இ. உணவு உட்கொள்ளாதல்
- ஈ. வலிக்கான மருந்து உட்கொள்வதன் மூலமாக

17. எந்தெந்த இயற்கையான வழிமுறையின் மூலமாக வலியை குறைக்க முடியும்?

அ. நடப்பதின் மூலமாக

ஆ. ஓய்வு எடுப்பதன் மூலமாக

இ. உணவு உட்கொள்ளுதல் மூலமாக

ஈ. வெந்நீரை முதுகில் ஊற்றுவதன் மூலமாக அல்லது குளிர்ந்த நீரில் நனைந்த துணியை தலையின் மீது வைப்பதின் மூலமாக

18. குழந்தை பிறந்த பிறகு ஏற்படும் வலியை குறைப்பது எப்படி?

அ. வலிக்கான மருந்தை உட்கொள்வதன் மூலமாக

ஆ. அதிகமான தண்ணீர் அருந்துவதன் மூலமாக

இ. ஓய்வு எடுத்தல் மூலமாக

ஈ. தாய்பால் கொடுப்பதன் மூலமாக, தோலோடு தோல் சேர்த்து குழந்தையை வைத்துக்கொள்ளுதல் மூலமாகவும்

19. குழந்தைகளுக்கு தடுப்பூசி போடுவதற்கான காரணம் என்ன?

அ. நோய் வருவதை தடுப்பதற்கு

ஆ. மாசுக்களினால் ஏற்படும் நோய்களை தடுப்பதற்கு

இ. குழந்தை வளர்ச்சியை ஊக்குவிப்பதற்காக

ஈ. மனநலவளர்ச்சியை அதிகரிப்பதற்காக

20. குழந்தைக்கு தாய்பால் ஆரம்பிக்க சரியான நேரம் என்ன?

அ. குழந்தை பிறந்த அரைமணி நேரத்திற்குள்

ஆ. குழந்தை பிறந்த ஒருமணி நேரத்திற்குள்

இ. குழந்தை பிறந்த இரண்டுமணி நேரத்திற்குள்

ஈ. குழந்தை பிறந்த ஐந்துமணி நேரத்திற்குள்

21. குழந்தையை வெது வெதுப்பாக வைப்பதற்கு சிறந்த மற்றும் இயற்கையான முறை எது?

அ. குழந்தையை வெப்ப மூட்டும் கருவியின் கீழ் வைத்தல்

ஆ. குழந்தை தாயின் தோலின் அருகாமையில் இருக்குமாறு வைத்தல்

இ. குழந்தையை துணியால் நன்கு மூடிவைத்தல்

ஈ. வெந்நீரால் குழந்தையை குளிப்பாட்டுதல்

22. குழந்தைக்கு எவ்வளவு மணி நேரத்திற்கு ஒருமுறை தாய்ப்பால் கொடுக்க வேண்டும்?

- அ. அரைமணி நேரத்திற்கு ஒருமுறை
- ஆ. ஒருமணி நேரத்திற்கு ஒருமுறை
- இ. இரண்டுமணி நேரத்திற்கு ஒருமுறை அல்லது குழந்தையின் தேவைக்கேற்ப.
- ஈ. தேவையுள்ள போது மட்டும்.

23. குழந்தையை துணியில் சுற்றிவைப்பது எப்படி?

- அ. தலையை துணியால் மூடுவது
- ஆ. கை, கால்களை துணியால் மூடுவது
- இ. உடம்பை துணியால் மூடுவது
- ஈ. உடம்பு மற்றும் தலையை துணியால் மூடுவது.

24. பிறந்த குழந்தையை எப்பொழுது முதன்முறையாக குளிப்பாட்ட வேண்டும்?

- அ. 24 மணிநேரத்திற்கு பிறகு
- ஆ. ஒரு வாரத்திற்கு பிறகு
- இ. ஒரு மாதத்திற்கு பிறகு
- ஈ. குழந்தை பிறந்தவுடன்.

25. தாய்ப்பால் கொடுப்பதற்கான சிறந்தநிலை எது?

- அ. நேராக அமர்ந்து இருத்தல்
- ஆ. ஒரு பக்கமாக சாய்ந்து படுத்துக் கொண்டு
- இ. நின்று கொண்டு
- ஈ. சமநிலையில் படுத்து கொண்டு

விடை:

1. ஆ
2. ஈ
3. இ
4. அ
5. இ
6. ஈ
7. ஆ
8. ஆ
9. ஈ
10. ஆ
11. ஆ
12. ஆ
13. ஈ
14. ஆ
15. ஈ
16. அ
17. ஈ
18. இ
19. அ
20. அ
21. ஆ
22. இ
23. ஈ
24. அ
25. அ

APPENDIX – XIII

ANXIETY SCALE

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

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

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.

Score	Percentage	Interpretation
0-3	<30	Mild
4-7	40 - 70	Moderate
8-10	>80	Severe

திருத்தி அமைக்கப்பட்ட பட்டத்தை அளவிடும் அளவுகோல்

விதிமுறைகள்

நீங்கள் ஒவ்வொரு கேள்வியையும் தனித்தனியாக வாசித்து ஆம் அல்லது இல்லை என்று பதிலளிக்கவும்.

வரிசை எண்	கேள்விகள்	ஆம்	இல்லை
1.	நீங்கள் பிரசவ நிகழ்வுகள் குறித்து நினைக்கையில் எரிச்சலடைவீர்களா?		
2.	பிரசவ நிகழ்ச்சியைக் குறித்து ஏதேனும் கஷ்டத்தை உணர்கிறீர்களா?		
3.	நிகழ்ச்சியை குறித்து தூக்கமின்மை அல்லது தூங்குவதில் கடினம்		
4.	நிகழ்ச்சியைக் குறித்து ஏதேனும் தலைவலி உள்ளதா?		
5.	நிகழ்ச்சியைக் குறித்து எண்ணும் போது ஏதேனும் வயிற்றுக்க்போக்கு, வியர்வை, படபடப்பு, சிறுநீர் வெளியேறும் உணர்ச்சி உள்ளதா?		
6.	நீங்கள் பிரசவித்த பின்னர் உங்களது உடல் நலத்தை குறித்து கவலை கொள்கிறீர்களா?		
7.	நீங்கள் பிரசவ நிகழ்ச்சியைக் குறித்து நினைக்குபொழுது நெஞ்சு படபடப்பு ஏற்படுகிறதா?		
8.	பிரசவ நிகழ்ச்சியைக் குறித்து மனபயம் உள்ளதா?		
9.	பிரசவ நிகழ்ச்சியைக் குறித்து உங்களுக்கு உடல் நடுக்கம் உள்ளதா?		
10.	பிரசவ நிகழ்ச்சியைக் குறித்து நினைக்கும் பொழுது சுவாசம் விடுவதில் கடினம் உள்ளதா?		

BLUE PRINT FOR LEVEL OF SATISFACTION

Sl. No.	Content	Statement	Total	Percentage
1.	Researchers approach	1,2,3,4	4	40
2.	Content	5,6,7	3	30
3.	Effectiveness	8,9,10	3	30
		TOTAL	10	100

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.

Sl. No.	Statement	Highly Satisfied	Satisfied	Dissatisfied	Highly Dissatisfied
1.	The researchers explanation about the labour process was satisfactory and adequate.				
2.	Approach of the researcher was comfortable.				
3.	The duration of time spent by the researcher was adequate.				
4.	The communication of the researcher was effective.				

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

Score	Percentage (%)	Interpretation
> 7	≤ 25	Highly Dissatisfied
8 - 15	26 - 50	Dissatisfied
16 - 22	51 - 75	Satisfied
23 - 30	76 - 100	Highly Satisfied

மென்நிகர் பிரசவ நிகழ்ச்சியின் திருப்தியை

அளக்கும் தர அளவுகோல்

நோக்கம்:

இந்த தர அளவுகோல் பிரசவித்த தாய்மார்களின் மென்நிகர் பிரசவ நிகழ்ச்சியின் திருப்தியின் அளவை அறிய பயன் படுத்தப்படுகிறது.

குறிப்பு

இங்கு 10 தனி விவரங்கள் கீழே கொடுக்கப்பட்டுள்ளது ஒவ்வொரு தனி விவரத்திற்கும் நான்கு பதில்கள் உள்ளன. ஒவ்வொரு கேள்வியின் பதிலையும் மிகவும் திருப்தியாக உள்ளதா, மிதமான திருப்தியாக உள்ளதா அல்லது அதிருப்தியாக உள்ளதா எனத் தெரிவிக்கவும். உங்கள் பதில்களைத் தெளிவாக ஒளிவு மறைவின்றி தெரிவிக்கவும் உங்கள் பதில்கள் ரகசியமாக பாதுகாக்கப்படும்.

வ. எண்	தனிவிவரம்	மிகவும் திருப்தி	திருப்தி	அதிருப்தி	மிகவும் அதிருப்தி
1.	ஆராய்ச்சியாளர் அளித்த பிரசவத்தின் போது ஏற்படும் நிகழ்வை குறித்த விளக்கம் போதுமானதாக மனநிறைவாகவும் இருந்தது.				
2.	ஆராய்ச்சியாளரின் அனுகுமுறை சரியாக இருந்தது.				
3.	ஆராய்ச்சியாளர் உங்களுக்காக ஒதுக்கிய நேரம் போதுமானது.				
4.	ஆராய்ச்சியாளருடனான உரையாடல் பயனுள்ளதாக இருந்தது.				
5.	வீடியோ நிகழ்ச்சி தெளிவாக இருந்தது.				
6.	இந்த நிகழ்ச்சியை எளிதாக புரிந்து கொண்டு பின்பற்ற முடியும்				
7.	மெய்நிகர் பிரசவ நிகழ்ச்சி தொகுத்து வழங்கப்பட்ட முறை உங்களுக்கு போதுமானதாக இருந்தது.				

8.	தாயின் பதட்ட நிலை மெய்நிகர் பிரசவ நிகழ்ச்சியை கண்டபின் குறைந்தது.				
9.	பிரசவமுறை குறித்து தாய்மார்களின் மனபக்குவம் அதிகரித்தது.				
10.	தாயின் அறிவு மெய்நிகர் பிரசவ நிகழ்ச்சியின் மூலமாக அதிகரித்ததின் அளவு போதுமானதாக இருந்தது.				

APPENDIX XV

TAMIL SCRIPT FOR VIRTUAL LABOUR PROCESS

பிரசவகால நிகழ்வுகளை பற்றிய பொருளடக்கம்

வணக்கம்!

இந்த வீடியோ நிகழ்ச்சி உங்களுடைய பிரசவத்திற்கான அறிவை வளர்ப்பதற்கும் உங்களுடைய பயத்தை குறைப்பதற்கும் உதவும்

உண்மையான பிரசவ வலிக்கான அறிகுறிகள்.

1. உண்மையான பிரசவ வலி சரியான இடைவேளையில் இருக்கும். நேரம் ஆக ஆக வலி அதிகரிக்கும்.
2. கர்ப்பப்பை வாய் திறக்கும் பொழுது இரத்தத்துடன் கலந்த சளி பிறப்புறுப்பின் வழியாக வெளிப்படும். இது பிரசவ வலிக்கான முக்கிய அறிகுறியாகும்.
3. **பனிக்குடம் உடைதல்:** ஒரு சில பெண்களுக்கு பிரசவ வலி ஆரம்பித்த உடனடியோ அதற்கு முன்பாகவோ பனிக்குடம் உடைந்து பிறப்பு உறுப்பு வழியாக தண்ணீர் வெளியாகலாம். உடனே சுத்தமான “பேட்” வைத்துக்கொண்டு விரைந்து மருத்துவமனைக்கு செல்ல வேண்டும். மருத்துவர் பரிசோதிக்கும் வரை எதையும் சாப்பிடவோ குடிக்கவோ கூடாது. மருத்துவ பரிசோதனைகள், மருந்து சீட்டு, மருத்துவரின் பரிந்துரை சீட்டு ஆகியவற்றை எடுத்துச் செல்ல வேண்டும். தாய் மற்றும் சேய்க்குத் தேவையான பொருட்களையும் எடுத்துச் செல்ல வேண்டும்.

பிரசவ வலியை தாங்கிக் கொள்ளும் முறைகள்

1. நன்றாக நடத்தல்:-

பிரசவ வலி ஏற்படும்பொழுது நன்றாக நடப்பதன் மூலம் குழந்தையின் தலை கீழே இறங்கி விரைவாக பிரசவம் ஆவதற்கு உதவுகிறது மற்றும் தாய் வலியினை தாங்கிக் கொள்ள நடத்தல் மிக வசதியாக உள்ளது. ஆனால் சில நேரங்களில் நடக்கக் கூடாது முக்கியமாக பனிக்குடம் உடைந்த பின்பு அல்லது இரத்தப் போக்கு இருந்தால் மருத்துவர் அனுமதியின்றி நடக்கக் கூடாது.

2. சுவாசப் பயிற்சி

சுவாசப்பயிற்சி செய்வதின் மூலம் கவனத்தை வலியிலிருந்து திசைத்திருப்பி வலியை தாங்கிக் கொள்ள உதவுகிறது.

செய்முறைகள்:

மூக்கு வழியாக சுவாசத்தை உள்ளே இழுத்து வாய் வழியாக வெளியேற்ற வேண்டும் இந்தப் பயிற்சியை பிரசவ வலி இருக்கும் பொழுது செய்ய வேண்டும். வலி அதிகமாகும் பொழுது இந்தப் பயிற்சியை வேகமாக செய்ய வேண்டும்.

3. மிதமான சூடு மற்றும் குளிர்ச்சியான தண்ணீர் உபயோகித்தல்:

ஈரமான துணியை நெற்றியில் வைக்க வேண்டும் மற்றும் வெதுவெதுப்பான நீரை வயிற்றிலோ அல்லது இடுப்புக்கு கீழ் பகுதியிலோ கொஞ்சம் கொஞ்சமாக ஊற்றுவதின் மூலம் வலியை தாங்கிக்கொள்ள முடியும்.

4. நீரேற்றம்:

சாதாரணமான தண்ணீர் அல்லது பழச்சாறு மற்றும் ஐஸ்கட்டி ஆகியவற்றை பிரசவவலி ஆரம்பிக்கும் பொழுது கொடுக்க வேண்டும்.

5. குடும்பத்தில் உள்ளவர்களின் ஆதரவு:

பிரசவத்தின் பொழுது குடும்பத்தில் உள்ளவர்களின் ஆதரவு அம்மாவிற்கு மன தைரியத்தையும், வலியை தாங்கிக் கொள்ளும் சக்தியையும் கொடுக்கிறது.

பிரசவ வலியின் பொழுது பின்பற்ற வேண்டிய நிலைகள்:

1. நின்றல்:

பிரசவ வலி இருக்கும் பொழுது நிற்பதன் மூலம் தலை கீழே இறங்கி சீக்கிரமாக பிரசவம் ஆவதற்கு உதவுகிறது.

2. நேரான நிலையில் அமருதல்:

நேரான நிலையில் அமருவதன் மூலமாக குழந்தையின் தலைப்பகுதி விரைவாக இறங்கி வருவதற்கு உதவுகின்றது.

3. நேரான நிலையில் அமர்ந்து சற்று முன்புறமாக சாய்ந்து இருத்தல்:

நேரான நிலையில் சற்று முன்புறமாக அமரும் பொழுது முதுகுவலி குறைவாக இருக்கும். ஏனெனில் குழந்தையின் எடை முழுவதும் முன்புறமாக தாங்கி இருப்பதால் முதுகுவலி குறையும்.

4. ஒரு பக்கமாக சாய்ந்து படுத்தல்:

பிரசவ வலி இருக்கும் பொழுது இடது புறமாக சாய்ந்து படுத்தல் என்பது முக்கியமான ஒன்று அவ்வாறு சாய்ந்து படுப்பதன் மூலமாக இரத்த ஓட்டம் சீராக இருக்கும் மற்றும் உறங்குவதற்கு வசதியாகவும் இருக்கும்.

மருத்துவமனையில் செய்யும் பரிசோதனைகள்

குழந்தை மற்றும் தாயின் உடல்நிலை எப்படி உள்ளது என்று மருத்துவர் கண்காணிப்பார்.

முதலாவது பிரசவ வலி எப்பொழுது தொடங்கியது என்றும் மற்றும் பனிக்குடம் உடைந்ததா? என்றும், தண்ணீர் வெளியில் ஏதாவது போனதா? என்பது பற்றியும் கேட்பார்கள்.

கர்ப்பகாலத்தின் பொழுது எடுத்துக் கொண்ட மருத்துவ பரிசோதனைகள்.

இரத்தபரிசோதனைகள், ஸ்கேன் மற்றும் மருந்து, மாத்திரைகள் பற்றிய விவரம் கேட்பார்கள்.

அடுத்தபடியாக

பெண் பிறப்புறுப்பு, வயிறு மற்றும் முதுகுகுதியில் உள்ள வேண்டாத முடியை அகற்ற வேண்டி இருக்கலாம்.

பிரசவ அறைக்கு சென்று பிரசவ மேசையில் நேராக படுத்து குத்துக்கால் வைத்து பின்பு கால்களை நன்றாக விரித்துக் கொள்ள வேண்டும். பின் மருத்துவரோ அல்லது செவிலியரோ விரல்களைக் கொண்டு கர்ப்பை வாய் எவ்வளவு திறந்திருக்கிறது மற்றும் தலை எவ்வளவு கீழே இறங்கி உள்ளது என்று பரிசோதிப்பார்கள். சிசுவின் உடல்நிலை எப்படி உள்ளது என்று பிரவத்தின் பொழுது பார்க்கப்படுகிறது.

பிரசவ நிகழ்வு

பிரசவத்தின் பொழுது எப்பொழுதும் வலி கர்ப்பப்பையின் மேற்பகுதில் இருந்து ஆரம்பிக்கும். பின்பு படிப்படியாக வலி கர்ப்பப்பையின் கீழ்பகுதியை நோக்கி தொடரும். இதன்மூலம் சிசுவின் தலை கீழே இறங்கி கர்ப்பப்பை வாய் திறப்பதற்கு உதவுகிறது. இந்த நேரத்தில் இரத்தத்துடன் சளி பிறப்புறுப்பின் வழியாக வெளியேறும். சிறிது நேரத்தில் பனிக்குடம் உடைந்து பிறப்புறுப்பின் வழியாக தண்ணீர் வெளியேறும் பனிக்குடம் உடைந்த பிறகு கர்ப்பப்பையின் வாய் படிப்படியாக விரிவடைந்து சிசுவின் தலை நன்றாக கீழே இறங்கி வந்து சிசுவின் தலைமுடியை அல்லது பகுதியை வெளியில் காணமுடியும். இந்த நேரத்தில் தேவைப்பட்டால் உங்களுடைய பிறப்புறுப்பின் வெளியில் மயக்க மருந்து செலுத்தி அந்த பகுதியை மரத்துப் போகச் செய்வார்கள். தேவைப்பட்டால் பிறப்புறுப்பின் துவாரத்தை பெரிதாக்க வெட்டி பிறப்பிறப்பின் வாய் பெரியதாகி சிசுவின் தலை சுலபமாக வெளியே வருவதற்கு உதவுகிறது.

குழந்தை பிறந்தவுடன் நஞ்சுக்கொடி கிழே இறங்கி வருவதால் வயிற்றின் அடிப்பகுதியில் மீண்டும் வலி இருக்கும். சாதாரணமாக 15 நிமிடத்தில் இருந்து 30 நிமிடத்திற்குள் நஞ்சுக்கொடி வெளியே வர வேண்டும். நஞ்சுக்கொடி வெளியான பின்பு பிறப்புறுப்பிற்கு அருகில் உள்ள பகுதி வெட்டப்பட்டிருந்தால் தைத்துவிடுவார்கள்.

குழந்தை பிறந்தவுடன் பராமரிக்க வேண்டிய முறைகள்:

குழந்தையின் தலை வெளியே வந்த பிறகு கண், மூக்கு, வாய் ஆகியவற்றை சுத்தம் செய்து குழந்தையை முழுவதுமாக எடுத்து தாய் வயிற்றின்மேல் வைத்து துடைப்பார்கள்.

இதன் பிறகு குழந்தை மூச்சுவிடுகிறதா? என்றும் அழுகிறதா? என்றும் பார்ப்பார்கள். தேவைப்பட்டால் குழந்தையின் உடல் வெப்பத்தை சீராக வைக்க வார்ட்மரில் வைப்பார்கள்.

குழந்தையின் தலையில் துணியை வைத்து நன்றாக மூட வேண்டும். இதற்கிடையில் தொப்புள்கொடி அறுக்கப்பட்டு தாயையும், குழந்தையையும் தனியாக பிரித்தெடுப்பார்கள். தொப்புள் கொடியின் மீது எந்தவித மருந்தும் உபயோகிக்க கூடாது. தானாகவே தொப்புள்கொடி ஏழு நாட்களுக்குள் கிழே விழுந்துவிடும். குழந்தையை எப்பொழுதும் தாயின் அருகிலேயே இருத்தல் மிகவும் அவசியம். அப்படி செய்வதன்

மூலம் குழந்தையின் உடலின் தட்பவெப்ப நிலையை சீராக வைப்பதற்கு உதவுகிறது. குழந்தை பிறந்தவுடன் குளிக்கவைப்பதும் மற்றும் குளிர்ச்சியான சாதனங்களை குழந்தையின் மீது வைப்பதையும் தவிர்த்தல் வேண்டும் எப்பொழுதும் தாயும், சேயும், அருகிலேயே இருத்தல் வேண்டும் அவ்வாறு செய்வதன் மூலம் தாய் மற்றும் குழந்தையின் இணைவு முறையை அதிகரிக்கின்றது மற்றும் தாய்ப்பால் சுரப்பதற்கும் உதவியாக உள்ளது.

குழந்தையுடைய ஆடைகள் எப்பொழுதும் பருவநிலைக்கு ஏற்றவாறு இருக்க வேண்டும் மற்றும் எளிதில் கழற்றும் வகையிலும் இருத்தல் அவசியம்.

குழந்தை பிறந்த அரைமணி நேரத்திற்குள் தாய்ப்பால் கொடுக்க வேண்டும். குழந்தைக்கு கண்டிப்பாக தாயிடம் இருந்து வரும் முதல் சீம்பால் கொடுக்க வேண்டும்.

முதல் ஆறு மாதம் முழுவதும் தாய்ப்பால் கொடுத்தல் மிகவும் முக்கியமான ஒன்று குழந்தைக்கு தேவைப்படும் பொழுது குழந்தைக்கு தாய்ப்பால் கொடுத்தல் அவசியம்.

இரண்டு மணி நேர இடைவெளியில் தாய்ப்பால் கொடுத்தல் வேண்டும்.

தாய்ப்பால் கொடுப்பதன் மூலம் குழந்தையின் வளர்ச்சிநிலை அதிகரிக்கப்படுகின்றது.

தாய்ப்பால் கொடுப்பதன் பலன்கள்:

எளிதில் சீரணம் அடைதல், குழந்தையின் நோய் எதிர்ப்பு சக்தி அதிகரிக்கப்படுதல் மற்றும் தாய் செய் இணைவு முறையும் அதிகரிக்கின்றது.

தாய்ப்பால் கொடுக்கும் பொழுது தாயின் மார்பக நுனிக்காம்பு முழுவதும் குழந்தையின் வாயில் உட்செல்ல வேண்டும். அப்படி செல்வதன் மூலமாக குழந்தையின் பால் உறிஞ்சும் திறன் அதிகரிக்கிறது மற்றும் குழந்தை முச்சுத் திணறலில் இருந்துப் பாதுகாக்கப்படுகிறது.

தாய்ப்பால் கொடுக்கும் பொழுது குழந்தையை தாங்கும் நிலைகள்

தாய்ப்பால் கொடுக்கும் பொழுது தாயும், சேயும் குழந்தையை சமமான நிலையில் அமர்தல் அவசியம்

1. கிரேடிஸ் ஹோல்டு

நேராக அமர்ந்த நிலையில் குழந்தையை தாயின் முன்பு தாயை பார்த்த வண்ணம் குழந்தையை தாங்க வேண்டும்.

தலை மூக்கு மற்றும் பிற்பகுதியை தாயின் மடியின் மீது வைத்து கைகளால் தாங்க வேண்டும். குழந்தையின் வாய்ப்பகுதியை தாயின் மார்பகத்தின் முன்பு கொண்டு செல்ல வேண்டும்.

2. புட் பால் ஹோல்டு:

குழந்தையின் தலை மற்றும் கழுத்துப்பகுதியை நன்றாக பிடித்து குழந்தையின் கால்பகுதி தாயின் பின்புறமாக வைத்தல் வேண்டும் அப்பொழுது உங்கள் கைகளை தாங்குவதற்கு தலையணையை உபயோகிக்கலாம். மற்றொரு கையைப் பயன்படுத்தி குழந்தையின் வாய்ப்பகுதியை மார்பகத்திற்கு அருகில் கொண்டு செல்ல வேண்டும்.

3. ஒரு புறமாக சாய்ந்து படுத்தல்:

ஒரு புறமாக படுத்துக் கொண்டு தாய்ப்பால் கொடுக்கும் பொழுது தாயும், சேயும் ஒரு பக்கத்தில் படுக்க வேண்டும் அப்படி படுக்கும் பொழுது தாயின் மார்பகத்தின் கீழ்ப்பகுதி குழந்தையின் வாயின் உட்புறம் முழுவதும் செல்ல வேண்டும்.

தாய்ப்பால் கொடுத்தபின் குழந்தையை தட்டிக் கொடுக்கும் முறைகள்

குழந்தை பால் அருந்தும் பொழுது சிறிதளவு காற்றை விழுங்க வாய்ப்பு உள்ளது. அதனால் பால் கொடுத்த பின் குழந்தையை தோளில் போட்டுக்கொண்டு குழந்தையின் முதுகுப்பகுதியை ஏப்பம் வரும் வரை மென்மையான முறையில் கீழிருந்து மேல் தட்டிக் கொடுக்க வேண்டும்.

இந்த வீடியோ காட்சியின் மூலமாக பிரசவத்தின் போது செய்ய வேண்டுகோள்கள் மற்றும் குழந்தை பராமரிப்பை பற்றியும் நன்றாக அறிந்து கொண்டிருப்பீர்கள் என்று நாங்கள் நம்புகிறோம்.

“பிரசவத்திற்கு தேவையானவற்றை செய்வோம்



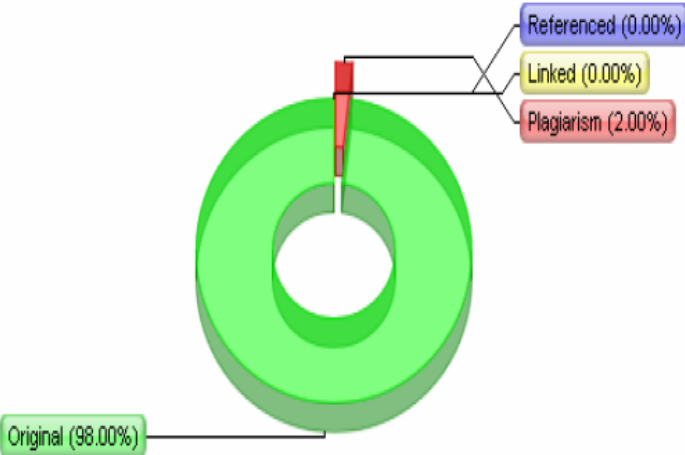
நோயற்ற நலமான குழந்தையை பெறுவோம்

நிறைவான சமூகத்தை உருவாக்குவோம்”

நன்றி....

APPENDIX XVI

PLAGIARISM ORIGINALITY REPORT

	Plagiarism Detector - Originality Report										
	Plagiarism Detector Project: [http://plagiarism-detector.com] Application core version: 557										
Originality report details:											
Generation Time and Date:	1/5/2014 11:21:30 PM										
Document Name:	MINTU. KURIAKOSE THESIS.doc										
Document Location:	C:\Documents and Settings\Administrator\Desktop\MINTU. KURIAKOSE THESIS.doc										
Document Words Count:	141903										
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:											
 <table border="1"><thead><tr><th>Category</th><th>Percentage</th></tr></thead><tbody><tr><td>Original</td><td>98.00%</td></tr><tr><td>Referenced</td><td>0.00%</td></tr><tr><td>Linked</td><td>0.00%</td></tr><tr><td>Plagiarism</td><td>2.00%</td></tr></tbody></table>		Category	Percentage	Original	98.00%	Referenced	0.00%	Linked	0.00%	Plagiarism	2.00%
Category	Percentage										
Original	98.00%										
Referenced	0.00%										
Linked	0.00%										
Plagiarism	2.00%										
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

1.4 No visits

1.5 ≤ 4

1.6 ≥ 5

WG: Weight gain during pregnancy

2.1 6 - 8 kg

2.2 8 - 10 kg

2.3 8 - 12 kg

2.4 ≥ 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 ≤ 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

DEMOGRAPHIC VARIABLE								OBSTETRIC VARIABLE				KNOWLEDGE		ANXIETY	
CG	AGE	REL	EDN	TOF	AOR	TOE	MI	ANC	WG	GAW	HOM	BVLP	AVLP	BVLP	AVLP
1	1.1	2.1	3.3	4.2	5.1	6.5	7.4	1.3	2.3	3.2	4.3	8	8	8	8
2	1.1	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.3	3.3	4.3	10	10	9	9
3	1.1	2.1	3.4	4.2	5.1	6.5	7.4	1.2	2.3	3.2	4.2	10	11	6	6
4	1.1	2.1	3.4	4.2	5.1	6.5	7.3	1.3	2.3	3.2	4.3	11	10	7	8
5	1.2	2.2	3.5	4.1	5.2	6.5	7.3	1.3	2.3	3.2	4.3	12	12	9	9
6	1.1	2.1	3.4	4.1	5.1	6.4	7.5	1.3	2.3	3.2	4.2	14	16	8	8
7	1.1	2.1	3.4	4.1	5.1	6.5	7.4	1.3	2.3	3.2	4.2	10	10	8	8
8	1.2	2.1	3.4	4.1	5.1	6.5	7.3	1.2	2.3	3.2	4.3	10	9	7	7
9	1.3	2.1	3.4	4.1	5.1	6.5	7.3	1.2	2.4	3.3	4.3	13	13	8	8
10	1.1	2.3	3.3	4.2	5.1	6.5	7.3	1.3	2.2	3.3	4.2	9	9	8	8
11	1.1	2.1	3.4	4.1	5.2	6.4	7.5	1.3	2.3	3.2	4.3	8	9	9	9
12	1.1	2.1	3.4	4.2	5.2	6.5	7.3	1.3	2.3	3.3	4.3	10	11	6	6
13	1.1	2.1	3.5	4.1	5.1	6.5	7.4	1.3	2.3	3.2	4.3	10	10	7	7
14	1.1	2.1	3.4	4.1	5.1	6.5	7.3	1.3	2.3	3.2	4.2	9	9	9	9
15	1.1	2.1	3.5	4.2	5.2	6.5	7.4	1.3	2.3	3.2	4.3	12	13	8	8
16	1.2	2.2	3.4	4.1	5.1	6.4	7.5	1.3	2.3	3.2	4.3	10	9	7	7
17	1.1	2.1	3.4	4.1	5.1	6.5	7.4	1.3	2.3	3.3	4.3	11	11	9	9
18	1.1	2.1	3.3	4.1	5.1	6.5	7.3	1.3	2.3	3.2	4.2	8	8	10	8
19	1.1	2.1	3.4	4.1	5.1	6.5	7.4	1.2	2.3	3.2	4.3	12	13	6	6
20	1.1	2.1	3.4	4.1	5.1	6.5	7.3	1.3	2.2	3.3	4.2	8	6	9	9
21	1.1	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.3	9	9	6	6
22	1.2	2.1	3.4	4.1	5.2	6.5	7.4	1.3	2.3	3.2	4.3	7	8	9	9
23	1.1	2.3	3.3	4.2	5.1	6.4	7.5	1.3	2.3	3.2	4.3	10	12	10	9
24	1.1	2.1	3.4	4.2	5.1	6.5	7.3	1.3	2.3	3.2	4.3	10	6	7	7
25	1.1	2.1	3.4	4.1	5.1	6.5	7.4	1.2	2.3	3.2	4.2	10	11	7	7
26	1.1	2.1	3.4	4.1	5.1	6.4	7.5	1.3	2.3	3.2	4.3	8	10	8	8
27	1.1	2.1	3.4	4.1	5.1	6.5	7.4	1.3	2.3	3.3	4.3	11	11	8	8
28	1.1	2.1	3.4	4.1	5.2	6.5	7.4	1.3	2.2	3.2	4.3	10	9	5	5
29	1.2	2.1	3.3	4.2	5.1	6.5	7.3	1.3	2.3	3.2	4.3	9	10	9	9
30	1.1	2.1	3.4	4.1	5.1	6.5	7.3	1.3	2.3	3.2	4.2	10	11	8	7

EXPERIMENTAL GROUP

DEMOGRAPHIC VARIABLE								OBSTETRIC VARIABLE				KNOWLEDGE		ANXIETY		LOS
CG	AGE	REL	EDN	TOF	AOR	TOE	MI	ANC	WG	GAW	HOM	BVLP	AVLP	BVLP	AVLP	
1	1.1	2.1	3.2	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.2	9	25	8	2	27
2	1.2	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.2	7	24	9	2	23
3	1.1	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.3	3.3	4.3	12	25	7	0	26
4	1.3	2.1	3.3	4.2	5.1	6.5	7.4	1.3	2.3	3.3	4.3	10	25	10	3	30
5	1.2	2.1	3.3	4.1	5.1	6.4	7.3	1.3	2.2	3.2	4.2	11	22	7	1	27
6	1.1	2.2	3.3	4.1	5.1	6.5	7.4	1.2	2.2	3.3	4.2	16	25	10	1	30
7	1.2	2.1	3.3	4.1	5.2	6.5	7.4	1.3	2.2	3.2	4.3	8	25	9	1	28
8	1.1	2.1	3.4	4.2	5.1	6.5	7.4	1.3	2.1	3.2	4.2	9	25	8	2	27
9	1.2	2.1	3.4	4.2	5.1	6.5	7.5	1.3	2.2	3.3	4.2	4	24	9	3	28
10	1.2	2.3	3.3	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.2	13	24	5	1	27
11	1.2	2.1	3.4	4.2	5.1	6.5	7.4	1.3	2.2	3.3	4.2	7	25	6	0	29
12	1.1	2.1	3.3	4.1	5.1	6.5	7.5	1.2	2.2	3.3	4.3	11	25	10	2	25
13	1.2	2.1	3.5	4.1	5.1	6.5	7.3	1.2	2.2	3.2	4.3	9	24	9	0	26
14	1.3	2.1	3.3	4.2	5.1	6.5	7.4	1.3	2.1	3.2	4.2	8	25	9	1	25
15	1.1	2.1	3.3	4.1	5.2	6.4	7.4	1.3	2.2	3.2	4.2	7	25	8	1	28
16	1.2	2.2	3.5	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.2	12	23	9	1	28
17	1.1	2.1	3.2	4.1	5.1	6.5	7.5	1.3	2.2	3.2	4.2	10	25	8	1	28
18	1.2	2.2	3.4	4.2	5.2	6.5	7.4	1.3	2.3	3.3	4.2	7	24	10	1	26
19	1.1	2.1	3.4	4.2	5.1	6.5	7.4	1.3	2.2	3.2	4.2	8	25	7	1	29
20	1.2	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.2	8	24	7	0	28
21	1.3	2.1	3.3	4.1	5.1	6.5	7.4	1.2	2.2	3.3	4.3	6	25	8	2	25
22	1.2	2.1	3.3	4.1	5.1	6.5	7.5	1.3	2.4	3.2	4.2	9	25	7	1	28
23	1.2	2.2	3.3	4.1	5.1	6.4	7.5	1.3	2.2	3.3	4.2	6	25	7	1	27
24	1.2	2.2	3.3	4.2	5.2	6.5	7.3	1.2	2.2	3.2	4.2	10	25	6	2	27
25	1.1	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.2	3.2	4.2	11	25	8	1	29
26	1.1	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.3	3.3	4.3	9	25	8	3	29
27	1.2	2.3	3.4	4.1	5.1	6.4	7.5	1.3	2.2	3.3	4.2	8	24	7	1	29
28	1.1	2.1	3.3	4.1	5.1	6.5	7.4	1.3	2.1	3.3	4.2	10	25	8	0	26
29	1.2	2.1	3.5	4.2	5.1	6.5	7.4	1.3	2.1	3.2	4.2	12	25	9	2	30
30	1.2	2.1	3.3	4.1	5.2	6.5	7.4	1.3	2.2	3.2	4.3	5	24	10	1	30

APPENDIX XIX

PHOTOGRAPHS DURING THE VIRTUAL LABOUR PROCESS



