



Women's negative childbirth experiences and socioeconomic factors: Results from the Babies Born Better survey

Carina Vedeler^{a,*}, Tine Schauer Eri^a, Roy Miodini Nilsen^b, Ellen Blix^a, Soo Downe^c, Kjetil A van der Wel^d, Anne Britt Vika Nilsen^b

^a Research Group Midwifery Science, Faculty of Health Sciences, Oslo Metropolitan University, Oslo, Norway

^b Department of Health and Caring Sciences, Western Norway University of Applied Sciences, Bergen, Norway

^c ReaCH group, School of Community Health and Midwifery University of Central Lancashire, Preston, UK

^d Department of Social Work, Child Welfare and Social Policy, Faculty of Social Sciences, Oslo Metropolitan University, Oslo, Norway

ARTICLE INFO

Keywords:

Childbirth experience
Equity
Intrapartum care
Mixed method
Social inequality
Socioeconomic status

ABSTRACT

Objective: To investigate the association between women's socioeconomic status and overall childbirth experience and to explore how women reporting an overall negative birth experience describe their experiences of intrapartum care.

Methods: We used both quantitative and qualitative data from the Babies Born Better (B3) survey version 2, including a total of 8317 women. First, we performed regression analyses to explore the association between women's socioeconomic status and labour and birth experience, and then a thematic analysis of three open-ended questions from women reporting a negative childbirth experience (n = 917).

Results: In total 11.7% reported an overall negative labour and birth experience. The adjusted odds ratio (OR) of a negative childbirth experience was elevated for women with non-tertiary education, for unemployed, students and not married or cohabiting. Women with lower subjective living standard had an adjusted OR of 1.70 (95% CI 1.44–2.00) for a negative birth experience, compared with those with average subjective living standard. The qualitative analysis generated three themes: 1) Uncompassionate care: lack of sensitivity and empathy, 2) Impersonal care: feeling objectified, and 3) Critical situations: feeling unsafe and loss of control.

Conclusion: Important socioeconomic disparities in women's childbirth experiences exist even in the Norwegian setting. Women reporting a negative childbirth experience described disrespect and mistreatment as well as experiences of insufficient attention and lack of awareness of individual and emotional needs during childbirth. The study shows that women with lower socioeconomic status are more exposed to these types of experiences during labour and birth.

Tweetable abstract: Women with lower socioeconomic status are more exposed to negative experiences during labour and birth.

Introduction

Social inequality in health is a major public health concern [1,2] and refers to systematic and enduring differences in health and longevity across socioeconomic groups [3]. Those with longer education and good finances live longer and have fewer health problems than those further down the socioeconomic ladder [1]. However, social inequality in health is not limited to differences between the haves and the have-nots,

it reaches across the entire socioeconomic hierarchy. The research literature assigns a key role to the so-called social determinants of health in shaping these inequalities, although it has proven hard to establish causal effects, particularly for income [4]. However, despite limited income inequality, universal access to social protection, welfare services and equal access to healthcare, social inequalities in health are growing even in the Nordic countries [5,6]. For instance, educational inequalities in life expectancy after age 35 increased by 5.3 years in men and 3.2

Abbreviations: SES, Socioeconomic status; WHO, The World Health Organization; B3, The Babies Born Better Survey; MBRN, The Medical Birth Registry of Norway; SSS, Subjective Social Status; OR, odds ratio; CI, confidence interval.

* Corresponding author at: Oslo Metropolitan University, P.O. Box 4, St. Olavs plass, NO-0130 Oslo, Norway.

E-mail address: carina.vedeler@oslomet.no (C. Vedeler).

<https://doi.org/10.1016/j.srhc.2023.100850>

Received 21 November 2022; Received in revised form 14 February 2023; Accepted 17 April 2023

Available online 20 April 2023

1877-5756/© 2023 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

years in women between 1960 and 2009 in Norway [7]. Income inequalities in life expectancy after age 30 increased for men in Denmark, Finland, Norway, and Sweden and among women in Norway and Sweden between 1997 and 2017 [8].

The United Nations Sustainable Development goal number 3, *Good Health and Wellbeing*, places special emphasis on improving the health of women and children and reducing inequality in the distribution of health services. The World Health Organization (WHO) recommends the same standard of maternity care for all women [9]. Furthermore, the WHO emphasises the importance of having a positive childbirth experience [10], which has shown to have both short- and long-term impacts on the health and well-being of women and their families [11,12]. Despite these goals, women with a low socioeconomic status (SES) and their children appear to be at increased risk of poorer maternal and perinatal outcomes [13]; lower rates of breastfeeding [14], and higher rates of postnatal depression [15], prematurity, low birthweight [16], stillbirth [17] and neonatal mortality [18]. Additionally, disadvantaged, and vulnerable women, including women with low SES, appear less likely to report positive experiences of maternity care [19] and more likely to report mistreatment and disrespectful care when compared to more privileged women [20]. Despite this, the association between SES and women's childbirth experiences is still under-explored. Furthermore, to our knowledge no studies have had the primary aim to investigate the association between different socioeconomic factors, including subjective living standard, and women's overall childbirth experiences.

To contribute to the knowledge gap on social inequality and women's childbirth experiences, we performed a study with the following two aims: first, to investigate the association between women's SES and overall childbirth experience; second, to explore how women reporting an overall negative childbirth experience describe their experiences of intrapartum care.

Materials and Methods

Research design

This study is based on analysis of both quantitative and qualitative data from the Babies Born Better (B3) survey version 2, including a total of 8317 women. We first analysed the quantitative data, followed by the analysis of the qualitative data for those found to have a negative childbirth experience.

Setting

There were approximately 58,000 births in Norway per year and 45 birth units during the study period [21]. Maternity care, which is part of the tax-funded public healthcare system, serves almost all women in Norway, and is provided free of charge upon delivery. Women receive universal care, guided by guidelines for level of care and referral. Intrapartum care is organized at three levels; 1) Specialized obstetric units, 2) Smaller obstetric units and 3) Alongside and Freestanding midwifery units. Midwives attend all births. Due to the geography and widely spread population, the maternity care services are characterized by both centralization and decentralisation. About 45 % of births take place in the five largest hospitals, whilst 19 units have less than 500 births per year [21].

Study population

All eligible women who had given birth in Norway from August 2013 to August 2018 could participate in the study. The current study sample appeared similar compared to a population-based sample retrieved from the Medical Birth Registry of Norway (MBRN) 2017 concerning age, marital status, parity, mode of birth and place of birth, as reported elsewhere by Vedeler et al. [22].

The Babies Born Better survey

The B3 survey is an international self-recruited online survey (SurveyMonkey®) examining women's views on maternity care, designed to be transferable across different contexts and cultural settings. It was developed by consensus among international researchers and birth activists participating in the COST-Action IS0907 and IS1405. Version 2 of the B3 survey was open from March to August 2018. The survey was actively promoted on social media, primarily on Facebook in relevant groups such as: service user groups, support groups for pregnant women, support groups for breastfeeding, support groups for babies and families. The survey-link was widely spread and people themselves shared the link or tagged friends who were in the target group.

The survey comprised 22 questions with sub-questions consisting of four sections, including both closed- and open-ended response options (Supplementary material S1). The first three sections comprised questions related to demographic, socioeconomic and maternal characteristics. The fourth section included three open-ended questions designed to elicit participants' views on what worked well during their childbirth experience and what they thought could have improved their experience of care, and one option for further comments. Finally, they were asked about their overall labour and birth experience using a single item question, a 5-point Likert scale.

Variables

Women reported demographic, socioeconomic, and obstetric characteristics mainly by selecting predefined categories, whilst number of years of education was chosen from a drop-down menu. For analytical purposes, predefined categories were merged, as shown in Table 1.

Main outcome: labour and birth experience

Using a 5-point Likert scale, women were asked about their overall labour and birth experience Q19 *How do you feel about your labour and birth experience?* (1 = *It was mostly a bad experience*, 2 = *It was mostly quite a bad experience*, 3 = *Some of it was good, some of it was bad*, 4 = *It was mostly quite a good experience*, 5 = *It was mostly a very good experience*). The variable was trichotomised into a negative experience group (1 + 2), a mixed feelings group (3) and positive experience group (4 + 5).

Socioeconomic factors

SES was measured by education, employment status and subjective living standard. The survey included two questions on number of years in education: one for primary and secondary school and one for tertiary education (university or university college.) However, due to possible ambiguity in the Norwegian translation, only the latter could be used. Education was thus dichotomised into non-tertiary education (primary and secondary school) and tertiary education (university or university college). Employment status was categorised into four groups: employed/self-employed, student, unemployed and other.

Women's subjective living standards were measured using a 5-point Likert scale. Q9: *My living standard compared to people in the country I am currently living in is:* 1) *much worse* 2) *worse* 3) *average*, 4) *better* 5) *much better*. The variable was trichotomised: low (1 + 2), average (3), and high (4 + 5).

Demographic factors

Three demographic factors were included in the current study: age, migration, and marital status. Age was coded in 5-year intervals with exception of the first and last categories: younger than 24 and older than 35. Migration was treated as a dichotomy indicating whether respondents were born in Norway or not. Marital status was categorised in two categories: married/cohabiting and other.

Table 1

Characteristics of included respondents from the Norwegian B3-survey version 2 (N = 8317), Subjective living standard compared to a national Norwegian sample (N = 56,533) from year 2017.

	Subjective living standard*						Study sample	MBRN 2017**
	Low		Average		High			
	N	%	N	%	N	%		
Maternal age at delivery								
Mean (SD)	27.8	(5.3)	29.8	(4.7)	31.5	(4.4)	30.0 (4.8)	30.9 (4.9)
<24 years	178	29.3	718	12.7	93	4.8	12.0	11.2
25–29 years	208	34.2	2114	37.2	563	28.7	35.0	33.0
30–34 years	143	23.5	1905	33.6	856	43.6	35.2	35.3
>35 years	79	13.0	934	16.5	450	22.9	17.8	20.5
Migration								
Born in Norway	560	90.8	5290	92.6	1813	91.7	92.2	–
Not born in Norway	57	9.2	425	7.4	164	8.3	7.8	–
Marital status								
Married or cohabiting	488	83.1	5354	95.2	1937	98.3	93.7	93.7
Other***	189	16.9	194	4.8	40	1.7	6.3	6.3
Education								
Non-tertiary education	277	44.9	1308	22.9	198	10.0	78.5	–
Tertiary education	340	55.1	4407	77.1	1779	90.0	21.5	–
Employment								
Employed/Freelancer	377	61.9	4492	79.8	1666	85.6	80.1	–
Unemployed	64	10.5	398	7.1	103	5.3	4.9	–
Student	95	15.6	461	8.2	122	6.3	8.1	–
Other	73	12.0	276	4.9	54	2.8	6.9	–
Parity								
Primipara	292	47.5	2568	45.1	821	41.6	44.4	42.2
Multipara	323	52.5	3131	54.9	1152	58.4	55.6	57.8
Mode of birth								
Vaginal birth	472	76.6	4259	74.7	1444	73.2	74.5	73.7
Vacuum or forceps	48	7.8	621	10.9	232	11.8	10.9	10.3
Planned caesarean	27	4.4	267	4.7	97	4.9	4.7	5.6
Emergency caesarean	69	11.2	555	9.7	199	10.1	9.9	10.4
Time to report								
2018	134	21.8	1579	27.8	501	25.5	25.0	–
2017	178	28.9	1666	29.3	579	29.5	29.3	–
2016	115	18.7	1081	19.0	389	19.8	19.2	–
2015	98	15.9	609	10.7	244	12.4	13.0	–
2014	52	8.5	452	8.0	143	7.3	7.9	–
2013	38	6.2	297	5.2	107	5.5	5.6	–

*Subjective living standard was trichotomised from 1) much worse 2) worse 3) average, 4) better 5) much better to: Low (1 + 2) Average (3) and High (4 + 5).

**The Medical Birth Registry of Norway (MBRN) data from year 2017. Information about migration, education and employment is not collected in MBRN.

*** Single n = 382, In a relationship not cohabiting n = 112, Other (not specified) n = 29.

Missing data was: Maternal age n = 67, Migration n = 0, Marital status n = 7, Employment n = 3, Subjective living standard n = 8, Parity n = 22, Mode of birth n = 19 and Time to report n = 47.

Obstetric factors

Parity was dichotomised in: ‘primipara’ and ‘multipara’. Mode of birth included the following categories: vaginal birth, instrumental/operative birth, emergency caesarean section and planned caesarean section. Time to report referred to the time from the birth to the women’s response to the survey.

Statistical analysis

All statistical analyses were performed in IBM SPSS Statistics v27.0 for Windows (IBM SPSS Statistics, IBM Corp., Armonk, New York, USA). To quantify the main characteristics of the study sample, we performed descriptive statistics using means (standard deviations) for continuous variables and counts (percentages) for categorical variables. To examine the association of socioeconomic status (SES) factors education, employment, subjective living standard, and marital status with the main outcome birth experience, we used a proportional odds ratio model, which is a logistic regression model for more than two ordinal categorical outcomes [23]. We thus avoided dichotomising the birth experience variable, which could have led to a loss of information and decreased statistical power [23]. To examine the proportional odds property, we performed a test for parallel lines using the “test for parallel lines” option in SPSS. The property of proportional odds across all

possible cut-points of the birth experience outcome were met for all analyses with p-values > 0.05. All analyses were performed with and without adjustment for age and time to report. We also considered parity and mode of birth as adjustment variables, but by using causal directed acyclic graphs and the online software DAGitty v2.3 [24], these variables were identified as intermediates rather than confounders. Associations are reported as odds ratios (OR) with 95 % confidence intervals (CI).

Qualitative analysis

The overarching research question for the qualitative analysis was: How does women reporting an overall negative childbirth experience describe their experiences? The qualitative analysis is based on the responses from the three open-ended questions: Q17: *In the place where you gave birth, what were the three most positive experiences of your care? What do you think could have made your experience better?* Q18: *Imagine you are talking to a very close friend or family member who is pregnant, and that she can choose where to give birth to her baby. She asks you, whether she should give birth at the same place as you did. Please answer her by finishing one or both of the following sentences: You should give birth at the place where I did because..., and: You should not give birth at the place where I did because...* Q20: *Please write any comments you want to make here. These could explain your answers in more detail or add any other information you would like us to*

know about your experiences with maternity care. By analysing all submitted comments in the analysis, our qualitative analysis aimed to explore the women's experiences in more depth. We worked inductively and applied a reflexive thematic analysis as described by Braun and Clark [25], searching across the data for patterns of differences and similarities to generate themes.

Results

Characteristics of the study population

The study sample included 8317 women who had given birth in Norway during the period 2013–2018 (see Fig. 1). The distribution of background characteristics according to subjective living standard is described in Table 1. Mean age was 30 years and 92.2 % were born in Norway.

Among respondents, 11.7 % reported an overall negative labour and birth experience: 'mostly a bad experience' or 'mostly a quite bad experience'. The distribution of overall childbirth experience in a full five-categorical scale is shown in Fig. 2. The distribution of overall labour and birth experience within the various socioeconomic factors: education, marital status, employment, and subjective living standard is shown in Fig. 3.

Association between birth experience and socioeconomic factors

The proportional odds ratio model showed a strong association between SES and overall labour and birth experience (see Table 2). The odds ratio of a negative birth experience was elevated for women with non-tertiary education, not married or cohabiting, and for unemployed and students. Furthermore, we found that women with lower subjective living standard had an OR of 1.75 (95 % CI 1.49–2.05) for a negative

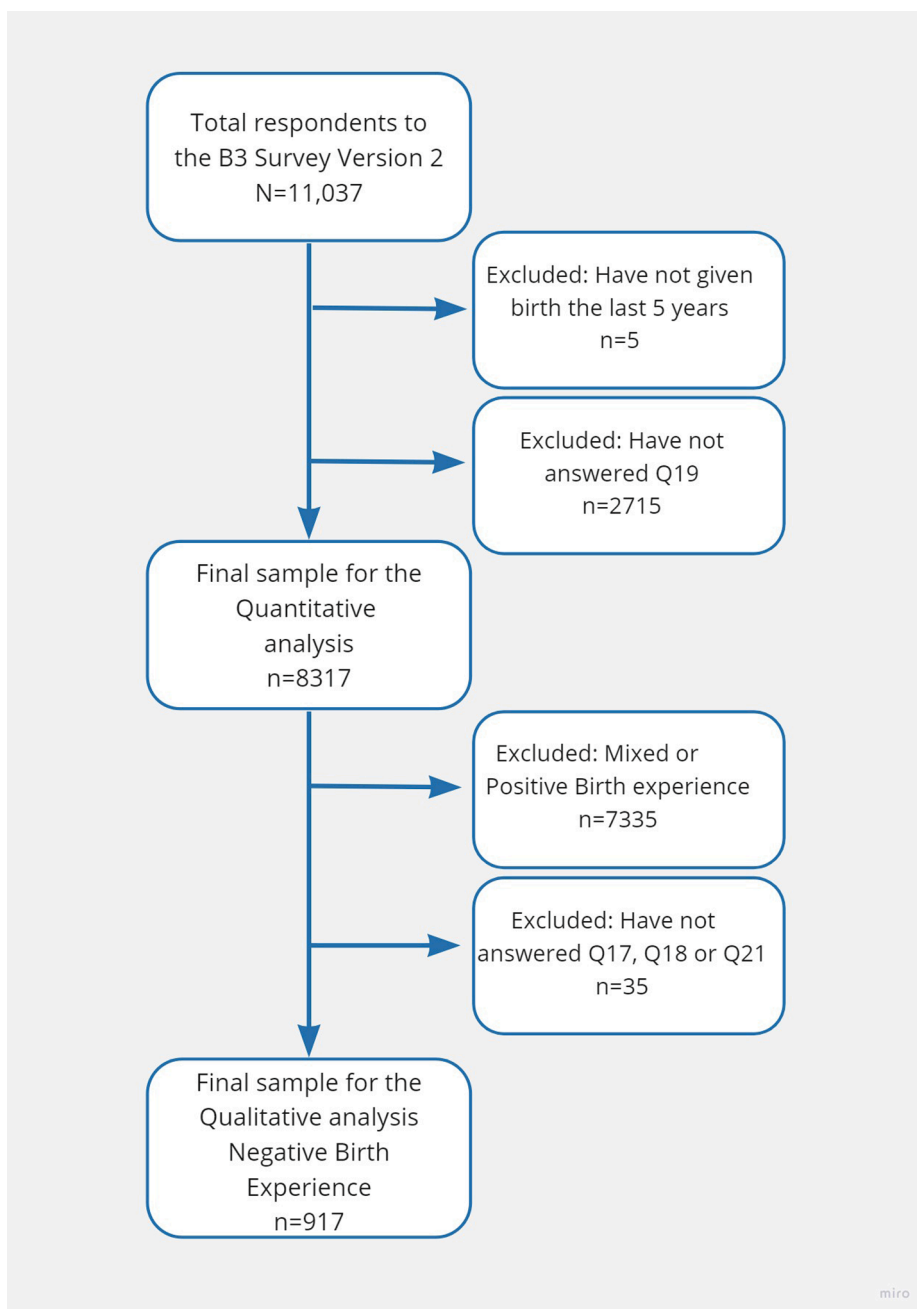


Fig. 1. Flowchart illustrating inclusion in the study.

Overall labour and birth experience (%)

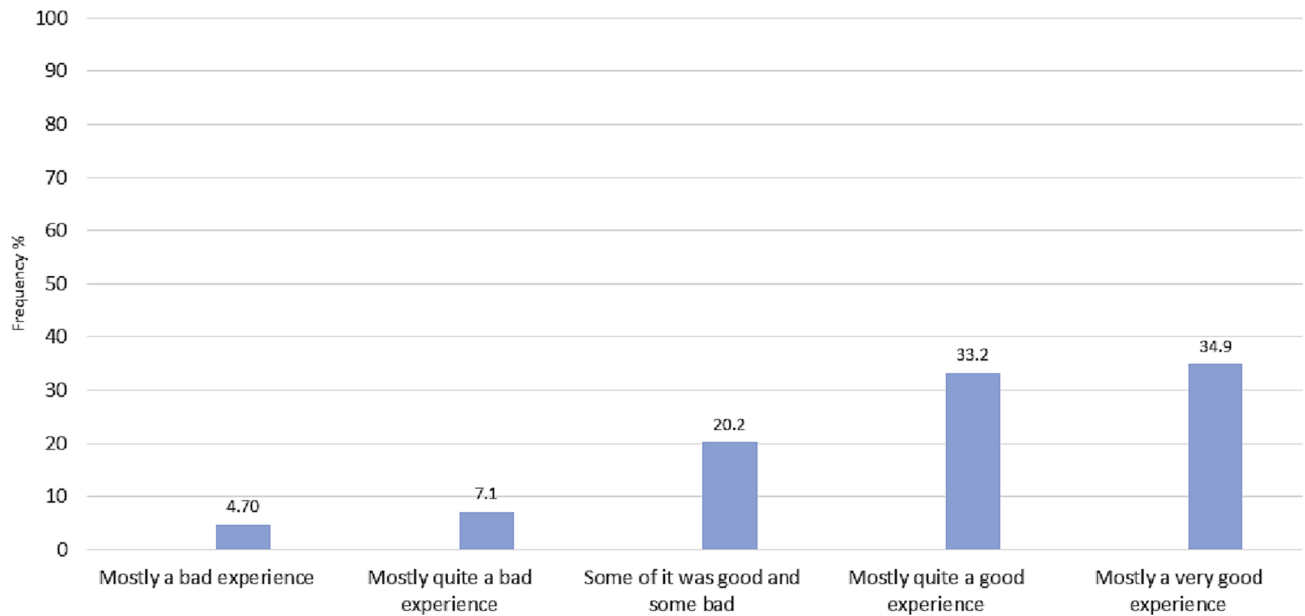


Fig. 2. The distribution of women's overall labour and birth experience.

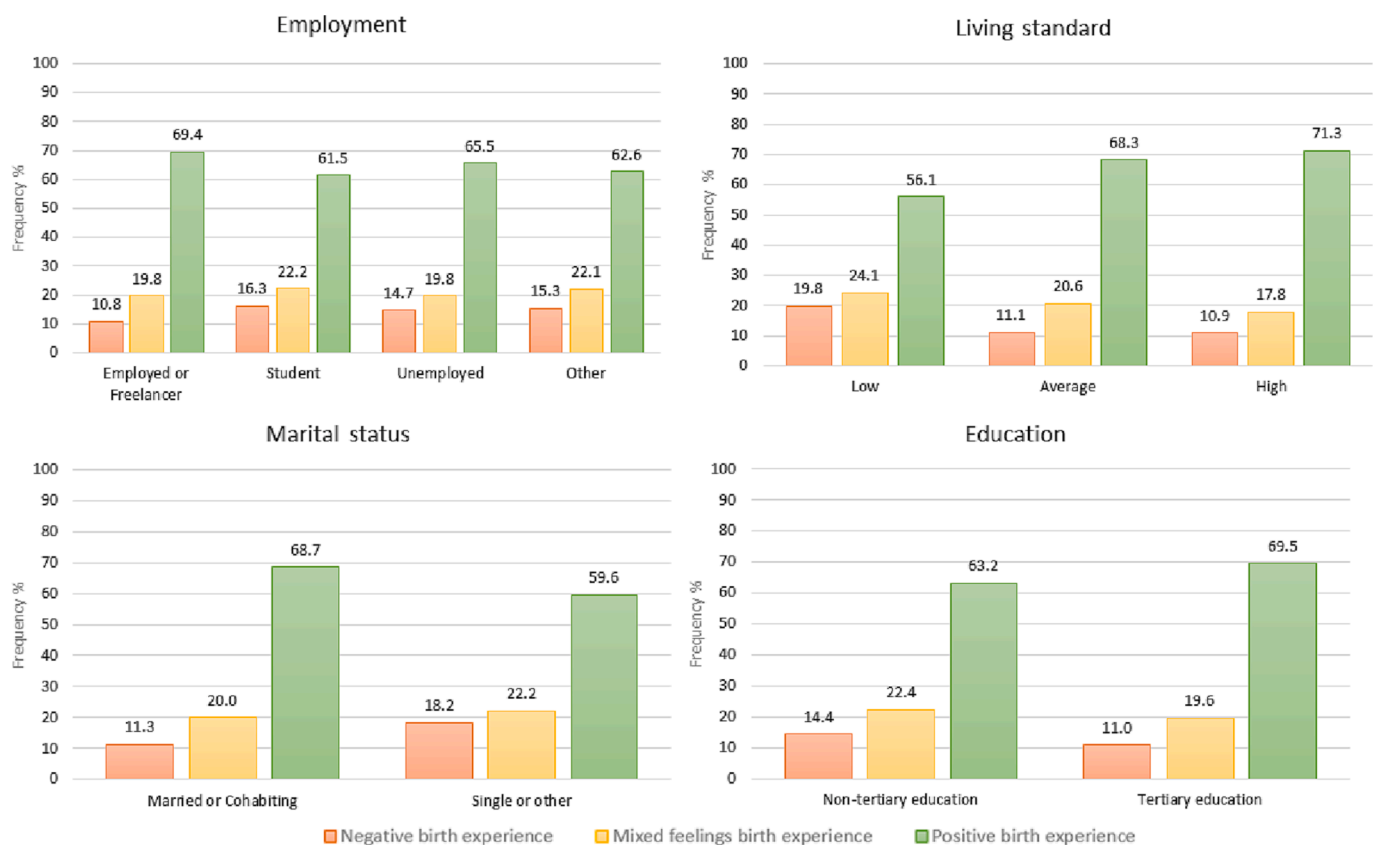


Fig. 3. The distribution of women's overall labour and birth experience within the various socioeconomic factors.

Table 2

Crude and adjusted associations between socioeconomic status and birth experience * (N = 8317).

	N	%	Crude		Adjusted**	
			OR	95 % C.I.	OR	95 % C.I.
Migration						
Born in Norway	7671	92.2	Reference		Reference	
Not born in Norway	646	7.8	1.20	(1.02–1.41)	1.19	(0.92–1.57)
Marital status						
Married or cohabiting	7787	93.7	Reference		Reference	
Other ***	523	6.3	1.54	(1.29–1.83)	1.38	(1.15–1.65)
Education						
Tertiary education	6532	78.5	Reference		Reference	
Non-tertiary education	1785	21.5	1.33	(1.20–1.48)	1.46	(1.34–1.93)
Employment						
Employed and Freelancer	6572	80.1	Reference		Reference	
Unemployed	389	4.9	1.38	(1.16–1.64)	1.46	(1.23–1.74)
Student	662	8.1	1.45	(1.24–1.70)	1.40	(1.19–1.65)
Other	569	6.9	1.23	(1.00–1.51)	1.22	(0.98–1.50)
Living standard****						
Low	617	7.3	1.75	(1.49–2.05)	1.70	(1.44–2.00)
Average	5715	68.8	Reference		Reference	
High	1977	23.8	0.88	(0.79–0.98)	0.90	(0.80–1.01)

*Proportional odds ratio model, OR = odds ratio, CI = confidence interval.

**Adjusted for Maternal age and Time to report.

*** Single n = 382, In a relationship not cohabiting n = 112, Other (not specified) n = 29.

****Living standard was trichotomised from 1) Much worse 2) Worse 3) Average, 4) Better 5) Much better to Low (1 + 2) Average (3) and High (4 + 5).

Missing data was: Maternal age n = 67, Migration n = 0, Marital status n = 7, Employment n = 3, Subjective living standard n = 8, Parity n = 22, Mode of birth n = 19 and Time to report n = 47.

birth experience, compared with those with average subjective living standard. This association remained also after adjusting for maternal age and time to report, adjusted OR 1.70 (95 % CI 1.44–2.00).

Qualitative findings

The qualitative analysis of the responses from women with an overall negative labour and birth experience (n = 917) generated three themes: 1) Uncompassionate care: lack of sensitivity and empathy, 2) Impersonal care: feeling objectified, and 3) Critical situations: feeling unsafe and loss of control.

Uncompassionate care: lack of sensitivity and empathy

Across the whole dataset, respondents persistently emphasised a basic need to feel cared for by experiencing staff empathy and compassion. However, women with a negative birth experience described how this basic need was not fulfilled for them.

Uncompassionate care could be experienced through condescending attitudes and patronising behaviour from the healthcare professionals, causing sense of disempowerment and lost dignity.

“I did not feel respected. Little empathy. They laughed at me and made me feel unsuccessful as a birthing woman.”

The lack of sensitive, empathic, and compassionate care was also revealed through stories describing separation from baby or partner. They noted a lack of support and attention during the emotional difficulties of being separated and feeling alone.

“After the birth, the baby was in intensive care on a respirator. No midwives or nurses came to me to hear how the baby or I was doing after the caesarean section. No one asked how I was doing or if I needed anyone to talk to.”

The emotional strain of separation from the baby or partner required support from midwives and nurses and the need to be met with thoughtfulness and understanding. Absence of empathy in these situations could lead to significant emotional agony and feelings of vulnerability and loneliness.

Uncompassionate care was as also perceived as a structural matter: a

‘system’ failing to prioritise or recognise women’s emotional needs and the psychosocial impact of women’s experiences.

“When birth is experienced dramatically, and the baby ends up in the intensive care unit, I think there should have been a debriefing afterward. Both parents had reactions after the experience.”

“Care, knowledge, and adequate staffing are lacking due to lack of management and poor organisation.”

Impersonal care: feeling objectified

Impersonal care encompassed the lack of recognition of childbirth as a profoundly personal experience.

Not feeling seen or heard was a pervasive theme in the woman’s responses. The sense of being objectified was a consequence of feeling that one’s uniqueness and individuality was not acknowledged.

“I did not feel seen or heard during the labour or birth; the doctor kept calling me the wrong name.”

Feeling objectified was also connected to feeling both neglected, ignored, and even abused. To describe these experiences, women used words and phrases such as *feeling treated as an animal, an object, or a thing, shouted at, loss of human rights, talked over my head and forgotten*. These situations could reinforce a sense of being degraded, loss of dignity, and powerlessness.

“Unfortunately, I experienced that the last midwife inserted the catheter against my will, refused me the birth position I wanted (for no reason), and rolled her eyes when she heard the wishes for MY birth. I felt raped.”

Feeling objectified was also expressed as an *observation* and was often followed by some advice for improvements from the respondents. This seemed to be felt as an expression of general attitudes and routines and less as directly offensive or a degrading act towards themselves as individuals.

“Listen to the one who is actually giving birth, do not make everything a routine, every-one is different.”

“It was not due to a lack of care from any individual health professional, but rather the system that did not work because a lack of resources..”

Some respondents noted that lack of needed care could be related to a shortage of staff, strained resources and the way in which care was organised.

“I do not think you get the follow-up you need; the whole department is characterised by a shortage of time, with lousy follow-up, lack of info, poor help with breastfeeding initiation, just stress.”

Another aspect of feeling objectified was the lack of shared decision-making, which involved a sense of not being taken seriously or not having real influence over one's own body and wishes, desires, and needs, or that basic rights were not recognised. It also included poor information about procedures and consequences.

“I was induced without being informed of the consequences it would lead to, felt the birth was characterised by the doctor being in a hurry due to ‘little amniotic fluid.’”

However, there seemed to be a distinction between a lack of involvement in decision-making and an explicit lack of obtaining consent, or denial of expressed wishes:

“I wanted a late cord clamping, something the midwife did not listen to, and she cut the umbilical cord before it had stopped pulsating because they wanted to free up the delivery suite.”

Critical situations: feeling scared, unsafe and loss of control

To experience severe medical complications or emergencies such as preeclampsia, premature birth, or an emergency caesarean section was perceived as emotionally stressful and frightening. The handling of these events could be crucial to women's overall negative birth experiences.

Although some women felt well taken care of and expressed gratitude towards the healthcare professionals, the severity of these types of situations was experienced as inherently difficult.

“I was well cared for during a caesarean section, but I was scared since it was early in the pregnancy, so it was a bad experience.”

Trusting the midwives' and doctors' competence and knowledge was crucial, as critical situations could become even more traumatic for the women when they did not trust the staff or did not feel cared for compassionately and respectfully:

“these hours were the worst because I felt alone, terrified, sure I was going to die. I just remember it as if everything was black.”

Feeling vulnerable, confused, and worried could reinforce feelings of being unsafe. Experiencing complications as emotionally stressful and frightening might lead to feeling scared, unsafe and having a loss of control, included fear for their baby or their own health and even fear of dying.

The need for information and clear communication was vital. The lack of information and poor communication skills among the healthcare professionals was perceived as very challenging when experiencing complications and critical situations.

“Things got very hectic, and I never got to know why there were so many in the room all the time. As I was being wheeled in for the caesarean, I heard that the baby's heart was beating far too fast. Then I was very scared. I wish all the info was given along the way and that I should not feel left out.”

Feeling uninformed was connected to feeling uninvolved by the midwives or doctors, leading to confusion and loss of control. Improved information, compassion and respectful care was considered key to situational understanding and for women to re-establish a sense of control. In this context, critical questions were raised about the care, the healthcare professionals' competence, and whether different decisions or interventions could have improved women's experiences and outcomes.

Discussion

In this study, we first investigated the association between women's socioeconomic factors and childbirth experience. Secondly, we analysed the qualitative responses from all women who exclusively reported a negative childbirth experience to gain deeper and more nuanced understanding of this important adverse outcome of childbirth.

Our findings suggest a strong association between women's overall childbirth experience and socioeconomic factors. Women who reported lower SES (non-tertiary education, being unemployed, students and low subjective living standard) and not married or cohabiting, were more likely to experience a negative labour and birth experience compared to those who reported higher SES (tertiary education, being employed, and average or higher subjective living standard). Although several studies have highlighted consistent inequalities and inequities in women's experiences with the maternity care system [19,20,26], few studies have investigated the association between women's SES and childbirth experience. However, Henriksen et al. [27] found no significant association between marital status, education, or economic hardship and negative birth experience. Whilst Waldenström et al. [28] found that negative birth experiences were more common among unemployed women, no statistically significant differences were observed in education. Additionally, to our knowledge, the association between subjective social status (SSS) and birth experience has not been previously investigated, although SSS has been shown to be an important factor for overall health [29,30]. However, one study [31] concluded that SSS represents an important dimension of the relationship between SES factors and postpartum physical and emotional health. Moreover, SSS and the health outcomes examined were also independently and more consistently associated than the relationship between conventional measures of SES (income, education, and employment) [31].

The qualitative analysis of the women's responses to the open-ended questions generally revealed a shared feeling of insufficient attention to emotional needs as very prominent for women reporting an overall negative birth experience across different SES groups. These findings are in line with other research on women's negative labour and birth experiences [27,32,33] and women's expressed need for genuinely supportive and caring healthcare professionals during labour and birth [22,32]. Women in our study described a lack of empathy and compassion and more profound difficulties when experiencing disrespectful care: feeling ignored, forgotten or patronising behaviour from healthcare professionals, including lack of understanding and care when experiencing critical situations and the agony of being separated from their new-borns. They also voiced how the 'system' of impersonalised care, not feeling seen or listened to and how lack of consideration of personal wishes exerted an objectifying or even dehumanising effect. Negative experiences also included feeling vulnerable and unsafe during critical situations.

According to Bohren et al.'s [20] typology of disrespectful care and mistreatment of women during childbirth, several of the qualitative findings referred to above can be classified as mistreatment, particularly with regard to three of the typologies: 1) *Failure to meet professional standard of care*, here identified as lack of informed consent and shared decision-making, not being informed, or having a real choice about physical examination and procedures and feeling neglected or forgotten. Meanwhile, 2) *Poor support between women and provider* was identified as ineffective communication, lack of empathic, compassionate, and supportive care, loss of autonomy and objectification. And 3) *Health system conditions and constraints* were identified as lack of resources, stress at the ward and staff shortage.

Our findings also raise two important issues. Firstly, the potential lack of understanding among healthcare professionals of the consequences of how their interactions are perceived by women during labour and birth. Secondly, potential differences in health professionals' interactions with and care for women with lower SES. Vedam et al. [26] found that women with low SES experienced mistreatment more

frequently compared to women with moderate or high SES. A meta-synthesis [19] found that vulnerable and disadvantaged women experienced judgemental and insensitive interactions, which led to stigmatisation and lack of agency. Negative interactions with healthcare professionals may also contribute to othering and affect women's sense of self-worth [25]. Studies exploring disrespectful care during childbirth from healthcare professionals' perspective found that healthcare professionals justified their actions as life-saving acts for mother and baby (risk versus care) or being due to insufficient resources [34,35]. Several women in our study also addressed organisational issues such as shortage of staff, resources, and organisation of care as reasons for poor care.

Further studies should investigate whether there are systematic discrimination and differences in healthcare professionals' interactions and delivery of care to low-SES women and explore healthcare professionals' perceptions of mistreatment and disrespectful care in different settings.

Clinical implications

The findings in our study are relevant, as social inequalities in health continues to be overlooked, despite it being well-documented that social determinants affect peoples' health [36]. Notably, to address inequalities in the maternity care system and plan for equitable healthcare services for all women, the maternity care system, midwives, doctors, other healthcare professionals and policymakers must acknowledge the existing differences in women's childbirth experiences [37]. Moreover, to promote high-quality care and empower all women during labour and birth, it is critical to acknowledge women's autonomy through a mutually respectful relationship and promote individualised person-centred care that acknowledges women's emotional needs and positive childbirth experience as an important outcome for all women [38–40].

Strengths and limitations

The current study has several strengths. First, the large study sample allowed for precise prevalence and effects estimates. Second, the sample of women appeared representative of the total population of women giving birth in Norway (on a set of variables), yielding generalisable estimates. Third, through a multimethod approach involving both quantitative statistical analysis and reflexive thematic analysis, we have reached a comprehensive level of understanding of social inequality and women's childbirth experiences.

There are also several limitations that need to be taken into consideration. Unfortunately, information about migration, education, employment has not been collected in MBRN. As such, we do not know if our sample was also representative on these factors. Generally, online survey studies have some methodological limitations, such as self-selection bias and response and recall bias, which may contribute to excluding some specific and marginalised groups. For example, the proportion of migrant women was not representative.

The use of a single item question, the Subjective Living Standard question, was due to the international context of the survey, designed to be transferable and suitable across different social and economic contexts. However, it is not validated in the same way as more complex measures, such as the MacArthur scale [41]. In further studies it might be preferable to use the MacArthur scale or a similar measure.

Conclusion

This study demonstrates that important socioeconomic disparities in women's childbirth experiences exist even in the Norwegian setting, which has universal healthcare, and where inequalities are assumed to be lower than for many other European countries. This was true for all SES indicators, including low subjective living standard, non-tertiary

education, and being unemployed. The qualitative data, which allowed detailed exploration of the reasons for women's negative labour and birth experience, uncovered accounts of disrespect and mistreatment as well as experiences of insufficient attention and lack of awareness of individual and emotional needs during childbirth. The study shows that women with lower SES are more exposed to these types of negative experiences during labour and birth.

This reinforces the importance of acknowledging social inequalities as an important factor in women's experiences with the maternity care services in high as well as low- and middle-income settings. It also suggests that care provision is more likely to be equitable when tailored to the needs of each individual, rather than being standardised for everyone.

Ethics approval

Ethics approval for the study was granted by the Ethics Committee of the University of Central Lancashire (UCLAN) in the UK (Ethics Committee BuSH 222). In Norway, an application to the Regional Committee for Medical and Health Research Ethics (REC) resulted in a decision that the project did not need ethical clearance for Norway (application ref: 2017/1582). The study was approved by the Norwegian Data Inspectorate (ref: 60547/3/HJTIRH, 4 September 2018).

Funding

CV was funded by a PhD grant from Oslo Metropolitan University, Norway.

CRediT authorship contribution statement

Carina Vedeler: Conceptualization, Methodology, Formal analysis, Investigation, Validation, Writing – original draft, Writing – review & editing. **Tine Schauer Eri:** Conceptualization, Methodology, Formal analysis, Investigation, Validation, Writing – review & editing. **Roy Miodini Nilsen:** Methodology, Formal analysis, Validation, Writing – review & editing. **Ellen Blix:** Conceptualization, Methodology, Validation, Writing – review & editing. **Soo Downe:** Conceptualization, Methodology, Validation, Writing – review & editing. **Kjetil A van der Wel:** Methodology, Validation, Writing – review & editing. **Anne Britt Vika Nilsen:** Conceptualization, Methodology, Formal analysis, Investigation, Validation, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

This study was derived from the Babies Born Better project, developed as a part of two EU COST Actions supported by the Cost (European Cooperation in Science and Technology Programme as a part of European Horizon 2020): (1) COST-Action IS0907 'Childbirth Cultures, Concerns, and Consequences: Creating a dynamic European Union framework for optimal maternity care'; and (2) COST-Action IS1405: Building Intrapartum Research Through Health – an interdisciplinary whole system approach to understanding and contextualising physiological labour and birth (BIRTH).

Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.srh.2023.100850>.

References

- [1] Marmot M. WHO european review of social determinants and the health divide. UCL Institute of Health Equity; 2014 2014..
- [2] WHO. Closing the gap in a generation. Health equity through action on the social determinants of health. Final report from Commission on Social Determinants of health. Geneva: World Health Organization; 2008.
- [3] Bartley M. Health inequality : an introduction to concepts, theories and methods. Second edition ed. Cambridge, UK: Polity Press; 2017 2017..
- [4] Mackenbach JP. Health inequalities : persistence and change in European welfare states. Oxford, England: Oxford University Press; 2019.
- [5] Dahl E, van der Wel KA. Nordic health inequalities: patterns, trends, and policies. In: Smith KE, Hill S, Bamba C, editors. Health inequalities : critical perspectives. Oxford: Oxford University Press; 2016. p. 33–49.
- [6] Mackenbach JP. Nordic paradox, Southern miracle, Eastern disaster: persistence of inequalities in mortality in Europe. Eur J Pub Health 2017;27:14–7.
- [7] Steingrimsdóttir OA, Nass Ø, Moe JO, Grøholt EK, Thelle DS, Strand BH, et al. Trends in life expectancy by education in Norway 1961–2009. Eur J Epidemiol 2012;27(3):163–71.
- [8] Brønnum-Hansen H, Östergren O, Tarkiainen L, Hermansen Å, Martikainen P, van der Wel KA, et al. Changes in life expectancy and lifespan variability by income quartiles in four Nordic countries.
- [9] Who. WHO recommendations: intrapartum care for a positive childbirth experience. WHO 2018;200.
- [10] Oladapo O, Tunçalp Ö, Bonet M, Lawrie T, Portela A, Downe S, et al. WHO model of intrapartum care for a positive childbirth experience: transforming care of women and babies for improved health and wellbeing. BJOG 2018;125(8):918–22.
- [11] Gottvall K, Waldenström U. Does a traumatic birth experience have an impact on future reproduction? BJOG 2002;109(3):254–60.
- [12] Lundgren I, Karlsdóttir SI, Bondas T. Long-term memories and experiences of childbirth in a Nordic context—a secondary analysis. Int J Qual Stud Health Well Being 2009;4(2):115–28.
- [13] Campbell EE, Gilliland J, Dworatzek PDN, De Vrijer B, Penava D, Seabrook JA. Socioeconomic status and adverse birth outcomes: a population-based canadian sample. J Biosoc Sci 2018;50(1):102–13.
- [14] Flacking R, Nyqvist KH, Ewald U. Effects of socioeconomic status on breastfeeding duration in mothers of preterm and term infants. Eur J Pub Health 2007;17(6): 579–84.
- [15] Goyal D, Gay C, Lee KA. How much does low socioeconomic status increase the risk of prenatal and postpartum depressive symptoms in first-time mothers? Womens Health Issues 2010;20(2):96–104.
- [16] Valero de Bernabé J, Soriano T, Albaladejo R, Juarranz M, MaE C, Martínez D, et al. Risk factors for low birth weight: a review. Eur J Obstetrics & Gynecol Reproductive Biol 2004;116(1):3–15.
- [17] Flenady V, Koopmans L, Middleton P, Frøen JF, Smith GC, Gibbons K, et al. Major risk factors for stillbirth in high-income countries: a systematic review and meta-analysis. Lancet 2011;377(9774):1331–40.
- [18] Spencer N, Logan S. Sudden unexpected death in infancy and socioeconomic status: a systematic review. J Epidemiol Community Health 2004;58(5):366.
- [19] Heys S, Downe S, Thomson G. 'I know my place'; a meta-ethnographic synthesis of disadvantaged and vulnerable women's negative experiences of maternity care in high-income countries. Midwifery 2021;103:103123.
- [20] Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Souza JP, et al. The mistreatment of women during childbirth in health facilities globally: a mixed-methods systematic review. PLoS Med 2015;12(6):e1001847.
- [21] Norwegian Institute of Public Health. Medical Birth Registry of Norway [Internet]. [updated 2022 15. October. Available from: <http://statistikkbank.fhi.no/mfr/>.
- [22] Vedeler C, Nilsen ABV, Blix E, Downe S, Eri TS. What women emphasize as important aspects of care in childbirth - an online survey. BJOG 2021;n/a(n/a).
- [23] Scott SC, Goldberg MS, Mayo NE. Statistical assessment of ordinal outcomes in comparative studies. J Clin Epidemiol 1997;50(1):45–55.
- [24] Textor J, van der Zander B, Gilthorpe MS, Liśkiewicz M, Ellison GTH. Robust causal inference using directed acyclic graphs: the R package 'dagitty'. Int J Epidemiol 2016;45(6):1887–94.
- [25] Braun V, Clarke V, Hayfield N, Terry G. Thematic Analysis. In: Liamputtong P, editor. Handbook of Research Methods in Health Social Sciences. Singapore: Springer Singapore; 2018. p. 1–18.
- [26] Vedam S, Stoll K, Rubashkin N, Martin K, Miller-Vedam Z, Hayes-Klein H, et al. The Mothers on Respect (MOR) index: measuring quality, safety, and human rights in childbirth. SSM - Population Health 2017;3:201–10.
- [27] Henriksen L, Grimsrud E, Schei B, Lukasse M. Factors related to a negative birth experience – A mixed methods study. Midwifery 2017;51:33–9.
- [28] Waldenström U, Hildingsson I, Rubertsson C, Rådestad I. A Negative birth experience: prevalence and risk factors in a national sample. Birth 2004;31(1): 17–27.
- [29] Adler NE, Boyce T, Chesney MA, Cohen S, Folkman S, Kahn RL, et al. Socioeconomic status and health. the challenge of the gradient. Am Psychol 1994; 49(1):15–24.
- [30] Demakakos P, Nazroo J, Breeze E, Marmot M. Socioeconomic status and health: the role of subjective social status. Soc Sci Med 2008;67(2):330–40.
- [31] Dennis EF, Webb DA, Lorch SA, Mathew L, Bloch JR, Culhane JF. Subjective social status and maternal health in a low income urban population. Matern Child Health J 2012;16(4):834–43.
- [32] Reed R, Sharman R, Inglis C. Women's descriptions of childbirth trauma relating to care provider actions and interactions. BMC Pregnancy Childbirth 2017;17(1):21.
- [33] Koster D, Romijn C, Sakko E, Stam C, Steenhuis N, de Vries D, et al. Traumatic childbirth experiences: practice-based implications for maternity care professionals from the woman's perspective. Scand J Caring Sci 2020;34(3):792–9.
- [34] Agyenim-Boateng A, Cameron H, Bemah Boamah Mensah A. Health professionals' perception of disrespectful and abusive intrapartum care during facility-based childbirth in LMIC: a qualitative systematic review and thematic synthesis. Int J Africa Nursing Sciences 2021;15:100326.
- [35] Mehretie Adinew Y, Kelly J, Marshall A, Smith M. Care providers' perspectives on disrespect and abuse of women during facility-based childbirth in ethiopia: a qualitative study. Int J Womens Health 2021;13:1181–95.
- [36] Moscrop A, Ziebland S, Bloch G, Iraola JR. If social determinants of health are so important, shouldn't we ask patients about them? BMJ 2020;371:m4150.
- [37] Renfrew MJ, McFadden A, Bastos MH, Campbell J, Channon AA, Cheung NF, et al. Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care. Lancet 2014;384(9948):1129–45.
- [38] Watson K, White C, Hall H, Hewitt A. Women's experiences of birth trauma: a scoping review. Women Birth 2021;34(5):417–24.
- [39] Meyer S, Cignacco E, Monteverde S, Trachsel M, Raio L, Oelhafen S. 'We felt like part of a production system': a qualitative study on women's experiences of mistreatment during childbirth in Switzerland. PLoS One 2022;17(2):e0264119.
- [40] López-Toribio M, Bravo P, Llupia A. Exploring women's experiences of participation in shared decision-making during childbirth: a qualitative study at a reference hospital in Spain. BMC Pregnancy Childbirth 2021;21(1):631.
- [41] Adler N, Stewart J. The MacArthur scale of subjective social status. San Francisco: MacArthur Research Network on SES & Health; 2007.