

A Survey on Causes of Cesarean Sections Performed on Women and Their Knowledge towards the Mode of Delivery

Tanzeena Afroz¹ and Md Shahidul Islam^{2*}

¹Student, Department of Pharmacy, University of Science and Technology Chittagong (USTC) Bangladesh

²Assistant Professor, Department of Pharmacy, University of Science and Technology Chittagong (USTC) Bangladesh

*Corresponding author

Md Shahidul Islam, Assistant Professor, Department of Pharmacy, University of Science and Technology Chittagong (USTC) Bangladesh, E-mail: s_i_liton@yahoo.com

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Abstract

Recently elective cesarean delivery rates have increased alongside with emergency cesarean delivery where less information has been conveyed to the women who have been subjected to C-sections. The main objective of C-section is reducing the incidence of maternal and neonatal mortality during childbirth in dangerous situations. It is recommended when there is a risk to mother or child during vaginal delivery. A descriptive type of cross-sectional study design was used. All the data were collected through structured format in questionnaires. The present study was carried out in the department of Obstetrics and Gynecology in the Chittagong Medical College Hospital. The data was collected from 29th September 2019 to 10th October 2019. Most of the patients who were subjected to c section were within the age range of 15-25 (57%). 41% of the cesarean sections were planned whereas 59% were on the basis of emergency and mostly the decision was doctor's (66%). 58% of the population had enough information before undergoing C-sections and 42% wasn't fully aware. Among pain medication intake, only 2% of the patients had taken a combination of three pain medications which include paracetamol, metronidazole and suppository. 80% of the patients consumed a combination of paracetamol and suppository whereas only 10% of population consumed paracetamol and metronidazole. 8% of the patients were managed only with paracetamol. 23% of the cesarean patients had a previous history of ceaser and among them some rare special cases had a previous history of 4 ceasers (2%). 43% of the patients suffered pregnancy induced hypertension and 8% suffered pregnancy induced diabetes. 20% of the c section were due to breech presentation and 80% were due to other reasons which included seventeen factors. Patients are not given enough information about C-section and mostly the decisions are taken by the doctors without the consent of the patients.

Keywords: C section, Survey, Chattogram, Awareness

Introduction

Cesarean section also known as C-section or cesarean delivery refers to delivery (birth) of a fetus or fetuses alive or dead with the removal of placenta and membranes through a surgical incision made on the mother's anterior abdominal and uterine wall [1]. Various abdominal incisions are used for caesarean delivery and almost any abdominal area is suggested. Initially the incision is made on either side of the linea alba usually the right [2]. The scar is stronger than the midline but has no cosmetic advantage. There is also a report of an oblique incision. Traditionally, midline incisions are used for caesarean delivery. It has the advantage of reduced bleeding because the area is avascular, speed of abdominal entry, good healing and can be extended upwards if more space is required [3]. It is also advised if local anesthesia is to be used. The disadvantages are the risk of injury to the urinary bladder, post-operative wound dehiscence and later development of incisional hernia. Majority of the early surgeons use classical (vertical) incisions. The median vertical incision on the uterus allows sufficient room for the delivery of the baby while avoiding the uterine vessels laterally [4]. Severe hemorrhage, downward extension to the bladder and vagina and risk

of rupture in subsequent pregnancies are its limitations. It is rarely performed today unless for exceptional indications such as post-mortem, inaccessibility to the lower uterine segment due to severe adhesion or a mass transverse lie and when sterilization is to be carried out. The advantages of the transverse lower segment incision are reduced bleeding and decreased incidence of uterine rupture in subsequent vaginal delivery [5]. Another development in transverse lower segment uterine incision is bilateral 'J' shape or inverted T when more space is needed. Whatever incision that is indicated must allow enough room for easy delivery of the baby without injury to the uterine arteries. Caesarean section is a surgical procedure for delivery when vaginal delivery becomes contraindicated [6]. The cesarean section is of benefit to pregnant women and the newborns when its indication is well-founded. The main objective of C-section is reducing the incidence of maternal and neonatal mortality during childbirth in dangerous situations. Recently the notions that a vaginal birth is scary and dangerous and a cesarean surgery is safe and controllable were revealed as common themes for motivating factors [7]. On the other hand most women who undergo cesarean birth experience a feeling of dissatisfaction towards the physicians, profound disappointment at treatment expectation, and the loss of the happy moment of natural birth [8]. The short-term adverse

associations of cesarean delivery for the mother, such as infection, hemorrhage, visceral injury, and venous thromboembolism, have been minimized to the point that cesarean delivery is considered as safe as vaginal delivery in high-income countries though in low and middle-income countries, there is an increased risk of adverse short-term maternal outcomes even with cesarean delivery without medical indication.

Materials and Method

Design and Place of Study

A descriptive type of cross-sectional study design was used. All the data were collected through structured format in questionnaires. The sample sizes were statistically desirable, feasible and satisfactory and were approached randomly. The recording system was almost adequate and no other persons were engaged in collecting the data except the researcher so that the quality of the overall data was reliable. The present study was carried out in the department of Obstetrics and Gynecology in the Chittagong Medical College Hospital. It is located in KB Fazlul Kader Road, Panchlaish, and Chittagong.

Data Collection Period

The data was collected from 29th September 2019 to 10th October 2019.

Survey Protocol

For prospective cross-sectional encounter, approximately hundred female cesarean patients who agreed to participate were selected randomly. The patients were asked the question by researcher herself which she filled in the questionnaire form. However, in the close-ended questions the participants were restricted to choose only from the options provided in questionnaire without having their detailed viewpoints.

Results and Discussion

The total number of study population involved in this study was one hundred in order to investigate the reason for C-section, women's involvement with the decision of C-section, previous cesarean history, post-operative care and pain management. The results of this survey are represented by the following tables and figures:

Table 1: Age Distribution of Cesarean Patient

Patient's age (years)	Total (%)
15-25	57
26-35	39
above 35	4

The result of above table is represented by the following figure

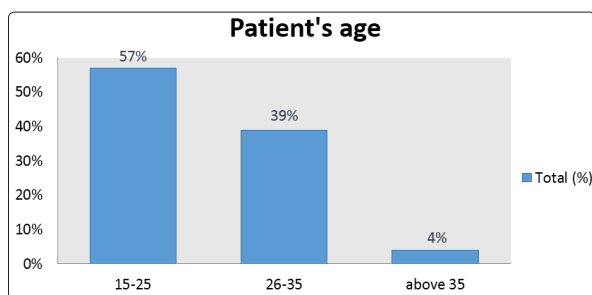


Figure 1: Age distribution of cesarean patient represented in the form of bar chart

Comment: From the above figure it was seen that between age 15-25 years 57% women were subjected to C-section. 39% women between the age ranges 26-35 were marked for C-section and only 4% population were admitted for C-section.

Table 2: Level of Education

Level of education	Total (%)
Illiterate	12
Primary	65
Secondary	18
Bachelors	4
Masters	1

The result of above table is represented by the following figure

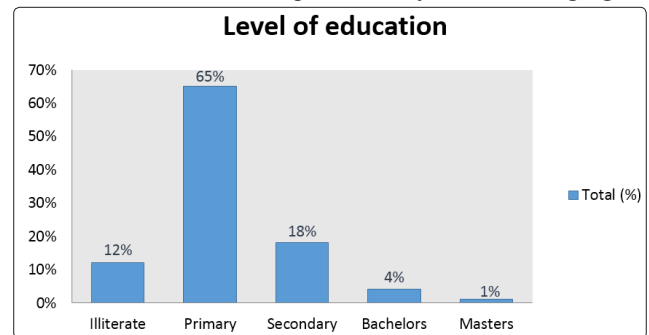


Figure 2: Level of education of cesarean patient represented in the form of bar chart

Comment: From the above figure it was seen that highest proportion of patient had primary education which was 65% and the least proportion had master's degree which was 1%. Among the remaining, 4% of women had a bachelor's degree, 18% were educated with secondary education and 12% were illiterate.

Table 3: Occupation Status of patients who have undergone c section

Occupation Status	Total (%)
Housewife	90
Working woman	4
Still studying	6

The result of the above table is represented by the following figure

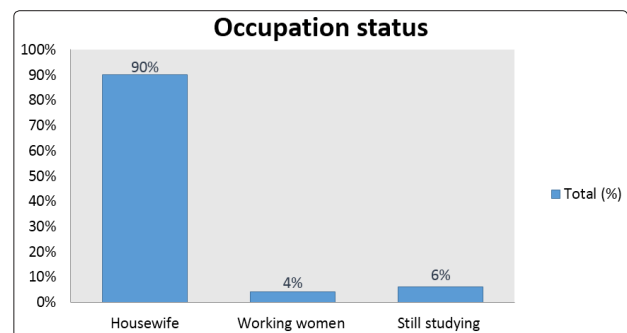


Figure 3: Occupation status of cesarean patient represented in the form of bar chart

Comment: The above figure shows abundance of patient who are housewife with a percentage of 90%. The remaining 4% includes patients that are actually working women. 6% of the population is still studying.

Table 4: C-Section Planned/Emergency

C-section planned/ emergency	Total (%)
Planned	41
Emergency	59

The result of the above table is represented by the following figure

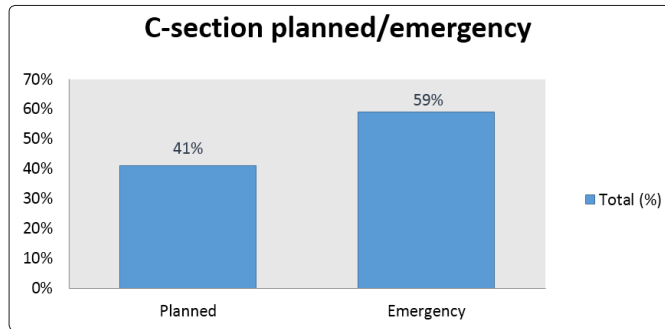


Figure 4: Percentage distribution of planned or emergency C-section is represented as a form of bar chart

Comment: The above figure shows that 59% of the operation was done in emergency whereas 41% were planned cesarean delivery.

Table 5: Decision of C-section taken by doctor or husband/family

Who's decision	Total (%)
Doctor	66
Husband/family	34

The result of the above table is represented by the following figure

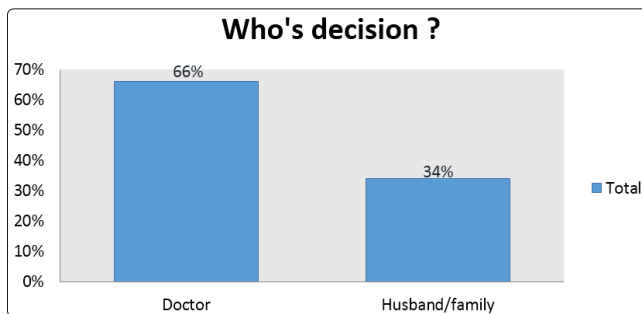


Figure 5: Decision of C-section taken by doctor or husband/family represented in the form of bar chart

Comment: The above figure shows that 66% of the cesarean delivery was the doctor's decision. The remaining 34% was the family's decision.

Table 6: Patient's awareness before C-section

Patient's awareness before C-section	Total (%)
Yes	58
No	42

The result of the above table is represented by the following figure

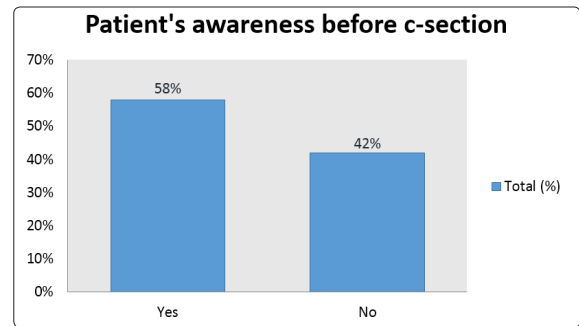


Figure 6: Patient's awareness before C-section represented in the form of bar chart

Comment: From the above figure we can observe that among the total patient population 58% of the population had enough information before undergoing C-section whereas 42% of the population wasn't fully aware of the information regarding C-section.

Table 7: Intake of Pain Medication

Pain medications taken	Total (%)
Paracetamol	8
Paracetamol and metronidazole	10
Paracetamol and Suppository	80
Paracetamol, metronidazole and suppository	2

The result of the above table is represented by the following figure

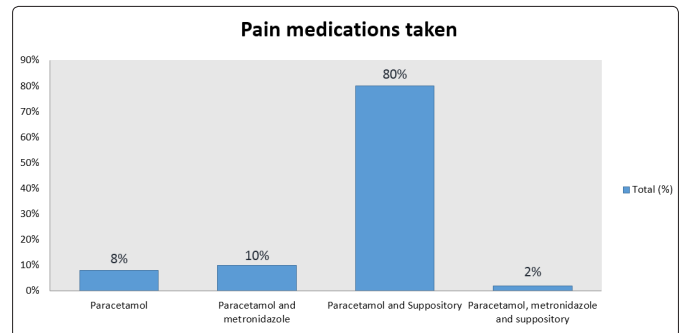


Figure 7: Intake of pain medication represented in the form of bar chart

Comment: The above figure shows that only 2% of the patients intake a combination of three pain medications which include paracetamol, metronidazole and suppository. 80% of the patients consumed a combination of paracetamol and suppository whereas only 10% of population consumed paracetamol and metronidazole. 8% of the patients were managed only with paracetamol.

Table 8: Previous Cesarean History

Previous cesarean history	Total (%)
Yes	23
No	77

The result of the above table is represented by the following figure

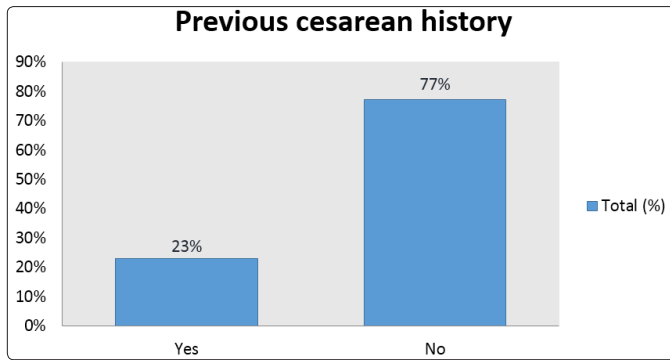


Figure 8: Previous cesarean history represented in the form of bar chart

Comment: The figure above shows that only 23% of the cesarean patients had a previous history of ceaser while the remaining 77% had no history of previous ceaser.

Table 9: Total Number of Previous Ceaser

Total number of previous ceaser	Total (%)
One	9
Two	11
Three	1
Four	2

The result of the above table is represented by the following figure

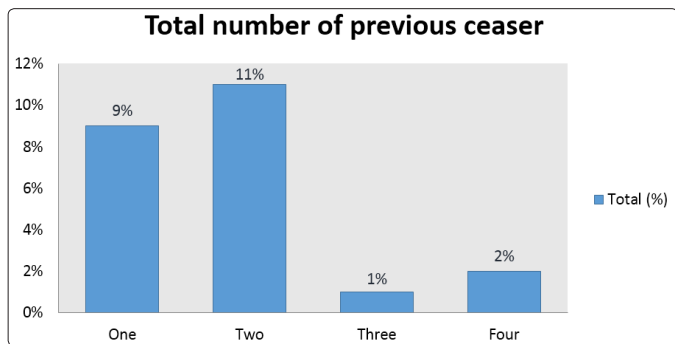


Figure 9: Total number of previous ceaser represented in the form of bar chart

Comment: From the above figure it is seen that among the patients who had previous ceaser, greater proportion of the patients had a total of two ceasers previously which was 11% and the least proportion had a total of three or four ceasers with a percentage of 1% and 2%. 9% of the patient had a total of one ceaser previously.

Table 10: Pregnancy Induced Hypertension

Pregnancy induced hypertension	Total (%)
Yes	43
No	57

The result of the above table is represented by the following figure

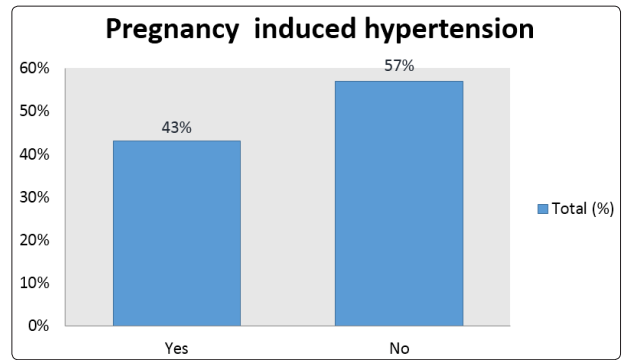


Figure 10: Pregnancy induced hypertension represented in the form of bar chart

Comment: The above figure shows that 43% of the women have suffered pregnancy induced hypertension whereas 57% of the women did not suffer pregnancy induced hypertension

Table 11: Pregnancy Induced Diabetes

Pregnancy induced diabetes	Total (%)
Yes	8
No	92

The result of the above table is represented by the following figure

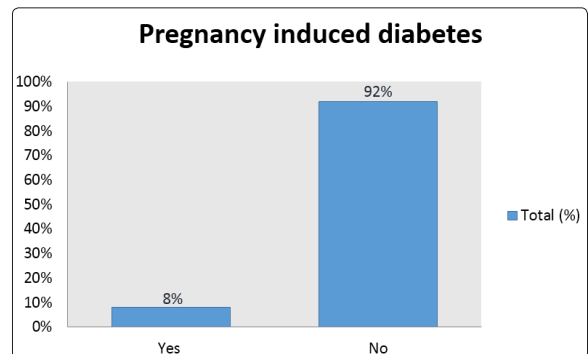


Figure 11: Pregnancy induced diabetes represented in the form of bar chart

Comment: From the above figure it is observed that only 8% of the patient suffers pregnancy induced diabetes and the remaining 92% does not show such symptoms.

Table 12: Ceaser due to Breech Presentation

Ceaser due to breech presentation	Total (%)
Yes	20
No	80

The result of the above table is represented by the following figure

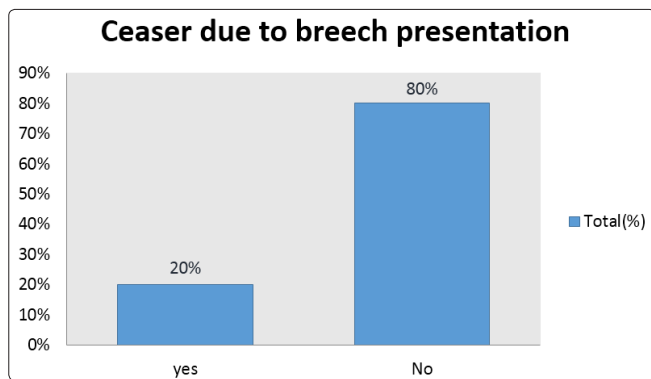


Figure 12: Cesarean due to breech presentation represented in the form of bar chart

Comment: The figure above indicates that 20% of the total patient population had undergone Cesarean operation due to breech presentation while 80% have undergone c-section due to other reason.

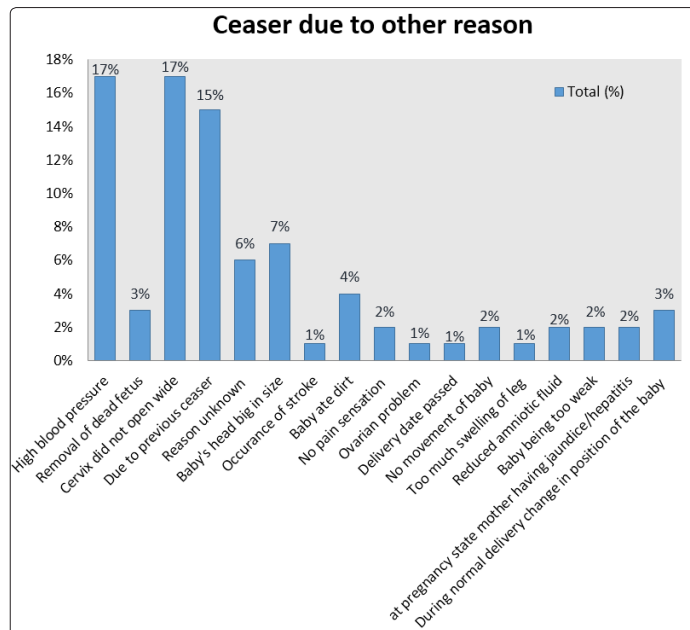


Figure 13: Cesarean due to other reason represented in the form of bar chart

Comment: The above figure shows that except for breech presentation, seventeen other factors add up to C-section. 1% of the group of women undergoes C-section due to stroke, ovarian problem, passed delivery date and too much swelling of leg. 2% of the group of patient had undergone C-section due to no movement of baby, no pain sensation, reduced amniotic fluid, baby being too weak and at pregnancy state mother having jaundice/ hepatitis. 3% of the group of patient had to undergo C-section due to removal of dead fetus and change in position of the baby at the moment during normal delivery. 4% of the cases showed that the baby ate dirt which caused emergency C-section. In 6% of the cases the reason was unknown. 7% of the cases showed that cesarean operation had to take place due to the baby's head being large in size. 15% of the C-section was due to previous cesar and the remaining 17% was due to high blood pressure and cervix not being able to open wide.

Table 13: Cesarean due to Other Reason

Cesarean due to other reason	Total (%)
High blood pressure	17
Removal of dead fetus	3
Cervix did not open wide	17
Due to previous cesar	15
Reason unknown	6
Baby's head big in size	7
Occurrence of stroke	1
Baby ate dirt	4
No pain sensation	2
Ovarian problem	1
Delivery date passed	1
No movement of baby	2
Too much swelling of leg	1
Reduced amniotic fluid	2
Baby being too weak	2
at pregnancy state mother having jaundice/hepatitis	2
During normal delivery change in position of the baby	3

The result of the above table is represented by the following figure

Table 14: Baby in NICU after Birth

Baby in NICU after birth	Total (%)
Yes	25
No	75

The result of the above table is represented by the following figure

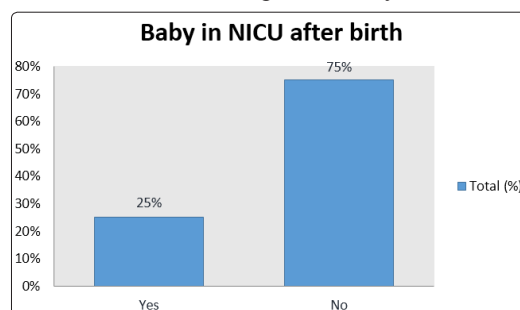


Figure 14: Baby in NICU after birth represented in the form of bar chart

Comment: The figure above shows that 25% of the cesarean babies were in NICU after birth whereas 75% did not have to be in NICU.

Table 15: Patients Got Advice about Future Pregnancies/Birth

Patients got advice about future pregnancies/birth	Total (%)
Yes	40
No	60

The result of the above table is represented by the following figure

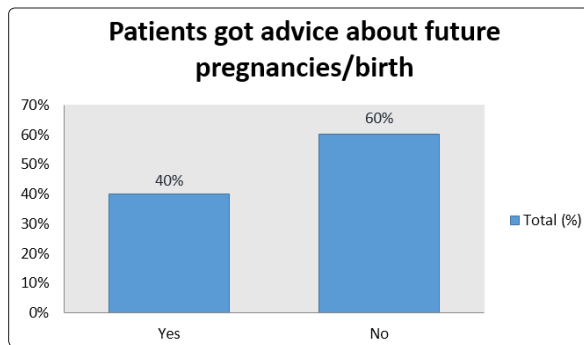


Figure 15: Patients got advice about future pregnancies/birth represented in the form of bar chart

Comment: The figure shows that 40% of the patients were given advice about future pregnancies and the remaining 60% weren't.

Conclusion

There has been a lot of concern about increasing cesarean rates in last few years. Most of the patients who were subjected to c section were within the age range of 15-25 with a percentage of 57% and the least was above the age of 35 which was 4%. Among the patients 41% of the cesarean sections were planned whereas 59% were on the basis of emergency and mostly the decision was doctor's which shows 66% and the remaining 34% was either husbands or families decision. 58% of the population had enough information before undergoing cesarean sections whereas 42% of the population wasn't fully aware. Among pain medication intake, only 2% of the patients had taken a combination of three pain medications which include paracetamol, metronidazole and suppository. 80% of the patients consumed a combination of paracetamol and suppository whereas only 10% of population consumed paracetamol and metronidazole. 8% of the patients were managed only with paracetamol. 23% of the cesarean patients had a previous history of ceaser while the remaining 77% had no history of previous ceaser and among these 23%, 9% had undergone one ceaser, 11% had undergone two ceasers, 1% had three ceasers and 2% of some rare special cases had a previous history of 4 ceasers. 43% of the patients suffered pregnancy induced hypertension whereas only 8% suffered pregnancy induced diabetes. 20% of the c section were due to breech presentation and 80% were due to other reasons which included seventeen factors such as high blood pressure, removal of dead fetus, less widening of cervix, due to previous ceaser, reason unknown, baby's head big in size, occurrence of stroke, baby ate dirt, no pain sensation, ovarian problem, delivery date passed, no movement of baby, too much swelling of leg, reduced amniotic fluid, baby being too weak, at pregnancy state mother having jaundice/hepatitis, during normal delivery change in position of the baby. In conclusion, cesarean

section reduces the incidence of maternal and neonatal mortality during childbirth in dangerous situations still it should be accounted or performed only when vaginal delivery becomes contraindicated. In addition to that patients are not given enough information before undergoing C-section and mostly the decision are taken by the doctors without the consent of the patients.

Recommendations

- Patients should be given enough information before undergoing C-sections so that they could be clear enough to take a decision.
- Patients should be informed about the long term risks and benefits of cesarean delivery on themselves, their offspring and future pregnancies. This will create awareness among the future generation reducing the mortality rate and control of morbidity rate.
- Patients when undergo cesarean delivery without medical indication or own will, they should be informed about the short-term adverse associations of cesarean delivery for the mother, such as infection, hemorrhage, visceral injury, and venous thromboembolism so that the patient does not take the decision irrationally.

References

- Weaver JJ, Statham H (2005) Wanting a caesarean section: The decision process. *British Journal of Midwifery* 13: 370-373.
- Karakus A, Sahin NH (2011) The attitudes of women toward mode of delivery after childbirth. *Int J Nurs Midwifery* 3: 60-65.
- Lin HC, Sheen TC, Tang CH, Kao S (2004) Association between maternal age and the likelihood of a cesarean section: a population-based multivariate logistic regression analysis. *Acta Obstet Gynecol Scand* 83: 1178-1183.
- Walker R, Turnbull D, Wilkinson C (2004) Increasing cesarean section rates: exploring the role of culture in an Australian community. *Birth* 31: 117-124.
- Dodd J, Pearce E, Crowther C (2004) Women's experiences and preferences following Caesarean birth. *Aust N Z J Obstet Gynaecol* 44: 521-524.
- Schlaeger JM, Stoffel CL, Bussell JL, Cai HY, Takayama M, et al. (2018) Moxibustion for Cephalic Version of Breech Presentation. *J Midwifery Womens Health* 63: 309-322.
- Niles KM, Barrett JFR, Ladhani NNN (2017) Comparison of cesarean versus vaginal delivery of extremely preterm gestations in breech presentation: retrospective cohort study. *J Matern Fetal Neonatal Med* 32: 1-6.
- Walker S, Breslin E, Scamell M, Parker P (2017) Effectiveness of vaginal breech birth training strategies: An integrative review of the literature. *Birth* 44: 101-109.

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