AJPMHS GLOBAL RESEARCH NETWORK

AMERICAN Journal of Pediatric Medicine and Health Sciences
Volume 2, Issue 11, 2024 ISSN (E): 2993-2149

Understanding the Quality-of-Life Implications for Iraqi Women Post-Cesarean Delivery

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Abstract: Background: Rates have been increasing in cesarean deliveries over recent decades, which brings maternal morbidities.

Objective: The objective of this article is to evaluate outcomes related to the quality of life after a caesarean.

Methods: A cross-sectional study of pregnant women who underwent caesarean section was conducted, encompassing 102 cases over the course of one year (2023-2024). The outcomes of pregnancy and caesarean section for women aged 20–40 years were recorded. Additionally, a general questionnaire was administered to assess the quality of life of pregnant women patients after caesarean section.

Findings: The data of 102 pregnant women who underwent caesarean delivery were enrolled. The data revealed that 64.71% of multiparous women and 26.47% of women who had previously experienced miscarriages underwent the procedure. The mean operation time was 57.23 ± 21.64 minutes, with a mean blood loss of 446.30 ± 392.84 millilitres. The mean hospital stay was 9.28 ± 7.72 days. There were nine cases of maternal mortality and 24 cases of surgical site adhesions. Pregnancy complications were identified in 31.37% of the total number of women. There were 12 cases of infant mortality. The questionnaire on quality of life revealed unfavourable outcomes

with regard to general health, as evidenced by the Physical score of 45.7 ± 24.1, the role emotional score of 42.7 ± 20.6, the vitality score of 56.2 ± 17.2, and the bodily pain score of 66.7 ± 18.4.

Summary: The findings of this study indicate that caesarean section has a detrimental impact on the quality of life of primiparous women.

Keywords: Cesarean section; Pregnancy outcomes; Postpartum period; and General health quality life questionnaire.

INTRODUCTION

Globally, a high percentage of pregnant women have a caesarean section, with a reported incidence of 21% in Europe, 26% in the United States, 23% in Australia, and over 50% in Latin America **[1,2,3].** In Ecuador, the rate of caesarean sections in the MSP alone was 41.2% in 2018. The World Health Organization states that in no region of the world is an incidence of caesarean section higher than 10-15% justified **[4,5,6,7].** The overall rise in caesarean section rates can be attributed to a number of factors, such as better surgical and anesthesia methods, a lower chance of short-term complications following surgery, demographic and nutritional considerations, and patient and provider opinions regarding the procedure's safety. **[8,9,10]**

The rise in elective cesarean sections without a valid medical justification was specifically influenced by one factor **[11,12,13].** Nonetheless, findings from the WHO worldwide survey for maternal as well as perinatal health indicate that a rise in severe maternal illness and a rise in the use of antibiotics during the puerperium are linked to the rise in cesarean section rates **[14,15].** Increases in newborn morbidity and death are also linked to rising rates of cesarean sections **[16].** Resulting in a seven-day increase in the duration of a newborn's stay in an intermediate or critical care unit. **[17]**

One public health concern is the high rate of cesarean sections **[18].** Numerous factors have been identified as contributing to this, including poor prenatal control index, poor obstetric risk assessment, clinician and pregnant woman preferences, and poor fetal risk assessment **[19]**. The increased risk in placenta previa as well as placenta accreta, that in addition to the risks of surgery and anesthesia, raises the possibility of obstetric hemorrhage and, consequently, the risk of maternal death, is linked to increased morbidity along with future maternal mortality. **[20]**

PATIENTS AND METHODS

The study was carried out in the Clinical Department of Perinatology, Gynecology, & Obstetrics at different hospitals in Iraq from 2023 to September 2024. One hundred two pregnant women aged 20 to 40 who had received medical clearance for a cesarean delivery (CS) were included in the research. The medical records were used to gather information on the anesthetic, surgical, and obstetrician treatments.

Miscarriages, gestational age, the number of prior births, placenta-related problems (yes/no), the body mass index (BMI), the prevalence of chronic diseases, and stimulant usage were among the information collected through medical records along with a structured questionnaire on the present pregnancy. The type of anesthesia used, the surgical incision made, whether a hysterectomy or other type of surgery was performed, the existence in adhesions, the total amount of blood lost, and the length of the surgical process were all detailed in the medical records.

The EQ-5D-3L questionnaire was used to assess quality of life. A general health-related quality-of-life measure has been established for the EQ-5D. There are two parts to the instrument. First, a descriptive approach allows participants to self-report their physical and mental state in five areas: self-care, mobility, pain/discomfort, anxiety/depression, and regular activities. One of the three categories has been used to rate the previously given dimensions. For each of the five

dimensions, the respondents were prompted to identify if they had no issues, moderate problems, or severe problems. An EQ visual analogue scale (EQ-VAS), which allowed for a rating between 100 and 0, which represents the "best imaginable health state" as well as the "worst imaginable condition state," respectively, was also used to ask patients to report their current health.

A screening procedure that has been widely used by several populations, especially prenatal and postnatal women, is reflected in the nomenclature GHQ28. The GHQ is a well-recognized tool with 28 questions divided into four distinct domains: severe depression, social dysfunction, anxiety and sleeplessness, and somatic symptoms. There are at least seven items in each of the above-stated domains, and each item is scored using a 4-point Likert scale ranging from 0 to 3.

RESULTS

Table 1. Demographic characteristics of pregnant women.

Variables	Pregnant women, 102	Percentage, %
Age, years		
20 – 25	62	60.78%
26 – 30	33	32.35%
> 31	7	6.86%
Comorbidity		
Yes	35	34.31%
No	67	65.69%
Hypertension	14	13.73%
Diabetes	9	8.82%
Anemia	5	4.90%
Others	4	3.92%
Parity		
Primiparous	36	35.29%
Multiparous	66	64.71%
Number of children		
0	36	35.29%
1	44	43.14%
≥ 2	22	21.57%
Educational status		
Illiterate	0	0%
Primary	27	26.47%
Secondary	60	58.82%
Higher	15	14.71%
Employment		
Housewife	80	78.43%
Employed	22	21.57%

Table 2. Clinical outcomes of obstetrics at women who underwent to caesarean section.

Variables	Pregnant women, 102	Percentage, %
BMI, [Kg/m2], (Mean ± SD)	30.87 ± 5.91	
Premature birth		
Yes	12	11.76%
No	90	88.24%
Prenatal diagnosis of placental abnormalities		
Yes	14	13.73%
No	88	86.27%
Mother rehospitalization in early postpartum		
Yes	4	3.92%

No	98	96.08%
Gestational age at delivery (weeks), (Mean ± SD)	37.86 ± 1.96	
Miscarriages		
Yes	27	26.47%
No	75	73.53%
Postpartum psychological state		
GHQ28<24	78	76.47%
GHQ28≥24	24	23.53%
Anesthesia used		
General	15	14.71%
Regional	87	85.29%
Type of incision		
Horizontal	62	60.78%
Vertical	40	39.22%
Blood loss, (Mean ± SD)	446.30 ± 392.84	
Operation time, min, (Mean ± SD)	57.23 ± 21.64	
Hospital stays [days], (Mean ± SD)	9.28 ± 7.72	

Table 3. Adverse outcomes of women and infants in the postpartum period.

Parameters	Pregnant women, 102	Percentage, %
Caesarean hysterectomy		
Yes	11	10.78%
No	91	89.22%
Women mortality		
Yes	9	8.82%
No	93	91.18%
(Moderate/ severe) morbidity of women		
Yes	18	17.65%
No	84	82.35%
Adhesions		
Yes	24	23.53%
No	78	76.47%
Pregnancy complications		
Yes	32	31.37%
No	70	68.63%
Mortality of infants		
Yes	12	11.76%
No	90	88.24%
(moderate/severe) morbidity of infants		
Yes	19	18.63%
No	83	81.37%

Table 4. Assessment of quality–life of women who underwent to a caesarean section at 7 to 9 weeks postpartum.

Items	Quality–life sale
Physical functioning	73.4 ± 14.8
Role physical	45.7 ± 24.1
Bodily pain	66.7 ± 18.4
General Health	75.3 ± 10.9
Vitality	56.2 ± 17.2

Mental Health	68.6 ± 20.5
Role emotional	42.7 ± 20.6
Social functioning	67.0 ± 17.2

DISCUSSION

Numerous studies evaluate various issues that arise after cesarean sections, but only a small number concentrate on the health-related standard of life of women. Consequently, despite their limitations, the study's findings may add to the body of knowledge and improve our comprehension of the consequences of maternal health care. Women who had a cesarean birth scored considerably worse on mental health, physical health, bodily pain, and energy at the initial evaluation (7–9 weeks postpartum).

The reported incidence of postnatal depression varied from nearly 0% to 60%, according to a comprehensive analysis of 143 investigations from 40 countries [21,22]. Relationship issues between the mother and the child are linked to postnatal depression, and these issues negatively impact the cognitive as well as emotional development of the kid. Recent data, however, does not indicate that women who underwent caesarean sections differ significantly in their levels of postpartum depression.

Certain physical health issues that postpartum moms face is said to have an impact in their quality of life, long-term health, along with the health of their offspring [23]. Research and practice tend to overlook the physical health in postpartum women who had cesarean sections. Women who had a cesarean birth got significantly worse physical functioning at the second evaluation (7–9 weeks postpartum) in our study. This is in line with previous research by other researchers who found that the average time to fully recover physically following an emergency cesarean operation was over six weeks for 141 new moms. [25,26]

Caesarean birth raises the risk of hospitalization-related problems and surgical intervention. In addition, it imposes financial strain on families and society [27]. Mothers who had cesarean deliveries were less likely to be hospitalized and slept for longer periods of time overall, according to research comparing early postoperative sleep as well as exhaustion in postpartum women [28]. Overall, moms who had cesarean deliveries reported the lowest health-related aspects of life and somewhat poorer quality-of-life scores, according to this study.

CONCLUSION

The quality of life and the number of problems faced by a woman after undergoing caesarean surgery are reduced during the early puerperium. A higher number of caesarean sections typically indicates that the surgical procedure has been more challenging and complex than that of a first planned caesarean delivery. The physical and social domain scores, as well as the global score for quality of life (QOL), were found to be negatively affected by caesarean section in primiparas. The health issues that women may experience before and after surgery are diverse, necessitating comprehensive perinatal care.

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