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SOCIO-DEMOGRAPHIC CHARACTERISTICS AND CAUSES OF DELIVERY BY CAESAREAN SECTION AMONG WOMEN IN DIYALA GOVERNORATE IN THE SECOND AND THIRD TRIMESTER OF 2017

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ABSTRACT

Background: The rise in the prevalence of caesarean section in recent decades has become a public health problem worldwide. **Objective:** To identify the frequency of Caesarean Section (C/S) in addition to identification of socio-demographic characteristics of cases with C/S and to investigate the indication of C/S in Diyala province. **Methods:** A cross-sectional study was conducted in Al-batul Teaching Hospital for the period from the 1st of April to the end of September 2017. The study sample included (200); pregnant and non-pregnant women were selected from among those referred to the Hospital. Data was collected using a researchers-made questionnaire through interviews with patients and reviewing medical records. Data were analyzed using descriptive and analytic statistic through SPSS system. **Results:** The mean and standard deviation of age of women was 28.34 ± 6.282 years and most of them (50.50%) were in the age range of 20-29 years and had a primary school (44.50%). Considering delivery history, the highest percentage of women had no previous delivery (25%) and over half of the subjects (57.5%) had experienced a previous C/S. The most common causes were repeated C/S (57.5%), medical and surgical causes (7%), breech presentation (5%) and elective C/S (on maternal request) (4%). Statistically significant associations were observed between C/S reasons, and age ($P < 0.01$) and number of previous pregnancies ($P < 0.001$). **Conclusions:** Common indications of caesarean section observed in this study were previous caesarean section. Majority of patients who underwent caesarean section were unbooked. Obstetricians should abide by ethics in clinical practice and carefully evaluate the indication in every caesarean section and take an unbiased decision before performing caesarean section on demand/request. **Recommendation:** providing training programs to advice women to the negative consequences of C/S and vaginal delivery benefits would be effective in the choice of delivery and might help in reducing caesarean.

KEYWORDS: Caesarean Section, Indications, Delivery.

INTRODUCTION

Caesarean delivery is a surgical procedure in which, birth of a fetus occurs through incisions in the abdominal wall (laparotomy) and the uterine wall (hysterotomy), this definition does not include removal of the fetus from the abdominal cavity in the case of rupture of the uterus or in the case of an abdominal pregnancy, it is the most common major surgical procedure used and it has helped to decrease maternal and fetal mortality and morbidity.[1] The rate of cesarean delivery continues to increase despite efforts to constrain operative abdominal deliveries, this is a cause for concern because cesarean section is associated with higher likelihood of adverse outcome for both mother and fetus as compared to vaginal delivery.[2] The frequency of caesarean section (C/S) is persistently increasing all over the world, the expanding rate of CS is due to many factors including pregnancy after the age of 35 years and maternal requests.[3] The rate of C/S in different countries varies between urban and rural areas, different socio-economic groups, and among people with different rate of access to different public and private services.[4] Pregnancy and delivery are considered as normal physiological phenomena in women, approximately 10% deliveries are considered as high risk, some of which may require caesarean section.[5] Worldwide rise in caesarean section (C/S) rate during the last three decades, has been the cause of alarm and needs an in depth study.[6] Indications for C/S include breech presentation, previous C/S, multiple pregnancy, lack of progress in labor, fetal distress, small fetus and macrosomia, cord prolapse, transverse or oblique location of the fetus, head and

pelvis mismatch, placenta previa, abruptio placentae, and severe preeclampsia.[7] For most of the 20th century, caesarians were a rarely used procedure; done only in truly life-threatening situations after all other options had been exhausted.[8] Caesarean section is considered a risk to the mother and newborn and a burden on the health care system when unnecessarily done.[9] Caesarean section is a surgical intervention which is carried out to ensure safety of mother and child when vaginal delivery is not possible (emergency C/S) or when the doctors consider that the danger to the mother and baby would be greater with a vaginal delivery (planned C/S).[10] Pregnancy and delivery have been and continue to be a high risk endeavour for women, this assertion explains the continuous efforts of healthcare workers to maintain pregnancy and delivery in a normal course.[11] Caesarean section rates are high and continue to rise in developed countries.[12] A Caesarean section is usually performed when the baby's or mother's life at risk, in recent times it has also been performed upon request for childbirths that could have been natural deliveries.[13] Elective Caesarean sections may result in iatrogenic preterm birth, prolong hospitalization, and have a negative effect on breastfeeding, Caesarean sections involve surgical and anesthesia-related risks, and may have long-term consequences on later pregnancies, including conditions of high hemorrhagic risk (such as placenta previa and placenta accreta), which may often lead to maternal death.[14] But currently, being described as the "caesarean birth epidemic" may now well be considered a true pandemic emerging issue in mother-child healthcare.[15] The rates of caesarean section (C/S) have progressively increased in high income,as well as middle and low income countries, in sub Saharan Africa, and other low income countries, the overall C/S rates lag behind those in high income countries despite the high maternal and perinatal mortality rates in the former countries.[16] One of the most dramatic features of modern obstetrics is the relentless increase in the caesarean section rate, this escalating caesarean section rate is a major public health problem because caesarean section increases the health risk for mothers and babies as well as the cost of health care compared with normal deliveries.[17] Caesarean section (C/S) is the most common surgical procedure performed on women worldwide, it can save the life of the mother and newborn, but is also known to have the typical complications of any major surgery: hemorrhage, infection, venous thromboembolism and complications of anesthesia, sometimes leading to maternal death.[18]

OBJECTIVES

1. To identify the frequency of caesarean section among women consulted Al-batul teaching hospital.
2. To investigate the indications, of caesarean section among women consulted Al-batul teaching hospital.
3. Present study seeks to examine the level and trend of the caesarean section delivery in Diyala and its states.
4. It also tries to indentify various factors associated with caesarean delivery in Diyala context.
5. Another objective of this study is to understand the possible reasons of very high rate C/S in some parts of Diyala.

METHODS

1 Study Design and setting

This was a cross-sectional study. The study population consisted of all pregnant women who referred to Al-batul Teaching Hospital for C/S and all women consulted the gynecology consultation Clinic with history of C/S within the study' period.

2 Time and place

The study was conducted in Baquba City /Diyala, for the period from the 1st of April –30 of September/ 2017, including planning (recognition and evaluation of the study questionnaire). Collection of data, mapping the target population.

According to statistical reports of the Department of Health (data from Al-batul teaching Hospital) in the second and third quarters of 2017, (7595) births were conducted in the Hospital, among these cases, (3646) cases were caesarean sections and (3949) were natural deliveries.

The study sample included (200) women selected randomly from the above mentioned population, who were consulted or admitted to the consultation clinic, gynecological wards or emergency of Al-batul Teaching Hospital.

Al-batul Teaching Hospital was started to work from April of 1989A.B. and received a lot of cases. Total patient beds were 351. Involving 56 beds gynecological and obstetrical beds. In last five years found that there was increase in C/S frequency. In 2012 and 2013 was 38%, in 2014 and 2015 was 41%, in 2016 was 43% and in 2017 was 47%.

A questionnaire was designed by the researchers used for data collection from the study sample, included personal, obstetrical and gynecological information as follow: Maternal age, education, Occupation, address, displaced history, number of previous pregnancy, number of normal vaginal delivery, number of C/S, use of contraceptive, site of operation, types of operation (elective and emergency), time of operation and the cause of caesarean section.

The LSCS(Lower Segment Caesarean Section) was classified as 'Elective C/S' when caesarean section was done as a preplanned procedure during late pregnancy to ensure the best quality of anesthesia, neonatal resuscitation and nursing services. It was labeled as 'Emergency C/S' when the operation was performed due to unforeseen or acute obstetric emergencies. LSCS done for the first time on women was labeled as a Primary C/S and Caesarean section performed on women with one or

more previous cesarean delivery was labeled as 'Repeat C/S.

3. Data analysis

Data analysis was done using SPSS (Statistical Packages for Social sciences) version 21. Chi –square used for detection of association between the variables in addition to MS Excel.

RESULT

Of a total of 200 births taken place during the study period of April 2017to September 2017.Caesarean section observed in our study was significantly more common in the age group of 20-29years age group101 (50.50%), with 76(38.00%) in the age group of 30-39years, 13(6.50%) in the age group of 15-19 years and ten (5%) in the age group ≥40 years. As shown in table one.

And it was more common in primary school education 89 (44.50%), followed by43 (21.50%) in secondary school, 41(20.50%) in university and over, Illiterate were fourteen (7.00%), and were thirteen (6.50%) in diploma.

More in no work 175(87.50%), twenty (10.00%) in work occupation and less in student about five (2.50%).

It was significantly more common in the women coming from urban area 135(67.50%) followed by 65(32.50%) from rural area.

As shown in table one.

Table 1: Frequency distribution of C/S among the study sample according to socio-demographic characteristics.

Characteristics Total = 200	Value	Count	Percent
age	15-19	13	6.50%
	20-29	101	50.50%
	30-39	76	38.00%
	≥40	10	5.00%
education	Illiterate	14	7.00%
	Primary school	89	44.50%
	secondary school	43	21.50%
	diploma	13	6.50%
	University and over	41	20.50%
occupation	work	20	10.00%
	no work	175	87.50%
	student	5	2.50%
address	urban	135	67.50%
	rural	65	32.50%
displaced history	yes	28	14.00%
	No	172	86.00%

With no previous pregnancy was 50(25.00%), two previous pregnancy were 45(22.50%), one previous pregnancy were 44(22.00%), more than three 36(18.00%) and least in three previous pregnancy 25(12.50%).

With no history of normal vaginal delivery were 133(66.50%), with one normal vaginal delivery were 25(12.50%), 15(7.50%) in two normal vaginal delivery and also 15(7.50%) in more than three normal vaginal delivery. It was significantly more common in the women with no history of caesarian section 85(42.50%) followed by history of one previous caesarian section 54(27.00%), in history of previous two was 36(18.00%), 14(7.00%) in previous three and 11(7.00%) in more than three as shown in table two. It was significantly more common in the women with no history contraceptive use 116(58.00%) and less in women with contraceptive use 84(42.00%).

As shown in table two.

Table 2: Frequency distribution of demographic variables in studied women.

Parameters NT= 200	Value	Count	Percent
No. of previous pregnancy	no previous pregnancy	50	25.00%
	one previous pregnancy	44	22.00%
	two previous pregnancy	45	22.50%
	three	25	12.50%
	more than three	36	18.00%
No. of nvd	no	133	66.50%
	one	25	12.50%
	two	15	7.50%
	three	12	6.00%
	more than three	15	7.50%
no. of c/s	no	85	42.50%
	one	54	27.00%
	two	36	18.00%
	three	14	7.00%
	more than three	11	7.00%
contraceptive use	yes	84	42.00%
	no	116	58.00%

The Emergency LSCS rate was significantly higher159 (79.50%) than elective LSCS rate 41(20.50%).As shown in table three.

At term rate was significantly higher 168(84.00%) followed by 28(14.00%) preterm and postdate was four (2.00%).

Result of Caesarean section delivery was 130(65.00%) with normal live birth and cases which need admission to neonatal care unit was 68(34.00%) and two cases presented with dead baby(1.00%).As shown in table three.

Table 3: Type, time of operation and result of delivery.

Parameters NT= 200	Value	Count	Percent
type of operation	elective	41	20.50%
	emergency	159	79.50%
time of operation	At term	168	84.00%
	preterm	28	14.00%
	postdate	4	2.00%
result of delivery	live birth	130	65.00%
	neonatal care unit	68	34.00%
	dead baby	2	1.00%

The commonest indication for LSCS was previous LSCS 115(57.50%) followed by, medical and surgical cause 14(7.00%), breech presentation ten (5.00%), and was eight (4.00%) in maternal request, cephalopelvic disproportion and fetal distress. And was five (2.50%) decreased amniotic fluid and Being twin, and was four (2.00%) in lack of labor progress, other medical cause and in placenta abruption. It was three(1.50%) in lack of response to induction of labor, transverse lie, large size embryo, more than one reason and in Meconium stain.

As shown in table 4.

Table 4: Maternal and fetal causes of caesarean section.

Causes	Value	Count	Percent
Repeated caesarean section	Maternal N=156	115	57.50%
Maternal request		8	4.00%
Lack of labor progress		4	2.00%
Lack of response to induction of labor		3	1.50%
Medical and surgical cause		14	7.00%
Other medical cause		4	2.00%
Cephalopelvic disproportion		8	4.00%

Fetal distress	Fetal N=44	8	4.00%
Breech presentation		10	5.00%
Transverse lie		3	1.50%
Placenta previa		0	0.00%
Placenta abruption		4	2.00%
Large size embryo		3	1.50%
Decreased amniotic fluid		5	2.50%
More than one reason		3	1.50%
Being twin		5	2.50%
Meconium stain		3	1.50%

Repeated C/S increased with increases in level of education as shown in table 5.

Table 5: Association of level of education and C/S causes in studied women.

NT=200			causes							Total
			MATERNAL N=156				FATAL N=44			
			Repeated caesarean section M	Maternal request M	Medical and surgical cause M	other M	Fetal distress	Breech presentation	other FF	
level of education	Illiterate	N	8	0	2	0	1	0	3	14
		%	57.1%	0.0%	14.3%	0.0%	7.1%	0.0%	21.4%	100.0%
	Primary school	N	47	4	8	11	4	4	11	89
		%	52.8%	4.5%	9.0%	12.4%	4.5%	4.5%	12.4%	100.0%
	secondary school	N	31	1	0	4	2	1	4	43
		%	72.1%	2.3%	0.0%	9.3%	4.7%	2.3%	9.3%	100.0%
	diploma	N	8	0	2	0	1	1	1	13
		%	61.5%	0.0%	15.4%	0.0%	7.7%	7.7%	7.7%	100.0%
	university and over	N	21	3	2	4	0	4	7	41
		%	50.0%	7.5%	5.0%	10.0%	0.0%	10.0%	17.5%	100.0%
Total		N	115	8	14	19	8	10	26	200
		%	57.5%	4.0%	7.0%	9.5%	4.0%	5.0%	13.0%	100.0%

In our study repeated C/S and fetal factor increase in urban area while other reasons showed a decrease compared to rural area there is increase in repeated C/S and medical and surgical cause as shown in table (6).

Table 6: association of Residence and C/S causes in studied women.

NT=200			causes							Total
			MATERNAL N=156				FATAL N=44			
			Repeated caesarean section M	Maternal request M	Medical and surgical cause M	other M	Fetal distress	Breech presentation	other FF	
Residence	urban	N	77	7	6	13	5	7	20	135
		%	57.0%	5.2%	4.4%	9.6%	3.7%	5.2%	14.8%	100.0%
	rural	N	38	1	8	6	3	3	6	65
		%	58.5%	1.5%	12.3%	9.2%	4.6%	4.6%	9.2%	100.0%
Total		N	115	8	14	19	8	10	26	200
		%	57.5%	4.0%	7.0%	9.5%	4.0%	5.0%	13.0%	100.0%

As Increase in number of previous pregnancy maternal and fetal factors decrease as show in table (7)

Table 7: Association of No. of previous pregnancy and C/S causes in studied women.

NT=200			causes							Total
			MATERNAL N=156				FATAL N=44			
			Repeated caesarean section M	Maternal request M	Medical and surgical cause M	other M	Fetal distress	Breech presentation	other FF	
No. of previous pregnancy	no previous pregnancy	N	0	4	8	14	3	8	13	50
		%	0.0%	8.0%	16.0%	28.0%	6.0%	16.0%	26.0%	100.0%
	one previous pregnancy	N	36	2	1	2	0	1	2	44
		%	81.8%	4.5%	2.3%	4.5%	0.0%	2.3%	4.5%	100.0%
	two previous pregnancy	N	36	1	0	2	3	0	3	45
		%	80.0%	2.2%	0.0%	4.4%	6.7%	0.0%	6.7%	100.0%
	three	N	19	1	2	0	0	0	3	25
		%	76.0%	4.0%	8.0%	0.0%	0.0%	0.0%	12.0%	100.0%
	more than three	N	24	0	3	1	2	1	5	36
		%	66.7%	0.0%	8.3%	2.8%	5.6%	2.8%	13.9%	100.0%
Total		N	115	8	14	19	8	10	26	200
		%	57.5%	4.0%	7.0%	9.5%	4.0%	5.0%	13.0%	100.0%

As age increased repeated c\s also increase while other reasons decreased as show in table (8)

Table 8: association of age period and C/S causes in studied women.

NT=200			causes							Total
			MATERNAL N=156				FATAL N=44			
			repeatedcaesareansection M	maternalrequest M	Medical and surgical cause M	other M	Fetal distress	Breech presentation	other FF	
age period	15-19	N	1	0	2	5	1	2	2	13
		%	7.7%	0.0%	15.4%	38.5%	7.7%	15.4%	15.4%	100.0%
	20-29	N	56	5	7	12	3	6	12	101
		%	55.4%	5.0%	6.9%	11.9%	3.0%	5.9%	11.9%	100.0%
	30-39	N	51	3	5	2	3	2	10	76
		%	67.1%	3.9%	6.6%	2.6%	3.9%	2.6%	13.2%	100.0%
	≥40	N	7	0	0	0	1	0	2	10
		%	70.0%	0.0%	0.0%	0.0%	10.0%	0.0%	20.0%	100.0%
Total		N	115	8	14	19	8	10	26	200
		%	57.5%	4.0%	7.0%	9.5%	4.0%	5.0%	13.0%	100.0%

DISCUSSION

According to data collected from Al-batul Teaching Hospital in the second and third quarters of 2017, the incidence of C/S was 48%.

In diyala governorate the incidence was 39%. The prevalence of C/S in different cities of Iraq was reported as in Al-Imamein Al-Kadhimein was 56% and in Babylon was 34%.The present study results on the causes of C/S showed that the majority of caesarean sections (57.50%) were repetitive C/S. This finding was similar to that of most of the studies in Iran.[89,90] and in Iraq.[9,8,13] Repeated C/S was the most common indication of primary deliveries in 28% of births in England and 32.8% of births in America.[91] Repetitive elective C/S is one of the main causes of increase in caesarean sections associated with fetal distress, dystocia (difficult birth), and breech presentation.[92] Most women with a history of C/S are able to have a vaginal delivery; therefore, 75 out of 100 women will have successful vaginal deliveries and 25 out of 100 will require repetitive caesarean sections.[93]

A meta-analysis reported the success rate of vaginal birth after one C/S as 76.5% and after two caesarean sections as 71.1%.[92] Based on available evidence, vaginal birth is a suitable option for many women and fetal obstetrics.[94] In the United States of America, 2.5% of all deliveries are performed at the request of the mothers.[95] Moreover, 4% of Norwegian nulliparous women and 7.3% of multiparous Norwegian women expressed that in the case of being able to choose their delivery method, they would select cesarean delivery. In the United Kingdom, 10% of midwives, 21% of obstetricians, 50% of urogynecologists, and 50% of colorectal surgeons preferred elective C/S.[96]

In another study, the training of pregnant women and medical staff reduced elective C/S by up to 54%.[97]

One of the programs of the health care system is to promote natural childbirth and reduce C/S. This plan is conducted through policies such as encouraging vaginal delivery through promoting painless delivery, free labor costs in public hospitals for natural deliveries, reconstruction of delivery departments with specific spaces for deliveries, making natural births pleasant.

Although the implementation of policies, such as improving natural delivery conditions and eliminating costs, can promote natural childbirth in some segments of society, it seems that applying such policies alone cannot significantly influence the reduction of C/S in the country. Selection of the method of delivery by the doctor and the pregnant women is influenced by many factors, including factors related to labor conditions, the health care system, culture of the society, and caesarean and vaginal delivery consequences.[98]

The results of this study showed the high prevalence of caesarean sections in the city of Vaginal birth after C/S, taking into account the individual's clinical condition, the legal requirements, providing the necessary advice, and preparing the pregnant women for this type of delivery can have an important role in decreasing the incidence of C/S. Repetitive C/S, as the most common reason for C/S, had a major role in the increasing of this type of childbirth. After repeated C/S, Medical and surgical cause, Breech presentation, and (Maternal request, fetal distress, Cephalopelvic disproportion) were the most common reasons for C/S, respectively. C/S is not the preferred method for delivery, because like any other surgery it causes many complications for the mother and the baby. Attempts to reduce the percentage of elective C/S are important. Therefore, managers and planners should develop and implement appropriate strategies to reduce this method of delivery. Thus far, steps, such as training and counseling of women before pregnancy and during pregnancy, painless delivery, labor preparation classes, C/S cultural change and elimination of misunderstandings, raising awareness about birth methods and their side effects and risks, and improving facilities and safe equipment for vaginal delivery have been taken. Nevertheless, further effective measures and more effort is necessary in this respect.

The frequency of caesarean section depends on the inherent characteristics of the obstetrics population, socio-demographic pattern, referral role of the hospital, departmental policies regarding management of cases of dystocia, breech, fetal distress and previous caesarean section, physician factor, medico-legal aspects, and consideration of maternal choice and wishes.[17] A combination of demographic, socio-economic and institutional factors determines the frequency of caesarean section delivery in any region. Here I will discuss various factors associated with Caesarean section under institutional set up. Reveals that caesarean delivery is highest among mothers of age group above 20-30 years. C/S rate is higher for women having multiple births and having baby for the first time. Also the percentage of women who have undergone C/S delivery is higher among those who sought treatment for pregnancy complication or suffered from delivery-related complications. This disagree with a study in caesarean section delivery in India[10], and agree with other study in Iran.[4] The present study finds that after covariate adjustment, women who have completed 6-12 years schooling or higher are significantly more likely to experience caesarean delivery than those who never attended school. In fact, education increases women's decision making power regarding their own health care and it is believed that many highly educated women prefer elective caesarean which like the study in Iran.[4] In my study found that the socio-demographic characteristics of women predicted mode of birth, for example women from lower occupational status households were more likely to have a planned caesarean which like a study in England and Finland.[88] Caesarean section delivery is our study more likely to occur at urban areas which like the India study[10], and disagree in Mali study.[11] It is because of higher concentration of medical institutions particularly private medical institutions in urban areas which facilitates greater institutional deliveries as well as Caesarean section births. The emergency cesarean section percentage was high in our study. This was similar to that of most of the studies in Pakistan.[5] There are many reasons. First one was that Batol hospital may receive many emergency complicated cases from other peripheral hospitals need really C/S or call specialist did not wait pregnant women to deliver vaginally. Second cause may be related to medical workers in this hospital or the relative of the patient.[13]

It is important to emphasize that these findings are not meant to be generalized to the city or country. The frequency expected to be high as it is a tertiary referral center and it served high-risk, referred patients in addition to low risk group.[8] Repetitive C/S was the most common reason during the last 30 years.[7]

Primary caesarean section usually determines the future obstetric course of any woman and therefore should be avoided wherever possible[5] May be due to:

1. Hope of doctors to get more money.
2. Fear from the pain during labor in a normal delivery.
3. A caesarean is easier for an obstetrician than a vaginal birth.
4. Some women choose C/S to give birth on the day to bring luck.
5. Many people believe that this procedure is less risky for the mother.
6. Hospital factors may explain some increasing C/S Such as hospital size, teaching hospital, rural hospital, shorter length of hospital stays.
7. Believe of people that cesarean delivery at 40 weeks of gestation reduces fetal mortality. While planned vaginal delivery could occur at up to 42 weeks of gestation.

The term fresh scar (related to pregnancy happened within 6 months following C/S is over used with no scientific bases. Royal College of Obstetrics and Gynecology (RCOG) recommended that all women previously delivered by one lower segment C/S should be offered an opportunity to labor during their next pregnancy by promoting a trial of scar or of labor.[8] The

second cause in our study was medical and surgical causes (7%), which include pregnant women with the pregnancy induced hypertension, Preeclampsia and gestational diabetes or other uterine surgery except for C/S which is similar to other studies in Iraq.[8] policy statement indicate the minimum ANC during pregnancy this may result in sudden increase in blood pressure and preeclampsia. Other common maternal cause was maternal request about eight (4%), similar to other studies in Iran.[4] This due to some women afraid from pain of labor and insist for C/S.

CONCLUSIONS

1. Common indications of caesarean section observed in this study were previous caesarean section.
2. Majority of patients who underwent caesarean section were unbooked.
3. The increased cesarean delivery rate cannot, however, be fully explained by these factors or other characteristics collected by this study, and is likely the multifactorial impact of psychosocial determinants of healthcare utilization and systemic problems of healthcare delivery.
4. The caesarean section in our study was because mostly referred cases after initial trial of daies, lady health visitors and general practitioners in private hospitals were received.
5. Although the debate will continue regarding the appropriateness of caesarean section on demand, any discussion of risks and benefits must include the potential for long term risks of repeated caesarean section, including hysterectomy and maternal and fetal death.
6. Obstetricians should abide by ethics in clinical practice and carefully evaluate the indication in every caesarean section and take an unbiased decision before performing caesarean section on demand/request.

Recommendations

Measures recommended to reduce caesarean section are as follows:

1. In the absence of maternal or fetal indications for caesarean delivery, a plan for vaginal delivery is safe and appropriate and should be recommended.
2. Caesarean delivery on maternal request should not be performed before a gestational age of 39 weeks.
3. Caesarean delivery on maternal request should be not recommended for women desiring several children.
4. Registration should be observed by the ministry of health and certain regulations are mandatory.

Measures recommended to reduce caesarean section are as follows:

5. Proper antenatal care and counseling regarding the planned hospital delivery.
6. Proper diagnosis of labor.
7. Partogram should be maintained for good monitoring of progress of labor especially in patients with previous one caesarean section.
8. Good analgesia and proper fetal monitoring during labor.
9. Avoiding undue inductions of labor.
10. Trial of VBAC should be encouraged in appropriate cases.
11. Expertise in external cephalic version and vaginal breech delivery in good selected cases.
12. Proper training of traditional birth attendants and lady health visitors, Effective working of referral chain and time demanded health policies.

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