**Factors related to a negative birth experience – A mixed methods study.**


## Abstract

**Objective**: This study aimed to explore factors associated with a negative childbirth experience including descriptions from women themselves.

**Design**: We performed a mixed methods study based on data from the Norwegian cohort of the Bidens study, including a total of 1352 multiparous women. Quantitative information was analysed in addition to thematic analysis of 103 free-text comments provided by women with a prior negative childbirth experience.

**Key findings:** The total prevalence of a negative birth experience was 21.1 %.

A negative experience was associated with fear of birth (AOR: 5.00 95% CI 3.40-7.23) and a history of abuse (AOR 1.34 95% CI 1.01-1.79) in multivariate analysis. Women who indicated they were para 2 were less likely or report a negative childbirth (AOR 0.66 95% CI 0.46-0.94). Three major themes were identified: 'complications for mother, child or both', 'not being seen or heard'; and 'experience of pain and loss of control'. The majority of respondents reported experiences of unexpected and dramatic complications during childbirth. Further, several of the respondents felt a lack of support, that they had not been treated with respect or included in decisions regarding their birth. A minority described pain and loss of control as the main reason for their negative birth experience.

**Conclusions and implications for practice:** Comments by the women show that they were unprepared for complications and inadequate care during birth. The feeling of not being seen or heard during childbirth contributed to a negative experience. Midwives can use the information gained from this study to prevent negative birth experiences.



Key words: Bidens, Childbirth, Negative experience, complications, Mixed Methods

## Introduction

Childbirth is an important life event (Larkin et al., 2009) and considered to be one of the most significant experiences in a woman's life (Hall & Wittkowski, 2006). Most women remember their birth positively and describe it as an experience that enabled them to grow and feel empowered (Thomson & Downe, 2010; Waldenstrom et al., 2004). However, some women describe their birth as a negative experience (Waldenstrom et al., 2004). Instead of feeling empowered, they may feel disconnected, helpless and have a feeling that their body failed them (Rijnders et al., 2008; Waldenstrom et al., 2004). A negative birth experience may have short and long-term impact on women's well-being (Garthus-Niegel et al., 2013; Simkin, 1991). Factors that positively or negatively influence the birth experience include expectations of the forthcoming birth, information, complications, care and communication, feeling of control and perception of pain (Hildingsson, 2015; Nilsson et al., 2010; Simkin, 1991; Thomson & Downe, 2013; Waldenstrom et al., 2004). The woman's subjective interpretation of the birth experience is not necessarily related to actual adverse events (Storksen et al., 2013). If a woman felt safe and well taken care of during the birth process, the overall experience may be positive despite any serious complications (Garthus-Niegel et al., 2014; Lavender et al., 1999). On the other hand, a woman who has had an uncomplicated birth, may consider it a negative experience if she has not felt safe and cared for (Garthus-Niegel et al., 2014).

Studies have shown that 5-20 % experience their childbirth as a negative event (Rijnders et al., 2008; Smarandache et al., 2016; Waldenstrom et al., 2004). A negative birth experience is associated with post-traumatic stress syndrome (Garthus-Niegel et al., 2014; Waldenstrom et al., 2004), wish for a caesarean section in subsequent deliveries (Storksen et al., 2015), an increased risk of post-partum depression (Bell & Andersson, 2016). It can impact

breastfeeding (Brown & Jordan, 2013) and the mother and child relationship (Elmir et al., 2010). A negative experience can cause or increase fear of childbirth (Storksen et al., 2013) and affect the planning of future pregnancies (Gottvall & Waldenstrom, 2002; Slade et al., 1993). Thus, the effects of a negative birth experience may be costly both on a personal and societal level.

Both quantitative methods and qualitative interviews have been used to examine women's birth experiences (Harris & Ayers, 2012; Larsson et al., 2011; Lavender et al., 1999; Lundgren, 2005; Nilsson, 2014; Rijnders et al., 2008; Simkin, 1991; Waldenstrom et al., 2004). The studies have been performed in different periods after birth, right after and months or years after (Simkin, 1991; Storksen et al., 2013; Waldenstrom, 2003). What women remember from birth seems to be quite accurate even years after the experience (Simkin, 1991; Tomeo et al., 1999). Though, it is suggested that the overall assessment of the birth experience can be modified (Waldenstrom, 2003). Not because of memory loss, but when women have the opportunity to think about the experience over time, opinions may change (Waldenstrom, 2003). Simkin used a qualitative design and examined the long-term impact of birth in a group of 20 women (Simkin, 1991). She found that women's memories were vivid and deeply felt 15-20 years after they gave birth (Simkin, 1991). Waldenström et al found in their cohort study of 2 428 women that 47% made the same assessment regarding pain one year after birth compared to two months after and 60 % made the same overall assessment of the birth experience in the same time period (Waldenstrom, 2003). Using data from the Bidens study, a population based cohort of pregnant women, we were able to examine factors related to a previous negative birth experience using both quantitative and qualitative data. To our knowledge this has not been done in previous studies.

The aim of this study was to explore factors associated with a negative birth experience among Norwegian women.

## Method

### *Design*

A mixed methods evaluation, consisting of quantitative and qualitative data from the Bidens cohort study was conducted.

### *The Bidens study*

The Bidens study was a six-country (Belgium, Iceland, Denmark, Estonia, Norway, and Sweden) cohort study of unselected pregnant women recruited between March 2008 and August 2010 (Schei et al., 2014). The main aim of the Bidens cohort study was to assess the association between a history of abuse and mode of delivery (Schei et al., 2014). A total of 7 200 pregnant women who consented, subsequently completed a questionnaire and allowed for the extraction of specified data on delivery from their medical notes. The study is described in previously published papers (Lukasse et al., 2014; Schei et al., 2014). The 68 -item questionnaires included several validated instruments measuring fear of childbirth, abuse and depression translated into the required languages by a native speaker. This study used self-reported data from 1352 multiparous women in the Norwegian sample. In Norway women, after attending routine ultrasound, received the questionnaire by mail and returned it by mail. Non-responders were sent one reminder and the response rate was 50 % in Norway. Table S1 in the supplementary material describes the Norwegian study sites.

### *Negative birth experience*

Women were asked questions about their first and their last childbirth and they could assess whether the birth was an entirely positive experience, an entirely positive experience but with negative elements, an entirely negative experience but with positive elements or an entirely negative experience. Women who answered that the previous birth had been 'an entirely negative experience' or 'an entirely negative experience but with positive elements' were in the negative birth experience group. There was space for the women to write about the experience or add additional comments to the questionnaire. The qualitative data in this study consists of comments from multiparous women who had indicated a negative birth experience. Figure 1 show the inclusion/exclusion process.

*Covariates*

All covariates were a-priori selected based on previous research and availability. All covariates were self-reported by the mother. Age was recoded into four groups: < 25 years, 25-30, 31-35 and ≥ 35 years. Parity was based on how many children women indicated they had given birth and recoded into para 1, para 2 and ≥ para 3 . Education was coded at three levels: elementary school (9 years), high school (fewer than 13 years), and college or university. Marital status was coded as married/cohabiting, single or other. Economic hardship was investigated by asking women how easy it would be for them to pay a large bill (23 500 Norwegian kroner, approximately 2700 Euro) within a week, based on the countries' consumer price index levels for 2007. The answering option "very difficult" was defined as experiencing economic hardship. A history of any abuse was defined a positive answer to having experienced emotional, physical or sexual abuse as an adult or child. Women who indicated, that they had no one to confide in beside their partner were categorised as not having social support. The Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) measured fear of birth (Wijma et al., 1998). A W-DEQ score of ≥85 was defined as having a

severe fear of birth (Wijma et al., 1998). Depression was assessed by the 5-item version of the Edinburgh Depression Scale (EDS-5) (Eberhard-Gran el al., 2007). The EDS-5 is a 4-point scale with a minimum score of 0 and a maximum of 15. EDS score ≥7 was defined as moderate to severe symptom levels of depression (Eberhard-Gran et al., 2007). Women were asked about the mode of delivery in their first and most recent birth. The category previous vaginal birth included women without any prior caesarean section (CS). Time since last birth was calculated using women's age upon recruitment and how old they were when they gave birth to their last child.

*Data analysis*

Cross-tabulation and Pearson' chi-squared tests were used to study percentages and assess differences in demographics and other covariates related to a negative birth experience. A mulitvariable logistic regression modell was performed with the selected covariates considered as independent variables and birth experience as the dependant variable. All analyses were two sided at $\alpha = 0.05$. Statistical package SPSS version 22 was used to conduct all analyses.

The qualitative comments made by the women were analysed using Braun and Clarke's method for undertaking a thematic analysis (Braun & Clarke, 2006). A thematic analysis clarifies distinctions and similarities between the participants' responses. Thematic analysis is described as a method for identifying meaningful patterns and to capture the themes embedded in the participants' experiences (Braun & Clarke, 2006). Braun & Clarke recommend to perform the analysis in six steps. In the first step you familiarise yourself with the material. This involves reading through the material several times to get an overall impression of the content (Braun & Clarke, 2006). All the comments in this study, made by

women with a negative birth experience, were read by two authors (EG and LH). After reading through the free text comments several times, an overall impression of the content emerged. The second step is to create initial codes. In this step the researcher will find statements that are similar or are assumed to have the same or similar meaning (Braun & Clarke, 2006). This step was conducted separately by authors EG and LH and then compared, adding rigor to the analysis through peer coding (Braun & Clarke, 2006). Furthermore, a preliminary thematic map was made to make the process more transparent (Braun & Clarke, 2006). This is provided as supplementary material (Figure S1). In step three, Statements that had similar content were brought together to develop a potential topic. A further review of the coded free text was made and as well as refining the thematic map. Revision of the themes is step four. All statements within each themes underwent evaluation and potential sub-themes were revised several times by authors EG and LH until consensus. The thematic maps were revised, with a final map as a result. This map shows the main themes and sub-themes (Figure 2).In step five, the themes and sub-themes were named with text from the statements that the authors considered captured the content of the theme. Step six is the production of results.

## Ethics

In Norway, the Regional Committee for Medical Research Ethics in North approved the study (72/2006), date: 29 August 2007; and the Data Inspectorate (NSD) (15214/3/) also approved the study, date: 19 December 2007.

## Results

Among a total sample of 1 352 Norwegian multiparous women, 21.1 % (n=285) had a previous negative birth experience. Mean time since last birth was 3.6 years (SD 2.8 median 3.0, not in tables).

Table 1 presents background variables and the result of the cross-tabulation and Pearson's chi square tests. Women with a history of abuse, severe fear of birth and depression had a significantly higher prevalence of a negative birth experience compared to those without these complications (p-values < 000.1). The prevalence was also significantly higher among less educated women, those who reported economic hardship, those who reported less social support and among women without a prior vaginal birth. A negative experience was associated with fear of birth (AOR: 5.00 95% CI 3.40-7.23) and a history of abuse (AOR 1.34 95% CI 1.01-1.79) in multivariate analysis (table 2). Women who indicated they were para 2 were less likely to report a negative childbirth (AOR 0.66 95% CI 0.46-0.94). No previous vaginal birth and depression were significantly associated with a negative experience in crude analysis but but the not in the adjusted ansysis. AOR: 1.52 (95% CI 1.00-2.61) and 1.61 (95% CI 1.00-2.61) with p values 0.052 and 0.051 respectively.

Three themes with sub-themes were identified in the qualitative analysis which illustrated different aspects of the women's perception of a negative birth experience. '*Complications for mother, child or both', 'Not being seen or heard' and 'an experience of pain and lack of control'.* The two dominant themes were about complication and not being seen or heard. Figure 2 gives an overview of the main themes and sub-themes.

### Complications for mother, child or both

Several of the women who had written comments described complications that had occurred during birth, either for the women herself or the new-born. Some nuances were seen and three sub-themes emerged within this theme: *Complications*, *Wrong treatment* and *Satisfied despite everything.*

### *Complications*

The complications described in the material were very serious for some of the respondents and it seemed like the joy of becoming a mother was shadowed by the complication(s).

*"To have general anesthesia when I had a cesarean section was horrible. You sleep during labor and miss the experience of becoming a mother."*

Some of the parents were not able to take a healthy baby home:

*"I had preeclampsia during my pregnancy and HELLP-syndrome that lead to a delivery in week 24. The baby died during labor."*

### *Wrong treatment*

In this sub-theme women described the help they received as wrong and insufficient. They asked questions about midwives and doctors competence and they also expressed mistrust towards the health personnel.

*"My labor was induced because of pre-eclampsia and I was over-stimulated: After 6 hours with contractions almost all the time they decided to perform a emergency caesarean section because the baby's heartbeat was to slow. This was very dramatic to me and they had to resuscitate the baby. I am very anxious for my next delivery."*

Sometimes, unexpected complications occurred that women felt were handled correctly by the personnel and the women were immediately relieved to have survived and that the child

survived. But they were not satisfied with the long-term follow-up. Several women found this to be absent or insufficient. This could make it difficult to plan a new pregnancy.

*"Through my first pregnancy I was healthy and had a lot of energy until birth. However, I got HELLP syndrome and became ill when the waters broke. The labor was a very traumatic experience with a lot of pain, anxiety, an emergency cesarean, a long physical re-convalescence and a lot of psychological distress. Unfortunately, there was no follow-up of "sick" postpartum women at the hospital and it took 1½ year before I came in contact with someone I could talk to. This has affected me severely and made the choice of a new baby hard. Because of fear of birth, I have scheduled a planned cesarean section now and a have changed the hospital and planned place of birth. "*

### *Satisfied despite everything*

Despite severe complications and the description of dramatic experiences that were labeled as negative, some women felt that they were taken care of during labor. Close attention and follow-up in the subsequent pregnancy seemed to be helpful for the women.

## Not being seen or heard

How women described their feelings of not being seen or heard had different dimensions and different aspects were emphasized. Three sub-themes emerged within this theme: *'Lack of participation', 'Being left alone'* and *'Meeting the midwife'.*

### *Lack of participation*

One aspect in this theme was the lack of participation when decisions were made during labor. Some women were in contact with doctors or midwives in the pregnancy because they

needed to discuss different aspect regarding birth. They perceived to have agreed upon a birth plan but experienced that the plan was not followed. They ended up frustrated with a sense of powerlessness towards the system.

*"I had consultations at the hospital before birth No. 2, because the first birth ended in caesarean after several hours. Was promised earlier caesarean if the same thing happened again. This was not taken into account, the hours passed and I spent even more time before in labor before it ended in an emergency caesarean again."*

### *Being left alone*

The description of being left alone differed; it could include the lack of support from the partner or the absence of the midwife. The comments also included situations that could be described as misunderstandings between the women and the helper that lead to a feeling of being left abandoned. Women who were sent home from the hospital because they arrived too early in labor felt rejected by the personnel. They felt like the midwives did not believe in them when they expressed pain and that they did not receive support and care.

*I felt mistreated and misbelieved the last time. The contractions started at 9 am and I went to the hospital at 2 pm for a check up. Was sent home and returned 9 pm with contraction that were three minutes apart and very painful. I was sent home again against my wishes with a sleeping pill. I cried and was very worried. At home I took the sleeping pill as I was told. Suddenly my waters broke and I started to push. An ambulance came without a midwife or doctor and I gave birth at home. In my previous birth I experienced a post partum haemorrhage but they still they sent me home. SHAME ON YOU"*

### *Meeting the midwife*

The sub-theme is called meeting the midwife because in Norway midwives are responsible for normal births and they are usually the first person women meet at the labor ward. It also happened that women met nursery nurses or doctors that did not treat them well. The comments describe the importance of being able to bond with the midwife and how this influences the birth experience. Being treated with respect and courtesy was important.

*How the midwife meets and treats the expectant mother is very important and it influences the birth experience. It is important that women are met nicely and with respect. A midwife is supposed to support the woman."*

## An experience of pain and lack of control

The majority of women expressed some expectations towards labor. They had their own expectations but also expectations that were created by others. A small number of the women just described the experience of pain. Two sub-themes emerged within this theme:

### *Expectations of birth*

In some comments, there was a conflict contradiction in the expressed thoughts and expectations about birth and the actual experience. Some missed important information and some women had created their expectations based on what others said the experience would be like.

*Nobody told me that an epidural could ruin the pushing sensation. You should inform about this. Maybe it could save a lot of vacuum extractions and forceps deliveries?*

### *Pain, pain, pain*

Some women expressed that their negative experience was connected to the feeling of pain and the exhausting task of giving birth. Pain was also connected with the loss of control.

*"My labor was quick, only four hours, it was painful and out of control"*

*"Was not offered any kind of pain-relief during my previous birth. This made it a very negative experience. Midwives should be better in providing pain-relief to prevent a traumatic experience"*

## Discussion

In this study we have explored factors associated with a negative birth experience in a population based sample of Norwegian pregnant women using a mixed method design. The total prevalence of a previous negative birth experience was 21.1 %. A negative experience was strongly associated with fear of birth and associated with a history of abuse. Women who indicated they were para 2 were less likely to report a negative childbirth.

In a thematic analysis of 103 free text comments, contributed by women regarding their negative experience, three main themes emerged: '*Complications for mother, child or both', 'Not being seen or heard' and 'An experience of pain and lack of control'.* The majority of the free-text comments were related to complications and not being seen or heard.

The proportion of Norwegian women who reported a negative birth experience is in the high-end compared to findings from other counties and higher compared to another Norwegian study (Storksen et al., 2013). In a prospective study Størksen et al among 1 357 pregnant

women, 8.6 % had a negative birth experience (Storksen et al., 2013). This study used a different instrument to measure birth experience than our study and we have included women that had a negative experience with some positive aspects that may account for the higher prevalence. In studies from Sweden (Larsson et al., 2011; Waldenstrom et al., 2004) and Canada (Smarandache et al., 2016), approximately 10 % described their birth as negative and in one study from the Netherlands, 16 % (Rijnders et al., 2008).

Of a particular concern is the effect of a negative experience on the development of a fear of childbirth (Storksen et al., 2013). A highly significant proportion of those with severe fear of birth considered a previous birth as negative in this material. Adjusted analysis showed a 5-fold increase in the OR of reporting fear of birth. Størksen et al supports our findings and found a similar OR in among 1357 parous women form Norway (Størksen et al 2013). Fear of childbirth is associated with an increased number of caesarean sections and postpartum depression (Ryding et al., 2015; Storksen et al., 2012), thus important to prevent if possible. It is not unlikely that a negative experience is on the causal pathway when fear of birth is developed. The qualitative material in this study supports this suggestion. In the sub-themes *wrong treatment* and *satisfied despite everything*, women emphasized close attention and care in the subsequent pregnancy as important to prevent sequela from a negative birth experience. This can also explain why women who were para 2 were less likely to report a negative birth compared to para 1, hopefully they had been taken care of in their next pregnancy.

Complications for mother, child or both was one of the major themes in the qualitative material contributing to a negative experience. It is not surprising, especially since some of the complications were serious and unexpected, thus contributing to an overall negative experience. We also found a higher prevalence of a negative birth experience among women

without any prior vaginal birth. Studies have shown significant associations with emergency caesarean section (CS) and a negative experience (Smarandache et al., 2016; Tschudin et al., 2009). An emergency CS is probably related to sudden complications during birth. However, the way women experience the birth is not necessarily related to the complications that may occur. If women feel taken care of during the birth process, the overall experience may be positive despite serious complications like the sub-theme *satisfied despite everything* described. The importance of the subjective birth experience is described in a Norwegian longitudinal material that found the subjective birth experience to be the most important predictor of post-traumatic stress symptoms and fear of birth (Garthus-Niegel et al., 2013; Storksen et al., 2013).

Lack of support, either from the midwife or partner during labor was included in one of the main themes in the qualitative material *(Not being seen or heard).* This is supported by findings from a prospective cohort study from Sweden where women with a negative experience wanted the midwife to be more present during labor (Ulfsdottir et al., 2014). The availability and quality of support were important factors related to a positive birth experience in a systematic review from Hodnett (Hodnett, 2002). More important than for example age, ethnicity, birth preparations, complications and pain (Hodnett, 2002). Pain perception was mentioned in the comments, though not as often as comments about complications or not being seen or heard. Pain was usually mentioned in connection with lack of control or in connection with the midwifery care. Previous studies indicate that the role of pain itself does not impact that much upon women´s satisfaction with the birth experience (Hauck et al., 2007; Hodnett, 2002). Expectations, quality of care, experiences of control and being part of the decision making process are described as more important (Chadwick et al.,2014; Hodnett, 2002; Rijnders et al., 2008).

The prevalence of a negative birth experience was higher among women with a history of abuse and women who indicated that they were depressed, also found in other studies (Bell & Andersson, 2016; Righetti-Veltema et al.,1998; Smarandache et al., 2016). Depression may be on the causal pathway between a history of abuse and a negative birth experience. A bi-directorial relationship between depression symptoms and violence is described (Devries et al., 2013). In a previous study from the Bidens material, multiparous women with a history of physical abuse also had an increase in the risk of an emergency CS (Schei et al., 2014), suggesting that the finding is mediated by complications. Several studies have found a connection between violence and abuse and adverse outcome for mother and child (Boy & Salihu, 2004). It may also by mediated by the lack of support from living in an abusive relationship.

*Strength and limitations:*

A strength to this is the mixed method design with qualitative data that gives an in-depth knowledge and more nuanced understanding of negative birth experiences. We were able to examine experiences in a long-term perspective as women were asked to describe previous births. This is consider an advantages because measures obtained soon after birth are often considered to be too optimistic and less relevant (Waldenstrom, 2003).

There are limitations to this study that need to be acknowledged. First, the qualitative findings are based on a limited number of Norwegian women and needs to be interpreted in this context. Second, the data was collected from free-text comments that varied in length and depth. Had interviews been conducted, statements could have been explored and the interpretation extended. Although we were limited in the ability to elaborate on perspectives,

the data still enabled the emergence of key themes and provided important insights into the thoughts and experiences of participating women with a former negative birth experience. Free text is more anonymous and may give women more freedom to write what they want. Because of the cross-sectional nature of this study, we cannot infer causality. Especially regarding fear of birth and depression. It is that women had their fear of birth of depression before their last delivery.

*Measures to ensure trustworthiness:*

The description of validity measures and demonstration of trustworthiness of a qualitative study is essential for others to judge the value of the study (Malterud, 2001). One requirement is the use of an established and clearly described method for data analysis (Malterud, 2001). Braun and Clarke describe a clear method that is possible to follow for the reader (Braun & Clarke, 2006). Credibility and accountability are key components to ensure reliability in the study (Braun & Clarke, 2006; Malterud, 2001). The use of direct quotations from the questionnaires may help the readers to make up their minds about the reliability. To further increase credibility, it is an advantage that more than one researcher reads through the data and that consensus regarding content and themes is achieved (Braun & Clarke, 2006; Malterud, 2001). In this study, the data read was read through by two of the authors, initial coding were done individually then compared and consensus was achieved.

## Conclusion:

Using a mixed methods design enabled us to identify areas that clinicians can use in their practice to prevent a negative birth experience. Complications not anticipated and what women considered inadequate care contributed to a negative experience. Although, birth is personal and multifaceted, and complications occur unexpectedly, individualized and proper

care should be possible to provide to women during childbirth. If complications occur, women emphasized close attention and care in the subsequent pregnancy as important to prevent sequela from a negative birth experience.

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Table 1. Characteristic of women with a positive of a negative birth experience among 1352 parous Norwegian women.

| | Birth experience | | | |
|---|---|---|---|---|
| | Total N= 1352 (%) | Positive n=1067 (%) | Negative n=285 (%) | $X^2$ test p-value |
| *Age* | | | | 0.136 |
| <25 | 63 (4.7) | 48 (4.5) | 15 (5.3) | |
| 25–30 | 406 (30.0) | 308 (28.9) | 98 (34.4) | |
| 31–35 | 589 (43.6) | 467 (43.5) | 122 (42.8) | |
| ≥35 | 294 (21.7) | 244 (22.9) | 50 (17.5) | |
| *Parity* | | | | 0.023 |
| Para 1 | 906 (67.0) | 697 (65.3) | 209 (73.3) | |
| Para 2 | 355 (26.3) | 298 (27.9) | 57 (20.0) | |
| ≥ para 3 | 91 (5.2) | 72 (6.7) | 16 (6.7) | |
| *Education* | | | | 0.002 |
| Elementary school | 31 (2.3) | 21 (2.0) | 10 (3.5) | |
| High school | 357 (26.4) | 262 (24.7) | 95 (33.6) | |
| College or university | 956 (70.7) | 778 (73.3) | 178 (62.9) | |
| Missing | 8 (0.6) | 6 (0.6) | 2 (0.7) | |
| *Economic hardship* | | | | 0.004 |
| No | 1000 (74.0) | 808 (75.7) | 192 (67.4) | |
| Yes | 352 (26.0) | 259 (24.3) | 93 (32.6) | |
| *Civil status* | | | | 0.08 |
| Married/cohabitant | 1319 (97.6) | 1045 (97.9) | 274 (96.1) | |
| Single | 33 (2.4) | 22 (2.1%) | 11 (3.9) | |
| *History of abuse* | | | | < 0.001 |
| No | 782 (57.8) | 645 (60.4) | 137 (48.1) | |
| Yes | 570 (42.2) | 422 (39.6) | 148 (51.9) | |
| *Social support* | | | | |
| Yes | 1276 (94.4) | 1014 (95.1) | 262 (91.9) | 0.04 |
| No | 76 (5.6) | 53 (5.0) | 23 (8.1) | |
| *Fear of birth* | | | | < 0.001 |
| No | 1178 (88.8) | 976 (93.6) | 202 (71.4) | |
| Yes | 148 (11.2) | 67 (6.4) | 81 (28.6) | |
| *Depression* | | | | < 0.001 |
| No | 1230 (91.7) | 988 (93.5) | 242 (85.2) | |
| Yes | 111 (8.3) | 69 (6.5) | 42 (24.8) | |
| *Previous vaginal birth* | | | | 0.001 |
| Yes | 1219 (90.2) | 977 (91.6) | 242 (84.9) | |
| No | 133 (9.8) | 90 (8.4) | 43 (15.1) | |

Table 2. Crude and adjusted odds ratios with 95 % confidence intervals for a negative childbirth among 1352 parous Norwegian women.

| | Negative birth experience | | |
|---|---|---|---|
| | Crude OR | Adjusted OR | p value |
| *Age* | | | |
| <25 | 0.98 (0.52-1.83 | 0.73 (0.35-1.49) | 0.487 |
| 25–30 | 1 | 1 | |
| 31–35 | 0.82 (0.61-1.11) | 0.85 (0.61-1.19) | 0.389 |
| ≥35 | 0.64 (0.44-0.94) | 0.74 (0.49-1.13) | 0.342 |
| *Parity* | | | |
| Para 1 | 1 | 1 | |
| Para 2 | 0.63 (0.46-0.88) | 0.66 (0.46-0.94) | 0.021 |
| ≥ para 3 | 0.88 (0.52-1.49) | 0.74 (0.40-1.37) | 0.337 |
| *Education* | | | |
| Elementary school | 1.59 (1.20-2.11) | 1.23 (0.88-1.70) | 0.231 |
| High school | 2.01 (0.96-4.50) | 1.60 (0.65-3.95) | 0.301 |
| College or university | 1 | 1 | |
| *Economic hardship* | | | |
| No | 1 | 1 | |
| Yes | 1.51 (1.14-2.01) | 1.14 (0.82-1.59) | 0.434 |
| *Civil status* | | 1 | |
| Married/cohabitant | 1 | 1 | |
| Single | 0.52 (0.25-1.09) | 0.56 (0.25-1.29) | 0.176 |
| *History of abuse* | | | |
| No | 1 | 1 | |
| Yes | 1.65 (1.27-2.1) | 1.34 (1.01-1.79) | 0.048 |
| *Social support* | | | |
| Yes | 1 | 1 | |
| No | 1.68 (1.01-2.79) | 1.20 (0.68-2.12) | 0.526 |
| *Previous vaginal birth* | | | |
| Yes | 1 | 1 | |
| No | 1.93 (1.31-2.85) | 1.52 (1.00-2.61) | 0.052 |
| *Fear of birth* | | | |
| No | 1 | 1 | |
| Yes | 5.84 (4.09-1.41) | 5.00 (3.40-7.23) | <0.001 |
| *Depression* | | | |
| No | 1 | 1 | |
| Yes | 2.49 (1.17-3.74) | 1.61 (1.00-2.61) | 0.051 |

All the variables were entered into the multivariate analysis to create adjusted odds ratios

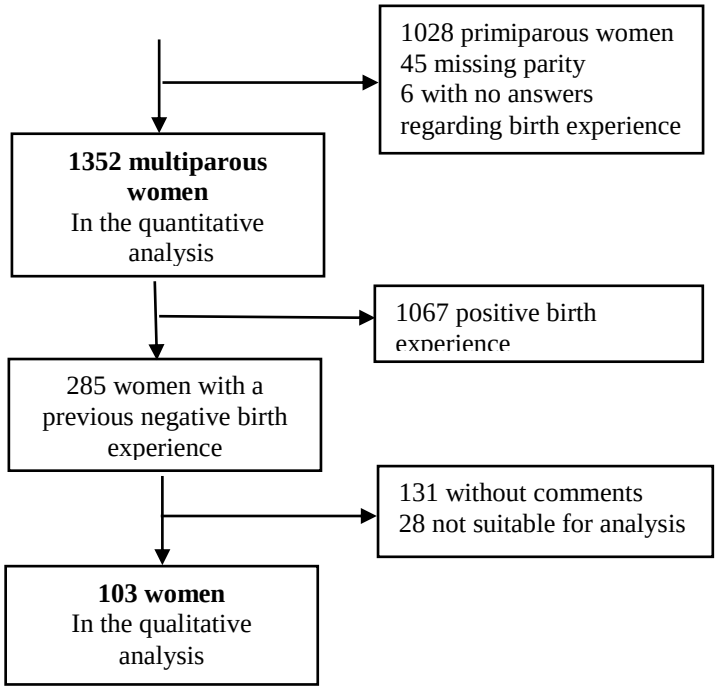


Figure 1. Inclusion and exclusion process

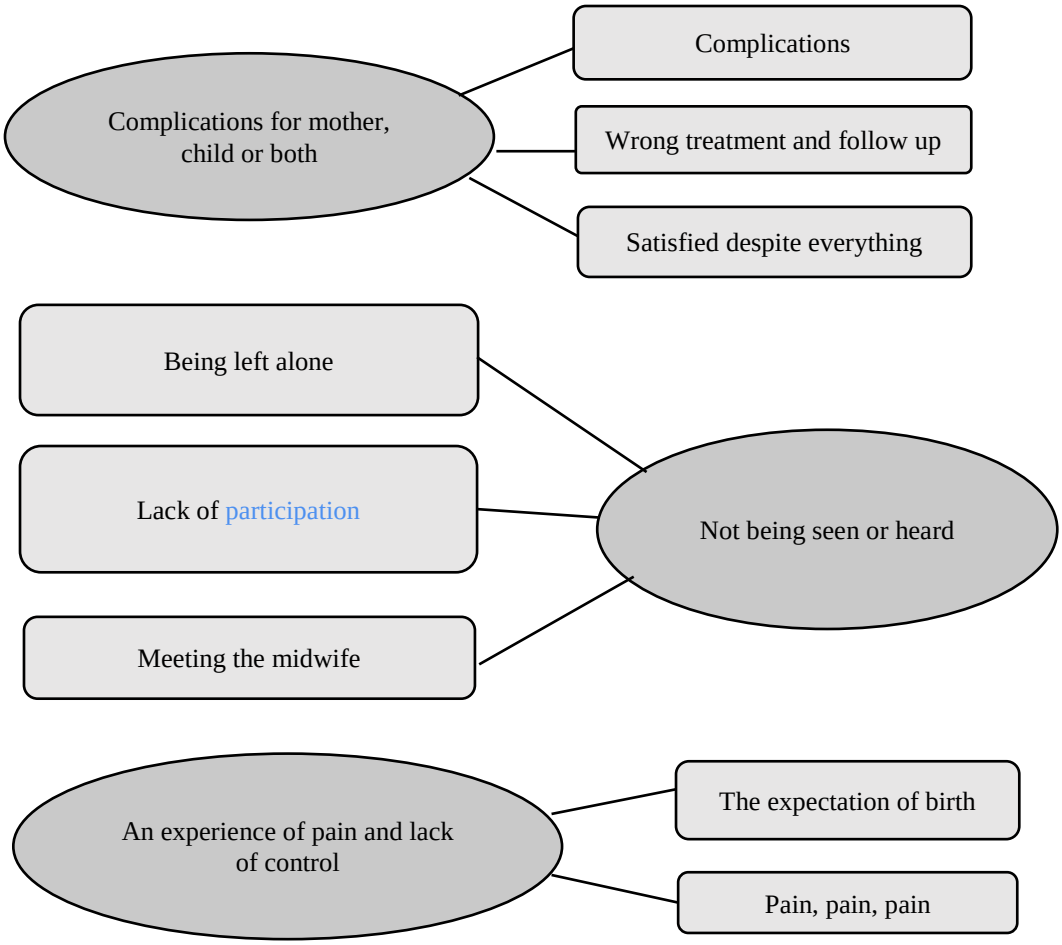


Figure 2: Thematic map showing the three main themes with sub-themes