# Knowledge, Attitudes, and Perceptions of Cesarean Section Among Women in Delta State, Nigeria: Implications for Maternal Health Interventions


## Abstract

**Background:** Cesarean section (CS) is a surgical procedure by which the mother is incised in the abdominal region during child delivery. The study aims to the knowledge, attitude, and perception of women to cesarean section among Deltan women.

**Methods:** Total of three hundred and eighty-four Deltan women were involved in the study. The study adopted a descriptive cross-sectional study design and a questionnaire was used to collect the data. The Deltan women were sampled using cluster sampling technique. The data obtained were subjected to statistical analysis by the use of the Statistical Package for the Social Sciences (SPSS), version 23.

**Results:** The study reveals that the majority of women understand CS as a surgical opening of the womb (73.7%), while a smaller group view it as an aid for delivery due to laziness (17.7%), or had no knowledge of it (7.8%). Most women (67.4%) had not undergone CS, yet over two-thirds (73.4%) consider it safe, with 78.6% recommending it. Common reasons for opting for CS include prolonged labor (32.8%) and a large baby (27.1%). Although 79.2% view CS as a suitable delivery option, factors such as fear of death (7.0%) and societal stigma (1.6%) contribute to some women rejecting it. Notably, 88.3% believe CS saves lives, and most do not associate it with spiritual or physical detriment. The cost, fear, and potential social trauma are major concerns, though 71.6% disagree that CS affects a woman's dignity.

**Conclusion:** The women who delved into southern Nigeria have a high level of knowledge of CS. Nonetheless, these women still possess a minimal level of negative attitude and unwillingness to accept CS.

**Keywords:** Cesarean section, Surgical, Deltan women, knowledge, attitude, and perception

## Introduction

Cesarean section (CS) is a surgical procedure by which the mother is incised in the abdominal region during child delivery [1]. The origin of CS has long been dated though there was no revealed literature documented until the early 17$^{th}$ century after the successful CS by Jesse Bennett. The choice of a CS most often is dependent on the mother's health due to various factors that could predispose a woman to a CS and these factors include prolonged or obstructed labour, fetal distress, or because the baby is presenting in an abnormal position during delivery. Other factors that contribute to CS are breach birth, poor dilation, major cephalo–pelvic disproportion, high blood pressure, cervix blockage, diabetes, unsafe abortion, and complications of the umbilical cord and placenta [2].

Although, there are three types of CS, namely elective CS, unplanned CS, and emergency CS; Elective CS is scheduled in advance due to concerns about the safety of vaginal delivery. In contrast, emergency CS are performed when complications arise during labour while unplanned CSs are when the decision to conduct a CS is made during labour [3].

In the early days of CS, the risk of complications and death was high due to limited medical expertise. The procedure was met with a lot of fear and resistance. However, as medical practices have improved, both maternal and newborn safety during cesarean deliveries have significantly increased. Today, CSs are often recommended for handling many obstetric complications [4]. The CS rate has increased in developed countries over the past two decades [5], with the United

States having the highest rate at 31.9% in 2019 [6]. In Europe, one-third of women are delivered by CS, while Australia had a high rate of 34% in 2016 [7]. However, in developing countries, the rate remains low, with Ethiopia having a rate of 29.55% [8] and Nigeria having a rate of 1.8% in 2008 and 2.7% in 2018 [9]. The WHO estimates that CS is medically necessary in 15.5% of pregnancies in Nigeria [10]. While the procedure has greatly helped manage many maternal complications during childbirth, the mortality rate for both mothers and babies remains much higher in developing nations. This can largely be attributed to the level of education and awareness women in developed countries receive, which helps them better understand and accept cesarean procedures when necessary.

Traditionally, Nigerian women are unwilling to undergo CS due to various reasons ranging from their general belief that having an incision during delivery is a reproductive failure and a sign of weakness. Their religious standpoints also count against CS which is seen as an inappropriate way of delivery irrespective of their level of educational status [11]. Regrettably these women are so scared of societal stigmatization than their safety that of their babies. Most religionists have convinced their members against CS, even with critical complications that should have been resolved and managed appropriately. The unwillingness to undergo CS has increased the rate of maternal-fetal mortality.

The knowledge, attitude, and perception of women to CS have been explored greatly in different places but there is lack of literature on the knowledge, attitude and perception of women to cesarean section among Deltan women, Nigeria. Hence there is a need for this enquiry to evaluate the knowledge, attitude, and perception of women to CS among Deltan women Nigeria and in turn will help create awareness and reduce maternal-fetal mortality in Nigeria

**Materials and Method**

**Study Design**

The study adopted a cross-sectional research design to gather the knowledge, attitudes, and perceptions of Deltan women in south-south, Nigeria. The research lasted for nine months (January 2024-August 2024) where it was conducted using four hospitals in Delta State, Central Hospital, Agbor and Modern Hospital, Abavo, General Hospital Eku and Delta State Teaching Hospital. the study population is Delta women drawn from different hospitals in Delta State.

**Sample size and techniques**

The minimum sample size was calculated using the Cochran formula for qualitative research and the sample size was 384. The minimum sample size was achieved via cluster sampling techniques to recruit the women into the study without bias.

**Selection criteria**

The study only recruited women of Deltan origin who have been put to bed either by CS by vagina delivery and have consented to participate in the study by filling out the written consent form. Women whose origin are aside Delta, who haven't given birth and fail to consent were excluded from the study.

**Method of Data collection**

Data were collected via personal interviews and questionnaires. The authors used direct personal interviews to ensure the recruited women are from Delta and meet the inclusion criteria and also to guide the women in the areas of clarification. The questionnaire was structured in four sections; section A represents the women’s bio-data, section B represents the knowledge of women towards CS, Section C, represents the Attitudes felt by the women towards CS and

Section D represents the perception of women towards cesarean section. Every woman recruited for the study was issued a consent form and a questionnaire and those who consented to participate filled out the questionnaire which was retrieved by the authors and preserved

**Validity and reliability of instruments**

The validity of the questionnaire was queried by the authors and other research experts in the department, it was cross-checked for the previous publication by Asiwe et al., (2023). Statistically, the consistency of the result was examined using Cronbach's alpha where the finding denotes a coefficient level of 0.78 (78%).

**Method of data analysis**

The Data obtained was subjected to the International Business Machine of Statistical Package for Social Sciences (IBM SPSS version 25). The results were presented as frequency and percentage in open tables. Chi-square was used as an inferential statistic to make inferences and a probability less than 0.05 was considered statistically significant ($p<0.05$).

**Results**

This study comprised Deltan women within the age interval of 25 years to 40 years and the social demography of the study presents that 25.3% were within the age interval of 25-28 years, 24% within 29-32 years, 21.1% within 33-36 years and 29.7% within 37-40 years. Their educational status was put into consideration and the findings show that 56.5% of the total population were formally educated (University), 28.9% were graduates of either NCE, OND, or HND, 6.0% were graduates of secondary school and 8.6% had informal education. Among the studied women, it was observed that 55.7% had 1-2 kids, 37.5% had 3-4 children and 6.8% had

above 5 children. The marital status of these women also accounted in the study, 81.5% were married, 8.1% were single and 10.4% were divorced (Table 1).

Table 2 shows the knowledge of women to CS and the findings present that 73.7% understood CS as a cut opening of the woman's womb, 17.7% understood it as assist delivery due to laziness, 7.8% had no idea and 0.8% had other reasons of CS. However, the response on understanding cesarean section as a means of delivery showed statistically significant differences ($p<0.05$). Item 2 seeks to know the women's experience CS and presents that 67.4% had not experienced CS as a means of delivery and it was a significant difference with those that have experienced CS (32.6%) as a means of delivery ($p<0.05$). 73.4% of the women believe that CS is a safe means of delivery ($p<0.05$). though their opinion towards the CS was obtained from the women, 78.6% claim that is safe and recommended, 15.1% disagree with it being safe and 6.5% can't say if is safe or not. The reasons for choosing cesarean section were evaluated and the findings present that 14.8% chose CS to restore their body stature, 27.1% chose CS because the baby was too big, 20.6% chose CS due to poor dilation, 32.8% due to prolonged labour and 4.7% due to maternal health reasons.

Table 3 shows the Attitude of women towards CS and the findings show that 79.2% of the population sees CS as a proper way of delivery ($p<0.05$) and 65.9% are willing to undergo cesarean section ($p<0.05$). However, the reasons for rejecting CS were evaluated and 7.0% were scared of dying, 1.6% were scared of being stigmatized in the society, 14.3% claim is not God's wish, 14.1% due to the cost of it,1.6% sees it as curse, 2.3% sees it as not being strong enough, 2.3% reject cesarean section for a personal reason while 56.8% are not rejecting CS if need arises. In less than five minutes to think, 59.6% will recommend CS for their loved ones, 13.3% won't recommend, 3.1% may or may not while 24.0% said they will never recommend cesarean

section for their loved ones. Though 62.8% of the population claims to be positive seeing their loved ones deliver using CS, 11.7% claims to be negative in their attitude and 25.5% said it depends on the circumstance of the delivery. However, the majority of the population claims that CS is not embarrassing (79.2%), 13.3% said sometimes it could be, and 7.6% had no idea.

Table 4 shows the perception of women to CS and the findings display that majority (88.3%) of the women sees CS as a means of saving the life of the mother and baby and 87.2% claims that using cesarean section to deliver has nothing to do with spirituality that might cause stigma. Though on a scale of four, the women show their opinion on what could prevent them from agreeing to CS and 50.8% was the cost of it, 37.2% was fear, 7.0% was religion and 4.9% was social trauma. 65.6% of the women claims that cesarean section does not disfigure the shape of the woman and 58.1% said is not perform as a result of a being lazy. CS was seen not to reduce woman's dignity (71.6%).



Table 1. Demography of the Respondents

| | | Frequency | Percentage |
|---|---|---|---|
| Age of the women | 25-28 | 97 | 25.3 |
| | 29-32 | 92 | 24.0 |
| | 33-36 | 81 | 21.1 |
| | 37-40 | 114 | 29.7 |
| | **Total** | **384** | **100.0** |
| Educational Status | secondary school | 23 | 6.0 |
| | NCE, OND, HND | 111 | 28.9 |
| | University | 217 | 56.5 |
| | Informal education | 33 | 8.6 |
| | **Total** | **384** | **100.0** |
| Number of kids | 1-2 | 214 | 55.7 |

| | | | |
|---|---|---|---|
| | 3-4 | 144 | 37.5 |
| | above 5 | 26 | 6.8 |
| | **Total** | **384** | **100.0** |
| Marital Status | married | 313 | 81.5 |
| | single | 31 | 8.1 |
| | divorce | 40 | 10.4 |
| | **Total** | **384** | **100.0** |

**Table 2 Knowledge of women to Cesarean section**

| **What do you understand by cesarean section as a means of delivery?** | | | | |
|---|---|---|---|---|
| **Variables** | **N (%)** | **$X^2$** | **p-value** | **inference** |
| a cut of the opening of the woman's womb | 283 (73.7%) | | | |
| to assist delivery due to laziness to push | 68 (17.7%) | 507.89 | 0.0001 | S |
| no idea | 30 (7.8%) | | | |
| others | 3 (0.8%) | | | |
| **have you experienced cesarean section as a means of delivery?** | | | | |
| Yes | 125 (32.6%) | | | |
| No | 259 (67.4%) | 46.76 | 0.001 | S |
| **Do you believe CS as a safe means of delivery?** | | | | |
| Yes | 282 (73.4%) | | | |
| No | 102 (26.6%) | 84.37 | 0.001 | S |
| **afterwards, what's your opinion towards it** | | | | |
| safe and recommended | 302 (78.6%) | | | |
| not safe | 58 (15.1%) | 359.31 | 0.001 | S |
| I can't say | 24 (6.3%) | | | |
| **why do you choose CS as a safe means of delivery?** | | | | |
| Restore of body stature | 57 (14.8%) | | | |
| the baby was too big | 104 (27.1%) | | | |
| poorly pelvic dilation | 79 (20.6%) | 91.33 | 0.0001 | S |

| | |
|---|---|
| prolong labour | 126 (32.8%) |
| Maternal health reasons | 18 (4.7%) |

**Table 3: Attitude of women towards cesarean section**

| | N (%) | $X^2$ | p-value | Inference |
|---|---|---|---|---|
| **do you see cesarean section as a proper way of delivery?** | | | | |
| No | 80 (20.8%) | 130.66 | 0.001 | S |
| Yes | 304 (79.2%) | | | |
| **Are you willing to undergo cesarean section again if case arise?** | | | | |
| Yes | 253 (65.9%) | 38.76 | 0.0001 | S |
| No | 131(34.1%) | | | |
| **if no, what could be your reason for rejecting** | | | | |
| fear of dying | 27 (7.0%) | | | |
| fear of being stigmatized in the society | 6 (1.6%) | | | |
| not God wish | 55 (14.3%) | | | |
| due to the cost to do it | 54 (14.1%) | | | |
| seen as a curse | 6 (1.6%) | 749.92 | 0.001 | S |
| seen as not being strong enough | 9 (2.3%) | | | |
| am not rejecting | 218 (56.8%) | | | |
| Just personal | 9 (2.3%) | | | |
| **In less than five minutes to think, will you recommend cesarean section for your loved ones** | | | | |
| Yes | 229 (59.6%) | | | |
| No | 51 (13.3%) | | | |
| Maybe | 12 (3.1%) | 279.02 | 0.0001 | S |
| Never | 92 (24.0%) | | | |
| **what will be your attitude seeing your loved ones deliver using cesarean section?** | | | | |
| positive, yes is normal | 241(62.8%) | | | |
| negative, it can’t be | 45 (11.7%) | | | |
| it depends | 98 (25.5%) | 160.61 | 0.0001 | S |
| **Is cesarean section an embarrassing one?** | | | | |
| No | 304 (79.2%) | | | |
| Sometimes | 51 (13.3%) | 364.89 | 0.0001 | S |

| | |
|---|---|
| No idea | 29 (7.6%) |

**Table 4 Perception of Women to Cesarean Section**

| | N (%) | $X^2$ | p-value | inference |
|---|---|---|---|---|
| **Do you think cesarean section is a means of saving the life of the mother and the baby?** | | | | |
| Yes | 339 (88.3%) | | | |
| No | 26 (6.8%) | 521.92 | 0.001 | S |
| Maybe | 19 (4.9%) | | | |
| **Do you think using Cs to deliver have to do with spirituality that might cause stigma** | | | | |
| Yes | 49 (12.8%) | 213.01 | 0.001 | S |
| No | 335 (87.2%) | | | |
| **in a situation where cesarean section is recommended, what could prevent you from agreeing to it** | | | | |
| religion reason | 27 (7.0%) | | | |
| expenses | 195 (50.8%) | | | |
| societal trauma | 19 (4.9%) | 236.46 | 0.001 | S |
| fear | 143 (37.2%) | | | |
| **Does cesarean section disfigure women?** | | | | |
| Yes | 29 (7.6%) | | | |
| No | 252 (65.6%) | | | |
| Sometimes | 31 (8.1%) | 350.27 | 0.001 | S |
| No idea | 72 (18.8%) | | | |
| **Do you think cesarean section is performed as a result of laziness?** | | | | |
| Yes | 25 (6.5%) | | | |
| No | 223 (58.1%) | 252.04 | 0.001 | S |
| Sometimes | 41 (10.7%) | | | |
| No idea | 95 (24.7%) | | | |
| **Does cesarean section reduce women's dignity?** | | | | |
| Yes | 27 (7.0%) | | | |

| | | | | |
|---|---|---|---|---|
| No | 275 (71.6%) | 265.04 | 0.001 | S |
| No idea | 82 (21.4%) | | | |

**Discussion**

The findings of the study showed that the majority of the respondents had good knowledge of CS. This is in equivalence with the findings of two previous studies by Panti et al., [12], Ashimi et al., [13], Awoyinka et al. [14], Adageba et al., [15], Maitanmi et al., [16] and Abazie & Abdul-Kareem [17], where more than half of the respondents also had good knowledge of CS. It is, however, different from the findings of the study conducted in Northern Ghana by Afaya et al. [18], where the majority of their respondents (48%) had only fair knowledge, and the studies conducted among pregnant women in Cape Coast of Ghana by Prah et al. [19] and India by Sultana et al. [20] where 60.4% and 55.4% of the respondents had inadequate knowledge respectively. The differences could be due to the higher level of education of respondents as the majority of respondents in this study had up to the tertiary level of education, and the respondents of the studies conducted in Ghana [18,19] had low or no formal education. Abazie and Abdul-Kareem [21] also showed in their studies that the level of education was significantly associated with knowledge of CS.

The majority of the respondents of this study also displayed a good perception of CS, similar to the studies conducted by Panti et al. [12] and Maitanmi et al., [16]. However, respondents in the studies conducted in Lagos state of Nigeria and Cape Coast of Ghana, among pregnant women [17,19], were found to have a poor perception of CS. 88.3% of respondents in this study believed CS to be a safe procedure for saving the life of the mother and child which is similar to the respondents in Jos, Nigeria [21], while 40% of those in Ghana [19] thought it was a dangerous procedure and that women would die after the procedure. The current study also noted that of the women in the southern part of Nigeria, about 32.8% chose CS due to poor prolonged labour, 27.1% chose it due to the fetal size, 20.6% chose it due to poor pelvic dilation, 14.8% chose it to restore their body shape. Dückelmann et al., [22] verified the findings of this inquiry as they noted that factors such as poor dilation, obstructed labour baby in distress, labour not progressing normally, cervix blockage, breach birth, a complication of the placenta and umbilical cord and high blood pressure are indications for CS.

This study also shows that many respondents had good attitudes toward CS. The majority believed that CS to be proper way of delivery and they were willing to undergo CS if medically

indicated and did not think it was embarrassing or going to disfigure their body shape. These findings concur with Aziken et al., [23] in their study on perceptions and attitudes of pregnant women towards cesarean section in urban Nigeria. However, 6.5% see CS as an assisted delivery due to laziness in pushing. During delivery, many factors might arise which will predispose to the recommendation of cesarean section. Weakness or a state whereby the woman is tired due to prolonged labour shouldn't be considered as being lazy. Mashamba, [24] stated that the urgency to save the baby's and mother's life is the core priority that suggests a cesarean section of the mother, not because the woman is lazy; but life is threatened. They express a low level of acceptance and knowledge of CS. The reason could be traced to the era when their study was carried out and the regions considered. Lack of awareness in the rural areas and fear have contributed to a low level of willingness and acceptance of CS. The current inquest considered the notion of what could cause rejection to undergo CS among the respondents and elucidated that 65.9% of the total sample are willing and understand the reason why CS is carried out. A few respondents express fear of being stigmatized in society, while others feel CS is not the will of God. Ashimi et al., [13] expressed in their review how religious belief has built a negative perception towards medical practices and CS is one of such practices. Ogunlaja et al., [24] in their study on knowledge, attitude, and willingness to accept

CS among women in Ogbomoso, southwest Nigeria, advised that the women should be educated and enlightened about cesarean section. Also, Begum et al., [26] suggested the need because women should be educated on birth mode. The present study noted that 79.2% had a positive perception towards cesarean section. This disclosure discoursed inquiries that showed some similarities and differences in the knowledge, attitude, and perception of cesarean section among the women considered. The differences could be attributed to educational position, religion, and geographical region.

**CONCLUSION**

The women who delved into southern Nigeria have a high level of knowledge of CS Nonetheless, these women still possess a minimal level of negative attitude and unwillingness to accept CS.

Disclaimer (Artificial intelligence)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

**REFERENCE**


1. Kan A. Classical cesarean section. The Surgery Journal. 2020 Jul;6(S 02):S98-103.
2. Konar H, Dutta DC. Objective Structured Clinical Examination in Obstetrics. InDC Dutta's Clinics in Obstetrics 2022 (pp. 1-21). jaypee.
3. Shehta Said Farag D, Fathy Heiba Eid Bakr M, Abd Elrehem Mohamed Zedan H, Elzeblawy Hassan H, Ragab Eid S. Maternal and Newborn Outcome among Women Undergoing Elective versus Emergency Caesarean Section: A Comparative Study. Egyptian Journal of Health Care. 2023 Sep 1;14(3):454-68.
4. Bollag L, Lim G, Sultan P, Habib AS, Landau R, Zakowski M, Tiouririne M, Bhambhani S, Carvalho B. Society for obstetric anesthesia and perinatology: consensus statement and recommendations for enhanced recovery after cesarean. Anesthesia & Analgesia. 2021 May 1;132(5):1362-77.
5. Kinci, M. F., Kasap, B., Akin, M. N., Selimoğlu, B., Taştan, L., Akin Gökbel, D., ... & Sivaslioğlu, A. A. (2024). Analysis of Cesarean Section Ratios by Robson Classification. *The Journal of Obstetrics and Gynecology of India*, 1-6.
6. Antoine C, Young BK. Cesarean section one hundred years 1920–2020: the Good, the Bad and the Ugly. Journal of Perinatal Medicine. 2021 Jan 26;49(1):5-16.
7. Panda S, Begley C, Daly D. Influence of women's request and preference on the rising rate of caesarean section–a comparison of reviews. Midwifery. 2020 Sep 1;88:102765.
8. Hailegebreal S, Gilano G, Seboka BT, Ahmed MH, Simegn AE, Tesfa GA, Yehualashet DE. Prevalence and associated factors of caesarian section in Ethiopia: a multilevel analysis of the 2019 Ethiopia Mini Demographic Health Survey. BMC pregnancy and childbirth. 2021 Dec;21:1-9.
9. Berglundh S, Benova L, Olisaekee G, Hanson C. Caesarean section rate in Nigeria between 2013 and 2018 by obstetric risk and socio-economic status. Tropical Medicine & International Health. 2021 Jul;26(7):775-88.
10. Oduola-Owoo BB, Davies NO, Chionuma JO, Wemimo RM, Olorunfemi G, Oduola-Owoo LT, Olusi AM, Windapo OB. A Survey on Comparison Between Blood Loss During Cesarean Section with Use of Calculation Method and Visual Estimation. Nigerian Journal of Basic and Clinical Sciences. 2024 May 1;21(2):165-73.
11. Chongo HS, Masumo M, Nankamba N. Acceptability of Caesarean Section among Pregnant Women Seeking Antenatal Care at Women and Newborn Hospital-University Teaching Hospitals, Lusaka Zambia. Open Journal of Obstetrics and Gynecology. 2024 May 8;14(5):721-43.

12. Panti AA, Nasir AM, Saidu AD, Garba JA, Tunau KA, Ibrahim R. Perception and acceptability of pregnant women towards caesarean section in Nigeria. Age. 2018;20:20-4.
13. Ashimi AO, Amole TG, Aliyu LD. Knowledge and attitude of pregnant women to caesarean section in a semi-urban community in northwest Nigeria. Journal of the West African College of Surgeons. 2013 Apr;3(2):46.
14. Awoyinka BS, Ayinde OA, Omigbodun AO. Acceptability of caesarean delivery to antenatal patients in a tertiary health facility in south-west Nigeria. Journal of obstetrics and gynaecology. 2006 Jan 1;26(3):208-10.
15. Awoyinka BS, Ayinde OA, Omigbodun AO. Acceptability of caesarean delivery to antenatal patients in a tertiary health facility in south-west Nigeria. Journal of obstetrics and gynaecology. 2006 Jan 1;26(3):208-10.
16. Maitanmi BT, Oluyomi OV, Aderemi IO, Maitanmi JO, Aminu A, Ojewale MO, Okondu OE, Akingbade O. Knowledge, attitude and perception of cesarean section among pregnant women attending antenatal clinic at Babcock University Teaching Hospital, Ilishan-Remo, Ogun State. The Journal of Maternal-Fetal & Neonatal Medicine. 2023 Dec 15;36(2):2278019.
17. Abazie OH, Abdul-Kareem AY. Pregnant women's knowledge and perceptions of caesarean section in Lagos state, Nigeria. African Journal of Midwifery and Women's Health. 2019 Jul 2;13(3):1-1.
18. Afaya R, Bam V, Apiribu F, et al. Knowledge of pregnant women on caesarean section and their preferred mode of delivery in Northern Ghana. Int J Nurs Midwifery. 2018;2(1):1–12.
19. KojoPrah J, Kudom A, UwumbornyiLasim O, KwasiAbu E. Knowledge, attitude and perceptions of pregnant women towards caesarean section among antenatal clinic attendants in Cape Coast, Ghana. Texila Int J Public Health. 2017;5(1):1-8.
20. Sultana N, Fatima S, Muzaffar T, Akram F. Knowledge and attitude of pregnant women reporting at tertiary care hospital. Pakistan Armed Forces Medical Journal. 2020 Dec 15;70(6):1676-80.
21. Egbodo OC, Akunaeziri UA, Edugbe AE, Shambe IH, Kahansim ML, Ocheke AN. Awareness, attitudes and perception of antenatal patients to caesarean section: the jos, Nigeria experience.
22. Dückelmann AM, Mentzel HJ, Kalache KD, Schlembach D, Dückelmann AM, Mentzel HJ, Kalache KD, Schlembach D, Schlembach D. Placental Imaging. InThe Placenta: Basics and Clinical Significance 2023 Feb 28 (pp. 187-218). Berlin, Heidelberg: Springer Berlin Heidelberg.
23. Aziken M, Omo-Aghoja L, Okonofua F. Perceptions and attitudes of pregnant women towards caesarean section in urban Nigeria. Acta obstetricia et gynecologica Scandinavica. 2007 Jan 1;86(1):42-7.
24. Mashamba T. Caesarean Section. Current Topics in Caesarean Section; BoD–Books on Demand: Norderstedt, Germany. 2021 Jul 16.

25. Ogunlaja OA, Ogunlaja IP, Akinola SE, Aworinde OO. Knowledge, attitude and willingness to accept caesarean section among women in Ogbomoso, southwest Nigeria. South Sudan Medical Journal. 2018 Nov 13;11(4):89-92.
26. Begum T, Ellis C, Sarker M, Rostoker JF, Rahman A, Anwar I, Reichenbach L. A qualitative study to explore the attitudes of women and obstetricians towards caesarean delivery in rural Bangladesh. BMC pregnancy and childbirth. 2018 Dec;18:1-1.