

## CHAPTER I

### INTRODUCTION

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CHAPTER I
INTRODUCTION

1.1 Context of the Study

Pregnancy and childbirth are special events in women’s lives and indeed in the lives of their families. Pregnancy forever shapes women’s thoughts of themselves and has far-reaching potential effects on the mental and social health of women and family members (Nichols, 2000). The birth of each baby is a unique experience, at a unique time of one’s life. Childbirth is a normal life event, yet women are exposed to significant amount of stress.

Becoming a parent is perhaps the most important life event one will ever go through. Pregnancy and childbirth involves mixed emotions, where the mother is filled with the happiness of having a baby but also has apprehensions about the process of childbirth. Motherhood involves a suffering that turns to be an enjoyment and a tremendous pain that blossoms into eternal bliss. The old saying states “Labour pain is the most intense of all pains”. It is believed that this labour pain brings in the most loving bondage between mother and child. Pregnancy is a transition period in a woman’s life and is acknowledged to be associated with heightened levels of emotion and psychological status (Lee, 2000).

Even in normal psychologically healthy women, pregnancy may give rise to many anxieties because of anticipated uncertainty. Fear and anxiety related to childbirth range from woman to woman. It has been estimated that intense fear-related childbirth complicates about 20% of low-risk pregnancies in western countries and 6% to 10% of women are seriously incapacitated by their fear of childbirth (Erickson, 2006).
Pregnancy causes anxiety of all sorts at different levels. In pregnant women, anxiety levels were higher than average levels in the general population (Rico et al., 2009). Intense childbirth fear during pregnancy predicts more pain and distress during labour, increases the risk of emergency caesarean delivery and constitutes a source of the growing number of women requesting caesarean birth (Rouche 2008).

The childbearing period encompasses experiences that have profound and long-lasting effects on women, babies, and families. For this reason, health professionals have felt that education and preparation are key ingredients to successful pregnancy and birth experiences (Dehorah et al., 2009). As the symptoms of anxiety disorders are often similar to usual feelings found in pregnancy, careful screening for anxiety disorders in pregnant women is essential. Antenatal anxiety is the focus of the current research. Anxiety is common and often co-morbid with depression, but often neglected in studies of pregnancy and postnatal period (Kessler et al., 2003).

Although each woman adapts to pregnancy in a unique manner, her psychological responses change as pregnancy advances. Once pregnancy is confirmed, almost all women have conflicting feelings about being pregnant and they are concerned about themselves, physiological changes occurring in their bodies, the ways of protecting and providing care to the foetus and the like. During pregnancy, women experience physiological, psychological and social changes, and while attempting to adapt to these changes, they accept the pregnancy and prepare for childbirth.

Descriptive and exploratory studies suggest that pregnant women may experience specific and intense fears such as the fear of incompetence and concerns about pain and loss of control during delivery, the fear about their own life and the life of their baby, and worries about changes in their personal life due to pregnancy and childbirth (Sjögren,
The work by Wadhwa, et al. (1993) and Killingsworth (1997) provides evidence for
the role of pregnancy anxiety rather than general anxiety as a predictor of birth outcome.

Hofberg & Brockington (2000) described fear of childbirth as follows: “If they are
nulliparous the expectation of pain preoccupies them beyond all measure and throws them
into a state of in-expressible anxiety. If they are already mothers, they are terrified of the
memory of the past and the prospect of future”. Though all women look forward to the
birth of the baby, the fear of anticipated pain makes them fearful of delivery.

Fear of not being able to cope with the baby, especially among nulliparous pregnant
women, is common (Kuguand Akyuz, 2001). Nausea that is experienced in the first
trimester of pregnancy, tenderness in the breasts and other physical changes can alter a
woman's emotional balance. In the second trimester, further changes in the body and the
body's image, changes related to sexual interest, and anxiety about childbirth can alter the
woman's emotional state. However, in the third trimester, women are physically and
mentally preoccupied in preparing for childbirth and imminent care of the baby, and social
isolation negatively affects emotional balance (Ozkan and Bozkurt, 1999; Das, 2005).
Being unprepared for pregnancy and the effects of pregnancy hormones can increase the
likelihood of psychological changes and emotional disturbances (Cantwell and Cox, 2003;
Campagne, 2004).

The prevalence rate of depression during pregnancy measured by interview and
recognised diagnostic criteria is similar to that found after delivery and ranges from 3.5%-16%
(Green and Murry, 1994). Depression during pregnancy and after delivery can have
devastating consequences, not only for the women but also for the women’s children and
family (AHRQ, 2000). In a systematic review by Bennett et al. (2004) prevalence of
depression during pregnancy was found to be 7.4%, 12.8% and 12% for the first, second
and third trimesters respectively. Depression that occurs for the first time in pregnancy is usually mild and presents as mild anxiety that does not require pharmacological treatment (Stocky and Lynch, 2000).

Postpartum depression has been described as a dangerous thief that robs off the precious and pleasant time that a woman had been dreaming throughout pregnancy (Beck, 1999). Approximately 13% women experience postpartum depression (O’ Hara & Swain, 1996). Research has shown that depression and anxiety can increase women’s risk for preterm labour and decrease their ability to care for themselves and their developing baby. Depression and anxiety may go undiagnosed because women often dismiss these feelings as temporary moodiness that often accompanies pregnancy.

The impact of psychological health status in pregnancy on clinical outcomes such as preterm labour, pre-eclampsia, epidural use, caesarean birth, instrumental deliveries and increased rates of admission to neonatal intensive care, alongside the cognitive and social development of the infant and child are well documented. A number of research studies have shown a significantly higher incidence of foetal asphyxia, congenital anomalies and still births among the foetus of women with high levels of anxiety and stress during pregnancy. Women with abnormal labour reported more anxiety about the forthcoming delivery and fears regarding their own life and that of the child yet to be born (Leta, 1985).

Childbirth practices are influenced by the socio-economic status, customs, cultural beliefs and traditions. This is particularly true in the case of women belonging to rural areas. Seventy percent of our population is in the rural area where the family members join in providing maternal care. In urban areas with small family the labour generally conducted in the hospital. The process of labour which has been so simple and natural has become more structured complex and eventful today. In most cases the success of a safe
delivery depends to a greater extent the wholehearted involvement and co-operation of the mother in going through various stages of labour.

The primary focus of modern obstetrical nursing is on the preventive care of pregnant women. Effective patient education prepares expectant mothers for safe childbirth. Dick-Read (1944) has stated that if women approach pregnancy and childbirth with fear, it adds to tension. Due to tension, the cervix becomes rigid. The rigid cervix takes a long time for dilatation and causes more pain. Thus a vicious fear-tension-pain cycle is formed. This cycle is to be broken by proper childbirth education and purposeful self care practices during pregnancy and childbirth.

In a study of expectant primi mothers’ learning needs, Bliss-Holt (1988) found that during the third trimester pregnant women were interested in learning to select the coping strategies for labour and delivery. Bobak and Jenson (1991) and Read (1944) suggested that education reduces fear of the unknown and thus eliminates or attenuates the fear-tension–pain cycle.

Charles (1978) stated that women with psycho prophylaxes training for childbirth prior to delivery had significantly lower levels of pain and higher levels of constructive participation during the birthing process. A woman’s ability to adapt to the changes and challenges of pregnancy affects to the outcome of pregnancy and the latter is also affected by her outlook and the level of the stress she experiences.

In the Reproductive and Child Health (RCH) programme, the emphasis has been laid on the participatory approach, giving great importance to the quality of care, rather than on being target-oriented. This participation in antenatal care and the improvement of the quality of care that a mother receives could be greatly influenced by her basic knowledge about the childbirth process.
Even though there are several isolated attempts to enlighten expectant mothers and to impart childbirth education, formal structured programmes have been systematically introduced and implemented only in early 20th century. Childbirth education has been accepted by the healthcare committee as a part of healthcare system, especially in western countries. However, in India, childbirth education is still in its infancy. Studies (Lucy, 2010; Lekshmi, 2002) show that women with the right knowledge about pregnancy cope better with childbearing in general and labour process in particular with less anxiety. It was not really until the 1980’s that the modern world really got to realize that the childbirth education for women and partners was beneficial to the birthing process. Presently many new couples attend childbirth education classes in order to prepare for childbirth.

These classes are important in today’s world, as couples often do not have the luxury of an extended family to learn about caring for the babies. Modern prenatal classes teach all aspects of pregnancy, delivery and care of the newborn. Fear of pain in labour is a key issue for pregnant women and there is a need for attending childbirth education classes.

The National Institute for Clinical Excellence (NICE, 2003) suggests that there is no evidence to support routine screening in the antenatal period to identify women ‘at risk’ of developing postnatal depression. However, considering the impact of maternal anxiety and depression during pregnancy and childbirth period, healthcare personnel should give due importance to these aspects and give priority to reduce anxiety and depression during pregnancy. The present study explores the prevalence of anxiety and depression during pregnancy and postpartum period with a view to develop a program to impart knowledge to pregnant women that will enhance their awareness and improve their preparation for childbirth, by reducing pregnancy-related anxiety.
1.2 Need and Significance of the Study

Discomfort and changes due to pregnancy can cause anxiety to the woman and her family, which requires sensitive attention and a plausible plan for teaching self-care measures. Antenatal anxiety and depression are common complaints in women with a prevalence of 30% during pregnancy and puerperium; that is often not detected and therefore not treated appropriately.

Several studies suggested that stress and anxiety have a profound effect on pregnancy and labour. Maternal psychological stress and anxiety are found to be predictors of adverse pregnancy outcomes including low birth weight and prematurity. Postpartum non-psychotic depression is one of the most common complications of childbearing, affecting approximately 10-15% of women. Postnatal depression is now a recognized public health issue (Cox and Holden, 2003). Most studies related to depression have focused on establishing the factors that affect postpartum depression and measures needed to be taken to prevent it because of its negative effects on the mother and the baby. However, it is suggested that women have depression more in the prenatal period than in the postpartum period (Hayes et al., 2001). Evans (2001) reported that studies showed that symptoms of depression during pregnancy are higher in antenatal than in postnatal period. So the assessment of prenatal depression is of important.

Depression during pregnancy is a significant public health problem because of its negative effects on the health of both mother and infant. The maternal mood across the transition from pregnancy to postnatal period should be the focus of research and clinical attention because the disturbance of maternal mood during this period may affect developmental outcome in the child. Most of the existing research has focused on
depression; less is known about the profile and pattern of anxiety and the connection between depression and anxiety during this period.

A population study to find out point prevalence of psychiatric disorders during the second trimester of pregnancy among pregnant women attending maternity clinics in Northern Sweden revealed the prevalence of 10% depression and 6.6% anxiety. The study concluded that the prevalence of depression and anxiety disorders in pregnant women was high and a majority of women afflicted were found to be undiagnosed and untreated (Hodnett, et al., 2003).

Anxiety during pregnancy has been linked to negative expectations about motherhood (Hart and Mc Mahon, 2006), difficulties in adjusting to the demands of the maternal role, and the development of other difficulties, particularly postnatal depression (Heronet et al., 2004; Matthey, 2004). Antenatal anxiety may be an important early marker that could be used to identify women at risk for compromised mental health and offspring outcome. Significant fears during pregnancy increases the risk of severe emotional imbalance after the baby is born and the negative impact on mother’s relationship with the child (Saisto et al., 2001).

Catherin (2005) highlighted the importance of considering anxiety when examining psychological adjustment to pregnancy and transition to parenthood. It may be possible to identify and treat a substantial portion of women who are at risk of developing anxiety and mood disorder during postnatal period. There is increasing evidence that co-morbid anxiety may be a significant feature in the occurrence of both antenatal depression and postnatal depression (Da Costa, et al., 2000 and Misri, et al., 2000).

According to a report on the data collected from 1,039 pregnant women in the Turkey Spinelli (2001) study, 27.9% \((n=290)\) had prenatal depression that needed to be
treated. Metthey et al. (2003) found that assessment of anxiety symptoms increased the rates of psychiatric case detection by up to 100% over rates of depression in women assessed both antenatally and postnatally. Metthey et al. (2003) also reported that a history of anxiety disorder to be a more significant risk factor for a postnatal mood disorder than a history of depressive disorder, and therefore identifying both antenatal and postnatal anxiety and depression has an important clinical need and clinical advantage.

Perceived prenatal learning needs of multi-gravid women are explored among 18 Africans multigravida in their third trimester in an effort to develop effective prenatal education by Matilda (2007). Specific topics especially on how to care for themselves and their babies after birth were identified by Matilda. The subjects in the study reported that inconsistency with respect to information received from health professionals and other sources created tension and anxiety and that they wanted more detailed relevant information specific to their needs.

Drummond and Rickwood (2004) validated the childbirth self-efficacy inventory in an Australian sample and found that prior good birth experiences and knowledge of childbirth significantly increased women’s confidence in their ability to cope with labour and increased confidence has been associated with lower levels of pain experienced during labour. Thomson (1984) reported that structured preparatory classes for childbirth decrease women’s anxiety level during labour and help to develop more positive expectations of the event.

Beggar, Donna and Cook Loveland (1997) conducted a cross sectional study to compare mothers’ and nurses’ perception of postpartum learning needs and effectiveness of teaching modalities. The result showed that first-time pregnant mothers rated topics for childbirth education as most important.
Campagne (2004) emphasized that it is important to know how often pregnant women experience depression, what factors influence the development of depression and anxiety, and what is the connection between depression and anxiety during this period. Literature review concluded the importance of assessing psychological status during pregnancy, childbirth and the postnatal period as a multidimensional construct. The screening and identification of maternal psychological distress from a multidimensional perspective enable healthcare professionals to recognize and acknowledge normal and abnormal adjustment and offer interventions, strategies and support to facilitate women’s transition to motherhood (Jomeen, 2004).

Assessment of general anxiety during pregnancy may underestimate anxiety specifically related to pregnancy. Pregnancy-specific anxiety, rather than general anxiety, has been shown to predict birth outcomes and neuroendocrine changes during pregnancy. Pregnancy anxiety should be regarded as a relatively distinctive syndrome. Its measurement enables researchers and clinicians to address issues of prediction, identification and risk reduction more precisely and effectively (Huzink et al., 2004).

A few studies have systematically assessed the specific fears and worries related to pregnancy and the structure of pregnancy anxiety. In the early 1970s, the Pregnancy Anxiety Scale (PAS) was created by Burstein et al (1974). A later confirmatory factor analysis performed on the original items of the PAS that were collected retrospectively after childbirth suggested a three-dimensional model of pregnancy anxiety: ‘anxiety about being pregnant’, ‘anxiety about childbirth’, and ‘anxiety about hospitalization’ (Levin, 1991).

Standley et al. (1979) obtained data on the presence of one general anxiety and five specific pregnancy anxieties such as physical anxiety, anxiety about the integrity of the
foetus, childbirth anxiety, child care anxiety and infant feeding anxiety during the last month of pregnancy in nulliparous pregnant women. They suggested that the specific pregnancy anxieties could be clustered in two dimensions: ‘anxiety about pregnancy and childbirth’ and ‘anxiety about future parenting’. Non-pathological worry and fear in the pregnant population have also been discriminated by Stober and Muijs (2001) who suggested that worry has a certain content and is worthy of an independent assessment in pregnant women, with regard to clinical and psychological outcomes, regardless of anxiety. The present prospective study attempts to explores pregnancy-specific anxiety in addition to general anxiety and depression during pregnancy and postnatal period.

Ip, Wan-Yim, et al. (2009) have carried out an educational intervention to improve women’s ability to cope with childbirth. A randomized controlled trial tested the effectiveness of an efficacy-enhancing educational intervention to promote women’s self-efficacy for childbirth and their coping ability in reducing anxiety and pain during labour among 133 eligible Chinese first-time pregnant women. Results revealed that the experimental group had significantly higher levels of self-efficacy for handling childbirth and lower perceived anxiety and pain (p <0·001), and greater performance of coping behavior during labour (p < 0·01). They recommended that relief of pain and anxiety is an important issue for women as well as health professionals. So Efficacy-enhancing educational intervention should be integrated into childbirth educational intervention programmes for promoting women’s coping ability during childbirth.

Pınar and Hülya (2009) conducted a qualitative study among 19 nulliparous women with fear related to childbirth, to describe fears associated with childbirth and reasons for the fears in an outpatient maternity clinic of a university hospital in Turkey. They found out that women’s fears were related to labour pain, birth-related problems and procedures,
attitudes of health-care personnel and sexuality. The type and quality of childbirth information, personal characteristics and experiences, maternity ward environment and lack of confidence in health-care personnel were presented as reasons for these fears. Seven of the women were considering an elective caesarean section. The authors concluded that nulliparous pregnant women experience considerable fear related to the impending childbirth and are likely to request caesarean section. They recommended that it is important for health professionals who provide antenatal care to explore fears related to childbirth and develop formal childbirth education programmes.

Barnett and Packel (1990) found a 19% reduction in anxiety during the first postnatal year in a group of highly anxious nulliparous women who received professional help, compared to a 12% reduction in women who received support from nonprofessionals. The potential for health promotion activities was highlighted and they recommended the need for childbirth education classes and training to expectant mothers.

Sorenson (1990) reported that although the lay literature addresses fears associated with pregnancy and childbirth, it is often done in a superficial way. Therefore, Sorenson recommended that fear should also be dealt with in childbirth education. Navick (2009) did a review of literature on women’s experience on prenatal care and found that the receipt of information was a key theme. A positive relationship between prenatal care and the adequacy of information received by the women was noted.

The strategies to improve maternal health include the education of women across their lifespan, promising technologies, preconception healthcare and care across the child bearing year (WHO, 2002).

In developed countries antenatal education is given in a systematic manner for many years and many studies have proved its positive effect. A number of innovative
interactions which are relatively simple and inexpensive can be used by healthcare professionals to improve maternal health (Heir, 2004). Effective childbirth education is not generally available in our healthcare system. We have to find an effective way to prepare our expectant couples for childbirth.

The purpose of antenatal education is to help prospective parents to prepare for childbirth and parenthood by providing information on issues such as evidence-based maternity care practices, pain relief, decision making during labor, infant and postnatal care, and breastfeeding, as well as increasing maternal confidence. However, there is a lack of high-quality evidence from controlled trials to establish the effectiveness of antenatal education or to determine the best approach (Gagnon, (2007); Bergstrom, (2009)). Further research is required to ensure that antenatal education programmes meet the needs of parents and the care of newborn infants more effectively.

NFHS (1993) reported that 97% pregnant mothers of Kerala receive antenatal care, but education regarding maternal and childbirth imparted to the community by health professionals is inadequate. All pregnant women do not seek prenatal checkups and if they register at all, they do not come regularly for follow-up visits.

In earlier times pregnant women acquired the knowledge of childbearing through joint family system, but in the present time with small and nuclear family being the norm, this knowledge sharing within the family is vanishing, demanding the need for formal education in childbirth. Mothers from all cultures traditionally passed their knowledge about labour and birth to their daughters. These cultural and family rituals guided women through pregnancy, labour, birth, and the early days of mothering. Women who gave birth in the hospital no longer had the unlimited support of women friends or family members. They were often alone and isolated from support persons and attended primarily by nursing
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and medical personnel. During this most vulnerable time, women were often ill-prepared for hospital routines and procedures, which led to increased fear and anxiety about the birth process.

During an informal interview with mothers, the Investigator came to know that pregnant women are very anxious about pregnancy, childbirth and newborn care. In government hospitals the measures to assess anxiety are buried under heavy patient loads. Often hospitals attempt to meet the problems of loneliness and increased anxiety with drugs.

Psychological needs of the pregnant women are often neglected in the modern world. This prompted the Investigator to explore the extent of anxiety and depression among pregnant women and how their ignorance contributed to anxiety and depression. The proposed study enriches to the existing research by examining depression and anxiety from pregnancy to the postnatal period prospectively in a sample of women in Kollam district of Kerala State.

It was observed that most mothers, especially nulliparous pregnant women, lack the appropriate knowledge about the changes during pregnancy and childbirth and the knowledge about how they should cope with stress during pregnancy and childbirth. Although there is a lot of information regarding these subjects, much of this is not professionally sound and thus a need for specific information by the health professionals is indicated.

Many nulliparous pregnant women in the antenatal ward expressed much eagerness to learn about childbirth. No evidence of the practice of breathing exercises or relaxation techniques was noted during the Investigator’s clinical experience. In the Investigator’s experience, expectant women demanded sedation, rapid delivery and even medically
non-indicated operative delivery even at earlier stages of labour due to their severe fear of childbirth. Mothers were not well informed regarding the preparation for labour, procedures, the pain and how they had to relax and cope with pain and discomfort. The Investigator felt that it is high time that nulliparous pregnant women are adequately prepared for the childbirth through childbirth education classes for safe and natural childbirth. The study proposes to develop and administer a compact Childbirth Education Programme for nulliparous pregnant women and to evaluate its effectiveness in enhancing knowledge with regard to preparation for childbirth and combat against the levels of anxiety and depression.

In Kerala in the recent past, no study has been undertaken to determine the prevalence of anxiety and depression among pregnant women, especially that of pregnancy-specific fears and no effort of any formal structured childbirth education programme has been initiated or implemented. The present study addresses this issue.

1.3 Statement of the Problem

The study is designed to find out the prevalence of anxiety and depression among women during pregnancy and childbirth. The present prospective study addressed the differentiation of pregnancy-specific anxiety from indices of general anxiety and depression. Assessment of the pregnant mother’s knowledge related to five selected aspects of antenatal care provides baseline data to find out the influence of knowledge on mothers’ anxiety and depression levels. The study also intends to experiment the impact of planned childbirth education on the level of anxiety. The study is therefore entitled as: Anxiety and Depression among Pregnant Ladies during Antenatal, Intranatal and Postnatal Period.
1.4 Operational Definition of the Key Terms

For the purpose of clarity and simplicity, operational definitions of the important terms used in the present study are given below:

**Anxiety**

Anxiety means mental state characterized by apprehension, uncertainty and fear. General anxiety as state and trait anxiety is measured. State anxiety as subjective feelings of tension, apprehension, nervousness and worry. Trait anxiety is described as a personality trait that indicates relatively stable individual differences in anxiety-proneness (Spielberger et al., 1983)

**Pregnancy-specific anxiety**

Specific fears and worries related to pregnancy, Childbirth, breast feeding and newborn care

**Depression**

Depression is the disturbance characterized by feeling of sadness, despair, gloom and hopelessness, thoughts of self-harm. Disturbances occur in memory weight loss and loss of appetite, wakes up early in the morning and feels bad about self. During pregnancy, if emotional disturbances lasted longer than two weeks it is considered as depression. Postnatal Depression symptoms are measured at two to four weeks postnatally.

**Pregnancy**

The state of women who conceived and passed through the physiological state before childbirth; and the period is divided into first, second and third trimesters.
Antenatal: The period of pregnancy till delivery, comprises 40 weeks divided as first, second and third trimester of pregnancy.

Trimester: In this study first trimester is 8-16 weeks, the second trimester, 20 - 28 weeks and third trimester as 30 - 40 weeks.

Intranatal: The period of labour and delivery, starting from true labour pain to the birth of baby and the expulsion of placenta - includes all four stages of labour. 37 - 41 weeks considered as full term delivery.

Postnatal period: The period from birth till 6 weeks after childbirth.

Pregnant Ladies: Pregnant women

Nulliparous gravid mothers: Women pregnant for the first time and or pregnant women not given birth hitherto.

Parous gravid mothers: Pregnant women who delivered once or more before

Childbirth: The process of giving birth to a baby; childbirth comprises intranatal period with first, second, third and fourth stages of labour.

Labour Outcome: The outcomes of both mother and baby during and immediately after delivery

Planned childbirth education: It is a systematically developed scheme of instruction designed to provide information to pregnant women on childbirth. Childbirth Education means education related to the process of childbirth and preparation for it. It includes basic anatomy and physiology of the female reproductive system, signs of true labour, and
stages, self-care activities and examinations done during intranatal period, breathing and relaxation techniques for reducing labour pain. The teaching methods to be adopted for Childbirth Education consist of verbal communication, demonstration of breathing and relaxation techniques and a booklet given as reference and video show in the antenatal clinic. The experimental group receives planned childbirth education while the control group does not.

**Effectiveness**: According to the New Compact Oxford Dictionary (2004), effectiveness refers to the extent of achieving the intended result. In this study it refers to determining the extent to which the planned childbirth education programme has achieved the desired effect in terms of increase in mother’s knowledge of preparation for childbirth and decrease in the pregnancy-specific anxiety, general anxiety and depression.

**Socio-personal Variables**: Personal and socio-economic variables which are considered as characteristics of the subject in this study include age, obstetrical score, religion, income, education and occupation of mother, her birth order in her family and sources of information, history of abortion, family history of mental illness and of any member in her family with fear of pregnancy. The variables related to her husband also explored in terms of their education, occupation, any habit of smoking, alcoholism and substance-abuse. In addition, location of house, type and nature of family are included. The levels of satisfaction of expectant mothers’ marital relationship and relationship with in-laws as well as support system available for them during pregnancy and childbirth period are other information included in socio-personal variables.

### 1.5 Hypotheses

The Investigator intends to study the extent of anxiety and depression among pregnant women. By studying alone, the anxiety and depression among pregnant women
could not be ameliorated; therefore, the Investigator planned an intervention program to minimize anxiety and depression among them.

The following hypotheses are formulated for this study.

1. There is a high level of anxiety among women during pregnancy and postnatal period.

2. There is a high level of depression among women during pregnancy and postnatal period.

3. There is an association between pregnancy-specific anxiety and the pregnant women’s knowledge of antenatal care.

4. There is an association between socio-personal variables and the pregnant women’s knowledge of antenatal care.

5. An intervention program of Planned Childbirth Education is an effective strategy to minimize the anxiety and depression of women during pregnancy and postnatal period.

1.6 Objectives of the Study

1. To determine the prevalence of general anxiety during three trimesters of pregnancy (antenatal), intranatal and postnatal period.

2. To determine the prevalence of pregnancy-specific anxiety during three trimesters of pregnancy (antenatal), intranatal and postnatal period.

3. To determine the prevalence of depression during three trimesters of pregnancy, (antenatal), intranatal and postnatal periods.
4. To identify the pregnant women’s knowledge of selected aspects of antenatal care such as diet in pregnancy, antenatal check-up, prevention of minor disorders of pregnancy, breastfeeding, and preparation for childbirth

5. To find out the relationship of anxiety and depression with pregnant women’s knowledge of selected aspects of antenatal care

6. To determine the association between socio-personal variables and the levels of anxiety and depression

7. To find out the association between socio-personal variables and the levels of pregnant women’s knowledge of selected aspects of antenatal care

8. To identify the relationship between level of anxiety and outcome of labour

9. To compare the levels of anxiety of pregnant mothers in experimental and control groups before and after the planned childbirth education

10. To compare the gain in knowledge of the control and experimental groups

11. To compare the outcomes of labour in mothers in experimental and control groups

a Excluded from study after pilot study

1.7 Methodology in Brief

Phase I: A prospective cohort survey study was conducted among 500 pregnant women using standardized tools State Trait Anxiety Inventory (STAI) and Beck Depression Inventory-II (BDI) to find out the prevalence of general anxiety and depression. Pregnancy-specific anxiety was assessed by standardized structured Pregnancy-specific anxiety
Inventory (PSAI) and the knowledge related to five aspects of antenatal care was assessed using structured Knowledge Questionnaires by interview method. Labour Outcome Checklist was used to record the labour outcomes by record analysis.

**Phase II : a)** Development of childbirth education programme.

**Phase II : b)** Testing the effectiveness of childbirth education programme. The childbirth education programme was administered to 100 nulliparous pregnant women who were in their third trimester of pregnancy. The effectiveness of the program was judged by the difference between pretest and posttest scores in experimental and control groups.

### 1.8 Scope of the Study

This study is expected to highlight the importance of educating pregnant women regarding antenatal care especially preparation for childbirth. It is hoped that the exploratory nature of the study will help to identify the prevalence of general anxiety, pregnancy-specific anxiety, depression, and the extent of knowledge of selected aspects of antenatal care, among women during pregnancy and childbirth in the district of Kollam in Kerala State.

The development of the planned childbirth education by the researcher possibly is the first attempt in our healthcare setup to address the specific fears of pregnancy and childbirth. The scope of planned childbirth education is to enhance pregnant women’s knowledge of the preparation for childbirth and to reduce pregnancy-specific anxiety. In short, the findings of this piece of research are expected to facilitate coping of pregnant mothers with pregnancy-specific anxiety and thereby reduce bad labour outcomes and postpartum depression.
1.9 Delimitation of the Study

The present study is limited to 500 literate pregnant women with normal pregnancy from a leading maternity government hospital in Kollam District in Kerala State. In addition, 100 nulliparous pregnant women who were in their third trimester were studied for the effectiveness of the planned childbirth education programmes developed for the study.

The delimitations of the study as stated above neither cast bias, nor affected the objectives and the procedure of the study as the government hospital selected for the study is possibly representative of all the government hospitals in Kerala State. Since the Investigator administered a childbirth education programme with the help of printed matter, only literate pregnant women were selected. The study was conducted only on a sample of women with normal pregnancy, since the complexity of psychological variables may have different profile and intensity, in case of abnormal pregnancy. The sample of 500 expectant mothers and 100 nulliparous women were selected for survey and intervention respectively represents the population of the study.

1.10 Summary

This study explores anxiety and depression among women during pregnancy and childbirth. It also throws light on the amount of knowledge of pregnant women of selected aspects of antenatal care, the prevalence of pregnancy and childbirth specific anxiety and the effect of childbirth education on anxiety and the outcome of labour. This chapter deals with the background of the study, its need and significance, statement of the problem, the operational definitions, objectives of the study, the hypotheses, methodology in brief as well as scope and delimitations of the study.
1.11 Outline of the Report

The report of the study is presented in the following six chapters:

Chapter I  Presents the context of the study, the significance of the study, followed
mainly by the statement of the problem, the hypotheses, the objectives, the
methodology in brief, the scope and limitations of the study.

Chapter II  Review of literature with an overview of the related literature and studies

Chapter III  Methodology and plan of action for data analysis.

Chapter IV  Analysis and interpretations

Chapter V  Discussion of results

Chapter VI  Summary, conclusion and suggestions

The report also consists of abstract, bibliography and appendices.