Chapter

Postpartum Posttraumatic Stress Disorder

Maja Milosavljevic, Dusica Lecic-Tosevski, Snezana Rakic and Tijana Vranes

Abstract

Childbirth is considered one of the most important parts of women's lives filled with happiness and fulfillment. However, some studies have shown that delivery can be associated with psychopathological issues, postpartum posttraumatic stress disorder (PTSD) being the most serious one. Psychological trauma during delivery can be related to specific traumatic events (obstetrical complications) or postpartum PTSD could develop after "clinically normal delivery." The objective of our study was to examine the prevalence and risk factors for postpartum PTSD. One month after delivery 2.4% of 126 primiparous women developed PTSD and another 9.5% had clinically significant levels of PTSD symptoms. Obstetrical interventions were the only significant risk factor for the development of PTSD. It is important to assess the parturients for this disorder, which can influence the functionality of mother, father, newborn, the whole family, and, finally, the whole society.

Keywords: postpartum PTSD, traumatic delivery, obstetrical complications, posttraumatic stress disorder, peripartum

1. Introduction

In most countries and cultures, the experience of giving birth is considered a positive experience in a woman's life cycle. It is presumed that bringing a new being to this world opens the door to happiness and joy for a woman, her partner, and the whole family. In most cases it is so; if we exclude the expected "baby blues" during the postpartum period, the time after giving birth is mostly filled with positive experiences, and the childbirth itself remains a beautiful memory.

However, there are well-known situations where childbirth can be experienced as an unwanted experience filled with pain, trauma, and unpleasant emotions. It is only during the last few decades that the experts began to deal with this topic and scientific research began, in search of answers to what exactly leads to the experience of traumatic childbirth, what are its manifestations and consequences.

At the Institute of Mental Health and Obstetrics and Gynecology Clinic "Narodni front," situated in Belgrade, Serbia—for the first time, during the past decade, a study was conducted on traumatic childbirth experience, risk factors for its occurrence, and clinical consequences for the mother.

From the information found in literature so far, it is known that the consequences of a traumatic childbirth experience can be many. In the postpartum period, a woman who has given birth can have only a couple of posttraumatic stress disorder (PTSD) symptoms, or she can develop a clinical form of this disorder. A traumatic experience can, consequently, lead to a damaged attachment with the baby, impaired relationship between partners, as well as general dysfunctionality of a woman. Another possible consequence is the occurrence of secondary tokophobia.

Due to all of the above, the scientific observation of postpartum PTSD can open the door to a timely and adequate preventive work, better training of health professionals to recognize and offer help to women who have given birth and had traumatic childbirth experience, who are silently suffering hidden within the circle of their loved ones.

2. History

One of the first written documents that link traumatic childbirth experience and consequential psychological disorders dates back to the nineteenth century when it was described that "disturbing and scary dreams" after childbirth usually preceded the onset of melancholic stupor [1]. It was not until a century later that more intense studying of this phenomenology began. In 1978, academic literature mentioned 10 women that, after long and painful experience of giving birth, had nightmares related to the labor [2]. Some 10 years later, other symptoms of traumatic disorder had been described, such as symptoms of intrusion, emotional numbness, and dissociation, that appeared in women who had given birth, after complicated labors with anamnesis of infertility and complicated pregnancy [3].

Along with the change of diagnostic criteria in 1994, in the DSM IV classification trauma started being characterized as a subjective experience, and childbirth as subjective traumatic experience has become a topic of research when it came to frequency and etiopathogenetic mechanisms [4]. Childbirth started being treated as death threat, current or threatening injury, or current or threatening sexual violence (Criterion A of the DSM IV classification). During childbirth, a woman can feel like there might be immediate danger to her life or to the baby, regardless of whether it is clinically justified. A woman's belief that she is in danger can lead to psychological consequences [5]. According to DSM V birth trauma can meet criterion A (one is, directly or indirectly, subjected to actual or threatening death, serious injury, and/or sexual violence), and the symptoms are grouped as intrusion, avoidance, irritability, and negative changes in mood and cognition [6].

Postpartum PTSD and its clinical presentation were described in 1995 [7], and just a year later, PTSD after childbirth had a normal course from a clinical perspective [8]. It was not until after the year 2000 that more intensive research on postpartum PTSD began, mostly in more developed countries, and later in the rest of the world.

3. Risk factors for the onset of postpartum stress disorder and its frequency

It is significant to determine the definition of a "healthy or normal" childbirth. Medical model suggests it is a childbirth with no death occurrences, one without any medical interventions but also one where the mother, her wishes, and attitudes are

appreciated. Childbirth is an extreme physical and psychological experience in the life of a woman, one which they can perceive either as a mild stress or a traumatic experience, depending on many factors. It differs from other potentially traumatic experiences because it is an occurrence a woman voluntarily goes through, and is a predictable, in most cases positive experience.

A number of factors can be linked to the onset of postpartum PTSD. As with PTSD after any other traumatic experience, risk factors for its occurrence can be classified in several ways: pre-traumatic (vulnerability factors and pregnancy itself), those related to the immediate effect of trauma (childbirth), and post-traumatic factors. Risk factors can also be classified into three groups: biological, psychological, and social. The specifics of risk factors for postpartum PTSD refer to the physiological changes that occur during childbirth, the circumstances in which childbirth takes place (most often hospital conditions), but also the active role of partners and health workers in the child-birthing process.

Risk factors that exist in the period before the traumatic experience are lower socioeconomic status of a pregnant woman and lower level of education, treatment of infertility, unwanted pregnancy, and previous traumatic experiences related to childbirth, as well as a history of psychological disorders (e.g. depression and PTSD) [9, 10]. Certain personality traits (neuroticism) can also be a risk factor for the onset of postpartum PTSD, as well as increased sensitivity to anxiety [11]. A history of sexual abuse, primarily in childhood, as well as pregnancies resulting from sexual abuse, are also pre-traumatic risk factors.

Factors present at the time of childbirth are as follows: stillborn child, spontaneous miscarriage, premature labor, or perinatal loss. The ending of childbirth, experienced pain, and social support during childbirth are also peritraumatic risk factors [9]. Obstetrical complications, such as vacuum extraction of the child, instrumental birth, emergency cesarean section, etc., are significant factors that can lead to PTSD.

The most stressful way of delivery for a woman is an instrumental vaginal labor, after that, an emergency cesarean section and normal vaginal labor, and the least stressful of all is planned cesarean section [11, 12]. The length of delivery and loss of blood during the entire event can be risk factors for postpartum PTSD. The feeling of having control over the delivery is something that can prevent the onset of PTSD, whether it's external control (over what other people are doing, the involvement of the mother in decision-making and sufficient level of information) or internal control (control over one's body and behavior).

Postpartum risk factors are inadequate social support (healthcare, support from a partner or family), newborn's temporary stay in intensive care units, additional traumatization, etc.

It is a known fact that postpartum PTSD can occur both after complicated and non-complicated deliveries, and it can even occur in women that had a "normal" vaginal delivery (delivery at expected time, with a healthy newborn). The subjective experience of childbirth itself is of key importance for the occurrence of posttraumatic stress disorder. Even when, medically speaking, neither women nor babies are in immediate life threat, some women will experience childbirth as a traumatic experience and later develop symptoms of PTSD.

Our study, which included 150 primiparous women that had a vaginal delivery, showed that there was no difference between the group of mothers with PTSD symptoms and those without symptoms in terms of sociodemographic characteristics and general clinical characteristics. The most important finding was that the group of mothers with PTSD symptoms had significantly more frequent obstetric

interventions (vacuum extraction, forceps extraction) and pelvic presentation during labor [13]. However, it is still not known which biological and psychological factors are the most significant for the development of postpartum PTSD. Parameters of sympathetic activity (pulse and blood pressure) and serum cortisol concentration are mentioned in the literature as possible biological factors. In our study, we found no significant difference between pregnant women without symptoms and those with symptoms of postpartum PTSD in terms of body weight, systolic or diastolic blood pressure, or heart rate measured immediately after delivery (trauma) [13].

According to currently available literature, the prevalence of postpartum PTSD is from 3.1 to 4.7% [14]. It is important to point out that individual symptoms of this disorder can be noticed in a significantly larger number of women in labor, from 1.5 to even 33.1%. In our study, the prevalence of PTSD associated with childbirth was 2.4%, while 11.9% of women who have recently given birth had some symptoms of this disorder 1 month after childbirth [13]. The varying frequency of disorders in literature is a consequence of methodological inconsistencies. When the assessment was performed closer to the time of delivery, the frequency of disorders was higher. In accordance with the well-known fact of spontaneous recovery after a person's exposure to a traumatic experience of any kind, it has been shown that the prevalence of postpartum PTSD decreases as time passes after childbirth and that the clinical picture is then milder in intensity [13, 15]. If all of the above is taken into account it can be expected that a very small number of women will develop symptoms of chronic postpartum PTSD after giving birth. It is also known that the partners of women giving birth can also develop symptoms of postpartum PTSD, and according to some estimates, the prevalence is 1.2% [16].

4. Clinical presentation and comorbidity of postpartum PTSD

Postpartum PTSD is manifested through clinical symptoms that do not differ significantly from PTSD symptoms that arise after exposure to any other traumatic experience—with symptoms of intrusion, avoidance, and overstimulation.

The specifics of clinical presentation are directly related to the birth trauma itself. Avoidance symptoms are manifested through avoiding and neglecting obligations related to baby care, avoiding breastfeeding and gynecological check-ups, as well as sexual relations with the aim of preventing possible new pregnancies. Women who have recently given birth often avoid any conversation topics related to childbirth. If the next pregnancy were to occur, they would choose cesarean section as the method of delivery [17, 18]. Breastfeeding can be a trigger and remind a woman of the trauma she has experienced, which is why she may avoid it, but on the other hand, the healing effect that the act of breastfeeding itself can have should not be neglected. Successful breastfeeding helps the mother who has given birth to feel like a "good mother" and thus overcome the symptoms of postpartum PTSD faster and easier.

The specificity of symptoms of overstimulation in postpartum PTSD may resemble symptoms of excessive fatigue and normal physiological changes after childbirth. Women who have given birth can develop traumatic amnesia with the inability to remember the childbirth itself, and even if they do remember it, they often do so while feeling pain, fear, or sadness. Also, negative emotions such as shame or guilt due to the situation they are in can occur [5]. The course of postpartum PTSD is characterized by a reduction of symptoms over time [13], while a chronic form of this disorder can rarely occur.

Just as it does not differ from PTSD after any other traumatic experience in terms of clinical presentation, postpartum PTSD does not differ significantly in terms of comorbidities. Most often, this disorder is associated with depressive disorder [19], anxiety disorders, and substance abuse [9, 15, 20]. Postpartum depression and PTSD have several symptoms in common, including sleep disturbances, difficulty concentrating (concentration difficulties), a sense of a shortened future, lack of interest in normal life activities, and a sense of alienation from other people.

5. Treatment of postpartum posttraumatic stress disorder

Given the insufficient knowledge of the effectiveness of postpartum PTSD therapy, most recommendations are based on proven therapeutic procedures for treating PTSD after any other traumatic experience.

Normalization of the condition is a general therapeutic procedure that involves psychoeducation of mother about the symptoms of PTSD, as well as the fact that the symptoms do not reflect a personal weakness or lower value of the woman. Education on how to reduce symptoms of guilt and self-blame, as well as doubts about one's own competence as a mother, are further steps in therapy. The education of other family members, as well as the mother herself, is also important [21]. Evidence-based psychological treatment of PTSD is the implementation of cognitive behavioral therapy (CBT) and Eye Movement Desensitization and Reprocessing (EMDR) [22, 23].

Due to significant stigmatization, women with PTSD symptoms who recently gave birth rarely seek professional help. If they do ask for help, it is difficult for them to plan a schedule because of the new baby which makes it impossible to adhere to psychotherapy setting. They usually avoid taking the prescribed psychopharmaceuticals out of fear that the therapy will harm their baby through breastfeeding. In the Republic of Serbia, the Ministry of Health issued official guidelines for the use of psychotropic drugs during breastfeeding (available on the Ministry's website) [24]. The most commonly prescribed medication in the treatment of postpartum PTSD is antidepressants from the group of selective serotonin reuptake inhibitors (SSRIs).

6. The consequences of postpartum PTSD

The development of postpartum PTSD can have numerous consequences for the mother herself, her relationship with her child, her partner, and her general functionality. The child and the act of breastfeeding can represent a "threat" and a reminder of a traumatic experience for a mother who has recently given birth, which is why a woman can avoid any obligations related to the care and nursing of the child, as well as breastfeeding. Mothers who have just given birth usually spend most of their time with the baby, who actually reminds them of the trauma they experienced, and gradually they begin to feel that they are in a vicious cycle of remembering the trauma they want to forget.

Attachment is a phenomenon defined by Bowlby during the 1970s of the last century, as a child's need to bond with a person who cares for him, by which a sense of security and protection is achieved [25]. The primary figure of attachment is the mother, and based on these early experiences later in life, the child will later form emotional relationships and partnerships. Research shows that in mothers with

postpartum PTSD, there is a disturbance in the emotional connection with the baby, which can have consequences on the subsequent development of the child.

Partnerships change in a way that a woman with PTSD symptoms can be "cold and reserved", avoid sexual relations and distance herself from her partner. Often, women avoid subsequent pregnancies, and if they do happen, they more easily opt for intentional termination of pregnancy and cesarean delivery.

7. Prevention of postpartum PTSD

Prevention measures for postpartum PTSD can be implemented on all three levels. Primary prevention would keep the disorder from happening (by timely identification of risk factors). Secondary prevention includes early identification of the disorder and the outset of treatment, and tertiary prevention includes rehabilitation of mothers who have already developed this disorder. The initial and basic step in the implementation of preventive measures is the education of health workers about the possibility of PTSD, risk factors, and the clinical course of postpartum PTSD, while the health workers in contact with women in labor [26] are expected to take on a more proactive role.

Primary prevention includes adequate psychophysical preparation of a pregnant woman for childbirth, as well as providing her with necessary information about the course of childbirth, possible obstetric complications, and medical interventions, making that information available at all times. Screening and identification of vulnerability factors take place during the procedure of obtaining detailed anamnestic data about previous pregnancies and their outcomes, previous traumatic experiences, and possible psychological disorders. Targeted screening is carried out if there is information about traumatic stress after childbirth. In that case, further steps should be adapted according to the ongoing and individual circumstances of each mother [27]. If there are real risk factors that could indicate the possibility of postpartum PTSD, a possible solution would be to offer those pregnant women a cesarean section as a way to end the pregnancy, noting in the medical documentation, as a mandatory sidenote, information about the special needs of such women during childbirth, with the possibility of providing additional care and support. In addition, it is important to provide women at risk with adequate pain control during labor. Satisfactory social support is an important factor in the prevention of postpartum PTSD [9, 10, 28].

Secondary prevention includes timely identification of traumatic stress disorder symptoms, acute stress disorder symptoms, or PTSD and providing adequate, evidence-based treatment. It is important to avoid psychiatrization, and attribute of the usual symptoms of fatigue, e.g. irritability, sleep disturbances, to PTSD symptoms. A woman who has recently given birth should be encouraged to talk about her experiences during childbirth.

Tertiary level of prevention is possible if traumatized mothers were to be monitored for a longer period of time with the aim of establishing a diagnosis of chronic PTSD and the need for further treatment [9].

8. Conclusion

Postpartum PTSD has symptoms of intrusion, avoidance, and overstimulation. With regular screening, it would be possible to detect pregnant women with problems

and risk factors more easily and offer them adequate, evidence-based treatment on time. It is also very important to respect the personality of the woman giving birth, her wishes, and her attitudes, in order to establish compliance and implement treatment in the best way possible.

The fact that a certain number of women will experience their childbirth as a traumatic experience, which will result in their general dysfunctionality, disruption of their relationships with the baby and their partner, indicates that it is important to pay scientific attention to this phenomenon. It is necessary to look at postpartum posttraumatic stress disorder as an important link in the postpartum period, to focus the attention of experts and the general public in that direction. It is necessary to educate health workers as well as the women giving birth and their family members about the possibility of stress-related disorders and possible risk factors that can lead to the onset of that mental disorder. It is also necessary to destigmatize women who suffer silently, hidden from the health system. Carrying out prevention measures would achieve a goal of both mother and baby being well and taken care of.

Conflict of interest

The authors declare no conflict of interest.

Author details

Maja Milosavljevic[1]*, Dusica Lecic-Tosevski[2], Snezana Rakic[3] and Tijana Vranes[4]

1 Institute of Mental Health, Belgrade, Serbia

2 Serbian Academy of Sciences and Arts, Belgrade, Serbia

3 ECPD—United Nations University for Peace and Development, Belgrade, Serbia

4 North Bristol NHS Trust, Bristol, UK

*Address all correspondence to: maja.milosavljevic21@gmail.com

References

[1] Savage GH. Observations of the insanity of pregnancy and childbirth. Guy's Hospital Reports. 1875;**20**:83-117

[2] Bydlowski M, Raoul-Duval A. Un avater psychique méconnu de la puerpéralité: la névrose traumatique post-obstétricale. Perspectives Psychiatriques. 1978;**4**:321-328

[3] Moleman N, van der Hart O, van der Kolk BA. The partus stress reaction: A neglected etiological factor in postpartum psychiatric disorders. The Journal of Nervous and Mental Disease. 1992;**180**(4):271-272

[4] American Psychiatric Association (APA). Diagnostic and Statistical Manual of Mental Disorders. 4th ed. Washington, DC: American Psychiatric Association; 1994

[5] Kendall-Tackett K. Intervention for mothers who have experienced childbirth-related trauma and posttraumatic stress disorder. Clinical Lactation. 2014;**5**(2):56-61

[6] American Psychiatric Association (APA). Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013

[7] Ballard C, Stanley A, Brockington IF. Post-traumatic stress disorder (PTSD) after childbirth. The British Journal of Psychiatry. 1995;**166**:525-528

[8] Goldbeck-Wood S. Post-traumatic stress disorder may follow childbirth. BMJ. 1996;**313**:774

[9] Ayers S. Delivery as a traumatic event: Prevalence, risk factors, and treatment for postnatal posttraumatic stress disorder. Clinical Obstetrics and Gynecology. 2004;**47**(3):552-567

[10] Andersen LB, Melvaer LB, Videbech P, Lamont RF, Joergensen JS. Risk factors for developing post-traumatic stress disorder following childbirth: A systematic review. Acta Obstetricia et Gynecologica Scandinavica. 2012;**91**(11):1261-1272

[11] Verreault N, Da Costa D, Marchand A, Ireland K, Banack H, Dritsa M, et al. PTSD following childbirth: A prospective study of incidence and risk factors in Canadian women. Journal of Psychosomatic Research. 2012;**73**(4):257-263

[12] Grisbrook MA, Dewey D, Cuthbert C, McDonald S, Ntanda H, Giesbrecht GF, et al. Associations among caesarean section birth, post-traumatic stress, and postpartum depression symptoms. International Journal of Environmental Research and Public Health. 2022;**19**(8):4900

[13] Milosavljevic M, Lecic Tosevski D, Soldatovic I, Vukovic O, Miljevic C, Peljto A, et al. Posttraumatic stress disorder after vaginal delivery at primiparous women. Scientific Reports. 2016;**6**:27554. DOI: 10.1038/srep27554

[14] Kranenburg L, Lambregtse-van den Berg M, Stramrood C. Traumatic childbirth experience and childbirth-related post-traumatic stress disorder (PTSD): A contemporary overview. International Journal of Environmental Research and Public Health. 2023;**20**(4):2775

[15] Alcorn K, O'Donovan A, Patrick J, Creedy D, Devilly G. A prospective longitudinal study of the prevalence of

post-traumatic stress disorder resulting from childbirth events. Psychological Medicine. 2010;**40**:1849-1859

[16] Heyne CS, Kazmierczak M, Souday R, Horesh D, Lambregtse-van den Berg M, Weigl T, et al. Prevalence and risk factors of birth-related posttraumatic stress among parents: A comparative systematic review and meta-analysis. Clinical Psychology Review. 2022;**94**:102157

[17] Lapp LK, Agbokou C, Peretti CS, Ferreri F. Management of post traumatic stress disorder after childbirth: A review. Journal of Psychosomatic Obstetrics and Gynaecology. 2010;**31**(3):113-122

[18] Shlomi Polachek I, Huller Harari L, Baum M, Strous RD. Postpartum anxiety in a cohort of women from the general population: Risk factors and association with depression during last week of pregnancy, postpartum depression and postpartum PTSD. The Israel Journal of Psychiatry and Related Sciences. 2014;**51**(2):128-134

[19] Ayers S, Bond R, Bertullies S, Wijma K. The aetiology of post-traumatic stress following childbirth: A meta-analysis and theoretical framework. Psychological Medicine. 2016;**46**(6):1121-1134

[20] Howard S, Witt C, Martin K, Bhatt A, Venable E, Buzhardt S, et al. Co-occurrence of depression, anxiety, and perinatal posttraumatic stress in postpartum persons. BMC Pregnancy and Childbirth. 2023;**231**:232

[21] Kendall-Tackett K. Childbirth-related posttraumatic stress disorder: Symptoms and impact on breastfeeding. Clinical Lactation. 2014;**5**(2):51-55

[22] WHO. WHO Releases Guidance on Mental Health Care after Trauma. Geneva, Switzerland: WHO; 2013

[23] Lewis C, Roberts NP, Andrew M, Starling E, Bisson JI. Psychological therapies for post-traumatic stress disorder in adults: Systematic review and meta-analysis. European Journal of Psychotraumatology. 2020;**11**(1):1729633

[24] Nacionalne smernice za primenu lekova u periodu dojenja. Available from: https://www.zdravlje.gov.rs/view_file.php?file_id=1991&cache=sr [Accessed: July 21, 2023]

[25] Bowlby J. Attachment and loss. In: Attachment. Vol. 1. NewYork: Basic Books; 1969

[26] Milosavljević M. Prevalenca posttraumatskog strensog poremećaja (PTSP) u postpartalnom periodu i njegova veza sa nivoom kortizola u krvi [thesis]. Fakultet medicinskih nauka. Kragujevac, Srbija: Univerzitet u Kragujevcu; 2016

[27] White A, Saxer K, Raja S, Hall SL. A trauma-informed approach to postpartum care. Clinical Obstetrics and Gynecology. 2022;**65**(3):550-562

[28] Handelzalts JE, Levy S, Ayers S, Krissi H, Peled Y. Two are better than one? The impact of lay birth companions on childbirth experiences and PTSD. Archives of Women's Mental Health. 2022;**25**(4):797-805