Asian Nursing Research 13 (2019) 270–276

Contents lists available at ScienceDirect

Asian Nursing Research

journal homepage: www.asian-nursingresearch.com

Research Article

Exploring Contributing Factors to Psychological Traumatic Childbirth from the Perspective of Midwives: A Qualitative Study

Deqin Huang,[1] Ling Dai,[1] Tieying Zeng,[1,*] Haishan Huang,[2] Meiliyang Wu,[1] Mengmei Yuan,[1] Ke Zhang[1]

[1] Department of Nursing, Tongji Hosptial, Huazhong University of Science & Technology, Wuhan, Hubei, China
[2] Department of Neurology, Tongji Hosptial, Huazhong University of Science & Technology, Wuhan, Hubei, China

ARTICLE INFO

Article history:
Received 18 February 2019
Received in revised form
1 October 2019
Accepted 1 October 2019

Keywords:
labor pain
midwifery
natural childbirth
psychological trauma
social support

ABSTRACT

Purpose: As midwives witness and attend the whole process of childbirth, they have a better understanding of which factors may cause traumatic childbirth. However, because most of the studies paid their attention on mothers, little is known about psychological birth trauma from the perspective of midwives. This study aims to gain a full understanding of which factors may contribute to psychological traumatic childbirth from the perspective of midwives.
Methods: A qualitative research was conducted using in-depth interviews, which involved fourteen midwives from the maternal ward of a tertiary hospital. The interviews were recorded and transcribed, and then, Colaizzi's method was used to analyze the contents of the interviews.
Results: We proposed four themes and eight subthemes on the influencing factors of psychological traumatic childbirth from the perspective of midwives: low perceived social support (lack of support from family and lack of support from medical staff), hard times (protracted labor in the first stage and futile efforts during the second stage), poor birth outcomes (poor birth outcomes of the mother and poor birth outcomes of the baby), and excruciating pain (unbearable pain of uterine contraction and labor pain was incongruent with the mother's expectations).
Conclusion: Medical staff should pay attention to psychological traumatic childbirth and its effects, and emphasis on the screening and assessment of birthing women with negative feelings so that their psychological traumatic childbirth can be prevented and decreased.

Introduction

Childbirth is one of the most crucial moments in a woman's lifetime. Although it could be a joyful event to mothers, it may lead to psychological birth trauma (PBT) to many other birth givers [1]. PBT, also referred to as psychological traumatic childbirth, is defined as the serious maternal psychological harm caused by the events occurring before and during childbirth [2,3], which can manifest as intense fear, helplessness, loss of control, and horror [4]. The reported prevalence of psychological traumatic childbirth ranges from 20% to 30% [5]. Murphy and Strong [6] explored new mothers' experiences of psychological traumatic childbirth and found that a difficult birth experience can have long-lasting psychological effects on mothers. Among others, 3.1% of women with psychological traumatic childbirth reported postnatal post-traumatic stress disorder (PTSD) after birth [7]. Psychological traumatic childbirth affects not only the mental health of birthing woman but also the mother–infant relationship, partnership, and subsequent childbirth after a previous traumatic birth [8]. It increases medical consumption as well. A study by Turkstra et al. [9] reported that psychological traumatic childbirth resulted in more visits by mothers to general practitioners and utilization of more additional services such as maternal health clinics.

PBT has far-reaching consequences. Once it happens, it is difficult to heal and may last a long time [10]. At present, because there

Deqin Huang: https://orcid.org/0000-0002-0656-1373; Ling Dai: https://orcid.org/0000-0003-2829-6459; Tieying Zeng: https://orcid.org/0000-0001-5369-5342; Haishan Huang: https://orcid.org/0000-0002-7094-9786; Meiliyang Wu: https://orcid.org/0000-0001-7578-3060; Mengmei Yuan: https://orcid.org/0000-0002-8591-7330; Ke Zhang: https://orcid.org/0000-0002-0327-9129
* Correspondence to: Tieying Zeng, PhD, RN, Department of Nursing, Tongji Hosptial, Huazhong University of Science & Technology, 1095 Liberation Avenue, Wuhan, Hubei, 430033, China.
E-mail address: 984451641@qq.com

https://doi.org/10.1016/j.anr.2019.10.002

are no effective therapeutic methods to treat psychological traumatic childbirth [11], the emphasis on preventive measures is needed. However, studies on its influencing factors are scarce. To our knowledge, there were only two studies have explored the factors related to PBT in birthing women, and both of them were from the perspective of birthing women. Another literature review indicated that women with previous mental health disorders, obstetric emergencies, neonatal complications, and poor quality of provider interactions were risk factors for traumatic childbirth [12]. Boorman et al [13]. reported that preexisting psychiatric morbidity, being a first-time mother, and experiencing an emergency caesarean section were predictors of traumatic childbirth. Although studies from the perspective of mothers can help us gain an intuitive and vivid understanding of influencing factors for their psychological traumatic childbirth, maternal perspective alone is not enough to paint a full picture of psychological traumatic childbirth because the birthing process involves not only mothers but also significant others, in particular, midwives.

In mainland China, the work scope of midwives is vaginal delivery [14]. As witnesses to the whole process of labor and delivery of mothers, midwives have a full understanding of what causes traumatic childbirth. Exploring psychological trauma from the perspective of midwives can add a different view to the existing knowledge because it represents the attempts to understand mothers' psychological trauma in a more professional manner. In addition, midwives' understanding of mothers' psychological traumatic childbirth can help rapidly identify their psychological trauma and provide targeted interventions to them [11]. Although there has been hardly any study on the evaluation of PBT by midwives, there is a considerable amount of research exploring their assessment and management of maternal mental health problems [15,16]. These studies indicated that midwives are potentially an indispensable part in the management of PBT. Nevertheless, little is known about midwives' perspectives on psychological traumatic childbirth. Consequently, understanding contributing factors for PBT from the perspective of midwives is needed.

Most of the research studies on influencing factors of mothers' traumatic childbirth are quantitative, which focus on enumerating influencing factors [13,17]. The phenomenological approach of qualitative research can help to obtain the subjective perceptions and feelings of midwives after witnessing the occurrence of psychological traumatic childbirth. Therefore, this study used descriptive words and in-depth interviews that could provide an angle of view to comprehensively and deeply understand contributing factors to psychological traumatic childbirth from the perspective of midwives. What is more, this study not only pointed out which factors may conduce to psychological traumatic childbirth but also described how these factors could contribute to it. Hence, the aim of this study is to gain a better understanding of factors contributing to traumatic childbirth from the perspective of midwives qualitatively.

Methods

Study design

The qualitative descriptive research used Colaizzi's phenomenological approach. The details are described as follows according to the standards for reporting qualitative research.

Setting and sample

A purposive sampling approach was used to collect data. Fourteen midwives from a maternity ward of a tertiary hospital from March to May 2018 were selected as participants. The inclusion criteria were as follows: (1) licensed midwives and (2) years of working $\geq$ 1 year. The exclusion criterion was as follows: midwives in in-service training.

Ethical consideration

This study was approved by the Ethics Committee of Tongji Hospital, Tongji Medical College, and the Huazhong University of Science and Technology. The study was approved by the head nurse from the Department of Gynecology and Obstetrics. Informed consents were obtained from all participants. Participants were also informed that they have the rights to withdraw from the study at any time. Anonymity of all participants was ensured by allocation of name codes. Our study guaranteed that all the information in the study was used only for research purpose.

Data collection

This study used face-to-face, semistructured in-depth interviews to collect information. Before the interview, we explained the purpose and the methods of our study to the interviewees. After their informed consents were obtained, real-time recording of the interview using a digital sound recorder was carried out. The interviews were conducted at a time and place convenient for the interviewees. The interview questions were as follows: “In the first/second/third stages of labor, what do you think can lead to psychological traumatic childbirth of the birthing woman?” At the end of the interviews, the researchers asked the following question to the interviewees: “For the interview, what else do you want to share?” In this way, more information was obtained. Facial expressions and body movements of the interviewees were heeded, and notes were taken down during the interviews. The interviews lasted 30~62 mins. The interviews were conducted until saturation of collected data was achieved. After collating data, we returned the data to the interviewees to see if the data were in accordance with what they expressed. Any inconsistency in the interview results was discussed and timely corrected.

Data analysis

One researcher transcribed the interviews verbatim in 24 hours after the interview. The method of Colaizzi [18] was used to analyze the collected data. The researchers repeatedly read the data literally, extracted out the useful information, coded repetitive information, and eventually summarized this information as themes. The Colaizzi method includes 7 steps: (1) read all the contents of interview; (2) extract significant statements; (3) formulate meanings; (4) organize the collection of meanings into clusters of themes; (5) integrate the clusters of themes into an exhaustion description; (6) establish the fundamental structure of the phenomenon identified by an unequivocal statement; and (7) return to interviewees for further information [19].

Results

Fourteen registered midwives participated in our study. All of them were females and had a bachelor's degree. The mean age was 31.79 years (ranging from 26 to 49 years); the mean midwifery working year was 5.89 years (ranging from 1 to 31 years). The majority (71.4%) were married, and half of them were mothers. Four themes and eight subthemes were proposed, which are shown in Figure 1.

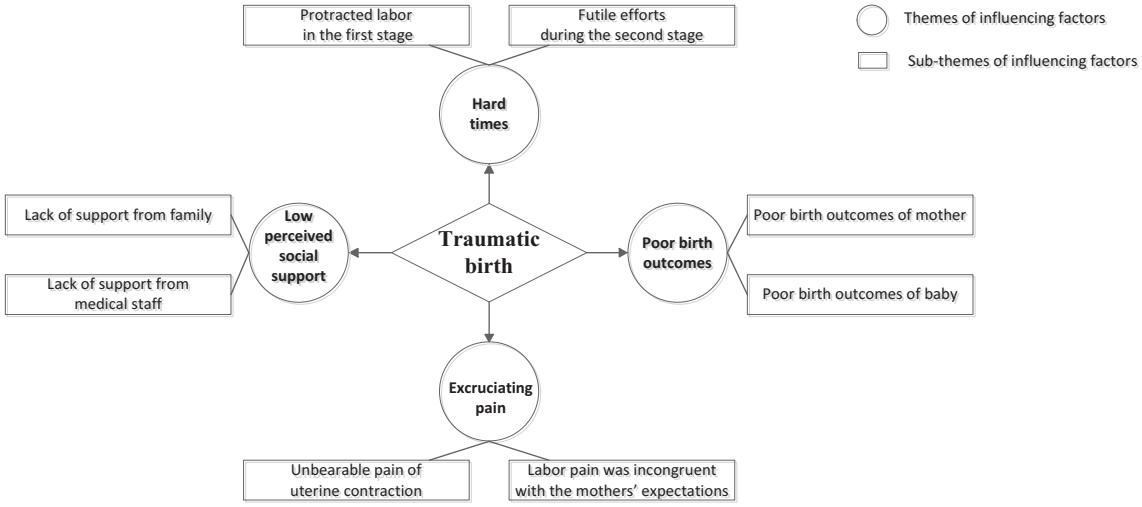

Figure 1. Themes and subthemes of influencing factors for psychological birth trauma from the perspective of midwives.

Low perceived social support

Lack of support from family

The low perceived support from family is mainly caused by the pressure that families put on the birthing woman during birthing process and by the lack of care for the mother after childbirth.

Stress from family. In China, many families prefer boys to girls, especially those coming from rural areas. Their expectation is that the birthing woman should give birth to a boy. The pressure families put on the birthing woman to deliver a boy results in great harm to the mother if the sex of the baby does not meet their expectation.

M1: *"We transferred a mother and her baby out of the delivery room. When the family was told that the baby was a girl, they became very cold and detested. This change in attitude caused great harm to the mother, since I saw she wiped her tears secretly. I think this kind of trauma may hurt the birthing women forever."*

M5: *"It's not easy to give birth to a baby. However, if the baby is a girl, the family can't accept it. It makes the mother feel devastated!" If the mother is not voluntary but pressurized by the family to deliver a baby, the traumatic childbirth can result in extreme consequences.*

M11: *"Low perceived family support, for example, the divergence between family and birthing woman on the way of delivery can also lead to traumatic childbirth. Once there was a mother who was forced by her family to have a vaginal birth. The family thought this way of delivery would be better for the baby, but the woman felt that she was being punished and tortured. So she didn't cooperate with us and closed her legs tightly, resulting in the final fetal asphyxia. For a person with such an extreme personality, the response to this stress can be intense."*

Postpartum neglect. During the pregnancy period, the birthing woman is the centerpiece of the family. However, after childbirth, the spotlight shifts from the mother to the baby. Thus, the mother's need for care is ignored, making the mother feel abandoned.

M1: *"She thought that her family didn't care for her anymore, and they just valued the baby. She feels she has a rough time during childbirth and should be comforted first, yet, the family put her second to the baby."*

M14: *"Some families paid more attention to the baby than to the mother. After delivery, they hurried to take over the baby and care for him/her, but forgot the mother who had just suffered intense pain to give birth and needed to be cared. The mother was depressed because of being forgotten."*

Lack of support from medical staff

During the process of delivery, birthing women rely on medical staff, who can quell their fears and ensure safety for them and their children. The lack of support from medical staff will make the birthing woman panic and helpless.

Lack of effective communication. Delivery is such a dangerous process that makes birthing women worry about the safety of the baby and themselves. If medical staff does not explain to the birthing woman about what happens during emergency situations, she will feel frightened.

M5: *"Two days ago, the birthing woman was in the second stage of labor, however the fetal heart rate kept declining, and an emergency C-section (cesarean section) was required. The doctor spoke to the mother about the situation for communicating with the mother and her family members was very important. We told her why the fetal heart rate dropped, and why she needed to have a C-section, so that she and her family could accept the decision of C- section. If we didn't tell them, they would not have accepted the decision."*

M14: *"Some mothers don't accept lateral episiotomy, however, if fetal heart rate drops or the baby is too big to go through the birth canal, we consider to conduct lateral episiotomy. Communicating with the birthing women in advance is necessary to tell them why they need lateral episiotomy and how the wound heals, so that they can accept it. If we don't communicate with them, the psychological trauma can be substantial."*

Poor service. Birthing women are weak while suffering labor pains. Sometimes owing to the busy work of midwives or birthing women's poor cooperation, the reproachful tone of midwives adds pain to them as well.

M1: *"During the second stage of labor, some birthing women could not bear the pain, they shouted and cried loudly. Some of us midwives loathed them, and said 'others don't feel painful, why are you not like the others!'."*

M4: *"Once a first-time mother tried her best to push the baby out during the second stage but her effort went in vain, we were very worried about her baby's safety, we scolded her for not pushing appropriately with a harsh tone, which sounded like accusatory to her.*

She felt hurt and cried sadly, since she had tried her best but not been understood."

M13: *"Some women reported after delivery that we were aggressive. If somebody didn't cooperate during the process, we would criticize them for the sake of mother and baby, which made them think us aggressive."*

Insufficient company by midwives. Unfamiliar environment and unknown stages of labor make the birthing woman fearful. Lack of company from relatives or the midwives makes them feel lonely and helpless.

M2: *"Putting aside the birthing woman and letting her feel pain alone were ruthless, which may make her in panic."*

M14: *"Maybe because of staff shortage, there were only two midwives on night shift. Sometimes there were several expectant mothers in the delivery room at the same time, we were too busy to be with everyone. Some mothers who were not accompanied during the labor process told us they felt lonely and being abandoned. Accompanying the birthing woman is very important, which could make difference for the labor stage. Talking with her could give courage and confidence to her."*

Dignity is not properly protected. Chinese people are conservative and exposing private parts can be a great challenge for them. Although vaginal delivery is a common process and birthing women are preparing to expose their private parts, their privacy should be properly protected. During the process of delivery, improper action of medical staff may cause great harm to the birthing woman.

M4: *"One birthing woman said 'I feel that I'm not a human being now, I am like a lamb to the slaughter.' In the labor room, she was asked to expose her perineum for an obstetric examination and there was a male doctor around, she dared not to refuse but stared at him all the time."*

M5: *"Sometimes, when the professor conducted clinical teaching, there were a group of students watching their private parts, which made them feel shameful."*

Hard times

Protracted labor in the first stage

The first stage of labor can be very long, especially for primiparas. The protracted term of pain makes the birthing woman lose hope.

M2: *"Many women said that, when it took 10 hours or more, they didn't feel much pain, but had a mental breakdown."*

M3: *"Some birthing woman had longer first stage of labor and they felt discouraged and hopeless." The long labor time and the pressure from other birthing women may make things worse.*

M12: *"If the first stage of labor was longer than others, the birthing woman might have some bad feelings. She might thought that she must have some problems so that her first stage of labor was longer. She would feel more frightened and lose hope for natural delivery."*

Futile efforts during the second stage

The most important thing of the second stage of labor is that the birthing woman breathes and pushes at the behest of midwives to make sure that the baby can be delivered successfully. In this stage, many birthing women push improperly, leading to futile efforts, and they feel exhausted.

M12: *"The main harm in the second labor process to the woman was that the process was too long, and she exerted herself for a long time but her effort went in vain. She felt despair and hopeless. Every minute she yearned for a leap forward since she was so tired and exhausted."*

M9: *"She had exerted herself so much, however, the prolonged descend made her exhausted and depressed."*

Poor birth outcomes

Poor birth outcomes of the mother

Inappropriate obstetric interventions. Most birthing women anticipate natural childbirth; however, an emergency cesarean section, lateral episiotomy, delivery with forceps, and manual removal of the placenta not only go against their expectations, but also lead to bad psychological impacts on them.

M5: *"The woman had exerted herself for a long time, but the baby didn't descend because of malpresentation. At that moment, we told her she needed an emergency C-section, she agreed but looked disheartened. Although both the mother and the baby were safe, the mother blamed us for not being able to identify the situation in advance and make the best choice for her, causing that she suffered twice and left her child in danger."*

M7: *"She may be afraid of delivery with forceps. Actually, I'm afraid about the intervention, too. Because forceps can hurt the brain of fetus, which may cause cerebral palsy. It can also cause injury to the fetus and the birth canal." The fear of lateral episiotomy felt by many birthing women is not because of pain, but because of some psychological barriers.*

M1: *"She was afraid that a lateral cut would affect her sexual life."*

M12: *"Two months after childbirth, she was not satisfied with her sexual life, but she was embarrassed to discuss it with her husband since she was a traditional Chinese woman. She felt she was not a perfect woman and this was a mental obstacle she could not overcome." Many midwives said that some birthing women had an adherent placenta and the placenta could not come out naturally, which needed manual removal of the placenta. This procedure might result in massive hemorrhage and make the birthing woman feel very uncomfortable and frightened.*

Severe complications. Complications during delivery include cervical laceration and postpartum hemorrhage, which make the birthing woman feel frightened. Long-term complications include poor wound healing of the perineum and leakage of urine.

Early complications. M4: *"The woman's cervix was lacerated, we needed to expose her wound with a vaginal retractor and stitch it up. She gritted her teeth and looked miserable. On the first day after giving birth, I went to examine her wound. She was so nervous and scared that she refused the anal examination which made her recall of the painful images of childbirth. Postpartum hemorrhage was dangerous and could lead to maternal death, the mother experienced the shift from conscious to comatose which made she very afraid."*

M9: *"A young mother suffered from post-partum hemorrhage, she was pale and tired, the monitor screen showed her heart rate at 118 beats per minute, I saw fear in her face as all medial staff gathered around her."*

M13: *"She said 'I didn't know why my blood pressure was very low. I couldn't breathe. I felt like I was dying. I could hear them all, but I couldn't speak. After the rescue, I still felt horrible, that was an unforgettable nightmare."*

Long-term complications. M1: *"She is a medical worker in the same hospital as I am. Everything was OK during the delivery process, but her perineal wound was severely dehisced after she was discharged from the hospital. The healing process was long and had a great impact on her life which put her in a bad mood. She believed that the poor recovery of her wound was caused by our improper operation. So she was not willing to see our obstetrical staff for a long time."*

M6: *"After giving birth to a baby, the mother failed to do rehabilitation exercises for pelvic floor muscle, which led to muscular flaccidity. As a result, she experienced stress urinary incontinence. I know*

several people who were younger than 40 years old had encountered this problem. When they sneezed or coughed, they had urinary leakage. Some of them said that they wore diapers. I think this kind of harm is tremendous."

Poor birth outcomes of the baby

All the midwives thought that the birth outcomes of the baby were the most important factor influencing the mother's psychological health status. Each mother wants to deliver a healthy baby. When an emergency situation happens, the mother prefers to protect the baby's life to her own life. Neonatal complications and stillbirth are two main conditions inflicting pain to the mother.

Neonatal complications. Most of the infants with complications need to be transferred to the neonatal intensive care unit for further observation and treatment. Maternal separation makes mothers feel fretful. They will be remorseful if their infants develop complications.

M5: *"If the mother delivers an infant with complications, she will feel very anxious. She has to face the fact that the baby is premature, until the baby is discharged from neonatal department. As a matter of fact, the problems related to prematurity cannot be solved at once. Many problems emerge during the growing process of the baby."*

M12: *"Her baby was admitted to the neonatal intensive care unit due to intrauterine hypoxia caused by a third degree of fecal amniotic fluid contamination. She didn't want to talk with anyone. Our soothing words made her feel more guilty, as soon as someone came to comfort her, she cried before she could say anything. She said it's all her fault."*

Stillbirth. Stillbirth does great harm to the mother, especially for women during the third trimester and women having difficulties in conceiving a baby.

M4: *"There was a woman whose baby had been more than 39 weeks. One day at home she suddenly felt no fetal movement, so she rushed to the hospital. B ultrasound showed that the baby had died. This was her first baby. After induced labor, when I talked to her, she trembled and cried."*

M6: *"There was a woman whose antenatal checks were normal, however her baby suddenly died in the uterus. I think if I were the woman, I would feel it was difficult to accept the fact."*

M9: *"A friend of mine experienced stillbirth. Her baby died in the uterus of a twisted umbilical cord. When it happened, she broke down and couldn't accept it. Although she recovered gradually with the support of her family, every time she looked back, she was very sad and worried about the health of her next baby. I think the impact of the event will never fade away until she has a healthy baby."*

Excruciating pain

According to many midwives, severe pain is an important factor for psychological traumatic childbirth. Some midwives think the pain of delivery can reach 9–10° if rated on a 10-point scale. A long term of pain causes great harm to the woman, which can make the birthing woman despair or even lose their hope.

Unbearable pain of uterine contraction

Because the pain of uterine contraction is intense, some birthing women are tortured by the pain, although they can tolerate some pain in daily life.

M8: *"At first, some mothers hoped for a natural birth. Then, they felt so painful and could not tolerate it. At last they gave up natural delivery and choosed cesarean section."*

M9: *"A mother said she could barely stand the pain and wanted to escape by dying or jumping out of a building. Of course. This kind of people were few, but the pain of childbirth was really intense and unbearable."*

Labor pain was incongruent with the mother's expectations

The hospital investigated in this study has developed a technique of labor analgesia. Many midwives think the technique of labor analgesia is a blessing for mothers who choose natural delivery, especially for women who cannot stand the pain. However, this technique has side effects. It raises the expectancy value of pain relief of birthing women and decreases the pain tolerance of them, which leads to their negative experiences.

M2: *"I think if the woman comes for the technique of labor analgesia, she expects less pain. When her uterine contraction is irregular, weak, or last for a short time, she already cannot stand the pain. As a result, she will feel more painful than the person who doesn't receive labor analgesia."*

M12: *"She thought that labor analgesia would be a great relief for her pain, but she found herself still in severe pain even with the anesthesia technique. She couldn't accept the discrepancy and each contraction made her feel unbearable."*

Discussion

Previous studies mainly focused on traumatic birth experience of mothers [1,4,5,10], although they involved some factors of birth trauma, they were sporadic and incomprehensive. All participants in our study were midwives and women with rich work experience, with the longest service time being 31 years, and more than a third of them had childbirth experience, so we can believe that the factors extracted from their perspectives were more objective and comprehensive. To our knowledge, this is the first study to explore the influencing factors of PBT from a professional midwife's point of view. The study showed that mothers did experience PBT during their childbirth period, and this concurred with the studies by Ayers [20] and Beck [8].

Improving social support systems

This study showed that lack of support from family and lack of support from medical staff were two main reasons resulting in traumatic childbirth of mothers. This result accorded with that of the studies from Taghizadeh et al. [5] and Simpson and Catling [12]. The present study showed that stress from family and postpartum neglect could result in birth trauma. In countries such as India, China, and some Arabic countries, son preference exists [21]. Yet whether the preference causes the mother's childbirth traumatic or not has not been researched. Our finding added new knowledge to the influencing factors of traumatic childbirth: the gender of the baby can be a stressor for birthing women. It is necessary to abandon the custom of favoring boys over girls to reduce the incidence of PBT. Our study indicated that lack of support from medical staff included lack of efficient communication, poor service, insufficient accompanying by midwives, and improperly protected dignity of mothers. These results were consistent with the findings by Simpson and Catling [12] that poor quality of health-care providers' interactions was a major risk factor for PBT. The study by Beck [8] also suggested that being stripped of mothers' dignity was one of the attributes of a traumatic birth. Evidence revealed that presence of other close persons who could provide support during labor and delivery could benefit the birthing woman physically and psychologically [1]. Women supported by family members and medical teams are more likely to express their needs freely [1], which will contribute to a positive birth [22].

Using strategies to help mothers go through hard times

Protracted first stage and futile efforts during the second labor were two factors resulting in traumatic childbirth. Our study found that protracted labor resulted in birth trauma, which was supported by Modarres et al. [23] that postpartum PTSD was associated with labor duration. Studies indicated that labor duration was significantly associated with childbirth fear among mothers [24], and women were more likely to have traumatic birth when they were feared and felt out of control during childbirth [25]. The company of the father could reduce birthing women's anxiety and help them go through the hard process [26]. Hence, encouraging the father to accompany the birthing woman during the process of birth might be an effective way to guard against the woman's birth trauma. For birthing women, antenatal education helps adding their sense of control and reducing negative experiences during childbirth [27]. During the first stage of labor, medical staff needs to explain why the stage of labor is longer to the anxious birthing woman and relieve the stress caused by others. Thus, the birthing woman could gain confidence during the process. For the second stage of labor, more support should be delivered to help the birthing woman go through the stage.

Providing explanation and consolation for poor birth outcomes

Women experiencing obstetric emergencies and having neonatal complications were more prone to have traumatic childbirth [12], which was accorded with our study result that poor birth outcomes of the mother and baby could cause psychological trauma to mothers. A study indicated that undergoing emergency cesarean section was associated with postpartum PTSD, which was in line with our study that an emergency cesarean section could cause traumatic childbirth [23]. A study showed that some mothers felt they were trapped and experienced the recurring nightmare of their childbirth [28]. Beck [8] indicated that women who experienced a previous traumatic birth tended to have a feeling of fear, terror, anxiety, and panic during the whole period of pregnancy. These studies corresponded with our study result that the mother with stillbirth was anxious during the period of subsequent pregnancy and childbirth. There is a lack of effective trauma-focused psychological therapies to treat traumatic stress symptoms in women after psychological traumatic birth [29]; effective interventions aimed at treating birth trauma need to be developed. Providing explanation and consolation for poor birth outcomes are recommended.

Applying technologies to relieve excruciating pain

Childbirth pain is a crucial influencing factor for postpartum PTSD [30]. Some birthing women prefer a cesarean section to natural delivery because of the excruciating pain [30]. These results corresponded with our findings. Besides, we found that the incongruence of pain and mothers' expectations could result in a traumatic childbirth. This finding adds a new contribution to research that the expectation–reality discrepancy of pain is one of the influencing factors for psychological traumatic childbirth. Pain management is required for birthing women to prevent traumatic childbirth. A study indicated that midwives significantly underestimated pain intensity at levels that mothers described as severe [31]. Instead of evaluating pain subjectively, midwives should access the pain level according to the feeling of the birthing woman. The investigated hospital has applied technologies to relieve pain, such as electrical stimulation and use of birth ball and doula chair. Nevertheless, the effects of these technologies on pain relief are limited according to the observation of our midwives. A meta-analysis research study indicated that epidural analgesia is the most effective method to relieve labor pain, and it does not impact the mode of delivery and labor time [32]. However, the technology was just newly introduced and applied in the hospital and still needs to be developed and promoted by health-care professionals.

Limitations

This study just selected midwives as participants and mainly discussed about birthing women with natural delivery. In the future, different populations such as obstetric doctors and nurses working in the operating room or maternity ward can be used as study objects to explore the influencing factors of traumatic childbirth.

Conclusion

This study explored the influencing factors for traumatic childbirth by vaginal delivery from the perspective of midwives. Four themes and eight subthemes were aforementioned. Medical staff should pay attention to psychological traumatic childbirth and its effects and put emphasis on the screening and assessment of birthing women with negative feelings so that their traumatic childbirth can be prevented or decreased.

Conflict of interest

No conflict of interest has been declared by the authors.

Acknowledgments

This study was funded and supported by the Health and Family Planning Commission of Hubei Province, China (grant no. WJ2019M144) and National Natural Science Foundation of China (grant no. 71974061). The authors wish to thank all the midwives who participated in this study. It was their willingness to share their experiences and insights which made this study achievable.

References

1. Taghizadeh Z, Arbabi M, Kazemnejad A, Irajpour A, Lopez V. Iranian mothers' perceptions of the impact of the environment on psychological birth trauma: a qualitative study. Int J Nurs Pract. 2015;21(Suppl 2):58–66. https://doi.org/10.1111/ijn.12286
2. The Birth Trauma Association (BTA). What is birth trauma [Internet]. Derbyshire, UK: BTA; 2017.
3. Greenfield M, Jomeen J, Glover L. What is traumatic birth? A concept analysis and literature review. Br J Midwifery. 2016;24(4):254–67. https://doi.org/10.12968/bjom.2016.24.4.254
4. Beck CT. Post-traumatic stress disorder due to childbirth: the aftermath. Nurs Res. 2004;53(4):216–24.
5. Taghizadeh Z, Irajpour A, Arbabi M. Mothers' response to psychological birth trauma: a qualitative study. Iran Red Crescent Med J. 2013;15(10):e10572. https://doi.org/10.5812/ircmj.10572
6. Murphy H, Strong J. Just another ordinary bad birth? A narrative analysis of first time mothers' traumatic birth experiences. Health Care Women Int. 2018;39(6):619–43. https://doi.org/10.1080/07399332.2018.1442838
7. Ayers S, Radoš SN, Balouch S. Narratives of traumatic birth: quality and changes over time. Psychol Trauma. 2015;7(3):234–42. https://doi.org/10.1037/a0039044
8. Beck CT. Middle range theory of traumatic childbirth: the ever-widening ripple effect. Glob Qual Nurs Res. 2015;2:1–13. https://doi.org/10.1177/2333393615575313
9. Turkstra E, Creedy DK, Fenwick J, Buist A, Scuffham PA, Gamble J. Health services utilization of women following a traumatic birth. Arch Womens Ment Health. 2015;18(6):829–32. https://doi.org/10.1007/s00737-014-0495-7

10. Taghizadeh Z, Irajpour A, Nedjat S, Arbabi M, Lopez V. Iranian mothers' perception of the psychological birth trauma: a qualitative study. Iran J Psychiatry. 2014;9(1):31–6.
11. Bastos MH, Furuta M, Small R, McKenzie-McHarg K, Bick D. Debriefing interventions for the prevention of psychological trauma in women following childbirth. Cochrane Database Syst Rev. 2015;4:CD007194. https://doi.org/10.1002/14651858.CD007194.pub2
12. Simpson M, Catling C. Understanding psychological traumatic birth experiences: a literature review. Women Birth. 2016;29(3):203–7. https://doi.org/10.1016/j.wombi.2015.10.009
13. Boorman RJ, Devilly GJ, Gamble J, Creedy DK, Fenwick J. Childbirth and criteria for traumatic events. Midwifery. 2014;30(2):255–61. https://doi.org/10.1016/j.midw.2013.03.001
14. Li SP. The effect of midwife care on the quality of maternal delivery. Electron J Clin Med Lit. 2019;6(44):101–2. Chinese.
15. Elshatarat RA, Yacoub MI, Saleh ZT, Ebeid IA, Abu Raddaha AH, AI-Za'areer MS, et al. Perinatal nurses' and midwives' knowledge about assessment and management of postpartum depression. J Psychosoc Nurs Ment Health Serv. 2018;56(12):36–46. https://doi.org/10.3928/02793695-20180612-02
16. McCauley K, Elsom S, Muir-Cochrane E, Lyneham J. Midwives and assessment of perinatal mental health. J Psychiatr Ment Health Nurs. 2011;18(9):786–95. https://doi.org/10.1111/j.1365-2850.2011.01727.x
17. Grekin R, O'Hara MW. Prevalence and risk factors of postpartum posttraumatic stress disorder: a meta-analysis. Clin Psychol Rev. 2014;34(5):389–401. https://doi.org/10.1016/j.cpr.2014.05.003
18. Colaizzi P. Psychological research as the phenomenologist views it. In: Valle RS, King M, editors. Existential phenomenological alternatives for psychology. 1st ed. New York, NY: Oxford University Press; 1978. p. 48–71.
19. Wirihana L, Welch A, Williamson M, Christensen M, Bakon S, Craft J. Using Colaizzi's method of data analysis to explore the experiences of nurse academics teaching on satellite campuses. Nurse Res. 2018;25(4):30–4. https://doi.org/10.7748/nr.2018.e1516
20. Ayers S. Thoughts and emotions during traumatic birth: a qualitative study. Birth. 2007;34(3):253–63. https://doi.org/10.1111/j.1523-536X.2007.00178.x
21. Williamson NE. Sex preference and its effect on family size and child welfare. Draper Fund Rep. 1982;11:22–5.
22. Taheri M, Takian A, Taghizadeh Z, Jafari N, Sarafraz N. Creating a positive perception of childbirth experience: systematic review and meta-analysis of prenatal and intrapartum interventions. Reprod Health. 2018;15(1):73. https://doi.org/10.1186/s12978-018-0511-x
23. Modarres M, Afrasiabi S, Rahnama P, Montazeri A. Prevalence and risk factors of childbirth-related post-traumatic stress symptoms. BMC Pregnancy Childbirth. 2012;12:88. https://doi.org/10.1186/1471-2393-12-88
24. Dencker A, Nilsson C, Begley C, Jangsten E, Mollberg M, Patel H. Causes and outcomes in studies of fear of childbirth: a systematic review. Women Birth. 2019;32(2):99–111. https://doi.org/10.1016/j.wombi.2018.07.004
25. Harris R, Ayers S. What makes labour and birth traumatic? A survey of intrapartum 'hotspots. Psychol Health. 2012;27(10):1166–77. https://doi.org/10.1080/08870446.2011.649755
26. Pestvenidze E, Bohrer M. Finally, daddies in the delivery room: parents' education in Georgia. Glob Public Health. 2007;2(2):169–83. https://doi.org/10.1080/17441690601054330
27. Vesel J, Nickasch B. An evidence review and model for prevention and treatment of post-partum posttraumatic stress disorder. Nurs Womens Health. 2015-2016;19(6):504–25. https://doi.org/10.1111/1751-486X.12234
28. Elmir R, Schmied V, Wilkes L, Jackson D. Women's perceptions and experiences of a traumatic birth: a meta-ethnography. J Adv Nurs. 2010;66(10):2142–53. https://doi.org/10.1111/j.1365-2648.2010.05391.x
29. Furuta M, Spain D, Bick D, Ng ES, Sin J. Effectiveness of trauma-focused psychological therapies compared to usual postnatal care for treating posttraumatic stress symptoms in women following traumatic birth: a systematic review protocol. BMJ Open. 2016;6(11):e013697. https://doi.org/10.1136/bmjopen-2016-013697
30. Garthus-Niegel S, Knoph C, von Soest T, Nielsen CS, Eberhard-Gran M. The role of labor pain and overall birth experience in the development of posttraumatic stress symptoms: a longitudinal cohort study. Birth. 2014;41(1):108–15. https://doi.org/10.1111/birt.12093
31. Baker A, Ferguson SA, Roach GD, Dawson D. Perceptions of labour pain by mothers and their attending midwives. J Adv Nurs. 2001;35(2):171–9. https://doi.org/10.1046/j.1365-2648.2001.01834.x
32. Wang TT, Sun S, Huang SQ. Effects of epidural labor analgesia with low concentrations of local anesthetics on Obstetric Outcomes: a systematic review and meta-analysis of randomized controlled trials. Anesth Analg. 2017;124(5):1571–80. https://doi.org/10.1213/ANE.0000000000001709