



## Review

# Prevalence and Factors Affecting the Labor Experience: A Systematic Review

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### ABSTRACT

**Introduction:** Labor experiences have potential short and long term physical and psychological effects on women's lives. Many factors influenced role in a mother's experience of childbirth, both positively and negatively. This study aimed to determine the prevalence and factors that influence the delivery experience.

**Methods:** This study searched for articles in the databases, namely Pub Med, Scopus, ProQuest, ScienceDirect, and Sage. The keyword used is labor experience. A total of 3654 articles were found, after selecting studies using PRISMA found 18 corresponding articles.

**Results:** In this study, 18 studies were included in this systematic review, eight studies examined the prevalence of labor experiences. The prevalence of labor experience was 6.8-44%. Factors related to childbirth experiences included: individuals, such as age, parity, fear, self-efficacy, participation, control, expectations, preparation, and interpersonal, such as husband support, caregiver support, unwanted medical problems, such as prolonged labor, stimulation, and induction, forceps delivery, emergency cesarean section, and use of analgesics in mothers, low APGAR scores and transfer to the NICU.

**Conclusion:** This review showed the various factors associated with the childbirth experience. This finding suggests conducting further research into the reason these factors influence the experience of labor.

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## INTRODUCTION

Pregnancy and childbirth are physiological processes that are important and natural in every woman life and her family (Dahlberg et al., 2016). The physiology of childbirth is the same for all women, but understanding childbirth varies widely among different people. Understanding childbirth is influenced by cultural beliefs, traditions, and many other

variables, and it is unique and specific to each woman (Mukamurigo et al., 2017). Childbirth and its associated experiences have potential physical and psychological effects on a woman's short and long term life.

The inclusive goal of caring for women during childbirth is to create positive experiences for them and their families while observing their physical and mental health, preventing complications, deaths,

and emergency cases (Henriksen et al., 2017). Suppose the experience of childbirth is a positive perception. In that case, it can increase the amount of patience, responsibility, self-esteem, self-efficacy, self-sufficiency, and independence of the mother; improve the quality of life of women with better relationships between mother and baby, and generally empower women (Howarth & Swain, 2019). Empowering women makes them more involved in taking care of themselves and their children and controlling and managing other challenges (Karlström et al., 2015).

Many factors play an influential role in both positive and negative maternal experiences. Several studies have examined the factors that influence the experience of childbirth. Take into account the short-term and long-term physical and psychological importance. In addition, the effect of childbirth on women and the influence of different variables on the conception and experience of women's labor need to be explored. This study aims to examine the prevalence and factors that influence childbirth experience so that planning and strategies are appropriate (Hassanzadeh et al., 2020).

## METHODS

This systematic review included five steps: formulating questions, identifying relevant databases, assessing the quality of papers based on a checklist, summarizing results, interpreting findings (discussion). In addition, this assessment evaluated the methodological quality of a study and determined the extent to which a study has addressed possible biases in its design, implementation, and analysis.

### Formulation of Questions

The questions formulated for this systematic review are: What is the prevalence of negative childbirth experiences and the factors related to the birth experience?

### Identify relevant databases

This research was conducted by searching for articles in the Scopus, Sage, Science direct, Ebsco, and ProQuest databases, with the following keywords: Mother, Childbirth, Postpartum, Normal Delivery, Birth Experience, Positive and Negative Perceptions.

A randomized search evaluation was published in English.

Article searches are carried out using keywords and Boolean operators (AND, OR NOT, or AND NOT) to determine the search to obtain articles that match the research objectives. The search strategy was defined as woman OR Mother AND Childbirth OR Birth OR Childbirth OR Childbirth OR Childbirth AND Vaginal Delivery OR Normal Labor OR Vaginal OR Natural Labor - Experience OR Perception AND Positive and Negative.

### Selection of articles

Full text or abstracts of all articles were documented from extracted search results. The researcher carefully studies the full text of the articles, and the related articles are selected, and then irrelevant items are excluded.

### Inclusion and exclusion criteria

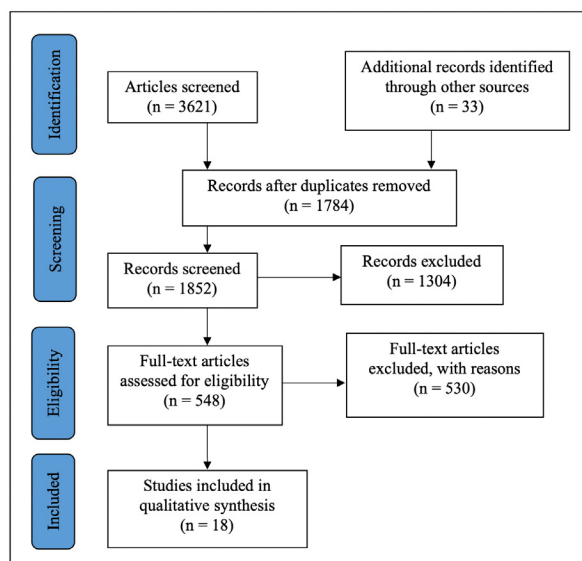
The inclusion criteria for the articles were all articles related to the experience of giving birth to women, which were published in the last ten years and are original articles. The exclusion criteria are articles in systematic reviews.

## RESULTS

During the initial search through different databases, 3654 articles were found, 1784 articles were duplicated due to database overlap. Among the remaining 1852 articles, 1304 articles were excluded after reviewing the article titles and abstracts. Among the remaining 548 articles, 528 articles were excluded because the subjects were not relevant to the purpose of this study, and finally, 18 papers remained. In these 18 articles, eight studies examined the prevalence of childbirth experiences, and 18 studies examined the factors that influence childbirth experience.

The table 1 is basic characteristics of the included studies.

Of the eight studies, three studies conducted by Waldenstrom et al., the results of the first study showed that the prevalence of positive experiences was 71.1%. The second study results were the prevalence of non-positive post-partum experiences 28.9% (negative experiences 7.1%). The third study results showed that positive experiences amounted to 88.2% and negative experiences



**Figure 1.** Flow diagram showing the selection process of articles for systematic review

by 10.4%. In a study conducted by Gottvall and Waldenstrom, they examined the individual delivery experiences of 617 nulliparous women in Sweden. They found that the prevalence of positive experiences was 88.2% and negative experiences 11.8% (Waldenström et al., 2004).

A Canadian study conducted by Smarandache et al. reported a 90.7% prevalence of positive experiences and 9.3% negative experiences (Smarandache et al., 2016). Another study in Norway conducted by Henriksen et al. showed that the prevalence of positive experiences was 78.9%, and negative experiences were 21.1% (Henriksen et al., 2017). Another study conducted by Ulfsdottir et al. in Sweden found a prevalence of positive experiences 56% negative experiences 44% (Ulfsdottir et al., 2014). In Rwanda, a study conducted by Mukamurigo et al. reported a prevalence of positive experiences of 77.5% non-positive experiences of 22.5% (Mukamurigo et al., 2017).

## Factors related to the experience of childbirth

Of 18 articles reviewed, the factors associated with the experience of childbirth can be categorized into three categories: individual, interpersonal factors and unexpected medical problems.

## Individual Factors

### Demographic factors

#### Age

Different results were obtained in terms of age in the articles reviewed. In the Smarandache et al. study, negative experiences were higher in older women. In Al Ahmar and Tarraf's study, older women (> 38 years) were more satisfied with their delivery experience. In a study conducted by Waldenstrom et al. in different years, there was no relationship between age and delivery experience (Al Ahmar & Tarraf, 2014; Waldenström et al., 2004).

#### Afraid

Two studies showed there was a link between fear and negative childbirth experiences. First, a study by Elvander found that women with moderate and high levels of fear, had higher rates of cesarean delivery and emergency deliveries than women with lower levels of fear, resulting in more negative experiences (Elvander et al., 2013).

#### Self Efficacy

This review showed that the level of self-efficacy decreases with increasing fear of pregnant women. Furthermore, this fear and decreased self-efficacy have been accompanied by an increase in negative childbirth experiences (Azmoode et al., 2017).

#### Participation

Researchers suggested in their study that women's participation and involvement in the labor process would reduce negative experiences of childbirth and increase women's satisfaction during delivery (Neerland et al., 2020).

#### Control

This review showed that seven studies reported an association between control and delivery experience. These studies determined that the higher the control of women in labor, the lower their negative childbirth experience, so that pain will be more tolerable and their labor more pleasant (Henriksen et al., 2020).

#### Hope

The results indicated that women whose expectations have been met tend to have negative childbirth experiences, indicating

**Table 1. Primary characteristics of the included studies**

Reference / country	Aim of study	Study design	Sample size
Sweden	Increase our understanding of women's birth experience by studying the association between selected and women's rating of their overall birth experience two months after giving birth	Prospective cohort study	1111 women who participated in a birth center trial
Gothenburg	Clarify different aspects of the birth experience and to identify factors that could explain the variation in women's overall assessment of it	Prospective cohort study	295 women, 47.5% were primiparas and 52.5% multiparas
Sweden	The prevalence of a negative birth experience one year after the birth in a national sample of Swedish-speaking women and to identify predictors of a negative experience	Longitudinal cohort study	2541 women recruited from all antenatal clinics in Sweden during three weeks spread over one year was conducted
Sweden	To investigate whether women's experiences of their first birth affects future reproduction	Prospective cohort study	617 women who gave birth to their first child
Canada	Assess the prevalence of, and identify the risk factors associated with a negative birth experience for women in Canada	Cross-sectional	On First Nations reserves or in institutions were excluded. A stratified random sample of 8542 women was selected from the 2006 Canadian population census, and 6421 eligible women (75.2 %) responded.
Norwegian	Explore factors associated with a negative birth experience among Norwegian women	Mixed methods (cohort of the Bidens study)	1352 Norwegian multiparous women
Sweden	Study well-known as well as new factors associated with a negative experience of childbirth among a group of healthy primiparas	Prospective cohort study	446 healthy primiparas
Rwanda	To investigate how women's overall childbirth experience in Rwanda was related to their perceptions of childbirth care	Cross-sectional household	921 women had given birth 1-3 months earlier
Pennsylvania	Estimate the effects of different levels of fear of birth and mode of delivery on birth experience one month after birth	Prospective study	Which included 3006 English and Spanish speaking, nulliparous women aged 18-35 years in Pennsylvania
Rijnders Netherlands	Investigate Dutch women's views of their birth experience three after the event	Cross-sectional	1309 postnatal
Canada	To summarize what is known about satisfaction with childbirth, with particular attention to the roles of pain and pain relief	Cross-sectional	137 reports of factors influencing women's evaluations of their childbirth experiences
Columbia	To examine multiple factors for their association with components of childbirth satisfaction and with the total childbirth experience	Correlatioal descriptive study	60 low-risk post-partum women, aged 18-46 years
Canadian	To determine the factors that predict women's perceptions of the childbirth experience and to examine whether these vary with the type of birth a woman experiences	Prospective cohort study	652 women and their newborns

**Table 1. Primary characteristics of the included studies (Continue)**

Reference / country	Aim of study	Study design	Sample size
Sweden	To evaluate the impact of personality, sociodemographic and obstetric factors on birth experience in a cohort of healthy first-time mothers	Cross-sectional	541 women were prospectively followed from the end of pregnancy until nine months post-partum
US	Identify factors associated with confidence and positive experiences during birth among a national sample of US mothers	Mix method	A nationally representative sample of women gave birth in 2005 to a singleton baby in a US hospital (N=1573).
Lebanon	To assess which socio-demographic factors are associated with this satisfaction.	Cross-sectional study	The sample consisted of 100 women who had given birth in the past three days before the interview.
Tehran	Determine the satisfaction degree of normal delivery and its relative factors in childbearing women at "Shaheed Chamran, Borujerd" and "Madiye, Tehran" Hospitals	Descriptive correlative study	360 literate Iranian childbearing mothers were chosen via a non-probable quota sampling
Belgian and Netherlands	The purpose of our study is to assess the influence of expectations about childbirth, labor pain, personal control and self-efficacy on Belgian and Dutch women's satisfaction with childbirth	Cross-national perspective	605 women, one at 30 weeks of pregnancy and one within the first two weeks after childbirth

realistic expectations (Karlström et al., 2015).

### *Preparation*

Women who are ready to give birth, have labor scheduled, and are intentionally pregnant, have a more positive and enjoyable labor experience (Hassanzadeh et al., 2020; Henriksen et al., 2017).

### *Interpersonal factors*

#### *Husband's support*

The articles reviewed also showed that women's support from husbands reduced negative childbirth experiences and increased women's satisfaction with childbirth (Hildingsson, 2017).

#### *Care provider support*

Care provider support such as sufficient time allocated for women and support during delivery enhances positive delivery experiences (Dahlberg et al., 2016).

### *Unexpected medical problems*

#### *Mother*

A review of various studies showed that unexpected medical problems in mothers, such as prolonged labor, stimulation and induction, forceps delivery, emergency cesarean section, and analgesics in labor (epidurals and pethidine), have led to negative experiences in

women (Baldino et al., 2020).

#### *Child*

Unexpected problems for the baby, including a low Apgar score and being transferred to the NICU, can lead to negative experiences. Conversely, touching the baby immediately after birth increases the level of positive experiences (Desmawati et al., 2020).

## **DISCUSSION**

This study aimed to estimate the prevalence of negative post-partum experiences and associated factors. The cases that have proven effective in differing research results are:

The studies used different questionnaires, different ranking and scoring methods in the questionnaires in the study. For example, in the study of Waldenstrom et al., the overall experience of childbirth was evaluated. Responses were expressed on a 7-point scale; a score of 1 is considered very negative, and seven is considered very favourable. They rated 1–5 as non-positive experiences and perceived 6–7 as positive experiences (Waldenström et al., 2004).

In a study of the delivery experiences of 617 nulliparous women, answers were rated on a 7-option Likert scale. In this study, scores 1 and 2 were negative experiences, and



3–7 were considered positive experiences. In the study conducted by Smarandache et al., answers are evaluated on a 5-point Likert scale; 1 and 2 are negative scores and scores 3–5 are considered positive experiences. The study of Mukamurigo et al., responses were classified from very bad experience with a score of 0 to very good experience with a score of 10; a score of 8–10 is considered a good and positive experience (77.5%) and a score of 7–0 is a bad or mixed experience (52.5%) (Smarandache et al., 2016).

A prior study was carried out on 1352 multiparous Norwegian women in which their first and last birth experiences were evaluated. The result was “Completely positive, moderately positive with negative elements, completely negative with positive elements, completely negative;” completely negative women with positive elements, negative responses are all considered negative experiences (Henriksen et al., 2017).

The result showed different study conditions, including sample size and characteristics. With a large sample size, relevant research results will be more precise. There was a difference between nulliparous and multiparous women, meaning that parity affects a woman’s delivery experience. Negative experiences are more common in nulliparous women, indicating fear and anxiety in them (Levett et al., 2020). The experience of giving birth to women was evaluated at different post-partum periods. This act was conducted to examine the prevalence of childbirth experiences at different times of the puerperium.

Related factors in this review showed conflicting results concerning the relationship between age and labor experience. Women over the age of 30 had twice as many negative experiences as younger women. Older women are more satisfied with their deliveries. On the other hand, there was no relationship between age and childbirth experience (Sbrilli et al., 2020; Howarth & Swain, 2019). The cause of this inconsistency could be due to differences in the number of samples, the method of sampling, the type of questionnaire used, and times the post-partum experience was checked. Further studies were needed with a more significant number of samples and the appropriate time.

Women’s physical and mental preparation is beneficial for enhancing a positive labor experience; this physical and psychological preparation can make them confident about coping with childbirth (Henriksen et al., 2017). Women can be prepared by attending childbirth classes or by receiving information from mothers, relatives, the mass media, and direct observation of childbirth. This information includes labor and obstetric problems (prolonged labor), labor techniques (breathing and relaxation).

This study found that women with high self-efficacy had reduced pain and stress and increased satisfaction during childbirth. Bandura’s defines self-efficacy as an individual’s belief in his or her ability to succeed in a particular position (Puspasari et al., 2018; Bandura, A, 2010). In studies, women claim that being confident about their abilities and strength will control their pain and problems.

In this study, one factor that had a significant effect on negative experiences was prolonged labor. Stress and anxiety are one of the causes of prolonged labor. In cases of anxiety and stress, epinephrine levels increase, leading to decreased uterine activity and prolonged labor. Hence, women who are more afraid of labor are more likely to give birth by forceps, emergency cesarean delivery and analgesic use, resulting in a higher rate of negative labor experiences (Hassanzadeh et al., 2020).

In this study, the infant’s low Apgar score and transfer to the NICU negatively affected, and direct contact with the mother led to a positive labor experience. In the study of Hardin et al., women define having a healthy baby as a positive experience (Desmawati et al., 2020).

## CONCLUSIONS

This review shows that different countries use various tools to examine the experience of childbirth, so it is necessary to provide standard mechanisms for accurately estimating the experience of giving birth to women. With this research, it can be seen the factors that can influence childbirth and how to handle it properly to deliver well.

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