Midwifery 116 (2023) 103531

Contents lists available at ScienceDirect

Midwifery

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

Research Article

The voice of memory in hospital birth: A phenomenological study

Beatriz Pereda-Goikoetxea[a,*], Blanca Marín-Fernández[b], Joseba Xabier Huitzi-Egilegor[a], Maria Isabel Elorza-Puyadena[a]

[a] Faculty of Medicine and Nursing, Department of Nursing II, University of the Basque Country, Dr. J. Begiristain 105, San Sebastián 20014, Spain
[b] Faculty of Health Sciences, Department of Nursing, Public University of Navarre, Barañain Avenue, Pamplona 31008, Spain

ARTICLE INFO

Article history:
Received 26 October 2020
Revised 3 August 2022
Accepted 27 October 2022

Keywords:
Childbirth
Emotions
Memory
Qualitative research
Women's experiences

ABSTRACT

Objective: To examine the perception of the hospital birth experience in women at 8 weeks and 8 months after the birth and to determine if there have been any changes in that perception.
Design: This was a prospective qualitative study with a phenomenological approach based on semi-structured, individual and in-depth interviews at 8 weeks and 8 months after childbirth as well as participant's observations. The data were transcribed and analysed thematically using ATLAS.ti 8 software.
Participants: 43 women participated in the first interview, and 33 of those participated in the second interview.
Setting: Donostia University Hospital, Gipuzkoa, Spain, 2016–2017.
Findings: Two main topics emerged from the data analysis which summarize the women's perception of childbirth: (1) memory allows us to recall the experience of hospital birth in time and space; (2) some moments are specially remembered. In the second topic, three subtopics were distinguished: fondest memory: meeting the newborn for the first time; highlighted positive memories: support from partners and professionals; and the worst memories were marked by feelings of worry and fear.
Conclusions and implications for practice: In the perception of the birth experience, positive and negative memories remain in intensity and continuity for at least up to 8 months. Their creation and evocation are highly influenced by the emotional experience and the initial visual impact of meeting the newborn for the first time, which constitutes a milestone in women's lives. The emotions experienced in childbirth and during the postpartum period shape the awareness, memory and new identity of being a mother.

Introduction

Childbirth is a very significant experience in a woman's life with important repercussions both physically, emotionally, mentally and socially (Larkin et al., 2012; Olza et al., 2018). This experience may involve the familiar and the unknown. It is accompanied by pain and/or joy, emotional stress and/or calmness, increased vulnerability and/or increased personal control, the risk of physical injury and even death and/or the recognition of personal potential, hope, and a change of roles and responsibility for the future newborn (Simkin, 1992). In addition to the experience affecting the life of the newborn (Power et al., 2019) and the mother-partner-child interaction (Eggermont et al., 2017), it may have a long-term positive and/or negative impact on the lives of the women (Simkin, 1991).

Perceiving the childbirth experience as positive is linked to factors such as the physical, emotional and informative support of professionals (NICE, 2014; WHO, 2018), meeting expectations (Aannestad et al., 2020; Beecher et al., 2020; Johansson et al., 2015), a woman's participation in decision-making (Bringedal and Aune, 2019; Coates et al., 2020) and feeling a sense of control during labour (Karlström et al., 2015; Rönnerhag et al., 2018; Striebich and Ayerle, 2020).

Negative perceptions of childbirth are linked to negative feelings such as fear and a lack of protection (Dencker et al., 2019), indifference or incompetence during the birth (Henriksen et al., 2017; Slade et al., 2019; Zhang et al., 2020) and the presence of unexpected complications (Sheen and Slade, 2018), such as a difficult birth or the need for a caesarean section (Waldenström, 2004). All of this can affect subsequent pregnancies, increasing the risk of depression (Field, 2018), a fear of childbirth (Rondung et al., 2016), post-traumatic stress disorder (Zhang et al., 2020), demanding elective caesarean section in cases where obstetricians do not

* Corresponding author.
E-mail address: beatriz.pereda@ehu.eus (B. Pereda-Goikoetxea).

https://doi.org/10.1016/j.midw.2022.103531

think it is necessary (Jenabi et al., 2020) and future reproductive decisions (Waldenström, 2004).

Women recall memories of the birth experience in retrospect. These are understood as subjective and selective reconstructions of the evoked situation (Erll and Nünning, 2010), ideas and revived images that are generated from the individual sociocultural aspects and the coordinates of time (real and relative) and space that the cognitive system processes and stores.

Few studies have explored the continuity and changes produced in the perception of the birth experience over time. Among them, Simkin (1991, 1992) and Waldenström (2004), who agreed that positive aspects in most cases remain consistent, while negative perceptions can intensify over time.

In this context, this study was designed to examine the perception of the hospital birth experience in women at 8 weeks and 8 months after the birth and to identify if there were any changes.

Methods

Setting

This study was conducted in the setting of the birth room of the Donostia University Hospital, a tertiary referral hospital located in San Sebastián (Spain), which is part of the Osakidetza-Basque Health Service. The average number of births recorded in the birth ward of this hospital from 2016 to 2019 was 3469 per year.

Study design

This was a prospective qualitative study conducted under an interpretive hermeneutic approach (Van Manen, 1990) compatible with Heidegger's philosophy (Heidegger, 2019), in which textual analysis is used as the main focus of the research, in order to understand the perception of the childbirth experience from an interpretive process carried out by the researchers (Gadamer, 2013). To explore a woman's memory of their birth experience, the researchers (one of them a midwife) adopted a reflective stance (Guillemin and Gillam, 2004), interpreting and deciphering the experiences lived by the women through a cyclical, inductive, open, flexible and emergent design (Patton, 2015). In this way, we tried to understand the phenomenon of study looking for the point where the memories of the women protagonists and the interpretations of the researchers converged, what the phenomenologist Gadamer called "fusion of horizons" (Gadamer, 2013). Thus, a shared interpretation was achieved with sufficient coherence to be applied to similar situations. This research followed the recommendations of the COREQ (Consolidated criteria for reporting qualitative research) guide (Tong et al., 2007).

Participants

The sample was obtained from women who gave birth at the Donostia University Hospital between January 1 and May 31, 2016.

The sampling strategy was adapted during the investigation. In order to develop the sampling frame, no attempt was made to identify the entire population, but rather those people who could provide rich information. Participants were selected in the postnatal ward. In the initial stage of the investigation, a convenience sample was chosen following the accessibility criterion, using the delivery record of the unit and taking into consideration the inclusion and exclusion criteria set forth in Table 1. As the study progressed, after the analysis of 19 interviews, it was necessary to delve into certain situations or experiences more precisely, so a theoretical sampling was adopted. Through it, an attempt was made to understand or have a broader perspective of the phenomenon, taking into consideration variables such as the type of start and end of labor, if some type of analgesia had been used, and the state of the newborn. This theoretical sampling was maintained until data redundancy or theoretical saturation was reached such that no new concepts or dimensions for important categories were identified (Morse, 2015).

Table 1
Inclusion and exclusion criteria for the women.

Inclusion criteria	Exclusion criteria
- Adequate oral and written comprehension of the Spanish and/or Basque language - 18 years of age or older - Birth of a live newborn - Pregnancy greater than or equal to 37 weeks - Cephalic presentation - Competence to understand and be able to sign informed consent	- Twin pregnancy - Serious maternal clinical condition in pregnancy and/or after birth that would lead to admission to the ICU or resuscitation - Neonatal admission to the intensive care unit - Having a previous or diagnosed psychiatric/psychological illness during pregnancy - Scheduled caesarean section - Having been attended to by the principal investigator

A total of 43 participants were interviewed at 8 weeks after childbirth, of which 33 took part in the second interview conducted at 8 months after childbirth. The reason why those 10 women failed to participate in the second interview were the following: five participants could not be reached, four participants commented that they did not have time, and one missed the appointment. The socio-demographic and obstetric characteristics of the participants are shown in Table 2.

Data collection

In order to ensure the stability of the data, the same researcher carried out all the data collection. Three data collection techniques were used: semi-structured interviews, participant observation and a field journal.

Semi-structured interviews with women were carried out on two occasions, at 8 weeks (M-A) and 8 months (M-B) after birth. In order to ensure the confidentiality of the information and their anonymity, the participants were numbered according to the order of the interview plus "M-A", when the interview was conducted at 8 weeks, or "M-B", if it was carried out at 8 months. All interviews were conducted face-to-face, with the newborn present, and recorded in audio format by the principal investigator (BPG), between January 2016 and January 2017. These began with an open question: "How has your birth experience been?" (8 weeks) and "What do you remember of your birth experience after eight months?" At all times, women were encouraged to freely give an account their experience (Rapley, 2018). The participants chose the times and places for the interviews, prior phone call from the main researcher one week before the interview. The average duration of the interview was 29 min and 51 s for the first interview and 21 min and 5 s for the second.

Participant observation was conducted by the main researcher in the birth room throughout 2016 and the first half of 2017, following a thematic guide (see Table 3). This immersion in the natural context allowed us to obtain the description of events, people and interactions that occurred in the delivery room in order to compare them with the information obtained in the semi-structured interviews.

Additionally, a field journal as described by Taylor and Bogdan (1998) was kept by the main researcher, in which she recorded her reflections, interpretations and feelings, methodological, analytical, and organisational decisions and even ideas considered im-

Table 2
Sociodemographic–obstetric characteristics of the women's sample.

Characteristics		N = 43. N (%) or mean ± standard deviation
Age	Age range in years: 25–43	34.6 ± 3.576
Education	Primary	4 (9.3%)
	Secondary	4 (9.3%)
	Post-secondary non-tertiary education	9 (20.9%)
	Tertiary education or higher	26 (60.5%)
Weeks of pregnancy	Range in weeks: 37–42	39.8 ± 1.313
Parity	Primiparous	26 (60.5%)
	Multiparous	17 (39.5%)
Type of delivery onset	Spontaneous	24 (55.8%)
	Induced	19 (44.2%)
Mode of birth	Normal	28 (65.1%)
	Forceps	3 (7%)
	Vacuum extractor	5 (11.6%)
	Spatula	2 (4.7%)
	Urgent caesarean	5 (11.6%)
Analgesia use	None	2 (4.6%)
	Local anaesthesia	3 (7%)
	Epidural anaesthesia	38 (88.4%)
Infant hospitalization	No	38 (88.4%)
	Yes	5 (11.6%)

Table 3
Thematic guide for participant observation.

Aspects to consider	Descriptive data
Date:	Who are they? How many? What are their roles?
Participants	
Scenario	What is the context and how does it condition their behaviour?
Events, behaviours and interactions	What is happening? How do individuals interact? How do they behave? What is verbal and non-verbal language like? Why is this happening and do they behave accordingly?
Frequency and duration	Are the events repeated? Are they isolated? In what sequence?
Aspects	Has an unforeseen event occurred? What meaning do participants give to what they do?
Feelings	What feelings are expressed verbally and non-verbally by the participants? Why do these feelings occur?
Comments, conversations, quotes from participants:	

Table 4
Phases of thematic analysis, cyclical continuous data.

Phases of the thematic analysis
1 **Familiarization with the data:** literal transcriptions made by the principal investigator, in the original language (Spanish or Basque). Repeated readings of the same and of the documents
2 **Pre-coding and exhaustive coding of the data:** through in vivo coding, open inductive coding and sub-coding. For this, a reflection log and the ATLAS.ti 8 programme were used that facilitated their systematic management
3 **Search for topics:** analysis of codes to identify different topics, using networks and matrices to establish relationships between codes, subtopics and main topics. Contrast the topics and codes with the rest of the researchers until reaching a consensus.
4 **Review of topics:** continuous comparison of topics in a constant cyclical analysis
5 **Define and name the topics:** the details of each topic were refined, generating names for each topic and identifying the possible subtopics that represent different levels of meaning in the data set
6 **Producing the report:** selection of lived excerpts relating them to the research question and the literature generating an analytical narrative

portant to guide the research. This recording helped reflexivity and iterativeness throughout the research process.

Ethical considerations

Participation was voluntary and without remuneration. At the time of recruitment in the postnatal ward, the women received written and oral information about the study and an informed consent form to be signed. The personal data of the participants were anonymous and confidential and only the main researcher knew the identity of the participants. The recordings have been saved in a coded file in the Faculty of Medicine and Nursing of the University of the Basque Country (UPV / EHU).

The research received a favourable report from the Ethical Committee of Clinical Research of the Health Area of Gipuzkoa (reference: BPG- APH-2015-01).

Data analysis

To generate a deep understanding of the meaning of the phenomenon from the perspective of women, a thematic analysis was carried out following the steps described by Braun and Clarke (2006), as shown in Table 4. Through this process of thematic analysis of the data, an attempt was made to relate the section of the speeches with the emerging themes, carrying out an interpretation of the texts that referred to parts of the lived experience. Subsequently, the whole was analyzed, continuing through a spiral process until reaching an understanding of the meaning of the text. This process alludes to the term "hermeneutical circle", that has its origin in the philosophy of Heideger (Holloway and Galvin, 2016).

Rigour

The criteria for quality rigour have been guaranteed by supporting the four premises proposed by Lincoln and Guba (1985): transferability, consistency, confirmability and credibility of the results Although transferability was initially questioned because the research focused on a particular tertiary hospital, rigour has been upheld by making exhaustive descriptions of the contexts, situations and subjects, achieving a level of data coherence that allows applicability in similar situations (Holloway and Galvin, 2016).

To ensure that the results were reliable and consistent, the same researcher conducted the interviews, and all of the researchers independently analysed the data, in order to prevent research results from being biased by the perspective of the same researcher. Methodological and analytical decisions were discussed until a consensus was reached. After each interview, the authors met to compare and discuss the themes and sub-themes that emerged after each independent analysis. Disagreements around interpretation were addressed through the use of tables, diagrams, and graphs to arrive at a refinement of themes and sub-themes. Through this iterative process of unification, selected themes and sub-themes were renamed and included in the final analysis.

Confirmability was verified by continuously questioning the subjectivity of both participants and researchers and the intersubjectivity, and guaranteed with the support of a follow-up audit conducted by two of the researchers throughout the process.

The credibility of the data was evidenced by the following ways: the confirmation of the data by the participants at the end of each session, summarizing the main ideas; the use of recordings and verbatim transcriptions; a detailed description of each phase of the research; by sending the results to the participants at the end of the study; and with the triangulation of data and techniques in different times and places. After sending the results, the participants had the opportunity to express their opinion and complement them. Besides, the analysis by the different researchers allowed a more complete understanding of the phenomenon and an increase in consistency and credibility.

To ensure the quality of the results, the consolidated criteria for reporting qualitative research (COREQ), considering 32 items, was used (Tong et al., 2007).

Findings

The results of the analysis were structured around two main topics that summarize the perception of women about their birth experience. In turn, the second of the topics branches off into three subtopics, as shown in Fig. 1.

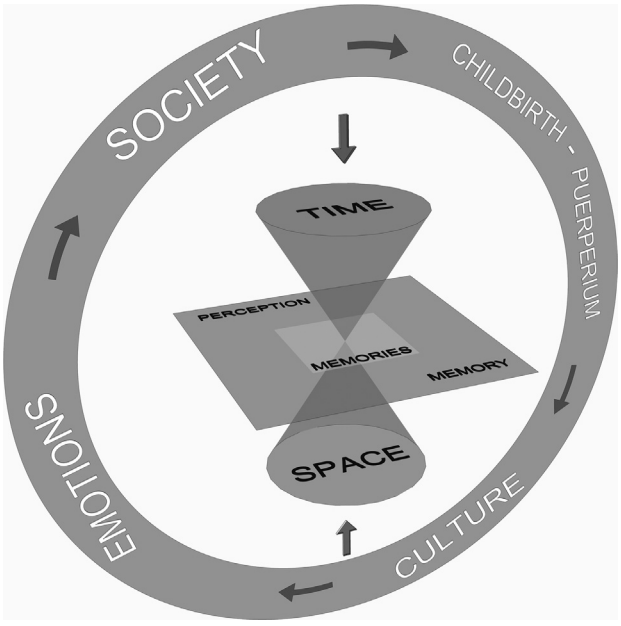

Fig. 2. Memory, time and space in hospital birth.

Memory allows us to recall the experience of hospital birth in time and space

Through their memories, women recalled and discussed their experience, describing the feelings, ideas, images and sensations that occurred during childbirth, the puerperium and even in the postpartum period. The memories of experiences lived in a specific time and space allowed them to bring this experience back to the present. Those memories were influenced by the ongoing sociocultural dynamics and by the emotions they experienced (see Fig. 2).

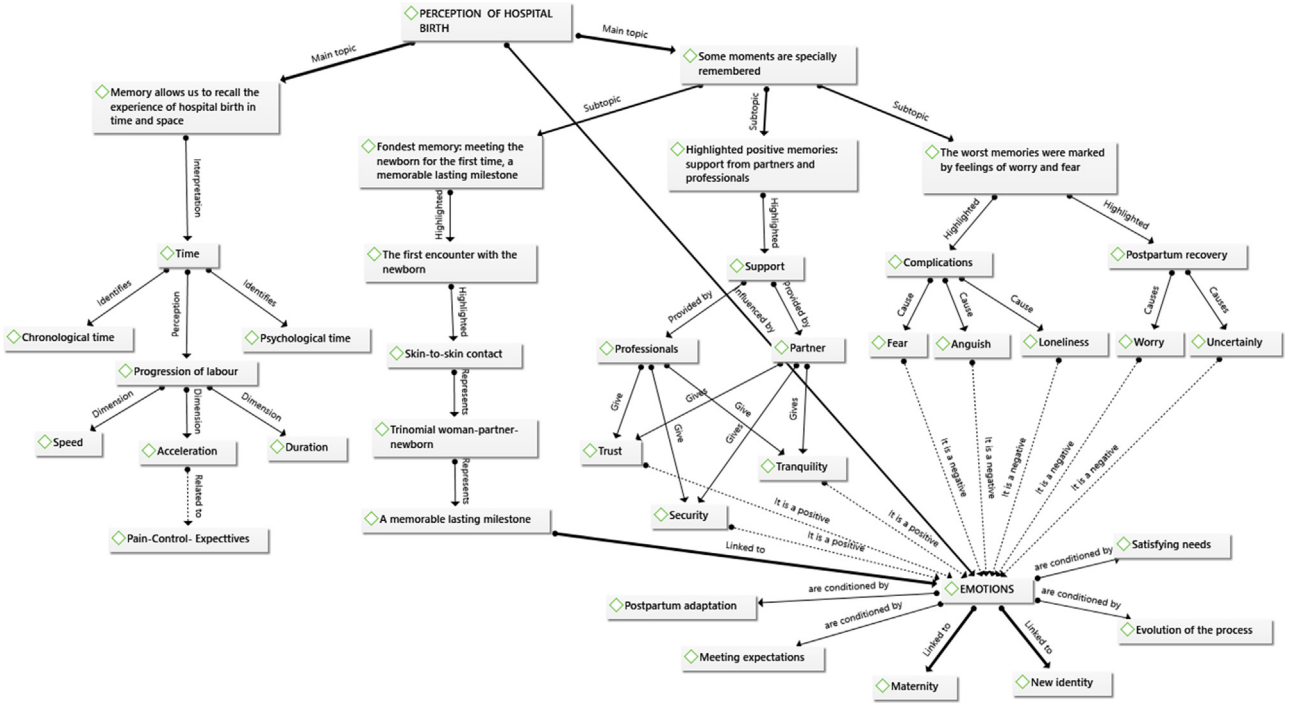

Fig. 1. Final map of main topics and subtopics with their interrelationships.

Some women felt as though they had forgotten about the childbirth, and they just recalled flashes of specific moments. However, they all narrated their experience in a descriptive, sequential and detailed manner.

"When you called, I thought, it all seems so far away, and it's not even two months ago, what I'm going to tell her?" 21 M-A (41:36).

"When you give birth, you get into a reverie and you can't see anything beyond it and you have like flashes, but I remember very clearly the moments I have told you about." 27M-A (53:38).

Their descriptions remained largely consistent between the interviews conducted at 8 weeks and 8 months, and three stages could be differentiated in space and time: prepartum, birth and postpartum. The first was associated with the time prior to arriving at the birth room; the second was the experience from active labour to birth; and the third was the experience of staying in the postpartum ward and then at home. This last stage acquired a greater relevance at eight months because it was related to parenting, and so it downplayed the prepartum and birth experiences.

"You go through it and you forget it, because we are focused on the child now and you forget about the birth." 21 M-B (105:40).

Time was interpreted individually, being marked by the emotions generated during the process of childbirth. These, in turn, were conditioned by the fulfillment of expectations, the evolution of the perinatal process, the satisfaction of experienced needs and the puerperal adaptation (see Fig. 1).

Time was conceived as both chronological and psychological. The first referred to a social time scale, where the course of labour and postpartum was related as a sequence of events determined in minutes, hours and days.

"I started with contractions on a Friday night, I had them for four hours and then they stopped. Saturday night they started again and I stayed at home until three in the morning and then I went to hospital. They examined me and I went to the delivery room ... In the end, he was born at 4 in the afternoon." 29 M-A (57:2).

"I was admitted on Friday; at three in the morning, my contractions started. At ten-thirty in the morning, I had strong contractions, and I asked for a bath. I was there until eleven in the morning and had already moved to expulsion." 39 M-A (77:69).

The second, psychological time, reflected the internal chronological record of time each woman made. This varied from woman to woman, since each woman gave importance to specific moments based on the meaning they had for her. The relative magnitude of time was defined by the individual world view of each woman, which resulted in a unique perspective of time.

"For me it was like ten horrible minutes, but then my partner said it had been only about a minute." 3M-A (6:115).

"In my world of pain, everything outside of that seemed so slow." 14 M-A (28:21).

"Surely there were times I am not aware of. For example, as time went by, I knew it had been fast, but I didn't know that an hour and a quarter had passed. The sense of time is like very subjective." 27M-A (53:39).

Observing the perception of time in the women's stories, it is perceived that it was the progression of childbirth that was determinant, being differentiated into three dimensions: speed, duration and acceleration. The speed showed the change in the birth sequence over time; the duration referred to the time that elapsed from the onset of dilation to postpartum; and acceleration to the variation in speed as labour progressed.

The description of intense pain and/or the presence of some complication or risk was associated with a slow and lengthy progression of labour, with the women sometimes losing track of time and linking it to a lack of internal control.

"They started to give me oxytocin, and it was extremely painful. Then, I lost track of time; I did not know what time it was. Having lost all control, thinking, 'What is this?'" 17 M-A (36:13).

Likewise, a slow and/or lengthy labour acquired negative connotations.

"The next few hours were truly quite distressing because I saw that it did not end, 12 hours and no progress... A little discouraging." 7 M-A (14:3).

"For me it was long, I did not expect dilatation to take so long. It was exhausting." 2 M-A (4:12).

In this subjective perception of the duration of the process, there were times when women described feeling an excessive time pressure which made them feel like a mere instrument. This resulted in a failure to establish a close relationship with the professionals as they initially expected.

"Sometimes you feel like following a timetable… and I understand, to some extent, having time guidelines, because of the risk involved. However, sometimes having very tight schedules… you say, 'but I'm not a machine!'" 18 M-B (109:5).

However, in general, the experience of quick progressions and short duration was more satisfactory.

"In my opinion, everything went very well, very quickly. I tell you, very happy." 12 M-A (24:6).

"Everything went fast. If I have another one, I wouldn't mind if it's just like this. I mean, it went really well, very well." 40 M-A (79:3).

The acceleration of labour was not uniformly valued. When acceleration was negative (or there was no progress), the women associated the experience with stress, doubt and a lack of control.

"They induced me, but I would not dilate and would not dilate. I was nervous all day, worried, and it was really hard." 31 M-B (131:24).

However, although in general, women stated a desire for a rapid birth, in some cases, the rapid and unexpected acceleration of the birth process was associated with feelings of disappointment and uncertainty.

"About acceleration, whoop! It's going too quickly…. You want to stop and say: wait. It is dizzying and then suddenly you find yourself pushing and with the child on top. What a scare! I told my partner, 'it could have been a little slower', and he said, 'but why?, better!'…" 27 M-B (123:22).

In general, the three dimensions were fundamentally related to pain, external and internal control and meeting expectations (see Fig. 1). It was observed that when the process did not meet women's expectations, time was perceived as long and acquired a negative connotation; however, when their expectations were met, they felt the experience was positive and was associated with what they considered a short duration.

"Expulsion didn't take long, I think it lasted half an hour and the girl was born. Really good, I did not expect it to happen so fast." 9 M-A (18:54).

"In one word, long, I remember how long it became eternal. All day long, it didn't seem like it would ever end." 31 M-A (61:24).

Some moments are specially remembered

The women described a whirlwind of positive and negative emotions linked to the birth experience through memories. Both at eight weeks and at eight months, they manifested emotions intermingled with often contradictory memories: suffering and delight, joy and anguish, security and uncertainty, fear and calm.

> *"Illusion and joy because the time had arrived, but also worry and nerves that everything would go well." 21 M-A (41:34).*

> *"Some moments I was happy and others I was down, then happy..." 21 M-B (118:18).*

> *"Feelings of joy, I was overwhelmed and did not know whether to cry or laugh." 23 M-A (45:23).*

> *"I was calm, but at the same time nervous because you want them to be born." 23 M-B (115: 10).*

Among the most vivid memories there are both positive and negative memories.

Fondest memory: meeting the newborn for the first time, a memorable lasting milestone

The first encounter, seeing, feeling and listening to the newborn, was associated with the end of the birth process, a sense of having achieved the goal and a confirmation of the absence of complications. All of this generated a host of emotions, most notably calm, joy and satisfaction. This specific moment, represented by the first skin-to-skin contact with the child, significantly marked the experience, constituting a milestone that lasted in their memories 8 months later.

> *"The best, when it is born and you have it with you, on top of you and they do not take it away from you at any time." 27 M-A (53:48).*

> *"The best, when they placed it on top of me. In addition, I said this is over, on top of me we have done very well. That was a high." 27 M-B (123:21).*

> *"When they put it on top of you and you think: we are both well, everything has gone well. Remembering that image makes me emotional, that image never leaves your mind." 41 M-A (81:27).*

> *"The best, when they told me it was fine." 41 M-B (140:15).*

This first encounter was remembered not only as the representation of the woman-newborn binomial, but also often linked to the partner, constituting a trinomial woman-partner-newborn (see Fig. 1). In their memories, this has been associated with intimacy, with respect and gratitude, and it is considered as an opportunity to face the new family situation created after birth and the beginning of a new way of life.

> *"It is very good that they leave the three of you alone in that moment of intimacy. It is super important that this is respected… it's the moment that you are getting to know your newborn… and that is the favourite memory I have." 33 M-A (65:68).*

> *"It is a miracle a person can be born from you… And when they put it on me, and being with my partner, it is the best memory I have. The first thing we did was to thank everyone for all their help." 33 M-B (133:14).*

Highlighted positive memories: support from partners and professionals

The partner's support was among the best memories reported by the participants, who considered it essential in order to have a satisfactory birth experience. The partner, defined by women as their main support in childbirth, was associated with positive emotions such as calm, confidence and strength (see Fig. 1).

> *"More than anything, the psychological support of the partner, because the baby belongs to both. His being there, I think it gives much psychological support." 9 M-A (18:7).*

> *"He was very nervous, had a bad time, because he gets dizzy when he sees blood… But the most important thing is that he was with me, supporting me, and that gave me peace of mind." 9 M-B (99:48).*

> *"Seeing my partner crying from emotion once everything was over. I would stick with that image." 36 M-A (71:44).*

> *"I was worn out myself, but I felt satisfied seeing him enjoying that moment." 36 M-B (141:17).*

In addition to the partner's support, the professionals' care and help was present in the narratives as the best memory, highlighting their companionship and the information they communicated. These memories were linked to positive emotions such as confidence, security and calm.

> *"The best memory is all the support and information I received in the hospital and the care provided. I am very happy." 9 M-A (18:70).*

> *"The support of my partner and the professionals, that gave me a feeling of security." 9M-B 99:48).*

> *"It is important that they are close, that they understand you, because you are nervous, and that they explain everything to you, that helps a lot." 31 M-A (71:44).*

> *"The midwife was with us the whole time and she was very good." 31 M-B (131:18).*

The worst memories were marked by feelings of worry and fear

The worst memories were linked to emotions of uncertainty and suffering, caused by feelings of anguish or fear in the face of a possible threat such as a complication, or triggered by a sense of lack of control and of not being able to manage (see Fig. 1).

> *"The worst… there is a moment when the pulse is lost and they begin to move, to make strange faces and you get nervous, what's the problem? The answer is always "there is no problem, don't worry". However, you are seeing the people's faces, their comments, very discreet, yes, but you know something is wrong." 23 M-A (45:21).*

> *"The worst moment was when his heartbeat stopped. I had a very bad time, everything was going so well." 23 M-B (115:8).*

> *"When I saw the two midwives discussing what to do and the gynecologist came in, I said, oh dear, there is a complication." 28M-B (55:16).*

> *"The worst memory was when during expulsion, I saw people coming in. I thought, something is wrong." 28 M-B (125:50).*

To the anguish and concern was added the memory of loneliness in a very evident way in cases where for different reasons the mother had to be separated from the child in the immediate postpartum period.

> *"I had a very bad time then, and I told him to go, go wherever he is. He left, and I was completely alone, it was a moment… of utter loneliness, you are there without your child, without anyone and full of worry." 42 M-A (83:81).*

> *"When he was born and did not cry. I thought, why hasn't he cried. They hospitalized him, and I was full of worry and had a feeling of loneliness I had never experienced before." 42 M-B (147:20).*

Another of the worst memories reported by women was postpartum recovery, a period from which women highlighted the pain, the feeling of being powerless and even helplessness, that were manifested by crying, lability and emotional instability. However, the women reported having managed to adapt through self-control, the regulation of breastfeeding and by changing their attitude. This adjustment brought stability in a period that was considered critical and in which women felt vulnerable.

"I was truly bad for about twenty days or so. What with the child, not knowing very well how to do things, and you are also recovering from the birth... it makes you down. It's normal." 4 M-A (8:54).

"The first weeks are complicated… I thought after having the baby I would be the happiest person in the world, bad the postpartum is hard. I was crying all the time for a week and besides I had problems with my breasts… Now that it is all over, I think it was not big deal, but you have to get through it." 4 M-B (91:12).

"When I got home, I had some terrible postpartum pains, I also have a very bad memory, of being powerless." 36 M-A (71:42).

"In the postpartum, I still had a lot of pain and I did not enjoy it very much." 36M-B (141:22).

Discussion

The memory of the birth experience is still present regardless of the time elapsed. The continuity of the general perceptions about childbirth and the changes produced in these memories over time have been the subject of analysis by various authors. Simkin (1991) studied women's perceptions immediately after birth and 15–20 years later; Waldenström (2003) made an analysis at two months and at one year, a time that she considered key for adaptation to motherhood and to study the evolution of this perception.

In the present study, the emotional experience, both positive and negative, marked the perception of the birth experience (see Fig. 1). This perception lasted over time, it was similar at eight weeks and at eight months and seemed to influence the development of the postpartum period and the adaptation to motherhood according to what was said in the interviews. Unlike what authors such as Simkin (1992) and Waldenström (2003, 2004) observed, the sensations of relief and euphoria after childbirth did not mask the initial assessment of the women, and a balanced view of childbirth was maintained over time.

Among the positive emotions, joy, calm and satisfaction were intensely remembered and especially linked to meeting their child for the first time (see Fig. 1). Additionally, the feeling of security, control, trust in the support relationships of both the professionals and the partner, along with the feelings derived from coping, were decisive in the construction of a positive memory of the birth experience. All this coincides with the findings of other authors (Curtin et al., 2020; Downe et al., 2018; Hosseini Tabaghdehi et al., 2020; Karlström et al., 2015; Meyer, 2013).

However, Simkin (1991, 1992) reported that although the intensity of the positive aspects tended to remained consistent over time, the negative events seemed to be emphasised and to increase over time. This phenomenon, known as the "halo effect", was also identified by Waldenström (2003, 2004) in his research when he described that the negative aspects were eclipsed by the initial emotion and joy, but over time, the event acquired a more realistic magnitude.

Negative emotions were remembered in relation to complications or in relation to an inadequate interaction with the professionals, such as a faulty communication. Lack of effort on the part of the professionals, not being heard, being ignored, feeling lonely, feeling abandoned and lack of psychological support were remembered over the months as negative and with the same intensity. The situations that generated negative memories coincide with those found by other authors (Henriksen et al., 2017; Rönnerhag et al., 2018; Sheen and Slade, 2018; WHO, 2018; Zhang et al., 2020), however, the fact that negative memories were remembered with the same intensity at 8 weeks and at 8 months contrast with the results obtained by Bennett (1985), who stated that negative feelings about the birth experience were more common 7 to 12 months after birth than in the first six months.

The results of the study conducted at Donostia University Hospital coincide with those of authors such as Waldenström et al. (2004), who identified as risk factors for a negative birth experience the emotions associated with pain and lack of control, complications and social aspects such as a lack of support from the partner and the professionals.

Unlike what has been described in other studies, in the present study, when constructing the final perception of the birth experience both at 8 weeks and 8 months, the women included the puerperal adaptation. In addition, the emotions experienced were conditioned by the fulfillment of expectations, the evolution of the perinatal process, the satisfaction of the needs experienced and the puerperal adaptation (see Fig. 1).

All in all, these results agree with those of Halbwachs et al. (1980) who explained that memories are located in socially constructed spatiotemporal coordinates. In the present study, a new aspect was associated with the memories of the birth experience (see Fig. 2): the influence of both positive and negative emotions, which remained over time and with the same intensity at 8 weeks as at 8 months.

Limitations

The use of participant observation can be questioned in phenomenological research because phenomenology aims to describe the perspectives of people from their own point of view and is reluctant to judge behaviours from an external perspective (Gerrish and Lacey, 2013). However, it must be considered that phenomenology understands human behaviour as the result of the way in which everyone defines their world. We act according to the meanings that people or things have for us. These meanings are social products that arise in interactions with others (Taylor and Bogdan, 1998). Hence, the researcher must understand the process of interpretation through participant observation. This allows the researcher to observe "in situ" from an external perspective those behaviours that can be considered unimportant by the observed subjects while they can be perceived as valuable by the observers.

In addition, it was questioned at all times whether knowing the interviewer was a midwife who worked in the same hospital might influence the women. Among the strategies to minimise this influence, her role as a researcher was emphasised, and in the course of the interviews, an empathetic, natural and trustworthy attitude was maintained. In addition, self-reflexivity was continuous (Holloway and Galvin, 2016), recognising the potential impact of subjective values and preconceived ideas.

An additional limitation could be the fact that the whole study was carried out in the same hospital, which could questioned the transferability of the data obtained.

Likewise, the average duration of the second interviews was shorter than the first, so the quality of the data was questioned throughout the investigation. To increase the credibility of the data, each woman was given full freedom to express her experience and at the end of the interview the information received was contrasted with her and confirmed.

Despite the limitations, this study offers valuable information by providing a global view of the phenomenon, considering the

perspective and individual perception of women. In turn, women had the opportunity to be heard, and their voices were taken into consideration, since they are the protagonists of this experience.

Despite the fact that five years have elapsed since data collection, the results obtained add depth to previous studies. These results offer a useful perspective for professionals in their daily practice, due to the impact that the memory of hospital delivery has on women's lives. In addition, they can serve as a starting point for further research. It would be interesting to develop additional research extending the study time over years and decades to deepen the study of long-term memory.

Conclusions

In the perception of the birth experience, positive and negative memories remain in intensity and continuity up to 8 months. Their creation and evocation are highly influenced by the emotional experience and the initial visual impact of the first encounter with the newborn. Seeing, feeling and hearing the newborn is identified by women as the encounter that significantly marks the experience, constituting a milestone in their lives that lasts in their memory.

Each woman feels, perceives and lives her memories of childbirth individually and uniquely. These memories are closely linked to the emotions experienced in the process of childbirth and during the postpartum period.

Positive long-term memories are marked by positive emotions such as calm, joy and satisfaction, which are associated with first meeting the child, with the support of the partner and professionals, with the feeling of control and with meeting expectations. Negative memories, in turn, are linked to negative emotions such as fear, worry, suffering and loneliness that are related to a possible threat such as a complication or a lack of control.

All of this symbolizes the complexity and dynamism of childbirth, from which each woman keeps a combination of positive and negative memories marked by intermingled emotions that actively influence the creation of individual identities.

The self-awareness of the women interviewed is largely based on their ability to recall the emotions experienced in childbirth and the postpartum period, which determines their new identity as a mother.

Ethical statement

Declaration of Competing Interest

The authors declare that no potential conflicts of interest are involved in the research, authorship and publication of this article.

Ethical approval

Before beginning the study (July 21, 2015), a favourable report was obtained from the Clinical Research Ethics Committee of the Health Area of Gipuzkoa (reference: BPG-APH-2015-01).

Participation was free and voluntary. All of the study subjects could drop out at any time. The confidentiality of the information and the participants' anonymity were guaranteed at all times through the assignment of codes. After the completion of the study, the participants received feedback on the results.

Funding sources

Not applicable.

Clinical trial registry

Not applicable.

CRediT authorship contribution statement

Beatriz Pereda-Goikoetxea: Methodology, Software, Data curation, Writing – original draft. **Blanca Marín-Fernández:** Data curation, Supervision. **Joseba Xabier Huitzi-Egilegor:** Software, Conceptualization. **Maria Isabel Elorza-Puyadena:** Data curation, Writing – review & editing.

Acknowledgments

The authors are grateful to the 43 participants who voluntarily made time to participate in the interviews for this study.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.midw.2022.103531.

References

Aannestad, M., Herstad, M., Severinsson, E., 2020. A meta-ethnographic synthesis of qualitative research on women's experience of midwifery care. Nurs. Health Sci. 22, 171–183. doi:10.1111/nhs.12714.

Beecher, C., Devane, D., White, M., Greene, R., Dowling, M., 2020. Women's experiences of their maternity care: a principle- based concept analysis. Women Birth 33, 419–425. doi:10.1016/j.wombi.2019.11.001.

Bennett, A., 1985. The birth of a first child: do women's reports change over time? Birth 12, 153–158. doi:10.1111/j.1523-536X.1985.tb00954.x.

Braun, V., Clarke, V., 2006. Using thematic analysis in psychology-qualitative research in psychology. Qual. Res. Psychol. 3, 77–101. doi:10.1191/1478088706qp063oa.

Bringedal, H., Aune, I., 2019. Able to choose? Women's thoughts and experiences regarding informed choices during birth. Midwifery 77, 123–129. doi:10.1016/j.midw.2019.07.007.

Coates, D., Thirukumar, P., Spear, V., Brown, G., Henry, A., 2020. What are women's mode of birth preferences and why? A systematic scoping review. Women Birth 33, 323–333. doi:10.1016/j.wombi.2019.09.005.

Curtin, M., Savage, E., Leahy-Warren, P., 2020. Humanisation in pregnancy and childbirth: a concept analysis. J. Clin. Nurs. 29, 1744–1757. doi:10.1111/jocn.15152.

Dencker, A., Nilsson, C., Begley, C., Jangsten, E., Mollberg, M., Patel, H., Wigert, H., Hessman, E., Sjöblom, H., Sparud-Lundin, C., 2019. Causes and outcomes in studies of fear of childbirth: a systematic review. Women Birth 32, 99–111. doi:10.1016/J.WOMBI.2018.07.004.

Downe, S., Finlayson, K., Oladapo, O., Bonet, M., Gülmezoglu, A.M., 2018. What matters to women during childbirth: a systematic qualitative review. PLoS One 13, 1–17. doi:10.1371/journal.pone.0194906.

Eggermont, K., Beeckman, D., Van Hecke, A., Delbaere, I., Verhaeghe, S., 2017. Needs of fathers during labour and childbirth: a cross-sectional study. Women Birth 30, e188–e197. doi:10.1016/j.wombi.2016.12.001.

Erll, A., Nünning, A., 2010. A Companion to Cultural Memory Studies. Walter de Gruyter, Berlin.

Field, T., 2018. Postnatal anxiety prevalence, predictors and effects on development: a narrative review. Infant. Behav. Dev. 51, 24–32. doi:10.1016/j.infbeh.2018.02.005.

Gadamer, H.G., 2013. Truth and Method, 2nd ed. Bloomsbury, London.

Gerrish, K., Lacey, A., 2013. The Research Process in Nursing, 6th ed. Wiley-Blackwell, Chichester.

Guillemin, M., Gillam, L., 2004. Ethics, reflexivity, and "ethically important moments" in research. Qual. Inq. 10, 261–280. doi:10.1177/1077800403262360.

Halbwachs, M., 1980. The Collective Memory. Harper & Row Colophon Books, New York (Ditter, F.J., Ditter, V.Y., Translation of: Halbwachs, M.).

Heidegger, M., 2019. Being and Time. Martino FINE Books, Eastford.

Henriksen, L., Grimsrud, E., Schei, B., Lukasse, M., 2017. Factors related to a negative birth experience–a mixed methods study. Midwifery 51, 33–39. doi:10.1016/J.MIDW.2017.05.004.

Holloway, I., Galvin, K., 2016. Qualitative Research in Nursing and Healthcare. Wiley, Blackwell, Chichester.

Hosseini Tabaghdehi, M., Keramat, A., Kolahdozan, S., Shahhosseini, Z., Moosazadeh, M., Motaghi, Z., 2020. Positive childbirth experience: a qualitative study. Nurs. Open 7, 1233–1238. doi:10.1002/nop2.499.

Jenabi, E., Khazaei, S., Bashirian, S., Aghababaei, S., Matinnia, N., 2020. Reasons for elective cesarean section on maternal request: a systematic review. J. Matern. Neonatal. Med. 33, 3867–3872. doi:10.1080/14767058.2019.1587407.

Johansson, M., Fenwick, J., Premberg, Å., 2015. A meta-synthesis of fathers' experiences of their partner's labour and the birth of their baby. Midwifery 31, 9–18. doi:10.1016/j.midw.2014.05.005.

Karlström, A., Nystedt, A., Hildingsson, I., 2015. The meaning of a very positive birth experience: focus groups discussions with women. BMC Pregnancy Childbirth 15, 251. doi:10.1186/s12884-015-0683-0.

Larkin, P., Begley, C.M., Devane, D., 2012. Not enough people to look after you": an exploration of women's experiences of childbirth in the Republic of Ireland. Midwifery 28, 98–105. doi:10.1016/j.midw.2010.11.007.

Lincoln, Y.S., Guba, E.G., 1985. Naturalistic Inquiry. Sage Publications, New York.

Meyer, S., 2013. Control in childbirth: a concept analysis and synthesis. J. Adv. Nurs. 69, 218–228. doi:10.1111/j.1365-2648.2012.06051.x.

Morse, J., 2015. Data were saturated …. Qual. Health Res. 25, 587–588. doi:10.1177/1049732315576699.

NICE, 2014. Intrapartum Care: Care of Healthy Women and Their Babies During Childbirth. RCOG Press, Londres Clinical Guideline 190.

Olza, I., Leahy-Warren, P., Benyamini, Y., Kazmierczak, M., Karlsdottir, S.I., Spyridou, A., Crespo-Mirasol, E., Takács, L., Hall, P.J., Murphy, M., Jonsdottir, S.S., Downe, S., Nieuwenhuijze, M.J., 2018. Women's psychological experiences of physiological childbirth: a meta-synthesis. BMJ Open 8, 1–11. doi:10.1136/bmjopen-2017-020347.

Patton, M.Q., 2015. Qualitative Research & Evaluation Methods: Integrating Theory and Practice. 5th ed.. SAGE Publications, London.

Power, C., Williams, C., Brown, A., 2019. Does childbirth experience affect infant behaviour? Exploring the perceptions of maternity care providers. Midwifery 78, 131–139. doi:10.1016/j.midw.2019.07.021.

Rapley, T., 2018. Doing Conversation, Discourse and Document Analysis, 2nd ed. SAGE Publications, London.

Rondung, E., Thomtén, J., Sundin, Ö., 2016. Psychological perspectives on fear of childbirth. J. Anxiety Disord. 44, 80–91. doi:10.1016/j.janxdis.2016.10.007.

Rönnerhag, M., Severinsson, E., Haruna, M., Berggren, I., 2018. Qualitative study of women's experiences of safe childbirth in maternity care. Nurs. Health Sci. doi:10.1111/nhs.12558.

Sheen, K., Slade, P., 2018. Examining the content and moderators of women's fears for giving birth: a meta-synthesis. J. Clin. Nurs. 27, 2523–2535. doi:10.1111/jocn.14219.

Simkin, P., 1992. Just another day in a woman's life? Part II: nature and consistency of women's long-term memories of their first birth experiences. Birth 19, 64–81. doi:10.1111/j.1523-536X.1992.tb00382.x.

Simkin, P., 1991. Just another day in a woman's life? Women's long-term perceptions of their first birth experience. Part I. Birth 18, 203–210. doi:10.1111/j.1523-536X.1991.tb00103.x.

Slade, P., Balling, K., Sheen, K., Houghton, G., 2019. Establishing a valid construct of fear of childbirth: findings from in-depth interviews with women and midwives. BMC Pregnancy Childbirth 19, 96. doi:10.1186/s12884-019-2241-7.

Striebich, S., Ayerle, G.M., 2020. Fear of childbirth (FOC): pregnant women's perceptions towards the impending hospital birth and coping resources–a reconstructive study. J. Psychosom. Obstet. Gynecol. 41, 231–239. doi:10.1080/0167482X.2019.1657822.

Taylor, S.J., Bogdan, R., 1998. Introduction to Qualitative Research Methods : A Guidebook and Resource. Wiley, New York.

Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int. J. Qual. Health Care 19, 349–357. doi:10.1093/intqhc/mzm042.

Van Manen, M., 1990. Researching Lived Experience : Human Science for An Action Sensitive Pedagogy. State University of New York Press, Alabany,NY.

Waldenström, U., 2004. Why do some women change their opinion about childbirth over time? Birth 31, 102–107. doi:10.1111/j.0730-7659.2004.00287.x.

Waldenström, U., 2003. Women's memory of childbirth at two months and one year after the birth. Birth 30, 248–254. doi:10.1046/j.1523-536X.2003.00254.x.

Waldenström, U., Hildingsson, I., Rubertsson, C., Rådestad, I., 2004. A negative birth experience: prevalence and risk factors in a national sample. Birth 31, 17–27. doi:10.1111/j.0730-7659.2004.0270.x.

WHO., 2018. WHO recommendations. Intrapartum care for A positive childbirth experience. OMS.Licence: CC BY-NC-SA 3.0 IGO., Geneva.

Zhang, K., Dai, L., Wu, M., Zeng, T., Yuan, M., Chen, Y., 2020. Women's experience of psychological birth trauma in China: a qualitative study. J. Matern. Fetal. Neonatal. Med. 20, 651. doi:10.1186/s12884-020-03342-8.