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The Relationship Between Fear of Childbirth and Caesarean Section: A Critical Review

Doğum Korkusu ve Sezaryen Arasındaki İlişki: Eleştirel Bir İnceleme

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ABSTRACT

Introduction: The increase in caesarean section rates for maternal requests has gained growing attention as a common clinical problem worldwide, with tokophobia—an intense fear of childbirth—playing a potentially critical role. Tokophobia can cause serious complications such as termination or avoidance of pregnancy altogether, in addition to the implications on maternal-infant attachment and maternal mental health. It is estimated that approximately one-fifth of pregnant women are affected. This study aims to assess if the literature suggests any association between fear of childbirth and giving birth by caesarean section delivery (elective or emergency) among multiparous and primiparous women.
Methods: A critical literature review with a systematic approach using Preferred Reporting Items for Systematic Reviews (PRISMA) of EMBASE, MEDLINE, PsycINFO, and CINAHL databases were identified with peer-reviewed, qualitative studies published between January 2007 and December 2022. A quality appraisal was used to assess the quality of the studies.
Results: A total of six articles were included in this critical literature review. Three themes were identified: 1) fear of childbirth and causes; 2) as a mode of birth, caesarean section; and 3) fear of childbirth associated with caesarean section.
Conclusion: The findings of this review emphasised that the main reasons for maternal fear and anxiety related to birth are fear of damaging the mother and baby, a lack of confidence in the quality of maternity care, and personal commitment. These findings underscore the complexity of the decision-making process regarding the mode of childbirth and suggest a need for enhanced support and interventions to address childbirth fears, potentially reducing unnecessary C-sections. Further research is recommended to explore effective strategies to mitigate tokophobia and its impact on delivery method choice, aiming for better maternal and infant health outcomes.

Keywords: Caesarean section, Caesarean delivery, Fear of childbirth, Tokophobia, Critical literature review, Review

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ÖZET

Giriş: Annenin isteğiyle sezaryen oranlarındaki artış, dünya çapında yaygın bir klinik sorun olarak giderek daha fazla dikkat çekmektedir, Tokofobi (yoğun doğum korkusu) ise bu sorunda potansiyel olarak kritik bir rol oynamaktadır. Tokophobia, anne-bebek bağlanması ve anne ruh sağlığı üzerindeki etkilerine ek olarak gebeliğin sonlandırılması veya tamamen önlenmesi gibi ciddi komplikasyonlara neden olabilir ve gebe kadınların yaklaşık beşte birinin etkilendiği tahmin edilmektedir. Bu çalışmanın amacı, literatürün multipar ve primipar kadınlar arasında doğum korkusu ile sezaryen doğum (elektif veya acil) arasında herhangi bir ilişki olup olmadığını değerlendirmektir.
Yöntem: EMBASE, MEDLINE, Psych INFO ve CINAHL veri tabanlarında Sistematik İncelemeler için Tercih Edilen Raporlama Öğeleri (PRISMA) kullanılarak sistematik bir yaklaşımla eleştirel bir literatür taraması yapılmış ve Ocak 2007 ile Aralık 2022 arasında yayınlanmış hakemli, nitel çalışmalar tespit edilmiştir. Çalışmaların kalitesini değerlendirmek için bir kalite değerlendirmesi kullanılmıştır.
Bulgular: Bu eleştirel literatür taramasına toplam 6 makale dahil edilmiştir. Üç tema belirlenmiştir: 1) Doğum korkusu ve nedenleri, 2) Bir doğum şekli olarak kabul gören sezaryen doğum ve 3) Sezaryen doğumdan kaynaklanan doğum korkusu.
Sonuç: Bu derlemenin bulguları, annelerin doğumla ilgili korku ve kaygılarının temel nedeninin anne ve bebeğe zarar verme korkusu ve doğum bakımının kalitesine ve personelin bağlılığına olan güven eksikliği olduğunu vurgulamıştır. Bu bulgular, doğum şekline ilişkin karar verme sürecinin karmaşıklığı vurgulamaktadır ve gereksiz yere uygulanan sezaryen doğumları potansiyel olarak azaltacak şekilde doğum korkularını gidermek için daha fazla destek ve müdahalelere ihtiyaç duyulduğunu önermektedir. Anne ve bebek sağlığı açısından daha iyi sonuçlar elde etmek amacıyla, tokofobiyi ve bunun doğum yöntemi seçimi üzerindeki etkisini hafifletmeye yönelik etkili stratejilerin araştırılması için daha fazla araştırma yapılması önerilmektedir.

Anahtar Kelimeler: Sezaryen, Sezaryen doğum, Doğum korkusu, Tocofobia, Eleştirel inceleme, Derleme

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1. Introduction

Fear in childbirth covers a range of symptoms, from ordinary worries to a pathological condition, tokophobia (Wiklund, 2012). When fear of birth develops beyond ordinary worries, it leads to a clinical condition called tokophobia, or, in other words, a pathological fear of giving birth (Poggi et al., 2018). Tokophobia is defined as various, extreme fears in relation to delivery and pregnancy, and it has been classified as primary tokophobia (nulliparous women), secondary tokophobia (most typically previous traumatic birth), or tokophobia as a symptom of underlying, or pre-existing depression (O'Connell et al., 2017).

Excessive fear, or tokophobia, can cause serious complications such as termination or avoidance of pregnancy altogether, in addition to the implications on maternal-infant attachment and maternal mental health, and it is estimated that approximately one-fifth of pregnant women are affected (Dennis, 2015). Some international and cross-cultural studies have placed the occurrence lower, at around 6–10% (Nilsson et al., 2018; Saisto and Halmesmäki, 2003; Størksen et al., 2015), while studies from Sweden and Finland reported that childbirth fear negatively affects up to 20% of pregnant women (Saisto and Halmesmäki, 2003; Zar, Wijma K., and Wijma B., 2021). Estimates suggest that fear of childbirth affects around 30% of all pregnant women in Australia (Ayers, 2014; Haines et al., 2012).

Globally, the number of women delivering caesarean sections has increased over the past 30 years (Poggi et al., 2018; Størksen et al., 2015). Although the causes for these increases remain unclear, the increase in caesarean section rates for maternal requests has gained growing attention as a common clinical problem worldwide (Haines et al., 2012). In a study of global, regional, and national estimates made by Betran and colleagues (2016), the latest evidence showed that one in five females in the world has delivered by caesarean section (Betran et al., 2016). The same study estimated that the incidence of caesarean childbirth in all other countries increases too, although, at different levels, this increased tendency has been associated with maternal wishes, among other reasons (Nilsson et al., 2018). This study included national representation data, using the oldest and newest data from 150 countries regarding caesarean section rates between 1990 and 2014 (Betran et al., 2016). In 2010, these 150 countries accounted for 96.1% of all live births worldwide (Betran et al., 2016). In conclusion, the escalating global rates of caesarean section births underscore a complex interplay of medical, social, and individual factors. The data from Betran et al. (2016) serves as a critical foundation for understanding the magnitude of this trend and its variations across different countries. It highlights the need for a deeper exploration into the reasons driving maternal requests for caesarean deliveries, with an emphasis on developing strategies that balance maternal and infant health outcomes while respecting women's childbirth preferences.

The prevalence of caesarean sections initiated at the mother's request varies significantly across different regions, highlighting a complex tapestry of cultural, medical, and personal factors influencing this prevalence. According to estimates, caesarean sections for maternal requests in Northern Europe and the UK account for approximately 6% to 8% of all primary caesarean sections (NICE, 2022; Størksen et al., 2015). Meanwhile, Germany presents a data gap, with no reliable figures available to measure the extent of maternal requests for caesarean sections (Dennis, 2015), contrasting sharply with Australia, where the figure stands at about 17% (Betran et al., 2016). This variance not only underscores the significant role of maternal preferences in shaping caesarean section rates (Ayers, 2014; Nillson and Lundgren, 2019; Størksen et al., 2015). However, the inconsistencies in data reporting and the diverse policies surrounding childbirth across different countries highlight the challenges in accurately capturing and categorizing these requests (Aydın and Yıldız, 2018).

Although it is known that maternal request caesarean sections play an important role (Nillson and Lundgren, 2019; Størksen et al., 2015), there is difficulty in identifying cases of maternal request due to the lack of data on caesarean section rates specifying maternal requests for non-medical reasons (Aydın and Yıldız, 2018) or because of differences in the politics of childbirth, which may mean caesarean sections for maternal requests are not accurately reported. Moreover, women cite the convenience of scheduling a birth and the desire to avoid the physical aftermath of vaginal delivery as reasons for preferring a caesarean section. This is particularly relevant for women who have had previous negative childbirth experiences or wish to circumvent the unpredictability associated with natural labour.

The increase in caesarean births by maternal request necessitates a critical examination of the underlying reasons driving women to make this choice. Several factors contribute to this trend, including fear of childbirth (tokophobia), perceived lower risk for the baby and mother, convenience in scheduling, and previous negative experiences with vaginal birth. The majority of studies investigated women's potential perceptions of fear during pregnancy and birth,

the effects of negative experiences on fear of childbirth (Aydın and Yıldız, 2018; Nillson and Lundgren, 2019), or the relationship between parity and fear of childbirth (Haines et al., 2012; Nieminen et al., 2016). Although some minor themes about fear of childbirth and increasing caesarean delivery rates are reported, the literature provides limited insight into whether there is any association between fear of childbirth and giving birth by caesarean section delivery (Aydın and Yıldız, 2018; Størksen et al., 2015).

The inadequacy of current research in this area indicates that more research is needed to evaluate the relationship between the fear of childbirth and a caesarean section. The aim of this critical literature review is to answer the following review question: "What is the association between fear of childbirth and giving birth by caesarean section delivery (elective or emergency) among multiparous and primiparous women?" The PEO framework was used in designing the research question (Table 1).

Table 1. PEO Framework

PEO Framework	
Population and their problems	Multiparous and primiparous women/pregnant women, fear of childbirth/fear or anxiety in childbirth, tokophobia/tokophobia
Exposure	Giving birth by caesarean section (emergency or elective) due to fear of childbirth
Outcomes/Themes	Lived experiences of having a fear of childbirth

2. Methods

A critical review was designed with a systematic approach through a PRISMA statement of the current literature, using a set of strategies and procedures to describe, record, understand, and communicate the information in the literature to find the research question.

2.1. Critical Literature Review Design

The Critical Literature Review (CLR) is a thorough methodology that includes conducting a comprehensive review of current literature about a particular subject to critically assess and integrate the findings (Kaya, 2022; Paré et al., 2015). Unlike other types of reviews, CLR employs a more analytical approach, concentrating on the techniques, outcomes, and contributions of the articles under evaluation (Kaya, 2022). The review process encompasses multiple stages, such as formulating a specific review question, conducting an extensive search of existing literature, applying rigorous criteria to select appropriate studies, critically evaluating the methodologies employed in those studies, synthesising the findings, identifying any research gaps or controversies, and drawing significant conclusions and implications for future studies (Graham and McDermott, 2015, O'Connell et al., 2022). CLR is a highly valuable approach that sets itself apart through its thoroughness, precision, and emphasis on critical assessment and integration (Kaya, 2022).

2.2. Inclusion/Exclusion Criteria

The inclusion and exclusion criteria for how studies are selected are shown in Table 2, and they were initially derived from the PEO framework tool, which helped formulate the research question, for use in creating the eligibility criteria.

Table 2. Inclusion/Exclusion Criteria

Inclusion	Exclusion
All qualitative papers are included type of birth, regardless of age and number of pregnancies.	Articles on women with a major mental illness disorder.
Studies published in English.	Studies published in a language other than English.
Articles relating to fear of childbirth and emergency and elective caesarean section.	Articles focused on anxiety in general or the childbirth process, Articles focused on specific groups (e.g. women with complex pregnancy, diabetes) Studies focused on the characteristics of the individual (e.g. midwives' perspectives on fear of childbirth).
Studies published from 2007 to 2022.	Studies published before 2007.

Research articles comprised those that used qualitative data, were conducted on healthy pregnant women (multiparous or primiparous) and focused on the fear of childbirth and its relationship with caesarean delivery (Finfgeld-Connett and Johnson, 2013). All the papers included the type of birth, regardless of age and number of pregnancies, but studies on women with a major mental illness disorder were excluded. This review did not restrict itself to a specific description of childbirth fear, but also encompassed a wide range of measurements to achieve this result. This study excluded some articles in which the focus was on fear of childbirth but was not evident (e.g., focusing on anxiety in general or the childbirth process), the focus was on specific groups (e.g., women with complex pregnancies, diabetes), and the focus was on the characteristics of the individual (e.g., midwives' perspectives on fear of childbirth).

The inclusion of only qualitative studies in the study enabled the inclusion of "real-life" experiences into the evidence-based policy-making process (Graham and McDermott, 2015). Furthermore, due to resource constraints for translation services and a lack of sufficient time intervals, the studies were searched in English with no geographic restriction. According to the predetermined criteria

and research question, the review started with the screening of the titles and abstracts, and in this process, the articles that did not meet the criteria were rejected. After the studies that were considered to meet the inclusion criteria were evaluated in detail, they were printed against the criteria in order to determine the possible copies of the same data. All identified studies were evaluated in terms of eligibility based on the information provided in the title, abstract, and description; a report was prepared for all studies that meet the inclusion criteria.

2.3. Search Strategy

A critical literature review was conducted using databases such as EMBASE, MEDLINE, PsycINFO, and CINAHL. In order to increase the depth of research, the researcher browsed major journals such as the British Journal of Medicine, MIDIRS, the British Journal of Obstetrics and Gynaecology, and the British Journal of Midwifery, with access to the reference list of primary research and reviews through these databases.

The research began with key search terms such as "fear of childbirth" and "caesarean section", and then utilised Boolean logic for 'OR' to consider other terms as alternatives (Finfgeld-Connett and Johnson, 2013). For example, ‘Fear’ was altered with ‘Childbirth’ and hence associated with words like ‘delivery’ and ‘birth’ creating “Fear of childbirth”, “Fear of delivery,” and “Childbirth-related fear”, “Anxiety in childbirth”. Additionally, the researcher used the ‘wildcard character’ of * for the purpose of indicating any variations of the keywords and single and plural inclusions, for instance, childbirth was modified to childbirth* to involve delivery/birth/births (Paré et al., 2015). The keywords in the search were fear of childbirth, fear or anxiety in childbirth, caesarean section or delivery, tokophobia and tocophobia, fear of delivery, and childbirth-related fear, and they were searched alongside synonyms.

Although the related literature has included issues related to fear of birth for the last three decades (Betran et al., 2016), articles covering the research question and area have been included in the literature for the last fifteen years with the increase in caesarean delivery rates. A PRISMA flow chart was used to illustrate the full search strategy, the search terms used for each database, and the selection phase of the study (Figure 1).

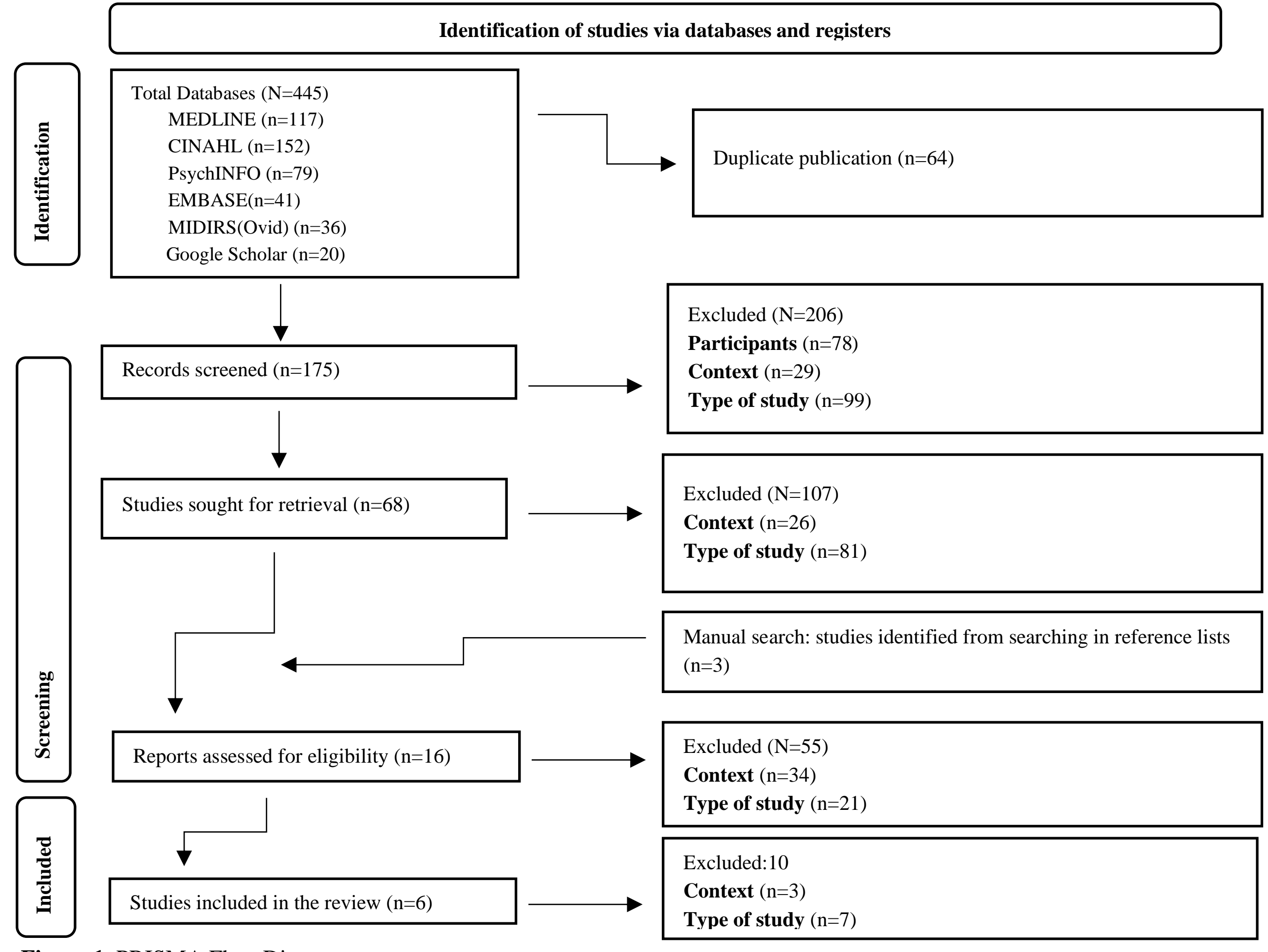

Figure 1. PRISMA Flow Diagram

2.4. Quality Assessment

In the critical review, which is the main subject of the primary original research paper, managing data is a very important task for the project leader, so the data extraction tool or process in the quality assessment of the work sheds an important light (Butun and Hemingway, 2018; Kaya, 2022). For this assessment, the researcher evaluated the quality of each qualitative study using a standardised 10-point Critical Assessment Skills Programme (CASP) Qualitative Study checklist (CASP, 2018). The studies are rated as high, medium, or low quality when the articles meet at least 8 of the 10 criteria, 5 to 7 criteria, and 4 or fewer criteria, respectively. Each study was assigned a 'yes', 'no', or 'can't tell' on the individual criterion depending on whether the study had fulfilled the stated criteria. All studies were categorized as high-quality, meeting at least eight of the criteria.

2.5. Data Extraction

In order to answer the research question and complete the critical literature review process, we developed a standard data extraction template (Table 3) as a basic method of data extraction.

Table 3. Data Extraction Template

Data Extraction	Information Extracted
Context and participants	Detailed information is extracted on the study setting, participants, the intervention delivered etc.
Study Design and Methods used	This includes the methodological approach taken by the study; the specific data collection and analysis methods utilised; and any theoretical models used to interpret or contextualise the findings.
Findings	This covers the key themes or concepts identified in the primary studies.
Quality of the study	Different approaches to appraising study quality have been used.

2.6. Data Analysis

After the completion of the data extraction tool, it was sequenced as a result table to facilitate the analysis of the findings using an Excel spreadsheet. The details of the study included the title of the study, the design of the study, the country in which the study was conducted, sample information, objectives, presentation of the findings, results, and conclusions.

Thematic analysis guides a deeper understanding of what you consider to be worthy of key themes while reminding the research question. Although there are many examples of how to make a rigorous and relevant thematic analysis in qualitative research, the researcher followed the thematic analysis and the trustworthiness criteria adapted from Braun and Clarke (2013) in this study. (Table 4).

2.7. Sociodemographic Characteristics

The initial search process yielded 425 records. The manual searches of the reference lists were screened using the research question and 6 abstracts of the studies from Iran and Pakistan were excluded due to no full-text versions. After removal of titles, duplicates and abstracts, 175 records were identified for convenience. Then each study was read in-depth using a predefined data extraction form. After the PRISMA diagram, a table summarising the characteristics of each study was created with an in-depth analysis and a total of 6 articles (Table 5).

Table 4. The Following Criteria for Good Thematic Analysis Adapted from Braun and Clark (2006, 2013, 2021)

Process	Criteria
Transcription	1. The data have been transcribed to an appropriate level of detail, and the transcripts have been checked against the tapes for 'accuracy'.
Coding	2. Each data item has been given equal attention in the coding process. 3. Themes have not been generated from a few vivid examples (an anecdotal approach), but instead, the coding process has been thorough, inclusive and comprehensive. 4. All relevant extracts for all each theme have been collated. 5. Themes have been checked against each other and back to the original data set. 6. Themes are internally coherent, consistent, and distinctive.
Analysis	7. Data have been analysed _/ interpreted, made sense of _/ rather than just paraphrased or described. 8. Analysis and data match each other _/ the extracts illustrate the analytic claims. 9. Analysis tells a convincing and well-organized story about the data and topic. 10. A good balance between analytic narrative and illustrative extracts is provided.
Overall	11. Enough time has been allocated to complete all phases of the analysis adequately, without rushing a phase or giving it a once-over-lightly.
Written report	12. The assumptions about, and specific approach to, thematic analysis are clearly explicated. 13. There is a good fit between what you claim you do, and what you show you have done _/ i.e., described method and reported analysis are consistent. 14. The language and concepts used in the report are consistent with the epistemological position of the analysis. 15. The researcher is positioned as active in the research process; themes do not just 'emerge'.

Table 5. The Details of the Studies

Study Details (Author, Year, and Country)	Title	Study Type	Where is Research Based?	Number of Subjects Included	Aims/Objectives	Presentation of Findings	Findings	Conclusions	Quality
Arfaie, Nahidi, Simbar and Bakhtiari (2017), Iran	The role of fear of childbirth in pregnancy-related anxiety in Iranian women: a qualitative research	Face-to-face semi-structured in-depth interviews	Data was collected from health care centres in Tehran from May to December 2015.	28 pregnant women from different social backgrounds, educational levels, and ethnicities aged 18–41 years old.	The study aimed to explore the components and dimensions of this kind of anxiety (fear).	The findings were presented using a qualitative approach (conventional content analysis). After the analysis, fear of childbirth was classified into four main categories, including the process of delivery, time of delivery, delivery complications, and healthcare quality.	The findings of the study were critical in supporting, reassuring, and educating pregnant mothers, as well as giving information about the delivery room, labour, and strategies for coping with the fear of pain and childbirth.	The authors concluded that changes in maternity care policies are recommended to promote positive attitudes towards normal delivery.	High
Sercekus and Okumus (2009), Türkiye	Fears associated with childbirth among nulliparous women in Türkiye	Semi-structured interviews	A maternity clinic of a university hospital in Türkiye.	19 nulliparous pregnant women who stated that they had fears related to childbirth	The objective of the study was to describe the fears associated with childbirth and the reasons for the fears..	The results were analysed using the content-analysis method. Three main categories of findings are presented, including: Fears about childbirth, Causes of childbirth-related fears, fear of childbirth, and request for a caesarean section.	The authors concluded that women's fears were caused by personal characteristics and experiences, the type and quality of childbirth information, the maternity environment, and a lack of confidence in healthcare personnel. Seven of the women were considering an elective caesarean section out of fear of childbirth.	The authors suggested that the development and provision of childbirth education in antenatal care could be a solution, given the possibility of requesting a caesarean section for negative findings due to fear of childbirth.	High
Fenwick, Staff, Gamble, Creedy and Bayes (2010), Australia	Why do women request a caesarean section in a normal, healthy first pregnancy?	A telephone interview	Two states of Australia: Queensland and Western Australia.	14 women who requested a caesarean section during their first pregnancy were included.	The study's aim is to describe Australian women's requests for a caesarean section in the absence of medical indicators in their first pregnancy.	The results were presented using thematic analysis.	The results showed that childbirth fear, issues of control and safety, and a devaluation of the female body and birth process were the main themes underpinning women's requests for a non-medically-indicated caesarean section.	The authors concluded that women and health professionals should better understand how childbirth can be constructed as a fearful event.	High

Ramvi and Tangerud, (2011), Norway	Experiences of women who have a vaginal birth after requesting a caesarean section due to a fear of birth: A biographical, narrative, interpretative study.	Interviews with a biographical, narrative, and interpretative method.	The interviewees chose the interview location: three were at the woman's home, and two were at the interviewer's office.	Five women's stories were included in the study.	The purpose of this study was to specifically investigate women who requested a caesarean section and had a had a fear of childbirth from the women's perspective but still gave birth vaginally despite this fear of childbirth.	The results were presented as a case vignette of each individual case using a narrative approach.	The results showed how crucial it is to educate health professionals about women's rights to participate in the decision-making process when choosing between a caesarean section and a vaginal birth.	The authors concluded that obstetricians and midwives have to listen to women and help to contain their strong emotions regarding their experience of giving birth. The authors also highlighted that health professionals should contribute to a safe relationship, allowing for a real dialogue.	High
Hull, Bedwell and Lavender, (2011), The UK	Why do some women prefer birth by caesarean? An internet survey	Semi-structured questionnaires, an internet survey.	Data was collected from a UK-based international website, www.electivecesarean.com, over a 9-month period.	359 pregnant women who stated that their preferred delivery method was 'elective caesarean section through my own choice' were included Women from 16 countries were included.	The purpose of the study was to explore the motivations behind women's expression of preference for a planned caesarean birth	Data were analysed descriptively and thematically. Two main themes were identified: 1) anti-vaginal birth; and 2) physical and psychological validation	The results demonstrated that vaginal birth was unpredictable and saw planned caesarean birth as a safer alternative. Some women justified their decision to change their birth mode by referring to either a physical or psychological (fear of childbirth) issue related to a previous birth or an existing medical complication.	The study concluded that women have multiple reasons for wanting a caesarean birth.	High
Fenwick, Toohill, Creedy, Smith and Gamble, (2015), Australia.	Sources, responses and moderators of childbirth fear in Australian women: A qualitative investigation	Telephone conversations, Open-ended questions.	A large randomised controlled trial known as BELIEF (Birth Emotions, Looking to Improve Expectant Fear) collected data from highly fearful pregnant women.	Data consisted of 43 tape-recorded telephone conversations with highly fearful pregnant women.	The purpose of the study was to describe the sources, responses, and moderators of childbirth fear in a group of pregnant women assessed as having high levels of childbirth fear.	Comparative analysis was used for data analysis to identify common concepts and generate themes that represented women's perspectives on childbirth fear. Three main themes were identified: fear stimuli; fear responses; and fear moderators.	The results demonstrated two opposing discourses: one of preoccupation with negative events and the other of avoidance of planning for labour and birth.	The study concluded that minimising obstetric intervention, offering personalised conversations following birth, and being sensitive to identifying, listening, and assisting women to modify their fears in early pregnancy are required to promote positive anticipation, preparation for birth (normal childbirth), and prevent the increasing caesarean section rate.	High

3. Results

3.1. Overview of the Included Studies

The final six articles were included in this critical literature review, which was conducted in the following countries: Türkiye (Sercekus and Okumus, 2009), Australia (Fenwick et al., 2010; Fenwick et al., 2015), the UK (Hull and Bedwell, 2011), Norway (Ramvi and Tangerud, 2011), and Iran (Arfaie et al., 2017). The sample size of the selected studies ranged between 5 and 359 participants. The other half of the studies collected data in the public health care setting (Arfaie et al., 2017; Fenwick et al., 2010; Sercekus and, Okumus, 2009). While half of the selected studies included women aged between 16 and 41 years old (Fenwick et al., 2010; Ramvi and Tangerud, 2011; Sercekus and, Okumus, 2009), the other half of the study did not state age. None of the selected studies reported any information on the ethnic background of the participants. Only one study (Sercekus and Okumus, 2009) enrolled only primipara; Arfaie et al. (2017) and Ramvi and Tangerud (2011) enrolled only multipara; and three included both primipara and multipara.

The main findings of the critical review towards assessing if there is any association between fear of childbirth and giving birth by caesarean section delivery (elective or emergency) among multiparous and primiparous women showed that it contained three themes: 1) Fear of childbirth and causes; 2) As a mode of birth, caesarean section; 3) Fear of childbirth associated with caesarean section. As a result of the study, 3 main themes and 8 sub-themes emerged, as shown in Table 6.

Table 6. Main Categories and Sub- Sub-Categories

1) Fear of childbirth and its causes	1. Process and time of delivery
	2. Outcomes of childbirth experience
	3. Healthcare personnel and birth environment
2) As a mode of birth, caesarean section	1. Anti-vaginal birth
	2. As a safe birth, the perception of caesarean section
3) Fear of childbirth associated with caesarean section	1. Maternal request due to fear of childbirth
	2. Medical justification
	3. Normal birth despite fear of childbirth

3.2. First Theme: Fear of Childbirth and Causes

Three major sub-themes were identified under the fear of childbirth and cause as a theme: process and time of delivery, outcomes of the childbirth experience, health-care personnel, and birth environment.

Fear of childbirth and its causes, as the first theme, was described in all studies selected except one (Fenwick et al., 2010). Furthermore, the relevant verbal quotations of the participants in the selected studies were integrated into each section to demonstrate the accuracy and interpretation of the data.

Studies identified that pregnant women consider the process of childbirth and the time of delivery to be prolonged, painful, and overwhelming experiences, and these processes and times require an excessive amount of energy, power, and support for the birth. For example, the 29-year-old woman who was an employee said, *"vaginal delivery could be very painful, and prolonged, so I prefer operational delivery" and the other 29-year-old woman who was a master student interpreted the birth as a "pain, fear and fear of pain."* (Arfaie et al., 2017).

Pregnant women can conclude that normal birth is troublesome because of a lack of self-confidence to tackle birth, additionally, according to pregnant women in selected studies, fear of not knowing the time of birth or fear of being late to the hospital was determined as another worrying/fear-provoking factor, as demonstrated by the following quotes:

"The time of vaginal delivery is not clear. It may take place at any time, night or morning, you don't know the exact time, or who will be there to help you." (Arfaie et al., 2017).

A second sub-theme mentioned was the consequences of childbirth experiences. For instance, a housewife woman who had postpartum bleeding experience said: "*I experienced severe bleeding in my last delivery and my chest was painful. I am afraid it may happen again. I think about "what will happen if I go to hospital and never come back?"* (Arfaie et al.,, 2017).

Negative birth stories, especially those related to 'the pain' and 'tearing' stories from female friends or family members, were referenced to become the dominant concerns and feelings about their births and to be the source of fear of childbirth. For example, Sophie stated that *"when my brother was born he had a broken nose and a broken collar bone ... and therefore I do not want to delivery like this story I am afraid."* (Fenwick et al., 2010).

The third sub-theme, 'health-care personnel and birth environment', presented itself in several ways. This was related to the relationship between gynaecology, the midwife, or other staff working in the maternity ward, or the fear of the hospital environment, which was the main factor in the fear of childbirth. Participants were concerned about these two aspects.

"It is very important to select a good doctor because sometimes doctors are not committed or professional. I have heard

*that in public hospitals you don't have any choice and any doctor may attend, so I am really anxious. "(*Arfaie et al., 2017).

It was determined that anxiety and fears occurred with the lack of satisfaction with the staff skills and miscommunication, and therefore they caused a lack of trust in maternity staff.

"I am so angry that some midwives make women feel inadequate for daring to ask for what is best for them. I am expecting my first and God help the medic or midwife who even suggests I go through a long horrendous 'natural' childbirth." (Hull and Bedwell, 2011).

3.3. Second Theme: As a Mode of Birth, Caesarean Section

This theme in this review was caesarean section as a mode of birth. This theme emerged from two sub-themes: anti-vaginal birth and, as a safe birth, the perception of a caesarean section.

Anti-vaginal birth, as defined in this review from selected studies (Fenwick et al., 2010; Fenwick et al., 2015; Hull and Bedwell, 2011) refers to attitudes, beliefs, or practices that discourage or oppose vaginal birth, often advocating for alternative methods such as caesarean sections (C-sections). Various medical, cultural, social, or psychological factors influence this perspective.

The planned caesarean section with maternal request and the underlying causes continued to be a controversial problem, fed by associated morbidity reports. Through the literature review of the studies, the authors made a significant contribution to the knowledge base related to maternal requests for caesarean birth, and they clearly stated the fact of requesting a caesarean section without medical reasons (Hull and Bedwell, 2011).

On the other hand, a statement of uncertainty about the perceived capacity of women's bodies for natural birth had been identified, especially in women who felt a high fear of childbirth in this review. However, rather than justifying the reasons for choosing these women for caesarean sections, their attitudes towards normal childbirth were more clearly determined, as is illustrated in this quote:

"I don't see any reason to give birth like a cow in this day and age when there are more civilised means available." (Hull and Bedwell, 2011).

All studies, except one study by Arfaie et al. (2017), showed that similar concerns and concepts had been demonstrated not only in nulliparous women but also in women with previous vaginal delivery and/or caesarean section experience.

"Thoughts *running through [sic] my mind almost every day; where the baby was conceived, is not the place where it should come out. (It's not clean) I'm trying to get away of it but I just can't ... whatever I read against caesarean!"* (Hull and Bedwell, 2011).

The final sub-theme set under this theme in this review was the perception of a caesarean section as a safe birth. Several studies have seen caesarean sections as a preventive measure by women for protection against poor outcomes for women and infants (Fenwick et al., 2010; Fenwick et al., 2015; Hull and Bedwell, 2011):

"If something goes wrong during natural birth, there could be horrible effects on the baby and myself. Carefully planned caesarean will avoid that." (Fenwick et al., 2015).

However, most of the participants in these studies believed that a caesarean section would afford to take the birth completely under control, to avoid the fear of childbirth, and as an option to safely terminate delivery. For instance, a woman said about the experience of caesarean section that "*a caesarean section allowed me to have a perfectly orchestrated birth with all the right people in the right place at the right time"* (Fenwick et al., 2010).

Studies reported that women who had a high fear of childbirth preferred a planned caesarean section because they believed that an emergency caesarean section would be inevitable.

"... I would rather have a safe planned, calm birth for my 2nd child (I'm aware of risks) rather than go through what I went through last time resulting in emergency surgery (because of fear of childbirth)." (Hull and Bedwell, 2011).

3.4. Third Theme: Fear of Childbirth Associated with Caesarean Section

The last theme concerned the fear of childbirth associated with a caesarean section, and it emerged from three sub-themes: maternal request due to fear of childbirth, medical justification, and normal birth despite fear of childbirth. All of the studies selected in this review reported that especially nulliparous women wanted to choose a caesarean section due to fear of childbirth or had their babies delivered by a caesarean section because of fear of childbirth.

"They are telling me to have a normal delivery. I don't want a normal delivery, I'm really scared, I want a caesarean, have them put me to sleep and when I wake up I want my baby next to be. That's what I want." (Sercekus and Okumus, 2009).

However, many studies have reported that women's choices are not fixed and might change during pregnancy (Fenwick et al., 2015; Ramvi and Tangerud, 2011; Sercekus and Okumus, 2009). According to the results of these studies, half of the participants wanted to give birth by caesarean section due to their fear of childbirth, and about half of the participants stated that they were hesitant/undecided and sometimes thought to request a caesarean section.

A medical justification as a second sub-theme mentioned in several studies was medical justification. Some of the participants stated that they did not want vaginal delivery because of fear of childbirth, and they suggested 'medical reasons' for caesarean delivery.

"I have ME and interstitial cystitis— these are not considered by the NHS obstetrician to be reason enough for a caesarean however this is my strong personal preference given concerns over severe exhaustion and difficulties during the delivery, and potential genito/urinary trauma to make my pain problems worse." (Hull and Bedwell, 2011).

The last sub-heading was normal birth, despite the fear of childbirth. The study's findings included the story of the woman who requested a caesarean section due to fear of childbirth and eventually experienced trauma. For example, *"a woman who had a fear of birth and she wanted a caesarean section. She wrote a letter to the hospital requesting one, but the application was rejected. She said that when I tried to explain my situation, I was not heard, I simply had no choice...it was an in humane decision. Finally, she gave a normal birth, but the child was born with the use of forceps after four vacuum extractions. After the birth, she had a difficult postpartum period, without any support network."* (Ramvi and Tangerud, 2011).

4. Discussion

This review revealed a complex interaction between fear of childbirth and caesarean section delivery (elective or emergency) among multiparous and primiparous women.

As found in this review, the perceptions of pregnant women about the birth process and the time of delivery impact their negative self-esteem for normal birth and lead to a fear of childbirth. Based on all this, we can conclude that the fear of childbirth stems primarily from the negative perception of the birth process and the time of delivery, which in turn leads to thoughts of not giving birth and opting for an emergency caesarean section. Nillson and Lundgren (2019) discovered that women experiencing severe fear of childbirth often doubt their ability to conceive and give birth. According to a study investigating the stressful factors in pregnancy, the fear of pain, and the feeling of inadequacy were some of the most important stressful factors of pregnancy and increased the risk of needing an emergency caesarean section (Salari et al., 2015). In a study by Molgora et al. (2020), participants stated that fear of childbirth was due to the inability to predict vaginal delivery and control vaginal delivery and affected the request for a caesarean section.

The fear of hospital facilities (or environment) and staff and the lack of satisfaction with communication are added to the fear of childbirth, as one of the main factors has been determined. Faisal et al., (2014) concluded that fear of childbirth and anxiety depended on the lack of trust in maternity staff and their interventions, and the relationships of staff related to mothers. Health care providers' opinions, perspectives, and behaviours play a critical role in women's preferences and, indirectly, in their fears of childbirth. The communication between clinicians and women should ideally be objective, identify the underlying causes of a woman's decision to give birth, especially by caesarean section, and also use evidence-based guidelines (Faisal et al., 2014). According to the guidelines published in 2011 by the National Institute of Health and Care in the United Kingdom, when a pregnant woman requests a caesarean section due to fear of childbirth and concerns about birth, she should be referred to a health professional specialising in perinatal mental health support. If vaginal delivery is not accepted after this appointment, a planned caesarean section should be recommended (NICE, 2022). This approach aims to provide women with comprehensive support and information, enabling them to make informed decisions about their delivery mode (O'Connell et al., 2021). Addressing the psychological and emotional aspects of childbirth fear can potentially impact the overall rates of caesarean sections (O'Connell, et al., 2022).

Several studies and reviews have examined the impact of mental health interventions on childbirth outcomes, particularly focusing on the rates of caesarean sections due to tokophobia. Research indicates that psychological interventions, such as cognitive-behavioural therapy (CBT) and counselling, can significantly reduce fear of childbirth. For example, a study by Rouhe et al. (2013) found that pregnant women who received CBT for severe fear of childbirth were more likely to opt for vaginal delivery compared to those who did not receive such support. By addressing the underlying fear, these interventions can lead to a reduction in the number of elective caesarean sections. The systematic review by O'Connell, Leahy-Warren, Khashan, Kenny, and O'Neill (2019)

concluded that fear of childbirth interventions effectively decreased CS rates among women with tokophobia. Implementing these guidelines can lead to a more nuanced approach to childbirth, balancing medical necessity with psychological well-being, and applying holistic midwifery care (O'Connell et al., 2021). Providing perinatal mental health support as part of standard prenatal care ensures a holistic approach, addressing both physical and mental health needs (O'Connell et al., 2021).

Consequently, it is clear that the fears about the pregnancy process and time of delivery often stem from uncertainty or the inability to receive care or services before pregnancy or at any time during the pregnancy and also during the childbirth process (Panda et al., 2013). The study conducted by Sereshti et al. (2016) concluded that the lack of appropriate health services on holidays caused concerns about prenatal services for pregnant mothers. It is clear that it is necessary to give pregnant women confidence in these sources of concern and fear, and that this assistance has a unique role in reducing mothers' anxiety and fear (Sereshti et al., 2016).

Furthermore, the findings resonated with the results of a recent Australian study that reported that pregnancies that resulted in severe conditions, such as a previous traumatic birth experience or bleeding, have resulted in a fear of childbirth in their next pregnancies (Molgora et al., 2020). Another finding revealed that some pregnant women's expectations of a natural birth overshadowed other people's experiences, particularly negative birth stories about the pain and 'tearing' from female friends or family members, leading to a fear of childbirth. The relationship between fear of childbirth and personal discourses from family and friends, as well as birth stories, has received relatively little attention in previous research (Fenwick et al., 2015). Even in the important prospective cohort study by Wiklund et al. (2012), only 20% of women who had never had a baby before said that complicated births among female relatives and negative birth stories between relatives were the reason they wanted a C-section when there was no medical reason. Fenwick et al. (2015) attribute this phenomenon to the individual's empathic identification with another's experience.

The findings from all selected studies in this review reveal that there are important similarities in cross-cultural fear experiences when copying many previously reported central concepts. Although previous studies reported (Beebe, et al., 2007; Salomonsson et al., 2013) that nulliparous women wanted to choose caesarean delivery because of fear of childbirth, in addition to this, this review also reported that their babies were delivered by caesarean section because of fear of childbirth. However, the review uniquely combines the elements associated with the fear of childbirth into a model that draws from the experiences and understanding of both nulliparous and multiparous women during pregnancy. This situation, together with the various conditions behind the fear of childbirth, determined the various possible fear responses and provided a holistic view of the potential relationship between caesarean sections (Molgora et al., 2020). Another finding in this perspective was medical justification, women who did not want vaginal delivery due to fear of childbirth suggested medical reasons for caesarean delivery (Faisal et al., 2014). Within the framework of this issue, although caesarean section with maternal request is the area of special interest of the researchers (D'Souza, 2013; Faisal et al., 2014; Molgora et al., 2020), there is no specific study directly related to this finding.

Although the findings related to the underlying factors of women's fear of childbirth are consistent with current international research (Jamshidi et al., 2021; Kitzinger et al., 2006), this review offers a unique perspective on how women respond to their concerns and fears during pregnancy and the relationship between these fears of childbirth and caesarean deliveries. However, it has also been suggested that the fear of childbirth (tokophobia) and previous beliefs and attitudes may be significant determinants of how a woman perceives both her values, care, and expectations and the quality of care she receives. Beliefs, which are reflective of information, in natural birth are not only related to low levels of fear of childbirth but also to care satisfaction. Therefore, giving emotional supportive care to the fearful pregnant woman can both maximise care satisfaction and reach low levels of fear of childbirth.

4.1. Limitations of the Study

The limitation of this review is that the inclusion of only qualitative studies published in English makes the study predisposed to language bias. This is unfortunate, especially in developing countries, where important and very detailed studies on the fear of childbirth have begun. Despite all the limitations, this review will enable healthcare professionals to better understand the complex social networks that affect the relationship between women who have a fear of childbirth and caesarean sections.

4.2. Recommendations for Practice and Future Research

Women who have a high or severe fear of childbirth at any time during pregnancy are not only a concern for midwives but also for health policy providers and should be addressed in prevention programmes (Fossheim et al., 2019). This review focused on

helping women develop strategies to reduce their fears about future deliveries, to be aware of birth options, and to have a positive birth experience. Therefore, it should be developed and given theory-based care concepts for both prenatal, intrapartum, and postnatal support of pregnant women who first have a high or severe fear of childbirth. These precautions within the health system programmes should be tested, evaluated, and applied. Pre-feasibility studies should be carried out in order to implement the theory-based care concepts and special interventions effectively in the long term, and the improvement of the birth environment should be ensured with health promotion programmes.

5. Conclusion

The findings of this review emphasised that the main reasons for maternal fear and anxiety related to birth are fear of damaging the mother and baby and a lack of confidence in the quality of maternity care and personnel commitment. In addition, several reasons have been shown for women with fear of childbirth, including those who prefer caesarean deliveries, preventing the risk of physical damage or other morbidity associated with vaginal delivery. When women demanded caesarean deliveries, they exhibited anti-vaginal behaviour, demonstrating low tolerance towards the perceived risks associated with planned vaginal delivery, both for their own health and for their babies, rather than displaying positive attitudes towards caesarean delivery. The unpredictable nature of vaginal delivery has also been identified as a source of fear for women with a fear of childbirth. In the background of these findings, it was found that they were influenced by their previous own experiences and/or the experiences of others.

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