



# Traumatic Birth Experience with Cesarean Section and Breastfeeding Outcomes

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Received 03 November 2022;

Accepted 16 November 2022;

Published 20 November 2022

## Introduction

A perinatal factor that appears to be highly correlated with postpartum PTSD is breastfeeding. There are several researchers who have studied the traumatic experience of birth and its impact on breastfeeding. More specifically, Türkmen in 2020 [1] reported a high correlation between Post Traumatic Stress Disorder (PTSD), traumatic perception of childbirth and low breastfeeding self-efficacy. According to the authors, the most important reason for low breastfeeding rates in PTSD postpartum women is the increased cortisol secretion, which suppresses oxytocin production resulting in reduced milk production. In another recent study published in 2018 [2], it is equally argued that postpartum PTSD can negatively affect the initiation and maintenance of lactation. It is a fact that a traumatic birth experience can create difficulties in breastfeeding from the beginning, and even undermine it completely. For example, in another study, mothers who had a complicated vaginal delivery or an Emergency Cesarean Section (EMCS) were more likely to suffer from PTSD and breastfeeding difficulties [3]. A possible explanation for this phenomenon was attempted by Beck in 2011 [4], describing how breastfeeding after a traumatic birth experience can trigger flashbacks to the traumatic birth and ultimately act as a deterrent to breastfeeding in the mother trying to avoid mental pain.

In contrary to the aforementioned opinions, breastfeeding can be an extremely healing process after a traumatic birth experience. For some mothers, breastfeeding can be an opportunity to overcome the traumatic experience of birth, to gain confidence and to prove to themselves their success in the maternal role [5].

Based on the above and with the aim of investigating the relationship between traumatic cesarean section and breastfeeding, we designed a prospective study of postpartum women in a public University Hospital in Greece. Of the 600 women who gave birth by cesarean section during the period March 2019 to March 2021, 538 met the criteria for inclusion in the study (Figure 1). The study was approved by the University Hospital of Larisa Ethics Commission. Approval: 18838/08-05-2019. Furthermore, women gave their written consent for their participation. All women had a medical dossier from which we obtained the demographics and medical data. Excluded from the study were all women with difficulties in understanding the Greek language or other cognitive difficulties. The study was carried out in 2 phases: a) in the first phase (2nd day after surgery), a socio-demographic data questionnaire and the Perinatal Stressor Criterion scale [6] were used b) in the second phase (40 days after surgery) the PCL-5 [7] which provides a provisional diagnosis of PTSD was used.

The results of our research showed that women who did not breastfeed in the first postoperative days after a traumatic birth, had a statistically significant difference in developing PTSD compared to women who had breastfed. More specifically, through the Mann-WhitneyU test a statistically significant difference ( $U = 25226.00$ ,  $p < .001$ ) of PTSD in relation to breastfeeding was shown. Women who had not breastfed after caesarean section (MeanRank = 306.52) are likely to develop PTSD in a greater percentage, compared to women who breastfed (MeanRank = 251.80), regarding the sample of the present research. (Table 1). In addition, women with EMCS were more likely to develop PTSD than those who underwent Elective Cesarean Section (ELCS).

Thus, it appears that the relationship between lack of breastfeeding and traumatic birth experience and post-traumatic stress is complex and bidirectional. More research may be needed on the effect of mode of birth on breastfeeding and women's response to birth trauma.

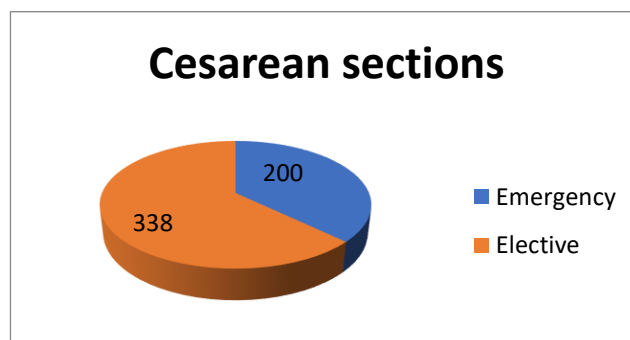


Figure 1. Frequency of elective and emergency cesareans.

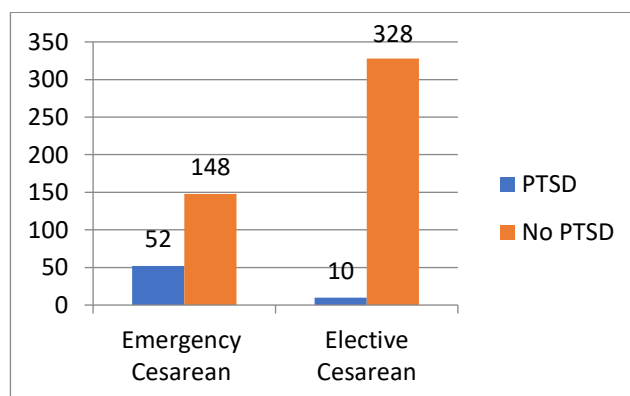


Figure 2. Frequency of PTSD between the kind of cesarean.

**Table 1. Mann-WhitneyU test with PTSD as dependent variable in relation to Breastfeeding**

Breastfeeding	N	Mean Rank	p<
No	174	306.52	.001
Yes	364	251.80	

Notes: Mean Rank = middle of the ranking,  $U = 25226.00$ ,  $p < .001$

## List of abbreviations

PTSD: Post Traumatic Stress Disorder

EMCS: Emergency Cesarean Section

ELCS: Elective Cesarean Section

## Data Availability

Not applicable.

## Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

## Funding Statement

None

## Ethical approval

The ethical standards of the institutional research committee were following the 1975 Helsinki declaration.

## Authors' contributions

Conceptualization: Evangelia Antoniou

Writing: Eirini Orovou and Panagiotis Eskitzis

Data-analysis: Eirini Orovou and Evangelia Antoniou

Critical feedback and editing: Evangelia Antoniou

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