

**A STUDY TO ASSESS THE KNOWLEDGE AND ANXIETY OF BIRTH  
COMPANION IN RELATION TO THEIR SUPPORT IN CHILDBIRTH  
AND THE INFLUENCE OF SUPPORT ON THE OUTCOME OF  
LABOR AMONG PRIMIPARA WOMAN AT SELECTED  
MATERNITY CENTERS, TIRUPPUR**

**M.Sc. (NURSING) DEGREE EXAMINATION  
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**A Study to assess the Knowledge and Anxiety of Birth Companion in relation to  
their Support in Childbirth and the influence of Support on the Outcome of  
Labor among Primipara Woman at Selected  
Maternity Centers in Tiruppur**

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Coimbatore.

Sd: \_\_\_\_\_

Sd: \_\_\_\_\_

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( )

Internal Examiner

External Examiner

Date: \_\_\_\_\_

Date: \_\_\_\_\_

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Maternity Centers in Tiruppur**

Approved by the Dissertation Committee on \_\_\_\_\_

1. Professor in Nursing research .....

**Dr. Annamma Prabhakar, M.Sc.(N), Ph.D**

Visiting Professor,  
RVS College of Nursing,  
RVS Institute of Health Sciences,  
Sulur, Coimbatore.

2. Professor in Clinical specialty .....

**Prof. Mabel Shivkar, M.Sc.(N), M.A. (Soc), P.G Dip in Edu. Mgt.**

Obstetrics and Gynecological Nursing,  
Principal,  
RVS College of Nursing,  
RVS Institute of Health Sciences,  
Sulur, Coimbatore

3. Medical Expert .....

**Dr. Latha Prasanna, MBBS, DGO**

Consultant  
Obstetrician and Gynecologist  
RVS Multi Specialty Hospital  
Sulur, Coimbatore

A Dissertation submitted to the Tamilnadu Dr. M.G.R.

Medical University, Chennai – 32.

In partial fulfillment of the requirement for the

Degree of Master of Science in Nursing

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## ABSTRACT

“A Study to assess the Knowledge and Anxiety of Birth Companion in relation to their Support in Childbirth and the influence of Support on the Outcome of Labor among Primipara Woman at Selected Maternity Centers”.

The aim of the study was to assess the level of knowledge of labor process and its care and anxiety of the birth companion and to determine whether they are related with the support given by the companion during labor, also whether the support given influences length of labor, pain perception and perception of birthing experience of the primiparous woman.

The conceptual framework used in this study was based on modified Einestine Wiedenback – The Need for Help model. The study adopted a descriptive and correlation survey approach. A convenient sample of 40 primiparous women in labor and their birth companions were the samples of this study from two maternity centers. The data on knowledge and anxiety was collected by a knowledge questionnaire and an anxiety scale using interview technique, and support measures carried out by the birth companion were observed hourly for 15 minutes throughout labor and recorded on a checklist.

The data from the woman in labor was collected on length of labor at the end of each stage. Pain was assessed using Verbal Graphic Rating Scale on an hourly basis for the first contraction of every hour and pain in the II and III stage was recorded at the end of stages. Birth experience was collected by interviewing the woman following delivery. The data was analyzed using descriptive, correlation and descriptive statistics.

The finding of the study showed that the level of knowledge was average among 75% of samples, poor in 25% of samples and no one had good knowledge. The knowledge on birth process was significantly more than the care to be given for the woman in labor ( $t$  test = 20.4,  $p < 0.05$ ). The anxiety of the birth companion was found in three areas related to self, woman in labor and child to be born. 35 birth companions (87.5 %) showed moderate anxiety for the women in labor, and the highest anxiety was related to the child to be born with a mean score of 20%.

There was a significant difference between the areas of anxiety (ANOVA,  $f = 10.12$ ,  $P < 0.05$ ) and the anxiety was more for the child to be born. With regard to the support given by the birth companion, 29 samples (72.5%) provided moderate support to the women in labor in I stage, 23 samples (74%) provided high support in the II stage and in the stage III, the support provided was either low (42%) or moderate (48.8%). The most outstanding support measure was staying beside the women in labor (93%), followed by talking to the women in labor (81%), and holding hands (76%). The activity carried out least frequently was massaging back and extremities (18%).

The average length of labor was 6.62 hours. In the first stage 57.5% of the women in labor experienced moderate pain, 74% experienced unbearable pain in the II stage, and 45% of women had severe pain in III stage of labor. 18 samples (58 %) were highly satisfied with their birth experience.

Correlations of the variables showed a mild negative correlation between knowledge and anxiety of the birth companion ( $r = -0.29$ ), anxiety and support provided by the birth companion ( $r = -0.15$ ), support and length of labor ( $r = -0.57$ ) and support and intensity of pain ( $r = -0.33$ ). Correlations of the variables showed a mild positive correlation between knowledge and support ( $r = 0.26$ ) and support provided by the birth companion with birth experience ( $r = 0.29$ ). Statistically the relationship was significant for level of knowledge to the support ( $\chi^2 = 12.4$ ,  $df = 1$ ,  $p < 0.05$ ). The association between demographic variables of birth companion and the study variables knowledge, anxiety and support showed no significance in all areas.

This study concludes that birth companions without undergoing any knowledge programmes exhibited moderate knowledge, underwent moderate stress and they provided support that led to high satisfaction among 58% of the women in labor. If the areas of knowledge are strengthened, a better support could be provided by the birth companion for the women in labor.

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“God, the Great Giver, can open the whole universe to our gaze in the narrow space of a single lane”.

– Rabindranath Tagore

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# **INTRODUCTION**

# CHAPTER I

## INTRODUCTION

### BACKGROUND OF THE STUDY

Childbirth is a significant event in the lives of women and their families. It is a critical time in human development that transforms women into mothers. Childbirth (also called labor, birth, partum or parturition) is the culmination of a human pregnancy or gestation period with birth of one or more newborn infants. **(The Columbia Encyclopedia 2006)**

The arrival of a new child in the family is the most cherished of human desires **(Ritu Mathur 2005)**. From the women's point of view, birth is not so much a medical event but it has a major transition in her life that implies changes in personal roles and society **(Kitzinger 1989)**. Women remember their childbirth for the rest of their lives. It shapes their thoughts as women and as mothers and may affect their ability to form positive relationships with other family members.

When we just look back to the previous phenomenon of deliveries, an interesting fact about childbirth is that until about 1926, the majority of women gave birth at home and deliveries were conducted by experienced hands that laid their foundation from generation to generation with available facilities. At that time maternal and infant mortality and morbidity prevailed, but the one factor that was most prominent was emotional support given to the mother by the untrained attendant staying there, not to force or demand anything of the woman, but to serve the needs of the woman who was in labor. The family members could also be in, and out of the birth room encouraging and helping in any way possible, making the woman feels safer, calmer and more relaxed. There was only little medical intervention in homebirth, with no restriction on eating, positioning, no limits placed on length of labor and the lowest chance of cesarean birth. It was only a small handful of women who were using hospitals as their primary place to have their babies **(Lane B. 2006)**.

Even though home delivery was the most accepted practice it had the disadvantages of increased mortality and morbidity rates, but people just saw this as fate. The first emphasis on Maternal and Child Health was made years ago in 1965 by the Planning Commission (**Park K 2009**). As days passed by changes occurred, more clinics every where for women and children, were established, antenatal and postnatal education was given emphasis, provision of Primary Health Centers to the rural area made giving birth safer for woman than in previous years. Presently, according to **Child birth delivery (2006)**, the World Health Organization estimates that 5, 29,000 women die from complications related to pregnancy and childbirth each year, with 99% of these deaths in developing countries and an additional 300 million women suffer from illness and long-term disability related to childbearing.

In the last 2 decades, advancement in facilities has increased and people have become more aware, that brought in more deliveries to the hospital with advanced facilities. This also made people more confident to face childbirth and approximately 90% of all deliveries took place in hospitals or maternity centers. The rate of maternal mortality and morbidity decreased due to the adoption of modern obstetric practices, and the best treatment was given for the woman. According to **The University of Texas Medical Branch (2009)**, hospital deliveries have advantages, as it is best equipped to diagnose and treat woman and the newborn with serious complications or high risk of developing such complications. You will never need to transfer to another facility before, during, or after laboring. In case of emergency expertise personnel is immediately available, neonatal deaths are less, covered by insurance, technology to assist the birth process along with analgesia or anesthesia readily available, newer diagnostic measures, increased use of antibiotics, sterile technique and lack of compulsion to arrange for immediate help outside, attracted more women to come to the hospital to give birth.

In spite of all the available facilities **Thompson ED (1995)**, says that the women approach labor with fear of labor pain, operative deliveries and being with unfamiliar people during labor in health facilities. They also have anxiety because of ignorance, prejudice, misinformation and lack of privacy. Hospital environments can be stressful, noisy and less relaxing. There is chance of infection for mother and baby in hospitals. One cannot eat or drink in most hospitals, not having enough staff to

provide continuous physical, emotional, and informational support during labor and birth. In turn, the result is mental tension which leads to tension in muscle groups including those in the lower uterine segment. Muscle tension can lead to increased pain and can delay labor making the process more difficult. Excessive anxiety increases an endogenous release of catecholamines, which in turn reduces blood flow to and from the placenta. This event can restrict fetal oxygen availability and waste removal as well as reduced effectiveness of uterine contractions, which slows labor progress. It can be hypothesized that, prolonged labor as a consequence of anxiety can become the rationale for assisted delivery including forceps extraction, vacuum extraction, and caesarean section.

According to **Ellen DH, in 2002** the rituals of hospital birth in particular do not necessarily provide social or emotional support to the woman and her family. They rely more on facility's technology than on body's physiology. Moreover, relatives are not allowed to enter maternity wards. They would normally accompany the woman to hospital, and remain outside the wards stressing themselves and the woman in labor, until they have heard its outcome. Hospitals leave the woman to deliver only in the presence of health personnel, depriving the right of the woman to be with her loved ones.

This may be experienced as harsh, and the woman may experience emotional loneliness having to deal with labor pain and an unfamiliar environment alone, without any support at all. A situational crisis that consists of, fear of the unknown is experienced, especially by a mother delivering for the first time when she is unaware of the pain she has to go through, left alone with new faces around. All this causes poor pain tolerance and coping abilities. These conditions may have an adverse effect on the labor progress and on the development of feelings of competence and confidence; this may in turn impair adjustment to parenthood and establishment of breast feeding, and also increase the risk of depression. (**Kirkham 1989**)

Safe Motherhood Programs focus on improving recognition of life-threatening complications and subsequent care seeking behavior. In this aspect, the Congress in Uruguay passed a law in 2001 decreeing that all women have the right to companionship during labor (**WHO 2002**). The WHO recommended that the woman



in labor should be accompanied by people she trusts and with whom she feels at ease, possibly her partner, friend, mother, sister a nurse or midwife. As per the ten steps of mother friendly childbirth for improving maternity services the first step among them, states that all birthing mothers have unrestricted access to birth companions, labor support and professional midwifery care (**The Mother-Friendly Childbirth Initiative 2003**).

Concerns about the consequent dehumanization of women's birth experiences have led to the call for a return to continuous support by women for women during labor and so, today across the world in developed countries there are birth centers and specialized hospitals that allow in partners and other companions during childbirth. The term 'labor support' refers to continuous non-medical care of a laboring woman, an exchange of resources between at least two individuals perceived by the provider or recipient to be intended to enhance the well being of the recipient. **Simkin P. Bolding A (2004)**

Research on what people understand as social support has consistently been identified as a set of key components of the concept like (**Page A.L 2000**)

**Emotional support:** The term implies a warm or caring relationship. Emotional support that is given is continuous companionship, reassurance, encouragement, anticipatory guidance, information provision, facilitation of communication (assessing woman to express her needs and wishes), relaxation tapes (**Connie M. 1994**), non-medical advice, talking and maintaining eye contact, holding her hand, touching or hugging (**Penny P, Smikin, MA (2002)**).

**Practical or tangible support:** Practical support includes financial support for a pregnant woman and physical comfort measures like comforting by (**Fritz S 2004**), bathing, grooming, applying warmth or cold, using cool cloths on forehead, ice chips to suck, positioning, helping to find a comfortable position, assisting with ambulation, effleurage on abdomen, coaching breathing through contractions, coaching pushing efforts during delivery and two hours post partum encouraging breastfeeding and looking after mother and baby.

**Informational support / Advocacy:** It underlies the ability for the woman to make positive choices, increase her confidence, sense of security and personal sense of control. Moreover, conveying and negotiating women's wishes with professionals and facilitation of communication between the woman and staff to assist her in making informed choices.

Social support that takes place in institutions during labor and birth is provided by formally recognized support persons such as nurses or doulas (untrained lay women). In a review of relevant research related to the types of individuals who can offer effective support during labor and birth are, nurses, monitrices (lay midwives) doulas, untrained lay women partners/husbands and close female relatives (**Littleton YL, Engebretson CJ (2007)**). Social support provided by nurses or monitrices was reported to be less effective than that provided by doulas, untrained lay women, or female relatives. Social support acts as a buffer against stress. It assists the development of coping strategies that support health and moreover, the quality of support that the woman is given during labor ameliorates their fear and has an enormous effect on their perception of childbirth. (**Basvanthappa BT 2006**)

Since 1970s, numerous research reports, reviews and meta-analyses were published about the beneficial effects of social support for childbirth and psychosocial outcomes. Social support in the form of continuous intra partum support is associated with the following outcomes. Labor is shorter, spontaneous vaginal births are more likely, caesarean sections, forceps and vacuum extractions are fewer, oxytocin augmentation is decreased, analgesics and anesthesia are used less frequently, maternal control during labor is greater, coping behavior increases and there is less labor pain. In addition, there are benefits to the newborn babies of mothers who received social support. Babies have fewer 5-minute Apgar scores that are less than 7, are less frequently admitted to neonatal intensive care units, are more likely to be discharged within 48 hours, display more maternal infant interaction behaviors and have higher breast feeding initiation and duration rates. Furthermore, social support is associated with more positive childbirth experiences, less anxiety, higher self-esteem and less postnatal depression six weeks after delivery. All this is because of the presence of continuous labor support that has a great impact on the emotional strength

of the women to cope with labor and in facilitating communication with health workers that is useful in participation of the women in decision-making.

All these ways of helping a woman give birth naturally are the most demanding and rewarding things one can do. A good labor companion is patient and flexible; gentle and strong; responsive and able to lead. In labor, the supportive companion cannot give birth for the mother, but a good companion doesn't leave her to do the job alone and that may reduce catecholamine levels, facilitate uterine contractility and placental blood flow leading to less obstetric intervention. **(Wang D, Mao X, Qian S (1997)).**

Supporting women at delivery is an essential part of Public Health Care. Hospitals must realize that instead of restricting the availability of support persons because of limited space, it is important to consider the beneficial effects of a support person at childbirth including psychosocial outcomes, thus ensuring and making space for them. **(Ellen DH, 2002).** It is proposed that one such intervention be the integration and preparation of a close female relative as an informal support person as part of a comprehensive nursing strategy this is to provide appropriate care to laboring women and their families as the quality of support that women receive during labor and delivery, is critical for the continued well being of the entire family. **(Siriwan Y, Veena J, Beverley A O'Brien in 2008).**

## **NEED FOR THE STUDY**

With increasing facilities more and more women come to hospitals for delivery, so there is an increase in admission and the nurses are unable to give individual attention. This leads to shouting and panic in the hospitals, the air is filled with anxiety and stress. In hospitals today every laboring woman is hooked up for some period of time to a fetal monitor, given vaginal examinations, and told where, and in what position she must give birth. If her membrane ruptures, she will be required to deliver her baby within a certain time period. If her labor is moving slowly, she will be given pitocin to augment it or have her water bag artificially ruptured. She is restricted from seeing her relatives and her other children. How long she is kept in the hospital will vary depending on her physician and the particular

hospital as they give more emphasis to standardize, than individualized care and use various interventions routinely, whether or not birthing women have the clear need.

Birth companionship is given prior consideration during childbirth in other countries, as its effect is experimentally proved to be very effective and is a great support for the woman during the labor process. In India, birth companionship is not yet widely accepted or practised, but some hospitals do allow, giving importance to the proved benefits of birth companionship. In the hospitals that do not allow a birth companion, a woman in labor has a lot of fear and undergoes high anxiety. Considering the benefits of birth companionship the Health and Family Welfare department of the Government of Tamilnadu took the first initiation in launching the Birth Companionship Programme after a pilot scheme in two Emergency Obstetric Care Centers in the Corporation of Chennai, and as a result passed an order in July 2004, that one female companion be admitted to the labor ward with the expectant mother in all Government hospitals in the state. According to this order the birth companion must have undergone labor herself, has to agree to wear clean clothes, and an identification tag, to attend the whole labor, agree not to interfere in the work of the hospital staff and the treatment procedure or with any other women undergoing labor in the same ward and finally be free of communicable diseases.

Even after such an order was passed some hospitals or maternity health centers still do not allow a companion at birth, and say that the birth companions could be a source of infection and that there is limited space in the maternity units. Hospitals and maternity centers that do allow a birth companion find it beneficial for their nurses and is able to enhance the comfort and well-being of their patients. As for the nurses, even though they are adept at providing physical and emotional support, they are limited in the amount of support as they have clinical responsibilities, paper work, duty to provide care for more than one laboring woman simultaneously and moreover work in shifts.

It is incumbent for nurses to identify, and test interventions that will enhance the support that women receive during active labor, delivery, and the early post partum period. Education is an integral part of maternal health, organized teaching classes for the antenatal mother are provided for a certain fee. Along with the

antenatal mother their companions also get a chance to attend the class and even stay with the woman during labor if they want to, but these classes and benefits were only available for an elite few, what will the other majority of the population do? The researcher has noticed, when she worked in the labor room, 90% of the women in labor always wanted a companion that she already knew and could trust. Among the most wanted was a female companion (mother or sister) when compared to males in our cultural set up. As per the researcher's observation, to be an effective birth companion, one needs a combination of skills and knowledge, and need to be more prepared than the woman in labor, but how is this possible? Training for the staff is being given, in Primary Health centers by the Maternal and Child Health Officer, emphasizing the importance of birth companionship in labor, but so far no initiative was made to train the birth companions on labor process and care.

In spite of not having any education on the birth process and care to be given for the woman in labor, can all the female companions be a good support for the woman, responding to her needs and verbal requests without being anxious? While the woman in labor is living for the moment, contraction by contraction the supportive companion must be with her and simultaneously plan ahead so that she can implement techniques, which may benefit the woman in labor. Do they have a good basic knowledge of the process of labor and know the ways to handle any challenges that may arise? Will their level of knowledge and anxiety affect the outcome of labor? Will the presence of a supportive companion decrease pain perception, length of labor and bring out a positive birthing experience? With this in mind the researcher thought of addressing this problem and doing a study to assess the knowledge, anxiety and support given by the birth companion in relation to the outcome of labor.

## **STATEMENT OF THE PROBLEM**

A study to assess the knowledge and anxiety of birth companion in relation to their support in childbirth and the influence of support on the outcome of labor among primipara woman at selected maternity centers.

## **AIM**

The aim of the study is to assess the level of knowledge of labor process and care, anxiety of the birth companion and to determine whether they are related with the support given by the companion during labor and whether the support given is associated with length of labor, pain perception and perception of birthing experience of the primiparous woman.

## **OBJECTIVES**

### **The specific objectives of the study are:**

1. To assess the level of knowledge of the birth companion regarding birth process and the care to be given for the woman in labor.
2. To identify the level of anxiety of the birth companion attending the primipara woman in labor.
3. To explore the level of support given by the birth companion to the primiparous woman in labor.
4. To identify the birthing experience of the primiparous woman throughout her labor.
5. To associate the level of knowledge, anxiety and support given by the birth companion with their demographic variables.

## **HYPOTHESIS**

- H<sub>1</sub>- There is a significant relationship between level of knowledge and anxiety of the birth companion.
- H<sub>2</sub> - There is a significant relationship between level of knowledge of the birth companion and the level of support provided to the primiparous woman.
- H<sub>3</sub>- There is a significant relationship between level of anxiety of the birth companion and the level of support provided to the primiparous woman.
- H<sub>4</sub>. There is a significant relationship between level of support provided to the primiparous woman and the length of labor.
- H<sub>5</sub>- There is a significant relationship between the level of support provided to the primiparous woman and the degree of pain felt during labor.

H<sub>6</sub>- There is a significant relationship between the level of support provided to the primiparous woman and the birthing experience of the mother

## **OPERATIONAL DEFINITION**

### **1. Knowledge**

The information or ideas gained through one's own experience and media regarding labor and its support, which is elicited from the birth companion.

### **2. Anxiety**

The concern, uneasiness, fear and worry experienced within self by the birth companion as elicited through a Likert scale.

### **3. Birth companion**

A birth companion is the one who stays with the primipara woman throughout labor. Here the birth companion is a female who has already undergone the process of labor.

### **4. Outcome of labor**

Refers to result or effect that occurs during the process of child birth. In this study outcome of labor includes length of labor, degree of pain measured on a pain scale, and self reported feelings and thoughts experienced by the primipara woman throughout labor.

### **5. Primiparous woman**

Woman undergoing the process of childbirth for the first time.

### **6. Support in Childbirth**

Childbirth refers to the onset of uterine contractions where the descent of fetus occurs through the birth canal by a series of passive movements that is caused by the pressure of maternal soft tissues and bony structures. Activities carried out by the birth companion, when the primiparous woman is in labor, is the support. The support measures include, staying beside, talking to her, holding hands, mopping sweat, keeping informed of the progress of labor, encouraging fluid intake, meeting elimination needs, massaging, encouraging deep breathing and relaxation and communicating between the woman in labor and the family members as observed by the researcher throughout labor.

## **ASSUMPTION**

The study is based on the assumption that

1. Birth companions will have some knowledge of labor process that is gained from individual experience and various sources.
2. Every birth companion will have tension and worry regarding the birth process.
3. Knowledge and attitude of birth companions will have variations.
4. Birth companions will be able to express their views and worries about labor and care to be given for the women in labor.
5. The woman in labor will need someone she knows near her throughout labor.
6. The woman in labor will be able to express her views and feelings on the birth experience.
7. Birth experience of women will have variation.

## **LIMITATIONS**

1. Some data is based on verbal report of the birth companion and woman in labor; it may not be a true reflection of their feelings.
2. Study is limited to 40 samples, and so result cannot be generalized.
3. Supportive measures carried out by birth companion are not observed on a continuous basis.

## **DELIMITATIONS**

This study is delimited to

1. Only primiparous woman.
2. Females who will attend the woman in labor.
3. Two selected centers.

## **SCOPE OF THE STUDY**

This study highlights knowledge, anxiety and activities carried out by the birth companion. If the level of knowledge in the birth companion is low there is a high scope for health education. If the knowledge and anxiety of a birth companion



makes a lot of difference to the support provided for the woman in labor, it is an indication for the nurse to take action. Antenatal classes for both the woman in labor and her birth companion can increase their knowledge and reduce their anxiety, so that they not only sit at the bedside, but provide support for the woman in labor. If the benefit of support shortens the duration of labor, cause less pain and provide a positive birthing experience, it can be encouraged to be carried out in set ups by showing the proved benefits.

## **CONCEPTUAL FRAMEWORK**

A conceptual model can be defined as a set of concepts and those assumptions that integrate them into a meaningful configuration (**Fewett 1980**)

The development of a conceptual model is a fundamental process required before conducting actual research. The framework influences each state of research process. The conceptual framework in nursing research can help to provide a clear concise idea of knowledge in the area.

The conceptual framework used in this study is **Ernestine Wiedenbach's Midwifery model of nursing practice. (Alexander M. 2001)**. This broad conceptual model encompasses five elements which Wiedenbach terms the realities of Nursing that is most commonly used for the childbearing woman to meet her immediate needs as a mother, for the baby and the family.

### **1. The agent: ( the nurse, midwife or other person)**

The agent helps in identifying immediate needs of the childbearing woman and her partner to develop inner strength as they prepare to assume their roles of parents.

### **2. The recipient: (woman, family and community)**

The recipient of care may be the childbearing woman, the family or the community who for some reason or the other is unable to meet their present needs.

### **3. The goal: The goal of the intervention**

The goal according Wiedenbach is to meet a person's need - for – help, and enable them to cope with the demands placed upon her by the situation. To do this requires skilled use of eyes, ears, hands and mind- eyes through which to observe or

look intently; ears with which to listen expectantly; hands to feel, touch or palpate sensitively and a mind with which to understand and interpret the observation. Once the need is recognized, appropriate action may be taken to meet it.

#### **4. The means: The method to reach the goal**

The means of achieving the goal of care are expressed in practice which comprises four phases

- Identification of the patient's experienced need-for-help.
- Ministration of the help that is needed.
- Validation that the help provided was indeed the help needed.
- Co-ordination of the resources for help provided.

#### **5. The framework: the social, organizational and professional environment**

The framework includes the needs for a woman in labor and thereby supports / encourages a birth companion for the woman throughout labor in a health centre.

In this study the agent is a female companion who comes forward voluntarily to be with the woman throughout her labor. The recipient is the woman in labor, who is undergoing the process of child birth for the first time, and is unable to meet her present needs. The need for help is any measure or action required and desired by the individual and which has potential in restoring or extending her ability to cope with the demands implicit in the situation. The goal is to bring about physical and emotional comfort, by the skilled use of senses by the companion in fulfilling the needs through the support measures and finally bringing about a decreased labor time, decreased pain perception and a positive perception of birthing experience. The model identifies the need the birth companion to have knowledge, judgment and skills to enable the above steps of care to be achieved. As this study focuses to assess the level of knowledge and anxiety of the supportive companion and to determine whether they are related with the support given by the companion during labor, and whether the support given is associated with length of labor, pain perception and perception of birthing experience of the primiparous woman. So the researcher found this model quite appropriate for her study.

Figure 1 highlights the conceptual framework based on modified Einestine Wiedenback – The need for help model.

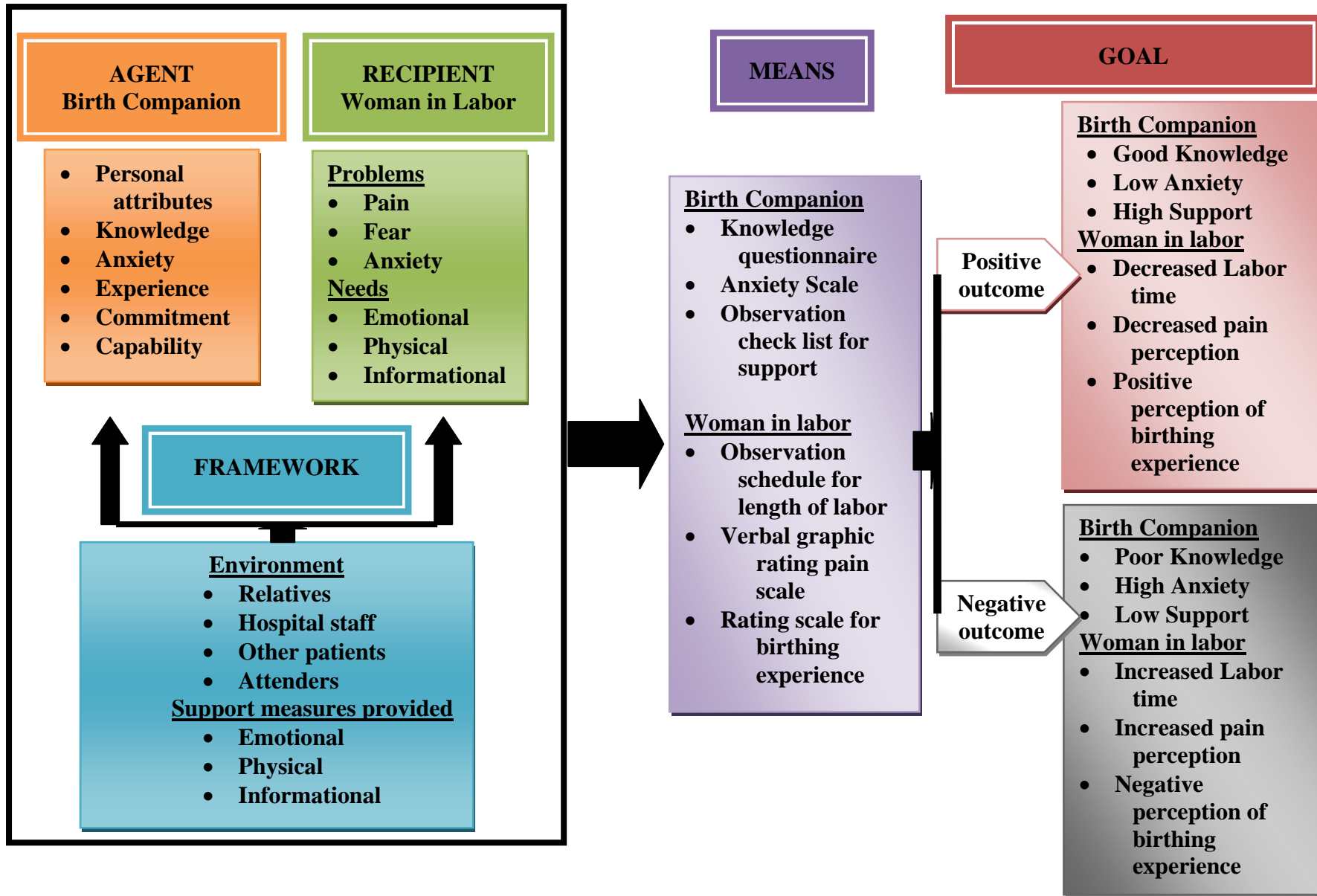


Figure -1 Conceptual framework based on modified Einestine Wiedenback – The need for help model.

# **REVIEW OF LITERATURE**

## CHAPTER II

### REVIEW OF LITERATURE

The term review of literature refers to the activities involved in identifying or searching for information on a topic and developing an understanding on the state of knowledge of the topic **Polit FD. and Beck TC (2008)**

The literature found relevant and useful have been presented in this chapter under the headings

1. Childbirth experiences of women.
2. Pain perception of women in labor.
3. Continuous support during childbirth
4. Social support by different care givers for women during childbirth.

#### **1. Childbirth experiences of women.**

**Tarkka, Terttu M, Paunonen and Marita ( 1996)** did a study to look at the networks of social support available for mothers during pregnancy and childbirth and to describe the experiences of labor of mothers and the connections of social support with those experiences. The data was collected through the use of two questionnaires submitted to 200 mothers recruited from Tampere University Hospital. Both instruments-Norbeck's Social Support Questionnaire and a scale designed by the author-were based on (Kahn's (1979)) theory of social support.

As per the results the mothers reported an average of seven support persons each. Most typically, these were the mother's spouse or partner and close friends and relatives. The network of social support is a major source of emotional support, aid and affirmation for the mothers. During labor the main source of emotional support for mothers was the midwife. For the vast majority (85%) of the mothers, childbirth was a positive experience. A significant association was found between the emotional support provided by midwives and mothers' positive experiences of childbirth.

**Green MJ, Baston AH. (2003)** did a study to assess the feeling of control during labor to the woman's birth experience and subsequent well-being and how the feeling of control relate to each other. Questionnaires were sent to women 1 month before birth to assess their preferences and expectations and at 6 weeks after birth to discover their experiences and assess psychological outcomes. Data was collected from 1146 women. In this study three control outcomes were considered: feeling in control of what staff does to them, feeling in control of their own behavior, and feeling in control during contractions.

Results stated that women were less likely to report being in control of staff (39.5%) than in control of their own behavior (61.0%). Approximately one-fifth of the sample felt in control in all three ways, and another one-fifth did not feel in control in any of them. Parity was strongly associated with feeling in control, with multiparas feeling more in control than primiparas in all cases. In logistic regression analyses, feeling in control of staff was found to relate primarily to being able to get comfortable, feeling treated with respect and as an individual, and perceiving staff as considerate. Feeling in control of one's behavior and during contractions was primarily related to aspects of pain and pain relief, but also to antenatal expectations of control. Worry about labor pain was also an important antenatal predictor for primiparas. All three control outcomes contributed independently to satisfaction, with control of staff being the most significant. Relationships with emotional well-being were also demonstrated. The researcher concluded that all three types of control were important to women and it contributed to psychological outcomes. Internal and external controls were predicted by different groups of variables. Caregivers have the potential to make a significant difference to a woman's experience of childbirth. The ways in which women are helped to deal with pain will affect internal control; the extent to which they feel that they are actually cared about, rather than care being something that is done to them, will affect external control. Both contribute to satisfaction and emotional well-being.

**Teshome M, Abdella A and Kumbi S (2007)** did a study to assess the attitude of women in response to labor support based at institutional deliveries. The study was cross sectional. Data on labor support was collected from 406 women who delivered at three University hospitals in Addis Ababa through trained nurses using a pre-tested questionnaire.

The result was analyzed and it said that Seventy-three percent of the study women had fear of labor mainly due to associated pain (66.1 %). About 53% of them wanted to have a companion during labor. The reasons given for wanting companion were emotional (49.5%), information (25%) and physical (21.7%) supports. About 54% and 37% of women at labor wanted to have their mothers and husbands as companions respectively. The need for labor companion was significantly associated with maternal age ( $\chi^2 = 13.57$ ,  $P=0.00$ ), educational status ( $\chi^2 = 8.7$ ,  $P=0.000$ ), monthly household income ( $\chi^2 = 14$ ,  $P=0.00$ ), marital status ( $\chi^2 = 16.77$ ,  $P=0.00$ ), and mode of delivery ( $\chi^2 = 9.69$ ,  $P=0.02$ ). This study clearly stated that there is a need of introducing labor companion system in labor wards. Significant proportion of women preferred their mothers as companions. Further exploratory and operational researches are suggested to be done in addressing providers, companion and issues to introduce policies and guidelines of labor support into labor wards.

**Melender H. (2009)** did a study to describe pregnant Finnish women's perceptions of a good childbirth. Data was collected through semi structured interviews in maternity health care clinics and maternity hospitals through a purposive sample of 24 pregnant women aged 19 to 45, half of them expecting their first child. Data interpretation was based on content analysis.

The results stated that five main issues were seen by informants as important in the course of childbirth: 1) unhurried atmosphere, 2) normality, 3) reasonable duration of labor, 4) security, and 5) control. Participants did not expect much from their birth companions, although some mentioned various tasks for them. The three main issues considered important for the role of staff were 1) personal characteristics, 2) attitudes toward the childbearing woman, and 3) the way they acted. The question about the physical environment was found quite irrelevant by some women, and only a few had special wishes related to the birthing environment. None of the participants voiced opposition to obstetric interventions, but some were willing to avoid them if possible. Informed consent for interventions was seen as very important. The researcher concluded that these results suggested that health care providers are challenged to provide individualized care for every woman.

## **2. Pain perception of women in labor.**

**Lowe NK. (1989)** did a study to investigate the relationships between the perception of pain during active labor and nine predictor variables: age, parity, childbirth preparation, state anxiety, confidence in ability to handle labor, concern regarding the outcome of labor, fear of pain, cervical dilatation and frequency of uterine contractions. The sample included 134 low-risk women at term with a normal singleton pregnancy. Standard and stepwise regression was used to examine the ability of the selected variables to explain the variance in the sensory, affective, and evaluative components of pain as measured by the subscales of the Pain Rating Index of the McGill Pain Questionnaire.

The results stated that out of the nine variables, confidence in ability to handle labor was the most significant predictor of all components of pain during active labor.

**Green JM (1993)** did a study on expectations and experiences of pain in labor. It was a large prospective study and the samples were over 700 women who gave birth in six maternity units in southeast England.

The results stated that most women preferred to keep drug use to a minimum, even though they expected labor to be "quite" or "very" painful. The idea of avoiding drugs was unrelated to education or social class. Women who preferred to avoid drugs were more satisfied with the birth, than women who used drugs. In general, women tended to get what they expected. Breathing and relaxation exercises were widely used, and were most successful for those who had expected them to be so. Anxiety about the pain of labor was a strong predictor of negative experiences during labor, lack of satisfaction with the birth, and poor emotional well-being postnatally.

**Crea BH and Wright ME (1999)** did a study to examine the influence of personal control on women's satisfaction with pain relief during labor. One hundred women who had a vaginal delivery consented to take part in the study. A questionnaire-based retrospective study of women's pain experiences within 48 hours of delivery was carried out on the postnatal ward of one teaching hospital in Northern Ireland. Two main measures were used in the study; personal control and satisfaction with pain relief during labor.



The key finding of this study indicates that feelings of personal control influenced positively the women's satisfaction with pain relief during labor. Demographic and other psycho-social variables had little impact on the women's satisfaction scores. These findings have implications for clinical practice and for the management of maternity services.

### **3. Continuous support during childbirth**

**Kennell J, Klaus M, McGrath S, Robertson S and Hinkley C (1991)** did a study on the continuous presence of a supportive companion (doula) during labor in a US hospital with modern obstetric practices, 412 healthy nulliparous women in labor were randomly assigned to a supported group (n = 212) that received the continuous support of a doula or an observed group (n = 200) that was monitored by an inconspicuous observer. Two hundred and four women were assigned to a control group after delivery.

Results stated that continuous labor support significantly reduced the rate of cesarean section deliveries (supported group, 8%; observed group, 13%; and control group, 18%) and forceps deliveries. Epidural anesthesia for spontaneous vaginal deliveries varied across the three groups (supported group, 7.8%; observed group, 22.6%; and control group, 55.3%). Oxytocin use, duration of labor, prolonged infant hospitalization, and maternal fever followed a similar pattern.

**Scott D, Berkowitz G, Klaus M (1999)** did a study to contrast the influence of intermittent and continuous support provided by doulas during labor and delivery on 5 childbirth outcomes. Data was aggregated across 11 clinical trials by means of meta-analytic techniques.

The results stated that continuous support, when compared with no doula support, was significantly associated with shorter labors (weighted mean difference - 1.64 hours, 95% confidence interval -2.3 to -.96) and decreased need for the use of any analgesia (odds ratio .64, 95% confidence interval .49 to .85), oxytocin (odds ratio .29, 95% confidence interval .20 to .40), forceps (odds ratio .43, 95% confidence interval .28 to .65), and cesarean sections (odds ratio .49, 95% confidence interval .37 to .65). Intermittent support was not significantly associated with any of the outcomes. Odds ratios differed between the 2 groups of studies for each outcome.

Continuous support appears to have a greater beneficial impact on the 5 outcomes than intermittent support. The researcher concluded that future clinical trials, however, need to be more controlled for possible confounding influences.

**Hodnett ED, Gates S, Hofmeyr GJ, Sakala C. (2003)** studied the influence of continuous support for women during childbirth in Canada. The primary objectives were to assess the effects, on mothers and their babies, of continuous one to one intrapartum support, compared with usual care. The secondary objectives were to determine whether the effects of continuous support was influenced by: (1) routine practices and policies in the birth environment that may affect a woman's autonomy, freedom of movement, and ability to cope with labor; (2) whether the caregiver is a member of the staff of the institution; and (3) whether the continuous support begins early or later in labor. All published and unpublished randomized controlled trials comparing continuous support during labor with usual care was selected.

Results were stated on the basis of fifteen trials involving 12,791 women that were included and it said that women who had continuous intrapartum support were less likely to have intrapartum analgesia, operative birth, or to report dissatisfaction with their childbirth experiences and continuous intrapartum support was associated with greater benefits when the provider was/not a member of the hospital staff, when it began early in labor, and in settings in which epidural analgesia was not routinely available. The researcher concluded that all women should have support throughout labor and birth.

**Cochrane systematic review (2009)** on continuous support for women during childbirth in comparison with women receiving usual care, found that women who experienced continuous support from a companion and who came into the hospital for childbirth are 26% less likely to have a cesarean section, 41 % less likely to have an assisted vaginal birth (with vacuum extraction or forceps), 28% less likely to use any pain medications, and 34% less likely to be, dissatisfied or negatively rated their birth.

#### **4. Social support by different care givers for women during childbirth.**

**Mary J and Smith S (1998)** did a study to explore the expectations primigravidae had concerning the support that they hoped to have and would need from their partner during childbirth, and whether this kind of support was actually provided by their partner and to explore the thoughts and feelings of male partners concerning their supporting role, and in retrospect, how well they felt they had managed. Samples were eight couples living in Hampshire, UK, who were interviewed six weeks before the birth and approximately 12 weeks following labor and delivery. Semi-structured interviews were taped, transcribed and analyzed. An ethnographic approach was used to identify concepts and themes.

The results stated that support provided by the male partner evoked very positive responses from the women. The fathers perceived that they were very helpful to their partner during childbirth. Though the women mostly found childbirth straightforward some fathers, nevertheless, found the experience stressful. The researcher concluded that the father's needs and role should be regularly assessed during childbirth.

**Langer A, Campero L, Garcia C and Reynoso S (1998)** studied on effects, of psychosocial support during labor, delivery and the immediate postpartum provided by a female companion. The setting was a large social security hospital in Mexico City. The participants were seven hundred and twenty-four women with a single fetus with no previous vaginal delivery, < 6 cm of cervical dilatation, and no indications for an elective caesarean section. The samples were randomly assigned to be accompanied by a doula, or to receive routine care. Outcome measures were concentrated on breastfeeding practices, duration of labor, medical interventions, mother's emotional conditions and newborn's health. In this method blinded interviewers obtained data from the clinical records, during encounters with women in the immediate postpartum period, and at their homes 40 days after birth. Relative Risks (RR) and Confidence Intervals were estimated for all relevant outcomes.

Results stated the frequency of exclusive breastfeeding one month after birth was significantly higher in the intervention group (RR 1.64; I-C: 1.01 – 2.64). Most women in the intervention group perceived a high degree of control over the delivery

experience, and the duration of labor was shorter, than in the control group (4.56 hours vs 5.58 hours; RR 1.07 CI (95%) = -1.52 to -0.51). There were no effects either on medical interventions, mothers' anxiety, self-esteem, perception of pain and satisfaction, or in the condition of the newborn. The study concluded that psychological support by doulas had a positive effect on breastfeeding and duration of labor and that it is important to include psychosocial support as a component of breastfeeding promotion strategies.

**Ip and Wan Yim (2000)** did a study to measure the relationship between women's ratings of partner's participation during labor and maternal outcomes by anxiety level, pain perception, dosage of pain-relieving drug used and length of labor. A convenient sample of 45, primigravid women was selected from the postpartum unit of a public hospital in Hong Kong. They were all first-time Chinese mothers, aged 18 or over, who had attended antenatal classes and had their partners present during labor. The data was collected with the help of State Scale of the State - Trait Anxiety Inventory to measure maternal anxiety during labor, Visual Analogue Scale for labor pain and a series of scales developed to measure partner's participation during labor.

Women's rating of partner's emotional support was significantly greater than the practical support. There were no significant associations between level of emotional support and maternal outcome measures but, perceived practical support was positively related to the dosage of pain-relieving drug used and total length of labor. Positive relationships between the duration of partner's presence and women's ratings of perceived support provided by partners during labor were found.

**Chen, Chung-Hey, Wang, Shing-Yaw, Chang and Mei-Yueh ( 2001)** Studied Women's Perceptions of Helpful and Unhelpful Nursing Behavior during Labor in Taiwan. Convenient samples of 50 mothers experiencing normal childbirth were interviewed. The interviews were tape recorded and transcribed, and the transcriptions were analyzed to develop coding categories and identify themes.

The results stated that 60% of the participants reported having received helpful nursing behavior, 38 % reported having received both helpful and unhelpful nursing behavior. Helpful labor-coping measures that were valued by participants included performing roles of emotional support providers, comforters, information/advice

providers, professional technical skills providers, and advocates. Forty percent of the participants reported that some nurses had hindered their labor-coping ability by failing to provide emotional support, comfort measures, adequate or correct information/advice, or to perform technical duties. The researcher concluded that the ideal nursing image encompasses the roles of emotional supporter, comforter, information/advice provider, professional/technical skill provider, and advocate. The findings may help obstetric team members better understand the patient's needs, and enable them to provide better support during labor and to prevent unhelpful nursing behavior.

**Mosallam M, Diaa EE, Rizk L and Ezimokhai M (2002)** did a study to determine women's attitudes and preferences regarding psychosocial support during childbirth in the United Arab Emirates. A sample of 400 mothers with singleton normal pregnancies delivered vaginally during 2 months were interviewed postpartum about their experience and satisfaction with supportive care during labor using structured questionnaire. Birth attendant continuously accompanied 237 (59.3%) participants that included mother (59.5 %), sister (31.2%), friend (7.2%), family members (1.3%) and husband (0.8%). The preferences mentioned by the no-companion group (n= 163, 40.7%) was health professional (56.4%), mother (25.8%), sister (16.6%) and husband (1.2%).

Results stated that labor was significantly shorter ( $P < 0.0001$ ) with less need for analgesia ( $P < 0.0001$ ), oxytocin augmentation ( $P < 0.0001$ ) and neonatal intensive care ( $P = 0.03$ ) in the companion group. Rates of instrumental delivery, episiotomy and perineal tear were similar in both groups. Three hundred and fifty (87.5%) subjects felt that psychosocial support during childbirth was essential and best provided by non-professional attendant (companion group) or midwife/obstetrician (no-companion group). 59.3% and 19.7% of mothers, respectively, reported less satisfaction and negative feelings about their perinatal experience that was more frequent in the no-companion group ( $P = 0.001$ ,  $P < 0.0001$ ; respectively). The study concluded that perceptions, experiences and outcomes of companion support during childbirth in the UAE, although relatively less available, are not different from those described elsewhere.

**Rosen P (2004)** did a study on supporting women in labor with different types of caregivers. For this the researcher critically reviewed the English language literature to describe the current state of knowledge on different types of labor support persons, randomized trials, 8 published reports, relevant databases and hand searches. Studies were reviewed and assessed by using a structured format. Eight randomized trials met the selection criteria for inclusion in this analysis. These trials investigated untrained and trained lay women (doulas), close female relatives, nurses, lay midwives, and student lay midwives as labor support persons. Support starting in early labor and continuing into the postpartum period demonstrated the most consistent beneficial effect on childbirth outcomes.

**Vijayalakshmi (2005)** did an experimental study to determine the effect of social support on outcome of labor and behavioral responses among primigravida mothers at a selected maternity hospital in Trichy on a sample of 80 primigravida mothers (40 primigravida mothers in the experimental and 40 in the control group). The supportive companion of the experimental group, were taught about social support activities using a structured teaching program as soon as the woman were admitted for labor. Data was collected about social support activities and behavioral response of women during labor. The result showed that the outcome of delivery scores were good (55.56%) in the experimental group when compared to the control group and behavioral response scored by the mothers in the experimental group was (97.22%) when compared to the control group scores.

**Bruggemann O, Parpinelli M, Osis M, Jose G, and Neto A, (2005)** studied on support to woman by a companion of her choice during childbirth in Brazil. It was a randomized controlled trial where a total of 212 primiparous woman were included. One hundred and five women were allocated to the group in which support was permitted and 107 to the group in which there was no support. Variables regarding patient satisfaction, events related to obstetrical care, neonatal results and breastfeeding were evaluated. Student's t-test or Wilcoxon's test, chi-square or Fisher's exact test, risk ratios, and their respective 95% confidence intervals were used in the statistical analysis.

Overall results stated that the women in the support group were more satisfied with labor (median 88.0 versus 76.0,  $p < 0.0001$ ) and delivery (median 91.4 versus

77.1,  $P < 0.0001$ ). During labor, patient satisfaction was associated with the presence of a companion (RR 8.06; 95%CI: 4.84 - 13.43), with care received (RR 1.11; 95% CI: 1.01-1.22) and with medical guidance (RR 1.14; 95% CI: 1.01 -1.28). During delivery, satisfaction was associated with having a companion (RR 5.57, 95%CI: 3.70 - 8.38), with care received (RR 1.11 95%CI: 1.01 - 1.22) and with vaginal delivery (RR 1.33 95%CI: 1.02 - 1.74). The only factor that was significantly lower in the support group was the occurrence of meconium -stained amniotic fluid (RR 0.51; 95%CI: 0.28 - 0.94). There was no statistically significant difference between the two groups with respect to any of the other variables. The researcher concluded that the presence of a companion of the woman's choice had a positive influence on her satisfaction with the birth process and did not interfere with other events and interventions or with neonatal outcome or breastfeeding.

**Brown H, Hofmeyr JG, Nikodem CV, Smith H and Paul (2006)** did a randomized controlled trial as an intervention to promote childbirth companions in hospital deliveries. They promoted evidence-based information for maternity staff at 10 hospitals through access to the World Health Organization Reproductive Health Library (RHL), computer hardware and training. 200 women were surveyed at each hospital. The objectives were to measure companionship, good obstetric practice and humanity of care. Five hospitals were then randomly allocated to receive an educational intervention to promote childbirth companions; finally they surveyed all hospitals again after eight months through a repeat survey of postnatal women.

Results stated that the majority of hospitals did not allow a companion, or access to food or fluids. A third of women were given an episiotomy. Some women were shouted at (17.7%,  $N = 2085$ ), and a few reported being slapped or struck (4.3%,  $N = 2080$ ). Despite an initial positive response from staff to the childbirth companion intervention, they detected no difference between intervention and control hospitals in relation to the presence of a companion, good obstetric practice or humanity of care. The researchers concluded that the quality and humanity of care in these state hospitals needed to improve and introducing childbirth companions was more difficult than anticipated, particularly in under-resourced health care systems with frequent staff changes and moreover it is to determine whether the presence of a lay carer impacted on the humanity of care provided by health professionals.

**Gungor I and Beji KN (2007)** did a study to experimentally determine the effects of fathers' attendance to labor and delivery on the experience of childbirth. Fifty primigravidae low-risk women and their partners were recruited to the study. The first 25 women were included in the experimental group, and their partners were allowed to participate in birth. The remaining 25 women were included in the control group, and their partners were not allowed to participate in birth. Perception of Birth Scale and Father Interview Form were used to evaluate couples' experiences during labor and delivery.

Results stated that fathers' support in birth helped mothers to have more positive experiences in all aspects of childbirth. There was no relationship between fathers' support and length of labor, use of pain-relieving drugs, or obstetric interventions in birth. The researcher concluded that when fathers supported during labor and delivery, the rate of an active role was high.

## **Conclusion**

All the researches related to support mentioned above have been explored to reveal some effect on the child bearing woman, both physically and psychologically. It is clear that birth companions play a major role in offering and facilitating, rather than undermining support to women. Whether the positive effects are obtained as a result of having companionship during labor or simply because of the increased knowledge or reduced anxiety of the companions is not revealed, and this made the researcher think in a different way as to whether the knowledge, anxiety and support given by the birth companion influences the outcome of labor.



# **METHODOLOGY**

## CHAPTER III

### METHODOLOGY

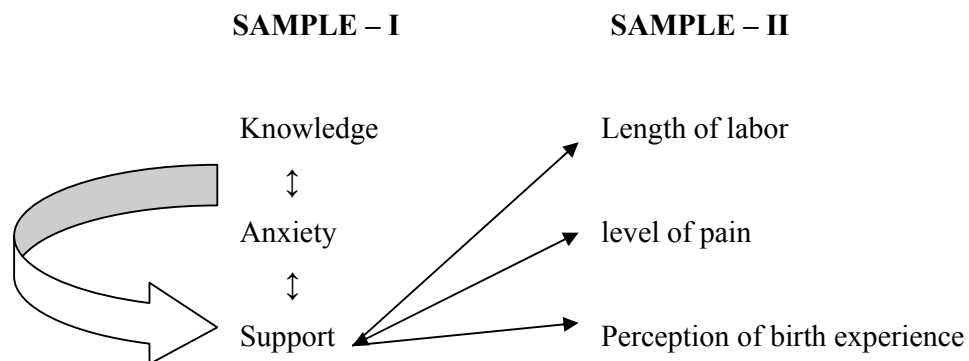
This chapter deals with the description of the research methodology. It includes research design, population, sample size, inclusion and exclusion criteria for sample selection, sampling technique, tool, data collection procedure and data analysis.

#### RESEARCH DESIGN

The research design is a platform from which the investigator explores new knowledge in an effort to better describe and understand the phenomena, clarify possible explanation and identify potential causative factors. **(Polit FD, Beck TC 2008)**

This study adopted a descriptive and correlation survey approach. A descriptive study is designed to gain more information, its purpose is to provide a picture of a situation as it naturally happens. It may be used for the purpose of developing theory, identifying the problems with current practice, making judgment or determining what others in similar situations are doing **(Burns Grove 2007)**.

As the purpose of the present study was to find out and describe the knowledge and anxiety of birth companion and support given by the birth companion to the woman in labor and also to examine the relationship of these variables without manipulating them to the outcome of labor that included, length of labor, level of pain and birth perception, a descriptive and correlation approach was considered most appropriate.



## **SETTING OF THE STUDY**

Setting refers to the area where the study is conducted. The setting for the study was two selected government maternity centers at Tiruppur selected in order to attain samples within the stipulated amount of time. These two maternity centers together cover a population of about 120,000, and provide maternal and child health services such as antenatal care, conduction of deliveries, postnatal care, immunization and family planning services. One maternity centre is administered by the municipality covering urban population and the other is a Primary Health Center covering rural population. Both these centers have minimum facilities like the OPD, laboratory, labor room and a postnatal ward with 6 beds. Monthly deliveries of both centers are about 80, and they do allow birth companions during birth. The patients are admitted when the labor pains begin and discharged on the third day of delivery. Doctors and nurses are available for 24 hours. Complicated cases are referred to Tiruppur Government hospital for further management.

## **POPULATION OF THE STUDY**

The population of this study included all primiparous women admitted to the maternity centers undergoing the process of childbirth for the first time, at the time of the study and their birth companions.

## **SAMPLE**

Sample refers to a subset of population that is selected to participate in a particular study (**Burns Grove 2007**).

There were 2 types of samples in this study

**Sample 1:** 40 birth companion.

**Sample 2:** 40 primiparous women in labor.

## **SAMPLING CRITERIA**

**Sample 1** (Birth companion)

**Inclusion criteria:**

- Those who had undergone the process of labor themselves.
- Willing to participate in the study by staying with the woman for the entire labor.
- Female companion related or not related to the woman in labor.

**Sample 2** (primiparous women in labor)**Inclusion criteria:**

- Women undergoing birth experience for the first time
- Singleton pregnancies who were admitted in the first stage, active phase of labor.

**Exclusion criteria:**

- Women with complications of pregnancy
- Multi parous women
- Women not willing to participate in the study

**SAMPLING TECHNIQUE**

A convenient sampling technique was used to select the primiparous woman (sample I) and their birth companions (sample II) who fulfilled the criteria for selection of sample from the two maternity centers.

**DESCRIPTION OF THE TOOL**

The most important aspect of an investigation is the collection of appropriate information which will provide the necessary data to answer the questions raised in a study. The tools used to collect the data were two interview schedules. Interview schedule I for the birth companion and interview schedule II for the primiparous woman in labor.

**Interview schedule I** was structured in 4 parts to gather data on personal information, knowledge, anxiety and support given by the birth companion (refer appendix page no.95)

### **Part- I Personal information**

The personal information included age, educational status, number of children, relationship with the woman in labor and source of information on birth process.

### **Part – II Knowledge questionnaire**

This consisted of 14 questions to assess the knowledge of birth companion (11 questions) and the needs of woman in labor (3 questions). All these questions were of multiple responses, with 2 – 7 responses.

### **Part – III Anxiety scale.**

The anxiety scale consisted of 10 statements (5 negative and 5 positive) to assess the anxiety of birth companion in relation to anxiety of self (4 items), anxiety towards the woman in labor (3 items) and anxiety towards child to be born (3 items). Three columns were provided (great extent, some extent, not at all) to rate the response.

### **Part – IV Observation checklist.**

The observation checklist consisted of 10 support interventions carried out by the birth companion to meet the needs of the woman throughout the labor process. Columns were provided for hourly observation during I stage and one column for observation and recording during II and III stage of labor.

**Interview schedule II** was structured in 4 parts to gather data on personal information, length of labor, intensity of pain and birth experience of the woman in labor.(refer appendix page no.103)

### **Part- I Personal information**

The personal information included age, educational status, occupation, religion and birth details related to parity and duration of labor pain before admission.

### **Part – II Observation Schedule on the length of labor**

The observation schedule was designed with columns to record the length of labor in the 3 stages.

### **Part – III Verbal graphic rating pain scale and observation record**

Verbal graphic rating pain scale, showing the degrees of no pain, mild, moderate, severe and unbearable pain was used. Columns were presented to record pain hourly during I stage and a single column to record pain once during II and III stage of labor.

### **Part – IV Rating Scale for birth experience.**

The rating Scale was developed to assess the birth experience of the woman during labor with the presence of a birth companion, consisted of a total of 15 questions (9 negative and 5 positive) that covered the areas of birth experience related to self (12) and the baby to be born (3).

### **SCORING AND SCORE INTEPRETATION**

<b>Sample I</b>	<b>Birth companion</b>		
<b>Area</b>	<b>Score</b>	<b>Score Interpretation</b>	
<b>1.</b> Knowledge of birth companion	0 – 20	Poor knowledge	
	21 – 40	Average knowledge	
	41 – 60	Good knowledge	
<b>2.</b> Anxiety of birth companion	0– 6	Low anxiety	
	7 – 13	Moderate anxiety	
	14 – 20	High anxiety	
<b>3.</b> Support given by birth companion	1 – 3.9	Low support	
	4 – 6.9	Moderate support	
	7 - 10	High support	
<b>Sample II</b>	<b>Primiparous woman in labor</b>		
<b>1.</b> Perception of Birth experience	0– 10	Not at all satisfied	
	11 – 20	Moderately satisfied	
	21-30	Highly satisfied	

## **CONSTRUCTION OF THE TOOL**

The construction of the tool took three months of strenuous effort for the following activities. An extensive review of literature was done on needs for woman in labor and care during labor. First hand information was collected from a preliminary survey done on 4-5 laboring mothers and their relatives informally. Their experiences were explored, opinions and life experiences were included and the tool was drafted. In consultation with the guides, the tool was refined and modified until it was finalized and prepared for validation.

## **CONTENT VALIDITY**

In order to confirm the content validity the interview schedules were given to two medical experts and three nursing experts, in the field of Obstetrics and Gynecology. Both the medical experts were DGO's from private hospitals. The two nursing experts were Principal's of private colleges. The third nursing expert was a Nursing Superintendent of a private hospital. There was an agreement with regard to the content in the tool and based on their suggestions minor corrections were made and the tool was simplified. Then the tool was translated and edited by a language expert.

## **RELIABILITY**

The reliability of the tool was established as mentioned below

### **Interview schedule I**

Reliability on knowledge of birth companion regarding labor and needs of a woman in labor and anxiety level of birth companion was obtained by Guttman Split half Co-efficient of correlation. The test results gave G Values of 0.847 for knowledge and 0.624 for anxiety which showed a high positive correlation and a moderate positive correlation respectively. Reliability on observation checklist was obtained by Karl Pearson's Correlation of Co-efficient and the Interrator reliability, 'r' value was 0.99 which showed a high positive correlation.

## **Interview schedule II**

Perception of birthing experience of the woman during the process of labor and child birth with the presence of a birth companion was obtained by Guttman Split – half Co-efficient of correlation. The test results gave G Values of 0.758 which showed a high positive correlation. Thus the internal consistency of the tool was assured.

## **PILOT STUDY.**

In order to test the practicability and feasibility of the study, a pilot study was conducted on 8 mothers and their birth companion in one of the selected maternity centers. Initially a written permission was obtained from the Medical Officer of the selected maternity center and the researcher got introduced to the staff members of the maternity centre. Everyday the researcher visited the maternity center and selected the primiparous woman and their birth companions who met the criteria by convenient sampling method. A brief introduction about self and the study were given to both the woman in labor and birth companion. Strict confidentiality was ensured.

Data from birth companion about knowledge and anxiety was collected by interviewing and the companion was asked to be at the bedside of the woman in labor. The investigator stayed along with patient and the birth companion throughout the stages of labor and an hourly observation was made for 15 minutes to note the support measures carried out by the birth companion and it was recorded in a checklist away from the samples. The data from women in labor was collected on length of labor at the end of each stage, pain perception every hour using the verbal graphic rating pain scale and 2 hours following delivery, data on birth experience collected by interviewing mothers.

The samples willingly agreed to participate in the study. The total period of the pilot study was 10 days. The pilot study showed that, the birth companions were not able to answer two knowledge questions (No. 4 and 10), so slight modifications were made and the sequence was rearranged.



## **DATA COLLECTION METHOD**

A formal written permission was obtained from the Deputy Director of Health Services Tiruppur District. The investigator also familiarized with the Medical Officer and staff in charge of the maternity centers and explained the purpose of the study. Every day the investigator visited the maternity centers to confirm the availability of labor cases. Once the primiparous women attained 3 cm of cervical dilation, she was selected and a brief introduction about self and the study intent was given. Strict confidentiality was ensured. Her relatives were then approached, a second introduction was given and among them a volunteer who met the inclusion criteria was selected to stay with the woman throughout labor.

The birth companion was interviewed within half an hour after selection, knowledge was tested by a questionnaire and data on anxiety was collected 2 hours following selection in an area away from the other relatives and the woman in labor, and the companion was left alone with the woman in labor. The researcher gave no instructions to the birth companion, on what care was to be given for the woman in labor. The activities carried out by the birth companion was observed every hour for 15 minutes during the first stage, and as it occurred in the second and third stage. The recordings were done away from the bedside.

Pain was assessed using Verbal Graphic Rating Pain Scale on an hourly basis, for the first contraction of every hour and pain in the II and III stage was recorded at the end of stages. The length of labor was recorded, and finally the perception of birthing experience of the woman was collected by interviewing, 2 hours following delivery when the woman was shifted to the post natal ward.

Using the same procedure data was collected from 40 primiparous women and their birth companions. Data was collected during day and night. The total data collection period was 35 days. Nine samples were referred to the government hospital as they developed complications during the II stage of labor, so the data from women during II and III stage of labor was collected only from 31 samples.

## **PLAN FOR DATA ANALYSIS**

The data analysis was done by using descriptive statistics and inferential statistics

### **1. Descriptive statistics**

1. Frequency and percentage distribution were used to analyze demographic variables, knowledge, anxiety, support interventions and birth experience.
2. Mean score and standard deviation was used for knowledge and anxiety.
3. Mean was used for support received, length of labor and level of pain.

### **2. Inferential statistics**

Karl Pearson's correlational statistics was used to check association between

1. Level of knowledge and anxiety of supportive companion and the level of support provided to the primiparous women.
2. Level of support provided to the primiparous women with the length of labor, the degree of pain felt during labor throughout the stages, and the birthing experience of the mother.

't' test was used to check the significant difference between

1. The areas of knowledge

ANOVA ('f' distribution) to check the significant difference between

1. The areas of anxiety

Chi-Square test was used to check the association between

1. Demographic variables of birth companion to their knowledge, anxiety and support.
2. Demographic variables of woman in labor to length of labor, intensity of pain and birth experience.

## **ETHICAL CONSIDERATIONS OF THE STUDY**

The researcher considered all necessary precautions to prevent ethical issues. Permission was attained from the authorities for the conduction of the study. A brief introduction of the study was given to the participants. Willingness of the women in labor and their birth companion to participate in the study was considered as important. When complications arose participants without cohesion were allowed to withdraw from the study and no replacement of samples was made.

# **ANALYSIS AND INTERPRETATION**

## CHAPTER IV

### ANALYSIS AND INTERPRETATION OF DATA

**James A. Fain (2003)** defines data analysis as the “systematic organization and synthesis of research data, and the testing of research hypothesis using those data, and its interpretation as a process of, “making sense of the results of a study and examining their implications”.

This chapter deals with the analysis and interpretation of data collected from 40 primiparous women and 40 birth companions. However 9 samples were referred to the Government hospital for further management as they developed complications in the II stage and only 31 samples were included in some analyses. The data have been analyzed and presented under the following headings.

#### **1 Demographic characteristic of the samples**

The demographic characteristics have been presented separately for the birth companion and the primiparous woman in labor in frequency and percentage.

#### **2. Analysis of data from birth companion**

##### **a. Knowledge of birth companion**

Knowledge of birth companion regarding birth process and care has been analyzed in three levels of knowledge (poor, average and good knowledge) and in two areas (knowledge on birth process and care during labor) in frequency and percentage and comparison of knowledge by mean score and level of significance by ‘t’ test. (Mean score percentage of individual items of knowledge is presented on page no. 116)

##### **b. Anxiety of birth companion**

Anxiety of the birth companion has been analyzed in three levels (low, moderate, high) and in three areas related to self, woman in labor and child in frequency and percentage and comparison of anxiety by mean score and level of significance by ‘t’ test. (Scoring of individual items of anxiety is presented on page no.117)

### **c. Support provided to the woman in labor**

Support given by the birth companion has been analyzed in three levels (low, moderate, high) in frequency and percentage and support measures in average frequency and percentage in three stages of labor.

## **3. Analysis of data from the primiparous woman in labor**

### **a. Length of labor**

Length of labor has been shown in hours in frequency and percentage.

### **b. Intensity of pain for the woman in labor**

Intensity of pain has been analyzed in three degrees (mild, moderate, severe) on a verbal graphic rating scale in the 3 stages of labor in frequency and percentage.

### **c. Perception of birth experience**

Perception of birth experience has been analyzed in three categories (not satisfied, moderately satisfied and highly satisfied) for the woman in labor in frequency and percentage. The views regarding the level of satisfaction of birth experience, in positive and negative statements on a three point scale is analyzed in frequency and percentage. The overall positive and negative views are shown in percentage.

## **4. Correlation of variables**

Correlation is done between knowledge and anxiety, knowledge and support, anxiety and support, support and length of labor, support and intensity of pain and support and birth experience by the Karl Pearson's Correlational Statistics and chi-square.

## **5. Association of variables with demographic characteristics**

The association between demographic variables of birth companion and their knowledge, anxiety and support has been examined.

## 1 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLES

TABLE – I

### FREQUENCY AND PERCENTAGE DISTRIBUTION OF BIRTH COMPANION ACCORDING TO DEMOGRAPHIC VARIABLES

N = 40

S.No	Demographic variables	Fre.	%
1	Age in years a. < 30 b. 30-35 c. 35-45 d. 45 – > 60	4 4 18 14	10.00 10.00 45.00 35.00
2	Educational status a. Illiterate b. Primary c. Secondary d. Higher secondary	16 17 5 2	40.00 42.50 12.50 5.00
3	No. of children a. 1 b. 2 c. 3 d. More	3 20 9 8	7.50 50.00 22.50 20.00
4	Relationship with the women in labor a. Mother b. Any other family member c. Relation not staying in family d. Others	24 4 11 1	60.00 10.00 27.50 2.50
5	Source of information on birth process a. On experience b. Health personnel c. Relation d. Friends e. Media	40 3 7 2 0	100.00 7.50 17.50 5.00 0.00

**Table – I** presents the demographic characteristics of the birth companion in relation to age, educational status, number of children, relationship with the woman in labor and source of information on the birth process.

**Age:** The age of the birth companion ranged from less than 30 years to more than 60 years. 18 samples (45%) were aged between 35 – 45 years and 14 samples (35%) in the age group of 45 - >60 years. Only 4 (10%) samples were either below 30 years of age or between 30 – 35 years.

**Education:** 16 samples (40%) were illiterate and the rest were literate. 17 samples (42.5%) with primary education. 5 samples (12.5%) with secondary education and 2 samples (5%) with higher education.

**No of children:** Half of the samples (50%) had 2 children, 9 samples (22.5%) had 3 children, 8 samples (20%) had more than 3 children, whereas 3 samples (7.5%) had only 1 child.

**Relationship with the woman in labor:** Most of the birth companions 24 samples (60%) were mothers of the woman in labor. 11 were relatives (27.5%), 4 samples were family members (10%) and others 1 sample (2.5%) (a female companion not related to the woman in labor was the birth companion.)

**Source of information on the birth process:** All the samples (100%) expressed that their own experience was the source of information on birth process. For 7 samples (17.5%), the source of information was the relatives, and for 3 samples (7.5%) health personnel. Friends were the source of information for 5% of the samples. No source of information on birth process was obtained from the media.

**TABLE – II**

**FREQUENCY AND PERCENTAGE DISTRIBUTION OF  
PRIMIPAROUS WOMAN IN LABOR ACCORDING  
TO DEMOGRAPHIC VARIABLES**

**N = 40**

<b>Sl.No</b>	<b>Demographic variables</b>	<b>Fre</b>	<b>%</b>
1	Age in years a. < 18 b. 18 - 22 c. 22- 27 d. 27 - >32	1 27 11 1	2.50 67.50 27.50 2.50
2	Educational status a. Illiterate b. Primary c. Secondary d. Higher secondary e. Collegiate	3 20 5 11 1	7.50 50.00 12.50 27.50 2.50
3	Occupation a. Working b. Not working	12 28	30.00 70.00
4	Religion a. Hindu b. Muslim c. Christian	37 2 1	92.50 5.00 2.50
5	Parity a. First pregnancy b. Previous abortion	33 7	82.50 17.50
6	Duration of labor pain before admission a. 1-2 b. 3-5 c. >5 d. Nil	6 15 17 2	15.00 37.50 42.50 5.00



**Table – II** presents the demographic characteristics of the woman in labor, in relation to age, educational status, occupation, religion and also the labor details related to parity and duration of labor pain before admission.

**Age:** Out of 40 primiparous women in labor, 27 samples (67%) were between the age 18- 22, 11 samples (27.5%) between 22- 27 years and only 1 sample (2.5%) below 18 and above 32 years.

**Education:** Half of the woman in labor (50%) had primary education, 11 samples (27.5%) with higher secondary and 5 samples (12.5%) with secondary education, 3 samples (7.5%) were illiterate and only 1 sample (2.5%) had collegiate education.

**Occupation:** The majority of the samples, (70%) were not working when compared to samples that were working (30%).

**Religion:** The majority of the samples (92.5%) were Hindus, 2 samples (5%) were Muslim and 1 sample (2.5%) was a Christian.

**Parity:** 33 samples (82.5%) had conceived for the first time and 7 samples (17.5%) had experienced previous abortion.

**Duration of labor pain before admission:** Almost half of the samples (42.5%) had labor pains for a duration of more than 5 hours before admission. 15 samples (37.5 %) had labor pains for 3-5 hours, and 6 samples (15 %) for 1- 2 hours, 2 samples (5%) had no pains before admission.

**2 a. ANALYSIS OF DATA FROM BIRTH COMPANION - KNOWLEDGE**

**TABLE – III**

**FREQUENCY AND PERCENTAGE DISTRIBUTION OF BIRTH COMPANION IN THREE LEVELS OF KNOWLEDGE IN THE TWO AREAS**

**N =40**

S.No	Area of knowledge	Poor		Average		Good	
		Fre	%	Fre	%	Fre	%
1.	Knowledge on birth process	6	15.00	34	85.00	0	0.00
2	Knowledge on care during labor	12	30.00	27	67.50	1	2.50

**Table – III** presents the frequency and percentage distribution of birth companion in three levels of knowledge in the two areas of knowledge.

Regarding the knowledge on birth process, majority of the birth companions, 34 samples (85%) had average knowledge on birth process such as when the woman is to be brought to the hospital for delivery, time taken to deliver the baby after the pain started, why nurses frequently examine the woman, what things are to be brought to the notice of the nurse and what is to be done in between labor pains. 6 birth companions (15%) had poor knowledge on the birth process such as initiation of labor pains, progress of labor, true labor, bodily changes, when to ask the woman to push and knowledge of when the baby will be born. No samples had good knowledge on birth process.

With regard to the knowledge on care during labor 27 birth companions (67.5%) had average knowledge with regard to what food the woman can be given and what can be done in between pains for the woman in labor. 12 birth companions (30%) had poor knowledge as to what can be encouraged during labor. Only 1 sample (2.5%) had good knowledge regarding care during labor.

Figure 2 presents three levels of knowledge in the two areas of knowledge.

**TABLE –IV**  
**FREQUENCY AND PERCENTAGE DISTRIBUTION OF BIRTH**  
**COMPANION IN THREE LEVELS OF OVERALL**  
**KNOWLEDGE ON BIRTH PROCESS**  
**AND CARE**

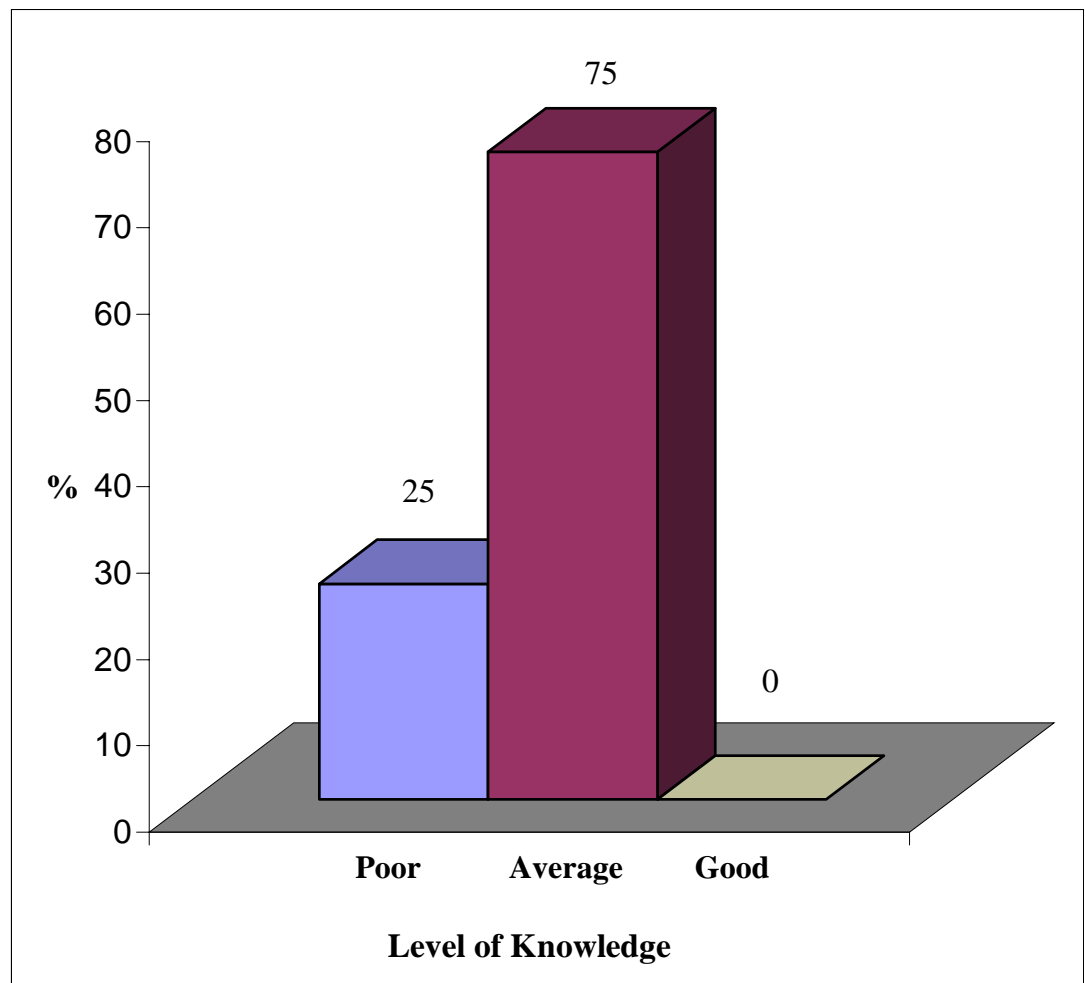
**N = 40**

S.No	Levels of knowledge	Fre	%
1	Poor knowledge (0- 20)	10	25.00
2	Average knowledge (21 – 40)	30	75.00
3	Good knowledge (41 - 60)	0	0.00

**Table IV** presents the overall knowledge of the birth companion in three levels of knowledge.

The majority of birth companions (75%) had average knowledge and the remaining 10 samples (25%) had poor knowledge with regard to birth process and care to be given to the woman during labor.

Figure - 3 highlights the 3 levels of overall knowledge of the birth companion.



**Figure - 3** Percentage of birth companions according to overall level of knowledge.

**TABLE V**  
**THE MEAN KNOWLEDGE SCORE AND STANDARD DEVIATION OF**  
**BIRTH COMPANION REGARDING BIRTH PROCESS AND CARE**

N = 40

S.No	Area of knowledge	Max. Score	Mean score	Standard Deviation	Mean Score Percentage	't' test P<0.05
1	Knowledge on birth process	46	19.2	4	42.00	20.4*
2	Knowledge on care for the women in labor	14	5.3	1.86	38.00	

\* Significant                      degree of freedom = 78                      Table value = 2

**Table V** presents the mean score and standard deviation of birth companion regarding birth process and its care.

The mean score percentage of knowledge on the birth process was 42% that was higher than the mean score percentage of knowledge on care for the woman in labor (38%). Statistically a significant difference is seen between knowledge on birth process and knowledge on care for the women in labor.(t test = 20.4, df = 78, P <0.05)

The table concludes that the birth companion had average knowledge on birth process and the care to be given to the woman in labor. However knowledge regarding birth process was significantly more than the knowledge on care

## 2 b. ANALYSIS OF DATA FROM BIRTH COMPANION - ANXIETY

TABLE – VI

### FREQUENCY AND PERCENTAGE DISTRIBUTION OF BIRTH COMPANION IN THREE LEVELS OF ANXIETY RELATED TO THREE AREAS

N= 40

S.No	Area of Anxiety	Low		Moderate		High	
		Fre	%	Fre	%	Fre	%
1.	Anxiety related to self	18	45.00	20	50.00	2	5.00
2.	Anxiety related to woman in labor	4	10.00	35	87.50	1	2.50
3.	Anxiety related to child	17	42.50	15	37.50	8	20.00

**Table – VI** presents the frequency and percentage distribution of birth companion in three levels of anxiety related to three areas.

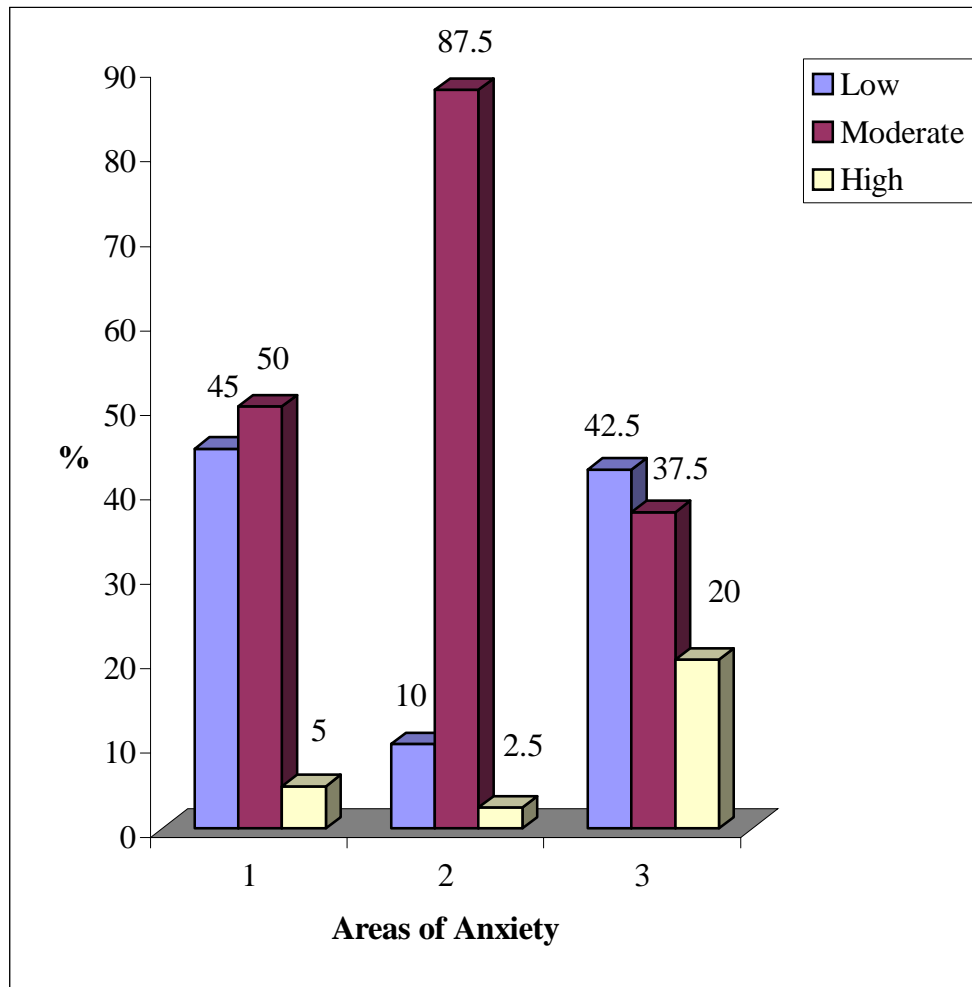
In all the 3 areas the birth companion showed anxiety in all the 3 levels. Anxiety related to self was low in 18 birth companions (45%), moderate in 20 birth companions (50%) and high anxiety in only 2 samples (5%).

35 birth companions (87.5%) showed moderate anxiety, 4 samples (10%) showed low anxiety and only 1 birth companion (2.5%) had high anxiety related to the woman in labor (whether the labor would be prolonged).

High level of anxiety was shown by 8 samples (20%) with regard to the baby (about the safe delivery of the baby), 17 birth companions (42.5%) showed low anxiety and 15 samples (37.5%) had moderate anxiety regarding the baby.

This table concludes that the birth companions had varying levels of anxiety with regard to self, the woman in labor and the baby to be born. On the whole a high level of anxiety was seen towards the child to be born.

Figure 4 presents the three levels of anxiety of birth companion in the three areas of anxiety in percentage



**Figure - 4** Three levels of anxiety of birth companion in the three areas of anxiety in percentage

1. Anxiety related to self
2. Anxiety related to woman in labor
3. Anxiety related to child

**TABLE – VII**

**FREQUENCY AND PERCENTAGE DISTRIBUTION OF BIRTH  
COMPANION IN THREE LEVELS OF OVERALL ANXIETY**

**N = 40**

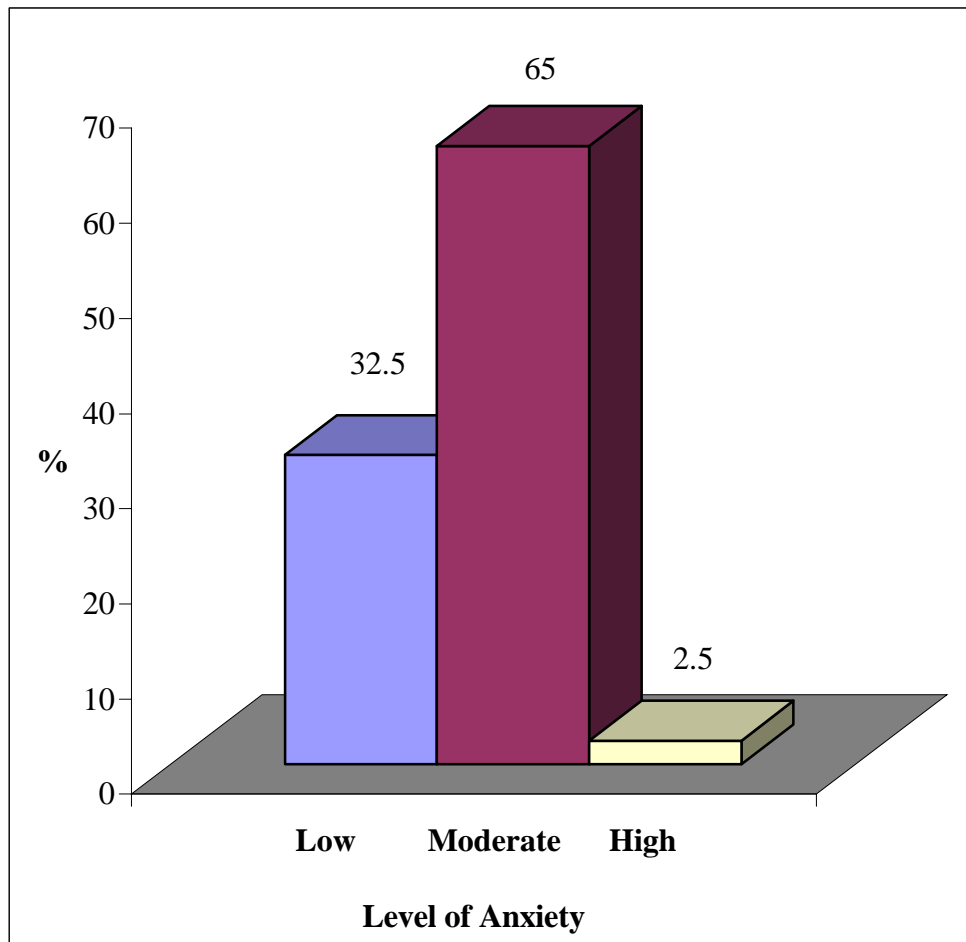
<b>S.No</b>	<b>Levels of Anxiety</b>	<b>Fre</b>	<b>%</b>
1	Low Anxiety (0- 6)	13	32.50
2	Moderate Anxiety (7- 13)	26	65.00
3	High Anxiety (14 - 20)	1	2.50

**Table VII** explains the distribution of birth companion in 3 levels of overall anxiety.

Moderate anxiety was seen in majority of the birth companions (65%), low anxiety in 13 birth companions (32.5%) and high anxiety was seen in only 1 sample (2.5%).

Figure 5 shows three levels of overall anxiety of birth companion.





**Figure – 5** Percentage of birth companion in three levels of overall anxiety.

**TABLE – VIII**

**MEAN ANXIETY SCORE AND STANDARD DEVIATION OF BIRTH COMPANION IN DIFFERENT AREAS OF ANXIETY**

**N = 40**

<b>S.No</b>	<b>Area of anxiety</b>	<b>Max. score</b>	<b>Mean score</b>	<b>Standard Deviation</b>	<b>Mean Score %</b>	<b>F P&lt;0.05</b>
1.	Anxiety related to self	8	2.9	1.43	36.2	10.12*
2.	Anxiety related to woman in labor	6	1.7	1.12	28.3	
3.	Anxiety related to child	6	3	1.73	50	

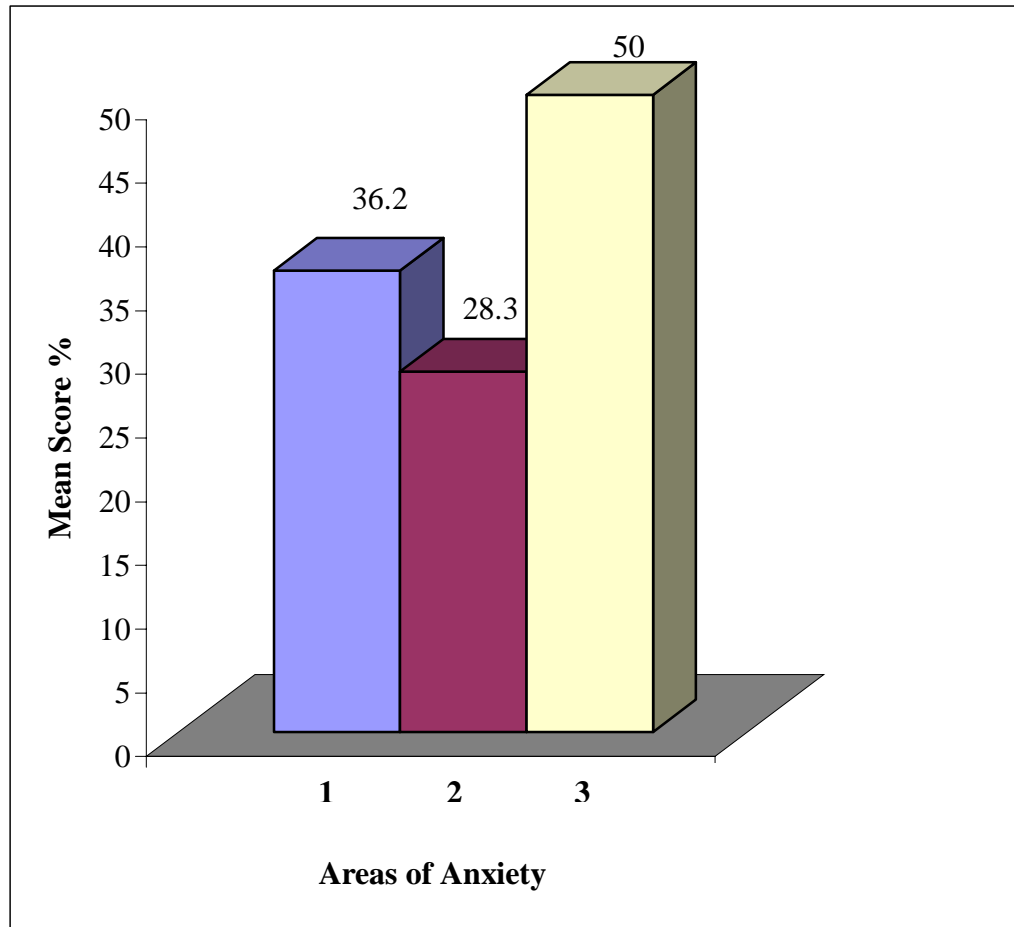
**\* Significant, degrees of freedom = (2, 117), Table value = 3.07**

**Table VIII** presents the mean score and standard deviation of birth companion in the three areas of anxiety related to self, woman in labor and child.

The mean score percentage of anxiety related to the child was 50% that was comparatively higher than the anxiety related to self (36.2%) and anxiety related to woman in labor (28.3%).

Statistically a significant difference is seen between the areas of anxiety, (ANOVA,  $f = 10.12$ , table value = 3.07,  $df = (2, 117)$ ,  $P < 0.05$ ). The anxiety related to child is significantly high when related to anxiety of self and the woman in labor.

Figure 6 presents the mean score percentage of birth companion in the three different areas of anxiety.



**Figure - 6** Mean score percentage of birth companion in different areas of anxiety.

1. Anxiety related to self
2. Anxiety related to woman in labor
3. Anxiety related to child

## 2c. ANALYSIS OF DATA FROM BIRTH COMPANION - SUPPORT

TABLE – IX

### FREQUENCY AND PERCENTAGE OF SUPPORT IN THREE LEVELS IN THREE STAGES OF LABOR

S.No	Levels of Support	I stage (N=40)		II stage (N=31)		III stage (N=31)	
		Fre	%	Fre	%	Fre	%
1	Low Support (0 – 3.9)	5	12.50	2	6.50	13	42.00
2	Moderate Support (4 – 6.9)	29	72.50	6	19.50	15	48.50
3	High Support (7 –10)	6	15.00	23	74.00	3	9.50

**Table – IX** presents the frequency and percentage of support in three levels in the three stages of labor.

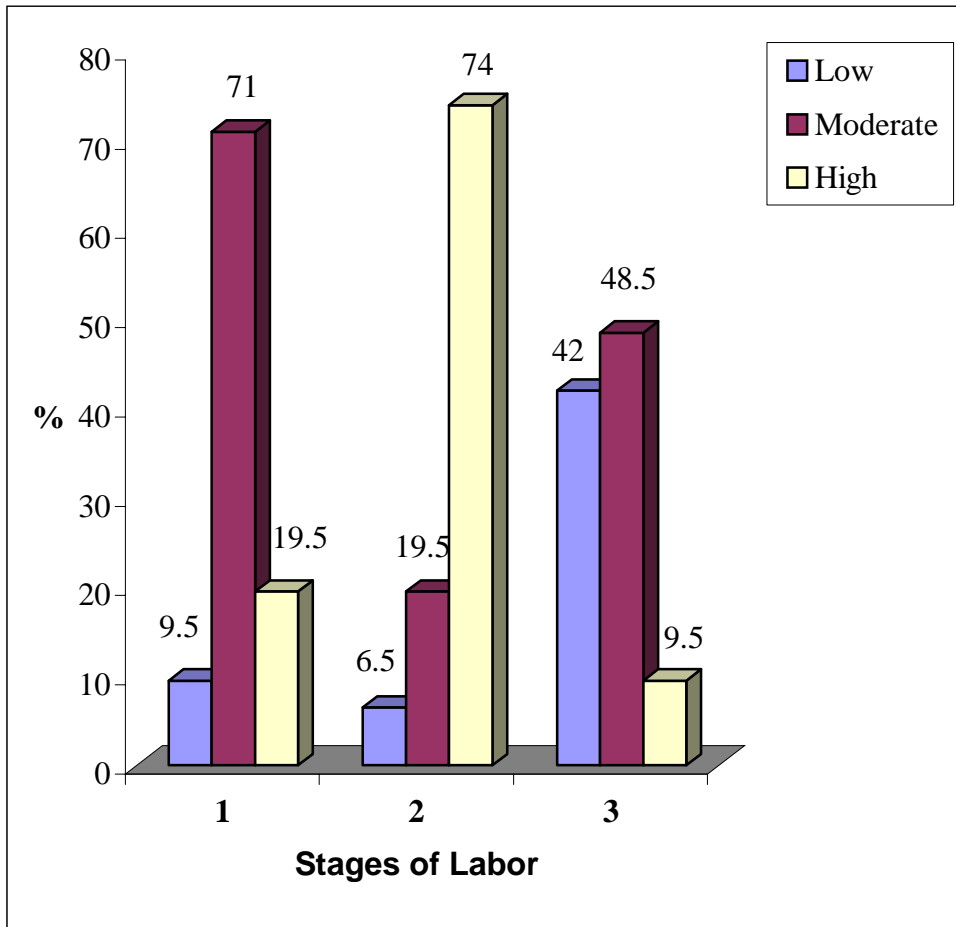
The birth companion provided support in all the 3 stages of labor. In I stage of labor a majority of the birth companions (72.5%) provided a moderate support when compared to low support (12.5%) and high support (15%).

In II stage the majority of the birth companions (74%) provided a high support. 2 – 6 samples (6.5 – 19.5%) provided only low to moderate support respectively.

In III stage high support was given only by 3 samples (9.5%) and the support provided was either moderate (48.5%) or low (42%).

This table concludes that a majority of the birth companion provide moderate support to a woman in labor in I stage, but in II stage of labor, the birth companion provides high support and in the III stage of labor the support provided is either low or moderate.

Figure 7 presents the support in three levels in three stages of labor in percentage.



**Figure - 7** Support in three levels in three stages of labor in percentage.

1. I Stage
2. II Stage
3. III Stage

**TABLE – X**

**FREQUENCY AND PERCENTAGE OF OVERALL SUPPORT  
IN THREE LEVELS THROUGHOUT LABOR**

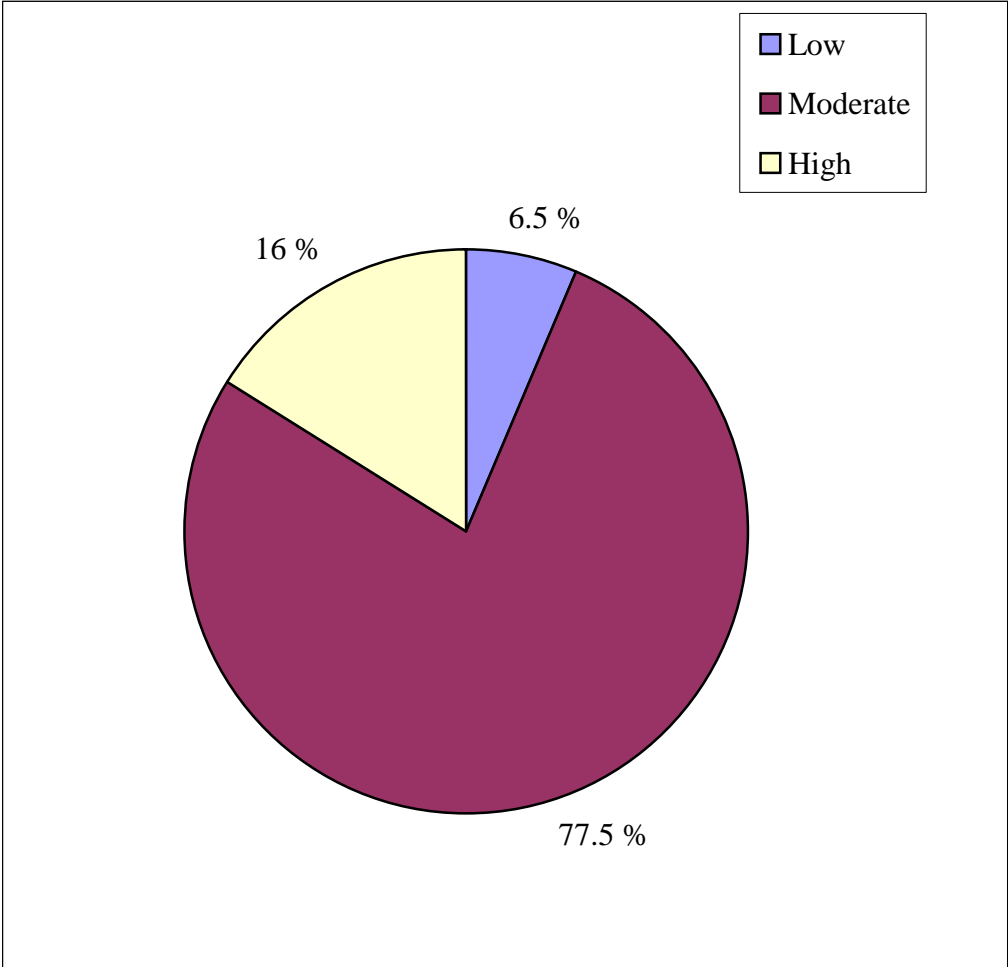
**N = 31**

<b>S.No</b>	<b>Levels of Support</b>	<b>Fre</b>	<b>%</b>
1	Low support (0- 10)	2	6.50
2	Moderate support (11-20)	24	77.50
3	High support (21- 30)	5	16.00

**Table X** explains the frequency and percentage of overall support in the three levels throughout labor.

Moderate support was seen in a majority of the birth companions 24 samples (77.5%), high support in 5 birth companions (16%) and low support was seen in only 2 samples (6.5%).

Figure 8 shows three levels of overall support of birth companion.



**Figure – 8** The 3 levels of overall support by the birth companions.

**TABLE- XI**

**AVERAGE FREQUENCY AND PERCENTAGE OF SUPPORT MEASURES  
IN THREE STAGES OF LABOR**

**N= 31**

S.No .	Support measures	I stage		II stage		III stage		Total %
		Av. Fre.	%	Av. Fre.	%	Av. Fre.	%	
1	Staying beside her	0.98	98.00	0.93	93.00	0.87	87.00	93.00
2	Talking with her	0.86	86.00	0.87	87.00	0.71	71.00	81.00
3	Holding her hands	0.81	81.00	0.84	84.00	0.64	64.00	76.00
4	Mopping sweat	0.32	32.00	0.61	61.00	0.16	16.00	36.00
5	Informing of the progress	0.60	60.00	0.71	71.00	0.32	32.00	54.00
6	Encouraging fluid intake	0.55	55.00	0.94	94.00	0.71	71.00	73.00
7	Meeting the elimination needs	0.47	47.00	0	0.00	0	0.00	16.00
8	Encouraging deep breathing and relaxation	0.52	52.00	0.74	74.00	0.13	13.00	46.00
9	Massaging back and extremities	0.46	46.00	0.06	6.00	0.03	3.00	18.00
10	Communicating between woman in labor and the family members	0.50	50.00	0.96	96.00	0.35	35.00	60.00
<b>Total</b>		0.61	61.00	0.67	67.00	0.39	39.00	

**Table – XI** presents the average frequency and percentage of ten support measures in three stages of labor.



The birth companion used all the support measures in all the three stages except meeting elimination needs in the II and III stage of labor. The most outstanding support measures in I stage of labor provided by the birth companion in average frequency percentage was staying beside (98%), talking 86% and holding hands of woman in labor (81%). The average frequency of support measures (No.5, 6, 7, 8, 9, 10) ranged from 46- 60%. The frequency of mopping of sweat (32%) and massaging the back and extremities (46%) was comparatively lower than the other support measures in stage I of labor.

The outstanding support measures in stage II were communication between women in labor and family (96%), encouraging fluid intake (94%) and staying with woman in labor (93%). The other support measures (No. 2, 3, 5, 8) provided by the birth companion ranged from 71 – 87%. Mopping of sweat that was less in I stage increased to 60% in the II stage. Meeting elimination needs was absent and back massage reduced to 6%.

In stage III a similar pattern of outstanding support measures were observed as that of stage I. Staying beside the woman in labor (87%), talking and encouraging fluid intake (71%) and holding hands of woman in labor (64%) were observed. Other support measures (No. 5, 8, 10) ranged from 13-50%. Meeting elimination needs (0) and massaging back and extremities was the least (3%) when compared to other support measures in the third stage of labor.

This table concludes that the maximum support measures was provided in the II stage 67% when compared to the I and III stage that was 61% and 39% respectively and the most outstanding support measures throughout labor was staying beside the woman in labor (93%), and secondly talking with her (81%). The activity carried out least frequently was massaging back and extremities (18%).

**3a. ANALYSIS OF DATA FROM THE PRIMIPAROUS WOMAN IN LABOR – LENGTH OF LABOR**

**TABLE – XII**

**FREQUENCY AND PERCENTAGE DISTRIBUTION OF PRIMIPAROUS WOMEN IN LABOR ACCORDING TO LENGTH OF LABOR IN HOURS**

**N = 31**

<b>S.No</b>	<b>Length of labor in hours</b>	<b>Fre.</b>	<b>%</b>
1.	3 – 4 hours	1	3.00
2.	4 – 5 hours	3	10.00
3.	5 – 6 hours	7	22.50
4.	6 - 7 hours	7	22.50
5.	7 - 8 hours	6	19.50
6.	8 - 9 hours	2	6.50
7.	9 - 10 hours	5	16.00

**Table – XII** presents the frequency and percentage distribution of primiparous women in labor according to length of labor in hours

Length of labor ranged from 3 hours to 10 hours. 7 samples (22.5%) had length of labor between 5 - 6 hours and 6 – 7 hours, and only 1 sample (3%) had length of labor 3 – 4 hours.

This table concludes that the average length of labor was 6.62 hours for the woman in labor. 13 samples (42%) and 18 samples (58%) showed above and below average length of labor respectively.

Figure 9 presents the frequency polygon of length of labor in hours and percentage.

**3b. ANALYSIS OF DATA FROM THE PRIMIPAROUS WOMAN IN LABOR – INTENSITY OF PAIN**

**TABLE – XIII**

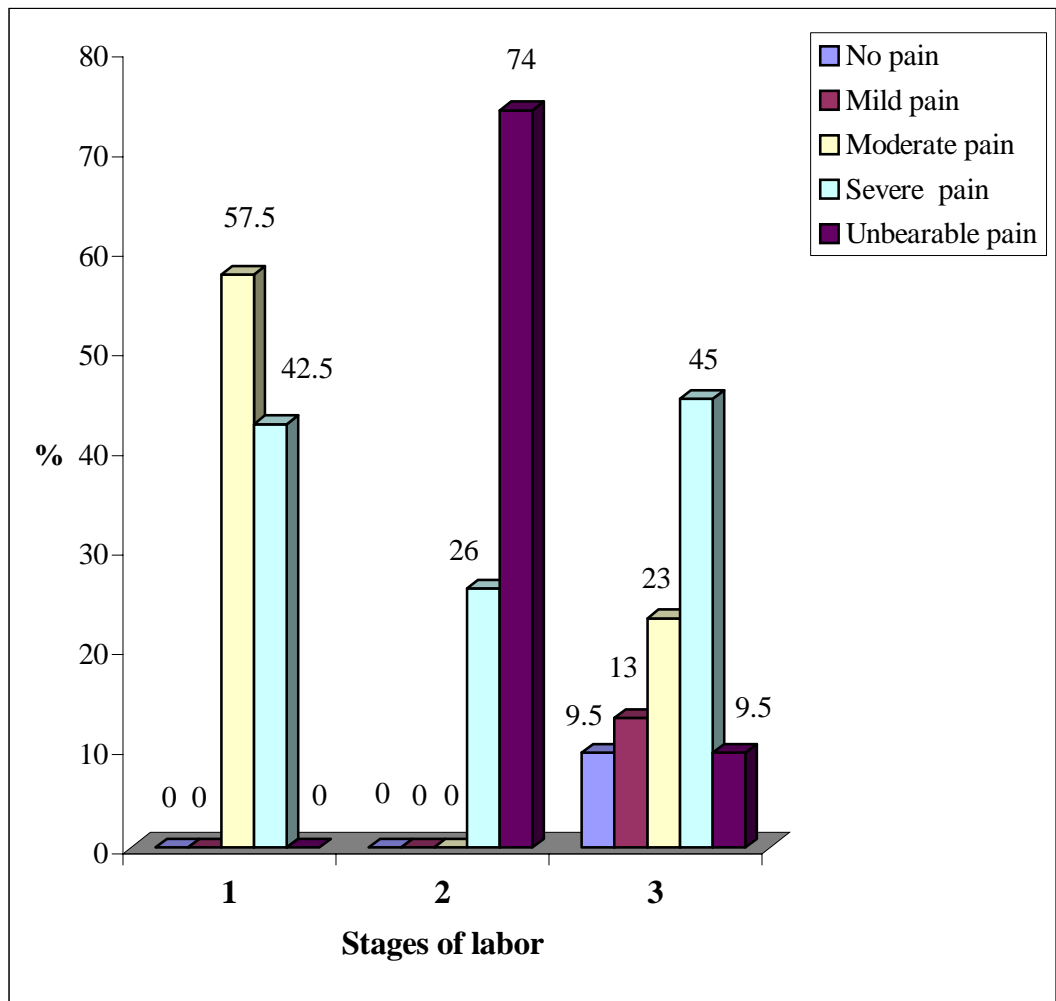
**FREQUENCY AND PERCENTAGE OF WOMAN IN THREE STAGES OF LABOR ACCORDING TO INTENSITY OF PAIN**

S.No	Intensity of pain	I stage (N=40)		II stage (N=31)		III stage (N=31)	
		Fre	%	Fre	%	Fre	%
1	No pain (0)	0	0.00	0	0.00	3	9.50
2	Mild pain (0.1-1)	0	0.00	0	0.00	4	13.00
3	Moderate pain (1.1 -2)	23	57.50	0	0.00	7	23.00
4	Severe pain (2.1– 3)	17	42.50	8	26.00	14	45.00
5	Unbearable pain (3.1-4)	0	0.00	23	74.00	3	9.50

**Table XIII** presents the frequency and percentage of woman in three stages of labor according to intensity of pain.

23 woman in labor (57.5%) had moderate pain and 17 samples (42.5%) had severe pain during I stage of labor. In the II stage of labor, out of the total of 31 women in labor, 23 samples (74%) had unbearable pain and 8 samples (26%) had severe pain. In the III stage of labor, 14 women (45%) had severe pain, 7 samples (23%) had moderate pain, 3 samples (9.5%) had unbearable pain, no pain and mild pain was shown by 3 - 4 women (9.5 – 13%) respectively.

Figure 10 highlights the intensity of pain in the three stages of labor in percentage.



**Figure - 10** Distribution of primiparous women in labor according to intensity of pain in the three stages of labor.

1. I Stage
2. II Stage
3. III Stage

**3c. ANALYSIS OF DATA FROM THE PRIMIPAROUS WOMAN IN LABOR – PERCEPTION OF BIRTHING EXPERIENCE**

**TABLE – XIV**

**FREQUENCY AND PERCENTAGE OF WOMAN REGARDING VIEWS ON POSITIVE STATEMENTS ON BIRTH EXPERIENCE ON THREE POINT SCALE AND WEIGHTED SCORE**

**N = 31**

S.No	Views	Great extent		Some extent		Not at All		Weighted score
		Fre.	%	Fre.	%	Fre.	%	
1	Able to tolerate labor pains	10	32.00	11	36.00	10	32.00	31
2	Gets encouragement from the birth companion	28	90.00	2	7.00	1	3.00	58
3	Confident of a normal delivery	28	90.00	3	10.00	0	0.00	59
4	Feel strong enough to go through labor	13	42.00	12	39.00	6	19.00	38
5	Presence of a companion was a good support	28	90.00	1	3.00	2	7.00	56
6	Anticipate a safe ending	27	87.00	3	10.00	1	3.00	57
<b>Overall</b>		22.5	72.00	5.5	18.00	3	10.00	

**Table – XIV** presents the frequency and percentage of woman according to their views on positive statements on birth experience on three point scale and weighted score.

Among the 6 positive statements were “got encouragement from the birth companion” (28%), “confident of a normal delivery” (28%) and “presence of a companion was a good support” (28%) were viewed in the category of ‘great extent’. 10–13 samples were not able to tolerate pains and did not feel strong enough to go through the labor.

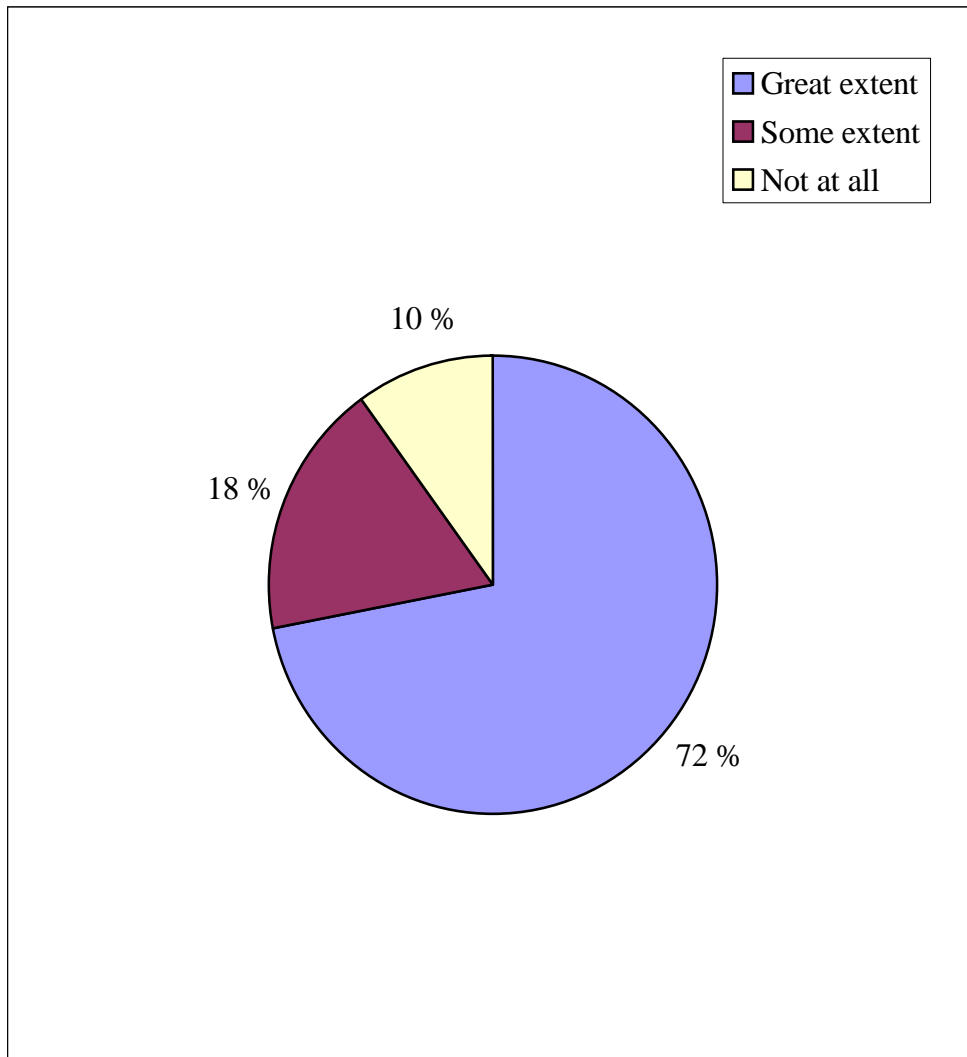
The ‘some extent’ response to the statements 1 and 4 was 36 and 39 % respectively. 1-3 samples (3.5- 10%) viewed all the 6 items in the category of ‘some extent’.

“Able to tolerate the labor pains” was viewed in the category of ‘not at all’ by 10 samples (32%) and the other statements (2, 4, 5, 6) were viewed in the category of ‘not at all’ by 1-6 women in labor.

All the four positive views in order of priority were No. 3, 2, 6, 5 and the first rank was given to the item “confident of a normal delivery” (59). The item last in order was the ability to tolerate labor pains (31).

This table concludes that the maximum proportion of response (72%) is in relation to great extent and 10 – 18% to some extent and not at all. The overall view of the women in labor showed a very favorable view, only a small percentage of sample reflects an unfavorable view.

Figure 11 shows the overall positive view on birth experience.



**Figure – 11** The overall percentage of positive views on birth experience

**TABLE – XV**

**FREQUENCY AND PERCENTAGE OF WOMAN REGARDING VIEWS ON  
NEGATIVE STATEMENTS ON BIRTH EXPERIENCE ON  
THREE POINT SCALE AND WEIGHTED SCORE**

**N = 31**

S.No	Views	Great Extent		Some extent		Not at All		Weighted score
		Fre	%	Fre	%	Fre	%	
1	Feel tired and sick	17	55.00	8	26.00	6	19.00	20
2	Exhausted and had no strength to push down	6	19.00	10	32.00	15	49.00	40
3	Labor process took a long time	16	51.00	4	13.00	11	36.00	26
4	Feel irritated and disturbed throughout labor.	10	32.00	2	6.50	19	61.50	40
5	Fear that the doctors will deliver baby by operation.	3	10.00	6	19.00	22	71.00	50
6	Scared to get out of bed and walk	13	42.00	7	22.50	11	35.50	29
7	Anxious about the sex of the baby	4	13.00	1	3.00	26	84.00	53
8	Feel lonely going through the painful experience	6	19.00	3	10.00	22	71.00	47
9	Anxious about a normal delivery and healthy baby born	13	42.00	4	13.00	14	45.00	32
<b>Overall</b>		10	32.00	5	16.00	16	52.00	

**Table – XV** presents the frequency and percentage of woman according to views on negative statements on birth experience on three point scale and weighted score



Among the 9 negative statements “feeling tired and sick” and “labor process took a long time” were viewed in the category of ‘great extent’ by 55% and 51% respectively. 10% to 42% of the samples viewed all other items (No. 2, 4, 5, 6, 7, 8, 9) to ‘great extent’

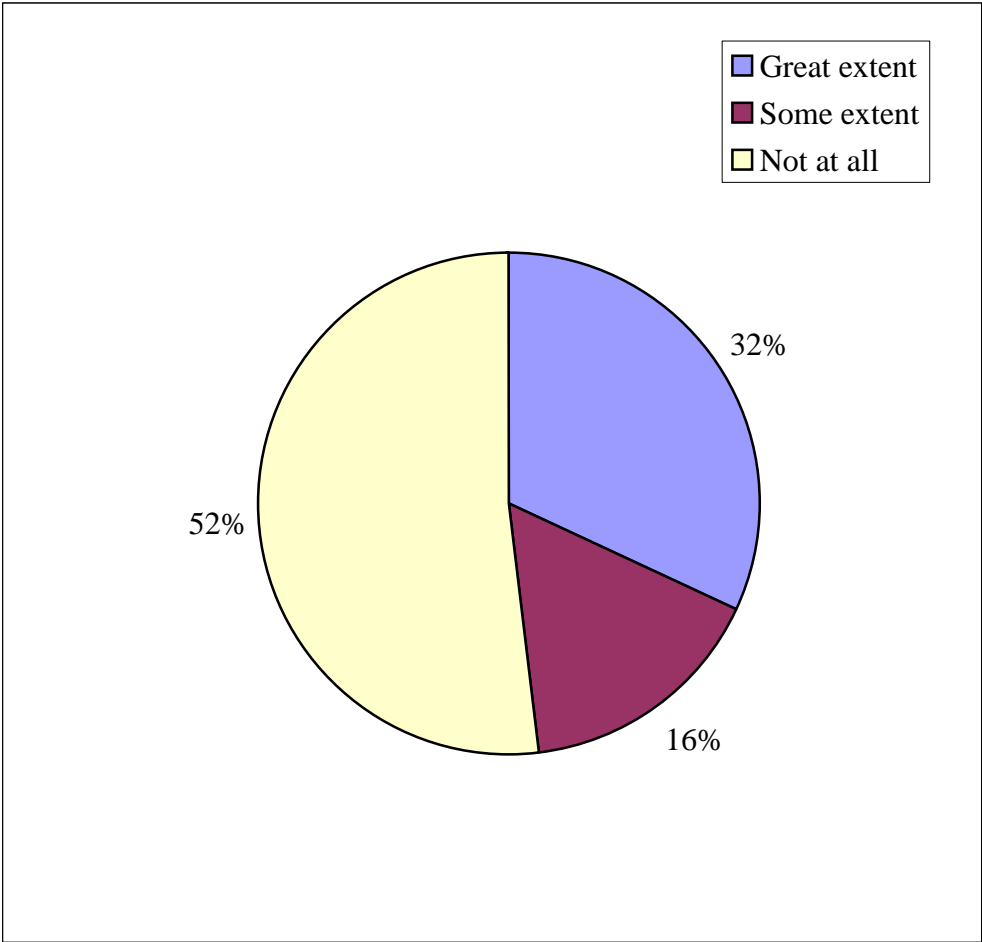
The response to all the 9 items by 1- 10 samples (3- 32%) was some extent and the highest being “exhausted and had no strength to push down” and “feel tired and sick”.

The majority of the women in labor (84%) were not anxious about the sex of the baby, 71% did not fear that the doctors will deliver baby by operation or feel lonely going through the painful experience.

Higher the weighted score in negative statements more positive is the view and so lesser is the negative view. The least among the negative views was “anxious about the sex of the baby” (53) and “fear that the doctors will deliver baby by operation” (50). The most outstanding negative views were “feeling tired and sick” (20) and “labor process took a long time” (26).

The table concludes that 52% of the responses of the birth companions are not in favor of negative items, 32% favors and 16% favored negative items only to some extent, which shows that the samples had a more positive birthing experience.

Figure 12 shows the overall negative view on birth experience.



**Figure 12** The overall percentage of negative views on birth experience

**TABLE – XVI**  
**FREQUENCY AND PERCENTAGE OF WOMAN ACCORDING TO THE**  
**LEVEL OF SATISFACTION ON BIRTH EXPERIENCE**

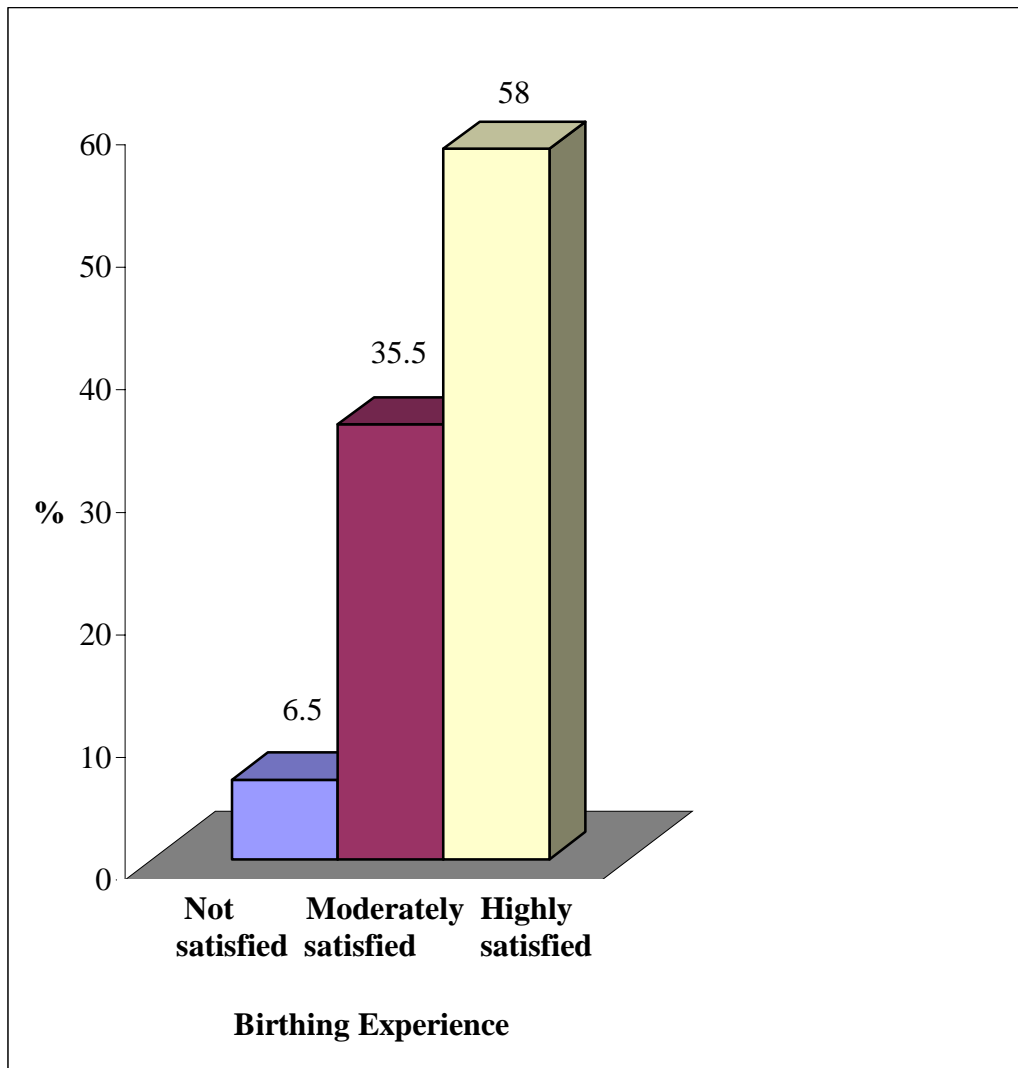
**N = 31**

<b>S.No</b>	<b>Level of Satisfaction</b>	<b>Fre</b>	<b>%</b>
1	Not satisfied (0-10)	2	6.50
2	Moderately satisfied (10- 20)	11	35.50
3.	Highly satisfied (21-30)	18	58.00

**Table – XVI** shows the frequency and percentage of woman according to the level of satisfaction of birth experience.

More than half of the women in labor (58%) were highly satisfied with their birth experience, 11 women (35.5%) were moderately satisfied and only 2 samples (6.5%) were not satisfied with their birth experience.

Figure 13 presents the birthing experience of women in 3 levels of satisfaction in percentage



**Figure - 13** Birthing experience of woman in 3 levels of satisfaction in percentage.

#### 4. CORRELATION OF VARIABLES

TABLE XVII

MEAN SCORE AND CORRELATION BETWEEN KNOWLEDGE, ANXIETY AND SUPPORT OF BIRTH EXPERIENCE

N= 40				
S.No.	Variables	Mean Score	r	$\chi^2$ value P< 0.05
<b>1a</b>	Knowledge of birth companion	24.3	-0.29	1.2 NS df =1
<b>b</b>	Anxiety of birth companion	7.7		
<b>2a</b>	Knowledge of birth companion	24.3	0.26	12.4 * df =1
<b>b</b>	Support provided by the birth companion.	5.74		
<b>3a</b>	Anxiety of birth companion	7.7	-0.15	3.56 NS df =1
<b>b</b>	Support provided by the birth companion.	5.74		

\* Significant, NS= Non significant, df=degrees of freedom, Table value = 3.84

Table – XVII presents the relationship between the variables knowledge, anxiety and support.

Correlation was examined between knowledge of birth companion and anxiety of birth companion, knowledge of birth companion and support provided by the birth companion, anxiety of birth companion and support provided by the birth companion by Karl Pearson's Correlation co-efficient.

The relationship between knowledge of birth companion and anxiety of birth companion showed a mild negative correlation ( $r = -0.29$ ). The hypothesis predicts that there is a significant relationship between level of knowledge and anxiety of the

birth companion. Statistically the relationship is non significant therefore the hypothesis is rejected.

The relationship between knowledge of birth companion and support provided by the birth companion showed a mild positive correlation ( $r = 0.26$ ). The hypothesis predicts that there is a significant relationship between level of knowledge of the birth companion and the level of support provided to the primiparous woman. Statistically the relationship is significant ( $\chi^2 = 12.4$ ,  $P < 0.05$ ) therefore the hypothesis is accepted.

The relationship between anxiety of birth companion and support provided by the birth companion showed a mild negative correlation ( $r = - 0.15$ ). The hypothesis predicts that there is a significant relationship between level of anxiety of the birth companion and the level of support provided to the primiparous woman. Statistically the relationship is non significant therefore the hypothesis is rejected.

**TABLE XVIII**

**MEAN SCORE AND CORRELATION OF SUPPORT, LENGTH OF LABOR, INTENSITY OF PAIN AND BIRTH EXPERIENCE.**

**N= 31**

S.No.	Variables	Mean Score	r	$\chi^2$ value P= 0.05 df=1
<b>1a</b>	Support provided by the birth companion throughout labor	16.6	- 0.57	1.5 NS df=1
<b>b</b>	Length of labor	6.62		
<b>2a</b>	Support provided by the birth companion throughout labor	16.6	- 0.33	1.26 NS df=1
<b>b</b>	Intensity of pain	7.9		
<b>6a</b>	Support provided by the birth companion throughout labor	16.6	0.29	1.18 NS df=1
<b>b</b>	Birth experience	20.9		

**NS = Non significant, df = degrees of freedom, Table value = 3.84**

**Table – XVIII** presents the relationship between variables support, length of labor, intensity of pain and birth experience.

Correlation was examined between support provided by the birth companion throughout labor and length of labor, support provided by the birth companion throughout labor and the intensity of pain, support provided by the birth companion throughout labor and birth experience by Karl Pearson’s Correlation co-efficient.

The relationship between support provided by the birth companion throughout labor and length of labor showed a mild negative correlation ( $r = - 0.57$ ). The hypothesis predicts that there is a significant relationship between level of support

provided to the primiparous woman and the length of labor. Statistically the relationship is non significant therefore the hypothesis is rejected.

The relationship between support provided by the birth companion throughout labor and intensity of pain showed a mild negative correlation ( $r = - 0.33$ ). The hypothesis predicts that there is a significant relationship between the level of support provided to the primiparous woman and the degree of pain felt during labor. Statistically the relationship is non significant therefore the hypothesis is rejected.

The relationship between support provided by the birth companion throughout labor and birth experience showed a mild positive correlation ( $r = 0.29$ ). The hypothesis predicts that there is a significant relationship between the level of support provided to the primiparous woman and the birthing experience of the mother. Statistically the relationship is non significant therefore the hypothesis is rejected.



**5. ASSOCIATION OF SELECTED DEMOGRAPHIC VARIABLES AND STUDY VARIABLES**

**TABLE – XIX**

**ASSOCIATION BETWEEN LEVEL OF KNOWLEDGE AND DEMOGRAPHIC VARIABLES OF BIRTH COMPANION**

**N = 40**

S.No	Demographic variables	Level of knowledge				$\chi^2$ P< 0.05
		Poor		Average		
		Fre.	%	Fre.	%	
1	Age in years					3.32 NS, df=1
	i) $\leq 45$	6	15.00	20	50.00	
	ii) $> 45$	4	10.00	10	25.00	
2	Educational status					2.12 NS, df=1
	i) Literate	5	12.50	19	47.50	
	ii) Illiterate	5	12.50	11	27.50	
3	No. of children					0.52 NS, df=1
	i) $\leq 2$	6	15.00	17	42.50	
	ii) $> 2$	4	10.00	13	32.50	
4	Relationship with the women in labor.					NS, df=1
	i) Mother	4	10.00	20	50.00	
	ii) Others	6	15.00	10	25.00	

**NS= Non Significant, df = degrees of freedom, Table value = 3.84**

**Table – XIX** presents the association between level of knowledge and demographic variables of the birth companion. It shows that the level of knowledge is not associated with any of the demographic variables.

**TABLE – XX**  
**ASSOCIATION BETWEEN LEVEL OF ANXIETY AND DEMOGRAPHIC**  
**VARIABLES OF BIRTH COMPANION**

N = 40

S.No	Demographic variables	Level of anxiety						$\chi^2$ P < 0.05
		Low		Moderate		High		
		Fre.	%	Fre.	%	Fre.	%	
1	Age in years							0.66 NS, df=1
	i) $\leq 45$	7	17.50	18	45.00	0	0.00	
	ii) $> 45$	6	15.00	8	20.00	1	2.5	
2	Educational status							1.95 NS, df=1
	i) Literate	10	25.00	14	35.00	0	0.00	
	ii) Illiterate	3	7.50	12	30.00	1	2.50	
3	No. of children							0.56 NS, df=1
	i) $\leq 2$	8	20.00	15	37.5	0	0.00	
	ii) $> 2$	5	12.50	11	27.5	1	2.50	
4	Relationship with the women in labor.							0 NS, df=1
	i) Mother	8	20.00	16	40.00	0	0.00	
	ii) Others	5	12.50	10	25.00	1	2.50	

**NS = Non Significant, df = degrees of freedom, Table value = 3.84**

**Table – XX** presents the association between the level of anxiety and demographic variables of birth companion. It shows that low and moderate level of anxiety is not associated with any of the demographic variables. High level anxiety could not be analyzed with demographic variables as the sample size was too small in the divided category.

**TABLE – XXI**

**ASSOCIATION BETWEEN LEVEL OF SUPPORT THROUGHOUT I STAGE AND DEMOGRAPHIC VARIABLES OF BIRTH COMPANION**

**N = 40**

S.No	Demographic variables	Level of Support						$\chi^2$ P< 0.05
		Low		Moderate		High		
		Fre.	%	Fre.	%	Fre.	%	
1	Age in years i) ≤ 45 ii) > 45	3 2	7.50 5.00	18 11	45.50 27.50	5 1	12.50 2.50	1.68 NS df=1
2	Educational status i) Literate ii) Illiterate	3 2	7.50 5.00	17 12	42.50 30.00	4 2	10.00 5.00	0.86 NS df=1
3	No. of children i) ≤ 2 ii) > 2	3 2	7.50 5.00	16 13	40.00 32.50	4 2	10.00 5.00	0.30 NS df=1
4	Relationship with the women in labor. i) Mother ii) Others	2 2	5.00 5.00	17 12	42.50 30.00	5 2	12.50 5.00	2.3 NS df=1

**NS = Non Significant, df = degrees of freedom, Table value = 3.84**

**Table – XXI** presents the association between the level of support throughout first stage and the demographic variables of birth companion. It shows that moderate level of support is not associated with any of the demographic variables. Low and high level support could not be analyzed with demographic variables as the sample size was too small in the divided category.

# **DISCUSSION**

## CHAPTER V

### DISCUSSION

The study focused on assessing the knowledge and anxiety of the birth companion in relation to their support in childbirth and the influence of support on the outcome of labor among primipara woman at selected maternity centers. This chapter presents the findings and its discussion.

#### **1. Demographic profile of the samples.**

**Table I** - The age of the birth companion ranged from less than 30 years to more than 60 years. 18 samples (45%) were aged between 35 – 45 years. 16 samples (40%) were illiterate and the rest were literate. Half of the samples (50%) had 2 children. Most of the birth companions, 24 samples (60%) were mothers of the woman in labor. All the samples (100%) expressed that their own experience was the source of information on birth process.

The present study finding is supported by **Teshome M, Abdella A and Kumbi S** on the attitude of women in response to labor support based at institutional deliveries. The finding showed that significant proportion of women preferred their mothers as companions.

**Table II** - The duration of labor pain before admission ranged from nil to more than 5 hours. Almost half of the samples (42.5%) had labor pains for a duration of more than 5 hours before admission. 15 samples (37.5 %) had labor pains for 3-5 hours, and 6 samples (15 %) for 1- 2 hours, 2 samples (5%) had no pains before admission.

This difference in bringing the women to the hospital for delivery could be that the companions were more experienced and knew how to manage minor problems that arose during I stage of labor.

#### **2. Knowledge of the birth companion**

**Table III, IV and V** – Shows knowledge in two areas – birth process and care of the woman in labor. The majority of the birth companions, 34 samples (85%) had

an average knowledge on birth process, 27 samples (67.5%) had average knowledge on care to be given during labor. The overall knowledge showed that majority of the birth companion (75%) had average knowledge and the remaining 10 samples (25%) had poor knowledge. The knowledge on birth process was significantly higher (Mean Score Percentage – 42%) than knowledge on care of woman in labor (Mean Score Percentage – 38%) with statistical significance (t test = 20.4, P < 0.05)

Though the birth companions were not exposed to any education, the very fact that they have showed 85% of average knowledge on birth process is mainly because of their own experience. 27 samples (67.5 %) of birth companions had average knowledge on care during labor that indicated their previous experience or their natural instinct to take care of their loved ones which could be explored further. No birth companions were with good knowledge, this showed the need for education.

### **3. Anxiety of the birth companion**

**Table VI, VII and VIII** – These three tables presents the anxiety in three areas related to self, woman in labor and child to be born. A high level of anxiety was related to child (N = 8, 20%) and anxiety related to self (5%) and woman in labor (2.5%). Overall anxiety seen in majority of the samples (65%) was moderate. The anxiety towards the child was significantly higher (Mean Score Percentage – 50%) than the anxiety related to self (Mean Score Percentage – 36.2%) and woman in labor (Mean Score Percentage – 28.3%) with statistical significance (ANOVA, f = 10.12, P < 0.05).

By interactions with the birth companion the researcher was able to understand that they had the least anxiety towards the woman in labor, as they said that the women were more educated than them, and could face more challenges in life. The present study finding is supported by a study done by **Mary J** and **Smith S** on the thoughts and feelings of male partners concerning their supporting role and the results stated that the fathers, found the experience stressful. The researcher concluded that the father's needs and role should be regularly assessed during childbirth. In this study the anxiety of birth companion was more towards herself than the woman in labor, so there is a need to prepare the birth companions before they take up their role.

#### 4. Support provided by birth companion.

**Table IX, X and XI** – These three tables present the level of support throughout labor. In I stage, moderate support was provided by 29 samples (72.5%), in II stage high support was provided by 23 birth companions (74%) and in the III stage moderate support was provided by 15 samples (48.5%) low support by 13 samples (42%), and high support by only 3 samples (9.5%). Overall support provided by the majority of the birth companions throughout the process of labor was moderate by 24 samples (77.5%) high by 5 samples (16%) and low by 2 samples (6.5%). In I stage the support measures commonly used by the birth companions were staying beside the woman in labor (98%), talking with her (86%) and holding her hands(81%), the least used measure was mopping the sweat of the woman in labor (32%) and massaging back and extremities (46%). In II stage communicating between the woman in labor and the family members (96%), encouraging fluid intake (94%) and staying beside her (93%) were commonly used and the least used measure was meeting elimination needs (0%) and massaging back and extremities (6%). In III stage the commonly used measures were same as that of I stage and the least used measures were meeting elimination needs (0%), massaging back and extremities (3%), encouraging deep breathing exercise (13%) and mopping sweat (16%).

Though massaging the back is given a lot of emphasis now days in the relief of labor pain the birth companions did not have much idea about it. Other comfort measures like mopping the sweat, encouraging deep breathing exercise and meeting elimination needs were also less carried out by the birth companion, this states the need for educating the birth companion regarding the care to be given for the women in labor. Perhaps if education was given the birth companion would be able to participate much better in giving support. The report of the present study is consistent with the study findings of **Teshome M, Abdella A and Kumbi S** on the attitude of women in response to labor support based at institutional deliveries. The reasons given for wanting a companion were emotional (49.5%), information (25%) and physical (21.7%) supports, that coincided with the support measures provided with the birth companion of the present study. The present study findings is also supported by **Chen, Chung-Hey, Wang, Shing-Yaw, Chang and Mei-Yueh** who studied Women's Perceptions of Nursing Behavior during Labor. In this study the researcher concluded that the ideal nursing image encompasses the roles of emotional supporter, comforter, information/advice provider, professional or technical skill provider, and

advocate that related to the support measures in this study. These findings may help obstetric team members better understand patients' needs, and enable them to provide better support during labor.

## **5. Intensity of pain**

**Table XIII** - In I stage 23 women in labor (57.5%) had moderate pain and 17 samples (42.5%) had severe pain. In the II stage 23 samples (74%) had unbearable pain and in the III stage 14 women (45%) had severe pain, 7 samples (23%) had moderate pain, 3 samples (9.5%) had unbearable pain, no pain and mild pain was shown by 3 -4 women (9.5 – 13%) respectively.

The present study finding is supported by a study done by **Langer A, Campero L, Garcia C** and **Reynoso S** on effects of psychosocial support during labor, delivery and the immediate postpartum provided by a female companion showed that there were no effects on perception of pain.

## **6. Perception of birth experience for the women in labor.**

**Table XIV** - Presents the frequency and percentage of woman according to views on positive statements on birth experience on three point scale and weighted score. Among the 6 positive statements “got encouragement from the birth companion” (28%), “confident of a normal delivery” (28%) and “presence of a companion was a good support” (28%) were viewed in the category of ‘great extent’. The most outstanding items viewed positively by the woman in labor were “confident of a normal delivery” and. the item least viewed positively was the ability to tolerate labor pains.

A study done by **Lowe NK**. on the relationships between the perception of pain during active labor and nine predictor variables: age, parity, childbirth preparation, state anxiety, confidence in ability to handle labor, concern regarding the outcome of labor, fear of pain, cervical dilatation and frequency of uterine contractions. The results stated that out of the nine variables, confidence in ability to handle labor was the most significant predictor of all components of pain during active labor. A study done by **Crea BH** and **Wright ME** on the influence of personal control on women's satisfaction with pain relief during labor supported the present study finding, as it indicated that feelings of personal control influenced the women's



satisfaction positively with pain relief during labor. Demographic and other psychosocial variables had little impact on the women's satisfaction scores.

**Table XV** - Among the 9 negative statements “feeling tired and sick” (55%), “labor process took a long time” (51%), were viewed in the category of ‘great extent’. The least among the negative views was “anxious about the sex of the baby” and “fear that the doctors will deliver baby by operation”. The two negative items mostly viewed by the woman in labor were “feeling tired and sick” and “labor process took a long time” .

The present study finding is supported by a study done by **Green JM** on expectations and experiences of pain in labor. The finding showed that anxiety about the pain of labor was a strong predictor of negative experiences during labor that caused lack of satisfaction with the birth. In this study there was pain in varying intensity and perhaps the statements “feeling tired and sick” and “labor process took a long time” could have been the contributory factors to perceive birth experience less satisfactorily.

**Table XVI** - More than half of the woman in labor (58%) were highly satisfied with their birth experience, 11 women (35.5%) were moderately satisfied and only 2 samples (6.5%) were not satisfied with their birth experience.

The present study finding is supported by a study done by **Tarkka, Terttu M, Paunonen and Marita** on mothers' experiences of labor and the connections of social support with those experiences. The finding showed that for the vast majority (85%) of the mothers, childbirth was a positive experience. A study done by **Hodnett ED, Gates S, Hofmeyr GJ and Sakala C.** on continuous support for women during childbirth also supported the present study findings as it said that women who had continuous intrapartum support were less likely to report dissatisfaction with their childbirth experiences. Another study done by **Bruggemann O, Parpinelli M, Osis M, Jose G and Neto A** on support to woman by a companion of her choice during childbirth also supported the present study as the researcher concluded that the presence of a companion of the woman's choice had a positive influence on her satisfaction with the birth process. **Cochrane systematic review (2009)** on continuous support for women during childbirth in comparison with women receiving usual care supported the present study by stating that 34% less likely to be, dissatisfied or negatively rated their birth.

**SUMMARY,  
FINDINGS,  
CONCLUSION,  
IMPLICATION AND  
RECOMMENDATION**

## **CHAPTER – VI**

### **SUMMARY, FINDINGS, CONCLUSION, IMPLICATION AND RECOMMENDATION.**

#### **Introduction**

This chapter deals with the summary of the study, findings, conclusion, implication and recommendation.

#### **Summary of the study**

The study was conducted to assess level of knowledge of labor process and its care and anxiety of the birth companion and to determine whether they are related with the support given by the companion during labor, also whether the support given is associated with length of labor, pain perception and perception of birthing experience of the primiparous woman.

The conceptual framework of this study was based on modified Einestine Wiedenback – The Need for Help Model. The study adopted a descriptive and correlation survey approach. The study consisted of a sample of 40 primiparous women and 40 birth companions selected by convenient sampling method. The data on knowledge and anxiety was collected from the birth companion by questionnaire and anxiety scale by interviewing them, followed by observing the activities carried out by the birth companion to the woman in labor every hour from the I stage of labor till the end of the III stage. Data from the woman in labor was collected from 3 cms of cervical dilation. Data on pain was collected every hour for the first contraction and length of labor at end of the stages. The views of the women in labor were collected 2 hours following delivery when the woman was transferred to the ward. The data was analyzed by descriptive, correlational and inferential statistics

## **Summary of findings**

### **1. Demographic data of samples**

In the demographic characteristics of the birth companion, 18 samples (45%) were aged between 35 – 45 years. 16 samples (40%) were illiterate and the rest were literate. Half of the samples (50%) had 2 children. Most of the birth companions, 24 samples (60%) were mothers of the woman in labor. All the samples (100%) expressed that their own experience was the source of information on birth process.

In the demographic characteristics of the woman in labor, out of 40 primiparous women in labor, 27 samples (67%) were between the age 18- 22. Half of the woman in labor (50%) had primary education. The majority of the samples, (70%) were not working and were Hindus (92.5%). 33 samples (82.5%) had conceived for the first time Almost half of the samples (42.5%) had labor pains for a duration of more than 5 hours before admission.

### **2. Knowledge, anxiety and support provided by birth companion**

#### **Knowledge**

Knowledge was examined on birth process and care to be given for the woman during labor. Majority of the birth companions, 34 samples (85%) had an average knowledge on birth process, 27 samples (67.5%) had average knowledge on care during labor. overall knowledge of the birth companion in three levels of knowledge. The overall knowledge showed 75% of the birth companions had average knowledge and 25% poor knowledge with regard to birth process and care to be given to the woman during labor.

#### **Anxiety**

Anxiety was examined related to self, woman in labor and child to be born. High level of anxiety was related to child (N = 8, 20%) anxiety related to self was 5% and woman in labor was 2.5%. The overall level of anxiety was moderate in majority of the samples (67.5%).

## **Support**

The support in I stage was moderate, provided by 72.5% of the birth companions, in II stage high support was provided by 74% of the samples. In the III stage the support provided was either low (42%) or moderate (48.5%). The overall support provided throughout the entire labor was moderate by 24 birth companions (77.5%). The most outstanding support measures throughout labor was staying beside the woman in labor (93%), talking to the woman in labor (81%) and holding hands of the woman in labor (76%). The activity carried out least frequently was meeting the elimination needs (16%), massaging back and extremities (18%), mopping sweat (36%) and encouraging deep breathing exercise (46%).

### **3. Length of labor, intensity of pain and perception of birthing experience by women in labor.**

#### **Length of labor**

The average length of labor was 6.62 hours for the woman in labor. 13 samples (42%) and 18 samples (58%) showed above and below average length of labor respectively.

#### **Intensity of pain**

In I stage, 23 women in labor (57.5%) had moderate pain. Out of the total 31 women in labor, 23 samples (74%) had unbearable pain in the II stage of labor, 14 women (45%) had severe pain, 7 samples (23%) had moderate pain and the rest either unbearable, mild or no pain in III stage of labor.

#### **Perception of birthing experience**

The overall birthing experience by the woman in labor was highly satisfied by 18 samples (58%), moderately satisfied by 11 samples (35.5%) and not satisfied by 2 samples (6.5%). The first 3 items which were viewed positively by the woman in labor were “confident of a normal delivery” (90%), “presence of a companion was a good support” (90%) and “got encouragement from the birth companion (90%). The negative item viewed by 55% of the woman in labor was “feeling tired and sick” and 51% said that the “labor process took a long time”.

#### **4. Significant findings**

##### **The correlation of variables**

- a. Knowledge and anxiety ( $r = -0.29$ )
- b. Knowledge and support ( $r = 0.26$ )
- c. Anxiety and support ( $r = -0.15$ )
- d. Support and length of labor ( $r = -0.57$ )
- e. Support and intensity of pain ( $r = -0.33$ )
- f. Support and birth experience ( $r = 0.29$ )

A significant correlation was found between knowledge and support ( $\chi^2 = 12.4, P < 0.05$ ). The association between level of knowledge, anxiety and support with demographic variables of birth companion showed no significance in all areas of demographic variables.

##### **Conclusion**

The findings of the study concluded that birth companion had an overall moderate knowledge of labor process that was greater than the knowledge regarding the care to be given for the woman in labor. Among the 3 levels of anxiety, anxiety related to child was more. A majority of the birth companions provided a moderate support to the woman throughout labor. Labor length was an average of 6.62 hours and pain was severe. A view of woman regarding birthing experience as very satisfied was: confident of a normal delivery and the least satisfied view was the ability to tolerate labor pains. Birthing experience was 'highly satisfied' in 58% of the woman.

Birth companion without undergoing any education is able to carry out some support measures that provide moderate satisfaction for the woman in labor.

##### **Implication**

The finding of the study revealed that majority of the birth companions (75%) had average knowledge, 25% had poor knowledge but no one had good knowledge. Anxiety was on a moderate level. Support was provided at a moderate level and the

support activities carried out were done without prior learning. Some support measures like meeting elimination needs, massaging the back and extremities, mopping sweat for the woman in labor and encouraging deep breathing exercise was carried out less. Only 58 % of the samples showed that they were highly satisfied when related to their birth experience. All these show the need for education. If birth companion are educated with the facts and figures more improvement will be seen. There after the nurse practitioner working in the field should help the birth companions to improve their knowledge and overcome their anxiety to increase support, thereby increasing the percentage among the women in labor with regard to positive birth experience.

### **Nursing practice**

The advantage of birth companionship should be emphasized on the nurses This will change the nurses' attitude, that help to develop a rapport with the birth companions helping them to learn on the lacking areas, that make birth companionship more useful in the care process. The finding of the study clearly highlights the areas where the birth companion had lack of knowledge. Educational programs are to be conducted by the nursing personnel both in the hospital and community area to help to improve knowledge and decrease anxiety among the birth companion. The nurse has to develop adequate skill to explain to the birth companion facts on labor and care to be given for women in labor, and to also develop ability to understand the felt need of the women and birth companion during labor.

### **Nursing education**

In the field of nursing education, the nurse educator should provide inservice education to the maternity nurses regarding the physical, psychological and emotional needs of the women in labor. Different teaching aids can be utilized as teaching materials for the birth companions on labor and care for the women during labor. The nurse educator can prepare a 'quick reference guide' about the effects of birth companionship to the nurses, clinicians, antenatal mothers and their family members The nurse educator should motivate the public on the importance of a Birth Companionship Programme.

## **Nursing administration**

The Nurse administrator should be efficient in the organization of training programs for the birth companion. A special nurse health educator can be appointed in the outpatient department on the antenatal check up day to provide education for the birth companion on the care aspects that she can provide for the laboring woman and following delivery she can focus on the woman's satisfaction in birth companionship. The nurse administrator may allocate resources to do further studies on birth companionship. The Nurse administrator should plan and organize education programmes for nursing personnel and other health care members so that they could appreciate the Birth Companionship Programme and update their knowledge on Birth companionship.

## **Nursing research**

The study provides scope for future research or utilization of finding and dissemination of knowledge in nursing practice.

## **Recommendations**

1. A study can be done to assess the personnel characteristics of birth companion with the outcome of labor.
2. A study can be done to assess the knowledge of nurses on birth companionship.
3. A study can be done on the laboring women's perception on birth companionship.
4. A comparative study can be done to assess the level of support provided by the companions with and without prior education
5. Study can be replicated on a large sample for generalization and more significance in results.
6. All maternity centers and hospitals should have arrangements for training birth companions and a space for birth companion in the labor room.
7. Maximum publicity to be given through mass media for creating awareness among public about birth companionship in the health care system.



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# **APPENDICES**



APPENDIX – i

GOVERNMENT ORDER ON BIRTH COMPANIONSHIP

		
<b>பிரசவத்தின் போது உறவினர் உடன் இருக்க அனுமதி</b> <b>BIRTH COMPANION SCHEME</b>		
<p>அரசு மருத்துவமனைகள் மற்றும் ஆரம்ப சுகாதார நிலையங்களில் பிரசவத்தின் போது கர்ப்பிணித்தாய் விரும்பும் பெண் உறவினர் அல்லது தோழியர் ஒருவர் உடனிருக்க அனுமதிக்கப்படுவர்.</p> <p>பிரசவ அறையில் உடனிருக்கும் பெண்கள் ஏற்கனவே தாய்மை அடைந்த அனுபவம் உள்ளவராகவும், சுத்தமான உடை அணிந்து நோய்த் தொற்று ஏதும் இல்லாதவராகவும் இருக்க வேண்டும்.</p>		
<b>துணை இயக்குநர் சுகாதாரப் பணிகள்</b> ..... <b>மாவட்டம்</b>		<b>மாவட்ட ஆட்சித் தலைவர்</b> ..... <b>மாவட்டம்</b>



## ABSTRACT

Family Welfare – Reproductive and Child Health Project – Maternal Health provision of birth Companion in the Secondary and Tertiary Hospitals – Guidelines – Issued.

### HEALTH AND FAMILY WELFARE (R1) DEPARTMENT

G.O. (Ms.) NO.211

Date: 2.7.2004

Read:

ORDER:

Traditionally, woman experienced childbirth surrounded by companions. These companions were usually women from their own family or community. The presence of companions during childbirth meant that a woman was never left alone during this intensely stressful and frightening time in her life. She was comforted, reassured and praised throughout the time of childbirth. Unfortunately, as medicine and the care of women during childbirth became more technically advanced, the role and importance of companions during childbirth seem to have been sidelined and forgotten. The presence of a female relative in labour is a low-cost intervention that has proven to be beneficial to labour outcomes.

#### 2. The birth companionship has been studied and has the following benefits.

- Shorter labour
- Less pain medication
- Fewer medical procedures
- Decreased rates of caesarean section.
- Decreased augmentation of labour with Oxytocin
- Increased satisfaction with their birthing experience.
- Better bondage between infant and mother
- Increased breast feeding success.
- Decreased postpartum depression.
- Reduce the informal payment in the hospital.

3. The findings of various studies have suggested that not only is the labour shortened and less complicated by constant human support during labour, but some important medical outcomes are positively affected. This is believed to be so because a kind, supportive companion through labour decreased perinatal problems by reducing emotional stress. By reducing stress hormones, the accompanying labour problems and problems in the newborn will be reduced.

4. At present the hospital environment is completely different, relatives are not allowed to enter maternity wards and women deliver without any support at all.

Relatives would normally accompany the woman to hospital and remain outside the wards until they have heard about the outcome of labour.

5. Considering the benefits, Government has decided to implement the birth companionship programme in all the Teaching Hospitals, District and Sub District Hospitals in the State. This is already informally being implemented in Primary Health Centres and Health Sub Centres and will be continued.

6. State level meetings will be convened to sensitize the Obstetricians of the Secondary and Tertiary level Hospitals and District Officials about the birth companionship programme.

7. Each hospital should identify one Senior Obstetrician, Senior Doctor as a Nodal Officer in each Hospital for implementing this activity, collection, submission of reports etc. The name of the Nodal officer should be intimated to the respective Directorate of DME/DM & RHS and to the Commissioner MCH & Welfare by the HOD / JDHS. In the Medical Colleges the services of postgraduate students will be used to document this activity.

8. Following the state level meetings, the HOD of Obstetrics and Gynaecology of the Medical Colleges and Senior Civil Surgeon of the District Hospitals should convene sensitization meetings for the other Doctors, post graduate students in the Obstetrics and Staff Nurses in the Hospitals about the Birth Companionship Programme.

9. All Govt. Hospitals under DM&RHS and Medical College Hospitals under DME will implement the Programme soon after the completion of State level meeting which will be completed during the first week of July, 2004.

#### **Pre requisities for a birth companion**

- Only female companion to be allowed.
- She should have undergone the process of labour
- She should not suffer from any communicable diseases
- Should wear clean clothes
- Should be willing to stay with the mother throughout the process of labour
- Should not interfere in the work of hospital staff and the treatment procedures.
- The birth companion should be seated by the side of the AN mother when she is accompanying and should not have interactions with the other women in the labour room.

10. The birth companion should be counselled by the duty Nurse before allowing them inside the labour room.



11. The JDHS are permitted to incur expenditure out of the hospital maintenance fund to provide screens between the labour boards wherever needed in all the Hospitals in the District.

12. Once in a year analysis of the beneficiary reports and the outcome of the deliveries should be done by the Nodal Officer in each Hospital. The Nodal Officers meeting will be held once in a year at Chennai to assess the impact of the programme and dissemination of the outcome of the programme.

13. The UNICEF Project will provide financial support for conducting the State level Workshops. The DM&RHS, DME and PD, RCH will closely monitor the birth companionship activity and the progress will be discussed during the HODs Meetings.

(By Order of the Governor)

SHEELA RANI CHUNKATH  
SECRETARY TO GOVERNMENT

To


The Director of Medical and Rural  
Health Services,  
Chennai – 600 006.

the Director Medical Education, Chennai – 600 010.

The Director of Family Welfare, Chennai – 600 006.

The Director of Public Health and Preventive Medicine,  
Chennai – 600 006.

/ Forwarded by order/

  
Section Officer  
R-  
61712

**APPENDIX – ii**

**LETTER REQUESTING PERMISSION TO CONDUCT STUDY**

To

The Deputy Director of Health Services  
Tiruppur District.

Respected Madam,

**Sub: Letter requesting permission for conducting study**

Ms. Iduna Sophia D’Couto is a postgraduate nursing student of our institution. She has selected the below mentioned topic for her research project to be submitted to Dr. MGR Medical University of Health Science, as a Partial fulfillment of Master of Science in Nursing Degree.

**“A study to assess the Knowledge and Anxiety of Birth companion in relation to their Support in Childbirth and the influence of Support on the Outcome of Labor among Primipara woman at Selected Maternity Centers, Tiruppur”.**

Regarding this project, she is in need of your esteemed help and co – operation as she is interested in conducting the study in the health centers during the month of July 2009. I request you to kindly permit her to conduct the proposed study.

The student will furnish details of the study, if required. Please do the needful and oblige.

Thanking You,

Yours faithfully,

PRINCIPAL

Place:

Date:

## APPENDIX – iii

### REQUISITION LETTER FOR CONTENT VALIDITY

From,  
Iduna Sophia D’Couto  
M.Sc. (N) Student,  
RVS College of Nursing  
Sulur, Coimbatore – 641402

To,

Through the principal

Respected Madam,

SUB: Letter requesting opinion and suggestion of experts for establishing content validity of the tool.

I am a M.Sc.(N) student in RVS College of Nursing Sulur, Coimbatore in the speciality of Obstetrics and Gynecology Nursing. As per the requirement for the partial fulfillment of this Nursing degree under Tamilnadu Dr. MGR Medical University. I have selected the following topic for dissertation.

**“A study to assess the Knowledge and Anxiety of Birth companion in relation to their Support in Childbirth and the influence of Support on the Outcome of Labor among Primipara woman at Selected Maternity centers.”**

I kindly request you to go through the research tool and validate against criteria given in the sheet.

Enclosure:

1. Objectives of the study
2. Hypothesis of the study
3. Description of the tool
4. Research tool
5. Criteria rating for validation
6. Content validation certificate

Thanking You,

Yours sincerely,

Place: Sulur

Date:

(Iduna Sophia D’Couto)

## LIST OF EXPERTS

### Medical Experts

**1. Dr. Latha Prasanna**

Consultant Obstetrician and Gynecologist

RVS Hospital, Sulur

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**2. Dr. T. Ramya**

Consultant Obstetrician and Gynecologist

PSG Hospital, Peelamedu

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### Nursing experts

**3. Prof. Mabel Shivkar**

Principal

RVS College of Nursing

Sulur

---

**4. Prof. S.P. Latha**

Principal

RVS College of Nursing

Kannampalayam

---

**5. Prof. Vijayalakshmi Mohanraj**

Nursing Superintendent

Sri Ramakrishna Hospital

Coimbatore

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**APPENDIX – iv**

**CERTIFICATE OF CONTENT VALIDITY**

This is to certify that the tool developed by Ms Iduna Sophia D’Couto M.Sc. (N) student, RVS College of Nursing, Sulur, Coimbatore to collect data on the problem,

**“A study to assess the Knowledge and Anxiety of Birth companion in relation to their Support in Childbirth and the influence of Support on the Outcome of Labor among Primipara woman at Selected Maternity centers.”**

Is validated by the undersigned and she can proceed with this tool to conduct the main study

**Name and Address:**

**Signature:**

**Seal:**

**Date:**



**APPENDIX – v**

**CRITERIA RATING SCALE FOR VALIDATION**

**INTERVIEW SCHEDULE – I**

**For**

**Birth Companion**

<b>Q.No.</b>	<b>Item</b>	<b>Clarity</b>	<b>Relevancy</b>	<b>Adequacy</b>	<b>Remarks</b>
	<b>PART – I</b>				
	<b>Demographic data</b>				
<b>1.</b>					
<b>2.</b>					
<b>3.</b>					
<b>4.</b>					
<b>5.</b>					
	<b>PART – II</b>				
	<b>Knowledge of birth companion regarding needs of a woman in labor</b>				
<b>1.</b>					
<b>2.</b>					
<b>3.</b>					
<b>4.</b>					
<b>5.</b>					
<b>6.</b>					
<b>7.</b>					
<b>8.</b>					
<b>9.</b>					
<b>10.</b>					
<b>11.</b>					
<b>12.</b>					
<b>13.</b>					
<b>14</b>					

	<b>PART- III</b> <b>Anxiety level of</b> <b>birth companion</b>				
<b>1.</b>					
<b>2.</b>					
<b>3.</b>					
<b>4.</b>					
<b>5.</b>					
<b>6.</b>					
<b>7.</b>					
<b>8.</b>					
<b>9.</b>					
<b>10.</b>					
	<b>PART – IV</b> <b>Observation</b> <b>checklist</b> <b>Intervention carried</b> <b>out by birth</b> <b>companion during</b> <b>labor</b>				
<b>1.</b>					
<b>2.</b>					
<b>3.</b>					
<b>4.</b>					
<b>5.</b>					
<b>6.</b>					
<b>7.</b>					
<b>8.</b>					
<b>9.</b>					
<b>10.</b>					

## INTERVIEW SCHEDULE – II

For

Woman in labor

Q.No.	Item	Clarity	Relevancy	Adequacy	Remarks
	<b>PART – I</b> <b>Demographic data</b>				
1.					
2.					
3.					
4.					
5.					
6.					
	<b>PART – II</b> <b>Observation</b> <b>Schedule</b>				
a.					
b.					
	<b>PART – III</b> <b>Perception of</b> <b>birthing</b> <b>experience of the</b> <b>woman during the</b> <b>process of labor</b> <b>and child birth</b> <b>with the presence</b> <b>of a birth</b> <b>companion.</b>				
1.					
2.					
3.					
4.					
5.					
6.					

7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

**Signature of Validator:**

**APPENDIX – vi**

**REQUISITION LETTER FOR CO-GUIDE**

From

Iduna Sophia D’Couto  
M.Sc (N) student,  
R.V.S College of Nursing Sulur,  
Coimbatore.

To

Dr. Latha Prasanna  
Consultant Obstetrician and Gynecologist  
RVS Hospital, Sulur

Through the Principal,  
Respected Madam,

**Sub: Request for Co-Guide**

I wish to state that I am Iduna Sophia D’Couto M.Sc(N) student of RVS college of Nursing. I have selected the below mentioned topic for dissertation as a partial fulfillment for the Master of Nursing Degree to the Tamilnadu Dr. M.G.R Medical university.

**“A study to assess the Knowledge and Anxiety of Birth companion in relation to their Support in Childbirth and the influence of Support on the Outcome of Labor among Primipara woman at Selected Maternity centers.”**

Regarding this I am in need of your valuable help and cooperation by providing your services to be a Co- Guide for my study.

I humbly request your good self to consider the same and do the needful.

Thanking you,

Yours sincerely,

(Iduna Sophia D’Couto)

**APPENDIX – vii**

**TOOL USED**

**INTERVIEW SCHEDULE – I**

**For**

**Birth companion**

**Introduction**

When a woman is in labor, it is the family members who take immediate action. Most of the women are brought to the hospital. One family member attends to the woman in labor all the time. The person who is with the woman meets the needs according to her knowledge and also goes through emotional experience throughout the labor process.

**Purpose**

The purpose of this interview is to find out your understanding of the labor process and what experience you go through while attending the woman in labor. Kindly give your response to all questions. Your answers will be kept confidential.

**PART - I**

**Demographic data**

1. Age:
- i. <30
  - ii. 30 - 35
  - iii. 35 - 45
  - iv. 45 – 60
  - v. > 60

2. Educational status:
- i. Primary
  - ii. Secondary
  - iii. Higher secondary
  - iv. Collegiate
  - v. Illiterate

3. No. of children for the companion: i. 1  ii. 2  iii. 3  iv. More

4. Relationship with the woman in labor: i. Mother

ii. Any other family member

iii. Relation not staying in the family

iv. Others, specify \_\_\_\_\_

5. Any source of information on birth process: i. Own experience

ii. Health personnel

iii. Relatives

iv. Friends

v. Television

vi. Others, specify \_\_\_\_\_

## PART – II

### Knowledge of birth companion regarding needs of a women in labor

#### Introduction

I will be asking you some questions regarding labor. Please be free to answer what you know.

#### 1. When should a full term pregnant woman be brought to the hospital for delivery?

a. as per the expected date on the card

b. when labor pain starts

c. when her water bag ruptures

d. when white discharge escapes from the birth passage

**2. How will you know the labor has started?**

- a. bloody mucous secretions escaping from the woman's birth passage
- b. back and abdominal pain begins along with increasing intensity and frequency
- c. when the woman's water bag ruptures
- d. staining of clothes

**3. How much time will it take for a woman to deliver her baby for the first time after the labor pain starts?**

- a. 3 - 4 hours
- b. 5 - 7 hours
- c. 8 -12 hours
- d. 12 hours and above

**4. What will you encourage when a woman is in labor?**

- a. turn the woman side to side
- b. to be in any position.
- c. to get out of bed and walk.
- d. deep breathing exercise

**5. When a woman is in labor what can she take through mouth?**

- a. frequent fluids whenever asked for
- b. a normal diet to eat
- c. only limited water to drink
- d. nothing by mouth



**6. How will you know that the baby is about to be born?**

- a. baby's head will be seen in the birth passage of the woman
- b. woman feels the maximum pain along with hardening of the abdomen
- c. mother feels the urge to push
- d. bloody mucous secretions from the birth passage

**7. When should we ask the woman in labor to push down?**

- a. when severe pain starts
- b. when the birthing passage is completely opened
- c. when the baby's hairlines are seen
- d. when she feels like defecating

**8. How will you know that the labor is not progressing well?**

- a. when the abdominal pain gets severe but the fetal head does not descend
- b. when the woman gets completely exhausted
- c. when excessive fetal movement is felt on the abdomen of the woman
- d. when no fetal movements are felt by the woman in labor

**9. Why do nurses frequently examine the woman in labor?**

- a. to note the fetal condition
- b. to note the condition of the woman in labor
- c. to note the progress of labor
- d. to identify complications at the earliest

**10. Sometimes the woman may explain pain, but it may not be labor pain. How will you know this?**

- a. discomfort and pain felt over the abdomen that relieves with a hot water bath/herbal treatments
- b. abdominal pain that lasts for a longer time
- c. abdominal pain present with no tightening of abdomen
- d. abdominal pain where there is no changes felt in the birth passage
- e. pain occurring before lightening

**11. When a woman is in labor which of the bodily changes is likely to occur?**

- a. the woman has a dry mouth and always feels thirsty
- b. the woman sweats often
- c. the woman always feels like urinating
- d. the woman feels tired and goes to sleep
- e. the woman is unable to maintain positions

**12. What are the things you will bring to the notice of the nurse when staying with the woman in labor?**

- a. when a gush of water escapes from the birth canal
- b. when there is severe head ache for the woman in labor
- c. excessive fetal movements felt on the abdomen of the woman in labor
- d. when the woman in labor feels like defecating
- e. when the woman is not responding to the questions asked

**13. What can be done in between pains for the woman in labor?**

- a. sit next to the woman in labor
- b. allow the woman in labor to talk with others
- c. provide food and water for the woman in labor
- d. encourage deep breathing exercise for the woman in labor
- e. massage the back of the woman in labor
- f. Change positions of the woman in labor

**14. Do you agree that the woman in labor**

- |  | <b>YES</b>               | <b>NO</b>                |
|--|--------------------------|--------------------------|
| a. will be anxious                             | <input type="checkbox"/> | <input type="checkbox"/> |
| b. will shout very loudly                      | <input type="checkbox"/> | <input type="checkbox"/> |
| c. will be restless                            | <input type="checkbox"/> | <input type="checkbox"/> |
| d. will need someone near                      | <input type="checkbox"/> | <input type="checkbox"/> |
| e. will not listen to others instruction       | <input type="checkbox"/> | <input type="checkbox"/> |
| f. .will have fear                             | <input type="checkbox"/> | <input type="checkbox"/> |
| g. will try to hold the cot bars or bystanders | <input type="checkbox"/> | <input type="checkbox"/> |

## PART – III

### Anxiety level of birth companion.

#### Introduction

When a woman is in labor, the person staying with the woman is likely to be anxious and worried about the childbirth. Please indicate your views with regard to the questions addressed to you.

S.No.	Characteristics	Great extent	Some extent	Not at all
1.	Do you feel comfortable being at the bedside of the woman in labor?			
2	Are you able to support the woman in labor?			
3.	Do you anticipate the labor will be normal?			
4	Are you able to eat and drink as usual?			
5.	Do you feel helpless sitting at the side of the labor table?			
6.	Do you think the woman in labor is getting adequate attention and care from the hospital staff?			
7.	Do you fear if the doctors will deliver baby by operation?			
8.	Are you worried that the labor is prolonging?			
9.	Do you feel anxious about the safe delivery of the baby?			
10	Do you feel anxious about the sex of the baby?			

**PART – IV**

**Observation checklist**

**Intervention carried out by birth companion during labor**

SUPPORT GIVEN		I STAGE					II STAGE	III STAGE	TOTAL
1	Staying beside her								
2	Talking to her								
3	Holding her hands								
4	Mopping her sweat								
5	Keeping her informed of the progress								
6	Encouraging fluid intake								
7	Meeting the elimination needs								
8	Encouraging deep breathing and relaxation								
9	Massaging her back and extremities								
10	Communicating between woman in labor and the family members								

## INTERVIEW SCHEDULE – II

For  
Woman in labor

### PART - I

#### Demographic data

1. Age
- i. < 18
  - ii. 18 – 22
  - iii. 23 – 27
  - iv. 28 - 32
  - v. > 32
2. Educational status:
- i. Primary
  - ii. Secondary
  - iii. Higher secondary
  - iv. Collegiate
  - v. Illiterate
3. Occupation:
- i. Working
  - ii. Not working
4. Religion :
- i. Hindu
  - ii. Muslim
  - iii. Christian
5. Parity:
- i. G 1
  - ii. G 2 A 1
6. Duration of labor pain before admission:
- i. 1 – 2
  - ii. 3 -5
  - iii. > 5

**PART – II**

**Observation Schedule**

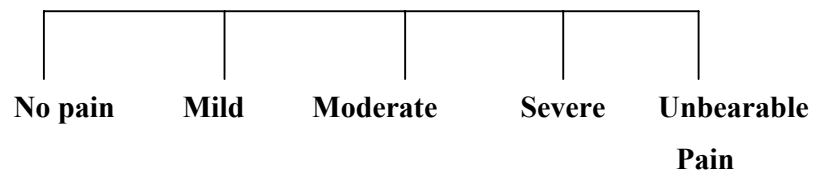
**a. Length of labor**

<b>Stages of labor</b>	<b>Time of Commencement</b>	<b>Time of Ending</b>	<b>Total hours and minutes</b>
<b>Stage – I (3cm–10cm)</b>			
<b>Stage - II</b>			
<b>Stage -III</b>			
<b>Total length of labor</b>			

**b.Intensity of pain in accordance to pain scale**

<b>Stage I</b>					<b>Stage II</b>	<b>Stage III</b>

**PAIN SCALE**



### PART – III

#### Perception of birthing experience of the woman during the process of labor and childbirth with the presence of a birth companion.

##### Introduction

During labor all woman experience anxiety and fear. Now that you have successfully gone through the labor process, kindly rate your views with regard to the following questions. Your answers will be kept confidential

Sl. No.	Views	Great extent	Some extent	Not at all
1	Did you feel tired and sick?			
2	Were you able to tolerate the labor pains?			
3	Were you exhausted and had no strength to push down?			
4	Did you get encouragement from the supportive companion?			
5	Were you confident that you would have a normal delivery?			
6	Did you feel strong enough to go through the labor?			
7	Do you think that the labor process took a long time?			
8	Did you feel irritated and disturbed throughout your labor?			
9	Did you feel that the presence of a companion was a good support throughout labor?			
10	Did you fear that the doctors would do a caesarian?			
11	Were you scared to get out of bed and walk?			
12	Were you anxious about the sex of the baby?			
13	Did you anticipate a safe ending?			
14	Did you feel lonely going through the painful experience?			
15	Were you anxious about a normal healthy baby born safely?			

On the whole how do you perceive your childbirth experience?

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**Conclusion:** Thank you for your kind co- operation.