بسم الله الرحمن الرحيم

{ فَأَجَاءَهَا الْمَخَاضُ إِلَى جِذْعِ النَّخْلَةِ قَالَتْ يَا لَيْتَنِي مِتُّ قَبْلَ هَذَا وَكُنْتُ نَسْيًا
مَنْسِيًّا۝ فَنَادَاهَا مِنْ تَحْتِهَا أَلَّا تَحْزَنِي قَدْ جَعَلَ رَبُّكِ تَحْتَكِ سَرِيًّا۝ }

صدق الله العلي العظيم

(سورة مريم / الآية 23,24)

Republic of Iraq
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And Scientific Research
University of Babylon
College of Nursing

Effectiveness of an Antenatal Education Program on Fear from Childbirth in Al-Najaf Al-Ashraf Governorate

A Dissertation Submitted to

The Council of College of Nursing, University of Babylon
in Partial Fulfillment of the Requirements for the Degree
of Doctorate Philosophy in Nursing Sciences

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September 2021 AD. **Moharim 1443 AH**

جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة بابل كلية التمريض

تاثير البرنامج التثقيفي ماقبل الولادة على المخاوف من الولادة في محافظة النجف الاشرف

أطروحة مقدمة الى

مجلس كلية التمريض جامعة بابل
كجزء من متطلبات نيل درجة الدكتوراه فلسفة علوم في التمريض

من قبل
منتهى عبد الله ريشان منيجل

بإشراف
أ.م. د. ناجي ياسر سعدون المياحي
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محرم 1443 ايلول 2021

Academic supervisor certification

we certify that the dissertation entitled " **Effectiveness of an Antenatal Education Program on Fear from childbirth in Al-Najaf Al-Ashraf Governorate**" was prepared under my supervision at the Faculty of Nursing, the University of Babylon in partial fulfilment of the requirement of the Degree of Doctor of Philosophy in Nursing Science**.**

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Certification

We, members of the examining committee have looked at the dissertation entitled **(Effectiveness of an Antenatal Education Program on Fear from childbirth in Al-Najaf Al-Ashraf Governorate)**, while is submitted by a PhD. student Muntaha Abdullah Reshaan, for the department of Maternal and Neonatal Health Nursing, we have examined the students in its content, and what is related to it and we can decide that it is adequate for awarding the Doctor of Philosophy in Nursing Science/Maternal and Neonatal Health Nursing and estimate of ( )on( ).

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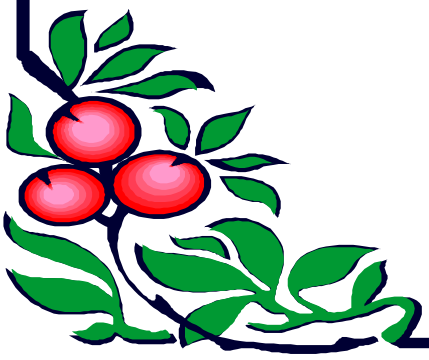
الخلاصة

أجريت دراسة شبه تجريبية من خلال مقارنة مجموعتين من النساء. مجموعة دراسة ومجموعة ضابطة للتحقق من فعالية برنامج تثقيف ما قبل الولادة بشأن خوف المرأة من الولادة المهبلية الطبيعية ، حيث كانت عينة الدراسة غير احتمالية / قصدية تضم 60 امرأة حامل حضرن مراكز الرعاية الصحية الأولية الرئيسية في محافظة النجف الاشرف. من ناحية أخرى ، تم جمع البيانات باستخدام نسختين من استبيان Wijma لقياس الخوف من الولادة. تم تحليل البيانات من خلال استخدام الحزمة الإحصائية لبرمجيات العلوم الاجتماعية (26) حيث تضمنت التحليل الوصفي وتحليل البيانات الاستنتاجية. تشير الدراسة إلى أن مستوى الخوف لدى مجموعة الدراسة شديد (MS 2.43) بينما كان الخوف معتدلاً على المجموعة الضابطة (MS 2.32) قبل البرنامج التعليمي. ومع ذلك ، انخفض مستوى الخوف ليصبح معتدلاً في مجموعة الدراسة (MS 1.43) ومازال معتدلاً في المجموعة الضابطة (MS 2.26). كما توصلت الدراسة الحالية بشكل عام إلى أنه لا يوجد فرق بين مجموعة الدراسة والمجموعة الضابطة فيما يتعلق بالخوف من الولادة قبل برنامج التعليم بقيمة احتمالية 0.073 بينما كشفت الدراسة عن وجود فروق ذات دلالة إحصائية بين مجموعة الدراسة والمجموعة الضابطة فيما يتعلق بالخوف من الولادة بعد برنامج التعليم بقيمة p <0.001. تشير الدراسة الحالية إلى أنه لا توجد علاقة ذات دلالة إحصائية بين الخوف من الولادة قبل التعليم والبيانات الديموغرافية للدراسة والمراقبة باستثناء وجود علاقات ذات دلالة إحصائية بين الخوف من الولادة والإجهاض السابق المرغوبة للولادة. الخلاصة: كما توصلت الدراسة الحالية إلى عدم وجود فرق بين مجموعة الدراسة والمجموعة الضابطة فيما يتعلق بالخوف من الولادة قبل برنامج التعليم بينما أظهرت الدراسة وجود فروق ذات دلالة إحصائية بين مجموعة الدراسة والمجموعة الضابطة فيما يتعلق بالخوف من الولادة بعد برنامج التعليم. يوصى بإجراء مزيد من الدراسات للتحقيق في تأثير فصول التثقيف قبل الولادة على خوف المرأة وكفاءتها الذاتية. تصميم وتنفيذ برامج التدريب التثقيفية السابقة للولادة في مجال الأمومة في مراكز الرعاية الصحية الأولية حول الولادة المهبلية الطبيعية

Dedication

This dissertation work is dedicated to my mother, who has always loved me unconditionally and whose good examples have taught me to work hard for the things that I aspire to achieve. this work is also dedicated to my father soul. This work is also dedicated to my husband, who has been a constant source of support and encouragement during the challenges of the doctorate program; I am truly thankful for having you in my life. Also, this work is dedicated to my brothers and sisters whose love flows in my veins and my heart always remembers them. I dedicate this work and give special thanks to my sister khatam for supporting and helping me throughout my doctorate study.



1-1 Introduction

Pregnancy and childbirth are a critical experience in the lives of most women, it is considered a transition phase to motherhood at physical, psychological, and social levels, therefore women with difficulty accepting pregnancy have a harder time adapting to pregnancy and mother-hood in addition to experiencing more fears related to childbirth (Toohill et al., 2014). On the other hand, Childbirth cannot be fully controlled, is not completely understood and is unpredictable. Therefore, many women experience both anticipation and anxiety about the upcoming delivery it is a normal feeling and process that may help the women to prepare themselves, experiences of joyful anticipation can sometimes be accompanied by negative emotions, mainly in the form of fear of childbirth (FOC) which may be a mild, moderate, severe or phobic fear (tocophobia) (Sydsjö et al., 2013). These emotions may in some women cause in future mental disorders in the form of anxiety, lack of self- control and security, and be the cause of postpartum depression (Beata B, 2016).

In various studies, 20–25% of pregnant women had a fear of childbirth and 5– 10% experienced serious anxiety and fear about the act of childbirth(D. Cosßkuner Potur et al., 2017). So, FOC can be seen as an anxiety disorder or as a phobic fear that women experience in relation to pregnancy and childbirth, which manifests as physical complaints, nightmares, and difficulties in concentrating on work and family activities(Qiu L et al., 2019) Moreover, FOC might develop during pregnancy, and the content of fear may include the pain, unknown, loss of control, and having an impaired or stillborn child(Rouhe et al., 2013). Furthermore, Fears can be acquired by at least three major pathways by conditioning in which a learned association develops when a specific object or situation (e.g. being in hospital or thoughts of delivery) is paired with aversive experiences (e.g. discomfort), by vicarious exposure (e.g. when

watching someone else give birth), and by indirect transmission via information (e.g. horror stories about childbirth)(E. Rondung et al, 2016). Thus, Fear of childbirth has implications for women's health because it is a primary psychological factor that contributes to women's requests for interventions and disruption of physiological labor (K. Stoll et al., 2014).

Pregnant women with severe FOC run an increased risk negative birth experiences, post-traumatic stress after childbirth dystocia and emergency caesarean section. FOC is significantly more common among women with mental health problems, anxiety and depression are risk factors for severe FOC. FOC is even more common in younger women with low-educational level and lack of social network(B Salomonsson, 2013). In addition, women with childbirth fear have a longer interval to subsequent delivery, a longer duration of active labor, a higher probability of developing postpartum depression, and a higher probability of having a cesarean delivery compared to women without childbirth fear. labor induction, emergency cesarean, elective cesarean, and instrumental delivery are more common among women with fear of childbirth(Reyhan Erkaya et al., 2017). As well as women describe different types of fear. Some examples are fear of intolerable pain, injury or death of the infant or the woman herself, being incapable of giving birth, tearing apart, and losing control of the situation during labor or the possible need for an instrumental delivery. Lack of trust in the obstetric personnel is also commonly expressed, Other dimensions of childbirth fear are loneliness, insufficient support and quality of midwife care (G. Sydsjo et al., 2013). Therefore, women with fear of childbirth were more likely to describe their birth experiences as involving a sense of not being present in the delivery room, and were more likely to state that they did not receive sufficient support from midwives, and that their faith in their ability to give birth was shaken(G. Gökçe İsbir et al., 2016).

Women with a higher level of childbirth fear experience increased risk of emergency caesarean section (CS), requests elective CS more frequently, the increasing frequency of CS is attributed mainly to maternal CS requests, the most common reason being childbirth-related fear, the rate of CS has almost doubled in the last decade in both developed and developing countries because most primipara's and multiparas believe that CS is safer than vaginal delivery (VD) for both mother and infant(Matinnia N et al., 2015). Moreover, childbirth fear has been demonstrated in several studies as a common reason for caesarean section on maternal request. A systematic review of 38 studies indicated that across a range of countries approximately 16% of women prefer caesarean section as mode of childbirth(Gao et al., 2015)

a previous study in iraq showed that 11% of cesarean sections in a public hospital in Baghdad were conducted for non-medical reasons such as the fear of vaginal delivery (45.7%), avoiding delivery pain (14.3%) (Shabila, 2017)

another study in Karbala found that increasing rate of c/s because of fear women from labor pain, trauma or injury may occur to birth or maybe they have no family support during labor and birth. This finding was also reported by other studies(mohammad E et al., 2019)

As the act of giving birth draws nearer, a pregnant woman’s fear of giving birth increases especially if the pregnant woman is primipara. For these women, the unknown level of pain in childbirth causes unpreventable anxiety. Women who have given birth before may also experience fear due to negative past experiences, However, studies have shown that primipara women experience greater FOC than multipara women(Anderson C and Gill M, 2014). Although fear of childbirth is more likely to be observed in nulliparous women, women with traumatic or difficult birth experiences are around five times more likely to report childbirth fear in a subsequent pregnancy(H.T. Størksen et al., 2013) Therefore, In recent decades, labor

pain and fear of childbirth have received much attention from authors, which described labor as a painful phenomenon(Mortazavi F, 2018).

Anxiety can be removed by appropriate education and tension by relaxation. These beliefs led to psycho-obstetrics, on the basis of which today antenatal classes exist. They are supposed to prepare the pregnant woman and her partner to actively participate in the act of birth of their baby and allay the fear of impending birth(Beata B, 2016). Antenatal education is a service requested by the majority of pregnant women throughout the world; it appears under various names such as ‘childbirth education programs’, ‘pre-natal classes’ and ‘childbirth preparation classes’. In some parts of the world, even today, this education is provided by the transfer of information or experiences from mothers, sisters or traditional midwives(Coşar & Demirci, 2012). This informal sharing in a social environment may have negative effects on pregnant women’s thoughts about childbirth. Many study found that incorrect information and insufficient knowledge of delivery leads to fear and requests for a caesarean section (Karabulut et al., 2015). Therefore, Preparation for childbirth during prenatal period by attendance to antenatal classes seems to be helpful in achieving more optimal per- and postnatal outcome moreover, organized group activities facilitate experience exchange and provide emotional support from other women in similar life circumstances (J. Kacperczyk-Bartnik et al, 2019). The content of antenatal preparation classes varies a lot between countries, towns and service providers. Prenatal classes can be run individually or in groups. The programs range from intensive one-day sessions to several sessions held over several weeks. The teaching method varies from discussion and group sessions to videos, Internet resources and lectures (Rouhe H, 2015) as well as Use of antenatal education program early in the pregnancy is professionally considered important to ensure that appropriate antenatal education is

arranged and, therefore, good quality and quantity of information are delivered to improve pregnancy outcomes (M Al-Ateeq, 2015).

Antenatal education is instrumental in helping prospective mothers. Prospective mothers often need antenatal education to help them make decisions about birth and during birth, and for developing skills for labor, pain relief, infant and postnatal care, breastfeeding and parenting. Although antenatal education is provided as standard through training programs in developed countries, there is no standard program in developing countries. Therefore, the quality and content of the education vary (G. Gökçe İsbir et al., 2016). As a result, several studies found that antenatal education was effective in decreasing birth-related anxiety and fear of childbirth, Additional studies showed that antenatal education increased maternal knowledge about birth, birth satisfaction and sense of control in birth (J Byrne et al., 2014).

Antenatal education programs often have a range of aims, such as to influence health behavior; build women's confidence in their ability to give birth; prepare women for childbirth; prepare for motherhood; develop social support networks; and contribute to reducing perinatal morbidity and mortality (Boorman, R et al., 2016). Therfore, education may be provided during the antenatal period or childbirth or during the postnatal period or during all of these stages and encompasses the various aspects of childbirth care and health (A.-S.H. Aji et al., 2018). As well as antenatal education thus comprises a range of educational and supportive measures that help pregnant women to understand their own social, emotional, psychological, and physical needs during pregnancy, labor, and motherhood.(Gagnon AJ, 2011).

1-2 Importance of study

The importance of providing education throughout childbirth has been substantially highlighted in many studies. There are issues raised in several studies that pointed out suitable topics or education that should be given to women; the appropriate time in which the education should be provided during childbirth (either during the antenatal, labour or the postnatal period)(Al-ateeq & Al-rusaiess, 2015). Therfore, Antenatal education is an essential component of antenatal care to improve mother's skills and confidence, as well as preparing them for a positive birth experience(A.-S.H. Aji et al., 2018).

Antenatal education is indispensable to the health of pregnant women and their infants in many parts of the world. Although numerous studies have been undertaken regarding the effects of antenatal education, evidence remains insufficien, antenatal education has an important place in couples' preparations for pregnancy, childbirth and parenting(Serçekuş & Başkale, 2016a). One of the tasks of antenatal classes recommended by the Polish Gynecological Society is to prevent unpleasant emotions associated with pregnancy and childbirth through education and skills training to prepare for motherhood(Beata B, 2016).

A number of studies have shown that education reduces anxiety suffered at birth, In their pilot study, showed that antenatal education reduced the fear of childbirth, while indicated that education has a positive effect on the childbirth experience , parenthood(J Byrne et al., 2014). As well as There are many studies on the effects of antenatal education; noted that women who received the education believed that such training was beneficial in preparing them for childbirth. Another study indicated that women who received education were less prone to experiencing anxiety during childbirth(Ahmed A et al., 2018).

Education interventions have an impact on the health of the pregnant woman as well as on the health and wellbeing of next generations in any country. They provide expecting mothers with information that enable them to identify potential warning signs of malfunction or abnormalities during pregnancy as well as strategies to adhere to prescribed treatments and referrals(Otaiby et al., 2013). So , Antenatal classes play an important educational role as information about pregnancy course during standard prenatal care may be deficient in case of even 75% of patients(J. Kacperczyk-Bartnik et al, 2019)

In survey found that primary reasons for attending antenatal classes as women would like information on physical and psychological changes during pregnancy, fetal development, what will happen during labour and childbirth, their options during labour and childbirth and how to care for themselves during this time, possible complications, and how to care for the baby after birth(Gagnon AJ, 2011).

There are many studies done which found that educated women have better pregnancy outcomes compared with uneducated women and that education during the antenatal period can reduce pregnancy and delivery complications as well as other studies have shown the benefits of education for parenting. found that relaxation training during the antenatal period increased maternal attachment, and found that education intended to promote maternal attachment was successful(Serçekuş & Başkale, 2016).

As such, a large number of interventional studies should be conducted on the effects of antenatal education on fear of childbirth and post-trumatic stress disorders symptoms.

1-3 Statement of the problem:

Effectiveness of an Antenatal Education Program on Fear from Childbirth in Al-Najaf Al-Ashraf Governorate.

1-4 Objective of the study:

1-To investigate the effects of antenatal education program on women's fear of normal vaginal delivery.

2-To find relationships between some studied variables and fear of childbirth.

1-5 Definitions of terms:

5 1. Antenatal

Theortical definition : is a term that means 'before birth' (alternative terms are 'prenatal' and 'antepartum')also covers the time from conception until birth as well as relating to the medical care given to pregnant women before their babies are born (Chikalipo et al., 2018).

Operational definition: It is referring to the short period of time, usually weeks, immediately before and after birth.

5 2. Educational program

Theortical definition : is defined as a collection of educational activities which are organized to accomplish a pre-determined objective or the completion of a specified set of educational tasks(Beata B, 2016).

Operational definition: set of activities carried during pregnancy to help pregnant women how to managing fear of normal vaginal delivery.

5.3 Fear

Theoretical definition : is an intensely unpleasant emotion in response to perceiving or recognizing a danger or threat (Öhman, A. 2000).

Operational definition : Is a health issue for a pregnant woman related to an anxiety disorder or a phobic fear which had impaired women's daily functioning and wellbeing.

5 4. Normal vaginal delivery

Theoretical definition: Vaginal delivery is defined as a natural birth process which does not usually require significant medical intervention (Omona, 2021).

Operational definition: a period when women acquired negative or postive birth experaince that will effect on level of fear.

1-6 Hypotheses

H1. Women who receive antenatal education will have a lower degree of fear of childbirth than those in a control group.

2-1 Pregnancy, a period of transition

Apprehension during pregnancy, e.g., worrying about the baby's well-being, the upcoming birth and new life as a family, is somewhat normal and something that most pregnant women experience.(Larsson B, 2017)

Pregnancy is described as a transition in life. The woman goes through different phases in pregnancy and during the first trimester worries concerning a miscarriage or the baby's health are common. She becomes more sensitive as the psychological defence gets weaker, resulting in an awareness of prior unconscious memories and feelings This emotional change can be perceived as frightening for some women while others find it liberating(Nieminen et al., 2016)

During the second trimester when the woman starts to feel the movements of the baby, she begins to differentiate the baby from herself and starts to form a relationship with the baby. This phase is also characterized by reflections about the relation to her own mother and how to handle the new identity as a mother as well as how to form her own role of motherhood(El-Aziz et al., 2016)

In the last trimester, the woman starts to feel impatient and longs to meet the baby. She starts to worry about the birth and if or how she has the capacity to manage giving birth. Concerns about the baby getting injured or dying during birth recur and she also starts to worry about the lifelong commitment ahead(Larsson M, 2018).

These processes contribute to a functional attachment between mother and baby. Psychological problems, such as depression, anxiety, post-traumatic stress and childbirth fear during pregnancy, might affect the mother-baby attachment(Larsson B.et al., 2016).

2.2 Normal vaginal birth

The term ‘normal birth’ in academic literature and health policy has more generally come to refer to birth without, or with limited, clinical intervention. Vaginal delivery is the method of childbirth most health experts recommend for women whose babies have reached full term. Compared to other methods of childbirth, such as cesarean delivery and induced labor, it’s the simplest kind of delivery process. Spontaneous vaginal delivery is a vaginal delivery that happens on its own, without requiring doctors to use tools to help pull the baby out. This occurs after a pregnant woman goes through labor. Labor opens or dilates, women cervix to at least 10 centimeters(Wilson D, 2017).

Labor usually begins with the passing of a woman’s mucous plug. This is a clot of mucous that protects the uterus from bacteria during pregnancy. Soon after, a woman’s water may break. This is also called a rupture of membranes. The water might not break until well after labor is established, even right before delivery. As labor progresses, strong contractions help push the baby into the birth canal(Nilsson C, et al., 2018)

Normal labour is a complex process involving hormonal, biochemical and mechanical interdependence. There are four phases of parturition: quiescence, activation, stimulation and involution. These reflect the transition from the maintenance of myometrial a contractility and cervical structural integrity, to progressive uterine contractions, cervical effacement and dilatation, delivery of the fetus and placenta, and recovery to the non-pregnant state(Boz et al., 2018).

Whilst parturition is chiefly controlled by the oestrogen: progesterone ratio, multiple hormones such as prostaglandins, corticotropin-releasing hormone, oxytocin and relaxin play a role in the initiation, maintenance and progression of normal labour. The mechanical challenge of labour is overcome when

progressive, effective contractions occur in conjunction with satisfactory fetal and maternal pelvic dimensions. Clinically, there are three stages in the management of normal labour, reflecting cervical dilatation up to 4 cm, delivery of the fetus, and the placenta, respectively(Shabila, 2017).

2.3 Background of fear of birth

Women all around the world give birth every day in different circumstances and within different cultures. While childbirth is commonly regarded as a natural process, women expect to obtain a definite type of care. Women's expectations and ultimately their overall satisfaction are greatly relied on their conceptualization of what comprise normal delivery and the huge amount of socio-economic and behavioral factors related to their birthing experience (El-Aziz et al., 2016)

Fear of childbirth (FOC) complicates approximately every fifth pregnancy in worldwide, Half of this FOC is severe, causing anxiety, physical complaints and nightmares during pregnancy Often, women with severe FOC request caesarean section (CS) to avoid the fearful situation Without proper treatment, this request often remains, despite the known risks of CS Every childbirth carries a risk for both mother and child, although the risk is very small in many Countries. As is commonly known, the morbidity is much higher in CS than in vaginal deliveries(Rouhe H, 2015)

Fear of childbirth as a phenomenon has been studied for about 40 years, mostly in Australia, Scandinavia and Western Europe. FOC does not seem to have been studied in developing countries. This does not mean that FOC does not occur in such countries. In fact, in these countries, maternal and infant mortality is often a major problem(Salomonsson, 2012)

The first studies about FOC are done in the beginning of the 1980s in Sweden. After that, the study of FOC was in the hands of few researchers

mainly in the Nordic countries. In other Western countries, the discussion has been focused on the CS upon maternal request, not on the often-underlying FOC. As the number of caesarean sections has been continuously rising worldwide, the interest in understanding the aspects behind the request for caesarean sections and how to help these women has risen in other Western countries(Jokić-Begić et al., 2014)

During the 19th and 20th centuries, a change has occurred in the rituals of childbirth, particularly with rules regarding the care provider (from midwives to obstetricians) and the place (from the home to the hospital). Women's decision to come to the hospital may be produced by a culture of fear, imposing a sense of risk on pregnancy and delivery to encourage births to occur in hospitals, where obstetricians have the final word.(El-Aziz et al., 2016).

The most important source of fear was reported to be the "mode of delivery and the birth process" Worries about labor may be affected by factors such as a previous pregnancy and the pregnant woman's delivery experiences, the birth process, education that was received about labor and delivery, current problems related to pregnancy, social support, or negative stories about delivery from the environment (Matinnia N et al., 2015).

Fear of labor pain and pregnant women's lack of knowledge about what would be experienced during the delivery process has led to an increase in cesarean sections (Størksen et al., 2015).

Prenatal anxiety was found to be a factor that affects the development of postpartum depression(Verreault et al., 2014).

Furthermore, maternal stress was demonstrated to have effects on preterm delivery and low birth weight as well as low APGAR scores and physiological and emotional/mental development in childhood(Field, 2017).

Therefore, it is important to decrease maternal stress and anxiety. Some women dread and avoid childbirth despite desperately wanting a baby. Fear of

parturition has been already known for ages since Marcé – a French psychiatrist – wrote in 1858: "If they are prim parous, the expectation of unknown pain preoccupies them beyond all measure and throws them into a state of inexpressible anxiety. If they are already mothers, they are terrified of the memory of the past and the prospect of the future" (Klabbers et al., 2016)

Nowadays, a minority of these pregnant women still suffer from a variety of fears. When this specific anxiety or fear to die during parturition precedes pregnancy and becomes so overwhelming that childbirth ('tokos' in Greek) is avoided whenever possible, it is referred to as 'tokophobia'. Hofberg and Brockington (2000) introduced the term "tokophobia" to refer to this pathological FOC in the medical literature. More often the general term pathological FOC is used. To date, there is still no consensus concerning the exact definition of severe FOC. On the other hand, there is agreement that women with severe FOC are concerned about the well-being of themselves and their infants(Klabbers et al., 2016).

To date, there is no standard definition of FOC. In general, it refers to feeling fearful, anxious or worried in relation to pregnancy and childbirth(Nilsson, C et al., 2018).

The concept of FOC has been used synonymously with many other terms, e.g., childbirth fear, childbirth-related fear, childbirth anxiety and tocophobia, to mention some. This inconsistency complicates the FOC-research literature, as the different terms have different meanings and are also measured in different ways(Richens et al., 2018)

When asking a woman about her FOC, it is not a question of whether the fear exists, but rather how fearful she is. Although FOC is constructed as a continuum ranging from no fear to strong fear(Wijma, 2003), definitions are needed to be able to distinguish the extension of fear, and to decide when a

person's life is negatively affected and thereby in need of extended help(larsson M, 2018).

In the literature, FOC has been categorized in various ways; low, mild, moderate, distinct, high, serious , severe , intense, very intense , extreme , and phobic .(Lukasse et al., 2014). No universal definitions of low, mild or moderate fear exist, however, high, severe or intense fear has been characterized as a "disabling fear that interferes with occupational or academic functioning, with domestic and social activities or with relationships". Furthermore, phobic fear has been defined as "an unreasoning dread of childbirth", or a pathological fear that can lead to avoidance of pregnancy (Ternström, 2018).

In the Swedish policy document for the healthcare surrounding FOC, four different levels of fear are described (Swedish Society of Obstetrics & Gynecology, 2017).

Low fear represents a manageable worry that can help the pregnant woman prepare for birth. Moderate fear means a worry that can be hard to cope with without any support, but it does not contribute to ongoing mental ill-health. Severe fear can result in mental ill-health and interferes with the pregnant woman's daily life or her attachment to the baby, while phobic fear is a state which may contribute to avoidance of giving birth vaginally or even avoidance of becoming pregnant (Nilsson, C et al., 2018)

Usually, FOC is also divided into primary and secondary fear. Primary FOC affects primi-parous women who have not given birth and the origin of their fear varies. Secondary fear affects multi-parous women and is commonly the result of a previous traumatic birth (Ternström, 2018)

2-4 Assessment and prevalence of fear of childbirth

Comparisons in FOC prevalence between studies and population groups are problematic as it varies depending on the studied population, its culture and

how fear is measured and defined. A review published in 2017(O'Connell, 2017), including 33 prevalence studies, demonstrated a world FOC prevalence of 14%. Still, when talking about a world prevalence of FOC, it is important to acknowledge that, in most countries, FOC is not yet a known concept(Toohill et al., 2014)

In countries where FOC has been studied among pregnant women, the results vary. In Australia, the prevalence varies from 4.8% to 29%(Gao et al., 2015), and studies from Asia (China, India, Iran) show a FOC prevalence of 0%–48.2%. North American studies indicate a FOC prevalence of 9.1%–24.9%(Matinnia et al., 2015)

In European countries (outside the Nordic countries) where FOC is a known concept, the prevalence has been reported to vary between 5.3% and 16%. In the Nordic countries (except for Sweden), FOC has been explored extensively with varying results. In these studies, the prevalence varies from 3.5% up to 21.5%(Pazzagli et al., 2015)

In Sweden the first prevalence study was conducted in 1981, where severe FOC was found in 6%, and moderate FOC in 17%, among a cohort of 139 women in late pregnancy. Since then, several studies have reported the FOC prevalence among Swedish pregnant women, with results varying be- tween 11% and 23% (Lukasse et al., 2014)

Fear of childbirth (FOC) is also known as fear of vaginal delivery. Almost every pregnant woman is at least a little bit nervous about delivery, which is a normal reaction to an unknown situation. According to previous studies, 5% to 16% of pregnant women suffer from severe FOC(Rouhe H, 2015)

2-5 Measuring fear of birth

As there are no international diagnostic criteria and no reference standards for FOC, it has been measured in many different ways. This may explain why results from prevalence studies differ and presents a possible reason for why it

is difficult to estimate how the FOC-prevalence has changed over time. Defining the presence of FOC in research studies has been accomplished either by looking at those referred to special FOC-units(Ternström, 2018). Those who have sought help for FOC themselves (Nilsson, C et al., 2018), using Likert-type scales(Huizink et al., 2017), single-item measures and other instruments.

In some studies, diagnostic criteria have been used to define FOC, either according to the American Psychiatric Association's diagnostic criteria for severe phobia or according to the Finnish diagnostic criteria for FOC, as they, from 1997, have a standard diagnosis for FOC (Sydsj G, et al., 2013).

Globally, FOC is seldom measured in clinical practice. In Sweden, FOC can be identified if the woman herself reports her fear to the antenatal midwife during pregnancy, if the antenatal midwife asks the woman about FOC, or, in some cases, if the clinic uses a screening instrument for detecting FOC(Larsson et al., 2016)

2-6 Wijma Delivery Expectancy Questionnaire

One of the most commonly used tools for the measurement of fear of childbirth is the Wijma Delivery Expectancy/Experience Questionnaire (WDEQ-A) which was developed to "measure fear of childbirth by means of the woman's cognitive appraisal regarding the delivery". Since its development the WDEQ-A has been translated into a number of languages, and has been used in a wide range of studies exploring the correlates and consequences of elevated levels of fear (Pallant et al., 2016).

The most commonly used instrument for measuring fear of childbirth is the Wijma Delivery Expectancy Questionnaire (WDEQ-A). WDEQ-A was developed from the concept that pregnant women's expectations about the upcoming birth are very important for her birth experience. There is also another version, Wijma Delivery Experience Questionnaire (WDEQ-B), which measures FOC up to 5 weeks after giving birth. Both versions are recommended

for measuring FOC among both prime- and multi-parous women. However, the authors state that this instrument measures FOC more clearly in multi-parous women (Ternström, 2018)

WDEQ-A has been tested and used extensively in international research studies (Nilsson, C et al., 2018).

In the WDEQ-A, the woman is asked to consider 33 feelings and thoughts in relation to her upcoming birth, and to describe to what extent she expects to feel, for example, fantastic, frightful and lonely on a 6-point scale ranging from 'Extremely' to 'Not at all'. The minimum score is 0 and the maximum score is 165, with higher points referring to higher levels of FOC.(Richens et al., 2018)

2-7 Clinical features of fear of childbirth

Severe FOC is manifested as anxiety, nightmares and physical symptoms during pregnancy. Due to this anxiety, these women have difficulties in concentrating on daily work and other activities. These fearful women often have difficulties in focusing on the fetus in this distressed situation; this can lead to later problems in mother-infant bonding(Rouhe H, 2015).

Severe FOC overshadows the whole pregnancy. To avoid confronting this fearful situation these women often wish to deliver by CS. In clinical practice, FOC is mainly self-reported, and there are no guidelines how to assess FOC. The women may ask for CS or just help for relieving their fear, and therefore, they receive referrals to special maternity care. (Fuglenes et al. 2011)

Several interview studies have shown many objects of fear .Women usually have a fear of pain. They also fear losing control and getting panicked during delivery. One can be afraid of being damaged or dying in childbirth; one can fear something terrible happening to the baby. Some women are afraid of all the procedures during delivery or the hospital surroundings. (Serçekuş & Başkale, 2016).

Women can have a distrust of midwives and doctors or be afraid of being left alone without adequate help during delivery. Parous women often have previous negative or traumatic childbirth experiences, which they dread recurring (Fink et al., 2012)

Some women will abandon their wish to have any or more children because of severe FOC can be manifested merely as a request for CS, The request for CS has become a popular subject during the 21st century (Sydsj G, et al., 2013).

It refers to CS without any medical indication. Although in many Western countries FOC is not discussed, it still often lies behind the women's request for CS The request for CS is one way of avoiding a fearful situation. If the fear is left untreated, FOC causes unnecessary CSs (Fuglenes et al., 2012).

Parous women with FOC request CS more often than nulliparous women The factors related to the request for CS are Fear of childbirth, Previous negative delivery experience, Older age, Previous abortions, Mental health problems and Wish to have only one child(Sydsj G, et al., 2013).

Previous studies have shown confounding results about mental health problems and pregnancy outcomes. Some studies have shown that anxiety and depression during pregnancy are related to the increased risk for preterm delivery, low birth weight and other pregnancy complications and whereas others have shown no connection to neonatal outcome. Although it is commonly known that fear of childbirth causes anxiety during pregnancy, there is only one study showing that FOC may increase the risk for emergency CS(Rondung E, et al, 2016)

There have been also contradictory results showing that FOC does not affect on the delivery mode. The effect of treatments regarding fear of childbirth on the actual delivery mode has never been studied in a randomized setting (Rouhe H, 2015).

2-8 Reasons for childbirth fear

The reasons for childbirth fear vary and are connected to both physiological and psychological factors. The fears are related to how to cope with labor and birth, the baby's and the woman's own health and the healthcare staff's competence and how they will be treated(Matinnia N et al., 2015).

More specifically, fear of pain is described as the most commonly described reason for childbirth fear. Other commonly described reasons for fear are that the baby or the woman herself will die or be harmed, fear of losing control, fear of not being informed and being a part of decision making, the lack of trust in one's own body to manage birth and fear of the unknown(Larsson et al., 2016)

Fear of interventions such as instrumental birth, caesarean section and episiotomy, are also common. Some women with childbirth fear find it hard to define their fear and the whole situation feels frightening(larsson M, 2018)

2-9 Background factors of fear of childbirth

Factors underlying the fear of childbirth are often a combination of the issues described below.

2-9-1 Psychological background

Women with fear of childbirth are more vulnerable, short-tempered and anxiety-prone than women in general, and they have also lower self-esteem(Jokić-Begić et al., 2014)

Certain personality types (introverted, neuroticism) are also known to relate to mental health problems. Some studies have shown connection between FOC and mental health problems, such as depression, anxiety disorders and eating disorders. Andersson et al (2008) found out that the point prevalence of mental disorders during pregnancy was 14% and 45% of these pregnant women with

mental disorders exhibited a pronounced fear of the approaching childbirth(Rouhe H, 2015)

Previous studies have mainly focused on symptoms of anxiety and depression only during pregnancy, or the serious mental illnesses have been excluded. Postnatal depression is a commonly known phenomenon, but its relation to FOC has been indistinct. There have been no previous longitudinal studies about mental health problems before and after pregnancy related to FOC.(Størksen et al., 2015)

2-9-2 Characteristics of women with a fear of birth

Many studies have attempted to relate different background characteristics to FOC, showing various results depending on the setting. Some studies have reported that FOC is more common among younger women (Ryding et al., 2015)

While other studies found it to be more prevalent among older women Many studies have attempted to relate different background characteristics to FOC, showing various results depending on the setting. Some studies have reported that FOC is more common among younger women while other studies found it to be more prevalent among older women (Larsson et al., 2016), or found no association at all between age and FOC. Low educational level and unemployment has been related to FOC , while an association between FOC and being employed was found in a study conducted in Australia (Toohill et al., 2014).

When it comes to parity and FOC, some studies have shown that prime-parous women more commonly report FOC or that their FOC is more severe. Other researchers found that FOC was more prevalent among multi-parous

women or that parity was not associated with difference in prevalence of FOC(Ternström, 2018)

However, looking at parity and levels of FOC, the overall evidence implies that primiparous women experience higher levels of FOC compared to multiparous women Moreover, different personality variables, such as anxiety sensitivity, neuroticism, low self-esteem, vulnerability, and low socialization, have all been associated with FOC(Rondung E, et al, 2016)

2-9-3 Fear of pain

Pain is usually a sign of damage to tissues, so it is a natural reaction to avoid harmful situations. Some people have very a strong avoidance of pain, so in that it causes harm and interferes negatively with life. Pain-avoiding behavior is associated with a neurotic personality. The fear of pain influences the ways in which people react to given information, and how they experience pain and its consequences(Rouhe et al., 2013).

Women usually have a lower pain threshold and tolerance compared to men, but not greater ratings for pain intensity. Fear and anxiety are important features that contribute to hyperalgesia in both women and in men, Fear and anxiety are important features that contribute to hyperalgesia in both women and in men (Thibodeau et al., 2013)

Fear of labor pain is strongly associated with fear of pain in general and it is one of the most common reasons underlying the request for CS in nulliparous women. Fear of losing control is often combined with fear of pain. A request for CS can be seen as a manifestation of pain avoidance behavior(Stoll et al., 2015).

2-9-4 Social background

Social support means the exchange of human resources between individuals; it requires stable relationships. There are three different areas regarding social support: emotional support, informational support and instrumental support. Emotional support features expressions of attachment and appreciation. Informational support means guidance and counselling. Instrumental support entails concrete help and material support. Social support is important for general well-being and is especially important during major events and setbacks(Pinar et al., 2012).

Good support from the partner is very important during pregnancy and delivery. If the partner is depressed, the pregnant woman also suffers more often from depressive symptoms. It is known that marital problems are related to disappointment in delivery. Single mothers and women with poor relationships with their partner are at a known risk for postnatal depression(Serçekuş & Başkale, 2016)

Women also need support from maternity care. Previous studies have shown that pregnant women need and want more social support and information from maternity care units. One of the main purposes of maternity care is to give informational support. In addition, emotional support is needed especially in treating women with FOC and other psycho-social problems(Rouhe H, 2015)

The social background regarding fear of childbirth includes horror stories or negative childbirth experiences of friends, relatives or Internet contacts. Clinical workers commonly witness women who, in childhood, were traumatised by their mothers' childbirth experiences or women who have heard only about bad childbirth experiences from people around them(Gao et al., 2015)

2-9-5 Previous negative childbirth experience

Difficulties and suffering experienced during childbirth may affect the memory of the childbirth experience the rest of the woman's life. Women having negative childbirth experience are at risk of developing Post Traumatic Stress Disorder (PTSD), A negative birth experience has been shown to be associated with subsequent infertility and interpreted as avoiding or postponing further childbearing, Previous negative childbirth experiences are known to relate to FOC and the request for CS(Rouhe et al., 2013)

Most negative childbirth experiences are often after emergency CS as all women do not develop FOC after a complicated delivery there are often underlying and accompanying factors predisposing them to FOC(Serçekuş & Başkale, 2016)

The risk for a negative delivery experience is higher after operative deliveries; Reasons for having emergency CS or VD are often not obvious to the parturient, Up to 70% of women, who had emergency CS knew the reason for operation after delivery, but only 20% of them had some information before CS(Bąk & Mastalerz, 2016).

When emergency CSs are performed, many women are afraid of death or injury, either of the infant (49%) or themselves (26%) A fear of death is expressed by up to 41% of women with previous experiences of complicated childbirths, Half of the women feel disappointment after emergency CS, Women who have their first child delivered with emergency CS seem to have fewer children than those who had SVD(Serçekuş & Başkale, 2016)

2-9-6 History of abuse and violence

Sexual, physical and emotional abuse is unfortunately, common. According to a Nordic study 35% of pregnant European women reported a history of abuse. Almost every tenth abused pregnant woman was currently suffering from reported abuse. At the present, few women report some form of abuse (0.4% sexual, 2.2% physical, 2.7% emotional) (Lukasse et al. 2014).

FOC is known to relate to abuse history. Nulliparous women with a history of childhood abuse more often had severe FOC compared to women without a history of abuse (18% vs. 10%). Abused women requested CS more often without any other medical indication (Schei et al. 2014)

2-9-8 Psychologicl problems related to pregnancy and delivery

Many symptoms (sleep disturbances, appetite changes, tiredness, decreased or increased energy, changes in interest) related to pregnancy are also common symptoms of psychiatric illnesses. In addition, the continuity from normal sensitivity and ‘baby blues to serious depression may cause misinterpretation (Steel Z et al. 2014)

Diagnosing mental illnesses during pregnancy and the postnatal period is a challenge. Some women have the first episode of their psychiatric disorder during pregnancy, whereas others have already been diagnosed and treated before (Suvisaari et al. 2014)

Depression and anxiety are the most common mental health problems during pregnancy, both affecting about 10% of pregnant women. Recent studies about anxiety and depressive symptoms during pregnancy showed even higher prevalence, up to 17%. Women with a younger age (<25 years), unemployment,

smoking, certain ethnicities and lower educational level had increased risk for anxiety during pregnancy (Rubertsson et al. 2014).

Women who undergo primary elective CS have higher levels of depressive symptoms during pregnancy than women who had SVD (Rauh C et al. 2012)

Postnatal depression affects 10% to 20% of all mothers. Previous studies have shown that any history of depression is one of the greatest risk factors for postnatal depression. More than half of the women with postnatal depression are already depressed during pregnancy. Anxiety during pregnancy is also a strong predictor for postnatal depression, Puerperal psychosis affects 0.1% of women after childbirth (O'Hara and Wisner 2014)

2-10 Consequences of fear of childbirth

Fear of childbirth has consequences. Besides the suffering and the strain in daily life, women with FOC run an increased risk for physiological as well as psychological complications during pregnancy, labour and birth. An Australian study showed that insomnia and fatigue are more prevalent in pregnant women with FOC(Stoll K et al., 2014)

The management of pregnancy and delivery is demanding for women with FOC. Pregnant women with severe FOC may experience feelings of danger, being trapped and being on their own. They may also consider themselves as inferior mothers-to-be(Salomonsson B, 2013)

Women with FOC, talking about their FOC was difficult. Women had a diversity of reasons for this, such as that it might intensify the FOC, that they would not be taken seriously and that they thought that it was not a good idea to bring it up since there was nothing that could be done to help(Uslu Yuvaci et al., 2020)

Strategies to deal with FOC can be considered as more or less proactive. Evasion, that is, avoiding situations that trigger the fear, distracting oneself and even denying the presence of FOC have been identified as ways to deal with FOC Furthermore, seeking help from others and processing the fear are additional strategies practiced by women with FOC(Salomonsson B, 2013)

Women with FOC run an increased risk of suffering from a higher than usual level of fear during labour and the postpartum period They receive more medical pain relief during labour and have an increased risk for a prolonged labour, There is also an increased risk for a negative birth experience (Duncan, 2017)

Some women never overcome their severe FOC and remain childless, whereas others decide to adopt a child. In exceptional cases, women enter the menopause without having delivered a much-desired baby and grieve this loss into old age(Klabbers et al., 2016)

Although several studies have shown that childbirth can cause post-traumatic stress, the significance of severe FOC as a predictor of post-traumatic stress has not been determined. Whereas in Sweden severe FOC was identified as an important risk factor for post-traumatic stress and depression after childbirth(Wijma, 2003).

In the following, further possible consequences of severe FOC are discussed;

2-10-1 Sterilization

Ekblad (1961) addressed the issue of fear of pregnancy as a reason for requesting sterilisation. Some childless women presenting for this permanent contraceptive method may pathologically fear childbirth. Fones (1996) reports on a case study in which a woman, who severely suffered from PTSD-

symptoms and experienced FOC, underwent a tubal ligation, after which her PTSD-symptoms diminished. Ekblad (1961) suggested that women with serious FOC should be treated by a psychologist to learn to deal with the FOC rather than undergoing such irreversible and life changing medical interventions(Klabbers et al., 2016)

2-10-2 *Caesarean section and childbirth fear*

Childbirth fear is closely connected to caesarean section. Previous studies from Scandinavia, northern Europe and Israel showed an association with emergency caesarean section(Ryding et al., 2015)

In contrast, two other large studies from Sweden and Denmark found no association between childbirth fear and emergency caesarean section(Jespersen et al., 2014)

Childbirth fear is also the most common underlying reason for requesting or preferring a caesarean section without a medical reason(Nieminen et al., 2016)

For parous women, a previous negative birth experience or a previous caesarean section, planned or emergency, was the most common reason for preferring a caesarean section in a forthcoming birth Control and safety were additional reasons for preferring a caesarean section without medical reason among first-time mothers(Fenwick et al., 2015)

However, women who preferred and underwent a caesarean without medical rea- son were less satisfied with the decision process and with the antenatal care and had a more negative birth experience than women who had given birth vaginally(Larsson et al., 2016)

Caesarean sections are associated with adverse maternal outcomes and affect the children's health in both the short- and long-term. A large Canadian register study(Larsson B, 2017)

Compared elective caesarean sections performed for breech presentation (as a substitute for planned caesareans) with vaginal births and found that the overall rates for severe maternal morbidity (cardiac arrest, hysterectomy, major infection, wound complications, thromboembolism, hemorrhage, anesthetic complications) were 27/1000 for the planned caesarean section group and 9/1000 in the planned vaginal birth group. A Swedish register study (Hildingsson et al., 2019)

Comparing caesarean sections without medical reasons with spontaneous onset of labour, reported an increased risk of bleeding complications, infections and breastfeeding complications in the caesarean section group.(larsson M, 2018)

The most severe long-term maternal consequences, reported in a review article of caesarean section on maternal request, showed an increased risk of stillbirths before 34 weeks of pregnancy, uterus rupture and abnormalities of placentation, which increase for each caesarean section. The short-term effects for the infants showed a higher incidence of respiratory dis- tress, hypoglycemia and low temperature (Larsson et al., 2016)

The most evident long-term consequences for the child described in three different metanalysis, are an increased risk of developing type 1 diabetes, asthma and overweight and obesity. Also, an increased risk of hospital care for asthma and/or gastroenteritis has been described in a Swedish register study(Larsson B, 2017).

2-10-3 Termination of Pregnancy

Termination of pregnancy may be requested by women who suffer from extreme pathological FOC. They are willing to have a baby but consider themselves as being unable to cope with their aversion of parturition. Hofberg and Brockington (2000) reported on three women who terminated their pregnancy because they were too terrified to endure a delivery. One woman began to exercise strenuously in the hope of inducing a miscarriage rather than to undergo a vaginal delivery. The other two also sought termination of pregnancy despite their planned delivery. In the absence of an empathic professional ear, their only choice was to discontinue their pregnancy. They subsequently had to live with the psychological impact of that decision(Klabbers et al., 2016).

2-11 Birth experience

The birth experience is defined as an important life event, complex and unique for each woman, influenced by social, environmental, organizational and policy contexts (Hildingsson et al., 2019)

The experience has long-term effects for women's health and well-being, and women report vivid memories after 15-20 years A positive birth experience has been associated with both internal factors, such as own capacity and strength, and external factors, such as a trusting relationship with the midwife, support and a sense of safety and control(Karlström et al., 2015)

In addition, women with continuous support during labor and birth were less likely to report dissatisfaction. A Cochrane review of midwife led continuity models of care during pregnancy and labor, showed positive results regarding women's satisfaction with care. In addition, fewer interventions were performed

and women were more likely to experience a spontaneous vaginal birth(Larsson et al., 2016).

The prevalence of having experienced a negative birth was 7% in a Swedish cohort study, assessed one year after birth on a seven-point scale where ‘very negative’ and ‘negative’ were considered a negative birth experience. A recent study in a Norwegian setting showed that 21% of the women experienced a negative birth(Henriksen et al., 2017)

The women were asked to rate their experience after an average time of 3.5 years had passed since birth, using a four-point scale where ‘very negative’ and ‘mostly negative’ were considered to be a negative experience. Among those with high levels of childbirth fear, the prevalence was 30% when measured one month after birth, assessed by the mean score using the Birth Experience Scale(Elvander et al., 2013)

A negative birth experience is as associated with complications during labor, not being seen or heard, experiences of pain and loss of control, lack of support during labor, un- wanted pregnancy and lack of support from a partner(Henriksen et al., 2017)

A very negative or traumatic birth experience can cause post-traumatic stress symptoms which affect both the woman and her relation to her partner and children(Ayers, 2014).

2-12 Theoretical framework

FOC at least should be the concern of midwives, doctors and other healthcare professionals working with pregnancy, birth and postpartum care. Although midwives and doctors have overlapping areas of professional competence, their

education originates from different approaches; the midwifery model of care, and the medical model(Ternström, 2018)

The starting point for the midwifery model of care is that pregnancy and birth are physiological events and the majority of pregnant women can have a safe childbirth with little or no medical interventions. The well-being of the pregnant woman and her family is crucial for positive outcomes(Stoll K et al., 2014).

Preventative work is an important component in maternity care and in the midwifery model of care. However, if complications arise and interventions are required, those should not replace all other aspects associated with the experience of pregnancy and birth(Anderson C and Gill M, 2014)

The key focus of the medical model is reducing the risk of maternal and infant morbidity and mortality. From the medical perspective, to guarantee safe birth, it needs to be controlled with medical surveillance. The medical practitioner is there to react and treat when someone is sick or something goes wrong(Ryding et al., 2015)

This focus on pathology is integral to the medical model. The pregnant women are categorized as either “low risk” or “high risk” to detect pathology in time so that interventions can be applied at an early stage(Field, 2017)

2-13 Antenatal preparation classes

The main aims of antenatal classes are to influence health behavior, help women to build self-confidence in their ability to give birth, prepare women and their partners for childbirth and parenthood and develop social support networks. (Serçekuş & Başkale, 2016)

The content of antenatal preparation classes varies a lot between countries, towns and service providers. Prenatal classes can be run individually or in

groups. The programs range from intensive one-day sessions to several sessions held over several weeks. The teaching method varies from discussion and group sessions to videos, Internet resources and lectures. The information is mainly given by health care professional (often a midwife or nurse)(Gagnon AJ, 2011)

The first educational classes were concentrated on teaching breathing techniques and positions during childbirth, and on health and hygiene issues. The latest trends are more toward ‘active birth’ or ‘hypnobirthing’ birth preparation classes, mainly taught by private service providers.(Dawna N, 2019).

A systematic review could not show the benefits of antenatal preparation classes on obstetric outcome mainly because of the wide range of different programs and problems due to randomized case-control studies on a common subject. In many studies pregnant women and their partners have expressed their need for information about pregnancy, childbirth and how to take care of the baby (Gagnon AJ, 2011)

Most primiparous women in developed countries attend antenatal classes Non-attenders are mainly women with lower incomes and other social problems, Conventional antenatal classes had no effect of FOC; however, special exercise program reduced FOC (Guszkowska 2014)

The WHO (2016) identified the goal of prenatal care as creating positive health conditions for both mother and baby through risk identification, prevention and management of pregnancy related or concurrent diseases, and health education and health promotion. The WHO does not have specific guidelines for prenatal education classes, but within guidelines for prenatal care discuss the need for education and health promotion on many topics which are typically covered in prenatal education classes including breastfeeding,

education on uncomplicated labour, common pregnancy complaints, and newborn care(WHO. 2016)

The WHO has published separate documents solely on the topics of maternal mental health education in health services for prenatal women. It is suggested both prevention and treatment of maternal mental health issues are important during the prenatal and postnatal periods(WHO, 2018)

The WHO suggested community-based interventions promote communication, education, and support of pregnant women involved in participatory community groups may self-identify barriers and solutions to care and their own needs (WHO, 2016).

The goals of prenatal care are to detect, treat, and prevent negative health outcomes for mothers and infants by identifying risks, using health education and health promotion to prevent health concerns, and managing pregnancy related disease. Prenatal education, as one component of prenatal care, includes education on several topics such as pregnancy, childbirth, parenting, maternal mental health, social connection, sexuality, and breastfeeding. No guidelines were found which prioritize or suggest the amount of time which should be allotted to topics of importance in prenatal education (Dawna N, 2019)

2-14 Theoretical approaches to antenatal education

Common approaches which were identified in the early literature on this topic were 'natural childbirth' (Dick-Read 1933) and psych prophylaxis (Lamaze 1958) methods. The similarity of these two techniques is their emphasis on a healthy pregnancy, physical fitness, education on the physiology of normal birth, elimination of fear during labour, use of relaxation and breathing techniques, and continuous support by a familiar person(Gagnon AJ, 2011)

These two approaches have experienced relative degrees of popularity in North America and Europe since their inception. Tenets from these approaches still form the basis of many childbirths' education programs today within the last two decades, an approach called 'Active Birth' has enjoyed and continues to enjoy some popularity, and latterly 'hypnobirth', which teaches self- hypnosis, relaxation, and breathing techniques.(Bąk & Mastalerz, 2016)

The essence of these approaches lies in helping mothers to identify and develop their own bodily resources for birth. It is meant to empower women through the birth experience. The choice of these and other approaches have largely been thought to be reflective of the nature of the educational program(Dawna N, 2019)

2-15 Reasons for participating in antenatal education

Regardless of the theoretical perspective, the question arises as to whether what is taught in classes meets the needs of attendees. In a survey of those planning to attend independent (private) childbirth education classes in Montreal, women reported that their main reason for attending childbirth classes was to reduce their anxiety about labour and birth(Gagnon AJ, 2011)

A UK-based survey found that women would like information on physical and psychological changes during pregnancy, fetal development, what will happen during labour and childbirth, their options during labour and childbirth and how to care for themselves during this time, possible complications, and how to care for the baby after birth(Bąk & Mastalerz, 2016).

In addition to differences in theoretical approaches, there is huge variation in the provision of antenatal education, with variation in the underlying aims and the way classes are delivered.(Serçekuş & Başkale, 2016)

Programs range from intensive one-day classes, 'bench' classes (offered while waiting to be seen by a healthcare provider), to several classes over several weeks. There is variation in whether programs are offered individually or in groups; venues include teachers' homes, community centers, hospitals and clinics; and classes or groups may be for pregnant women only or for women and their partners or birth partners.(Qiu L et al., 2019)

Teaching-learning methods include self-learning programs, didactic presentations, videos, group discussions, and programs based solely on adult learning principles in which mothers identify their own learning needs and develop an individualized learning program from there. The content of classes varies considerably and is likely to be affected by the underlying aims and the way classes are delivered, as well as the skills, experience, and motivation of the teacher(Dawna N, 2019).

These factors may impact on the effectiveness of antenatal education programs. Because of these wide-ranging goals, the effectiveness of antenatal education has been broken down by looking at specific goals: either looking at the effects on the experience of childbirth, or on adjustment to parenthood(Byrne J, et al., 2014).

2-16 consequences from traumatic births

2-16-1 live with terrible birth experiences

The majority of multiparous women did not feel any fear during the first pregnancy, but after having experienced a terrible birth they were terrified about another experience of traumatic childbirth The women stated that they had strength and trust in their own body before their first labor and birth and questioned themselves as to why they could not give birth to a child like other women The time between the two pregnancies was distressing, since they knew

what was awaiting them during the coming childbirth and feared that the same scenario would be repeated(Nilsson, C et al., 2018).

The traumatic birth experience included both trauma for the woman and fears for the health of the child The painful experience of childbirth either a short or pro-longed labour was experienced as being in a "torture chamber". Some women received emergency CS due to threatened asphyxia of the baby, and vacuum extraction that was associated with fear of their child's death. Some of the women had experienced a stillborn child or injuries during the birth process(Nieminen et al., 2016).

Some of the women described similar "near-death" experiences, in which they became apathetic during the birth. Their bodies gave up, with the feeling of falling into a big black hole They concentrated on surviving childbirth seemed to lose control of what was happening to their body, with a feeling of being outside of their body at times. The women tried to communicate with the midwife about their feelings but experienced that they were left alone, abandoned with feelings of powerlessness (Nilsson et al., 2010).

Some of the women described that they were bearing a deep sorrow from a previous traumatic birth experience. Some women, who had given birth before, felt bitterness towards the midwives who they felt had destroyed their lives(Ramvi & Tangerud, 2011).

During the first childbirth, the women felt that they were not involved in the childbirth process. It was the health-care professionals who were in command and the focus was on medical techniques and routines for safe birth. The women did not receive the needed support from midwives. Hence, some midwives were described as emotionless. Furthermore, the midwives did not respect women's wishes to participate in their own childbirth and women sometimes met with an un-caring attitude (Wigert et al., 2020)

For women, a difficult postpartum period followed after the traumatic childbirth experience. Women reported that they experienced chaos; pain, difficulty sleeping and nightmares about childbirth. Strong feelings of fear of childbirth led women to think twice before getting pregnant again and some chose to have fewer children than they really desired(Ramvi & Tangerud, 2011).

2-16-2 live with stories of terrible childbirth

Women described how they heard other women, mothers and sisters, tell about their traumatic experience of childbirth and the thought of bodily injuries after childbirth scared the women(Faisal et al., 2014)

First time mothers had seen films showing how women may die during childbirth, seen pictures or read books about horrific births and, lacking their own experience of giving birth, they were influenced by other people's lived experiences. Even what the women saw of birth in the mainstream media was terrifying (Roosevelt & Low, 2016)

The constant presence of fear in thoughts and body affected women both physically and mentally. They had poor appetite, were tense, had mood swings, difficulty with concentration, experienced stomach ache, poor sleep, or nightmares about childbirth. They were scared and had poor self-confidence and doubts about their own capacity to give birth to a child (Wahlbeck et al., 2018)

2-16-3 lack warranty and understanding

2-16-3-A. lose control

Some of the women had been scared since they were teenagers, while others felt fear first when they planned a pregnancy or became pregnant. Regardless of the timing for fear of childbirth, women were constantly thinking day and night

about future childbirth The ever-present fear was experienced as pure mental torture. The women described themselves as caught in their own body where there was no turning back, and they had to go through labor and birth with no guarantee of having a successful birth (Wigert et al., 2020)

The nulliparous women described fear of the unknown, not knowing what would happen, as they had no previous experience of childbirth. They did not have enough knowledge of what could happen during birth. Some multiparous women showed fatalism and described themselves as powerless. They believed that labour and birth was completely impossible to control and believed that fate controlled everything. They thought they had had good luck earlier and asked themselves why would it be good this time (Salomonsson B, 2013).

Some women were afraid of losing control of themselves during labour and birth and screaming uncontrollably. Multiparas described their vulnerability during childbirth, especially when being naked and with intimate areas visible. The women also feared their wishes not being fulfilled and their dignity not being respected by the professionals (Wahlbeck et al., 2018).

2-17-3-B. lack understanding

It was obvious that people surrounding these women did not understand their fear of childbirth. Some women felt that, because of their fear, they were not considered as “real” women as they could not cope normally. The discrepancy was noted between the woman’s own image of herself as a woman with strength and positive expectations and the impression of her implied by other people. They felt guilt and were ashamed of this (Nieminen et al., 2016).

The women felt left out due to lack of understanding of their fear. It was difficult to talk about it when they were seen as abnormal. They lacked support for their fear and were met by the attitude that women have given birth to

children for many generations and it is just a natural thing to do. The women had to face lack of understanding from the professionals, and not being listened to, and were humiliated by them when they expressed their desire to have a CS due to fear (Roosevelt & Low, 2016).

2-16-3-C Fear pain and injuries

Some of the nulliparous women feared pain during childbirth. They had heard from other women about severe pain during childbirth, which they knew they would have to endure to survive. Their worry about coping with pain sometimes made them ask for CS (Faisal et al., 2014).

Women also described their fear of injuries to their body. Some women, who had exceeded their expected due date, had previously birthed a large child leading to severe perineal tears and believed that vaginal birth was associated with physical injuries (Wahlbeck et al., 2018). On the other side, women who had planned CS or emergency CS earlier, feared for both physical and mental injuries. The women also expressed concern that their babies might be injured physically or would have a malformation , or might die during labor and birth (Wahlbeck et al., 2018) and (Faisal et al., 2014)

Guilty feelings towards the baby were also expressed because of their fear as some believed that their fear might injure the baby in utero as though it was an unwanted child (Ramvi & Tangerud, 2011).

Women were also worried about their successful future role as a good mother (Wahlbeck et al., 2018).

The women's suffering influenced their bond with the children leading to lack of loving expression to the baby or, conversely, being over-protective(Nilsson et al., 2010).

2-17 Treating fear of childbirth

Interventions for high FOC women aim to reduce their childbirth-related anxiety and to facilitate the acceptance of uncertainties associated with the future delivery The effects of treating anxiety and FOC can be evaluated in many different ways, such as in terms of alleviation of perceived stress and better adjustment during pregnancy, withdrawal of the request for a CS, having better mother-child bonding during pregnancy and postpartum, have fewer childbirth complications, having less postpartum problems. The first attempts to treat FOC date back to the 1920s(Nieminen et al., 2016)

As the prevalence and consequences of FOC have received more and more attention over the last 30 years, the interest and need of developing an effective treatment for FOC has increased. To mention some interventions, researchers have tested therapeutic treatments, midwife-led counseling, antenatal preparation classes, hypnosis and physical exercise to reduce FOC(Guszkowska, 2014)

Continuous support during childbirth and midwife-led continuity of care, where the same midwife provides the care for the woman during pregnancy, the birth of the child and early parenthood, are approaches that have shown positive results in reducing FOC(Ternström, 2018)

Two review articles on interventions aimed at reducing FOC were published in 2017 The review by Moghaddam Hosseini et al(Hosseini M et al., 2017) included studies with follow-up measurements, both in late pregnancy and postpartum, while the other review by Stoll et al. focused on the reduction of FOC during pregnancy. According to these reviews, prenatal education, yoga, hypnosis, individual intensive therapy, and individual telephone coun- seling were effective in reducing FOC for pregnant women(Stoll et al., 2018)

In addition, an 8-week course of yoga, as well as three hours of education in self-hypnosis, have also been shown to reduce FOC. However, these studies were limited by low response rates, small effect sizes, and by only measuring post-intervention FOC six weeks postpartum(Dawna N, 2019)

In a randomized controlled trial (RCT) exploring individual intensive cognitive therapy, an obstetrician, with experience of treating women with a FOC and a little training in cognitive therapy, performed the intervention among Finnish pregnant women with a FOC(Stoll K, et al., 2014)

In practice, the therapy focused on providing information, and discussing earlier birth experiences, feelings and misconceptions, but it also focused on self-reflection and changing the patients' behavior by doing cognitive and behavioral exercises. Compared with conventional therapy, the intervention was effective in reducing FOC and requests for cesarean births(Ternström, 2018)

In an Australian RCT, individual telephone counseling was performed by midwives who had received intensive four-hour training and support through written information, web-based resources and personal supervision(Fenwick et al., 2015)

In this study, the group receiving telephone counseling was compared with a control group receiving standard antenatal care. The telephone counseling was based on psychoeducation, which is described as a way for the patient to re-ceive individual situational support and to encourage her to use that support to manage negative events during pregnancy and birth The telephone counseling intervention resulted in reduced levels of FOC (Toohill et al., 2014)

In a recent non-randomized Swedish study by Nieminen et al. (149), the feasibility of internet-based cognitive behavior therapy (ICBT) was tested for primi-parous women with a FOC. The intervention included different compo-

nents; information about pregnancy and birth, and therapy, including psy- choeducation and exposure(Nieminen et al., 2016). As well as relapse prevention. Reduced FOC-lev- els from pre- to post-intervention were reported and, in general, the partici- pants found the intervention to be helpful during labor and birth. However, the authors recommended confirmation by randomized studies(Field, 2017)

In Sweden, unlike most other countries in the world, there is an existing model of care for women with a FOC. This model consists of midwife-led counseling for pregnant women with a FOC (often referred to as Aurora), and was introduced by experienced staff in labor wards in Sweden who saw the need for helping women with a FOC. This model exists in all obstetric clinics in Sweden, yet, each clinic organizes it in very different ways (Larsson et al., 2016)

In general, the antenatal midwife, who sees the pregnant woman regularly, uses her clinical judgement to assess the woman's FOC. Depending on the level of the fear, the antenatal midwife continues to counsel the woman or she is referred to midwifery counselors who usually work together with obstetricians, and sometimes also psychologists or social workers. Together, they work to help the woman and her partner to deal with the fear (Swedish Society of Obstetrics & Gynecology, 2017)

This standard care (SC) for FOC is not based on empirical evidence, but rather on clinical knowledge. It has been popular among pregnant women who, in general, are satisfied with the received care. On the other hand, research has concluded that the midwife-led counseling has a minor effect in the reduction of FOC, improving birth experiences and decreasing caesarean section rates(larsson M, 2018)

2-17-1 Face the Fear

The women used different strategies for managing their fear. They forced themselves to face their fear by focusing on, and trusting, their own ability for normal childbirth. They tried to confront their memories to understand what had happened to regain confidence. They convinced themselves that women across the ages had managed childbirth and that they have to manage this too (Salomonsson B, 2013).

Other strategies to cope with fear included blocking memories from previous childbirth experiences by avoiding talking to others about their fear, avoiding thoughts associated with childbirth and choosing to refrain from joining parenting groups. Women also distracted themselves by being busy with different activities, hoping that the fear would disappear when they concentrated on something else (Eriksson et al., 2006).

The women sought information about childbirth through books and professional support from maternity care. They received information on pain relief during visits to the antenatal clinic and the maternity care department. Managing the fear was also related to having tests showing the healthy child, and controlling the baby's movement in utero. Women also used other coping strategies, e.g., writing a letter to the obstetrician and midwives about their wishes around their birth (Wahlbeck et al., 2018).

The women desired control over their own body, thinking that their body had the capacity to handle the fear and hoping to rely on their own resources. Furthermore, they felt that if they lost control over the situation in spite of their own self-efficacy, there would be people there who knew how to handle the situation. It was understood by women that they had to prepare actively to confront and manage their childbirth fear. The women used relaxation and

breathing techniques to relieve their fear and tried to work with their body instead of against it (Salomonsson B, 2013)

2-17-2 Seek support

The fear was relieved once women became involved in the birth process through receiving information and guidance from midwives about what was going to happen. The fear also decreased when they felt they were listened to, confirmed, respected and could build up a good caring relationship with their midwives (Eriksson et al., 2006).

Women who had a good conversation with the midwife experienced good support regarding fear of childbirth, which increased their self-esteem. A supportive midwife along with an understanding family and husband had healing effects on fear of childbirth experiences (Salomonsson B, 2013)

Women were dependent on the midwives' competence and skills. The majority of the women had no control over the situation during childbirth and understood that it was important to believe in and trust the midwives. The majority of women had surrendered to the midwives because of uncertainty related to fear of childbirth. (Fenwick et al., 2015).

Giving authority to the skilled professionals was perceived as a relief as the responsibility was not there anymore (Salomonsson B, 2013).

Another strategy for managing a fear of childbirth was to focus on the future. Pregnant women were wondering about how it would be to meet their child and how their future life with the child would look. Talking with other people about their concern and receiving support from friends and family relieved their fear(Wahlbeck et al., 2018)

Women who received art therapy as a part of treatment for severe fear of childbirth during pregnancy were positive towards the therapy. By sharing and making the fear visible in the creation of images in paintings, the women were able to gain hope and self-confidence. The painting was an important tool to promote inner healing and they could then face their fear (Roosevelt & Low, 2016).

2-17-3 Internet-based cognitive behavior therapy

Cognitive behavior therapy (CBT) is a therapy focusing on the interaction between the individual and her environment. It is based on the concept that thoughts, feelings, physical sensations and actions are connected and that negative thoughts and feelings can cause you to become trapped in a vicious cycle (American Psychological Association, 2018).

In general, CBT deals with present issues and experiences rather than focusing on problems from the past. The aim of CBT-treatment is to help the individual to manage problems by changing thoughts and behaviors and thereby find ways to improve the state of mind on a day-to-day basis(Ternström, 2018)

CBT is the primary treatment option for most anxiety disorders and for women with depression during pregnancy and the postpartum period. Because FOC has been described as being a distinctive form of anxiety, CBT seems to be a good treatment alternative for pregnant women with a FOC(Carlbring et al., 2018)

Internet-based CBT (ICBT), i.e., CBT provided over the Internet, is a growing field, and a recent review reported that it is equivalent to face-to-face CBT in terms of efficacy(Qiu L et al., 2019)

2-17-4 Relaxation training

Individual pain perception depends on a variety of psycho-social factors including personality, mood, social support, expectations and perception of control The ability to relax is the most important way to have an effect on the delivery, during which it gives a woman a feeling of control Relaxation also improves psychological well-being during pregnancy Hypnotherapy and teaching auto-relaxation have resulted in shorter labors and less analgesic use during labor(Gökçe İsbir G, et al., 2016)

Mindfulness involves the improvement of moment-to-moment awareness of an experience. Interventions using mindfulness have shown to be beneficial in the prevention of psychological problems. Recent studies have shown positive effects of mindfulness in childbirth and parenting preparation. Women in interventions became more active in the birthing process. Their sense of control was improved and they were able to be more involved in decision-making (fisher C, et al, 2012).

2-17-5 Psychotherapy and psychological support

According to Norcross (2002), the goal of psychotherapy is to help to identify and recognize unconscious emotions, strengthen the connection between mind and body, recognize and remove obstacles to mental progress and maturation. A successful psychotherapy process can help the patient to understand connections between emotions and behavior and learn new and more fitting approaches to relating with others(Rouhe H, 2015)

Psycho-education is defined as a psychological intervention providing information with a psychological foundation. The aim is to teach both new information and new understandings of that information (Tursi MF et al. 2013)

Psycho-education for nulliparous women with FOC was developed in Finland specifically for this target group combining psycho- education and therapeutic elements. The idea was to enhance women's ability to cope with anxiety-related emotions associated with birth, strengthen self-confidence and assist in the exercising of mindful relaxation techniques (Field, 2017)

The educational elements consist of information sharing of the fear, the birth process and the physical meanings of the birth for the baby and the parturient, parenthood and motherhood. The therapeutic element builds on the safe and secure presence of the leader of the group encouraging the participant to share emotions about the fear and getting understanding for the experiences the participant communicates (Salmela-Aro et al. 2015)

2-18 How to Use Comfort Measures to Manage Pain And Prevent Suffering In Labor

Following are descriptions of some helpful techniques that reduce pain or give a sense of mastery despite the pain.

2-18.1. Rhythmic Breathing or Moaning with Tension Release

Most women find that it helps to breathe fully (like sighing) in a slow rhythm during their contractions. Many mom as they breathe out. Try this, and focus on releasing tension with each out breath. Also try breathing in another helpful pattern — quicker shallow or light breaths or moans, about one every2 to 3 seconds (20 to 30 per minute). Many women use the slow breathing through early labor and beyond, then almost instinctively turn to the light breathing in late labor before they begin pushing. Mastering both of these before labor helps ensure that will avoid breathing too fast or hyperventilating during labor and gives confidence that can help women. In labor women may find herself combining the rhythmic breathing with rocking, swaying, tapping,

or counting breaths. This kind of response to their contractions often comes instinctively and spontaneously. Rhythm is the essence of these coping techniques. Keeping a rhythm means coping well(Rouhe H, 2015).

2.18.2. Movement and Positioning

Moving during contractions or changing positions between contractions often adds to women comfort and improves labor progress. Walking, rocking, swaying, and other movements can be part of rhythmic ritual for handling contractions. example of helpful positions includes kneeling over a birth ball or a pile of pillows, standing and leaning forward, sitting backwards on a chair, squatting, and others. Feel free to try them and use whatever help (Ayers, 2014)

2.18.3. Shower or Bath

A warm shower anytime during labor is a marvelous soother and pain reliever, especially if women can sit on a stool and direct a hand-held shower head just where women want it (on front or back). The Warmth and skin stimulation reduce awareness of the pain. Bathing in warm (99 or 100 degrees Fahrenheit) water is a great way to relax, and it temporarily eases pain. Labor often speeds up, also. Benefits are greatest if women wait until more intense labor when contractions are closer together before getting into the bath. Women who are having a slow painful early labor (with dilation less than 3 or 4 centimeters) also get a break from the discouraging labor pattern when they get into the tub(Rouhe H, 2015).

2.18.4. Heat and Cold

Try a warm gel pack, heated rice pack, hot water bottle, or hot moist towel on low abdomen, groins, low back, shoulders, or, during the pushing stage, on perineum. Warm blankets feel good if cold. The application of cold to a small, painful area, such as lower back, is very helpful and can reduce pain. women can use an ice bag, frozen gel pack, cold, or frozen moist cloths, a latex glove

filled with ice chips, or a cold can of soft drink for this purpose. Cool cloths feel good on sweating brow, face, chest or back of neck. A cold compress on perineum after the birth reduces pain and swelling (Finger C, 2003).

2.18.5. Touch and Massage

Touch may come in the form of someone holding hand, stroking cheek or hair, brushing hair, or patting hand or shoulder. It conveys reassurance, caring and understanding — all of which may help feel better, as long as are comfortable with that kind of touch. companion may massage hands, feet, scalp, shoulders, back or limbs, in the form of light or firm stroking, kneading or pressure with hands or any of a variety of massage devices. Oil, lotion or powder makes stroking smoother. Massage helps with pain and relaxation(Reyhan Erkaya et al., 2017).

2-21 Previous study

1- study of Uslu Yuvaci et al., 2020; Aim: This study evaluated the effects of antenatal education, which was provided in a pregnancy education class, on pregnant women's concerns about labor and the mode of delivery. Materials and Methods: Primigravid pregnant women (n¼144) were enrolled into the study between May 2017 and November 2018. Pregnant women received standard education on nutrition during pregnancy, exercise, methods of coping with pain, and breastfeeding. The par- ticipants completed the "Introductory Information Form" and "Oxford Worries about Labour Scale" to collect data. Results: A statistically significant difference was found between the participants' pain, distress, uncertainty, and interventions in the pre-education, post-education, and postpartum periods and mean total score on the Oxford scale ($p<.05$). However, education had no significant effect on the mode of delivery ($p>.05$). Conclusion: Education provided during pregnancy significantly

decreased women's worries about labor, but it did not lead to a significant difference in the modes of delivery.

2- study of C. Nilsson et al., 2018; Definitions, measurements and prevalence of fear of childbirth: a systematic review. Methods: Five bibliographic databases in March 2015 were searched for published research on FOC, using a protocol agreed a priori. The quality of selected studies was assessed independently by pairs of authors. Prevalence data, definitions and methods of measurement were extracted independently from each included study by pairs of authors. Finally, some of the country rates were combined and compared. Results: In total, 12,188 citations were identified and screened by title and abstract; 11,698 were excluded and full-text of 490 assessed for analysis. Of these, 466 were excluded leaving 24 papers included in the review, presenting prevalence of FOC from nine countries in Europe, Australia, Canada and the United States. Various definitions and measurements of FOC were used. The most frequently-used scale was the W-DEQ with various cut-offpoints describing moderate, severe/intense and extreme/phobic fear. Different 3-, 4-, and 5/6 point scales and visual analogue scales were also used. Country rates (as measured by seven studies using W-DEQ with ≥85 cut-offpoint) varied from 6.3 to 14.8%, a significant difference (chi-square = 104.44, d.f. = 6, $p < 0.0001$).

3- Study of (G. Gökçe İsbir et al., 2016) about The effects of antenatal education on fear of childbirth, maternal self-efficacy and post-traumatic stress disorder (PTSD) symptoms following childbirth that aim to examined the effects of antenatal education on fear of childbirth, maternal self-efficacy and post-traumatic stress disorder symptoms following childbirth. Design of this study was Quasi-experimental study. this study was conducted in a city located in the Middle Anatolia region of

Turkey and data were collected between December 2013 and May 2015. Two groups of women were compared—an antenatal education intervention group, and a routine prenatal care control group. The Wijma Delivery Expectancy/ Experience Questionnaire, Version A and B, was used to assess fear of childbirth, following childbirth. Results of this study involve There were no significant differences 66.8 ± 23.7 fear of birth in pregnancy between the two groups before the intervention while 30.4 ± 18.07 fear of birth in pregnancy scores were significant (p b .01).

4- study of (Serçekuş & Başkale, 2016) about Effects of antenatal education on fear of childbirth, maternal self-efficacy and parental attachment. Objective of this study was examine the effects of antenatal education on fear of childbirth, maternal self-efficacy, and maternal and paternal attachment. the study Design was quasi-experimental study, comparing an antenatal education group and a control group. Measurements in this study was demographic data forms, the Wijma Delivery Expectancy/Experience Questionnaire, the Childbirth Self-Efficacy Inventory, the Maternal Attachment Inventory and the Postnatal Paternal–Infant Attachment Questionnaire were used for data collection. A significant difference was found between the groups (p o0.01). The mean W-DEQ score of the women in the experi- mental group was lower than that of the women in the control group, which indicates that their fear of childbirth was less than that of the women in the control group ($p<0.01$)

5- Study of (Kizilirmak & Başer, 2016) on The effect of education given to prim gravida women on fear of childbirth, Objective: The present study was conducted to determine the effect of education that is given information about the delivery room, labor and coping strategies with the fear of pain of childbirth in prim gravida women. Design: This study was conducted experimentally using pre-post tests and a control group.

Methods: Data were collected using the Pregnant Introduction Form, Interview Form After Delivery and Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ), version A. Verbal informed consent and approval were obtained from the participants and ethical committee. Preparatory labor education was provided in two sessions between pregnancy weeks 28 and 34 to the women in the study group. Results: In the first interview session, no significant difference was found between W-DEQ-A scores of the study and control groups. The mean pre-education W-DEQ-A score was 61.1 while it was 42.0 post-education in the study group. The post-education W-DEQ-A score was 58.5 in the control group while it was 42.0 in the study group.

6- Study of (Kizilirmak & Başer, 2016) on The impact of training given to tidy gravida ladies on dread of labor, Objective: The current examination was led to decide the impact of instruction that is given data about the conveyance room, work and adapting procedures to the dread of agony of labor in tidy gravida ladies. Plan: This examination was directed tentatively utilizing pre-post tests and a benchmark group. Strategies: Data were gathered utilizing the Pregnant Introduction Form, Interview Form After Delivery and Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ), rendition A. Verbal educated assent and endorsement were gotten from the members and moral council. Preliminary work instruction was given in two meetings between pregnancy weeks 28 and 34 to the ladies in the examination bunch. Results: In the main meeting, no critical contrast was found between W-DEQ-A scores of the examination and control gatherings. The mean pre-training W-DEQ-A score was 61.1 while it was 42.0 post-schooling in the investigation bunch. The post-training W-DEQ-A score was 58.5 in the benchmark group while it was 42.0 in the examination bunch. Ends: not set in stone that positive insight in regards to

birth was furnished and dread of labor diminished with the arrangement schooling for birth.

7- study of Nieminen et al., 2016 ; Treatment of nulliparous women with severe fear of childbirth via the Internet: A feasibility study. Objective: The aim of the present study was to test the feasibility of Internet interventions among nulliparous women suffering from severe fear of childbirth (FOC) by means of an Internet-delivered therapist-supported self-help program based on cognitive behavioral therapy (ICBT).Design: Prospective, longitudinal cohort study.Setting: A feasibility study of an ICBT program for the treatment of severe FOC in pregnant women.Sample: Twenty-eight Swedish-speaking nulliparous women with severe FOC recruited via a project home page from January 2012 to December 2013.Methods: The main components of the ICBT program for the treatment of severe FOC comprised psycho-education, breathing retraining, cognitive restructuring, imaginary exposure, in vivo exposure and relapse prevention. The study participants were anonymously self-recruited over the Internet, interviewed by telephone and then enrolled. All participants were offered 8 weeks of treatment via the Internet. Participants reported their homework weekly, submitted measurements of their fear and received feedback from a therapist via a secure online contact management system.Main outcome measures: Level of FOC measured with the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ A) during screening at enrollment and weekly during the treatment (W-DEQ version A), and after the delivery (W-DEQ version B).Results: A statistically significant ($p < 0.0005$) decrease of FOC [W-DEQ sum score decreased pre to post-therapy, with a large effect size (Cohens $d = 0.95$)].Conclusions: The results of this feasibility study suggest that ICBT has potential in the treatment of severe FOC during pregnancy in

motivated nulliparous women. The results need to be confirmed by randomized controlled studies.

8- study of (Karabulut et al., 2015) (Does antenatal education reduce fear of childbirth) The aim of this study was to determine the effect of antenatal education on fear of childbirth, acceptance of pregnancy and identification with motherhood role, This is a quasi-experimental and prospective study that employs a pre- and post-education model. In total, 192 pregnant women (education group, n = 69 and control group, n = 123) participated in the study. Data were collected using the pregnancy identification form: the Prenatal Self-Evaluation Questionnaire and a version of the Wijma Delivery Expectancy/Experience Questionnaire. Results: before antenatal program no significant difference was found between EG and CG's baseline levels of AP ($P > 0.05$). However, there was a significant difference in the levels of AP between the EG's post-education measurement and the CG's second measurement ($P < 0.001$).

9- study of Guszkowska, Monika The effect of exercise and childbirth classes on fear of childbirth and locus of labor pain control. This study sought to track changes in intensity of fear of childbirth and locus of labor pain control in women attending an exercise program for pregnant women or traditional childbirth classes and to identify the predictors of these changes. The study was longitudinal/non-experimental in nature and run on 109 healthy primigravidae aged from 22 to 37, including 62 women participating in an exercise program for pregnant women and 47 women attending traditional childbirth classes. The following assessment tools were used: two scales developed by the present authors - the Fear of Childbirth Scale and the Control of Birth Pain Scale, three standardized psychological inventories for the big five personality traits (NEO Five Factors Inventory), trait anxiety (State-Trait Anxiety Inventory) and

dispositional optimism (Life Oriented Test-Revised) and a questionnaire concerning socioeconomic status, health status, activities during pregnancy, relations with partners and expectations about childbirth. Fear of childbirth significantly decreased in women participating in the exercise program for pregnant women but not in women attending traditional childbirth classes. Several significant predictors of post-intervention fear of childbirth emerged: dispositional optimism and self-rated health (negative) and strength of the belief that childbirth pain depends on chance (positive).

3.1 Design of the study

A quasi-experimental study was conducted from September 2019 to February 2021, comparing women who received antenatal education (experimental group), and women who received routine antenatal care (control group). The use of a quasi-experimental design offers many advantages for researchers, including the provision of clear evidence of the effectiveness of interventions, the independent variable preceding the dependent variable, the influence of the independent variable can be measured, and a level of control can be introduced that reduces the effect of extraneous variables The dependent variables in this study were fear of childbirth and the independent variable was antenatal education.

3.2 Administrative arrangement

The formal agreement obtained from Al-Najaf Health Directorate/centres of training and development for having access to primary health care centres at AL-Najaf AL-Ashraf Governorate /Iraq they include:

1- Northern Primary Health Care Sector in AL-Najaf (appendix b_2)

2- Southern Primary Health Care Sector in AL-Najaf (appendix b_3).

3- Primary Health Care Sector in Kufa (appendix b_4).

4- Primary Health Care Sector in Manathera (appendix b_5)

5- Abbasiya Primary Health Care Sector(appendix b_6).

6- Primary Health Care Sector in AL-Mashkhab (appendix b_7)

3.3 Setting of the study

The present study is carried at the main primary health care centres in Al-Najaf Al-Ashraf /Iraq.

No.	Primary health sectors	N. Centers	No. main Study Centers	Per cent studied centres	Study sample	
					experimental	control
1-	Northern Primary Health Care Sector in AL-Najaf	10	5	%25	8	7
2-	Southern Primary Health Care Sector in AL-Najaf.	10	5	%25	7	7
3-	Primary Health Care Sector in Kufa	8	4	%20	7	7
4-	Abbasiya Primary Health Care Sector	3	2	%10	3	3
5-	Primary Health Care Sector in Manathera	3	2	%10	3	3
6-	Primary Health Care Sector in AL-Mashkhab	3	2	%10	2	3
7-	Total	37	20	%100	30	30

Table 3-1: setting of the study

3.4 Sample of the study

Non – probability / purposive sample includes 60 pregnant women who attended the main primary health care centres at the AL-Najaf AL-Ashraf governorate.

3.5 The study instrument

The data was collected by using the Wijma Delivery Expectancy/Experience Questionnaire B and A version (W-DEQ-A, W-DEQ-B) to measure fear of

childbirth obtained from a previous study (Fenaroli & Saita, 2013). The researcher modified the questionnaire to be suitable with studied sample requirements. By changing scale from 6-point Likert scale (0 = do not agree; 5 = totally agree) to three-point Likert scale (1=never, 2= sometime, 3= always) but this scale will be reversed to negative question are (first domain; 2,5,6,8,14,15,19), (second; 1,2), (four domain; 1,2,3,6), (five domain; 4) and (six domain; 1,2,3,4,5,6). As well as classified instruments to six domains that will be more suitable with study sample nature.

The study instrument consisted of four parts as the following:

3.5.1 The first part of the questionnaire

The socio-demographic characteristic which includes (4) items as regards their age, educational level, place of residence and occupation.

3.5.2 The second part of the questionnaire

This part comprises (6) item; that concerned obstetrical Characteristics which include Gestational age, desired of delivery (pre-education during antenatal period) and type of delivery (postpartum after education), Planning of pregnancy, Party, Previous abortion and Previous delivery.

3.5.3 Third part of the questionnaire which are Wijma Delivery Expectancy/Experience Questionnaire that divided to two sections are:

3.5.3.1 Wijma Delivery Expectancy/Experience Questionnaire(A)

This part Measure fear of childbirth (normal vaginal delivery) during pregnancy (antenatal period) which consist from 41-item divided to six domine each domine consist from different number of questions; First domine related to Feelings in general during the labor and delivery which consist of (17) item. Second domine related to feel about support people (3) items. Third domine related to feel about care providers which consist of (3) items. Fourth domine related to behavior when labor is most intense which consist of (6) items Fifth domine related to feeling during the moment when deliver baby consist from (4)

items. Sixth domine related to fantasies about labor and delivery consist from (6) items

3.5.3.2 Wijma Delivery Expectancy/Experience Questionnaire (B)

This part measure fear of childbirth (normal vaginal delivery) after delivery 6-8 weeks from postnatal period, the W-DEQ-B is consisted from 41-item divided to six domine each domine consist from different number of questions; First domine related to Maternal experience in general during labor and delivery consist from (17) item. second domine related to felt about support people (3) items. Third domine related to felt about care providers which consist of (3) items. Fourth domine related to behavior when labor is most intense which consist of (6) items. Fifth domine related to felt during the moment when deliver baby consist from (4) items. Sixth domine related to fantasies about labor and delivery consist from (6) items

3.6 Participants in the study (inclusion criteria)

The inclusion criteria were as follows: gestation of 28–30 weeks, nulliparous, multiparous women not at high risk in pregnancy, and not attending any other antenatal programme in the antenatal period. Subsequently, inclusion also required giving birth at full term, having a healthy newborn (born at 38–42 weeks of gestation, not of low birth weight and with no disease) and having experienced no postnatal complications (haemorrhage, puerperal infection, mastitis, thromboembolic disease or postpartum psychiatric disorder. Forty women were enrolled in the experimental group, and forty were enrolled in the control group. There were ten (antenatal 6, postpartum four) absences in the experimental group and 10 (antenatal five, postpartum five) absences in the control group. Among the reasons for absenteeism in the experimental group was the wish to withdraw from the study, medical conditions, difficulties in

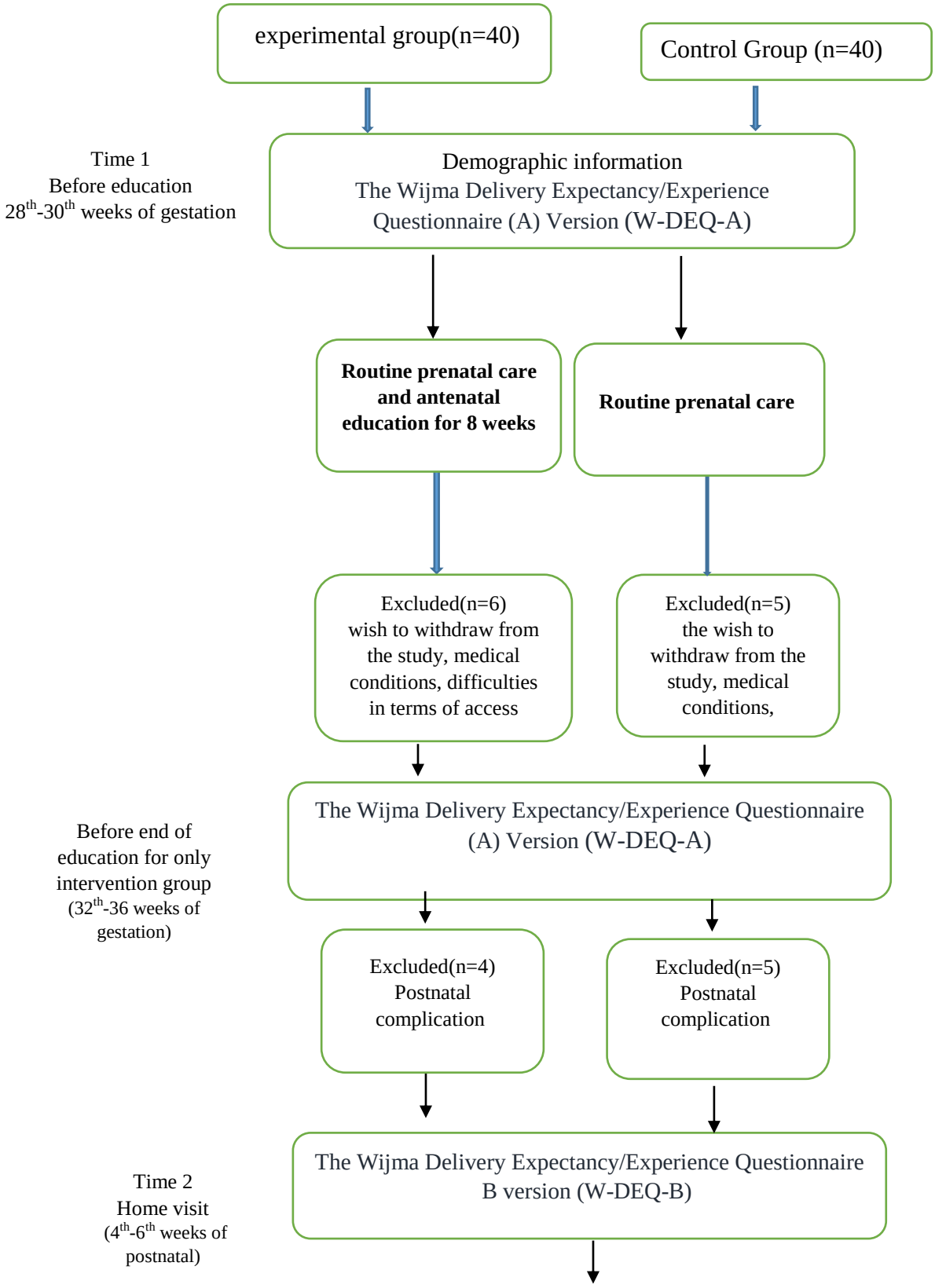
terms of access and postnatal complications. In the control group, reasons for being absent were the wish to withdraw from the study, medical conditions, difficulties in terms of access and postnatal complications. In the antenatal period, 34 women in the experimental group and 35 women in the control group completed the study. In the postpartum period, 30 women in the experimental group and 30 couples in the control group completed the study.

3.7 Intervention of antenatal program

The content of the antenatal education class is presented in appendix (D_1). The sessions in the intervention group were conducted using animation videos, social media, boosters and slide presentations. Pregnant women assigned to the intervention program classes in singular or 2-3 women because covid-19 precautions. They were offered a structured antenatal education course consisting of 8 hours of instruction split into four 120-minute weekly sessions. Each session included presentation of theoretical information, videos for 60 minutes, warm-up and stretching exercises for 15 minutes and relaxation exercises for 15 minute as well as 30 Sharing thought and emotions about session subject.

3.8 Data collection

Data were collected between September 2020 to February 2021 data collected through interview with pregnant. Before education; women in 28-30 gestational weeks from experimental and control who gave their consent were asked to fill out the WDEQ-A forma and demographical and obstetrical characteristics forma (time1). One month after childbirth women from both groups completed the second set of questionnaires WDEQ-B in home visits and some of them during visit to primary health care centers as well as type of delivery (time 2). Forty pregnant women from experimental and forty from control completed the WDEQ-A (Time 1), 30 women in the experimental group and 30 couples in the control group completed the WDEQ-B(time 2).


experimental group(n=40)
Control Group (n=40)
Time 1
Before education
28th-30th weeks of gestation
Demographic information
The Wijma Delivery Expectancy/Experience Questionnaire (A) Version (W-DEQ-A)
Routine prenatal care and antenatal education for 8 weeks
Routine prenatal care
Excluded(n=6)
wish to withdraw from the study, medical conditions, difficulties in terms of access
Excluded(n=5)
the wish to withdraw from the study, medical conditions,
Before end of education for only intervention group
(32th-36 weeks of gestation)
The Wijma Delivery Expectancy/Experience Questionnaire (A) Version (W-DEQ-A)
Excluded(n=4)
Postnatal complication
Excluded(n=5)
Postnatal complication
Time 2
Home visit
(4th-6th weeks of postnatal)
The Wijma Delivery Expectancy/Experience Questionnaire B version (W-DEQ-B)

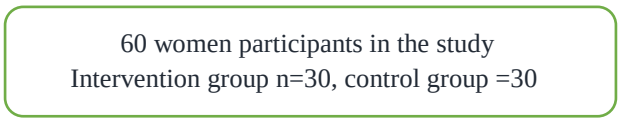


Figure 1: The flow chart of the study phase

3.9 Validity of the instrument:

Firstly, the questionnaire items are translated from English to Arabia by a professional experienced in translating Health survey questionnaires and then the questionnaires back translated into English in order to check for possible discrepancies and incorporating appropriate changes.

Secondly, the content validity of questionnaire was determining through use of a panel of expert to examine the questionnaire content for adequacy and clarity to realize end goal to accomplish the targets of the present study. Preparatory questionnaire which designed and displayed to (11) experts for the determine it is validity; they were (6) members from faculty of nursing/university of Babylon, one member from Middle Euphrates university, one expert from Al-Mustaqbal University College, one member from ministry of health/ AL-Najaf health Directorate/ AL-Zahra teaching hospital. 2 members from university of Kufa/College of Nursing.

3.10 Pilot study

A Purposive sample of 20 pregnant women was selected from primary health care centers in AL-najaf al-Ashraf during the period from 20th to 30th of September 2020.

This study aimed to:

1- Obtain the clarity and content adequacy of the instrument.

2- Determine the reliability of the instrument.

3-Estimate the average time required for the interview each interview took (15-25) minute and unlimited time for observation.

3- Identify barriers that may encountered during date collection process.

The sample of the pilot study excluded from the original sample of the study.

3.11 Reliability of the instrument

Reliability of an instrument was determining through (Cronbach's α coefficient) for the present study.

Table 3-2: Reliability of the instrument

Sample	N. Items	Alpha Cronbach's	Acceptable value	Assessment
20	41	0.84	0.71 – 0.91	Pass

Cronbach's alpha Reliability coefficient for fear of pregnant women was (r=0.84), this value of Cronbach's α for the study is considered acceptable.

3.12 Rating and scoring

Measuring level of fear in present study through Mean of score (1) poor fear (mean of score 1-1.66) moderate fear (1.67-2.33) sever fear (2.34-3).

The WDEQ- A consists of 41 items on 3 Likert scale where 1=never, 2=sometime and 3= always but this scale will be reversed to negative question are (first domain; 2,5,6,8,14,15,19), (second; 1,2), (four domain; 1,2,3,6), (five domain; 4) and (six domain; 1,2,3,4,5,6). Where become (3=never, sometime=2 and 1=always).

3.13 Statistical data analysis

Data were analyzed with SPSS (Statistical Package for Social Sciences) version 25. Descriptive statistics were used to analyze frequency distributions,

percentages, means, and standard deviations. Statistical significance was defined as p value 0.05. Independent-samples t tests and chi-square tests were used to analyze differences in demographic data.

Table 1: Distribution of the Study and Control Groups according to Demographic Data N=60.

Characteristics	Rating & Intervals	Study group		Control group	
		Freq.	%	Freq.	%
Maternal age (year)	<= 25	11	36.67	11	36.67
	> 25	19	63.33	19	63.33
Occupation	Housewife	27	90	27	90
	Employee	3	10	3	10
Place of residence	Urban	22	73.33	21	70
	Rural	8	26.67	9	30
Educational level	Illiterate	3	10	3	10
	Educated	4	13.33	3	10
	Elementary	7	23.33	7	23.33
	Intermediate	10	33.33	11	36.67
	High school	3	10	2	6.67
	Academic	3	10	4	13.33
Total		30	100	30	100

Table (1) shows that 63% of studied and control group of participants were greater than 25 years old. 90% of both group (control and study) were housewife while 10% of them have employee. 73.33% from study group and 70% from control group were lived in urban area. 37% in CG and 33% in SG have intermediate education while equal percentage (23%) of both group have elementary education.

		Freq.	%	Freq.	%
Gestational age (weekly)	28 weeks	9	30	7	23.33
	30 weeks	21	70	23	76.67
Planning of pregnancy	Planned	24	80	26	86.67
	Unplanned	6	20	4	13.33
Party	Nulliparous	18	60	15	50
	Multiparous	12	40	15	50
Previous abortion	Yes	9	30	10	33.33
	No	21	70	20	66.67
Previous delivery	Spontaneous vaginal delivery	11	36.67	13	43.33
	Caesarean section	0	0	1	3.33
	Induction labor	1	3.33	1	3.33
	Non-labor	18	60	15	50
Total		**30**		**30**	

Table 2:Distribution of the Study and Control Groups according to Obstetrical Characteristics N=60.

Table (2) show that 70 % of studied and 76 % of control group in 30 week of gestational age. 86% from control and 80% from experimental groups they are planned to pregnancy. 60% from study group and 50% from control group they are nulliparous women while 50% from control group and 40% from study group they are multiparous. 70% from study group and 67% from control group they did not have previous abortion. 80 % from control group and 53% from study group have Caesarean Section desired while 47% from study group and 20 % from control group have spontaneous vaginal delivery desired, whereas after education program 93% from study group and 27% from control group chooses spontaneous vaginal delivery while 73% from control group and 7 % from study group have Caesarean Section desired. Previous delivery of 43 % from control group and 37% from study group were spontaneous vaginal delivery. Since the sample includes nulliparous women, 60% in the study sample and 50% of the control sample have not had a previous birth.

Table 3: Distribution of the Study and Control Groups according to type of delivery pre and post childbirth N=60

	Type of delivery	Study group		Control group	
		Freq.	%	Freq.	%
Desired of delivery (pre-test)	Spontaneous vaginal delivery	14	46.67	6	20
	Caesarean section	16	53.33	24	80
Type of delivery (Post-test)	Spontaneous vaginal delivery	28	93.33	8	26.67
	Caesarean section	2	6.67	22	73.33

This table shows that 53.33% from study group their desired pretest is Caesarean section while after educational program 93.33 % from them choose Spontaneous vaginal delivery. Also this table shows that 80 % from control group their desired pre-test is C/S and post-test 73.33% from them choose C/S while only 26.67% from them choose Spontaneous vaginal delivery.

Table 4: Distribution the Study and Control Group according to their Feelings in general during the labor and delivery before education (Pre-test) N=60

Pre-test Items	Study group (Pre-test)	Control group (Pre-test)

	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Do you think your labor and delivery will be fantastic?	2	12	16	6.67	40	53.33	2.47	2	23	5	6.67	76.67	16.67	2.10
Do you think your labor and delivery will be scary?	0	9	21	0	30	70	2.70	0	22	8	0	73.33	26.67	2.27
Do you think you will be strong during the labor and delivery?	4	23	3	13.33	76.67	10	1.97	10	20	0	33.33	66.67	0	1.67
Do you think you will be confident during the labor and delivery?	1	16	13	3.33	53.33	43.33	2.40	2	23	5	6.67	76.67	16.67	2.10
Do you think you will be afraid during the labor and delivery	0	11	19	0	36.67	63.33	2.63	0	21	9	0	70	30	2.30
Do you think you will be weak during the labor and delivery?	0	13	17	0	43.33	56.67	2.57	2	15	13	6.67	50	43.33	2.37
Do you think you will be independent during the labor and delivery?	7	23	0	23.33	76.67	0	1.77	4	26	0	13.33	86.67	0	1.87
Do you think you will be tense during the labor and delivery?	0	9	21	0	30	70	2.70	0	16	14	0	53.33	46.67	2.47
Do you think you will be glad during the labor and delivery?	0	25	5	0	83.33	16.67	2.17	5	14	11	16.67	46.67	36.67	2.20
Do you think you will be safe during the labor and delivery?	0	17	13	0	56.67	43.33	2.57	0	18	12	0	60	40	2.40

Table(4) shows that 53.33% of study group always think that their labor and delivery will be fantastic, while 76.67 % from control group sometime think that their labor and delivery will be fantastic.70 % of study group always think that their labor and delivery will be scary however 73.33 % of control group sometime think that their labor and delivery will be scary. 76.67 % and 66.67 % from both study and control group sometime think they will be strong during the labor and delivery. 53.33% and 76.67% from both study and control group sometime think they will be confident

during the labor and delivery while from control group. 63.33% from study group always think they will be afraid during the labor and delivery while 70 from control group sometime thinking that they will be afraid. 56.67 and 43.33 from study and control group always think they will be weak during the labor and delivery. 76.67 from study group and 86.67 from control group sometime thinking that they will be independent during labor. 70 % from study group always thinking that they will be tense during the labor and delivery while 53.33 % from control group thinking that they will be sometime tense during the labor and delivery. 83.33% from study group and 46.67 % from control group they sometime glad. 56.67 % from study group and 60 % from control group sometime think they will be safe.

Table 4 1: Distribution the Study and Control Group according to their Feel about support people (significant other, family, friends) before education (Pre-test) N=60

Items	Study group (Pre-test)							Control group (Pre-test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Do you think you will be alone during the labor and delivery?	0	6	24	0	20	80	2.80	0	16	14	0	53.33	46.67	2.47
Do you think you will be abandoned during the labor and delivery?	0	14	16	0	46.67	53.33	2.53	0	27	3	0	90	10	2.10
Do you think you will be supported during the labor and delivery	4	8	18	13.33	26.67	60	2.47	1	11	18	3.33	36.67	60	2.57

This table shows that 80% from study group they always believed that will be alone during labor and delivery while 53.33 % from control group they believed sometime they will be alone. 53.33 % from study group always believed that will be abandoned while 90 % from control group they believed sometime they will be abandoned. Equal percentage from both study and control group they believed that

there is support during labor and delivery.

Table 4 2 :Distribution the Study and Control Group according to their feel about care providers during birth before education(Pretest) N=60

Items	Study group (Pre-test)							Control group (Pre-test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Do you think you will respected health care provider during birth	6	24	0	20	80	0	1.80	2	28	0	6.67	93.33	0	1.93
Do you Cooperating with health care provider during birth	5	25	0	16.67	83.33	0	1.83	2	28	0	6.67	93.33	0	1.93
Do you think you will understand health care provider during birth	5	25	0	16.67	83.33	0	1.83	0	30	0	0	100	0	2.00

This table shows that 93.33 % from control group and 80% from study group they sometime respected health care provider. 93.33 % from control group and 83.33 % from study group they sometime cooperating with health care provider while 100 % from control group and 83.33 % from study group they sometime understand health care provider

Table 4 3: Distribution the Study and Control Group according to their Behavior when labor is most intense before education (Pretest) N=60

Items	Study group (Pre-test)	Control group (Pre-test)

	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Do you surrender control to your body when labor is most intense?	0	7	23	0	23.33	76.67	2.77	2	15	13	6.67	50	43.33	2.37
Do you lose control of yourself when labor is most intense?	0	7	23	0	23.33	76.67	2.77	1	10	19	3.33	33.33	63.33	2.60
Do you screaming when labor is most intense?	0	13	17	0	43.33	56.67	2.57	0	27	3	0	90	10	2.10
Do you focus on something that makes you more control of yourself when labor is most intense?	2	22	6	6.67	73.33	20	2.13	0	15	15	0	50	50	2.50
Do you able to Focus on breath when labor is most intense?	0	19	11	0	63.33	36.67	2.37	3	16	11	10	53.33	36.67	2.27
Do you desperate when labor is most intense?	0	16	14	0	53.33	46.67	2.47	1	16	13	3.33	53.33	43.33	2.40

This table shows that 76.67% from study group always surrender control to their body when labor most intense and 50 % from control group they sometime surrender control to their body when labor most intense. 76.67% from study group and 63.33 from control group always lose control of their self when labor is most intense. 56.67 % from study group always screaming when labor most intense while 90 % from control group sometime screaming when labor most intense. 73.33 % from study group and 50 % from control group sometime focus on something that makes them more control of their self as well as 63.33% from study group and 53.33 % from control group sometime focus on breath during labor while 53.33 % from study group and control group also sometime feel desperate when labor is most intense.

Table 4 4: Distribution the Study and Control Group according to their Feelings during the moment when deliver the baby before education (Pre test) N=60

Items	Study group (Pre-test)	Control group (Pre-test)

	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Do you think that the very moment when you deliver the baby it will be funny?	0	18	12	0	60	40	2.40	2	21	7	6.67	70	23.33	2.17
Do you think that the very moment when you deliver the baby it will be extremely natural?	2	21	7	6.67	70	23.33	2.17	0	24	6	0	80	20	2.20
Do you think that the very moment when you deliver the baby it will be self-evident?	4	23	3	13.33	76.67	10	1.97	0	21	9	0	70	30	2.30
Do you think that the very moment when you deliver the baby it will be dangerous?	0	4	26	0	13.33	86.67	2.87	2	11	17	6.67	36.67	56.67	2.50

This table shows that 60% from study group and 70 % from control group from control group sometime believed that deliver of baby it will be funny. 70 % from study group and 80 % from control group they sometime believed that deliver the baby it will be extremely natural as well as 76.67% from study group and 70 % from control group sometime they believed that deliver the baby it will be self-evident. 86.67 % from study group and 56.67 % from control group always believed that deliver the baby it will be dangerous.

Items	Study group (Pre-test)			Control group (Pre-test)		
	F	%	MS	F	%	MS

	N	S	A	N	S	A		N	S	A	N	S	A	
Are you fantasizing that you not going to the hospital on time?	0	6	24	0	20	80	2.80	1	7	22	3.33	23.33	73.33	2. 70
Are you fantasizing that your vagina will not return to normal again?	0	8	22	0	8	22	2. 73	0	14	16	0	46.67	53.33	2.53
Are you fantasizing that your child will be injured during labor/delivery?	0	4	26	0	13.33	86.67	2.87	0	8	22	0	26.67	73.33	2.73
Are you fantasizing that you will be injured during labor/delivery?	0	7	23	0	23.33	76.67	2.77	0	11	19	0	36.67	63.33	2.50
Are you fantasizing that your child will die during labor/delivery?	0	4	26	0	13.33	86.67	2.87	0	6	24	0	20	80	2.80
Are you fantasizing that you will die during labor/delivery?	0	8	22	0	26.67	73.33	2.73	0	12	18	0	40	60	2.60

Table 4 5: Distribution the Study and Control Group according to their Fantasies about the labor and delivery before education (Pre-test) N=60

This table shows that 80% from study group and 73.33% from control group always they fantasized that they will be Late for the right time of delivery. 53.33 from control group and 22 % from study group always fantasized that their vagina will not return to normal again. 86.67%, 73.33% respectively from study group and control group always fantasized that their child will be injured during labor/delivery. 76.67%, 63.33 % respectively from study group and control group always fantasized that they will be injured during labor/delivery. 86,67 % and 80 % respectively from study group and control group always fantasized that their child will be die during labor and delivery as well as 73.33% and 60 % respectively from study group and control group always fantasized that they will be die during labor and delivery.

Items	Study group (Post -test)	Control group (Post -test)

	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did your experience was fantastic during the labor and delivery?	0	14	16	0	46.67	53.33	1.47	1	23	6	3.33	76.67	20	2.17
Did your experience was scary during the labor and delivery?	12	17	1	40	56.67	3.33	1.63	0	15	15	0	50	50	2.50
Did you felt strong during the labor and delivery?	0	22	8	0	73.33	26.67	1.27	5	25	0	16.67	83.33	0	1.83
Did you felt you are confident during the labor and delivery	0	17	13	0	56.67	43.33	1.43	1	24	5	3.33	80	16.67	2.13
Did you felt you are afraid during the labor and delivery?	12	18	0	40	60	0	1.60	0	21	9	0	70	30	2.30
Did you felt you are weak during the labor and delivery?	14	16	0	46.67	53.33	0	1.53	0	18	12	0	60	40	2.40
Did you felt you are independent during the labor and delivery?	23	7	0	76.67	23.33	0	1.23	4	26	0	13.33	86.67	0	1.87
Did you felt you are tense during the labor and delivery?	23	7	0	76.67	23.33	0	1.23	0	12	18	0	40	60	2.60
Did you felt you are proud during the labor and delivery?	0	11	19	0	36.67	63.33	1.37	1	26	3	3.33	86.67	10	2.07
Did you felt you are safe during the labor and delivery?	0	16	14	0	53.33	46.67	1.47	13	17	0	43.33	56.67	0	2.57

Table 5: Distribution the Study and Control Group according to their Maternal experience in general during labor and delivery after education (Post-test) N=60.

This table shows that 53.33 % from study group always they have fantastic experience while 76.67% from control group sometime they have fantastic experience during labor. 56.67 % from study group and 50% from control group

always they have had scary experience during labor. 73.33 % from study group always they felt strong during the labor. 73.33% from study group and 83.33% from control group they sometime felt strong during the labor and delivery.56.67 % from study group and 80 % from control group they sometime confident during the labor and delivery. 60 % from study group and 70 % from control group they sometime afraid during the labor and delivery. 53.33% from study group and 60% from control group weak during the labor and delivery. 76.67% from study group always felt independent during the labor and delivery and 86.67% from control group sometime felt independent during the labor and delivery. 76.67% from study group they never felt tense during the labor and delivery and 60% from control group always they felt tense during the labor and delivery. 63.33 % from study group always felt proud during the labor and delivery and 86.67 % from control group they sometime felt proud during the labor and delivery. 53.33% from study group and 56.67% from control group sometime they felt safe during the labor and delivery.

Continue table 5: Distribution the Study and Control Group according to their Maternal experience in general during labor and delivery after education (Post-test) N=60.

Items	Study group (Post-test)							Control group (Post-test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did you felt you are glad during the labor and delivery?	0	15	15	0	50	50	1.50	12	18	0	40	60	0	2.40
Did you felt you are quiet during the labor and delivery?	0	10	20	0	33.33	66.67	1.33	2	28	0	6.67	93.33	0	1.93
Did you felt you are relaxed during the labor and delivery?	0	13	17	0	43.33	56.67	1.34	17	13	0	56.67	43.33	0	2.57
Did you felt you are panic during the labor and delivery?	16	14	0	53.33	46.67	0	1.47	0	7	23	0	23.33	76.67	2.77
Did you felt you are hopelessness during the labor and delivery?	0	17	13	0	56.67	43.33	1.57	0	11	19	0	36.67	63.33	2.63
Did you felt you had longing for the child during the labor and delivery?	0	5	25	0	16.67	83.33	1.17	2	16	12	6.67	53.33	40	1.67
Did you felt you had self-confidence during the labor and delivery?	0	8	22	0	26.67	73.33	1.27	7	23	0	23.33	76.67	0	1.77
Did you felt you had trust during the labor and delivery?	0	10	20	0	33.33	66.67	1.33	0	30	0	0	100	0	2.00
Did you felt your labor was painful?	0	30	0	0	100	0	2.00	0	19	11	0	63.33	36.67	2.37

This table shows that 50% from study group always they felt glad during labor while 60% from control group sometime they felt glad at labor. 66.67 % from study group always they felt quite during labor while 93.33% from control group sometime they quite at labor. 56.67 % from study group always they felt relax during labor while 56.67 % from control group sometime relaxed during labor.

53.33 % from study group they never felt panic during labor instead of 76.67 % from control group always they felt panic during labor. 56.67 % from study group sometime they are hopelessness during labor while 63.33 % from control group always they are hopelessness during labor. 83.33 % from study group they are always have longing for the child while 53.33 % from control group they are sometime longing for the child. 73.33 % from study group they always have self-confidence while 76.67 % from control group sometime have self-confidence. 66.67 % from study group always they felt trust during labor while 100% from control group they sometime feel trusting during labor. 100% from study group and 63.33 from control group they are felt painful during labor.

Table 5-1:Distribution the Study and Control Group according to their Feel about support people (significant other, family, friends) before education (Post-test) N=60

Items	Study group (Post -test)							Control group (Post -test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did you felt alone during the labor and delivery?	10	20	0	33.33	66.67	0	1.67	0	19	11	0	63.33	36.67	2.37
Did you felt you abandoned during the labor and delivery?	0	30	0	0	100	0	2.00	0	28	2	0	93.33	6.67	2.07
Did you supported during labor and delivery	0	13	17	0	43.33	56.67	1.43	1	27	2	3.33	90	6.67	2.03

This table shows that 66.67 % from study group and 63.33 % from control group sometime they felt alone during labor. 100% from study group and 93.33 % from control group sometime they felt abandoned during labor. 56.67 % from study group always they supported during labor while 90 % from control group sometime they supported during labor.

Table 5-2: Distribution the Study and Control Group according to their feel about care providers (nurses, midwives, doctors) during the birth after education (Post-test) N=60

Items	Study group (Post-test)							Control group (Post -test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did you respected health care provider during birth	0	7	23	0	23.33	76.67	1.23	1	29	0	3.33	96.67	0	1.97
Did you cooperated with health care provider when labor was most intense?	0	0	30	0	0	100	1.00	0	30	0	0	100	0	2.00
Did you understand health care provider during birth	0	0	30	0	0	100	1.00	0	30	0	0	100	0	2. 0

This table shows that 76.67% from study group always they respected health care provider during birth while 96.67 % from control group sometime they respected health care provider during birth. 100% from study group always they cooperated with health care provider when labor was most intense while 100% from control group sometime they cooperated with health care provider when labor was most intense. 100% from study group always they understand health care provider during birth while 100% from control group sometime they understand health care provider during birth.

Table5-3: Distribution the Study and Control Group according to their Behavior when labor was most intense after education (Post-test) N=60

Items	Study group (Pre-test)							Control group (Pre-test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did you surrender control to my body when labor was most intense?	16	13	1	53.33	43.33	3.33	1.60	0	13	17	0	43.33	56.67	2.43
Did you lost control of yourself when labor was most intense?	26	4	0	86.67	13.33	0	1.13	0	14	16	0	46.67	53.33	2.53
Did you scream when labor was most intense?	17	13	0	56.67	43.33	0	1.50	0	13	17	0	43.33	56.67	1.43
Did you focused on something that made you more control of yourself when labor was most intense?	0	5	25	0	16.67	83.33	1.17	0	30	0	0	100	0	2.00
Did you able to Focus on your breathing when labor was most intense?	0	0	30	0	0	100	1.00	1	23	6	3.33	76.67	20	2.17
Do you desperate when labor is most intense?	17	13	0	56.67	43.33	0	1.43	2	12	16	6.67	40	53.33	2.47

This table shows that 53.33% from study group they never surrender control to their body when labor was most intense while 56.67 % from control group always they surrender control to their body when labor was most intense. 86.67% from study group they never lost control when labor was most intense while 53.33 from control group always they lost control when labor was most intense. **56.67**% from study group they never scream when labor was most intense while 56.67% from control group they always scream when labor was most intense. 83.33% from study group always they focused on something that made them more control when labor was most intense while 100% from control group sometime they focused on something

that made them more control when labor was most intense. 100% from study group always they Focus on breathing when labor was most intense while 76.67% from control group sometime they Focus on breathing when labor was most intense. 56.67% from study group sometime they feel desperate when labor is most intense while 53.33 % from control group always they feel desperate when labor is most intense.

Table5- 4:: Distribution the Study and Control Group according to their Feelings when delivered the baby after education (Post-test) N=60

Items	Study group (Pre-test)							Control group (Pre-test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did you felt that the moment when you delivered the baby it was funny?	0	20	10	0	66.67	33.33	1.67	17	9	4	56.67	30	13.33	2.43
Did you felt that the very moment when you delivered the baby it was natural?	0	0	30	0	0	100	1.00	6	24	0	20	80	0	1.80
Did you felt that the moment when you delivered the baby it was self-evident?	0	13	17	0	43.33	56.67	1.43	0	30	0	0	100	0	2.00
Did you felt that the moment when you delivered the baby it was dangerous?	0	16	14	0	53.33	46.67	1.53	0	10	20	0	33.33	66.67	2.67

This table shows that 66.67% from study group sometime they felt funny during labor and delivery while 56.67 % from control group they never felt funny during labor. 100% from study group always felt that moment when delivered the baby was natural while 80 % from control group sometime felt that moment when delivered the baby was natural. 56.67% from study group always they felt that the moment when you delivered the baby it was self-evident while 100% from control group sometime they felt that the moment when you delivered the baby it was self-evident.

53.33% from study group sometime they felt that the moment when you delivered the baby it was dangerous while 66.67 % from control group always they felt that the moment when you delivered the baby it was dangerous.

Table5-5: Distribution the Study and Control Group according to their Fantasies about the labor and delivery after education (Post-test) N=60

Items	Study group (Pre-test)							Control group (Pre-test)						
	F			%			MS	F			%			MS
	N	S	A	N	S	A		N	S	A	N	S	A	
Did you fantasized that you would not went to the hospital on time?	5	25	0	16.67	83.33	0	1.83	0	10	20	0	33.33	66.67	2. 70
Did you fantasized that your vagina would not return to normal again?	30	0	0	100	0	0	1.00	0	15	15	0	50	50	2.50
Did you fantasized that your child would injured during labor/delivery?	9	21	0	30	70	0	1.70	0	11	19	0	36.67	63.33	2.63
Did you fantasized that you would injured during labor/delivery	9	21	0	30	70	0	1.70	0	14	16	0	46.67	53.33	2.53
Did you fantasized that your child would die during labor/delivery?	9	21	0	30	70	0	1.70	0	9	21	0	30	70	2.70
Did you fantasized that you would die during labor/delivery?	9	21	0	30	70	0	1.70	0	16	14	0	53.33	46.67	2.47

This table shows that 83.33% from study group sometime fantasized that they would not went to the hospital on time while 66.67 % from control group always fantasized that they would not went to the hospital on time. 100% from study group they fantasized that vagina would not return to normal again while 50% from control group always fantasized that your vagina would not return to normal again. 70 % from study group sometime fantasized that their child would injured during labor/delivery while 63.33 from control group always fantasized that their child would injured during labor/delivery. 70 % from study group sometime fantasized

that would injure during labor/delivery while 53% from control group always fantasized that would injure during labor/delivery. 70 % e from study group sometime fantasized that their child would die during labor/delivery while 70 % from control group always fantasized that their child would die during labor/delivery. 70 % from study group and 53.33% from control group sometime fantasized that they would die during labor/delivery.

Fear of Childbirth	Response	Study group				Control group			
		F	P	Mean	Assess	F	P	Mean	Assess
Before education program	never	0	0	2.43	Sever	0	0	2.32	Moderate
	sometime	9	30			13	43.33		
	always	21	70			17	56.67		
After education program	never	30	100	1.43	Mild	0	0	2.26	Moderate
	sometime	0	0			17	56.67		
	always	0	0			13	43.33		

Table 6: Distribution of the Study and Control Group according to their fear of childbirth before and after education program

This table shows that study group have sever level of fear before education program while Mild level of fear after education program. Also this table show that control group they have moderate level of fear before and after education program.

Table 7: Statistical comparison for Study and control groups according to their fear of childbirth before education (Pre-test) by using Independent t test

Pre-test (before education)		N	Mean	SD	t-test (df=58)	p-value	Sig.
Feelings in general during the labor and delivery	SG	30	2.34	0.30	1.432	0.158	NS
	CG	30	2.23	0.29			
Feel about your support people (significant other, family, friends)	SG	30	2.60	0.47	2.195	0.032	S
	CG	30	2.38	0.29			
feel about your care providers during birth	SG	30	2.67	0.38	2.865	0.005	HS
	CG	30	2.38	0.39			
Behavior when labor is most intense	SG	30	2.45	0.37	1.437	0.156	NS
	CG	30	2.34	0.21			
Feelings during the moment when deliver the baby	SG	30	2.35	0.34	0.804	0.425	NS
	CG	30	2.29	0.21			
Fantasies about the labor and delivery	SG	30	2.79	0.33	1.563	0.124	NS
	CG	30	2.67	0.30			

This table shows that there is significant relationship between study and control group before education related to Feel about your support people (significant other, family, friends) as well as highly significant relationship between study and control group before education related to feel about your care providers during birth.

Table 8: Statistical comparison for Study and control groups according to their fear of childbirth After education (Posttest) by using Independent t test.

Post-test (After education)		N	Mean	SD	t-test (df=58)	p-value	Sig.
Maternal experience in general during labor and delivery	SG	30	1.43	0.24	-13.783	<0.001	HS
	CG	30	2.21	0.19			
Feeling about supported people(significant other, family, friends)	SG	30	1.70	0.25	-7.880	<0.001	HS
	CG	30	2.16	0.19			
feel about care providers (nurses, midwives, doctors) during the birth	SG	30	1.08	0.14	-32.036	<0.001	HS
	CG	30	1.99	0.06			
Behavior when labor was most intense	SG	30	1.31	0.19	-18.447	<0.0001	HS
	CG	30	2.17	0.17			
Feelings when delivered the baby	SG	30	1.41	0.22	-11.544	<0.0001	HS
	CG	30	2.23	0.32			
Fantasies about the labor and delivery	SG	30	1.61	0.36	-9.351	<0.0001	HS
	CG	30	2.58	0.45			

This table shows that there is high significant relationship between study and control group after education program related all domains of Wijma delivery expectancy/experience questionnaire after education

Table 9: Overall Mean difference of the study and control group regarding fear of childbirth before and after the education program

fear of childbirth	Study group		Control group		t-test (df=58)	p-value	Sig.
	Mean	SD	Mean	SD			
Before education program	2.43	0.28	2.32	0.18	1.827	0.073	NS
After education program	1.43	0.12	2.26	0.19	-20.656	<0.001	HS

This table shows that there are high significant differences between study and control group after education program.

Table 10: Relationship between fear of childbirth and demographic data for the Study and Control Group by using Chi-square test.

Demographic data	Study Pre			Control Pre		
	Chi-square (X^2)	df	P-value (Sig.)	Chi-square (X^2)	df	P-value (Sig.)
Maternal age (year)	0.06	1	0.80 (NS)	.34	1	0.56 (NS)
Occupation	0.02	1	0.89 (NS)	.14	1	0.71 (NS)
Place of residence	0.29	1	0.59 (NS)	2.85	1	0.09 (NS)
Educational level	6.28	5	0.28 (NS)	4.99	5	0.42 (NS)
Desired of delivery	4.22	1	0.03 (S)	1.70	1	0.42 (NS)
Planning of pregnancy	0.04	1	0.84 (NS)	3.53	1	0.06 (NS)
Party	1.30	1	0.25 (NS)	0.14	1	0.71 (NS)
Previous abortion	4.00	1	0.04 (S)	1.09	1	0. 01 (NS)
Previous delivery	2.20	2	0.33 (NS)	2.18	2	0.54 (NS)

This table shows that there are no significant relationships between fear of childbirth and demographic data for the Study and control except there is significant relationships between fear of childbirth and previous abortion, desired of delivery.

Experiences of joy and happiness because of a new-born baby are emotions expected of mothers. However, for some of the pregnancy and childbirth are a major disappointments and leave behind painful, traumatic memories One of the tasks of the prenatal classes recommended by the Polish Gynecological Society is to prevent the unpleasant emotions associated with pregnancy and childbirth through education and training to prepare for motherhood .(Bąk & Mastalerz, 2016).

Part I: Demographical Characteristics

The results of current study show most participants were women aged greater than 25 years old, this results agree with the study of Bąk & Mastalerz in 2016; they found that a large percentage of study and control groups have 30-40 year. As well as the present study found that 90% of both group (control and study) were housewife while 10% of them have employees, 73.33% from experimental group and 70% from the control group were lived in an urban area. Rahmani et al., 2020 had support that most of the participants are housewives (94%) as well as they lived in city with (72.22%) represented the study group and (70.96%) from control group. In addition the present study had also revealed that 37% in the control group and 33% in studied group have Secondary education Uçar and Golbasi in 2019 also found that most participants including an interventional group with 50% and the control group with 45% they had Secondary education.

Part II: Obstetrical Characteristics

Current study shows that 70 % of studied and 76 % of control group in 30 week of gestational age in the same study Uslu Yuvaci et al., in 2020 they found that 80% from participants groups at 30 week of gestational age.

86% from control and 80% from experimental groups they are planned to pregnancy. This result agree with Rahmani et al., 2020 they found that 80% from study group and 87% from control group wanted pregnancy. On the other hand; 60% from experimental group and 50% from control group they are nulliparous women while 50% from control group and 40% from experimental group they are multiparous study of J. Kacperczyk-Bartnik et al, 2019 revealed that women who attended study were more often primipara. 70% from experimental group and 67% from control group they did not have previous abortion. This result agree with study of Rahmani et al., in 2020 shown that women who attended study didn't have previous abortion.

Present study found that 80 % from control group and 53% from study group have Caesarean Section desired while 47% from study group and 20 % from control group have spontaneous vaginal delivery desired, whereas after education program 93% from study group and 27% from control group chooses spontaneous vaginal delivery while 73% from control group and 7 % from study group have Caesarean Section desired. This result agree with study of Rouhe et al., 2013 they revealed that percentage of Caesarean Section desired increased in control and study group before intervention while decreased in study group after intervention, however parentage of spontaneous vaginal delivery desired in study group increased while decreased in control group and study of Uslu Yuvaci et al., 2020 also supported this result when they found that the parentage of spontaneous vaginal delivery desired in study group increased after educational program while decreased Caesarean Section desired. Fear of labor pain and pregnant women's lack of knowledge about what would be experienced during the delivery process has led to an increase in cesarean sections desired.

The present study shown that Previous delivery of 43 % from control group and 37% from study group were spontaneous vaginal delivery. Since the sample includes nulliparous women, 60% in the study sample and 50% of the control sample have not had a previous birth study of Stoll et al., 2015 they found that less than half of participants they have spontaneous vaginal delivery previously.

Part III: Fear of childbirth before education (Pretest)

Current study finds that high percent of the study group always think that their labor and delivery will be fantastic, scary, afraid, tense and safe while high percent of control group they sometime think that their labor and delivery will be fantastic, scary, afraid, tense and safe. On other hand high percent of both study and control group sometime think they will be strong, confident, weak, independent and glad during labor and delivery. the study of MoghaddamHosseini et al., in 2020 support the present study when they find that high score of W-DEQ regarding lack of positive emotions including the same items of present study which are fantastic, scary, afraid, tense, safe, strong, confident, weak, independent and glad.

The present study revealed that high percent of the study group always think that they will be relaxed, panic, hopelessness, and longing for the child during labor and delivery while high percent of control group sometime think that they will be relaxed, panic, hopelessness, and longing for the child during labor and delivery.

On other hand high percent of both study and control group sometime think they will be proud, quiet, self-confidence, trust and painful during labor and delivery.

The study of (Preis et al., 2018) support the present study, when they find that high percent of participants they relaxed, panic, hopelessness, and longing for the child proud, quiet, self-confidence, trust and painful during labor and delivery.

High percent from study group they always believed that will be alone and abandoned during labor and delivery. while high percent of control group they sometime believed that will be alone and abandoned during labor and delivery. However high percentage from both study and control group they believed that there is support during labor and delivery. study of Pallant et al., 2016 support the present study, they find that (52%) recording extreme scores with item of social isolation which are alone, abandoned and deserted(lack of support).

Also current study find that high percentage from both study and control group they respected, cooperating and understand health care provider during labor and delivery study of Qiu L et al., in 2019 also find that most of women have afried from not be able to help during the childbirth.

Current study finds that high percentage from study group always thinking they will be surrender control to their body and screaming when their labor most intense as well as high percentage from both study and control group always believed they will lose control of themselves when their labor is most intense while high percent of control group they sometime believed that will surrender control to their body and screaming when labor most intense. also current study finds that high percentage from both study and control group sometime they focus on something that makes them more control of their self as well as focus on breath during labor and feel desperate when labor is most intense Pallant et al., in 2016 support this results when they find that high W-DEQ response score related to negative emotions as they labbelled which including badly behave when labor most intens

and totally lose control of myself. Also study of Qiu L et al., in 2019 they find that most of particepents in their study have afraid from lose control and attention during childbirth.

Current study finds that high percentage from both study and control group sometime they believed that deliver of baby it will be funny extremely natural as well as they believed that deliver the baby it will be self-evident. while the high percentage from study and control group always they believed that deliver of baby it will be dangerous study of Preis et al., in 2018 support this result when they revealed that most of pregnant women with 75 % have lack of positive anticipation that involve not joyful, not natural and not obvious. Study of J. Kacperczyk-Bartnik et al, 2019 support present study when they found that most of participants in their study have mild positive feeling toward labor experience.

Current study finds that the greatest percentage from both study and control group always they fantasize that their child will be injured, die during labor/delivery as well as always both group they fantasize that they will be injured, die during labor/delivery. on the other hand, present study revealed that the greatest percentage from both study and control group always they fantasize that their vagina will not return to normal again also Current study finds that the greatest percentage from both study and control group always they fantasize that they will be late for the right time of delivery the study of Matinnia et al., 2015 support the current results when they found that most of participants they have fantasizes that Being injured during childbirth, Losing their one's own life during childbirth, Having the dead baby.

Part IV: Fear of childbirth after education (Post-test).

Current study finds that high percent of the study group always think that their labor and delivery fantastic while high percent of control group they sometime think that their labor and delivery fantastic as well as high percent of both study and control group they sometime think that their labor and delivery scary. also high percent of the study group always feel that they glad, Quiet, relaxed, longing for the child, have self-confidence, trust, independent and proud during labor and delivery, while high percent of the control group they sometime feel that they glad, Quiet, relaxed, longing for the child, have self-confidence, trust, independent and proud during labor and delivery. Study of G. Gökçe İsbir et al., in 2016 support this results when they revealed that most of women who attended class have positive experience during childbirth rather than women who doesn't joint class.

On the other hand, present study finds that high percent of the study and control group that they sometime strong, afraid, weak and painful during labor and delivery. also present study find that high percent of the study group feel that they never tense and panic during labor while high percent of the control group feel that they sometime tense and panic during labor. present study also find that high percent of the study group sometime feel hopelessness while high percent of the control group always feel hopelessness during labor. (Uçar T, Golbasi Z, 2019) show that level of pain, tense ,feel hopelessness , felt stronger and emotionally more ready for birth was lower for intervention group.

High percent from both study and control group they sometime feel of alone and abandoned during labor and deliver. However high percentage from study group always feel that they have support during labor while high percentage from control group sometime feel that they have support during labor and delivery.(COŞAR & DEMİRCİ, 2012 and (Nilsson et al., 2018 these study show that most of

participants after program they have sense of alone and deserted as well as some time lack of support.

Also current study finds that high percentage from study group always they respected, cooperating and understand health care provider during labor and delivery while sometime control group respected, cooperating and understand health care provider during labor and delivery. Wigert et al., 2020 and Result of El-Aziz et al., 2016 show that most of particepent` The women tried to communicate with the midwife about their feelings.

Current study finds that high percentage from study group never surrender control to their body and lose control of themselves when their labor is most intense while high percentage from control group always surrender control to their body and lose control of themselves when their labor is most intense. Also high percent of study group always they focus on breathing and focuses on something that made them more control when labor was most intense. While high percent from control group sometime they focus on breathing and focuses on something that made them more control when labor was most intense. As well as high percentage from study group never feel of desperate and screaming when their labor is most intense while high percentage from control group always feel of desperate and screaming when their labor is most intense Faisal et al., 2014 and Roosevelt & Low, 2016 these studies show that women described their fear of losing control over their body and that they might be ashamed of their own behavior like screaming and crying while given birth. also Richens et al., 2018 also described fear of childbirth as a sense of not having control over what was going to happen during pregnancy and childbirth B Salomonsson, 2013 ; The women used

relaxation and breathing techniques to relieve their fear and tried to work with their body instead of against it.

Current study finds that high percentage from study group always feel that deliver of baby natural and it self-evident while, high percentage from control group sometime feel that deliver of baby natural and it self-evident. on the other hand, high percentage from study group sometime feel that delivered of baby it funny while high percentage from control group never feel that delivered of baby it funny. also high percentage from study group sometime feel that delivered of baby it dangerous while most of control group always feeling that delivered of baby dangerous study of Karabulut et al., 2015 also show that most of studied sample feel that labor sometime natural and it self-evident. Matinnia et al., 2015 also find that most of partiecpentes feel that their childbirth it risky .

Current study finds that the greatest percentage from study group sometime fantasize that late for the right time of delivery, their child will be injured, die during labor/delivery as well as fantasize that they will be injured, die during labor/delivery., while greatest percentage from control group always fantasize that late for the right time of delivery, their child will be injured, die during labor/delivery as well as fantasize that they will be injured, die during labor/delivery Faisal et al., 2014; the women also expressed concern that their babies might be injured physically or would have a malformation and El-Aziz et al., 2016 also support this results when they find that childbirth fear among women is associated with fear of die, fear of vaginal tear, the well-being of the baby. on the other hand, greatest percentage from study group never they fantasize that their vagina will not return to normal again greatest percentage from control group always they fantasize that they their vagina will not return to normal again.

(Wahlbeck et al., 2018) shows that women also described their fear of injuries to their body and believed that vaginal birth was associated with physical injuries.

Part V: Fear of childbirth before and after education program

The study indicates that level of fear for study group were sever while moderate fear for control group before educational program. however, level of fear decreased to be mild in study group and still moderate in control group. This result agree with study of (Uslu Yuvaci et al., 2020) and (Uçar T, Golbasi Z, 2019) when they indicate that preparation for childbirth through educational programs reduces childbirth fears as well as study of (Karabulut et al., 2015 A systematic antenatal education programed was found to reduce their FOC. Level of fear change because some behavior and thought that pregnant women have partially change and when they learned how to deal with their afraid by breathing exercise and sharing information with multipara about their positive experiences.

Part VI: Comparison for Study and control groups according to their fear of childbirth before education

Recent study revealed that there are no differences between study and control group before education related to their fear of childbirth domains except Feel about support people (significant other, family, friends) as well as feel about your care providers during birth while after educational sessions the study revealed that there is high differences between study and control group related to their fear of childbirth domains of W-DEQ B. study of (Serçekuş & Başkale, 2016) support this results that they find A significant difference was found between the groups where The mean W-DEQ score of the women in the experimental group was lower than that of the women in the control group, which indicates that their fear of childbirth

was less than the women in the control group. From researcher point of view pregnant women received the same care and information about pregnancy so their level of fear doesn't change as a result of their level of knowledge during this time equal. On the other hand, women worry about support during labor because in Iraq especially in the middle and south maternal and child health hospitals there are no support people (family, partner or friends) enter the delivery room during labor so many women afraid from this moment because she will feeling lonely.

Part VII :comparison for Study and control groups according to their fear of childbirth After education (Posttest)

The present study finds that there is high significant relationship between study and control group after education program related to their fear of childbirth domains after education this results agree with study of (Dawna N, 2019) when he find that there are significant relationship between study sample after educational class. From researcher point of view this result also refer to increasing women's knowledge and they will be able to dealing with their afraid.

Part VIII:Overall Mean difference of the study and control group regarding fear of childbirth before and after the education program

Also current study overall finds that there is no difference between the study and control group regarding fear of childbirth before education program while the study revealed that there are highly significant differences between study and control group regarding fear of childbirth after the education program the results each of Rahmani et al., 2020 , Uçar T, Golbasi Z, 2019 and Serçekuş & Başkale, 2016 they also indicate that effective antenatal classes in which pregnant women participate and contribute to the reduction of negative emotions as well as reducing

the fear of childbirth in pregnant women. Education was shown to decreased the fear of childbirth in pregnant women in the education class by creating a positive perception about childbirth (Kizilirmak & Başer, 2016) this literature result support present study consequence which revealed that high significant differences between study and control group responses after education program as well as Uslu Yuvaci et al., in 2020 agree with current study when they found that education provided during pregnancy significantly decreased women's worries about labor.

Present study that there are no significant relationships between fear of childbirth before education and demographic data for the study and control except there is significant relationships between fear of childbirth and previous abortion, desired of delivery study of Shaban et al., 2013 find that there high significant relationships between fear of childbirth and desired of delivery.

Chapter six Conclusion and Recommendation

This chapter including conclusion for the study results based on the finding as well as involving recommendations also based on the results of the study.

Conclusion

Most of both control group and study group have Caesarean Section desired while less than half percentage from Experimental and control group have spontaneous vaginal delivery desired, whereas after education program most of study group chooses spontaneous vaginal delivery while most of control group have Caesarean Section desired.

The study indicates that level of fear for study group were sever while moderate fear for control group before educational program. however, level of fear decreased to be mild in study group and still moderate in control group.

Recent study revealed that there are no differences between Experimental and control group before education related to their fear of childbirth before educational program except Feel about support people (significant other, family, friends) as well as feel about care providers during birth while after educational sessions the study revealed that there is high differences between Experimental and control group related to their fear of childbirth after educational program.

Current study overall finds that there is no difference between the Experimental and control group regarding fear of childbirth before education program while the study revealed that there are highly significant differences between Experimental and control group regarding fear of childbirth after the education program.

Present study that there are no significant relationships between fear of childbirth before education and demographic data and obstetrical characteristics for the

Experimental and control except there is significant relationships between fear of childbirth and previous abortion, desired of delivery.

Recommendation

The current study recommends the following

1- Additional concerns should be given to the labor rooms to improve support to women during labor.

2- Further studies are recommended to investigate the effectiveness of antenatal education programs on self-efficacy where it seems to be important to explore self-efficacy in parous women. Knowledge about how the outcome of one's own performance during delivery contributes to self-efficacy might provide knowledge that can be used for developing care that prevents a negative birth experience as well as to promote a positive one.

3- Recommended using such a program in primary health care in the ministry of health.

4-Randomized controlled studies that evaluate the effects of different education methods on labor outcomes.

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