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Satisfaction Score among Women Undergoing Vaginal Delivery after Cesarean Delivery in A Tertiary Referral Hospital in Jordan

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Abstract

Background: Cesarean section (CS) is a prevalent surgical procedure in Jordan, and its incidence has been on the rise. While it has several benefits, many women report lower satisfaction with CS. This study aimed to assess maternal satisfaction level with vaginal birth after cesarean section (VBAC) in a tertiary referral hospital in Jordan.

Methods: The descriptive study was conducted at Jordan University Hospital in 2021-2022. A total 100 women with alive singleton pregnancy with no severe extragenital diseases, pregnancy complications or congenital abnormalities who underwent VBAC were enrolled the study. Women with multiple gestation, congenital fetal anomalies, intrauterine fetal death, severe extragenital pathology, and pregnancy complications were excluded. Participants' satisfaction levels were gauged using a four-point scale.

Results: The level of satisfaction with occurred 94%. The primary reasons cited for choosing VBAC was faster recovery ;45% and less pain ;28,0%.

Conclusion: Most women in the study expressed high satisfaction with their VBAC experience, emphasizing the importance of physician-led counseling and the potential benefits of VBAC over repeat CS. Further research is needed to understand factors affecting satisfaction and how to enhance maternal experience with childbirthing.

Keywords: Cesarean section; Vaginal birth after Cesarean section; Jordan; Birth satisfaction.

INTRODUCTION

The World Health Organization (WHO) suggested that the rates of cesarean section (CS) should be ranged 5-15% (1). Despite of this it increased dramatically worldwide and many countries had exceeded the recommended rate (2, 3). CS is a common surgical procedure performed in Jordan, and it has been also increased throughout the last few decades (4).

While CS has saved countless lives and has been instrumental in improving maternal and fetal outcomes, it is known that unindicated CS increases the risk of neonatal and maternal mortality as compared to vaginal delivery (5, 6). According to Jordanian report at 2019, 2020 and 2021, about 64% of maternal deaths were following CS, almost 84% of all births during this period (7).

Additionally, maternal satisfaction during childbirth is one of the indicators of the quality of medical care (8). However, physical and emotional recovery after delivery is challenging (9). Moreover, previous studies have shown that women who have undergone CS reported lower levels of satisfaction with the birth experience compared to those who had a vaginal delivery (10).

Women who experienced unsatisfactory births have memories full of pain, fear, sadness, or even may suffer from post-traumatic stress disorders (11). They may have the anxiety in subsequent deliveries, that lead to feelings of disappointment, sadness, and a sense of loss (12), as well as to increasing the risks for maternal and perinatal health (13, 14).

We hypothesize that reducing the number of CS may help reduce maternal morbidity and mortality, as well as increase maternal postpartum mental health. In particular, vaginal delivery as a safe option to consider in patients with previous CS, may contribute to it (15). Thus, current study was aimed to assess the satisfaction level of vaginal birth after prior CS (VBAC) among Jordanian women in a tertiary referral hospital.

METHODS

This institutional-based study was conducted in Jordan University Hospital (JUH), a tertiary referral hospital in Amman (Jordan) during the period between Jan, 2021-Dec, 2022 according to the latest declaration of Helsinki and was approved by the institutional review board at Jordan University Hospital.

Participants

We interviewed 100 women who gave birth vaginally at Jordan University Hospital and met the following inclusion criteria: previous one CS with unrepeated indication, alive singleton fetus, no congenital anomalies of the fetus, absence of severe extragenital pathology and pregnancy complications, and consent to participate in the study.

The exclusion criteria were: multiple gestation, congenital fetal anomalies, current intrauterine fetal death, severe extragenital pathology and pregnancy complications, more than one uterine scars, disagreement to participate the study.

Data collection

Data were collected by interviewing study participants. The questionnaire was created based on previous similar studies (16-18). It was prepared in English and translated into Arabic. The questionnaire included socio-demographic information (age, educational level, monthly income, type of insurance, as well as data about family and husband), obstetric and gynecological information (previous miscarriages, complication of previous CS delivery, type of conception – spontaneous or assisted, body mass index at delivery, terms of gestation at birth, type of analgesia, and neonatal outcomes ; gender, weight at birth), the satisfaction level of mothers who had VBAC including the level of pain and general satisfaction of the procedures and care. Pain level was assessed according to the Numeric Rating Scale, ranged from 0 to 10, where 0 = no pain and 10 = unimaginable pain. Satisfaction with

childbirth was assessed on a scale from 1 to 4, where 1 is dissatisfied, 2 is adequate, 3 is satisfied, 4 is very satisfied. Our team was trained in data collection tools and ethical issues.

Statistical analysis

IBM SPSS Statistics for Windows, version 21 (IBM Corp., Armonk, N.Y., USA) was used for statistical analysis.

A descriptive analysis was performed in which Mean with Standard Deviation (Mean±SD) were calculated for the quantitative measures, and percentages with 95% Confidence Interval (95% CI) for the qualitative ones.

RESULTS

One hundred participants enrolled the study. The average age was 33.5±4.63 years. The majority of participants had a bachelor's degree 62,0% [95% CI 51.71-71.36], approximately half were employed; 47.0% [95% CI 37.04-57.20], and most of them had medical insurance; 82.0% [95% CI 72.78-88.70]. Socio-demographic characteristics are shown in Tables 1.

Table 1: Socio-demographic characteristics of women who had VBAC

Variables	Percent, %	95% CI
Age, Mean±SD years	33.5±4.63	
< 35	60.0	49.70-69.52
≥ 35	40.0	30.48-50.30
Education		
School degree	26.0	17.97-35.90
Diploma	9.0	4.46-16.83
Bachelor	62.0	51.71-71.36
Master	3.0	0.78-9.15
Monthly income, JOD		
< 500	31.0	22.34-41.14
500-1000	63.0	52.71-72.27
> 1000	6.0	2.46-13.12
Insurance		
Private	18.0	11.30-27.22
Public	40.00	30.48-50.30
University insurance	42.0	32.33-52.29
House		
Rented	27.0	18.84-36.96
Own	73.0	63.04-81.16
Family support		
No	9.0	4.46-16.83
Yes	91.0	83.17-95.54
Living with		
Husband	84.0	75.01-90.30
Alone	4.0	1.29-10.51
Extended family	12.0	6.63-20.40
Occupation		
Employee	47.0	37.04-57.20
Housewife	53.0	42.80-62.96
Husband educational level		
School Degree	28.0	19.70-38.01
Diploma	6.0	2.46-13.12

Variables	Percent, %	95% CI
Bachelor	60.00	49.70-69.52
Master	6.0	2.46-13.12
Smoking (husband)		
No	46.0	36.09-56.22
Yes	54.0	43.78-63.91

The majority of women had planned VBAC; 86.0% [95% CI 77.29-91.86] at term; 92% [95% CI 84.39-96.23]. Most of them had anesthesia in labour; 86.0% [95% CI 77.29-91.86]. Additionally, the majority of participants reported that got information about VBAC from their doctors, 86.0% [95% CI 77.29-91.86]. Obstetric and gynecological characteristics of women with VBAC are shown in Table 2.

Table 2: Obstetric and gynecological characteristics of women with VBAC

Characteristics	Percent, %	95% CI
Body mass index, kg/ m^2		
Normal (18.5-24.9)	22.0	14.58-31.61
Overweight (25-29.9)	40.00	30.48-50.30
Obese (≥ 30)	38.0	28.64-48.29
Number of previous miscarriages		
1	16.0	9.70-24.99
2	8.0	3.77-15.61
3	3.0	0.78-9.15
4	2.0	0.35-7.74
Term of gestation at delivery		
Terms	92.0	84.39-96.23
Pre-terms	8.0	3.77-15.61
Type of analgesia		
No analgesia	14.0	8.14-22.71
IM pethidine	62.0	51.71-71.36
Epidural	24.0	16.27-33.77
Pain score, mean±SD	6.60±2.10	
Delivery mode		
Planned VBAC	86.0	77.29-91.86
Unplanned, but happened VBAC	14.0	8.14-22.71
Neonatal outcomes (gender)		
Male	45.0	35.14-55.25
Female	55.0	44.75-64.86
Neonatal birth weight, mean±SD, kg	3.13±0.55	
How did you know about VBAC?		
From doctor	86.0	77.29-91.86
From other sources	14.0	8.14-22.71

The majority of women reported high satisfaction; 77.0% [95% CI 67.31-84.58], while only 3.0% [95% CI 0.78-9.15] expressed dissatisfaction with VBAC. Figure

1 shows satisfaction with the mode of delivery, pain relief, experience and the level of care in women who had VBAC. The main reason for choosing VBAC was rapid recovery; 45.0% [95% CI 35.14-55.25], followed by less pain; 28,0% [95% CI 19.70-38.01].

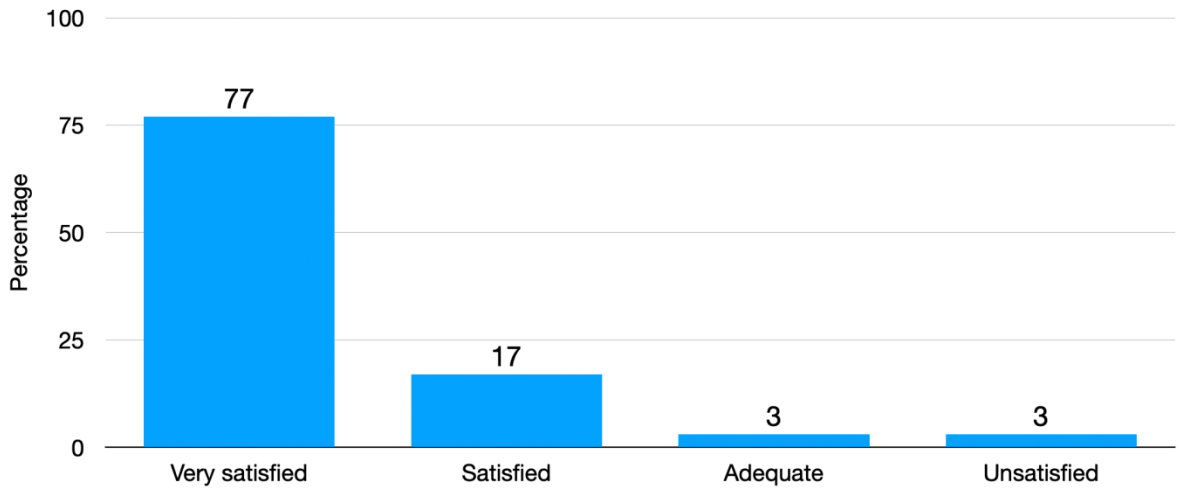

Figure 1 – The level of satisfaction in women with VBAC

DISCUSSION

The rates of CS raised worldwide despite the WHO recommendation (1-3). While unindicated CS may lead to increasing the risk of perinatal morbidity and mortality (5, 6).

VBAC has been recognized as a safe option for women with a previous CS, aimed to decrease the risks of perinatal adverse outcomes compared to elective CS (15, 19). However, the rate of VBAC remains low in some settings, possibly due to providers' concerns about potential risks and inadequate resources for labor management and emergency care (19, 20).

Maternal satisfaction with their treatment during childbirth is one of the markers to track the quality of healthcare services (8). Some studies have reported relatively low levels of satisfaction among women who have undergone CS, while others have found that women are just as satisfied with their birth experience as those who had a vaginal delivery (10).

Moreover, there are factors that influence a level of satisfaction with childbirth experience, as well as women's choice of vaginal birth instead of elective repeated CS. A recent studies identified several factors associated with an increased likelihood of VBAC, including maternal age, race, insurance (21), marital status, educational level (22), planned status of pregnancy, number of antenatal care visit, duration of labour (23), and awareness about VBAC provided by healthcare professionals (22). These findings suggest that efforts to promote VBAC should focus on addressing provider and system-level barriers and providing adequate support for women with a previous cesarean delivery who desire a trial of labor (22).

Some studies were conducted in the Middle East to investigate satisfaction for VBAC, however, the results have been somewhat mixed. Our study is the first study to assess the satisfaction level among women who underwent VBAC in a tertiary referral hospital in Jordan. We found that most of women were informed by their physicians about VBAC and had a high satisfaction score; 94% with the mode of delivery, pain relief, experience and the level of care. The main reason for choosing VBAC was rapid recovery; 45.0% and less pain; 28,0%.

Our results are comparable to previous studies where satisfaction rate with childbirth experience varied from 28% to more than 80% (23-26).

CONCLUSION

Current study revealed a high level of maternal satisfaction with VBAC experience and highlighted the importance of providing adequate information and counseling women to make informed decisions relatively mode of delivery. However, further research is needed for better understanding the factors that contribute to satisfaction with VBAC, that help to develop strategies to improve the overall experience for women who undergo this procedure.

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درجة الرضا بين النساء اللواتي خضعن للولادة المهبلية بعد الولادة القيصرية في مستشفى مرجعي في الأردن

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الملخص

الهدف: استكشاف تصورات ومعرفة ومواقف النساء الأردنيات غير المتزوجات تجاه الولادة المهبلية (VB) والولادة القيصرية، بالإضافة إلى اكتشاف تفضيلاتهن ومصدر معلوماتهن الرئيسي فيما يتعلق بطريقتي الولادة.

المنهجية: هذا مسح مقطعي. تم جمع البيانات من خلال مقابلات وجهاً لوجه. يتكون الاستبيان من 30 سؤالاً. تضمنت عينة الدراسة أي امرأة أردنية غير متزوجة تتراوح أعمارهن بين 18 و 25 عامًا وافقت على المشاركة في هذه الدراسة. لم يتم تضمين أي نساء متزوجات أو نساء سبق لهن الحمل في الدراسة.

النتائج: تم تضمين ما مجموعه 1019 مشاركة. وافقت معظم المشاركات على أن الولادة المهبلية هي طريقة مقبولة للولادة. اعتقدت 75٪ أن الأم تتعافى بشكل أسرع بعد الولادة المهبلية. كان لدى غالبية النساء العازبات تصور إيجابي تجاه صحة الأم الجيدة بعد الولادة المهبلية. رأى 90.9٪ أن الأم تشعر بسعادة أكبر عند رؤية طفلها بعد الولادة المهبلية بفترة وجيزة. اعتقد 76.2% (ن = 776) من المشاركات أن الولادة المهبلية تُنشئ رابطًا عاطفيًا جميلًا بين الأم وطفلها. بالإضافة إلى ذلك، ذكرت 756 (74.2%) امرأة أنهن يعتقدن أن آلام الولادة المهبلية مزعجة.

الاستنتاج: ترتبط اختيارات النساء لطريقة الولادة بالتفضيلات الفردية والمعرفة ومستوى التعليم والوضع الاجتماعي والاقتصادي. كشفت نتائج هذه الدراسة أن النساء العازبات في الأردن يفضلن الولادة المهبلية على الولادة القيصرية. بالنسبة لأولئك اللاتي أظهرن تفضيلًا للولادة القيصرية، كان هذا الاختيار غالبًا قائمًا على نقص بعض المعرفة و/أو الخوف من الألم أثناء الولادة المهبلية. يمكن تقليل عدد الولادات القيصرية غير الضرورية سريريًا من خلال بذل جهد منسق لتحسين معرفة النساء ونشر الوعي الثقافي باستخدام وسائل الإعلام المستهدفة لإعلام الشابات بإيجابيات وسلبيات الولادة المهبلية.

الكلمات الدالة: الولادة القيصرية؛ الولادة المهبلية بعد الولادة القيصرية؛ الأردن؛ الرضا عن الولادة.