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Parents' experiences of fear of childbirth in relation to support needs, self-efficacy and mental health

CARITA NORDIN-REMBERGER

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Abstract

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Childbirth can be associated with both positive and negative psychological reactions. Pregnancy and birth and the emotions connected to it are subjective, multidimensional and complex, including both physiological and psychological factors. Fear of childbirth (FOC) represents a significant psychological challenge for both expectant mothers and fathers, with implications for mental health, self-efficacy, and support needs. FOC during pregnancy can lead to various psychiatric disorders, such as postpartum depression and anxiety disorders as well as an increase in instrumental births and emergency caesarean sections. The overall aim of this thesis was to identify the needs and preferences of prospective and newly become parents experiencing FOC and what kinds of barriers and facilitators there are in help-seeking. The work is summarized in four papers originating from a cross-sectional study and interviews with men and women with FOC. Paper I explores the experiences of Swedish pregnant women with severe FOC, highlighting unmet support needs and barriers to seeking help. Paper II employs cluster analysis to examine the relationships between FOC, anxiety, depression, and self-efficacy in pregnant women. Paper III turns its focus to fathers, examining their support needs, barriers, and facilitators related to FOC. Paper IV describes and analyses women's expectations of childbirth, their needs and wishes for support and treatment for FOC during pregnancy. Results from Paper I showed that women identified stigma, lack of empathetic healthcare encounters, and logistical obstacles as primary deterrents to accessing care. Despite many participants desiring support, only a small group of women found the available support effective. Respectful, individualized care was a critical facilitator of positive outcomes. Paper II identified four clusters: Resourceful–Robust, Resourceful–Fearful, Vulnerable–Fearful, and Fragile–Fearful. Women in the Vulnerable–Fearful and Fragile–Fearful clusters showed the highest levels of anxiety and depression, coupled with the lowest self-efficacy. Paper III reported that fathers experienced anxiety, stress, and a lack of recognition for their emotional needs within the maternal-focused healthcare system. The stigma of expressing vulnerability, compounded by societal expectations of stoicism, often deterred men from seeking help. Individualized support and proactive engagement from healthcare providers were identified as critical to addressing these issues. Paper IV showed that the women had FOC long before their first pregnancy. The women's fear was to a very small degree about actual risks of injury, illness and death. Instead, they were afraid of being stripped of control over themselves and the situation, not being treated respectfully, being abandoned and the risk of medical procedures being performed without their consent. In summary, FOC is closely tied to mental health, self-efficacy, and the quality of available support systems. Women and men experience FOC differently, necessitating gender-sensitive approaches in childbirth and postpartum care. The results suggest that providing empathetic and individualized care, and addressing systemic barriers, may reduce FOC and improve perinatal outcomes. The findings underscore the need for tailored interventions, particularly for those with heightened vulnerability to mental health challenges.

Keywords: Anxiety, barriers, birth, cluster analysis, counselling, depression, experiences, facilitators, fathers, FOBS, FOC, maternity care, mental health, mixed method, support preferences, pregnancy, self-efficacy, women

Carita Nordin-Remberger, Department of Women's and Children's Health, Obstetrics and Reproductive Health Research, Akademiska sjukhuset, Uppsala University, SE-751 85 Uppsala, Sweden. Uppsala University, WoMHeR (Centre for Women's Mental Health during the Reproductive Lifespan), Box 256, Uppsala University, SE-75105 Uppsala, Sweden.

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To parents

List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals.

I. **Nordin-Remberger, C.,** Wells, M. B., Woodford, J., Lindelöf, K. S., & Johansson, M. (2024). Preferences of support and barriers and facilitators to help-seeking in pregnant women with severe fear of childbirth in Sweden: a mixed-method study. *BMC Pregnancy and Childbirth*, *24*(1), 388.

II. Hildingsson, I., **Nordin-Remberger, C.,** Wells, M. B., & Johansson, M. (2024). Cluster Analysis of Fear of Childbirth, Anxiety, Depression, and Childbirth Self-Efficacy. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 53(5), 522-533.

III. **Nordin-Remberger, C.,** Johansson, M., Lindelöf, K. S., & Wells, M. B. (2024). Support Needs, Barriers, and Facilitators for Fathers With Fear of Childbirth in Sweden: A Mixed-Method Study. *American Journal of Men's Health*, *18*(5), 15579883241272057.

IV. **Nordin-Remberger, C.,** Johansson, M., Wells, M. B. & Lindelöf, K. S. Swedish women with primary fear of childbirth and their expectations and experiences of support and treatment for fear of childbirth during pregnancy – a qualitative study. *Manuscript.*

Contents

Abbreviations

CBT	Cognitive behavioural therapy
CS	Caesarean Section
EMDR	Eye Movement Desensitization and Reprocessing
FOBS	Fear of Birth Scale
FOC	Fear of Childbirth
MRC	Medical Research Council
PE	Psychoeducation
PDT	Psychodynamic therapy
PT	Psychotherapy
RLP	Reproductive Life Plan
SD	Standard Deviation
VAS	Visual Analouge Scale

Preface

I have always been interested in the psychological parts of becoming a mother and the emotional problems that might occur during pregnancy and birth. This is a time period ideal for changes due to the loosening of our psychological defence mechanisms within ourselves. During training in becoming a midwife we learn mostly theoretical knowledge about practical tools and supportive care related to different aspects of pregnancy, birth and the postpartum period. It is important that midwives are skilled and knowledgeable in the practical work in midwifery. During my meetings with women it became clear that it is also important to care not only for the physical but also, for the psychological, including before, during and after pregnancy. The support I provide as a midwife, and the way in which treatment is provided, is important. It is important to be able to listen to women´s stories, their fears and expectations. This is needed to create a good relationship to the woman. I first came into contact with fear of childbirth during my training and after crossing this phenomenon several times, questions on how to understand this and what we could do about it started to formulate. Later, during my research studies, I came in contact with fathers whom were fearful.

This led me to ask several important questions: How does fear and worries about childbirth impact the expectant mother, father and their child? Why are some more fearful than others? How do we find the ones that are fearful and what kind of support do they need to have a healthy start as parents?

These clinical questions led me to pursue my PhD project described in this thesis, and I am so grateful for the opportunity to be able to conduct research in this area, which can hopefully help support both parents with a fear of childbirth.

Introduction

Fear of childbirth

Pregnancy and childbirth are significant milestones that bring profound emotional, psychological, and physical changes to individuals and families. While these events are often associated with joy and anticipation, they can also provoke fear and anxiety, which can adversely affect the parent's experiences and mental health. Fear of childbirth (FOC) is increasingly recognized as a critical issue that affects expectant parents and has broader implications for healthcare delivery. Investigating severe FOC is crucial for understanding the support needs of both women and men. Women with intense childbirth fear often report a lack of emotional, informational, and professional support, which exacerbates their anxiety and distress (Fenwick et al., 2015). Furthermore, FOC is closely linked to self-efficacy, or a woman's confidence in her ability to cope with labor and childbirth. Low childbirth self-efficacy contributes to heightened fear and increased medical interventions, including cesarean sections on maternal request (Stoll et al., 2014). The connection between severe FOC and maternal mental health is another critical area of concern. Women with FOC have a higher risk of developing perinatal anxiety, depression, and post-traumatic stress disorder (PTSD) following childbirth (Striebich et al., 2018). These mental health challenges can negatively impact maternal-infant bonding, breastfeeding, and overall postpartum well-being (Billings et al., 2024; Seefeld et al., 2022). FOC in fathers can adversely affect their emotional well-being and their capacity to support their partners during labor and birth (Eriksson et al., 2007). This fear may also hinder men's ability to embrace their roles as fathers during this critical transitional period (Eriksson et al., 2007). Moreover, intense fear related to childbirth can lead to heightened anxiety and stress, potentially resulting in long-term psychological challenges if not addressed (Philpott et al., 2019; Eriksson et al., 2007). This thesis investigates the experiences of FOC among women and men, exploring its impact on their support needs, self-efficacy, and mental health.

Definition

There is a growing amount of research on FOC, but there is still lack of a standard definition. To date, an absence of a clear definition for fear of childbirth and identification of levels that may constitute a phobic response has led to significant heterogeneity in estimations of prevalence (O'Connell et al, 2018). Areskog et al. (1981), defined FOC as "a strong anxiety which had impaired the women's daily functioning and wellbeing." Other definitions concluded that FOC is a "specific psychological domain at the end of a continuum" (Zar et al., 2002). Hofberg & Brockington (2000) called FOC "tokophobia," which implies an intense anxiety condition in which childbirth is avoided. Rondung et al., (2016) suggested that FOC should be classified as a type of anxiety because of its long-lasting distress toward a future threat. FOC has been categorized from mild, moderate to severe by SFOG (2017). Furthermore, FOC can be divided into two types: primary and secondary. Primary FOC refers to the intense fear of labor and birth experienced by women who have never given birth before. Women who have limited knowledge about childbirth or have been exposed to negative birth stories from family, friends, or media may develop heightened fear (O'Connell et al., 2017). Further, women with a history of sexual abuse or violence are more likely to experience primary FOC due to heightened anxiety about loss of control, pain, and medical examinations during labor (Montgomery et al., 2019). Anxiety disorders, depression, and post-traumatic stress disorder (PTSD) are also associated with an increased risk of primary FOC (Striebich et al., 2018). In some societies, strong cultural stigmas around childbirth, pain, and motherhood expectations contribute to fear among first-time mothers (Nilsson et al., 2018). Also, women who perceive themselves as unable to cope with labor pain and medical interventions often report primary FOC (Stoll et al., 2014). Secondary FOC occurs in women who have previously given birth and have developed a fear due to traumatic or distressing experiences, such as complications from emergency cesarean sections, instrumental deliveries, excessive labor pain, or lack of support can lead to secondary FOC (Nilsson et al., 2018). Some women develop PTSD after childbirth, particularly if they experienced feelings of helplessness, fear for their own life or the baby's, or poor treatment by healthcare professionals (Striebich et al., 2018). Women who felt ignored, disrespected, or powerless during labor may develop a lasting fear of childbirth, influencing future pregnancy decisions (O'Connell et al., 2017).

In Sweden, midwives are recommended to ask women questions about their feelings toward the upcoming birth, and in some regions, women are screened for FOC. However, SFOG (2017) does not describe, what constitutes a mild, moderate, or severe FOC. Instead, this determination is usually up to the antenatal midwife, followed by referral to a counselling clinic or a psychologist for those with severe FOC.

While severe fear of childbirth (FOC) is predominantly studied in women, increasing evidence suggests that expectant fathers can also experience significant childbirth-related fear and anxiety (Eriksson et al., 2020). Limited research has explored paternal FOC using validated screening tools and there is a lack of consistent definition of paternal FOC (Ganapathy, 2015). These fathers-to-be with a severe FOC experience severe anxiety, which impacts their daily functioning, causes distressing feelings of helplessness and affects their ability to prepare psychologically for fatherhood (Bergström et al., 2013) as opposed to the common worry and uncertainty experienced by fathers-to-be in anticipation of childbirth. Some fathers who have previously witnessed a traumatic birth may also develop secondary FOC, similar to women, leading to heightened stress and emotional distress in future pregnancies (Hildingsson et al., 2014).

Prevalence

Each year, approximately 110 000 women give birth in Sweden (Stephansson et al., 2018), where 20% of pregnant women suffer from severe fear of childbirth (Hildingsson et al., 2017). Globally, the prevalence of FOC is between 5 to 30% during pregnancy (Nilsson et al., 2018; Klabbers et al., 2016; Sanjari et al., 2022; Hildingsson et al., 2017) and between 5 to 20% after giving birth (Nilsson et al., 2012; Jha et al., 2018; Khwepeya et al., 2018). A systematic review by Nilsson et al. (2018) showed that the prevalence of FOC were between 5.5% to 26.2% and varied between countries depending on cut-off points used to define FOC, the screening scales used, and the context where the data were collected. Another study, including six European countries (Belgium, Denmark, Estonia, Iceland, Norway, and Sweden) indicated that 11% of pregnant women experienced FOC (Ryding et al., 2015). However, there are some challenges in comparing prevalence rates due to the absence of a comprehensive definition of FOC, different cut-off points, and the different screening scales used. Research also indicates that women experiencing FOC are at an increased risk of developing anxiety and depression during pregnancy. A study by Størksen et al. (2012) found that pregnant women with high levels of FOC had significantly higher scores on both anxiety and depression scales compared to those with lower levels of fear. Similarly, Räisänen et al. (2014) reported that maternal common mental disorders, including depression and anxiety, may increase the risk of severe FOC.

Among men, research indicates that a significant proportion of men experience varying levels of FOC during their partner's pregnancy. A study by Bergström et al. (2013) involving 762 expectant fathers found that 10.9% suffered from FOC. Similarly, Eriksson et al. (2006) reported that 13% of men experi-

enced intense FOC, while 29% had moderate levels of fear. Further, in an integrative review by Moran et al. (2021) found that approximately 5% of men experience FOC, which can negatively impact their emotional well-being.

These findings are consistent with a narrative review by Vismara et al. (2016), which noted that approximately 13% of fathers reported FOC. Most common is FOC in first-time fathers (Hildingsson et al, 2014). Studies has also shown that older fathers are more fearful before childbirth than younger prospective fathers (Schytt & Bergström, 2014; Ternström et al, 2018). The incidence of paternal perinatal depression and anxiety is assessed to be approximately 5–10% (Paulson & Bazemore, 2010; Cameron et al., 2016) and 5–15% respectively (Leach et al., 2016; Leiferman et al., 2021; Philpott et al., 2019).

Risk factors

Several risk factors contribute to the development of FOC. Various factors, such as demographic, obstetric and psychological factors, can influence FOC. Socioeconomic status, education, social support from a partner and/or family, childbirth self-efficacy, anxiety, depression and a history of abuse are common factors for FOC (Zhou et al., 2021; Shakarami et al., 2021; Demsar et al., 2018; Stoll et al., 2018; Talmon & Ginzburg, 2019). However, research finds several risk factors controversial. Some studies found that high prenatal FOC was associated with primiparous women (Massae et al., 2021; O´Connell et al., 2019; O´Connell et al., 2017), while two other studies found no significant difference (Hildingsson et al., 2011; Nilsson et al., 2012). One study found that women with high school level of education were more likely to have high prenatal FOC than women with university level of education (Khwepeya et al., 2018). Other studies have shown that university level educated women are more likely to have high prenatal FOC than less educated women (Qiu et al., 2020; Räisänen et al., 2014). Further exploration and research are needed to better understand the factors influencing prenatal FOC. Employment status, education level and prenatal FOC may also be related to postpartum FOC (Khwepeya et al., 2018; Ruger-Navarrete et al., 2023).

Among men, risk factors often include lack of knowledge about childbirth, feelings of helplessness, and witnessing their partner's pain or distress during labor (Eriksson et al., 2020). Specific risk factors for fear of childbirth in fathers were that they were foreign born and had negative expectations about the birth. Fathers who were afraid of childbirth preferred caesarean section as a method of delivery rather than vaginal delivery (Hildingsson et al., 2014). In addition, many expectant fathers saw pregnancy, childbirth and future parenthood as problematic (Haines et al, 2011; Nilsson et al, 2012; Hildingsson et al, 2014). The majority of research to date has assessed fathers' anxiety

during the perinatal period. A systematic review conducted by Philpott et al. (2019) found that factors contributing to fathers' anxiety were lower education levels, lower household income, poor co-parenting support, a partner's anxiety and depression and being present during a previous birth.

Consequences

FOC can have far-reaching consequences for individuals, families, and healthcare systems. For women, FOC has been linked to several adverse outcomes. Elevated levels of FOC are associated with increased risks of anxiety and depression during pregnancy and the postpartum period (Räisänen et al., 2013; Ryding et al., 2015). Studies indicate that women with higher FOC may experience more severe postpartum mental health difficulties (Rouhe et al., 2001). A strong correlation exists between FOC and negative birth experiences. Women with intense FOC are more likely to report dissatisfaction with their childbirth experience, which can contribute to postpartum psychological distress (Hildingsson et al., 2021). Severe FOC can lead to childbirth-related Post-traumatic stress syndrome (PTSD), characterized by intrusive memories, avoidance behaviours, and heightened anxiety related to the birth experience (Söderquist et al., 2009). FOC can influence reproductive choices, leading some women to delay or avoid subsequent pregnancies, thereby affecting family planning and the number of children they choose to have (Hofberg et al, 2000; Sydsjö et al., 2013; Saisto et al., 1999). Fear may also interfere with daily life during pregnancy and affect the ability to concentrate on work and social activities (Saisto et al, 2003), as well as increased anxiety and sleep disturbance (Hall et al., 2009). For women, FOC is associated with increased rates of elective caesarean sections, prolonged labor, and postpartum depression (Dencker et al., 2019; Nilsson et al, 2018). It may also lead to avoidance behaviours, such as delayed prenatal care or decisions to forgo additional pregnancies (Rouhe et al., 2011). FOC is associated with an increased risk of developing mental health issues, such as anxiety and depression, during pregnancy and the postpartum period. Traumatic childbirth experiences, often linked to FOC, can lead to childbirth-related PTSD. Symptoms may include flashbacks, nightmares, and heightened anxiety related to the birth experience (Ertan et al, 2021).

Men's experiences of FOC, while less studied, also carry significant implications. High levels of FOC in men are associated with increased stress, strained relationships, and difficulties in adjusting to fatherhood (Fenwick et al., 2012). Expectant fathers can also experience FOC, leading to feelings of anxiety, helplessness, and fear during their partner's childbirth. While research on FOC

in fathers is less extensive, emerging studies highlight its significance (Eriksson et al., 2007). Fathers can experience intense fear, helplessness, and a sense of loss of control during their partner's childbirth, which may contribute to negative postpartum outcomes, including difficulties with bonding with their child (Eriksson et al., 2007; Johansson et al., 2015). FOC among fathers is associated with increased risks of anxiety and depression after childbirth, impacting their well-being and ability to support their partner and child effectively (Bradley & Slade 2011). FOC can significantly affect daily life and long-term well-being. Both men and women with severe FOC may avoid discussions about childbirth, prenatal classes, or hospital visits, limiting their preparedness for parenthood (Haines et al., 2011). FOC can strain relationships, as partners may struggle to understand or support each other's fears, leading to communication breakdowns and decreased intimacy (Eriksson et al., 2006). Unresolved FOC and associated mental health issues can affect parent-child bonding and parenting practices, potentially influencing the child's development and family dynamics (Klabbers et al., 2020).

Expectant fathers with FOC report poorer physical and mental health than non-fearful expectant fathers (Hildingsson, Haines, et al., 2014), including greater levels of stress, anxiety, and depression (Leach et al, 2016; Philpott et al, 2017). Men with FOC are more likely to feel unprepared for childbirth and may experience the subsequent birth as frightening, contributing to postpartum mental health challenges (Bergström et al., 2013). FOC in both parents is associated with increased parental stress, which can affect family dynamics and the overall well-being of the family unit (Moran et al., 2021). Severe FOC may lead individuals or couples to avoid future pregnancies, impacting family planning decisions. This avoidance behaviour can stem from the desire to prevent re-experiencing the intense fear or trauma associated with childbirth (Moran et al., 2021; O´Connell et al., 2019).

Screening

Various tools have been used to assess FOC since no international screening or diagnostic standard exist today. In Sweden, screening for FOC is done in the antenatal clinics in some counties, during the antenatal visits to the midwife. Different self-assessment scales are used to diagnose fear of childbirth (SFOG, 2017). Among the most widely used tools is the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ), which assesses cognitive and emotional aspects of FOC in women (Wijma & Wijma, 1998). The W-DEQ is a questionnaire with 33 questions that is useful for measuring fear of childbirth in women before (version A) and after delivery (version B). Each question in the W-DEQ has a Likert scale with six options graded from ”not at all”

(=0) to ”a lot” (=5) as response format. The points are added up between 0-165. A total of 85 points or more is considered to indicate severe fear of childbirth (Wijma et al, 1998). However, different ways of identifying and categorizing FOC using W-DEQ vary, with various cut-offs used to define and classify FOC, leading to different prevalence rates. Some studies have used a cut-off of ≥ 85 to identify severe FOC (Storksen et al., 2015; Lukasse et al., 2014), while other studies have used a cut-off of ≥ 66 (Toohill et al., 2014; Khwepya et al., 2018; Zar et al., 20011) or ≥ 100 (Heimstad et al., 2006; Rouhe et al., 2013). Additionally, a study by Calderani et al. (2019) proposed a W-DEQ cut-off point of 85 for finding tokophobia based on the DSM-5 diagnosis of specific phobia. Some of the disadvantages with W-DEQ is that the form is lengthy and has poor readability, with many items to screen for FOC. Other difficulties involves translating some items into other languages for cultural transferability, adaptability and clinical applicability (Haines et al, 2015; Fenwick et al., 2009; Storksen et al., 2012)

Other tools, such as visual analogue scales (VAS) and self-report measures, are also employed to screen for FOC. Women are asked to indicate how afraid they are of childbirth on a scale from 0 to 10. Women with scores 5 or above have been categorized as having FOC (Rouhe et al., 2009). These tools are critical for early identification, enabling healthcare providers to tailor interventions and support based on the severity and specific nature of the fear (O’Connell et al., 2019).

The Fear of birth scale [FOBS] is a measurement instrument that is also used and was developed by Haines et al. (2011). FOBS contains the question ”How do you feel right now about the upcoming birth?” The women respond by placing marks on two 100 mm VAS, anchored with the words “calm vs. worry” and “no fear vs. strong fear.” The two values are added up and then divided by two for a total score ranging from 0 to 100. The higher the score, the more severe FOC. Various cut-off points have been used to define and identify FOC, such as > 50 (Haines et al., 2011), ≥ 54 (Haines et al., 2015), and ≥ 60 (Hildingsson et al., 2017; Ternström et al., 2015; Ternström et al., 2016). FOBS has shown to be a simple and effective method of identifying fear of childbirth in women (Haines et al., 2011). FOBS is easier to use in clinical care compared to W-DEQ because it takes a shorter time to complete as it has fewer items and so it’s easier for patients or clinicians to use.

Another tool for screening for FOC is Fear of Childbirth Questionnaire, which was introduced by Slade et al. (2021). The Fear of Childbirth Questionnaire consists of 20 items based on ten different elements of FOC reported by women in the UK. The items consists of; fear of not knowing and not being able to plan for the unpredictable; fear of harm or stress to the baby; fear of inability to cope with the pain; fear of harm to self in labor and postnatally;

fear of procedures being done to them; fear of not being heard during labor; fear of being abandoned and alone; fear regarding the body's ability to give birth; fear of internal loss of control and fear at being terrified of birth and not knowing why (Slade et al., 2019). The questionnaire has shown good reliability and content validity in measuring FOC (Slade et al., 2021).

For men, fewer standardized tools exist, though adaptations of the W-DEQ and bespoke questionnaires have been utilized in research settings (Eriksson et al., 2020). FOBS was initially developed for women and the accuracy and comprehensiveness of this screening tool for evaluating fathers' FOC requires further investigation, including if new paternal scales should be used (Ghaffari et al, 2021; Guo et al, 2023).

Support needs

In 2020, approximately 10% of all pregnant women in Sweden received supportive counselling related to FOC (Dencker et al., 2019). Supportive counselling is delivered by a midwife, sometimes in cooperation with an obstetrician, psychologist, counsellor, psychiatrist, or behavioural therapist (Larsson et al., 2016). Supportive counselling has been found to help women feel safe and increase confidence in giving birth, and is related to a positive birth experience (Larsson et al., 2019; Larsson et al., 2017). The referral standard procedure for supportive counselling vary between Swedish antenatal care units. Midwives may ask women a general question about fear before the upcoming birth or use a screening instrument to identify fear of childbirth, e.g. The Fear of Birth Scale (FOBS). Whilst some antenatal care units follow local referral guidelines, others require women to self-refer to a counselling unit (Larsson et al., 2017). Despite all antenatal clinics in Sweden offering supportive counselling for women with fear of childbirth (SFOG 2017; Larsson et al., 2017), the structure and content of the counselling and its organisation differs greatly between clinics (SFOG 2017; Dencker et al., 2019).

Several psychological interventions have been developed to address FOC, with a focus on improving self-efficacy and reducing anxiety. Cognitive-behavioural therapy (CBT) is one of the most effective approaches, incorporating techniques such as cognitive restructuring, exposure therapy, and relaxation training (Nieminen et al., 2016). Internet-based CBT programs have also shown promise in reaching broader populations, particularly in areas with limited access to in-person therapy.

Other interventions include mindfulness-based stress reduction (MBSR) and psychoeducation programs, which equip women with coping strategies and enhance their confidence in managing labor and delivery (Striebich et al.,

2018). Partner involvement in these interventions can further enhance outcomes, as it fosters a supportive environment and addresses shared fears (Jamali et al., 2018). Reviews of different interventions offered to women with FOC suggest that an educational component within the intervention may reduce FOC (Moghaddam Hosseini & Jahanfar 2018; Stoll et al, 2018; Striebich & Ayerle 2018). Psychological interventions including psychoeducation [PE] (Striebish et al, 2018), cognitive behavioural therapy [CBT], enhanced midwifery care (Webb et al., 2021), psychodynamic therapy [PDT], and eye movement desensitization and reprocessing therapy [EMDR] (Swift et al., 2018; Shefaly et al., 2023; Moghaddam Hosseini et al., 2017), have been found to reduce fear of childbirth in pregnant women. However, the evidence base has been criticised due to poor methodological quality (Webb et al., 2021), and primarily focusing only on depression as an outcome (Howard et al., 2020).

Social and cultural norms

Fear of childbirth (FOC) is deeply influenced by social and cultural norms, which shape how individuals perceive, express, and cope with this fear. For women, cultural narratives around childbirth often present it as a natural and fulfilling aspect of motherhood (Stoll et al., 2018). This framing, while affirming for some, can place immense pressure on women to endure childbirth without fear or complaint, leading to stigmatization of those who express significant anxiety (Fenwick et al., 2015). The medicalization of childbirth plays a key role in shaping women's fears, which are not only personal but also socially constructed, influenced by cultural narratives and medical practices. Often, the process of medicalization frames childbirth as a dangerous and painful event requiring medical intervention, heightening fear among expectant mothers (Fisher et al., 2006). Media representations often dramatize childbirth, emphasizing pain, medical interventions, and emergencies, which can amplify fear, particularly for first-time mothers (Luce et al., 2016; Sheen & Slade, 2018). These norms impact women's perceptions of safety, control, and agency during the birthing process, which are key factors in the development of FOC (Chabbert et al., 2020). In a meta-synthesis of women's fears surrounding childbirth, the researchers found that awareness of negative birth experiences and the information women receive about childbirth significantly contribute to fear of childbirth (FOC). These narratives, frequently shared by other women, often highlight pain, complications, and negative outcomes, fueling collective anxiety and reinforcing a culture of fear that can make childbirth seem more intimidating than it truly is (Sheen & Slade, 2018). Social support plays a vital role in the social construction of FOC. Numerous studies

have linked inadequate social support from family and partners with increased FOC (Dencker et al., 2019; Storksen et al., 2015). This suggests that the relationships and support networks surrounding a pregnant woman are crucial in shaping how she perceives and experiences childbirth (Dencker et al., 2019). Previous negative birth experiences can strengthen fear and create a cycle of anxiety surrounding future births, as they are strong predictors of FOC. These experiences, often shared and validated in social circles, contribute to the social construction of childbirth as a potentially traumatic event (Dencker et al., 2019; Storksen et al., 2015). Additionally, healthcare systems in various societies often prioritize physical health over mental well-being, leaving FOC inadequately addressed (Fenwick et al., 2015). Without access to appropriate psychological care, women struggle to manage their fear effectively.

For men, the cultural expectations surrounding childbirth differ but are equally significant. Expectant fathers may experience anxiety related to their lack of control over the birthing process, fear of potential complications, and concerns about their ability to provide adequate support to their partner (Moran et al., 2021). Despite these challenges, societal norms often fail to acknowledge or address paternal FOC, leaving many fathers without the necessary resources and emotional support. In Sweden, many men express a strong desire to be involved in the childbirth process. They often want to be present and supportive during labor and birth, although they may feel overwhelmed and inadequately prepared for the experience (Johansson et al., 2015). Traditional notions of masculinity emphasize emotional control, strength, and protectiveness, which can discourage men from openly expressing fear related to childbirth (Fenwick et al., 2012; Dolan et al., 2011). The fear is often described as a private burden, with many men not expressing their fears openly (Moran et al., 2021). Many fathers report feeling unprepared, excluded, or unsupported in their roles during pregnancy and childbirth, but societal norms often discourage them from voicing these concerns (Moran et al., 2021; Wells, 2016; Dolan et al., 2011; Premberg et al., 2011). Many fathers feel pressured to suppress their fears and anxieties, which can lead to internalized stress and emotional detachment. Additionally, antenatal education programs are primarily designed with expectant mothers in mind, often failing to provide targeted support for fathers experiencing FOC (Hildingsson et al., 2014). The lack of inclusive prenatal care and mental health support for fathers exacerbates their sense of isolation and distress. The absence of societal support for expectant fathers not only affects their mental well-being but also has broader implications for family dynamics. When fathers do not receive adequate support, they struggle to provide emotional reassurance to their partners, which can increase maternal stress and contribute to negative birth experiences (Johnson & Young, 2019). Furthermore, unsupported paternal FOC has been associated

with increased risks of postpartum depression, relationship strain, and avoidance behaviors, such as detachment from both the partner and the newborn (Bradley et al., 2021).

Conceptual framework

Bandura's Social Cognitive Theory, Social Support Theory and Transactional Model of Stress and Coping

To explain parents' experiences of FOC in relation to support needs, self-efficacy, and mental health, a combination of theoretical frameworks can be useful. However, one that particularly stands out is Bandura's Social Cognitive Theory (Bandura, 1986), which can be supplemented with Social Support Theory (House, 1981) and Transactional Model of Stress and Coping (Lazarus & Folkman, 1984).

Self-efficacy, a key concept of Social Cognitive Theory (Bandura, 1986), is the belief in one's ability to perform tasks and manage situations. In the context of FOC, self-efficacy determines how confident parents feel about handling childbirth challenges, e.g., pain and complications. In a study by Salomonsson et al. (2013) applied the concept of childbirth self-efficacy to expectations of the upcoming birth in women with severe FOC. The findings suggested that enhancing self-efficacy could be beneficial in managing FOC.

Another study investigated the correlation between FOC and childbirth self-efficacy during labor, finding that higher self-efficacy was associated with lower FOC (Huang et al., 2022). Other studies suggest that higher childbirth self-efficacy is associated with lower levels of FOC and a greater likelihood of positive birth experiences (Lowe, 2000; Carlsson et al., 2015).

Self-efficacy beliefs are shaped by past successful experiences with similar tasks, e.g., previous childbirths to build confidence. Observing others successfully manage childbirth can boost a parent's own confidence (Bandura, 1997). Observing others successfully manage childbirth (vicarious experience) can also boost a parent's own confidence, particularly in first-time mothers (Ip et al., 2009). Additionally, positive reinforcement and encouragement from healthcare providers or family members can elevate a parent's belief in their ability to cope, reinforcing self-efficacy (Nilsson & Lindgren, 2009). Anxiety or fear can negatively impact self-efficacy, while calm, positive emotional states can improve it (Veringa-Skiba et al., 2022) . By enhancing self-efficacy

through social support, such as childbirth education and emotional reassurance, parents' FOC can be mitigated (Toohill et al., 2014). This theory directly connects to how support needs and mental health are interconnected, emphasizing the importance of interventions that build self-efficacy for reducing childbirth-related anxiety and fear (Haines et al., 2012).

The Social Support Theory helps explain the role of different types of social support (emotional, informational, and instrumental) in alleviating FOC. The theory posits that strong social networks contribute to better mental health by providing resources, reassurance, and practical help (Al-Mutawtah et al., 2023).

Research supports these assertions. A study by Seto et al. (2024) found that face-to-face social support was associated with lower levels of FOC among pregnant women. Similarly, Al-Mutawtah et al. (2023) demonstrated that social support during pregnancy can alleviate emotional and physical pressures, improving the well-being of both mother and child. Moreover, Biaggi et al. (2016) indicated that low social support is significantly associated with an increased risk of depression and anxiety during pregnancy, further reinforcing the importance of a strong support network for expecting parents. This framework highlights how the availability or lack of support needs affects parents' feelings of confidence and mental well-being (Al-Mutawtah et al., 2023).

The Transactional Model of Stress and Coping (Lazarus & Folkman, 1984) explains how individuals appraise and respond to stressful situations, such as childbirth. This model highlights the process of cognitive appraisal, where parents evaluate childbirth as either a threat (fearful, overwhelming) or a challenge (something manageable) (Lazarus & Folkman, 1984; Lazarus, 2006). Research has shown that fear of childbirth (FOC) is influenced by this appraisal process, with higher levels of fear associated with negative birth experiences and increased medical interventions (Stoll et al., 2018; O'Connell et al., 2019).

Coping strategies depend on the appraisal. When childbirth is appraised as a threat, parents may experience heightened fear and anxiety, which can lead to increased requests for medical interventions, such as cesarean sections (Fenwick et al., 2009; Nieminen et al., 2009). However, effective social support and high self-efficacy can shift the appraisal, making the situation seem more manageable and less frightening (Bandura, 1997; Carlsson et al., 2015). The model also identifies two types of coping strategies: Problem-focused coping which contains taking direct action to manage the source of stress, such as attending childbirth education classes, creating a birth plan, or seeking professional guidance (Leachman, 2017; Gagnon & Sandall, 2007).

Next strategy, emotion-focused coping contains managing emotional responses to the stressor, such as receiving emotional reassurance from a partner, practicing relaxation techniques, or engaging in mindfulness exercises (Veringa-Skiba et al., 2022; Ford & Ayers, 2009).

By applying this model to childbirth, researchers and practitioners can better understand how parental perceptions of childbirth-related stress influence birth experiences and outcomes. Additionally, interventions based on this model, such as cognitive-behavioral therapy or childbirth education programs, can help expectant parents reframe their appraisal and develop effective coping strategies to reduce fear and anxiety (Rouhe et al., 2015; Toohill et al., 2014).

Gender

Gender roles and expectations significantly influence how individuals navigate the transition to parenthood and experience fear in relation to childbirth. Social constructions of masculinity and femininity (Connell, 2005; West & Zimmerman, 1987) often frame the ways in which fear is expressed, managed, and addressed within different social and healthcare contexts.

For mothers, societal norms of femininity often emphasize caregiving, endurance, and self-sacrifice, which can create pressure to suppress or internalize fears about childbirth. These norms may influence how mothers seek support and express emotional vulnerability, potentially affecting their perceived self-efficacy and mental health (Fenwick et al., 2015). Conversely, fathers may experience a different set of gendered expectations. Dominant constructions of masculinity often prioritize stoicism, protection, and emotional restraint, which may limit fathers' willingness to acknowledge or articulate their own fears surrounding childbirth (Premberg et al., 2011). This can create barriers to seeking support and negatively impact mental health outcomes.

A gender theoretical approach also interrogates how healthcare systems and professionals may reinforce or challenge these gendered dynamics. For example, research suggests that maternal healthcare often focuses predominantly on the birthing person, potentially marginalizing fathers' experiences and needs (Plantin et al., 2011). This disparity underscores the importance of developing gender-sensitive interventions that address the unique fears and support needs of both mothers and fathers. Furthermore, intersectional perspectives highlight how other social identities—such as race, socioeconomic status, and sexuality—interact with gender (Crenshaw, 1991) to shape experiences of FOC and access to resources. Together, these frameworks offer a

multi-dimensional understanding of how parents' experiences of FOC are influenced by their support needs, confidence in managing childbirth, and overall mental health.

Rationale

The effects of FOC are well known both in Sweden and internationally. Addressing FOC before, during and after pregnancy can benefit both women´s and men´s mental health and also their infant. Existing research predominantly focuses on women, leaving a gap in knowledge about men's experiences and the interplay between parental FOC and mental health. Severe FOC is associated with traumatic childbirth (e.g. lack of control, discomfort, deficient communication, labor dystocia and limited support), negative birth experience, and postpartum psychological ill-health, including depression and post-traumatic stress disorder that can negatively impact the mother-child relationship and the couple's relationship at large. This thesis aims to address these gaps by exploring the experiences of FOC among expectant and new parents, with a focus on their support needs, self-efficacy, and mental health. By integrating qualitative and quantitative methodologies, this research seeks to provide actionable insights that inform the development of equitable, evidence-based interventions. Ultimately, the findings aim to improve antenatal care practices and enhance the well-being of expectant parents.

Aim

Overall aim

The overall aim of this thesis is to identify the needs and preferences, as well as wishes and expectations of prospective and new parents experiencing fear of childbirth and what kinds of barriers and facilitators there are in help-seeking.

Specific aims

Paper I

Primary objectives were to (1) examine pregnant women's experiences of and preferences for support and (2) examine barriers and facilitators to seeking support. The secondary objectives were to examine if there are any differences in experiences of and preferences for support and barriers and facilitators based on pregnant women's parity.

Paper II

To identify clusters of women based on anxiety, depression, fear of birth, and childbirth self-efficacy, and factors associated with the clusters.

Paper III

To identify support needs, as well as barriers and facilitators to seeking support in a sample of Swedish fathers with FOC.

Paper IV

To describe and analyse women's expectations of childbirth, their needs and wishes for support and treatment for FOC during pregnancy.

Materials and Methods

Overview of studies

Table 1. *Schematic description of studies I-IV.*

Study	Design	Participants	Data collection	Data analysis
I	A cross-sectional concurrent mixed-methods design	609 pregnant women with FOC	Online questionnaire and Free answers	Descriptive statistics Chi-square test and Fisher's Exact Test and Content analyses
II	A cross-sectional study	1419 women	Online questionnaire	Descriptive statistics Kappa-means cluster analysis Analyses of variance, Odds ratios
III	A cross-sectional concurrent mixed-methods design	131 men 5 men participated in an interview	Online questionnaire and Free answers Semi-structured individual interviews conducted via telephone	Descriptive statistics Chi-square test and Fisher's Exact Test and Content analysis by Elo&Kyngäs
IV	Qualitative study	22 women with primary FOC	Semi-structured interviews	Reflexive Thematic Analysis (RTA)

Abbreviations: FOC: Fear of childbirth

Study design and study population

Paper I

The study employed a cross-sectional concurrent mixed-methods design (Creswell 2009), utilizing an anonymous online survey by REDCap (Research Electronic Data Capture) (Maré et al., 2022). A total of 609 participants, with 364 being nulliparous and 245 parous women.

Eligible participants included: (i) Women aged 18 years or older, (ii) Self-identified as pregnant, either nulliparous (never given birth) or parous (have given birth), (iii) Living in Sweden, (iv) Able to read and understand Swedish or English sufficiently to complete the survey, (v) Scoring 60 or higher on the Fear of Birth Scale, indicating severe fear of childbirth.

Participants were recruited through various methods from February to September 2022 in collaboration with six hospitals in five counties in Sweden (Malmö, Karlstad, Stockholm, Uppsala, Umeå). Information was provided by midwives at the end of appointments or routine ultrasounds and distribution of study information and QR codes leading to the survey. Participants also accessed the survey through social media advertisements.

Paper II

The study used a cross-sectional design to investigate FOC, anxiety, depression, and self-efficacy among pregnant women in Sweden. The data collection occurred between February and September 2022, targeting women attending antenatal clinics in six hospitals across five regions in Sweden. Participants also accessed the survey through social media advertisements.

Eligibility criteria included (i) Women aged 18 years or older, (ii) Living in Sweden, (iii) is proficient in Swedish or English, (iv) currently pregnant or recently delivered. A total of 1419 women participated, with informed consent obtained online before survey completion. Participants also accessed the survey through social media advertisements. Fear of Birth Scale (FOBS) measured fear and worry about childbirth using two visual analogue scales (calm/worried and no fear/strong fear). Hospital Anxiety and Depression

Scale (HADS) assessed anxiety and depression with validated subscales. Childbirth Self-Efficacy Scale (modified) evaluated participants' confidence in managing childbirth, with six items adapted for labor-specific contexts. Sociodemographic and obstetric data collected on age, civil status, educational level, parity, pregnancy status, and preferred mode of birth. Mental health history and violence exposure was captured self-reported past and current mental health issues and experiences of emotional, physical, sexual, or financial violence.

Paper III

The study was a cross-sectional, concurrent mixed-method design to explore the experiences, support needs, barriers, and facilitators among fathers in Sweden with FOC. Eligibility to participate in the study was (i) fathers (expectant or already parents), (ii) aged 18 or older, (iii) living in Sweden, and (iv) proficient in Swedish or English. 131 participants completed an online survey, of which 71 identified as having FOC. Five fathers participated in semi-structured interviews. Recruitment was done through six hospitals (same as study I-II) with information shared during antenatal appointments, social media, e.g., Facebook, Instagram and network targeting fathers. Data collection was done through an online survey using Fear of Birth Scale (FOBS), measured FOC using visual analogue scales, with scores ≥60 indicating severe FOC. Questions on sociodemographic and obstetric details, support received, barriers, and facilitators. Participants identifying as having severe FOC completed additional questions (Part II of the survey). Qualitative data was collected through open-ended survey questions exploring support preferences and barriers to seeking help and in-depth telephone interviews lasting 48–131 minutes provided deeper insights into participants' experiences.

Paper IV

This qualitative study employed a reflexive thematic analysis (RTA) approach to explore the experiences of nulliparous women in Sweden with primary FOC. The study aimed to analyse participants' expectations, needs, and wishes for support during pregnancy and childbirth. Inclusion criteria was (i) Women aged 18 years or older, (ii) Self-identified as nulliparous (i.e., not having given birth before) when FOC was identified, (iii) Living in Sweden, (iv) Proficient in Swedish or English, (v) Self-reported FOC. Twenty-two women participated, aged 27 to 46. All participants had primary FOC, and nearly half reported previous mental health issues (e.g., depression, anxiety, PTSD). Thirteen were pregnant (gestational weeks 15–38) at the time of the interview, and nine had given birth within the past two weeks to six months. Participants

were recruited through the questionnaire mentioned in previous studies above. Interested individuals contacted the researcher via email and provided informed consent verbally before participation. Semi-structured telephone interviews were conducted between February and September 2022. Interviews lasted 41 to 93 minutes (average 62 minutes). Questions focused on participants' fears, their impacts on daily life, and experiences and expectations regarding support. Interviews were audio-recorded, transcribed verbatim, and anonymized for analysis.

Data analysis

Paper I

Quantitative analysis used IBM SPSS Statistics for Windows, version 28.0. Descriptive statistics were used to compute frequencies, percentages, mean, and Standard Deviation [SD]. Chi-square test and Fisher´s Exact Test were used to assess differences in demographics and other covariates based on participants with severe FOC. We then compared differences between nulliparous and parous pregnant women. Thresholds for significance were set at $p<.05$.

A manifest content analysis approach was adopted by Elo & Kyngäs to analyse responses to open survey questions informed by other mixed methods surveys (Fetters, 2013). I followed three steps to analyse the text (1) preparation, (2) organizing and (3) reporting. Data analysis was managed using Word. Data about experiences of and preferences for support, barriers and facilitators to help-seeking were analysed separately.

Paper II

Quantitative analysis used IBM SPSS Statistics for Windows, version 28.0. Descriptive statistics was used to describe participants' background characteristics. The mean, standard deviation, and range for the HADS–Anxiety, HADS–Depression, FOBS– Worries, FOBS–Fear, and Self-Efficacy scales was calculated. Thereafter, a kappa-means cluster analysis was conducted, a method to identify groups in data (Landau & Chis Ster, 2010). The data were grouped based on similarities, and the goal was to gain homogeneity within clusters and heterogeneity between clusters (Hair et al., 2006). Two-, three-, and four-cluster solutions were examined. Each cluster were labelled according to the grouping and direction of its items. Analysis of variance (ANOVA) was used to detect differences in mean values between the clusters. Odds ratios were calculated with 95% confidence intervals (CIs) between the clusters and the explanatory variables.

Paper III

Quantitative analysis used IBM SPSS Statistics for Windows, version 28.0. Descriptive statistics were used to compute frequencies, percentages, mean, and Standard Deviation [SD]. Chi-square test and Fisher´s Exact Test were used to assess differences in demographics and other covariates based on participants with FOBS <60 and over 60. We then compared differences between men/fathers with FOBS <60 and over 60. Thresholds for significance were set at $p < .05$. We created several dichotomous variables to facilitate cross-tabulation. Relationship status was recoded into two groups (1) Cohabiting with a partner (married or living with someone) and (2) Not cohabiting (single or with a partner but not living together). Education was recorded into two groups (1) primary or high school (9-13 years) and (2) at least some or more college/university. Country of birth was recoded as (1) Sweden or (2) Other. Partner support was recoded into two groups (1) more partner support (those who responded "to a very large extent" or "to a fairly large extent") and (2) less partner support (those who responded "to a small extent" or "not at all").

Qualitative data used manifest content analysis according to Elo & Kyngäs for open-text responses and interview data, identifying themes and subcategories. A manifest content analysis approach (Elo & Kyngäs, 2008) was adopted to analyse responses to open survey questions informed by approaches adopted in other mixed methods surveys (Hagström et al, 2022). Data analysis was managed using Word. Data about experiences of and preferences for support, barriers and facilitators to seeking support were analysed separately. Three steps were followed to analyse the text (1) preparation, (2) organizing and (3) reporting. A contiguous approach to data integration was adopted with qualitative and quantitative findings reported separately (Fetters et al, 2013). First, we analysed the quantitative data to describe the sample and examine experiences of and preferences for and barriers and facilitators to seeking support. Second, we analysed the free-text responses and the transcribed interviews to develop a deeper and more nuanced understanding of preferences for and experiences of support and barriers and facilitators to help-seeking.

Paper IV

Reflexive Thematic Analysis (RTA), following Braun and Clarke's six-phase framework was used to analyse the data. In the phase one, the interviews were transcribed verbatim and transcript was read several times to get an overview of the entire data set. In this phase, the focus was on familiarisation with the data, and taking notes. In the second phase, initial codes – both semantic and latent ones – were generated from the data and from notes made during the first phase. In the third phase, the first and the last author compared their coding and generate themes from the initial codes. In the fourth phase, the main themes were reviewed by returning to the original data and the initial codes, relating them to the research questions of this study. In the fifth phase, where all authors were involved, the themes were finally defined, their names where somewhat revised, and the quotations were chosen. In the sixth phase, the qualitative analysis was written up as a comprehensive text, independently and all authors then reviewed and contributed to the text. Ethical considerations
The women and men participating in the questionnaire and interviews were informed that participation was voluntary and that they could withdraw at any time they desired without giving an explanation. The participant were informed that the collected data would be processed confidentially. Written and oral informed consent was obtained from all participants, confirming their understanding of the study and their voluntary participation. Several questions in the surveys and interviews dealt with delicate topics, such as personal inner fears, previous and current mental illness, physical and psychological violence and partner support. Therefore, it was very important to stress the voluntariness of participation and to be understanding about possible non-responses to certain questions. Further, there were suggestions listed in the survey where participants could seek professional support. Throughout the interviews, I summarized what I perceived the participant to have said to make sure that I interpreted what she/he told me accurately. I also ended the interviews with some evaluating questions where participants had the opportunity to express their impressions of the questions and the interview in general. Data collection utilized the secure Research Electronic Data Capture (REDCap) platform, ensuring confidentiality and data integrity. The Swedish National Ethical Review Authority approved the study procedures and questionnaire (Dnr 2021-03759).

Summary of results

Paper I

The study focused on pregnant women in Sweden experiencing severe FOC, aiming to examine their experiences, support preferences, and barriers to help-seeking. It involved 609 participants, 364 nulliparous (first-time pregnant) and 245 parous (previously given birth) women, who completed an online survey from February to September 2022. Most participants felt unsupported during their pregnancy. They emphasized the need for individualized, easily accessible psychological support. Women encountered various obstacles while seeking help, including lack of information about available resources and inadequate support from healthcare providers. Factors that encouraged women to seek help included supportive partners and healthcare professionals who showed empathy and understanding. Parous women were more likely to receive planned treatment for their fears compared to nulliparous women, suggesting differing support needs based on previous birth experiences. Not all women desiring psychological treatment received it, indicating discrepancies in care quality across different antenatal clinics in Sweden. Participants expressed a strong preference for their partners' involvement during childbirth, which was associated with positive outcomes.

Paper II

The study explores the relationship between FOC, anxiety, depression, and childbirth self-efficacy. A cross-sectional survey of 1419 pregnant women in Sweden identified four clusters based on these factors: Resourceful–Robust: Low levels of anxiety, depression, and fear, with high self-efficacy. Resourceful–Fearful: Moderate fear and self-efficacy, with low anxiety and depression. Vulnerable–Fearful: High worry and fear, some anxiety and depression, and low self-efficacy. Fragile–Fearful: High anxiety, depression, and fear, with very low self-efficacy. Women in the Fragile–Fearful cluster were more likely to report mental health problems, prefer caesarean births, and view their pregnancies as complicated. Self-efficacy emerged as a protective factor against fear and mental health issues.

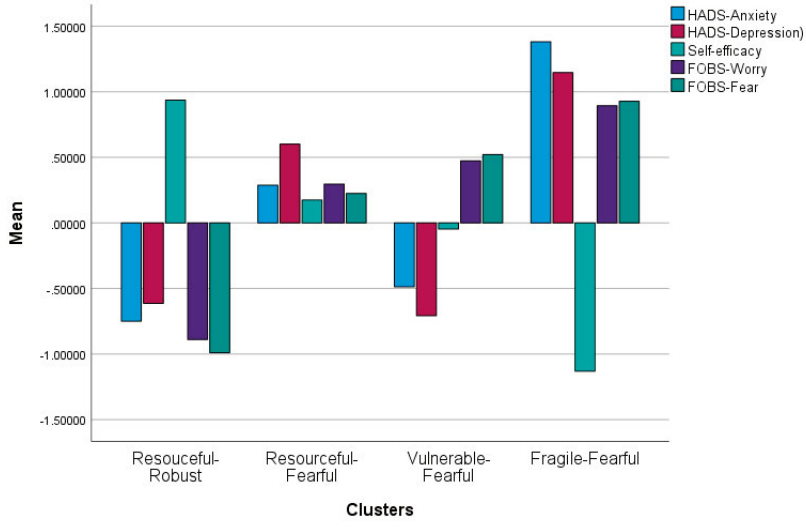

Figure 1. Clusters based on anxiety, depression, worry and fear of birth and self-efficacy, with z-transformed mean scores.

Paper III

The study explored the experiences of Swedish fathers with FOC, focusing on their support needs, barriers, and facilitators to seeking help. One-third (34%) of fathers reported severe FOC. Fathers with severe FOC were more likely to have ongoing mental health difficulties. 40% of fathers with severe FOC expressed a desire for support. Most fathers preferred professional help, with 60% favouring midwives, followed by psychologists (14%), and physicians (11%). Preferred support formats included individual (35%), joint sessions with their partner (47.5%), and small group-based support (25%). Fathers with severe FOC reported more barriers, including unwanted social stigma (40%), discomfort in facing their fears (36.6%) and previous negative experiences with healthcare professionals (20%). Fear of not being taken seriously or listened to was also significant. Key facilitators included, easily accessible help (57.5%, professional support close to home (25%) and availability of support outside standard working hours (30%). Qualitative findings identified one main category: *Expectant fathers missing and wishing for support for fear of childbirth* composed four generic categories: 1) *Support in developing an understanding of their fear*, 2) *Coping by being aware of feelings*, 3) *Professional support through trust and respect* and 4) *Needing individualized support*. Only 8.1% of fathers with severe FOC received treatment, and those who did, found it minimally helpful.

Paper IV

This qualitative study explored the experiences and needs of Swedish women with primary fear of childbirth (FOC). Key findings include that the women´s fear was to a very small degree about actual risks of injury, illness and death. Instead, they were afraid of being stripped of control over themselves and the situation, not being treated respectfully, being abandoned, and the risk of medical procedures being performed without their consent. Three main themes were identified: Health care, Oneself and Culture and society. The overarching theme was identified as Trust and was described as trust in care, in oneself but also in society. Confidence in oneself to be able to handle new situations that arise is an important component for women experiencing FOC.

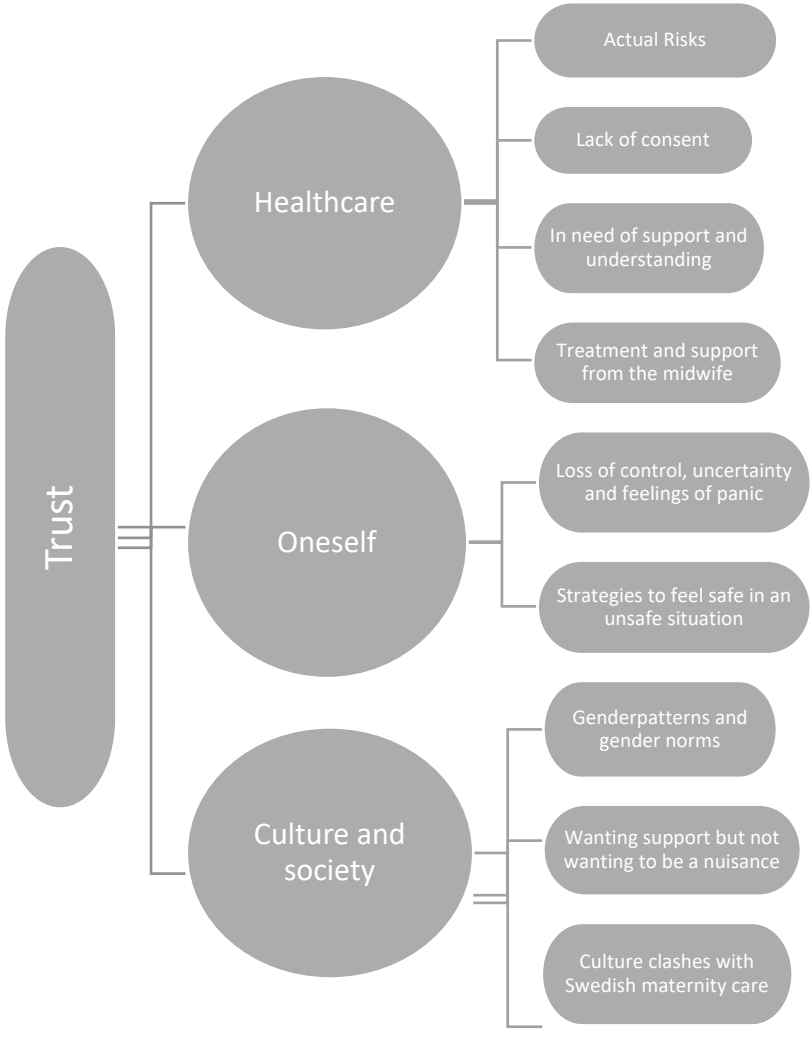

Figure 2. Overarching theme with themes and subthemes describes the experiences of women expressing primary FOC.

Discussion

The findings of this study underscore the multifaceted nature of fear of childbirth (FOC) and its profound impact on expectant parents' mental health, self-efficacy, and support needs. Consistent with previous research, the study highlights that FOC is not merely a psychological phenomenon but is deeply intertwined with social, cultural, and gender norms that shape individuals' experiences and perceptions of childbirth. For women, societal expectations of resilience and the idealization of motherhood can exacerbate feelings of inadequacy and isolation when they experience fear, while men often face cultural pressures to suppress their anxieties, leading to unaddressed emotional struggles. This study's insights into the gendered dimensions of FOC align with existing literature, emphasizing the need for gender-sensitive approaches in prenatal care that acknowledges and addresses the unique fears and support needs of both mothers and fathers, respectively. Furthermore, the study reinforces the critical role of healthcare providers in mitigating FOC through empathetic, individualized support, and the importance of integrating psychological interventions and referrals into standard prenatal care to enhance parents' confidence and mental well-being.

Self-efficacy and FOC

The findings in study I, II and IV show that women with severe FOC had lower self-efficacy, which negatively influenced their ability to manage childbirth-related fears. Bandura's SCT identifies self-efficacy as a key determinant of coping behaviors, asserting that individuals with strong efficacy beliefs are better equipped to manage stress and achieve desired outcomes (Bandura, 1986). Women with FOC and low self-efficacy were more likely to exhibit avoidance behaviors, such as requesting elective caesareans without medical necessity. Similar findings are supported by Dencker et al. (2019) and Lowe (2000), who link FOC to reduced confidence in childbirth readiness. This underscores the importance of interventions aimed at enhancing self-efficacy among expectant mothers, which could potentially reduce the prevalence of elective cesareans and improve overall childbirth experiences.

In our study on fathers and FOC, it is demonstrated that severe FOC can be a heavy burden for fathers, including that they could not support their birthing partner due to heightened symptoms of anxiety and stress, making it difficult to adjust to fatherhood. Societal expectations of paternal stoicism further undermined their confidence, aligning with Bandura's (2004) observation that environmental influences significantly shape efficacy beliefs. Similarly, Ghaffari et al. (2022) found that low paternal self-efficacy correlated with heightened fears for their partner's and baby's well-being, reinforcing the need for targeted support.

The impact of low self-efficacy on both mothers and fathers highlights the necessity for comprehensive support systems that address the psychological and emotional needs of both parents. For mothers, enhancing self-efficacy through targeted interventions such as cognitive-behavioral therapy (CBT), mindfulness-based stress reduction (MBSR), and psychoeducation can significantly reduce FOC and improve childbirth outcomes (Nieminen et al., 2016; Striebich et al., 2018). These interventions can help mothers build confidence in their ability to manage childbirth, thereby reducing the likelihood of elective cesareans and promoting positive birth experiences.

For fathers, providing support that acknowledges and addresses their fears and anxieties is crucial. This includes creating a supportive environment where fathers feel comfortable expressing their concerns and receiving the necessary emotional and informational support. Interventions such as joint counselling sessions with their partners, father-specific support groups, and educational programs tailored to fathers' needs can enhance paternal self-efficacy and reduce FOC (Moran et al., 2021; Ghaffari et al., 2021). By addressing the unique challenges faced by fathers, healthcare providers can help mitigate the negative impact of FOC on their mental health and their ability to support their partners during childbirth.

Overall, the findings emphasize the critical role of self-efficacy in managing FOC and the need for targeted interventions that enhance self-efficacy among both mothers and fathers. By addressing the psychological and emotional needs of expectant parents, healthcare providers can improve childbirth experiences and outcomes, ultimately promoting the well-being of the entire family.

Social Support Theory and FOC

Social Support Theory can lend important insights into how to help expectant parents increase their self-efficacy to better manage their FOC. Social Support Theory further emphasizes the buffering role of emotional, informational, and instrumental support in mitigating stress and enhancing overall well-being

(House, 1981). Women in the first study identified their partner's presence and empathetic professional care as critical in reducing FOC. These findings echo previous research, such as Lukasse et al. (2014) and Haines et al. (2011), which highlight that support systems contribute to a sense of safety and empowerment during childbirth.

Social Support Theory posits that strong social networks can provide essential resources that help individuals cope with stress and improve their mental health outcomes (Cohen & Wills, 1985). Emotional support, such as empathy and reassurance from partners and healthcare providers, can alleviate anxiety and foster a sense of security. Informational support, including guidance and advice from professionals, helps expectant parents feel more prepared and informed about the childbirth process. Instrumental support, such as practical assistance with daily tasks, can reduce the overall burden on expectant parents, allowing them to focus on their mental and emotional well-being.

Barriers to seeking support, such as stigma, lack of healthcare responsiveness, and logistical challenges, remain pervasive. In Study III, fathers reported feeling excluded from antenatal care systems and unsupported in addressing their FOC. This aligns with Moran et al. (2021), who noted that men often encounter systemic and societal barriers that discourage help-seeking behaviors, reinforcing isolation and helplessness. Addressing these barriers is crucial for creating an inclusive support system that meets the needs of both mothers and fathers.

The findings suggest that enhancing social support for expectant parents can significantly reduce FOC and improve childbirth experiences. For mothers, having a supportive partner and access to empathetic professional care can mitigate fears and promote a positive childbirth experience. For fathers, inclusion in antenatal care and targeted support interventions can help them feel more prepared and confident in their role, reducing their anxiety and enhancing their ability to support their partners.

Interventions aimed at improving social support should focus on fostering strong, supportive relationships and providing comprehensive care that addresses the emotional, informational, and practical needs of expectant parents. Programs that encourage partner involvement, offer group support sessions, and provide accessible resources can enhance the overall support system for families. Additionally, training healthcare providers to recognize and address the unique needs of both mothers and fathers can create a more inclusive and supportive environment.

Therefore, the integration of Social Support Theory into prenatal care practices highlights the importance of a holistic approach that considers the social

and emotional dimensions of childbirth. By strengthening social support networks and addressing barriers to support, healthcare providers can improve the well-being of expectant parents and promote positive childbirth outcomes.

The Transactional Model of Stress and Coping provides insight into how individuals appraise and respond to FOC. Women with previous traumatic birth experiences were more likely to appraise subsequent pregnancies as threatening, intensifying their fears. Similarly, women with comorbid mental health issues were found to experience greater distress, as corroborated by the meta-analysis by O'Connell et al. (2019), which links FOC with higher rates of anxiety and depression.

Fathers' stress appraisals were influenced by their perceived lack of preparedness and societal pressures to suppress vulnerability. This aligns with Eriksson et al. (2006), who noted that men often feel obligated to prioritize their partner's well-being over their own emotional needs, leading to maladaptive coping strategies.

The studies highlighted the mental health implications of FOC. Women and men with severe FOC exhibited higher rates of anxiety and depression. The bidirectional relationship between FOC and mental health is well-documented, with findings from Dencker et al. (2019) and indicating that untreated FOC exacerbates psychological distress, impairing coping capacities and parent-infant bonding (Nath et al., 2021; Storksen et al., 2012; Reshef et al., 2023; Bilgic & Bilgin, 2020).

The fear of childbirth (FOC) among women is shaped less by physical risks and more by emotional and psychological concerns, such as loss of control, disrespectful treatment, abandonment, or lack of consent during medical procedures (Nilsson et al., 2010). Women expressed a strong desire for clear communication, emotional validation, and a sense of being heard and respected by healthcare providers, as these factors were seen as critical in alleviating their fears (Nilsson et al., 2018). Delayed or inadequate support, along with a focus on the unborn child at the expense of the mother's emotional and physical well-being, heightened their anxiety and mistrust in maternity care (Hildingsson & Karlström, 2013).

A recurring theme was the importance of trust—in healthcare systems, midwives, and themselves (Stoll & Hall, 2013). Lack of confidence in managing labor pain, maintaining bodily autonomy, or coping with uncertainties often exacerbated women's FOC (Saisto & Halmesmäki, 2003). For women with positive childbirth experiences, trust and effective support improved self-confidence and reduced anxiety (Nilsson & Lundgren, 2009). However, unequal access to support services, such as counselling clinics or doulas, highlighted

disparities in Swedish maternity care, where resourceful women leveraged private solutions to address gaps in public care (Westergren et al., 2021).

Cultural and societal norms play a significant role in FOC. The Swedish focus on natural childbirth, while promoting autonomy, often left women feeling unprepared and uncertain about medical interventions (Hildingsson & Sandin-Bojö, 2021). Comparisons with more medically controlled maternity systems, such as those in Germany or Iran, revealed that women accustomed to structured care environments experienced additional insecurity in the Swedish system (Hadizadeh-Talasaz et al., 2020). Foreign-born women also displayed a higher preference for cesarean sections, possibly due to heightened FOC or unfamiliarity with Swedish maternity practices Karlsröm et al., 2011).

Gender norms further influenced experiences of FOC. Women often felt pressure to embody the "ideal mother," balancing resilience and happiness while suppressing vulnerabilities. Hesitation to voice concerns stemmed from fears of being judged or appearing inadequate (McRobbie, 2009; Nylund Skog, 2002). Traditional gender roles also limited male partners' emotional involvement, with women perceiving their partners as unable to provide sufficient support due to societal expectations of male stoicism (Connell, 2005; Johansson & Hildingsson, 2013). Economic and systemic challenges amplified disparities. Midwives' limited availability and overburdened maternity services heightened women's fears, while hiring doulas or accessing private support services was only feasible for economically advantaged individuals (Sandall et al., 2016; Safarzadeh et al., 2018). The women called for more equitable, empathetic, and proactive maternity care that includes personalized support, continuity of care, and broader societal acknowledgment of women's needs during pregnancy and childbirth (Hildingsson et al., 2013; Clancy et al., 2022).

Methodological considerations

Strengths

Study I provides a comprehensive overview of the experiences of and preferences for support, barriers and facilitators to help-seeking, and it also examines differences based on pregnant women's parity. Another strength is the relatively large sample size and that all counties in Sweden are represented.

Study II utilized a large sample size of 1419 pregnant women in Sweden, allowing for robust statistical analysis and greater generalizability of findings within similar populations. By employing kappa-means cluster analysis, the research categorized participants into four meaningful groups (Resourceful–Robust, Resourceful–Fearful, Vulnerable–Fearful, and Fragile–Fearful), reflecting varying levels of FOC, anxiety, depression, and self-efficacy. This nuanced approach may identify subgroups with distinct characteristics, enhancing the possibility to future targeted interventions. The use of established scales, like the Fear of Birth Scale (FOBS) and the Hospital Anxiety and Depression Scale (HADS), ensured reliable and valid measurements of key constructs.

Study III is one of the first mixed-method studies examining fathers' support needs, as well as their barriers and facilitators to seeking support. We further compared differences of support based on fathers' FOC, as well as how and why they experienced FOC. A potential strength is that the current study used data from both expectant fathers and those who already are fathers. This helps to highlight that FOC is not only a concern during pregnancy, but can persist after birth too. Another strength is that participants for this study were recruited through three disparate recruitment techniques, allowing for participants to represent all counties in Sweden. One first time father and four current fathers (three expecting their second child, and one who had a child) participated in a semi-structured interview. While five interviews is not a large qualitative study, the interviews were in-depth, lasting 74 minutes on average. In addition, the data from the three open-ended survey items from the quantitative survey on all fathers with FOC further added to the qualitative analysis, lending important insights into the experiences of fathers with FOC, their needs, and perceived barriers and facilitators to support.

Study IV adds to the knowledge on what women with primary FOC themselves feel might be helpful when planning support for FOC. FOC before and during pregnancy can be a sensitive subject, and the use of telephone interviewing in this study may have allowed the women to be more open, due to the more anonymous method of data collection (as opposed to face to face interviews). The study adhered to qualitative research standards to ensure credibility: Saturation was achieved, as no new themes emerged in the final interviews. Independent coding and collaborative theme development enhanced reliability.

Limitations

Study I has several limitations. Recruitment relied on convenience sampling, and based on sample characteristics, our sample only represents Swedish-speaking women. Thus, findings may not be generalizable to non-Swedish-speaking women in Sweden. Due to the online survey format women needed to have some level of digital literacy to complete the survey which may have impacted the transferability of findings. Qualitative data consisted of free-text responses that varied in length and depth.

Study II has limitations, including being compromised by the observational design, the self-selection of participants, the under-representation of foreign-born participants, and those without computer access. Recruitment through hospitals and social media might have impacted the participation rate and generalisability, but there is no information available on the number of women who noticed information about the study. Another important notion is that we targeted women with FOC to join the study, which means that it was never meant to be a representative sample. One important ethical issue is the use of wording like ”vulnerable” or ”fragile” as it might be understood that women in these clusters are blamed for their situation. This was not the intention, rather the expressions of cluster belonging to show that there are groups with different characteristics when it comes to FOC and mental health issues.

Study III had several limitations, including a small sample size and potential self-selection bias, as participants were recruited through social media and hospital settings. Previous research further highlights that recruitment of fathers is difficult. In fact, the larger project this study is embedded in used the same recruitment techniques for expectant mothers, where there were 1406 participants, suggesting that other recruitment methods should be tested to better encourage fathers to complete FOC surveys. However, some variables had 30% missing data, which might impact their generalizability. Items with high missing data included: i) their mode of birth preference if pregnancy was medically uncomplicated (Vaginal/Caesarean Section/Do not know), ii)

Would you like to receive support in relation to fear of childbirth (Yes/No/Do not know) and iii) How important is talking about your fear of childbirth (It is very important/It is important/It is not important at all). For the first item, it might be that fathers perceived a medically complicated birth and so skipped the item. However, it is unclear why the latter two items were skipped. Further investigation might be warranted regarding what fathers are and are not willing to share regarding their FOC.

In Study IV the sample is not very large, although 22 interviews is not especially small for a qualitative study. Moreover, it is quite homogenous, with limited ethnic diversity and with all interviewees identifying as women and living in a heterosexual relationship with a male partner. The age span is from 27 to 46 years old. Thus, we don't know what e.g. really young women, women from countries outside Sweden and Europe, queer women or non-binary individuals, or single women, would have answered. Future research should explore the experiences of diverse populations, including younger women, non-Swedish residents, and those in non-heteronormative relationships, to provide a more comprehensive understanding of FOC.

Conclusion and clinical implications

The results of this thesis demonstrate that there is a need for developing effective support systems tailored to the diverse needs of women and men experiencing severe FOC. The findings in the first study emphasize the importance of empathetic, well-structured psychological interventions delivered by trained professionals to enhance the overall maternity experience for these women. The study concluded that most pregnant women with severe FOC do not receive adequate support. Midwives should receive training focused on recognizing and addressing FOC.

This study also underscores the need for a more individualized approach to managing FOC, emphasizing the role of self-efficacy as a protective factor. These findings indicate that Sweden's one-size-fits-all approach to FOC management may not adequately address the needs of women. Addressing the specific needs of women could significantly enhance maternal mental health, reduce unnecessary caesarean deliveries, and improve overall birth experiences. Health systems should integrate early screening and tailored care into antenatal services to achieve equitable and effective maternal health outcomes. Midwives play a pivotal role in supporting women with FOC but face barriers such as a lack of training and organizational constraints. Enhancing midwives' competence in addressing mental health concerns could bridge the gap in perinatal mental health care delivery. Midwives and healthcare providers should prioritize early identification of high-risk women using validated tools like the FOBS and integrate tailored mental health support into routine antenatal care.

As for the fathers with FOC, this thesis underscores the need for systematic changes in antenatal care to address paternal FOC. Routine screening for FOC using validated tools such as the Fear of Birth Scale (FOBS) could help identify fathers in need of support. Moreover, offering dedicated appointments for fathers, as well as group-based and anonymous online interventions, could provide much-needed support while accommodating diverse preferences. Healthcare professionals, particularly midwives, must be equipped with the training and resources to engage fathers in antenatal care and address their mental health concerns. National and international guidelines should emphasize the inclusion of fathers in perinatal care to promote family well-being.

Pregnant women with primary fear of childbirth (FOC) are an underserved group requiring tailored support. This study highlights that their fears are less about physical risks and more cantered around feelings of losing control, lack of respect, and abandonment during childbirth. The overarching theme of trust underscores the importance of confidence in healthcare systems, personal autonomy, and societal support. Effective strategies must address these psychological and social dimensions to alleviate FOC. Midwives and healthcare professionals must prioritize clear communication, foster emotional validation, and uphold autonomy during childbirth. Training programs should be introduced to sensitize caregivers to the emotional complexities of FOC and develop protocols ensuring timely, empathetic, and continuous care. Additionally, creating standardized pathways for addressing FOC across regions can promote equity in maternal healthcare. Routine screening for FOC should be integrated into antenatal care using validated tools such as the Fear of Birth Scale (FOBS). Developing empathetic communication skills and fostering an environment that values informed decision-making are critical steps in improving trust and satisfaction.

Future directions

Work preventively before pregnancy

Preventive strategies are essential to mitigate the development of severe FOC. Public health campaigns aimed at raising awareness about FOC and normalizing discussions about childbirth fears can reduce stigma, particularly for first-time parents and fathers who may feel excluded from traditional antenatal care structures (O'Connell et al., 2017; Moran et al., 2021). Providing information about normal physiological processes, pain management options, and support resources can alleviate anxiety early (Lukasse et al., 2014). Ensuring that all healthcare providers, including midwives and obstetricians, receive training to recognize early signs of FOC will enable timely interventions (Haines et al., 2011). When women are starting their reproductive journey the midwife at the antenatal clinic may have a great opportunity to identify at-risk women with prior history of mental problems, women without social support and educate and prepare them before getting pregnant. When pregnancy occur a robust birth plan is made. Prevention during childbirth may be alert on communication and emotional support, continuity of care and of caregiver.

Identify women in need of support

Screening tools such as the Fear of Birth Scale (FOBS) and other validated measures should be routinely implemented during antenatal care visits to identify women experiencing FOC. These tools allow healthcare providers to quantify fear levels and stratify patients into low, moderate, or high-risk categories, facilitating targeted care pathways (Hildingsson et al., 2017; Dencker et al., 2019). Special attention should be given to high-risk groups, including women with a history of traumatic childbirth, pre-existing mental health conditions, or previous pregnancy losses (Rondung et al., 2018). Additionally, addressing FOC among women from marginalized backgrounds or non-native language speakers is critical to ensuring equitable access to care. Healthcare systems should develop culturally sensitive protocols to identify and address FOC in diverse populations (Nilsson et al., 2012).

Offer evidence-based interventions

Current evidence supports the use of cognitive-behavioral therapy (CBT), psychoeducation, and exposure therapy as effective methods for reducing FOC (Saisto et al., 2001; Salomonsson et al., 2013). These approaches build self-efficacy by reframing negative beliefs, teaching practical coping skills, and normalizing childbirth experiences. Enhanced midwifery care, which includes additional counselling sessions tailored to the individual's fears, has been shown to improve outcomes and foster positive birth experiences (Hildingsson & Rubertsson, 2022). Furthermore, interventions such as mindfulness-based stress reduction (MBSR) and eye movement desensitization and reprocessing (EMDR) have demonstrated promise in addressing trauma-related aspects of FOC (Rondung et al., 2016).

Develop new interventions

There is a need to innovate and develop interventions that address gaps in the current care framework. For example, digital health tools, such as mobile apps, could provide psychoeducation, guided relaxation techniques, and cognitive-behavioural modules tailored to FOC. These tools would increase accessibility, particularly for individuals in remote areas or those hesitant to seek in-person care (Harris et al., 2019). Interventions that integrate partners more actively into the support process can help address fears among both parents. Couple-focused approaches, such as joint counselling or childbirth preparation classes, can strengthen communication and foster mutual support during the perinatal period (Eriksson et al., 2005). For fathers, interventions should address the unique challenges they face, such as societal expectations of stoicism and limited recognition in antenatal care. Programs aimed at improving paternal self-efficacy and emotional well-being would fill a critical gap in current care practices (Ghaffari et al., 2022).

Involve the patients

Patient involvement in the development and evaluation of interventions ensures that care is relevant and responsive to their needs. Co-designing interventions with patients allows healthcare providers to understand the lived experiences of FOC and adapt strategies accordingly. Participatory approaches, such as focus groups and surveys, can guide the creation of more effective and acceptable programs (Boaz et al, 2016; Brett et al, 2014).

Reproductive Life Plan

A Reproductive Life Plan (RLP) is a preventive clinical tool designed to facilitate discussions between healthcare providers and individuals about their reproductive goals, plans for pregnancy, and associated health needs. Incorporating RLP into clinical practice provides an opportunity to address mental health concerns and reduce the risk of fear of childbirth (FOC) before pregnancy occurs. Studies emphasize the importance of screening for previous or ongoing mental health problems as part of RLP consultations. Research by Hildingsson et al. (2017) and Rondung et al. (2018) highlights the strong association between a history of anxiety, depression, or traumatic life events and the development of severe FOC during pregnancy. By identifying these risk factors early, healthcare providers can implement targeted interventions, such as counselling or psychoeducation, to build resilience and reduce the likelihood of distress during pregnancy. RLP discussions offer a structured framework to explore a woman's emotional readiness for pregnancy, past obstetric experiences, and expectations of childbirth. Preconception counselling that integrates mental health evaluations has been shown to improve psychological outcomes, particularly for women with prior traumatic births or mental health conditions (O'Connell et al., 2017; Salomonsson et al., 2013). This proactive approach also provides an opportunity to enhance self-efficacy by offering resources and skills training tailored to individual needs.

Evidence supports the implementation of RLP as a standard component of preventive care. A systematic review by Moos et al. (2008) found that women who received preconception care, including discussions about mental health and stress management, were more likely to experience positive perinatal outcomes and reduced levels of FOC. This aligns with guidelines from the World Health Organization (WHO), which advocate for comprehensive preconception care, including mental health screenings, as part of a holistic approach to reproductive health. Integrating RLP into routine clinical work provides an opportunity to support women in managing their mental health proactively, fostering a sense of control and preparedness. Addressing these issues before pregnancy not only reduces the likelihood of severe FOC but also lays the foundation for healthier pregnancy and childbirth experiences.

Sammanfattning på svenska

Ungefär 110 000 kvinnor föder barn varje år i Sverige. Att föda barn är en unik och komplex upplevelse för både kvinnan och hennes medförälder. De flesta har en positiv graviditet och förlossning men för ca 20% av kvinnorna och 13% av männen så utvecklas en förlossningsrädsla som kan uppkomma innan graviditeten, under graviditeten och efter en negativ förlossningsupplevelse. Att ha förlossningsrädsla är en riskfaktor för psykisk ohälsa och ökar risken för ångest, depression och posttraumatisk stress efter förlossningen. Den befintliga forskningen om förlossningsrädsla har fokuserat på prevalens och riskfaktorer men några studier har undersökt effekten av psykologiska interventioner som KBT, Psykoedukation, gruppdiskussioner, konstterapi och barnmorskeledda stödsamtal för att mildra förlossningsrädsla hos främst kvinnor. Några av studierna är randomiserade och kontrollerade men p g a kvalitetsbrister så var det svårt att mäta effekterna av interventionerna då man visserligen såg en viss minskning av rädslan, men den ansågs inte kliniskt relevant.

Huvudsyftet med denna avhandling har varit att ta reda på föräldrars upplevelser av förlossningsrädsla i relation till deras stödbehov, upplevelse av självförmåga (sin egen förmåga) och mental hälsa. Avhandlingen innehåller fyra delarbeten. I den första studien undersöktes erfarenheter och preferenser för stöd bland svenska kvinnor med svår FOC. Resultaten visade att många kvinnor kände sig osedda och saknade adekvat stöd under graviditeten. Stigma kring förlossningsrädsla, negativa erfarenheter av vårdkontakter och rädsla för att inte bli trodd eller lyssnad på var vanliga hinder för att söka hjälp. En majoritet av kvinnorna uttryckte en önskan om stöd, men många ansåg att det stöd de fick inte var tillräckligt effektivt. Flexibla och respektfulla vårdalternativ som erbjöds nära hemmet lyftes fram som viktiga för att minska rädslan. Den andra studien identifierade fyra kluster av kvinnor baserat på deras nivåer av förlossningsrädsla, ångest, depression och självförmåga: Resursstarka-Robusta, Resursstarka-Rädda, Sårbara-Rädda och Sköra-Rädda. Kvinnor i de två sistnämnda klustren hade den högsta förekomsten av psykisk ohälsa och den lägsta självförmågan. Resultaten visade att låg självförmåga var en central faktor som förstärkte förlossningsrädslan och kopplade samman ångest och depression. Detta stöder teorin att självförmåga fungerar som en medlare mellan förlossningsrädsla och individens förmåga att hantera stress och utmaningar.

Den tredje studien fokuserade på mäns upplevelser av förlossningsrädsla och deras behov av stöd. Resultaten visade att fäder ofta känner sig osynliga i den vårdmiljö som främst är inriktad på mödrar. Många män rapporterade att de inte fick frågor om sina känslor kring förlossningen och kände ett starkt stigma kring att uttrycka sin rädsla. Trots detta var en betydande andel män intresserade av att få professionellt stöd, antingen individuellt eller tillsammans med sin partner. Fäder uttryckte behov av att bättre förstå och hantera sina känslor, samt önskade att vårdpersonal skulle erbjuda mer aktivt stöd och inkludering i processen. Den fjärde studien fokuserade på förstagångsgravida kvinnor med förlossningsrädsla och deras upplevelse av stöd och stödbehov. Viktiga fynd är bland annat att kvinnornas rädsla i mycket liten grad handlade om faktiska risker för skador, sjukdomar och dödsfall. Istället var de rädda för att bli frångtagna kontrollen över sig själva och situationen, att inte bli respektfullt behandlade, att bli övergivna och att riskera att medicinska ingrepp utförs utan deras samtycke. Tre huvudteman identifierades: Hälso- och sjukvård, Sig själv och Kultur och samhälle. Det övergripande temat identifierades som Tillit och beskrevs som tillit till vården, till sig själv men också till samhället. Självförtroende och tillit till sin egen förmåga att kunna hantera nya situationer som uppstår är en viktig komponent att arbeta med för kvinnor som upplever förlossningsrädsla. Tillsammans ger dessa studier en omfattande bild av förlossningsrädsla och dess effekter på både kvinnor och män. Förlossningsrädsla är nära kopplad till psykisk hälsa och självförmåga, vilket understryker vikten av individanpassade interventioner. Framtida forskning bör fokusera på långsiktiga effekter av interventioner och hur stödinsatser kan integreras bättre i hälso- och sjukvårdssystemet för att förbättra perinatala upplevelser och utfall för båda föräldrarna.

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References

Al-Mutawtah, M., Campbell, E., Kubis, H. P., & Erjavec, M. (2023). Women's experiences of social support during pregnancy: A qualitative systematic review. *BMC Pregnancy and Childbirth*, *23*(1), 782.

Areskog, B., Uddenberg, N., & Kjessler, B. (1981). Fear of childbirth in late pregnancy. Gynecologic and Obstetric Investigation, 12(5), 262–266. https://doi.org/10.1159/000299611

Azimi, M., Fahami, F., & Mohamadirizi, S. (2018). The relationship between perceived social support in the first pregnancy and fear of childbirth. *Iranian journal of nursing and midwifery research*, *23*(3), 235-239.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). Self Efficacy: The Exercise of Control. New York: W.H. Freeman & company

Bergström, M., Rudman, A., Waldenström, U., & Kieler, H. (2013). Fear of childbirth in expectant fathers, subsequent childbirth experience and impact of antenatal education. *Acta Obstetricia et Gynecologica Scandinavica, 92*(8), 967–973. https://doi.org/10.1111/aogs.12147

Biaggi, A., Conroy, S., Pawlby, S., & Pariante, C. M. (2016). Identifying the women at risk of antenatal anxiety and depression: A systematic review. *Journal of affective disorders*, *191*, 62-77.

Bilgiç, G., & Bilgin, N. (2020). Relationship Between Fear of Childbirth and Psychological and Spiritual Well-Being in Pregnant Women. *Journal of Religion and Health*, 60, 295-310. https://doi.org/10.1007/s10943-020-01087-4.

Billings, H., Horsman, J., Soltani, H. *et al.* Breastfeeding experiences of women with perinatal mental health problems: a systematic review and thematic synthesis. *BMC Pregnancy Childbirth* **24**, 582 (2024). https://doi.org/10.1186/s12884-024-06735-1

Boz, İ., Akgün, M., & Duman, F. (2021). A feasibility study of a psychoeducation intervention based on Human Caring Theory in nulliparous women with fear of childbirth. *Journal of Psychosomatic Obstetrics and Gynaecology, 42*(4), 300–312. https://doi.org/10.1080/0167482X.2020.1752173

Boaz, A., Biri, D., & McKevitt, C. (2016). Rethinking the relationship between science and society: Has there been a shift in attitudes to Patient and Public Involvement and Public Engagement in Science in the United Kingdom? *Health Expectations : An International Journal of Public Participation in Health Care and Health Policy*, *19*(3), 592–601. https://doi.org/10.1111/hex.12295

Bradley, R., Slade, P., & Leviston, A. (2021). The impact of paternal perinatal anxiety and depression on child development: A systematic review. *Clinical Child and Family Psychology Review, 24*(1), 21-34. https://doi.org/10.xxxx/xxxxx

Bradley, R., & Slade, P. (2011). A review of mental health and wellbeing outcomes for men following childbirth: Fathers' experiences and the role of support. *Journal of Reproductive and Infant Psychology, 29*(2), 95–103. https://doi.org/10.1080/02646838.2010.513047

Bradley R, Slade P, Leviston A. Low rates of PTSD in men attending childbirth: a preliminary study. The British journal of clinical psychology / the British Psychological Society. 2008 Sep;47(Pt 3):295-302.

Braun, V., & Clarke, V. (2012). *Thematic analysis*. American Psychological Association.

Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative research in psychology*, *18*(3), 328-352.

Brett, J., Staniszewska, S., Mockford, C., Herron-Marx, S., Hughes, J., Tysall, C., & Suleman, R. (2014). Mapping the impact of patient and public involvement on health and social care research: a systematic review. *Health Expectations : An International Journal of Public Participation in Health Care and Health Policy*, *17*(5), 637–650. https://doi.org/10.1111/j.1369-7625.2012.00795.xByrne, D. (2022). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity*, *56*(3), 1391–1412. https://doi.org/10.1007/s11135-021-01182-y

Calderani E, Giardinelli L, Scannerini S, Arcabasso S, Compagno E, Petraglia F, et al. Tocophobia in the DSM-5 era: Outcomes of a new cut-off analysis of the Wijma delivery expectancy/experience questionnaire based on clinical presentation. J Psychosom Res 2019;116:37–43. https://doi.org/10.1016/j.jpsychores.2018.11.012.

Clancy, G., Boardman, F., & Rees, S. (2022). Exploring trust in (bio) medical and experiential knowledge of birth: The perspectives of pregnant women, new mothers and maternity care providers. *Midwifery, 107*, 103272.

Call, J. B., & Shafer, K. (2015). Gendered manifestations of depression and help-seeking among men. *American Journal of Men's Health, 12*(1), 41–51. https://doi.org/10.1177/1557988315623993

Chabbert, M., Panagiotou, D., & Wendland, J. (2020). Predictive factors of women's subjective perception of childbirth experience: a systematic review of the literature. *Journal of Reproductive and Infant Psychology*, 39, 43 - 66. https://doi.org/10.1080/02646838.2020.1748582.

Connell, R. W. (2005). *Masculinities*. University of California Press.

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, 43(6), 1241–1299.

Coates, D., & Foureur, M. (2019). The role and competence of midwives in supporting women with mental health concerns during the perinatal period: A scoping review. *Health & Social Care in the Community, 27*(4), e389–e405. https://doi.org/10.1111/hsc.12740

Creswell John W. Mapping the field of mixed methods research. J Mixed Methods Res. 2009;3(2):95–108.

Demirci, A. D., Kochan, M., & Kabukcuoglu, K. (2023). Effect of antenatal education on childbirth self-efficacy: A systematic review and meta-analysis. *Current Psychology, 42*, 11367–11377. https://doi.org/10.1007/s12144-021-02418-8

Demšar K, Svetina M, Verdenik I, Tul N, Blickstein I. Globevnik Velikonja V. Tokophobia (fear of childbirth): prevalence and risk factors. J Perinat Med. 2018;46(2):151–4.

Dencker, A., Nilsson, C., Begley, C., Jangsten, E., Mollberg, M., Patel, H., Wigert, H., & Sparud-Lundin, C. (2019). Causes and outcomes in studies of fear of childbirth: A systematic review. *Women and Birth, 32*(2), 99–111. https://doi.org/10.1016/j.wombi.2018.07.004

Dolan, A., & Coe, C. (2011). Men, masculine identities and childbirth. *Sociology of Health & Illness*, *33*(7), 1019–1034. https://doi.org/10.1111/j.1467-9566.2011.01349.x

Eberhard-Gran M, Eskild A, Tambs K, Samuelsen SO, Opjordsmoen S. Depression in postpartum and non-postpartum women: prevalence and risk factors. Acta psychiatrica Scandinavica. 2002 Dec;106(6):426-33.

Elo S, Kyngäs H. The qualitative content analysis process. J Adv Nurs. 2008;62(1):107–15.

Eriksson, C., Salander Renberg, E., & Lindgren, H. (2005). Fear during labor. *Acta Obstetricia et Gynecologica Scandinavica, 84*(3), 258–264. https://doi.org/10.1111/j.0001-6349.2005.00620.x

Eriksson, C., Jansson, S., & Hamberg, K. (2020). Men's fear of childbirth: A literature review. *Scandinavian Journal of Caring Sciences, 34*(3), 527-535.

Eriksson, C., Salander, P., & Hamberg, K. (2007). Men's experiences of intense fear related to childbirth investigated in a Swedish qualitative study. *The Journal of Men's Health & Gender*, *4*(4), 409–418. https://doi.org/10.1016/j.jmhg.2007.07.045

Eriksson C, Westman G, Hamberg K. Content of childbirth-related fear in Swedish women and men--analysis of an open-ended question. Journal of midwifery & women's health. 2006 Mar-Apr;51(2):112-8.

Eriksson, C., Westman, G., & Hamberg, K. (2005). Experiential factors associated with childbirth-related fear in Swedish women and men: A population based study. *Journal of Psychosomatic Obstetrics and Gynaecology*, *26*(1), 63–72. https://doi.org/10.1080/01674820400023275

Ertan, D., Hingray, C., Burlacu, E., Sterlé, A., & El-Hage, W. (2021). Post-traumatic stress disorder following childbirth. *BMC psychiatry*, *21*, 1-9.

Fenwick, J., Toohill, J., Gamble, J., Creedy, D. K., & Buist, A. (2015). Effects of a midwife psycho-education intervention to reduce childbirth fear on women's birth outcomes and postpartum psychological wellbeing. *BMC Pregnancy and Childbirth*, 15, 284.

Fenwick, J., Hauck, Y., Downie, J., & Butt, J. (2012). The childbirth expectations of fathers attending antenatal classes in Australia. *Midwifery, 28*(5), e821-e828. https://doi.org/10.xxxx/xxxxx

Fenwick J, Gamble J, Nathan E, Bayes S, Hauck Y. Pre- and postpartum levels of childbirth fear and the relationship to birth outcomes in a cohort of Australian women. J Clin Nurs 2009;18:667–77. https://doi.org/10.1111/j.1365-2702.2008.02568.x.

Fenwick, J., Gamble, J., & Hauck, Y. (2007). Believing in birth–choosing VBAC: the childbirth expectations of a self-selected cohort of Australian women. *Journal of clinical nursing*, *16*(8), 1561-1570.

Fetters, Curry LA, Creswell JW. Achieving integration in mixed methods designs-principles and practices. Health Serv Res. 2013;48(6pt2):2134–56.

Fisher, C., Hauck, Y., & Fenwick, J. (2006). How social context impacts women's fears of childbirth: A Western Australian example. *Social Science & Medicine, 63*(1), 64-75.

Ford, E., & Ayers, S. (2009). Stressful events and support during birth: the effect on anxiety, mood and perceived control. *Journal of Anxiety Disorders*, *23*(2), 260-268.

Gagnon, A. J., & Sandall, J. (2007). Individual or group antenatal education for child-birth or parenthood, or both. *Cochrane database of systematic reviews*, (3).

Ganapathy, T. (2015). Tokophobia among first time expectant fathers. *International Journal of Psychiatric Nursing*, *1*(1), 99-106.

Ghaffari, S., Elyasi, F., Pournik, O., & Mazaheri, M. A. (2022). A systematic review on expectant fathers' experiences of fear of childbirth. *BMC Pregnancy and Childbirth, 22*(1), 132. https://doi.org/10.1186/s12884-022-04574-3

Ghaffari, S. F., Elyasi, F., Mousavinasab, S. N., & Shahhosseini, Z. (2021). A systematic review of clinical trials affecting anxiety, stress and fear of childbirth in expectant fathers. *Nursing Open*, *8*(4), 1527–1537. https://doi.org/10.1002/nop2.681

Guo, P., Zhang, X., Cui, N., Chen, D., Wang, L., Zheng, Q., ... & Feng, S. (2023). Psychometric properties of the Chinese version of the fathers' fear of childbirth scale: A cross-sectional study. *Frontiers in Psychiatry*, *14*, 1128971.

Hagström J, Woodford J, von Essen A, Lähteenmäki P, von Essen L. Opt-out rates and reasons for non-participation in a single-arm feasibility trial (ENGAGE) of a guided internet-administered CBT-based intervention for parents of children treated for cancer: a nested cross-sectional survey. BMJ Open. 2022 Apr 1;12(4):e056758.

Haines HM, Pallant JF, Fenwick J, Gamble J, Creedy DK, Toohill J, et al. Identifying women who are afraid of giving birth: A comparison of the fear of birth scale with the WDEQ-A in a large Australian cohort. Sex Reprod Healthc 2015. https://doi.org/10.1016/j.srhc.2015.05.002.

Haines, H. M., Pallant, J. F., Fenwick, J., Gamble, J., & Creedy, D. K. (2011). The impact of childbirth fear on women's preferences for birth. *Women and Birth, 24*(2), 62–70. https://doi.org/10.1016/j.wombi.2010.07.002

Haines, H. M., Pallant, J. F., Karlström, A., & Hildingsson, I. (2011). Cross-cultural comparison of levels of childbirth-related fear in an Australian and Swedish sample. *Midwifery, 27*(4), 560–567. https://doi.org/10.1016/j.midw.2010.06.004

Haines, H.M., Rubertsson, C., Pallant, J.F. *et al.* The influence of women's fear, attitudes and beliefs of childbirth on mode and experience of birth. *BMC Pregnancy Childbirth* **12**, 55 (2012). https://doi.org/10.1186/1471-2393-12-55

Hair, J., Black, W., Babin, B., & Anderson, R. (2006). Multivariate analysis (7th ed.) Pearson Education Limited.

Heimstad R, Dahloe R, Laache I, Skogvoll E, Schei B. Fear of childbirth and history of abuse: Implications for pregnancy and delivery. Acta Obstet Gynecol Scand 2006;85:435–40. https://doi.org/10.1080/00016340500432507.

Howard LM, Khalifeh H. Perinatal mental health: a review of progress and challenges. *World Psychiatry.* 2020;19(3):313–27

Hildingsson, I., & Rubertsson, C. (2022). Depressive symptoms during pregnancy and after birth in women living in Sweden who received treatments for fear of birth. *Archives of Women's Mental Health, 25*(2), 473–484. https://doi.org/10.1007/s00737-022-01213-z

Hildingsson, I., Karlström, A., & Larsson, B. (2021). Childbirth experience in women participating in a continuity of midwifery care project. *Women and Birth, 34*(3), e255–e261.

Hildingsson I, Haines H, Karlström A, Nystedt A. Presence and process of fear of birth during pregnancy – Findings from a longitudinal cohort study. Women and birth: journal of the Australian College of Midwives. 2017;30(5):242-247.

Hildingsson, I., Cederfjäll, C., Wrangsjo, B., & Radestad, I. (2014). Fathers' birth experience in relation to midwifery care. *Women and Birth, 27*(2), e61-e66. https://doi.org/10.xxxx/xxxxx

Hildingsson, I., Johansson, M., Fenwick, J., Haines, H., & Rubertsson, C. (2014). Childbirth fear in expectant fathers: findings from a regional Swedish cohort study.. *Midwifery*, 30 2, 242-7 . https://doi.org/10.1016/j.midw.2013.01.001.

Hildingsson I, Nilsson C, Karlström A, Lundgren I. A longitudinal survey of childbirth-related fear and associated factors. J Obstetric Gynecologic Neonatal Nursing: JOGNN. 2011;40(5):532–43

House, J. S. (1981). *Work stress and social support.* Reading, MA: Addison-Wesley.

Huang, Y., Zhong, Y., Deng, Y., Zheng, J., Zou, H., & Chen, Q. (2022). Correlation between fear of childbirth and childbirth self-efficacy during labor. *Clinical and Experimental Obstetrics & Gynecology*, *49*(11), 258.

Ip, W. Y., Tang, C. S., & Goggins, W. B. (2009). An educational intervention to improve women's ability to cope with childbirth. *Journal of clinical nursing*, *18*(15), 2125-2135.

Jamali, F., Olfati, F., & Oveisi, S. (2018). Effects of spouses' involvement in pregnancy on fear of childbirth in nulliparous women. *Journal of Maternal-Fetal & Neonatal Medicine, 22*(2), 38-47.

Jenabi, E., Khazaei, S., Bashirian, S., Aghababaei, S., & Matinnia, N. (2020). Reasons for elective cesarean section on maternal request: a systematic review. *The Journal of Maternal-Fetal & Neonatal Medicine*, *33*(22), 3867-3872.

Jha, P., Larsson, M., Christensson, K., & Svanberg, A. S. (2018). Fear of childbirth and depressive symptoms among postnatal women: A cross-sectional survey from Chhattisgarh, India. *Women and Birth*, *31*(2), e122-e133.

Johansson, M., Fenwick, J., & Premberg, A. (2015). A meta-synthesis of fathers' experiences of their partner's labour and the birth of their baby. *Midwifery*, *31*(1), 9–18.

Johansson, M., Hildingsson, I., Fenwick, J., & Rubertsson, C. (2015). Childbirth-related fear and quality of life in early pregnancy. *Sexual & Reproductive Healthcare, 6*(1), 3–9. https://doi.org/10.1016/j.srhc.2014.09.001

Karlström, A., Nystedt, A., Johansson, M., & Hildingsson, I. (2011). Behind the myth – few women prefer caesarean section in the absence of medical or obstetrical factors. *Midwifery*, *27*(5), 620–627. https://doi.org/10.1016/j.midw.2010.05.005

Khwepeya M, Lee GT, Chen SR, Kuo SY. Childbirth fear and related factors among pregnant and postpartum women in Malawi. BMC Pregnancy Childbirth. 2018;18(1):391

Klabbers, G., Wijma, K., Van Bakel, H., Paarlberg, K., & Vingerhoets, A. (2020). Resistance to fear of child birth and stability of mother-child bond. *Early Child Development and Care*, 190, 175 - 184. https://doi.org/10.1080/03004430.2018.1461093.

Klabbers, G. A., van Bakel, H. J., van den Heuvel, M., & Vingerhoets, A. J. (2016). Severe fear of childbirth: its features, assesment, prevalence, determinants, consequences and possible treatments. *Psihologijske teme*, *25*(1), 107-127.

Landau, S., & Chis Ster, I. (2010). Cluster analysis: Overview. In P. Peterson, E. Baker, & B. McGaw (Eds), International encyclopedia of education (3rd ed.). Elsevier.

Lazarus, R. S. (2006). *Stress and emotion: A new synthesis*. Springer publishing company.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York, NY: Springer Publishing.REF).

Leach, L. S., Poyser, C., Cooklin, A. R., & Giallo, R. (2016). Prevalence and course of anxiety disorders during pregnancy and the postpartum period: A systematic review. *Journal of Affective Disorders, 190*, 119–132. https://doi.org/10.1016/j.jad.2015.08.030

Leachman, A. (2017). How media promote fear around childbirth. *Midwifery, Childbirth and the Media*, 61-77.

Larsson, B., Hildingsson, I., Ternström, E., Rubertsson, C., & Karlström, A. (2019). Women's experience of midwife-led counselling and its influence on childbirth fear: A qualitative study. *Women and Birth, 32*(1), 88–94.

Lowe, N. (2000). Self-efficacy for labor and childbirth fears in nulliparous pregnant women. *Journal of Psychosomatic Obstetrics and Gynaecology, 21*(4), 219–224.

Larsson B, Karlström A, Rubertsson C, Ternström E, Ekdahl J, Segebladh B & Hildingsson I. Birth preference in women undergoing treatment for childbirth fear: A randomised controlled trial. Women and Birth. 2017;30(6):460–467.

Larsson B, Karlström A, Rubertsson C, Hildingsson I. Counseling for childbirth fear-a national survey. Sex Reprod Healthc. 2016: 8:82-87.

Larsson B, Hildingsson I, Ternström E, Rubertsson C & Karlström A. Women's experience of midwife-led counselling and its influence on childbirth fear: A qualitative study. Women and Birth. 2019; 32(1):88–94.

Laursen M, Johansen C, Hedegaard M. Fear of childbirth and risk for birth complications in nulliparous women in the Danish National Birth Cohort. Bjog. 2009 Sep;116(10):1350-5.

Lowe, N. (2000). Self-efficacy for labor and childbirth fears in nulliparous pregnant women. *Journal of Psychosomatic Obstetrics and Gynaecology, 21*(4), 219–224. https://doi.org/10.3109/01674820009085591

Lukasse M, Schei B, Lena E, Study B. Prevalence and associated factors of fear of childbirth in six European countries. Sex Reprod Healthc 2014;5:99– 106. https://doi.org/10.1016/j.srhc.2014.06.007.

Maré IA, Kramer B, Hazelhurst S, Nhlapho MD, Zent R, Harris PA, Klipin M. Electronic Data capture System (REDCap) for Health Care Research and Training in a resource constrained Environment: Technology Adoption Case Study. JMIR Med Inf. 2022;10(8):e33402

Martin, K. A. (2003). Giving birth like a girl. *Gender & Society, 17*(1), 54–72.

Massae AF, Larsson M, Leshabari S, Mbekenga C, Pembe AB, Svanberg AS. Predictors of fear of childbirth and depressive symptoms among pregnant women: a cross-sectional survey in Pwani region, Tanzania. BMC Pregnancy Childbirth. 2021;21(1):704

McRobbie, A. (2009). *The Aftermath of Feminism: Gender, Culture and Social Change.* SAGE Publications.

Moran, E., Bradshaw, C., Tuohy, T., & Noonan, M. (2021). The Paternal Experience of Fear of Childbirth: An Integrative Review. *International Journal of Environmental Research and Public Health*, *18*(3), 1231-. https://doi.org/10.3390/ijerph18031231

Moghaddam Hosseini V, Nazarzadeh M, Jahanfar S. Interventions for reducing fear of childbirth: a systematic review and meta-analysis of clinical trials. Women Birth. 2017;31(4):254–62. 26.

Nath, S., Lewis, L. N., Bick, D., Demilew, J., & Howard, L. M. (2021). Mental health problems and fear of childbirth: a cohort study of women in an inner-city maternity service. *Birth*, *48*(2), 230-241.

Nieminen K, Stephansson O, Ryding EL. Women's fear of childbirth and preference for cesarean section--a cross-sectional study at various stages of pregnancy in Sweden. Acta obstetricia et gynecologica Scandinavica. 2009;88(7):807-13.

Nieminen, K., Andersson, G., Wijma, B., Ryding, E. L., & Wijma, K. (2016). Treatment of nulliparous women with severe fear of childbirth via the Internet: A feasibility study. *Journal of Psychosomatic Obstetrics and Gynaecology, 37*(2), 37-43.

Nilsson, C., Hessman, E., Sjöblom, H., Dencker, A., Jangsten, E., Mollberg, M., Patel, H., Sparud-Lundin, C., Wigert, H., & Begley, C. (2018). Definitions, measurements and prevalence of fear of childbirth: A systematic review. *BMC Pregnancy and Childbirth, 18*, 28. https://doi.org/10.1186/s12884-018-1659-7

Nilsson, C., & Lundgren, I. (2009). Women's lived experience of fear of childbirth. *Midwifery*, *25*(2), e1–e9. https://doi.org/10.1016/j.midw.2007.01.017

Nilsson, C., Bondas, T., & Lundgren, I. (2010). Previous Birth Experience in Women With Intense Fear of Childbirth. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *39*(3), 298–309.

Nylund Skog, S. (2002). Women's narratives on childbirth and femininity: Cultural norms and personal experiences. *Women's Studies International Forum, 25*(6), 749–758. https://doi.org/10.1016/S0277-5395(02)00365-5

O'Connell MA, Leahy-Warren P, Khashan AS, Kenny LC, O'Neill SM. Worldwide prevalence of tokophobia in pregnant women: systematic review and meta-analysis. Acta Obstet Gynecol Scand. 2018;96:907–20.

O'Connell MA, Leahy-Warren P, Kenny LC, O'Neill SM, Khashan AS. The prevalence and risk factors of fear of childbirth among pregnant women: a cross-sectional study in Ireland. Acta Obstet Gynecol Scand. 2019;98(8):1014–23.

Olde E, van der Hart O, Kleber R, van Son M (January 2006). "Posttraumatic stress following childbirth: a review". *Clinical Psychology Review*. **26** (1): 1–16. doi:10.1016/j.cpr.2005.07.002. hdl:1874/16760. PMID 16176853. S2CID 22137961

Paulson JF, Bazemore SD. Prenatal and postpartum depression in fathers and its association with maternal depression: a meta-analysis. Jama. 2010 May 19;303(19):1961-9.

Philpott, L. F., Savage, E., FitzGerald, S., & Leahy-Warren, P. (2019). Anxiety in fathers in the perinatal period: A systematic review. *Midwifery*, *76*, 54-101.

Plantin, L., Olukoya, A. A., & Ny, P. (2011). Positive health outcomes of fathers' involvement in pregnancy and childbirth paternal support: A scope study literature review. *Fathering*, 9(1), 87–102.

Premberg, Å., Carlsson, G., Hellström, A. L., & Berg, M. (2011). First-time fathers' experiences of childbirth—A phenomenological study. *Midwifery*, 27(6), 848–853.

Qiu L, Sun N, Shi X, Zhao Y, Feng L, Gong Y, Yin X. Fear of childbirth in nulliparous women: a cross-sectional multicentre study in China. Women Birth. 2020;33(2):e136–41.

Rouhe, H., Salmela-Aro, K., Toivanen, R., Tokola, M., Halmesmäki, E., & Saisto, T. (2011). Obstetric outcome after intervention for severe fear of childbirth in nulliparous women: Randomised trial. *BJOG: An International Journal of Obstetrics & Gynaecology, 118*(12), 1506-1512.

Rouhe, H., Salmela-Aro, K., Halmesmäki, E., & Saisto, T. (2009). Fear of childbirth according to parity, gestational age, and obstetric history. *BJOG: An International Journal of Obstetrics & Gynaecology*, *116*(1), 67-73.

Ramchandani PG, Stein A, O'Connor TG, Heron J, Murray L, Evans J. Depression in men in the postnatal period and later child psychopathology: a population cohort study. Journal of the American Academy of Child and Adolescent Psychiatry. 2008 Apr;47(4):390-8.

Reshef, S., Mouadeb, D., Sela, Y., Weiniger, F., & Freedman, S. (2023). Childbirth, trauma and family relationships. *European Journal of Psychotraumatology*, 14. https://doi.org/10.1080/20008066.2022.2157481.

Rondung, E., Ekdahl, J., Hildingsson, I., Rubertsson, C., & Sundin, Ö. (2018). Heterogeneity in childbirth-related fear or anxiety. *Scandinavian Journal of Psychology, 59*(6), 634–643. https://doi.org/10.1111/sjop.12481

Rúger-Navarrete A, Vázquez-Lara JM, Antúnez-Calvente I, Rodríguez-Díaz L, Riesco-González FJ, Palomo-Gómez R, Gómez-Salgado J, Fernández-Carrasco FJ. Antenatal Fear of Childbirth as a risk factor for a bad childbirth experience. Healthc (Basel). 2023; 11(3).

Ruffell, B., Smith, D. M., & Wittkowski, A. (2019). The experiences of fathers who have a partner with postnatal mental health problems. *Journal of Reproductive and Infant Psychology, 37*(1), 14–29. https://doi.org/10.1080/02646838.2018.1529407

Ryding, E. L., Lukasse, M., Parys, A. S. V., Wangel, A. M., Karro, H., Kristjansdottir, H., ... & Bidens Group. (2015). Fear of childbirth and risk of cesarean delivery: a cohort study in six European countries. *Birth*, *42*(1), 48-55.

Räisänen S, Lehto SM, Nielsen HS, Gissler M, Kramer MR, Heinonen S. Fear of childbirth in nulliparous and multiparous women: a population-based analysis of all singleton births in Finland in 1997–2010. BJOG. 2014;121(8):965–70.

Räisänen, S., Lehto, S. M., Nielsen, H. S., Gissler, M., Kramer, M. R., & Heinonen, S. (2013). Fear of childbirth predicts postpartum depression: a population-based analysis of 511 422 singleton births in Finland. *BMJ Open*, *3*(11), e004047–e004047. https://doi.org/10.1136/bmjopen-2013-004047

Sanjari, S., Chaman, R., Salehin, S., Goli, S., & Keramat, A. (2022). Update on the Global Prevalence of Severe Fear of Childbirth in Low-Risk Pregnant Women: A Systematic Review and Meta-Analysis. *International Journal of Women's Health & Reproduction Sciences*, *10*(1).

Saisto T, Halmesmaki E. Fear of childbirth: a neglected dilemma. Acta obstetricia et gynecologica Scandinavica. 2003 Mar;82(3):201-8.

Saisto T, Salmela-Aro K, Nurmi JE, Kononen T, Halmesmaki E. A randomized controlled trial of intervention in fear of childbirth. Obstetrics and gynecology. 2001 Nov;98(5 Pt 1):820-6.

Salomonsson, B., Berterö, C., & Alehagen, S. (2013). Self-efficacy in pregnant women with severe fear of childbirth. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *42*(2), 191-202.

Sandall, J., Soltani, H., Gates, S., Shennan, A., & Devane, D. (2016). Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database of Systematic Reviews*, *2016*(4), CD004667–CD004667. https://doi.org/10.1002/14651858.CD004667.pub5

Seefeld, L., Weise, V., Kopp, M., Knappe, S., & Garthus-Niegel, S. (2022). Birth Experience Mediates the Association Between Fear of Childbirth and Mother-Child-Bonding Up to 14 Months Postpartum: Findings From the Prospective Cohort Study DREAM. *Frontiers in Psychiatry*, *12*, 776922–776922. https://doi.org/10.3389/fpsyt.2021.776922

Seto, N., Tahara-Sasagawa, E., Yonezawa, K., Hikita, N., Usui, Y., & Haruna, M. (2024). The association between fear of childbirth and social support through the Internet and Social Networking Services in pregnant women: A cross-sectional study. *Nursing & Health Sciences*, *26*(1), e13082.

Slade P, Balling K, Houghton G, Sheen K. A new scale for fear of childbirth: the Fear of Childbirth Questionnaire (FCQ). J Reprod Infant Psychol 2021;40:602–12. https://doi.org/10.1080/02646838.2021.1928615.

Slade P, Balling K, Sheen K, Houghton G. Establishing a valid construct of fear of childbirth: Findings from in-depth interviews with women and 73 midwives. BMC Pregnancy Childbirth 2019;19:1–12. https://doi.org/10.1186/s12884-019-2241-7.

Stoll, K., Hall, W., Janssen, P., & Carty, E. (2018). Why are young Canadians afraid of birth? A survey study of childbirth fear and birth preferences among Canadian university students. *Midwifery, 56*, 124–131. https://doi.org/10.1016/j.midw.2017.10.017

Stoll, K., & Hall, W. A. (2013). Attitudes and Preferences of Young Women With Low and High Fear of Childbirth. *Qualitative Health Research*, *23*(11), 1495–1505. https://doi.org/10.1177/1049732313507501

Størksen, H., Eberhard-Gran, M., Garthus-Niegel, S., & Eskild, A. (2012). Fear of childbirth; the relation to anxiety and depression. *Acta Obstetricia et Gynecologica Scandinavica*, 91. https://doi.org/10.1111/j.1600-0412.2011.01323.x.

Størksen HT, Garthus-Niegel S, Adams SS, Vangen S, Eberhard-Gran M. Fear of childbirth and elective caesarean section: A population-based study. BMC Pregnancy Childbirth 2015;15:1–10. https://doi.org/10.1186/s12884- 015-0655-4

Striebich S, Mattern E, Ayerle GM. Support for pregnant women identified with fear of childbirth (FOC)/tokophobia – a systematic review of approaches and interventions. Midwifery. 2018;61:97–115. 24.

Shefaly S, Downe S, Chua J, Byrne SO, Fobelets M, Lalor JG. Effectiveness of psychological interventions to improve the mental well-being of parents who have experienced traumatic childbirth: a systematic review and metaanalysis. Trauma Violence Abuse. 2023;24(3):1238–53. 28.

Shakarami A, Mirghafourvand M, Abdolalipour S, Jafarabadi MA, Iravani M. Comparison of fear, anxiety and self-efficacy of childbirth among primiparous and multiparous women. BMC Pregnancy Childbirth. 2021;21(1):642.

Stephansson O, Petersson K, Björk C, Conner P, Wikström AK. The Swedish pregnancy Register—for quality of care improvement and research. Acta Obstet Gynecol Scand. 2018;97(4):466–76.

Stoll K, Fairbrother N, Thordarson DS. Childbirth fear: relation to Birth and Care Provider preferences. J Midwifery Womens Health. 2018;63(1):58–67.

SFOG. (Svensk förening för Obstetrik och Gynekologi [Swedish Society of Obstetrics & Gynecology]. Förlossningsrädsla [Childbirth fear]. Report No: 77. Stockholm: 2017.

Schwartz, L., Toohill, J., Creedy, D., Baird, K., Gamble, J., & Fenwick, J. (2015). Factors associated with childbirth self-efficacy in Australian childbearing women. *BMC Pregnancy and Childbirth, 15*, Article 29. https://doi.org/10.1186/s12884-015-0465-8

Swift EM, Fairbrother N, Nethery E, Janssen P. A systematic review of nonpharmacological prenatal interventions for pregnancy-specific anxiety and fear of childbirth. Birth. 2018;45(1):7–18. 27.

The Swedish Society of Obstetrics and Gynecology. Antenatal care, Sexual and Reproducative Health; 2008. Report No.: 59.

Talmon A, Ginzburg K. Chased by the past: the relation between childhood maltreatment and fear of childbirth. Sex Roles. 2019;81:223–34.

Ternström E, Hildingsson I, Haines H, Rubertsson C. Higher prevalence of childbirth related fear in foreign born pregnant women - Findings from a community sample in Sweden. Midwifery 2015;31:445–50. https://doi.org/10.1016/j.midw.2014.11.011.

Ternström E, Hildingsson I, Haines H, Rubertsson C. Pregnant women ' s thoughts when assessing fear of birth on the Fear of Birth Scale. Women Birth Jo 2016;29:44–9. https://doi.org/10.1016/j.wombi.2015.11.009.

Toohill, J., Fenwick, J., Gamble, J., Creedy, D. K., & Buist, A. (2014). Psycho-education to reduce childbirth fear: A randomized controlled trial. *BMC Pregnancy and Childbirth, 14*, 62. https://doi.org/10.1186/1471-2393-14-62

Toohill J, Fenwick J, Gamble J, Creedy DK. Prevalence of childbirth fear in an Australian sample of pregnant women. BMC Pregnancy Childbirth 2014;14:275. https://doi.org/http://www.biomedcentral.com/1471- 2393/14/275 RESE.

Veringa-Skiba, I. K., Ziemer, K., de Bruin, E. I., de Bruin, E. J., & Bögels, S. M. (2022). Mindful awareness as a mechanism of change for natural childbirth in pregnant women with high fear of childbirth: a randomised controlled trial. *BMC pregnancy and childbirth*, *22*(1), 47.

Vismara, L., Rollè, L., Agostini, F., Sechi, C., Fenaroli, V., Molgora, S., Neri, E., Prino, L. E., & Tambelli, R. (2016). Perinatal Parenting Stress, Anxiety, and Depression Outcomes in First-Time Mothers and Fathers: A 3- to 6-Months Postpartum Follow-Up Study. *Frontiers in Psychology*, 7, 938. https://doi.org/10.3389/fpsyg.2016.00938

Webb R, Bond R, Romero-Gonzalez B, Mycroft R, Ayers S. Interventions to treat fear of childbirth in pregnancy: a systematic review and meta-analysis. Psychol Med. 2021 Sep;51(12):1964–77. doi: 10.1017/S0033291721002324. Epub 2021 Jun 25. PMCID: PMC8426149.

Wells, M. B. (2016). Literature review shows that fathers are still not receiving the support they want and need from Swedish child health professionals. *Acta Paediatrica*, *105*(9), 1014-1023.

West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, 1(2), 125–151.

Wigert H, Nilsson C, Dencker A, Begley C, Jangsten E, Sparud-Lundin C, Mollberg M, Patel H. Women's experiences of fear of childbirth: a metasynthesis of qualitative studies. Int J Qual Stud Health Well-being. 2020 Dec;15(1):1704484. doi: 10.1080/17482631.2019.1704484. PMID: 31858891; PMCID: PMC6968519.

Wijma K, Wijma B, Zar M. Psychometric aspects of the W-DEQ; a new questionnaire for the measurement of fear of childbirth. J Psychosom Obstet Gynaecol. 1998;19(2):84–97.

Wijma, K., & Wijma, B. (1998). A woman-centered approach to fear during pregnancy and childbirth. *Journal of Psychosomatic Obstetrics and Gynaecology, 19*(3), 135-142.

World Health Organization. (2022). *Guide for integration of perinatal mental health in maternal and child health services.*

Zar M.Wijma K,Wijma B. Relations between anxiety disorders and fear of childbirth during late pregnancy. Clinical Psychology & Psychotherapy. 2002 Feb;9(2):122-30.

Zar M, Wijma K, Wijma B. Pre- and postpartum fear of childbirth in nulliparous and parous women. Scand J Behav Ther 2001;30:75–84. https://doi.org/10.1080/02845710121310.

Zhou X, Liu H, Li X, Zhang S. Fear of Childbirth and Associated Risk factors in healthy pregnant women in Northwest of China: a cross-sectional study. Psychol Res Behav Manag. 2021;14:731–41.

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