Assessment the Complications of Caesarean Section among Women's attending AL -Diwaniyah Maternity and Pediatric Hospital/Iraq

Ghufran Fadhil Abo-Khuwait[1], Najmah Mahmood Meran[2]

[1]Academic Nurse, Ministry of Health/ AL Diwaniyah Directorate, Iraq, [2]Assist. Prof, Collage of Medicine/ University of Baghdad, Iraq

Abstract

Aims: This study aimed to assess complications of caesarean section among pregnant women attending AL Diwaniyah Maternity and Pediatric Hospital; and find out relationship between complications of caesarean section and socio-demographic data of women.

Methods: A descriptive cross-sectional study design is conducted for the period of December 26th 2020 to June 1st 2021. The validity of the questionnaire is determine through a panel of experts and reliability was achieved through a pilot study. By a purposive sample is selected among pregnant women who undergo caesarean section, data was collected through the use of questionnaire and interview techniques; and analyzed through the descriptive and inferential statistic.

Results: Findings indicate participants age, the mean age was 29±7.723, the age 20-29 years old (n=217; 43.4%), a not read and write (n=149; 29.8%), more than half of studied participants were housewife (n=339; 67.8%), most of study participants were overweight (n=248; 49.6%). Findings showed that the factors associated with caesarean section were post-partum hemorrhage, prolonged operation wound infection and postpartum infection among studied sample. Regarding fetal complication ,Low Apgar score(n=348;69.6%),respiratory distress syndrome (n=352;70.4%), and perinatal asphyxia(n=468;93.6%), among studied sample. The education and BMI have been significant relationship with their associated factors of caesarean section at p-value <0.05.

Key-wards: *Assessment, Caesarean Section , Complications.*

Introduction

The importance of caesarean sections in preventing difficulties during childbirth and lowering maternal and fetal mortality rates was widely recognized [1]. However, in the recent decade, the rise in caesarean section births has been a major source of concern for public health officials around the world. In most countries, the caesarean section rate (CSR) has above the World Health Organization's recommended range of 10–15 percent (WHO) [2]. Within the first 10 days after a cesarean delivery, infection is the most common consequence. Infection rates without prophylactic antibiotics are around 85%, whereas infection rates with prophylactic antibiotics were only around 5% [3]. All patients undergoing cesarean delivery should get prophylactic antibiotics; a single dose of a first-generation cephalosporin or ampicillin is sufficient [3]. Although CS was a safe procedure, it puts mothers and their newborns at risk of short- and long-term health concerns when it is performed without medical necessity. The majority of CS problems, on the other hand, stem from the underlying source of the condition Obesity, huge infant size, extended labor, multiple pregnancy, and early birth are all factors that increase the risk of problems in some women [4]. The additional risk connected with the procedure itself must be considered in the absence of a clear medical

justification. Maternal care, both short- and long-term [5]. Therefore, this study aimed to assess complications of caesarean section among women's attending AL Diwaniyah Maternity and Pediatric Hospital; and find out relationship between complications of caesarean section women's and socio-demographic data.

Methodology

A descriptive cross-sectional study design is conducted for the period of December 26th 2020 to June 1st 2021. A questionnaire deal with complication of caesarean section related to women's which composed of (11) items; and complications of caesarean section related to fetus which composed of (6) items. The validity of the questionnaire is determine through a panel of experts and reliability is achieved through a pilot study. By a purposive sample is selected among those who are undergo caesarean section, data was collected through the use questionnaire and interview techniques; and analyzed through the descriptive and inferential statistic.

Results

Table 1: Distribution of the study sample by their demographic characteristics

Demographic Variables	Rating	No=500	%
Age/years (Mean± S.d= 29±7.723)	<20 years old	56	11.2
	20-29 years old	217	43.4
	30-39 years old	158	31.6
	40 and older	69	13.8
Residents	Urban	271	54.2
	Rural	229	45.8
Education	Not read and write	149	29.8
	Read and write	59	11.8
	Primary school	44	8.8
	Secondary school	32	6.4
	Middle school	57	11.4
	Institute	72	14.4
	College	87	17.4
Occupation	House wife	339	67.8
	Employ	102	20.4
	Retired	2	.4
	Student	17	3.4
	Private sector	40	8.0
BMI(kg/m2)	Thin (<18.5)	21	4.2
	Normal (18.5-24.9)	213	42.6
	Overweight (25-29.9)	248	49.6
	Obesity (≥30)	18	3.6

This table represents the descriptive statistics of socio-demographic information of the women in term of frequencies and percentage. Out of (500) women participated in this study.

Table 2:Maternal complications of Caesarean Section .

List	Women complication	Rating	No=500	%	Mean	S.d.	Ass.
1	Pulmonary embolism, which may cause death	No	496	99.2	1.01	0.089	No
		Yes	4	0.8			
2	Anesthetic complication	No	486	97.2	1.03	0.165	No
		Yes	14	2.8			
3	Sever bleeding during the operation, leading to an emergency hysterectomy	No	486	97.2	1.03	0.165	No
		Yes	14	2.8			
4	Injury to the intestine	No	496	99.2	1.01	0.089	No
		Yes	4	0.8			
5	Injury to the urinary bladder , ureters	No	494	98.8	1.01	0.109	No
		Yes	6	1.2			
6	Deep vein thrombosis (DVT)	No	493	98.6	1.01	0.118	No
		Yes	7	1.4			
7	Post-partum hemorrhage	No	64	12.8	1.87	0.334	Yes
		Yes	436	87.2			
8	Surgical site infection	No	12	2.4	1.98	0.153	Yes
		Yes	488	97.6			
9	Restrict the number of children	No	467	93.4	1.07	0.249	No
		Yes	33	6.6			
10	Endometritis	No	106	21.2	1.79	0.409	Yes
		Yes	394	78.8			
11	Mastitis	No	494	98.8	1.01	0.109	No
		Yes	6	1.2			

"Mean (1.5), yes indication (mean = <1.5), no indication (mean=≥ 1.5), S.d= Stander deviation"

This table presents the mean analysis for assessing the complication of caesarean section among women. Findings showed that the complication with caesarean section were post-partum hemorrhage, prolonged operation wound infection and postpartum infection among studied sample.

Table 3:Ftal complication of Caesarean Section .

List	Fetal complications	Rating	No=500	%	Mean	S.d.	Ass.
1	Low Apgar score	No	152	30.4	1.70	0.460	Yes
		Yes	348	69.6			
2	Respiratory distress syndrome (RDS)	No	148	29.6	1.70	0.457	Yes
		Yes	352	70.4			
3	Perinatal asphyxia	No	32	6.4	1.94	0.245	Yes
		Yes	468	93.6			
4	Neonatal sepsis	No	477	95.4	1.05	0.210	No
		Yes	23	4.6			
5	Early neonatal deaths	No	473	94.6	1.05	0.226	No
		Yes	27	5.4			
6	Stillbirth	No	479	95.8	1.04	0.201	No
		Yes	21	4.2			

"Mean (1.5), No indication (mean = <1.5), Yes indication (mean=≥ 1.5), S.d= Stander deviation"

This table presents the mean analysis for assessing the complication of caesarean section among fetus. Findings showed that the most common fetal complication with caesarean section are low Apgar score, respiratory distress syndrome and perinatal asphyxia among studied sample.

Table 4: Relationship between complication of Caesarean Section and Women their Demographic Characteristics

Demographic Data	Chi-Square Value	D.f	P-Value	Sig.
Age/years	4.346	3	0.226	NS
Residents	1.697	1	0.193	NS
Education	20.811	6	0.002	S
Occupation	0.954	4	0.917	NS
BMI	45.802	3	0.000	HS

Findings shows that there were no-significant relationship between women demographic characteristics and their complication of caesarean section at p-value >0.05 except, the education and BMI have significant relationship with their complications of caesarean section at p-value <0.05.

Discussion

Table 1: Concerning participants age, the mean age is 29±7.723, the age 20-29 years old (n=217; 43.4%), followed by those who are age 30-39 years and old (n=158; 31.6%), followed by those who are age 40 years and older (n=69; 13.8%) and those who age <20 years old (n=56; 11.2%). This results come because those age groups were the age of production. In terms of residents, more than half of studied sample are urban residents (n=271; 54.2%) compared for those who are rural residents (n=229; 45.8%) due to the hospital covered by the study were located in urban areas so, the women residents in those areas. As well as, urban residents were four times more likely to give birth through cesarean section than those who came from rural resident [6].

With respect to education level, studied sample express a not read and write (n=149; 29.8%), followed by those who were collage graduated (n=87; 17.4%), followed by those who are institute graduated (n=72; 14.4%), and followed by those who are primary and secondary graduate (n=44; 8.8% and n= 32; 6.4%) respectively. Occupation related findings, more than half of study participants are housewife (n=339; 67.8%), followed by those who were employed (n=102; 20.4%), and followed by those who are students and retired. In regards with body mass index, most of study participants were overweight (n=248; 49.6%), followed by those who were normal weight (n=213; 42.6%), followed by those who are thin (n=21; 4.2%), and followed by those who were obese (n=18; 3.6%).

The above findings come with findings of study conducted in Kurdistan region, Iraq. Results indicated that the (55.5%) were within age 20-29 years at mean age=28, (51%) were basic education, (61.7%) urban residences with normal to overweight [7].

In recent years, caesarean section rates continue to evoke worldwide concern because of their steady increase, lack of consensus on the appropriate caesarean section rate and the associated short- and long-term risks. Our findings showed according to mean that the surgical site infections were the most common complications with cesarean section followed by post-partum hemorrhage and endometritis among studied sample. The perinatal asphyxia were most common complications of cesarean section among fetus followed by respiratory distress syndrome and low Apgar score.

This findings come consisting with findings of study conducted in Public Hospitals in Northern Ethiopia. Their findings showed that the post-partum infection and post-partum hemorrhage were the most complications occurs after delivery [8].

According to the American College of Obstetricians and Gynecologists report, cesarean birth significantly increased a woman's risk of pregnancy-related fatality (35.9/100,000) compared to a woman who delivered vaginally (9.2/100,000) deaths. The rates of operation wound infection, post-partum hemorrhage and babies respiratory distress syndrome were also common after cesarean section [9, 10].

Conclusion

Surgical site infection and post-partum hemorrhage were the most common complications of cesarean section among women. Perinatal asphyxia, respiratory distress syndrome and low Apgar score were most common fetal complication of cesarean section.

Recommendation

Health providers should follow WHO recommendations for the cesarean section. A manual booklet of side effects of cesarean section and how to manage it should be write in simple words and use

attractive pictures given to the women and family.

Financial Disclosure: There is no financial disclosure.

Conflict of Interest: None to declare.

Ethical Clearance: "All experimental protocols were approved under the AL Diwaniyah Directorate and carried out in accordance with approved guidelines".

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