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Research article

Patients' perception of childbirth according to the delivery method: The experience in our clinic

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Abstract

Introduction: The aim of this study is to identify the way in which childbirth in general, and the delivery method in particular, influenced the maternal psychosocial status and the perception upon birth during postpartum. Material and method: We conducted a cohort type 2 prospective study. We included patients who had given birth at "Bucur" Maternity of Hospital "St. John" Bucharest from the 1st of January 2017 until the 1st of January 2018. Results: The majority of the patients (21.05%) who chose to give birth vaginally assigned the maximum degree (10) to the difficulty of birth. The patients who gave birth through cesarean section experienced the feeling of sadness in a higher percentage than those who gave birth vaginally (30.52% versus 21.05%). Among the patients who were in favor of having more children, 85.45% preferred the same delivery method. All the patients who gave birth vaginally wished to have other children using the same method, while 81.4% from the patients who gave birth through cesarean section were in favor of more children. Conclusion: The patients' perception of childbirth was a subjective parameter. Further studies with standardized questionnaires should be applied for more reliable results.

Keywords : vaginal delivery, cesarean section, lactation, sadness, primiparous

Highlights

- ✓ Patients who gave birth vaginally assigned the maximum degree to the difficulty of birth, compared with patients who gave birth through cesarean section.
- ✓ Patients who gave birth through cesarean section experienced the feeling of sadness more than those who gave birth vaginally.

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Introduction

The experience of birth depends on many factors, some related to the newborn (weight, gender, Apgar score), others related to the mother (age, status of primiparity or multiparity, gestational age, delivery method, perceived difficulty, complications, pain intensity, mobilization, lactation, and psychological status), and some related to the healthcare system (chosen delivery method, peripartum support). Obstetrical events can have a long-term psychological impact upon women. Certain behavior-related and socio-demographic factors have been associated with maternal depression and changes during subsequent life (1). Furthermore, birth-related memories by a mother may have a long-term influence on her mental status and influence her decision regarding future childbearing (2).

Several experimental studies on laboratory animals have attempted to anticipate postpartum stress. Their results report that peripartum pregnancy-induced stress interacts with maternal behavior in ways that may have major consequences on the offspring. In humans, severe peripartum stress may cause postpartum depression or other maternal behavioral disorders (3), with the reported incidence of postpartum depression about 13% (4). The first pregnancy may have more consequences for the mother than the second or the third pregnancy, as the first pregnancy is associated with additional risks of peripartum depression that result from the mother's lack of experience or insufficient preparation for such an event. This idea is supported by studies that reveal that depression is less frequent in couples who attended parenting courses

Although the concept of postpartum depression was introduced in the literature (5) as early as 1950, with many subsequent confirmations, the puzzle is why some women develop postpartum depression or psychological disorders and others do not. Psychological risk factors associated with postpartum depression include a personal history of depression, anxiety or low social support, and recent negative life events. Depression also occurs more often in women who experience financial difficulties, a family member's death, or domestic violence. Furthermore, women with psychosis have a rebound risk of up to 90% (5). Interestingly, the timing of motherhood appears not to be a major factor for postpartum depression, as a large cohort study of young Australian women evaluating the relationship between mental health-related quality of life and sociodemographic, health behavior, and health-related variables revealed good adaptation to situations and improved quality of life through early adulthood regardless of the timing of motherhood (6).

In general, research indicates that the peripartum period can represent a challenging time for young women. They might, for example, experience an easy birth associated with fetal complications, or maternal complications related to vaginal or cesarean section, or none of these, but the psychological impact of the experience, no matter what it is, may be significant for some women. The aim of this study was to identify how the birth experience in general, and the delivery method in particular, influences maternal emotional status and perception during postpartum. We chose this topic because the perception, the understanding, and the ways each woman relates to the birth event are different, although they may share some elements. When psychological disturbances appear postpartum, it is important to identify whether the experience of birth itself may bear some responsibility for them, as such effects have far reaching implications for the health of the mother and child, as well as for the overall health care system of the country (7-9).

Materials and Methods

We conducted a cohort type 2 prospective study. We included inpatients from the "Bucur" Maternity of "St. John" Hospital in Bucharest, from the 1st of January 2017 until the 1st of January 2018. Inclusion criteria were: primiparous patients, interviewed after at least 6 weeks of postpartum, delivery by vaginal method or cesarean section, and patients with live newborns.

Data were analyzed using SPSS 20.0 (Statistical Packages for Social Sciences). Normally distributed variables were reported as mean +/- standard deviation, otherwise the median with minimum and maximum values was reported. Statistical comparisons were made with the t-test for ordinal or higher-level data, and with the chi-square test for nominal data.

We attempted to contact 254 patients, of whom 78 were included in our study. Non-participation was due to various reasons: candidates lacked time, were unreachable due to incorrect phone numbers, did not respond to our calls, or provided responses for which we lacked confidence due to patient hearing deficiencies, background noise during the call, etc.

We compared the patients who gave birth vaginally to the patients who gave birth through cesarean section.

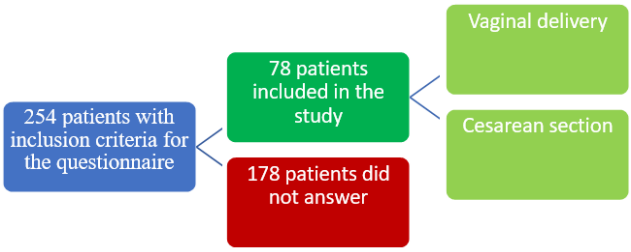

Figure 1. Study design

We selected only primiparous patients so as to minimize perceptions related to other births. Characteristics of the study group are presented in Table 1.

Table I – Birth characteristics according to the delivery method

		Total of patients	Vaginal delivery	Cesarean section
Patients' age (years)	Mean	27.72	25.84	28.32
	Min; Max	17; 42	17; 36	17; 42
	Std. Dev.	5.249	5.284	5.138
Gestational age (weeks)	Mean	38,27	38,42	38,22
	Min; Max	30; 41	34; 41	30; 41
	Std. Dev.	1.770	1.835	1.762
Mass of newborn (grams)	Mean	3067.18	2912.11	3117.12
	Min; Max	1850; 4000	1980; 3400	1850; 4000
	Std. Dev.	446.955	420.299	447.183
The perceived birth difficulty (1-10)	Mean	4.82	5.37	4.64
	Std. Dev.	3.107	3.041	3.134
Pain (days)	Mean	9.15	9.05	9.19
	Min; Max	1; 150	1; 30	1; 150
	Std. Dev.	18.089	9.354	20.180
Onset of Lactation (days)	Mean	3.00 (71)	2.44 (18)	3.19 (53)
	Min; Max	1; 30	1; 14	1; 30
	Std. Dev.	3.906	2.995	4.179

Results

Figure 2 shows a well-balanced age distribution, with patients giving birth from 17 to 42 years.

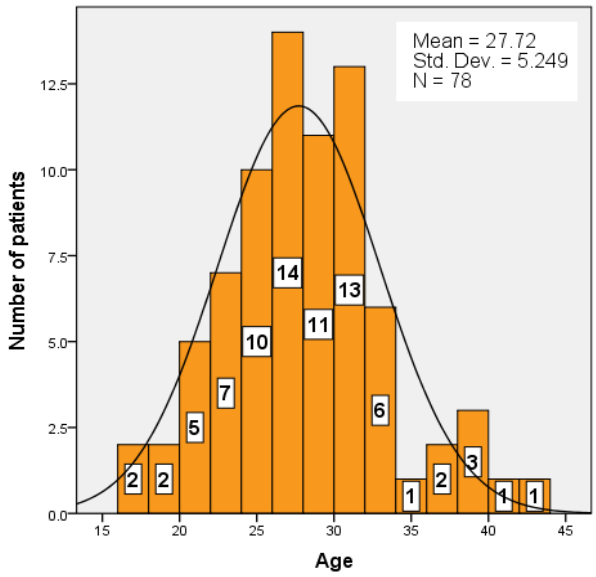

Figure 2. The patients' distribution according to age

Figures 3 and 4 show the percentage of patients who experienced the feeling of sadness based on delivery method. Patients who gave birth via cesarean section had feelings of sadness in a higher percentage than the patients who gave birth vaginally (30.51% versus 21.05%).

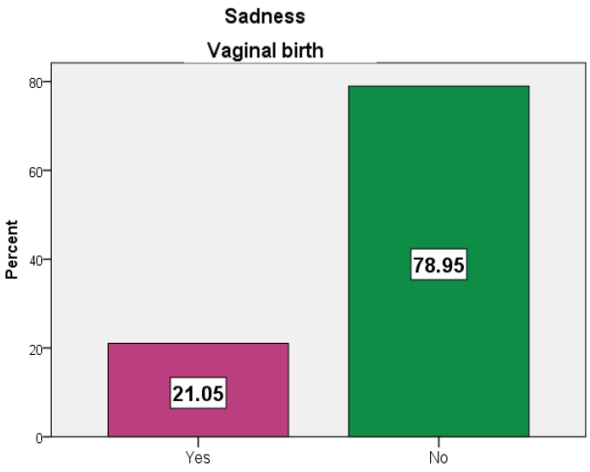

Figure 3. The feeling of sadness for patients who gave birth vaginally

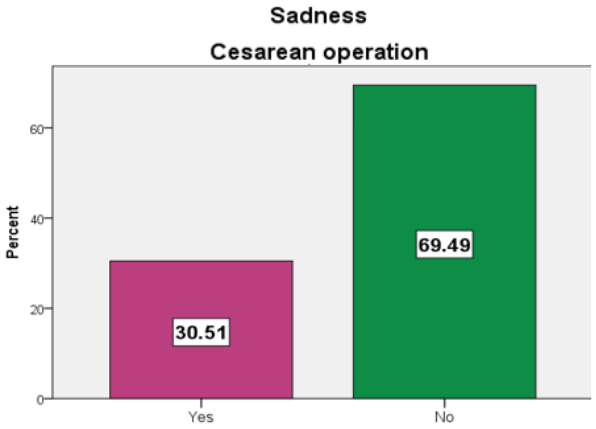

Figure 4. The feeling of sadness for patients who gave birth through cesarean section

Figures 5 and 6 show patients' answers regarding the birth event as being "little traumatizing", distributed according to the delivery method. The majority of the patients who gave birth vaginally (43.37%) perceived birth as being "little traumatizing", versus those 32.20% of the patients who gave birth by cesarean operation.

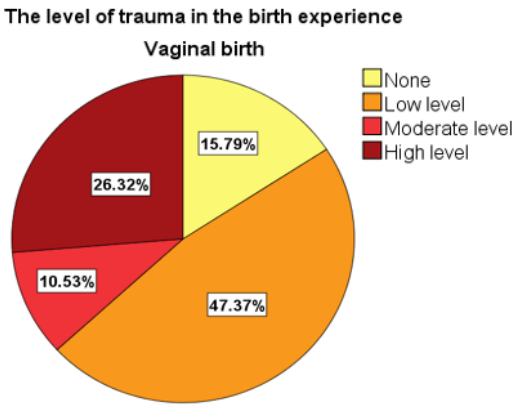

Figure 5. Birth as a trauma for patients who gave birth vaginally

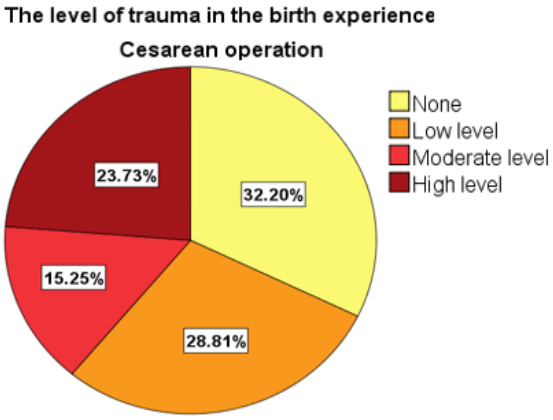

Figure 6. Birth as a trauma for patients who gave birth through cesarean section

Figures 7 and 8 show that the majority of the patients who gave birth vaginally assessed the difficulty of birth at a maximum (degree 10, or 21.05%) or medium level (degree 5, 21.05%). The majority of the patients who gave birth through cesarean section (25.42%) assessed difficulty of birth at degree 1 (the minimum level).

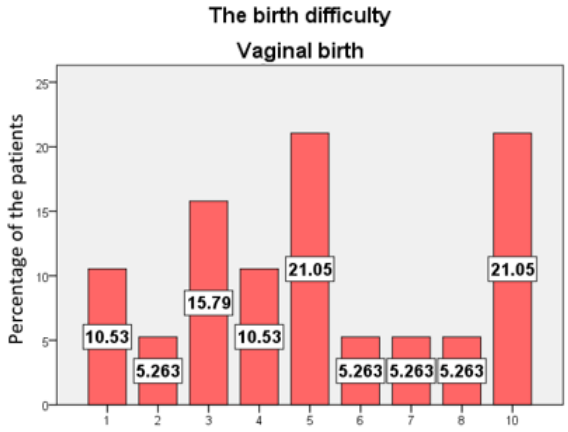

Figure 7. The distribution according to the difficulty experienced at birth for patients who gave birth vaginally

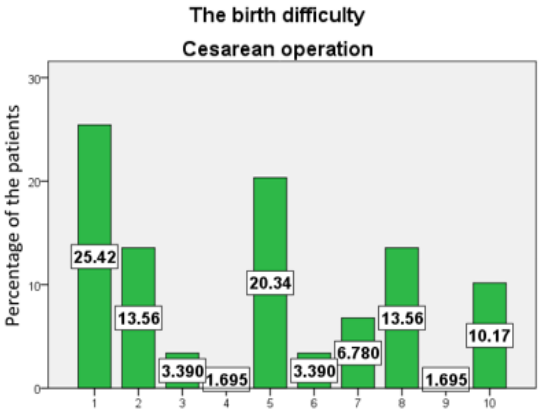

Figure 8. The distribution according to the difficulty experienced at birth for patients who gave birth through cesarean section

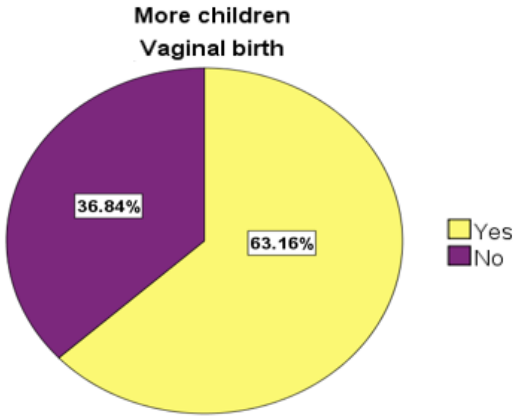

Figure 9. The desire to have more children for patients who gave birth vaginally

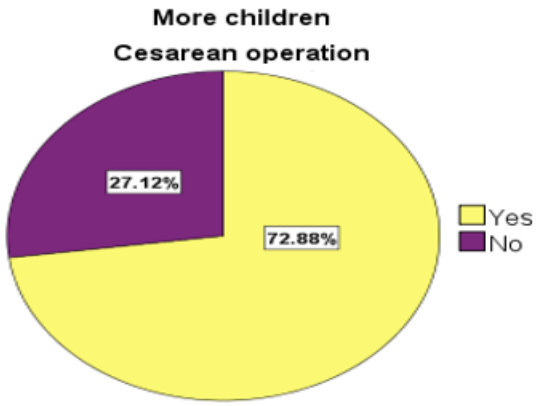

Figure 10. The desire to have more children for patients who gave birth through cesarean section

63.16% of the patients who gave birth vaginally would like to have more children, whereas 72.88% of the patients who gave birth through cesarean section would like to have more children.

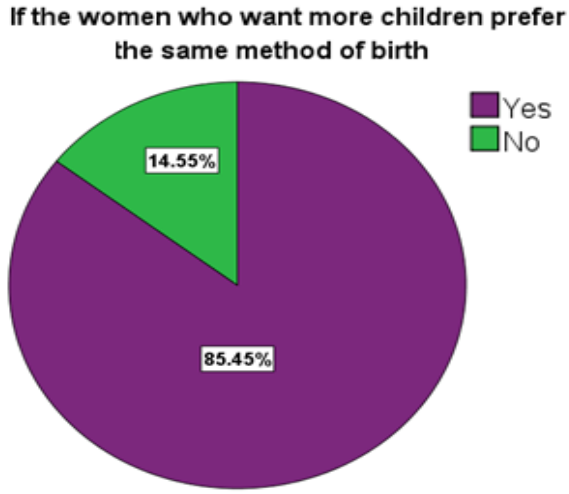

Figure 11. The choice of delivery for women who want more children

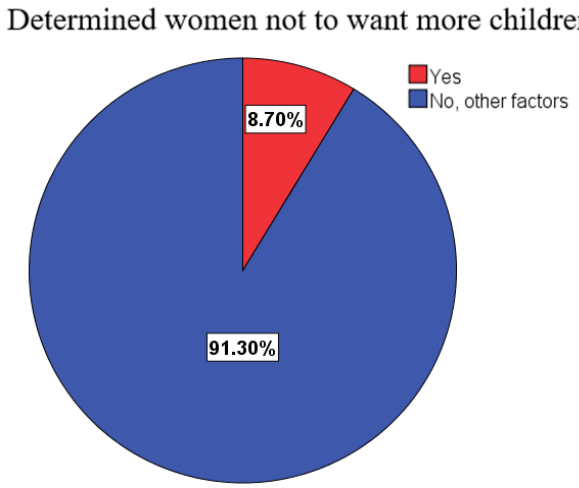

Figure 12. The influence of the delivery method upon the wish of having more children

Discussions

The definition of normal birth given by The World Health Organization (WHO) is "spontaneous in onset, low-risk at the start of labor and remaining so throughout labor and delivery. The infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy. After birth, mother and infant are in good condition"(7). But how might a patient describe a "normal" birth, as perceptions of the birth event can differ across mothers. The impact of the birth event itself, the medical support, the neonatal outcome, and the medical complications can have long-term consequences on the patients' emotional status.

The puerperium represents a critical period for both the mother and the newborn. Several disorders and complications may occur during the postpartum period, as suggested by a number of studies evaluating post-natal depression and delivery methods. Of these studies (conducted in Scotland (8), Australia (6, 9, 10), the USA (11) and Finland (12), two reported a higher incidence of postnatal depression in the first 2 weeks after birth among women who chose cesarean section compared to those who gave vaginal birth, although no differences occurred between the two groups after 8 weeks postpartum (7, 8).

A number of studies indicate the importance of developing a positive attitude during pregnancy in order to benefit the mother's postpartum experience, as such an attitude decreases the risk of postpartum depression. Over a 5-year period of time, cesarean section is associated with a high risk of maternal complications (chronic pain, endometriosis) and fetal complications (asthma and acute/chronic respiratory disease), risks that can help new mothers (and repeat mothers) make informed decisions regarding their choice of delivery method, assuming cesarean operation is not otherwise indicated (13). Furthermore, during early postpartum, the mothers who gave birth through cesarean section demonstrated greater attachment problems towards their child and more frequent lactation problems than women who gave birth vaginally (14).

The results in this study are consistent with the results published in the medical literature regarding the importance of pain remission not only during birth, but also during the postpartum period (15). We observed that the greatest portion of patients (21.05%) who gave birth vaginally assigned the maximum degree (10) to the difficulty of birth. Patients who gave birth through cesarean section experienced sadness at a higher percentage than those who gave birth vaginally (30.52% versus 21.05%). Among the patients who wanted

additional children, 85.45% preferred the same delivery method. All patients who delivered vaginally wanted additional children using the same delivery method of delivery whereas only 81.4% of patients who gave birth through cesarean section would choose the same delivery method. Routine screening for anxiety and depression before birth for women of fertile age might help anticipate birth consequences for both mothers and offspring, especially among vulnerable populations (16, 17, 18). Given that 92,000 women give birth annually through elective cesarean section in the UK, the implications for delivery type are significant: For example, women with anxiety and depression prior to birth revealed symptoms more than a year after delivery (19). Furthermore, postpartum depression is a challenge for clinicians because it can have severe and long-term consequences not only for the patient but for the rest of the family. Unfortunately, the predictability of symptoms remains poor (20).

In the weeks following birth, the woman needs to adapt to many changes: physical, social and psychological. She needs to recover after birth, to adapt to the continuously changing hormones, to learn how to feed the child, and to take care of him/her (3). Women experience the lack of restful sleep, fatigue, pain, lactation difficulties, stress, depression, the lack of sexual interest, and urinary incontinence (21, 22, 23). Yet at this time, medical care and family support is typically fragmented between the mother's and the child's needs. Thus, a care treatment plan for the postpartum period discussed early in pregnancy to set realistic expectations—with follow-up during the early postpartum—may help the woman deal with problems and complications during the postpartum (24).

The choice of the delivery method can also be influenced by the use of maternal analgesia/anesthesia during labor and/or delivery. However, this decision should be guided by maternal needs. The EPIPAGE study reported an increased risk of neonatal mortality in very preterm infants undergoing cesarean delivery under spinal anesthesia compared to general or epidural anesthesia (25). Thus, the patient may also have a negative experience related to giving birth due to analgesia or epidural anesthesia. Furthermore, the situation may have a large impact if the patient gives birth to a premature newborn. The psychological impact is enormous, and medical support should be adjusted for this.

Maternal stress in the postpartum period is also related to other complications such as emergency hysterectomy (26), an unpredictable complication that may occur after either vaginal delivery or cesarean section and which can add to a distressed postpartum. Some patients are also concerned and stressed before childbirth because of the antenatal diagnosis of the nuchal cord noticed at the ultrasound examination. The impact of a nuchal cord on the induction of labor is largely unknown, although several studies have been conducted on this group of women. Rhoades et al., for example, have shown nuchal cord to be an independent risk factor in the induction of labor (27), and nuchal cord has been associated with many factors in the mother, fetus, and labor and with a fewer good fetal outcomes (28).

Considering the current trend towards an increased rate of cesarean sections in Romania, the possible psychological, emotional impact, and consequences on the quality of life for either of the two delivery methods need further study in order to develop better preparation for outcomes based on the delivery method (29).

Conclusions

Patients who gave birth vaginally assigned the maximum degree (10) to the difficulty of birth, compared with patients who gave birth through cesarean section and who assigned the minimum degree to the difficulty of birth. Patients who gave birth through cesarean section experienced the feeling of sadness more than those who gave birth vaginally. Further study of patients' perception of the quality of their birth experience should be evaluated so as to improve future obstetrical practice.

Conflict of interest disclosure

There are no known conflicts of interest in the publication of this article. The manuscript was read and approved by all authors.

Compliance with ethical standards

Any aspect of the work covered in this manuscript has been conducted with the ethical approval of all relevant bodies and that such approvals are acknowledged within the manuscript.

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