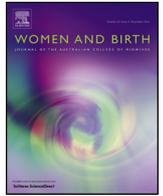




Contents lists available at ScienceDirect

Women and Birth

journal homepage: www.elsevier.com/locate/wombi



Understanding childbirth pain in Brazilian women: A qualitative descriptive study

Angelita J. Henrique^{a,b,*}, Patricia Rodney^{b,c}, Soodabeh Joolae^{b,d}, Susan Cox^b,
Adam Shriver^e, Camila B. Moreira^{a,c}, Julia Climaco^{b,f}, Janine Schirmer^a

^aPaulista School of Nursing, Department of Women's Health, Federal University of São Paulo, São Paulo, São Paulo, Brazil

^bThe W. Maurice Young Centre for Applied Ethics, School of Population and Public Health, Faculty of Medicine, University of British Columbia, Vancouver, British Columbia, Canada

^cSchool of Nursing, Faculty of Applied Science, University of British Columbia, Vancouver, British Columbia, Canada

^dNursing Care Research Center, School of Nursing, Iran University of Medical Sciences, Tehran, Iran

^eThe Oxford Uehiro Centre for Practical Ethics, Oxford University, United Kingdom

^fInstitute of Psychology, University of Brasilia, Brasilia, Federal District, Brazil

ARTICLE INFO

Article history:

Received 13 April 2020

Received in revised form 7 August 2020

Accepted 17 August 2020

Available online xxx

Keywords:

Labour pain
Women's health
Life experiences
Pain perception
Pain management
Qualitative research

ABSTRACT

Background: The pain associated with childbirth is a cause of severe pain, and the literature suggests that it can be influenced by psychosocial influences, the environment, and cognitive processes, creating the overall experience of childbirth. Therefore, the investigation of women's childbirth pain experience is essential.

Aim: The purpose of this study is to understand women's childbirth pain and determine which influences can contribute to building different experiences.

Method: A qualitative descriptive approach was adopted to explore the women's childbirth pain experiences, by understanding the influences on their experiences. Data were collected through in-depth interviews with 21 women in a hospital setting in São Paulo, Brazil, and analysed by thematic analysis. **Results:** Three major themes emerged from the analysis: (1) experiencing childbirth pain, (2) face-to-face with pain, and (3) empowerment needs.

Discussion: Many factors influence how Brazilian women manage pain and shape their experience during childbirth. The findings suggest that when women had a positive experience, they asked for minimal support, demonstrated balance, and expressed that the pain was manageable; when they had unfavourable experiences, they regarded pain as a threat and a punishment and associated it with unpleasant emotions.

Conclusion: The results outlined concerns that should be addressed in the provision of specific, appropriate care for women, to support them in improving their experience during childbirth.

Crown Copyright © 2020 Published by Elsevier Ltd on behalf of Australian College of Midwives. All rights reserved.

Statement of significance

Problem

Childbirth pain is a complex phenomenon that depends on many factors. Understanding those influences is pertinent to providing excellence in health care to women in childbirth.

What is already known

Many pregnant women are afraid of pain during childbirth despite the interventions to avoid pain available to them. The

interpretation of pain is uncertain and influenced by physiological, social, educational, and environmental factors.

What this paper adds

Women continue to be prevented from taking an active role in their pain management and use their autonomy for decisions during childbirth. This paper broadens the understanding of childbirth pain, explores the factors that affect pregnant women's experiences and, may help professionals provide them with individualised, woman-centred care.

* Corresponding author at: Paulista School of Nursing, Department of Women's Health, Federal University of São Paulo, São Paulo, São Paulo, 04024-002, Brazil.
E-mail address: angelita.henrique@ubc.ca (A.J. Henrique).

<http://dx.doi.org/10.1016/j.wombi.2020.08.003>

1871-5192/Crown Copyright © 2020 Published by Elsevier Ltd on behalf of Australian College of Midwives. All rights reserved.

1. Introduction

The pain associated with childbirth is often intense [1], during childbirth, some women's experience this pain [2,3] and classify this event as pain of mild to severe intensity, as well as being the most meaningful painful event in their lives [4–6]. After becoming aware that the increase in the intensity of this pain is an indicator of normal tissue changes and progress towards birth, they can also experience the pain with positive perceptions [7]. However, women's insights into pain are influenced by social influences and cognitive processes, which contribute to the overall experience of pain [2,8].

Researchers have been searching for ways to understanding the pain and fear of childbirth across cultures and demonstrate the complex and varied factors related to fear of childbirth [5,9–11]. When women have an intense fear of childbirth, they are significantly more likely to have a stronger awareness of pain than women who do not have an intense fear of childbirth, and this often contributes to a negative birth experience for them [5,9]. The fears mainly involve worries about the pain of childbirth, anxiety and negative emotions, risks and complications related to birth, body changes after the birth, influences of family birth histories involving pain, confidence in knowledge regarding childbirth, relationships with partners after birth [10,11], disrespect and abuse, and disturbing and embarrassing experiences [12]. The World Health Organization [13] considers respectful, compassionate care during childbirth a fundamental human right and recognises it as a priority [14]. However, women who associate birth pain as a part of the birth process and who have pleasant emotions are more likely to manage pain in a positive manner [5].

Despite being associated with the same primary physiological process of childbirth, the experience of childbirth pain varies [2]. Notably, the birth and pain become an entirely different process and sometimes an opposite experience for many women, and the explanation of this contrast should be explored through reasonable argumentation.

Several studies have identified predictors of positive experiences in childbirth that affect the relationship between women and baby. Appropriate, supportive birth conditions have been outlined that offer pleasant experiences, reduce maternal anxiety and stress during childbirth [6], and support the physiological progression of birth [15]. Many factors can positively or negatively influence the birth experience, for example, maternal expectations, a positive attitude, birth information, the forthcoming birth, childbirth complications, care and communication, relationships and companions, feelings of control and perception of pain [16], professional and social support, and pain management [16,17]. Positive experiences enable the women to grow and feel empowered through the autonomy of decision-making [16]. However, some women describe childbirth as a negative experience with a consequent impact on their well-being: this is associated with maternal and foetal distress and increased intervention in childbirth. Additionally, women who had negative experiences are more likely to delay future pregnancies [16]. They have a feeling of disconnection and helplessness similar to those who experienced discrimination or worried about the birth process before giving birth [16]. A negative experience is strongly associated with the fear of birth and is associated with a history of abuse [18].

Women's confidence relates to the knowledge of the birth process has a significant impact on maternal requests for intervention and medication; thus, during pregnancy, it is crucial to obtain information regarding the birth process and the purpose of pain [19]. Then, women can make informed decisions in childbirth and take an active role in maintaining health during pregnancy and birth using coping techniques to manage pain during childbirth [19].

In Brazil, public health care at birth is based on policies and practices centred on doctors, nurses, and midwives; the model requests lower rates of surgical intervention and medicalisation and higher rates of vaginal births. However, emotional support and pain management are complicated by the high demand for public services, professional awareness, and the socioeconomic and educational levels. Private health care at birth is centred on the medical professional and involves significant levels of surgical intervention with high rates of caesarean section and medicalization [20]. Thus, despite the women's socioeconomic and educational aspects being higher than for those in public care, most of the surgical interventions in birth are chosen to avoid pain, despite all the risks related to surgical intervention [21,22].

The experience of childbirth pain has been explored in several countries. However, a Brazilian-based, in-depth exploratory study is valuable because how childbirth pain is experienced probably varies by cultures because pain is an individual interpretation influenced by social and cultural aspects. Therefore, the purpose of this study is to deepen the understanding of pain experiences during childbirth and determine which influences can contribute to building positive experiences for those giving birth in tertiary hospitals in Brazil.

2. Method

2.1. Design

A qualitative descriptive approach was adopted to explore women's childbirth pain experiences, by understanding the influences they identified as important in shaping their experiences while giving birth at the hospital. This approach was considered an appropriate strategy for the investigation of this phenomenon because it provides in-depth insights and an understanding of the essence of women's experiences with the emerging themes [23].

The qualitative descriptive approach is grounded in the general principles of naturalistic inquiry, where the researcher observes the social world in its natural state and does not attempt to manipulate events. This approach is especially compatible with research in health care environments [24].

2.2. Participants and setting

To achieve the objective of this study, women at a gestational age between 37 and 42 weeks at birth and had reported experiencing pain during childbirth were assessed for eligibility. Twenty-six eligible women fulfilled the inclusion criteria and were invited to participate in the study.

The inclusion criteria were as follows: women aged 19 years, full-term birth, a live and healthy newborn, a minimum of 6 visits to prenatal care, and reported pain during childbirth. The exclusion criteria were as follows: current mental health disorders, chronic illnesses, current users of psychoactive drugs, or infants born with a congenital anomaly or prematurely (birth before 37 weeks of pregnancy).

Maternity care nurses made the women aware of the study, and the researcher assessed the eligibility of those women interested in participating. The researcher provided further information to the eligible potential participants regarding the purpose of the study, volunteer participation, confidentiality, right to informed consent, and the right to withdraw from the study at any time. Informed oral and written consent was obtained before the interview. Twenty-one women aged 19–37 years participated in this study, and all participants had public coverage. This was a practice-based study; thus, there was no pre-determined definition of the sample size. Data saturation was achieved after 21 interviews, when no new analytical information was observed [25].

Recruitment was through the hospital provided by Universal Health Care System, Ministry of Health (Sistema Unico de Saúde [SUS]), in São Paulo, Brazil. This hospital supports approximately 3600 birth per year, and SUS is the main provider of health care and publicly funded health care throughout the country.

2.3. Data collection

All interviews were conducted from 48 to 72 h after the births, from June to December 2017, at the post-natal care unit, in-person, with the infant in the room, in private, by the nurse research assistant (Portuguese language). Each participant engaged in a 30- to 60-min in-depth, semistructured interview. Brief personal, sociodemographic, and obstetric data were obtained from medical records before the interview.

The interviewer was not known to the participants before their involvement in this investigation and aimed to pursue a kind, friendly attitude and be supportive while apprehending the women's perceptions and feelings in as casual a manner as possible during the interview. Additionally, the interviewer reaffirmed to the participants that all answers were important and that no answer was unsuitable. All interviews were digitally recorded and transcribed verbatim. Additionally, women's information was coded to protect the participant's privacy and confidentiality.

In-depth semistructured interviews were conducted to obtain the participants' responses. The interview was guided by the following questions: 1) Can you tell me about your overall birth experience? 2) Can you tell me about your childbirth pain experience? What was childbirth pain like for you? 3) What do you think could have influenced your childbirth pain experience? 4) You can tell me about the challenges you faced during childbirth? The answers varied in length.

Initial data analysis was undertaken in Portuguese. Transcripts were first translated into English and then back-translated into Portuguese to ensure meanings were not lost. The coding phase was followed by sub-theme identification. A software package, NVivo QSR International, was used to assist in data management. Data collection was compiled with the Consolidated Criteria for Reporting Qualitative Research guidelines [26].

2.4. Ethical consideration

The study was granted ethical approval by the Federal University of São Paulo Ethics Committee on April 20, 2017 (application number 0141/2017). All participants were informed of the research goals, and they volunteered to participate. Informed consent was obtained from the participants, and they could withdraw from the study without repercussions. Identification codes were used to describe the participants and findings. Regardless of the types of interactions, the researchers remained non-judgemental throughout the process of data collection and analysis. Permission was requested to record interviews and publish the results.

2.5. Data analysis

Thematic analysis was managed to analyse the data. Each interview was transcribed verbatim, and the transcript was prepared and analysed. All data was coded and grouped in each significant component. Subsequently, all components were grouped into sub-themes, which were then clustered into themes. Finally, the data were analysed by members of the research team (AH, JC, and SJ) to ensure the accuracy of themes and sub-themes and to enhance the rigour of the study.

Trustworthiness was improved by applying strategies used by Lincoln and Guba (1985). The 4 principles of trustworthiness of a qualitative study are credibility, transferability, dependability, and confirmability [27].

Credibility in this study was achieved by using a member-checking procedure, whereby interpretations were checked with participants. Credibility within the interviewing process was established by checking information based on the results of previous interviews and by revisiting ideas with subsequent participants [27]. The coding, sub-themes, and themes were reviewed to ensure that these reflected the participants' perspectives and experiences.

Transferability is outlined in Section 4, the discussion, where the researchers provide detailed descriptions of the findings and make comparisons with related literature [27].

Dependability and confirmability were strengthened through peer review among the research team to verify the essential meanings of the results and achieve consensus regarding the themes and the description of the analysis process [27]. The same interview guide was used for all the participants. The absoluteness of translations was used to preserve accuracy.

3. Results

Twenty-one women participated in this study. Ages ranged between 19 and 37 years, with an average age of 27 years. The majority were a common-law partner ($n = 13$), 13 participants had completed high school, 12 did not work for pay, and all the participants were had a low income (less than US\$10,000.00 per year).

Of the participants, 14 were multiparous, 7 were primiparous, 16 had a vaginal birth, 5 had a caesarean section, 13 had their husband accompanying them during the birth, and the majority had no anaesthesia or pain medication ($n = 14$). Additionally, non-pharmacological pain relief was suggested to all participants, and most participants had participated in public system prenatal care ($n = 14$) and had not received education regarding childbirth pain ($n = 19$).

Three themes emerged from the analysis: 'Experiencing childbirth pain' with the sub-themes 'to manage emotions and feelings' and 'to manage expectations', 'Face-to-face with pain', and 'Empowerment needs' with sub-themes 'to feel confident', 'to be supported', and 'to be a part of making the decision process' (Table 1).

3.1. Birth experience

The women evaluated their birth experience as bad and good, where bad corresponded to the worst possible birth experience, and good, the best possible birth experience. All the participants evaluated their experience.

Twelve women (57.1%) evaluated their birth experience as negative or unpleasant, and 9 women (47.9%) evaluated their experience as positive or pleasant.

Those women who evaluated their experience as bad described a feeling of complete powerlessness.

'I experienced intense sharp pain. I felt REALLY out of control, and I felt unhappy. It was a bad experience for me because I was incapable of talking to anyone. . . . I felt very out of control the entire birth time.' (Participant 14)

Those who assessed their experience as good were more positive and felt more empowered concerning childbirth pain.

'I expected it to be hard for me, and I was surprised because it was the best experience of my life. I had pain at the time I was in childbirth, and the pain did not go away. So, I felt like I was strong enough to handle the pain.' (Participant 08)

Table 1
Themes, sub-themes, and codes.

Themes	Sub-themes	Codes
Experiencing childbirth pain	Manage emotions and feelings	<ul style="list-style-type: none"> • Having pleasant feelings and emotions—women experienced safety, peace, protection, serenity, happiness, gratitude, trust, thoughtfulness, and positivity. • Having unpleasant feelings and emotions—women experienced fear, anxiety, desolation, frustration, trauma, helplessness, loneliness, stress, and suffering.
	Manage expectations	<ul style="list-style-type: none"> • Being rewarding—women had fulfilled expectations, felt like it was like receiving a gift, learned from a new experience, achieved their desire of having a normal birth, and felt proud of themselves. • Frustration about having a caesarean section. • Pain relief measures without medication. • Anaesthesia when they asked for medication.
Face-to-face with pain		<ul style="list-style-type: none"> • Perceiving the pain as supportable and controllable, having tolerance for pain, having a balance with pain, and understanding pain as a part of the motherhood experience. • Perceiving the pain as intense, uncontrollable, horrible, arduous, hurtful, unmanageable, and extreme.
Empowerment needs	Confidence	<ul style="list-style-type: none"> • Recognising themselves as strong, brave, and extraordinary. • Feeling empowered in creating a life. • Feeling proud of themselves. • Believing in and encouraging themselves.
	Support Participate in the decision process	<ul style="list-style-type: none"> • Outlining the role of professionals, family, and community in the conception of experience. • Lack of relational autonomy for decisions. • Lack of knowledge. • Lack of involvement. • Lack of cooperation.

3.2. Experiencing childbirth pain

3.2.1. Managing emotions and feelings

The women highlighted different emotions that occurred during childbirth pain. The pleasant emotions reported by the women included trust, peace, serenity, happiness, gratitude, and thoughtfulness. Some of them reported that positive emotions helped them manage those hard moments in pain.

'I trusted in God, and it helped me. I asked for God's help, to help me be brave at birth' (Participant 19).

Four women related feelings of reward and satisfaction and the belief that they had 'reached expectations,' which seems crucial in their ability to cope with pain.

'My previous birth was a caesarean section. However, I decided to have a normal birth this time. This was my choice, even though it meant paying the price of pain. In the end, I had my gift' (Participant 19).

Other women described the negative emotions they experienced that disturbed their ability to cope with pain. Examples of the terms used are as follows: fear, anxiety, desolation, frustration, trauma, helplessness, loneliness, vulnerability, stress, and suffering.

*'It was a traumatic experience in my life' (Participant 05).
'I felt lonely and helpless. It was very sad' (Participant 14).*

3.2.2. Managing expectations

When women fulfilled their expectations regarding birth and pain, they perceived the experience as positive.

'I was myself confident, and I could handle everything hard (referring to her pain). My birth was the best experience that I have expected.' (Participant 08)

Some women expressed a desire for the birth without surgical interventions and with as little pharmacological pain relief as possible. However, 6 women experienced challenges and balanced this wish against the need for augmentation.

'I was so frustrated about not having a normal birth although the time with contractions and pain without relief. They (the doctors and nurses) tried everything to help me have a normal birth, and I tried, too, because I had a caesarean in my previous birth, and I

wanted a normal birth this time. However, I had to undergo a caesarean section again' (Participant 05).

Notably, some women were aware of peridural anaesthesia and pharmacological pain relief but were informed that the option was unavailable because the equipment and trained professionals were unavailable.

'I believed in something that would stop my pain, such as medication or, like peridural or stuff, you know? I thought I could have some options, but it did not happen. I heard they didn't have any physician for anaesthesia at that time (it was midnight or later) . . . , but I did not receive anything' (Participant 05).

3.3. Face-to-face with pain

The theme *face-to-face with pain* describes the significant impact of the women's internal balance and self-control on their pain experience, enabling women to feel capable of managing themselves, and of handling pain throughout the labour and birth.

The degree of pain experienced by the women was reported as moderate to severe. Women's ability to manage the intensity of the pain was not the only problem; their concern about whether they would receive the appropriate level of pain relief for them to cope was also a concern.

'My pain was intense and severe, and I was suffering a lot. I felt a sharp pain, and then it increased. I couldn't handle pain by myself, and I did not receive any support for it . . . I struggled with pain until the baby was born . . . ' (Participant 10).

Pain is the most common problem during childbirth. The way that each pregnant woman understands the nature of pain can differ and depends on many factors. All the participants acknowledged the pain as part of the process. However, they had different responses to their impressions of this phenomenon.

Having internal balance and self-control as the primary condition throughout childbirth was essential, according to women who mentioned childbirth pain as supportable and bearable, and who understood pain to be part of the motherhood experience. Five women described the pain as a good signal in the birth context.

'The pain was like an experience confirming that was the right time for my baby to be born. It was an intense, almost intolerable

sensation. However, at the same time, it was a feeling of happiness, because it meant it was the right time to meet my baby' (Participant 08).

'I felt a lot of pain; it was so intense and hard to bear . . . However, despite the pain, it was a good experience because it was a learning experience for me and signalled the arrival time of my baby. I was excited at that moment' (Participant 21).

Additionally, other women commented on having mixed emotions about the pain experience.

'It is hard to explain how the birth pain was. It was severe pain, the worst thing I have ever felt in my life, and I did not believe I could bear it. It was like a lack of control, but it passed quickly. I cannot explain it . . . the pain represented many things to me. It was horrible and good at the same time. However, in the end, it was good, because what mattered to me was that everything went well' (Participant 03).

Those women who mentioned having a loss of control and feeling unbalanced perceived childbirth pain as a punishment experience, described it as uncontrollable and horrible, and rated it as the worst pain experienced in their lives. Additionally, they described it as a pain that seemed to hurt their bodies.

'To me, it was a traumatic experience that I do not want to go through ever again in my life' (Participant 05). 'It was a horrible pain I experienced. It was a kind of punishment . . . I did not expect it, and I would not wish it on anyone' (Participant 07).

'I felt a cutting pain, and when it increased, it was like you were being destroyed. That point when you feel like you are being broken inside' (Participant 20).

In the interviews, women expressed negative expectations regarding childbirth pain increasing the fear and anxiety of pain during birth because their relatives and friends had shared negative experiences in childbirth.

'I was afraid. I already knew that birth would be full of suffering because of the pain. My mother, my sisters and my friends . . . ahh, everyone told me, once they realised, I was pregnant' (Participant 13).

3.4. Empowerment needs

3.4.1. Confidence

Some women mentioned that knowing about childbirth pain and everything that involves labour and birth provided the opportunity for them to have an active voice during the process. Prenatal education is a strategic intervention designed to address the uncertainties of pregnancy, childbirth, and motherhood and has been widely recommended for pregnant women. Prior birth experiences and information gleaned from family and health care providers were also important.

'I think my knowledge was enough . . . I knew about breathing exercises to relieve pain and changes that were happening in my body. Additionally, I learned a lot from nurses in my previous birth, which calmed me down, and I felt relieved' (Participant 07).

'During my pregnancy, I knew about childbirth pain because my mother and my doctor talked about this. This influenced me to assume dealing with pain' (Participant 16).

Some women got prenatal and childbirth pain information from the internet.

'I have learned on the internet. It was my main way to get information and be confident. I took care of myself and did what I thought was good for me. I was able to make pain relief choices. I

chose to stand up and walk during the birth, and I did breathing exercises that made me feel better during the contractions' (Participant 12).

Additionally, the feeling of power generates positive emotions and turns the experience of childbirth into a pleasant experience. Four women mentioned being proud of their self-worth and believing in and encouraging themselves, and they self-described as an extraordinary woman creating a life.

'It was what I imagined because I had already pictured in my mind what it was going to be like, and I felt very powerful. The pain was unique, because at the time I was feeling pain, I knew it would not be for too long' (Participant 06).

However, in our interviews, 19 women did not receive antenatal education. Without knowledge of the childbirth process, 11 women described themselves as having no choice.

'Maybe I did not have any choice because of my lack of knowledge about it (childbirth pain), you know? When you do not know anything, you cannot do anything . . . so then, I had no choice' (Participant 04).

3.4.2. Support

All participants outlined that having support is crucial to making them feel sustained and capable. Some participants received support from nurses and staff. Additionally, they noted that professionals were kind, patient, and encouraging to them throughout the childbirth pain.

Those who felt supported experienced a pleasant impression of safety, protection, and empowerment.

'I realised that nurse contribution was essential because it gave me power and courage, do you understand? . . . , and she said, 'Do not give up! You can do it!' . . . Additionally, she said, 'Yes, it is correct! Good job!' . . . something like that, right?' (Participant 01).

'They (the staff) taught me how to do breathing exercises, and I did them . . . then, I held on tight and managed the pain. When I was calm, I felt sleepy' (Participant 19).

In addition, some women received encouragement and empathy from their husbands, and that helped them cope with labour pain. No participant reported a negative experience regarding the companionship of their husband or other family member.

'My husband's presence was significant, and he supported me the whole time' (Participant 18).

'He (husband) was present for both births and helped me to focus and feel secure' (Participant 11).

However, those participants who did not receive support from professionals during childbirth pain referred to an unpleasant impression of helplessness, danger, loneliness, and desolation.

'It was the huge difference between what I had expected and what really happened that day. I was not involved. Nobody heard me, and it scared me' (Participant 08).

'The staff do not have any patience. They are health professionals. However, they do not have patience with others, and they do not care about who is in pain. It is very complicated' (Participant 14).

Several of the participants in this study reported the negative attitudes of some health care professionals during labour pain. Those women regretted that some nurses and staff neither showed empathy nor consoled or reassured them. Women stated that some nurses and staff provided physical care but not psychological support on how to manage their pain.

' . . . just checked my uterine dilation and my baby's heart rate; after that, they abandoned me; they left the room' (Participant 13).

3.4.3. Participate in the decision-making process

Relational autonomy in the decision-making process in pain management during childbirth was a significant influencing factor for all the participants. The women's sense of autonomy and active involvement in the decision-making process about pain management in childbirth was dependent on the interaction between the staff and women. When women understand the childbirth pain process and have information about the ways to find relief, they can feel confident about their choices.

The nurse who took care of me told me that I could choose whatever made me feel better. She told me how to handle the pain easier. Additionally, she told me that I could choose whatever I preferred . . . She allowed me to work together with her' (Participant 18).

Women acknowledge the importance of deciding how to manage pain, understanding the birth process, and having the opportunity to consciously choose which method is best for them.

Some of the participants knew about childbirth pain and non-pharmacological methods for pain relief, such as deep breathing exercises and breathing through the mouth to relieve painful contractions.

I had learned deep breathing at the hospital, and that calmed me down' (Participant 06).

Three participants experienced pain relief when they spent some time under a warm shower; this helped take their minds off the pain and feel calm.

I took a warm shower, and I felt relieved during the contractions' (Participant 04).

Likewise, others reported that free movement, warm showers, and walking provided some comfort.

I was walking in my room, and it was good for me' (Participant 09).

However, most of the women (n = 12) expressed dissatisfaction about not being involved in decision-making throughout the pain management and birthing process.

In addition, when women were not a part of the decision-making process or if they lost control, they experienced a feeling of impotence.

I had no choice about the best way to cope with pain. I did what they told me. This was my first pregnancy, and I did not make any choices by myself because I wasn't aware of any' (Participant 11).

4. Discussion

The findings from this study suggest that subjacent factors grounded Brazilian women's pain experienced in childbirth: how they describe and manage pain during the childbirth, their feelings and emotions, and their empowerment that created the experience.

When women comprehended pain as a part of motherhood and a physiological process of birth, and associated it with elements that shaped their active role during the birth process, they coped with pain well; additionally, they asked for minimal support, demonstrated balance, expressed that the pain was manageable and were more likely to understand their experience as positive [2,28]. When women regarded pain as a threat and punishment and associated it with powerlessness and unpleasantness, they were more apt to view pain as unmanageable and consider their experience unfavourable; additionally, they tended to need help from external methods of pain control [2]. Labour pain is not confined to a specific cultural context. Therefore, women's perception of pain and the cognitive and emotional values of pain can be influenced by the context and social environment [2,28].

A considerable proportion of women in our study described labour pain as moderate to severe and referred to the distress while managing this. Similar findings in the literature have demonstrated birth pain is perceived as unbearable and that effective methods of pain relief are requested [4,5]. These authors have proposed that the multidimensional nature of childbirth pain is responsible for the variations in how sociocultural backgrounds affect how labour pain is experienced and managed.

The most common constituent of the childbirth experience worldwide, and in the history of humanity, is the pain. Different challenges have involved thoughtful reflection on the relationship between intense pain in human existence [28], and the alleviation of pain includes issues beyond physical relief [29]. When pain is associated with childbirth, the most challenging and painful experience of some pregnant women, and the reference of intensity can vary significantly from immensely painful to pleasurable [28,30]. This paradoxical experience suggests determinants beyond those associated with the physiological state of a birthing body. Multiple aspects of childbirth pain in nature are responsible for diverse ways in which women experience and cope with pain during birth. In 2004, the World Health Organization declared pain management a fundamental human right [31], and in 2018, they stated that most women prefer a form of pain relief during intrapartum care and recommended it for a positive childbirth experience [32].

The women in our study described themselves as empowered when they were supported by social contexts, had reliable tools to promote their confidence, and had the opportunity to participate in the decision-making process regarding how to manage pain. Feeling empowered was essential for the women's involvement, and a conscious strategy of being in control of the pain process. Additionally, women experienced powerlessness because of frustration described as a loss of control when they had no independence in the decision-making process, which led to a feeling of exclusion. For many women, the essential component for a secure, pleasant birth experience includes a sense of empowerment and success in coping with or transcending the pain experience. Furthermore, having active and positive encouragement from social relations can make women's self-governance possible.

Studies have shown that increases in women's autonomy confer benefits, such as their ability to make health care decisions, and that there are sociocultural influences other characteristics of women's autonomy. It is considered essential for decision-making in a range of circumstances—from health care to treatment options [33]. Care creates relationships and interdependence [34]. Therefore, relational autonomy can be viewed as a conception of autonomy that places the individual in a socially embedded network of others and be explained as interdependence, not independence. Nevertheless, interdependence is at the heart of the relational notions of autonomy. As a result, the social surroundings and web of relationships, interactions, and influences enable building up a relational form of autonomy or autonomy in a relational context [35,36].

This study demonstrated that the same process could be perceived in different manners when the women used either pleasantness, unpleasantness, or ambivalent classifications, indicating that not all women apprehend the same process. A review of the qualitative literature on women's pain experiences during childbirth reported that this experience is unique and can be complicated because of the varied individual meanings of the pain [28]. Individual differences can be an essential variable that affects the reaction and adjustment to life events and can involve personality traits [37]. Additionally, how emotional problems are managed and regulated can be affected by cultural differences.

Understanding the nature of emotional experience requires understanding the relationship between positive and negative affects. The evidence of positive emotions could become most relevant when individuals are engaging in active goal pursuit. Studies have argued that there are cultural differences in beliefs about the utility of positive emotions and beliefs and ideas about feelings [37–39]. Another study demonstrated that understanding the relationship between personality traits, pain management, and the birthing experience can help women have a better subjective experience, reducing stress, anxiety, and fear, and increasing feelings of capacity and control [40].

Acknowledgement of the social dimensions of the pain experience can help in understanding human pain, because social environments determine exposure to pain, thoughts and feelings about pain, and communication of distress when in pain [8]. The social context can be associated with an impact on physical health and psychological well-being, and when this social context is considered threatening, there can be increased perceptions about pain and aggression, and reduced empathy [41]. Therefore, the social environment, which includes hospital staff, support people, companion, family, friends, media, and even others from the community, can influence a woman's knowledge and the values of childbirth pain and can modify the context of pain having control in shaping her perception of pain [2,42].

Other studies have shown that fear of childbirth is mainly attributed to the fear of pain and may have a substantial social dimension in addition to the histories and perceptions of pregnant women. Therefore, these social dimensions may affect the community that is not currently pregnant but that can be influenced by the social context of women's experience [11]. Furthermore, it can affect women's choices regarding birth, for example, by increasing options for caesarean section and use of medicalisation, despite all the risks involved, including health effects on women and children [43]. In addition, it contributes to significant economic pressures on health care systems globally, especially those in low- and middle-income countries [42].

Our findings raised themes for a discussion on women's pain experience in childbirth, and that may support the basis for new studies regarding creative ways to improve care in childbirth and birth. The findings also showed the need for concern about clinical policy, and practices and publics, because this is crucial for enhancing maternal competence and role attainment, based on an analysis of the needs. Further research should focus on their impact on women's childbirth pain experience and how it influences social, economic, and health spheres.

This study has limitations. First, the study was undertaken at a single hospital; however, this hospital had the representative aspects of the maternal population of the Brazilian public health system. Second, the care provided may differ across settings; thus, there may be different experiences in other hospitals. Despite the design, we have provided new insights into the experiences of women who experienced birth pain, and thus contributed to understanding their needs for support and creating their experiences.

The results of this study have identified important implications. First, we suggest further research to assess women's ability to manage pain during childbirth. The evidence of practical actions for pain management of women in childbirth remains limited in many countries, including Brazil. This concern is important, and the design, implementation, and evaluation of interventions to improve maternal competence and role attainment should be based on an analysis of the needs of women. Second, we hope our results have implications in maternal settings and help health care providers develop interventions for women, tailored to specific health care needs during childbirth. Additionally, support for women to understand pain management during childbirth

involves many factors beyond medicalisation and an instrumental birth, and the needs of women imply that an active role in decision-making in pain management is essential.

5. Conclusion

This research revealed themes of factors that influenced Brazilian women's pain experience during childbirth and outlined problems that need addressing. The findings included face-to-face with pain, empowerment needs, and managing emotions. These results highlight important issues regarding care for women during childbirth pain, to improve their experience. Overall, descriptions of the women's pain experiences provide knowledge and awareness of an essential area in childbirth care in the Brazilian obstetric setting.

Conflict of interests

All authors declare that there is no conflict of interest.

Ethical statement

This study was approved by the Federal University of São Paulo Ethics Committee on April 20th, 2017 (application number 0141/2017). This research conforms to the provisions of the Declaration of Helsinki in 1995 (as revised in Edinburgh 2000). All study participants provided informed consent, and their anonymity was preserved.

Funding

The author received financial support for the conduct of the research from the National Council for Scientific and Technological Development (CNPq) of the Brazilian government [Number 150075/2018-9].

CRediT authorship contribution statement

Angelita J. Henrique: Conceptualization, Methodology, Investigation, Data curation, Visualization, Writing - original draft. **Patricia Rodney:** Data curation, Visualization, Writing - review & editing, Supervision. **Soodabeh Joolae:** Methodology, Data curation, Visualization, Writing - review & editing. **Susan Cox:** Data curation, Visualization, Writing - review & editing. **Adam Shriver:** Data curation, Visualization, Writing - review & editing. **Camila B. Moreira:** Data curation, Visualization, Writing - review & editing. **Julia Climaco:** Data curation, Visualization, Writing - review & editing. **Janine Schirmer:** Conceptualization, Data curation, Visualization, Writing - review & editing, Supervision.

Acknowledgements

The present study was carried out with support from the National Council for Scientific and Technological Development. We thank all participants who voluntarily agreed to share their valuable experiences and Meiriane Tamiarana, the nurse research assistant, who interviewed the patients. Also, the authors thank Mr. Michael Anderson for the support in the English revision.

References

- [1] American College of Obstetricians and Gynecologists, ACOG committee opinion no. 295: pain relief during labor, *Obstet. Gynecol.* 104 (1) (2004) 213 PubMed PMID: 15229040.
- [2] L.Y. Whitburn, L.E. Jones, M.A. Davey, R. Small, The meaning of labour pain: how the social environment and other contextual factors shape women's experiences, *BMC Pregnancy Childbirth* 17 (1) (2017) 157 PubMed PMID:28558667; PubMed Central PMCID: PMC5450354.

- [3] S.R. Mazoni, E.C. Carvalho, C.I. Vasques, L.B. Paes, A.C. Poli, Preferência de via de parto e experiência prévia de dores em puérperas atendidas em uma maternidade, *CuidArte Enferm* 11 (2) (2017) 162–167.
- [4] L. Aziato, A.K. Acheampong, K.L. Umoar, Labour pain experiences and perceptions: a qualitative study among post-partum women in Ghana, *BMC Pregnancy Childbirth* 17 (1) (2017) 73 PubMed PMID: 28228096; PubMed Central PMCID: PMC5322618.
- [5] A.A. Akadri, O.I. Odelola, Labour pain perception: experiences of Nigerian mothers, *Pan Afr. Med. J.* 23 (30) (2018) 288 PubMed PMID: 30637072; PubMed Central PMCID: PMC6320448.
- [6] A.J. Henrique, M.C. Gabrielloni, P. Rodney, M. Barbieri, Non-pharmacological interventions during childbirth for pain relief, anxiety, and neuroendocrine stress parameters: a randomized controlled trial, *Int. J. Nurs. Pract.* 24 (3) (2018) e12642 PubMed PMID: 29512230.
- [7] L.Y. Whitburn, L.E. Jones, M.A. Davey, R. Small, Supporting the updated definition of pain. But what about labour pain? *Pain* 158 (5) (2017) 990–991 PubMed PMID: 28414707.
- [8] A.C. Williams, K.D. Craig, Updating the definition of pain, *Pain* 157 (11) (2016) 2420–2423 PubMed PMID: 27200490.
- [9] C. Junge, T. von Soest, K. Weidner, A. Seidler, M. Eberhard-Gran, S. Garthus-Niegel, Labor pain in women with and without severe fear of childbirth: A population-based, longitudinal study, *Birth* 45 (4) (2018) 469–477 PubMed PMID: 29630751.
- [10] K. Stoll, Y. Hauck, S. Downe, J. Edmonds, M.M. Gross, A. Malott, et al., Cross-cultural development and psychometric evaluation of a measure to assess fear of childbirth prior to pregnancy, *Sex. Reprod. Healthc.* 8 (2016) 49–54 PubMed PMID: 27179378.
- [11] Y.L. Hauck, K.H. Stoll, W.A. Hall, J. Downie, Association between childbirth attitudes and fear on birth preferences of a future generation of Australian parents, *Women Birth* 29 (6) (2016) 511–517 PubMed PMID: 27233945.
- [12] H.W. de Klerk, E. Boere, R.H. van Lunsen, J.J. Bakker, Women's experiences with vaginal examinations during labor in the Netherlands, *J. Psychosom. Obstet. Gynaecol.* 39 (2) (2018) 90–95 PubMed PMID: 28635536.
- [13] World Health Organization, The Prevention and Elimination of Disrespect and Abuse During Facility-Based Childbirth: WHO Statement, World Health Organization, 2014.
- [14] M.W. Gebremichael, A. Worku, A.A. Medhanyie, K. Edin, Y. Berhane, Women suffer more from disrespectful and abusive care than from the labour pain itself: a qualitative study from Women's perspective, *BMC Pregnancy Childbirth* 18 (1) (2018) 392 PubMed PMID: 30286734; PubMed Central PMCID: PMC6172829.
- [15] A.J. Henrique, M.C. Gabrielloni, A.C. Cavalcanti, P.D. Melo, M. Barbieri, Hydrotherapy and the Swiss ball in labor: randomized clinical trial, *Acta Paul. Enferm* 29 (6) (2016) 686–692, doi:http://dx.doi.org/10.1590/1982-0194201600096.
- [16] K.D. Gregory, L.M. Korst, S. Saeb, J. McCulloch, N. Greene, A. Fink, M. Fridman, Childbirth-specific patient-reported outcomes as predictors of hospital satisfaction, *Am. J. Obstet. Gynecol.* 220 (2) (2019) 201.e1–201.e19 PubMed PMID: 30403975.
- [17] S.I. Karlsdottir, H. Sveinsdottir, H. Kristjansdottir, T. Aspelund, O.A. Olafsdottir, Predictors of women's positive childbirth pain experience: findings from an Icelandic national study, *Women Birth* 31 (3) (2018) e178–e184 PubMed PMID: 28943317.
- [18] L. Henriksen, E. Grimsrud, B. Schei, M. Lukasse, Bidens Study Group, Factors related to a negative birth experience—a mixed methods study, *Midwifery* 51 (2017) 33–39 PubMed PMID: 28528179.
- [19] K.M. Benzie, L. Barker, J. Churchill, J. Smith, S. Horn, UpStart parent survey—prenatal: a new tool for evaluating prenatal education programs, *Public Health Nurs.* 33 (5) (2016) 440–448 PubMed PMID: 27145885.
- [20] M.B. Velho, O.M. Brüggemann, C. McCourt, S.G. Gama, R. Knobel, A.D. Gonçalves, et al., Obstetric care models in the Southern Region of Brazil and associated factors, *Cad. Saude Publica* 25 (35) (2019)e00093118 PubMed PMID: 30916177.
- [21] L.P. de Melo, A.M. Pereira, D.P. Rodrigues, S.L. da Costa Dantas, A.L. de Araújo Ferreira, F.M. Fontenele, F.T. dos Santos Alexandre, A.V. de Melo Fialho, Representações de puérperas sobre o cuidado recebido no trabalho de parto e parto, *Avances en Enfermería* 36 (1) (2018) 22–30, doi:http://dx.doi.org/10.15446/av.enferm.v36n1.63993.
- [22] R.R. de Oliveira, E.C. Melo, E.S. Novaes, P.L. Ferracioli, T.A. de Freitas Mathias, Fatores associados ao parto cesárea nos sistemas público e privado de atenção à saúde, *Rev. Esc. Enferm. USP* 50 (5) (2016) 733–740, doi:http://dx.doi.org/10.1590/s0080-623420160000600004.
- [23] A. Moser, I. Korstjens, Series: practical guidance to qualitative research. Part 1: introduction, *Eur. J. Gen. Pract.* 23 (1) (2017) 271–273 PubMed PMID: 29185831.
- [24] K.J. Colorafi, B. Evans, Qualitative descriptive methods in health science research, *HERD* 9 (4) (2016) 16–25 PubMed PMID: 26791375.
- [25] A. Moser, I. Korstjens, Series: practical guidance to qualitative research. Part 3: sampling, data collection and analysis, *Eur. J. Gen. Pract.* 24 (1) (2018) 9–18 PubMed PMID: 29199486 PubMed Central PMCID: PMC5774281.
- [26] A. Tong, P. Sainsbury, J. Craig, Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, *Int. J. Qual. Health Care* 19 (6) (2007) 349–357 PubMed PMID: 17872937.
- [27] I. Korstjens, A. Moser, Series: practical guidance to qualitative research. Part 4: trustworthiness and publishing, *Eur. J. Gen. Pract.* 24 (1) (2018) 120–124 PubMed PMID: 29202616.
- [28] L.Y. Whitburn, L.E. Jones, M.A. Davey, S. McDonald, The nature of labour pain: an updated review of the literature, *Women Birth* 32 (1) (2019) 28–38 PubMed PMID: 29685345.
- [29] C. Corretti, S.P. Desai, The legacy of eve's curse: religion, childbirth pain, and the rise of anesthesia in Europe: c. 1200–1800s, *J. Anesthesia Hist.* 4 (July (3)) (2018) 182–190.
- [30] J.L. Hawkins, 150 years in pursuit of optimal pain relief during labour, *BJOG: Int. J. Obstet. Gynaecol.* 122 (June (7)) (2015) 993–993.
- [31] F. Brennan, D. Lohman, L. Gwyther, Access to pain management as a human right, *Am. J. Public Health* 109 (January (1)) (2019) 61–65.
- [32] World Health Organization, WHO Recommendations: Intrapartum Care for a Positive Childbirth Experience, World Health Organization, 2018.
- [33] P.E. Osamor, C. Grady, Women's autonomy in health care decision-making in developing countries: a synthesis of the literature, *Int. J. Womens Health* 8 (2016) 191.
- [34] P.I. Osuji, Relational autonomy in informed consent (RAIC) as an ethics of care approach to the concept of informed consent, *Med. Health Care Philos.* 21 (March (1)) (2018) 101–111.
- [35] J.F. Childress, Needed: a more rigorous analysis of models of decision making and a richer account of respect for autonomy, *Am. J. Bioeth.* 17 (November (11)) (2017) 52–54.
- [36] E.S. Dove, S.E. Kelly, F. Lucivero, M. Machirori, S. Dheensa, B. Prainsack, Beyond individualism: is there a place for relational autonomy in clinical practice and research? *Clin. Ethics* 12 (September (3)) (2017) 150–165.
- [37] M. Luhmann, S. Intelisano, Hedonic Adaptation and the Set Point for Subjective Well-Being. Handbook of Well-Being, DEF Publishers, Salt Lake City, UT, 2018 nobascholar.com.
- [38] X. Ma, M. Tamir, Y. Miyamoto, A socio-cultural instrumental approach to emotion regulation: culture and the regulation of positive emotions, *Emotion* 18 (February (1)) (2018) 138.
- [39] J.T. Larsen, H. Hershfield, B.J. Stastny, N. Hester, On the relationship between positive and negative affect: their correlation and their co-occurrence, *Emotion* 17 (March (2)) (2017) 323.
- [40] M. Conrad, S. Stricker, Personality and labor: a retrospective study of the relationship between personality traits and birthing experiences, *J. Reprod. Infant Psychol.* 36 (January (1)) (2018) 67–80.
- [41] K. Karos, A. Meulders, L. Goubert, J.W. Vlaeyen, The influence of social threat on pain, aggression, and empathy in women, *J. Pain* 19 (March (3)) (2018) 291–300.
- [42] C. O'donovan, J. O'donovan, Why do women request an elective cesarean delivery for non-medical reasons? A systematic review of the qualitative literature, *Birth* 45 (June (2)) (2018) 109–119.
- [43] J. Sandall, R.M. Tribe, L. Avery, G. Mola, G.H. Visser, C.S. Homer, D. Gibbons, N.M. Kelly, H.P. Kennedy, H. Kidanto, P. Taylor, Short-term and long-term effects of caesarean section on the health of women and children, *Lancet* 392 (October (10155)) (2018) 1349–1357.