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Original Article

KNOWLEDGE OF CAESAREAN SECTION DELIVERY AMONG PREGNANT MOTHERS AT APAC GENERAL HOSPITAL, APAC DISTRICT. A CROSS-SECTIONAL STUDY.

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ABSTRACT

Background
Cesarean section is a surgical procedure that involves incisions made through a mother's abdomen and uterus to deliver one or more babies or to remove a dead fetus. The increased knowledge about cesarean section among mothers has been instrumental in the rise of cesarean section rates. This study aimed to assess the level of expertise towards Caesarean Section delivery among pregnant mothers at Apac General Hospital, Apac district.

Methodology
A descriptive cross-sectional design involved 32 pregnant mothers selected using a simple random sampling technique. Data was collected using structured questionnaires and results were analyzed using SPSS version 25 and presented in tables, graphs, and pie charts.

Results
16(50%) of the respondents were aged 20 – 29 years, the majority of the respondents 17(53.1%) had primary education and 15(46.9%) were para. On knowledge, it was revealed that; 32(100%) had heard about cesarean delivery, 24(75%) defined cesarean section as a surgical incision made through the uterus, 27(84.3%) mentioned that proper hygiene is recommended after cesarean section, 21(62.6%) knew damage to intestinal organs as a complication of cesarean section and 16(50%) had received information from the media.

Conclusion
Mothers had moderate knowledge because they had never received information about cesarean sections from the media. They knew the meaning of C/S and recommended hygiene after a cesarean section. However, they had limited knowledge about the necessary preparations needed for a cesarean section.

Recommendations
Ministry of Health should sensitize the public that the cesarean section procedure is one of the options for delivery and is offered at free cost at all public facilities.

Keywords: *Pregnant mothers, Apac General Hospital, Apac District, Birth delivery methods, Knowledge of Caesarean section*
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BACKGROUND

Cesarean section is a surgical procedure that involves incisions made through a mother's abdomen (laparotomy) and uterus (hysterectomy) to deliver one or more babies or to remove a dead fetus (Ogunlaja et al, 2018). Cesarean sections are frequently indicated in situations when a vaginal delivery would put both the baby and the mother at risk for example in cases of pelvic abnormalities, cardiac conditions, fetal distress, malpresentation of the fetus, infection, abnormal placentation, (Maitanmi et al, 2023). Pregnant women are normally involved in the decision-making process concerning the mode of delivery and their knowledge and attitudes determine their acceptability of the procedure, (Zewudu et al 2024).

Globally, the increased knowledge about cesarean section among mothers has been instrumental in the rise of cesarean section rates with estimates indicating 21% of babies are delivered by cesarean section, (Tahil, Mohamed & Abdullahi, 2021). Even in some developed countries like

Saudi Arabia, 52.1% of mothers do not believe in the safety of cesarean section and 42% possess poor knowledge regarding cesarean section thereby creating a lot of resistance during the consent of the procedure, (Yaqoub et al 2022).

In Kenya, the cesarean section has predominantly been accepted by educated professionals (16%) as compared to the illiterate and unemployed mothers (9%), (Spek et al, 2020). There are high levels of awareness among educated individuals about cesarean section thus having a higher willingness to undergo the procedure, unlike the illiterate mothers. This creates inequality in the utilization of such a lifesaving procedure predisposing underprivileged mothers to morbidity and mortality following childbirth, (Arunda et al, 2020).

In Uganda, 64% of women are aware of cesarean section but only 10% would consider it as the first choice of birth method (Nakafu, 2022). It is against this background that the study intends to assess the level of knowledge about Caesarean Section delivery among pregnant mothers at Apac General Hospital, Apac district

METHODOLOGY

Study design and rationale

The study used a descriptive cross-sectional design because it enabled to obtain data at one point in time. A quantitative method of data collection was used because the study involved the use of numerical values.

Study setting and rationale

The study was conducted in Apac General Hospital. The hospital is located in Apac town, Apac district, Northern Uganda. It has a bed capacity of 100 offerings medical, surgical, pediatric, and maternal out and in-patient services, radiology, and laboratory services. It serves the people of the Apac district and part of nearby districts like Kiryandongo, Kole, Kwania, and Oyam district. Its administration comprises a medical Superintendent as the overall in charge, followed by a Hospital Administrator and Principal Nursing Officer as the head of nursing and midwifery departments.

The ANC of the hospital has 12 staff currently ie 6 registered midwives, 2 enrolled midwives, 3 nursing assistants, and 1 cleaner. The unit operates from Monday to Friday with the following activities being carried out; health education, triaging and booking of mothers, high-risk assessment, examination of pregnant mothers, screening and treatment of mothers with HIV/AIDS and other infections, dispensing of routine prophylactic drugs in pregnancy and referral of mothers with complications. The facility receives about 35 mothers per day at the ANC clinic. It was chosen because it provided a sufficient number of respondents for the study.

Study population

The study population was pregnant mothers attending the ANC clinic at Apac General Hospital. Sample size determination

Therefore, the study population was 35 respondents in this study; the sample size was calculated using Yamane formula (1967)

$$n = N/1+N(e)^2$$

Where; -

N =Study population

e =the margin error in the calculation

$n = 35/1+35(0.05)^2$

$n = 35/1.0875$

$n = 32.1$

$n = 32$

Therefore, the sample size was 32 participants

Sampling procedure

The simple random sampling technique was used to select participants in the study. This technique was chosen for this study because it ensured that the sample was representative of the study population as well as reducing bias in the study. The researcher cut 21 pieces of paper on which she wrote the letter N on 10 pieces and another Y on the remaining 11 pieces and comprehensively mixed them in a box and chance was given to each. Participants picked a single piece of paper, those who picked a piece of paper written on Y were counted in the study each day for 3 days.

Inclusion criteria

Pregnant mothers who consented to the study and present at the time of data collection.

Exclusion criteria

The study excluded pregnant mothers who failed to consent to the study and those who were mentally derailed.

Definition of variables

Independent variables

The independent variable was the knowledge.

Dependent variable

The dependent variable was cesarean section delivery.

Research Instrument

The structured questionnaire was used for collecting the information from respondents. The questionnaire comprised four sections; demographic characteristics and study objectives. This questionnaire was pretested among 4 antenatal mothers at Aduku Health Centre IV which in turn helped the researcher to assess the accuracy and reliability of the tool before its application in the study. The questionnaire was chosen because it minimized bias from the interview and enabled the respondents to respond to questions that couldn't be answered using the interview method.

Data collection procedures

After approval of the research proposal by the research committee of Florence Nightingale School of Nursing and Midwifery, an introductory letter was issued by the Principal and then taken to the medical superintendent who offered administrative clearance and directed the researcher to the unit in charge. Informed consent was obtained from eligible participants, thereafter they were guided on how to fill in the questionnaire which took about 15 minutes for each respondent. The process took three days with eleven respondents seen on day one and two, then ten on day three.

Data management

The questionnaires were first checked for completion, correction of mistakes, and editing on each of the days to avoid missing information after losing contact with respondents. Questionnaires were put in an envelope and put on a shelf whose keys were personally kept by the researcher. Analyzed data on the computer was protected from access by using a password.

Data analysis and presentation

The study utilized SPSS version 25 software to analyze data. Data was presented in the form of frequency tables, figures, graphs, and charts.

Ethical considerations

The proposal was presented to the research committee of Florence Nightingale School of Nursing and Midwifery for approval. The principal gave the researcher an introductory letter to seek permission from the medical superintendent of Apac General Hospital who gave an administrative clearance. Data collection began by introducing and explaining the topic and objectives to respondents. Informed consent was obtained from all the study respondents, confidentiality was ensured throughout, as respondents were not allowed to write their names on the questionnaire. Respondents were interviewed individually and questionnaires were collected and kept safely by the researcher under lock and key.

RESULTS

Socio-demographic characteristics

Table 1: Showing socio-demographic characteristics of respondents n = 32

Variable	Frequency (f)	Percentage (%)
Age (years)		
20 – 29	16	50
30 – 39	11	34.4
40 – 49	4	12.5
>50	1	3.1
Education level		
No formal education	5	15.6
Primary	17	53.1
Secondary	7	21.9
Tertiary	3	9.4
Parity		
1	4	12.5
2	10	32.2
3	15	46.9
4 and above	3	9.4
Number of antenatal visits attended		
First	29	90.6

Second	2	6.3
Third	1	3.1
Four or more	0	0
Employment status		
Employed	4	12.5
Housewife	6	18.8
Peasant farmer	22	68.8

Table 1 shows that Half of the respondents 16(50%) were aged 20 – 29 years while only 1(3.1%) was aged above 50 years. The majority of the respondents 17(53.1%) had primary education while the minority 3(9.4%) had tertiary education. Nearly half of the respondents 15(46.9%) were para 1 while the least 3(9.4%) were pare 4 and above. The majority of the respondents 29(90.6%) had attended their first antenatal visit while the minority 1(3.1%) attended their third antenatal visit.

Almost 3/4 of the respondents 22(68.8%) were peasant farmers while nearly 1/4 4(12.5%) were employed.

Knowledge of pregnant mothers towards cesarean section delivery at Apac General Hospital, Apac district

Table 2: Knowledge of pregnant mothers towards cesarean section delivery (n = 32)

Variable	Frequency (f)	Percentage (%)
Whether they ever heard about cesarean delivery		
Yes	32	100
No	0	0
Source of information		
Health workers	9	28.1
Friends	5	15.6
School	2	6.3
Media	16	50
Meaning of cesarean section		
A surgical incision is made through the uterus to deliver a baby	24	75
Cutting of the abdomen	5	15.6
None of the above	2	6.3
Not sure	1	3.1
Indications of cesarean section		
Big baby	20	62.5
Obstructed labor	8	25
Decreased respiration in the fetus	3	9.4
Preterm labor	1	3.1
Ambulation Postoperative recommendations after cesarean section	0	0
Proper hygiene	27	84.3
Balanced diet	3	9.4
All the above	2	6.3

All respondents 32(100%) had heard about caesarean delivery.

Half of the respondents 16(50%) had received information from the media while the least 2(6.3%) obtained information from school.

Majority of the respondents 24(75%) defined cesarean section as a surgical incision made through the uterus to deliver a baby while the minority 1(3.1%) were not sure.

The majority of the respondents 27(84.3%) mentioned that proper hygiene is recommended after cesarean section while the minority 2(6.3%) mentioned all of the above.

Figure 1: Complications that can occur following cesarean section n=32

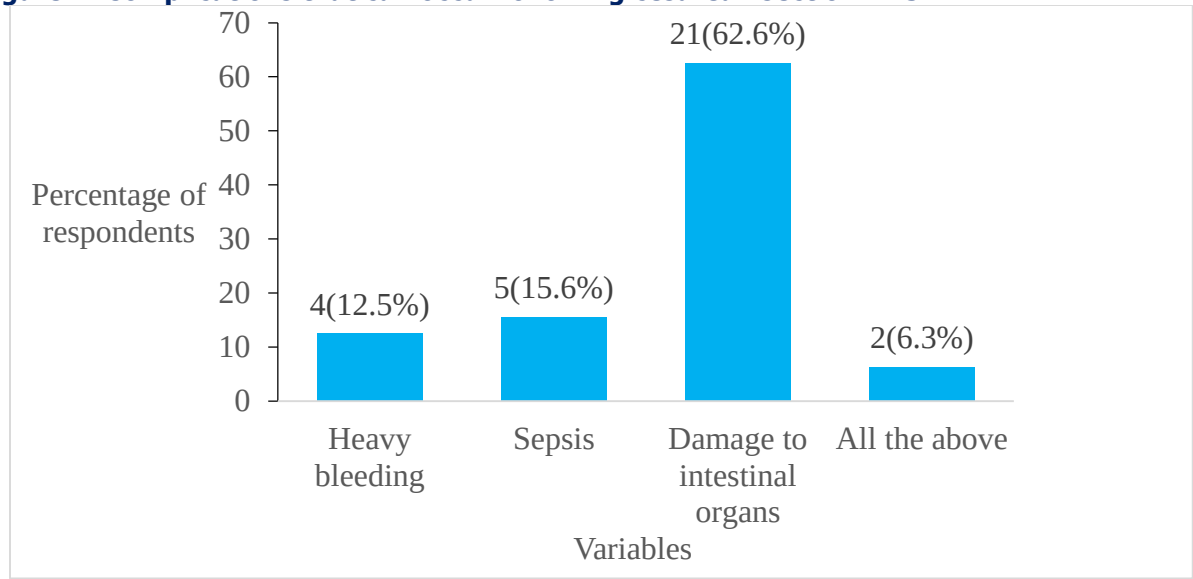

Figure 1 shows that most of the respondents 21(62.6%) knew damage to intestinal organs was a complication of the cesarean section while the least 2(6.3%) mentioned all the above.

DISCUSSION OF RESULTS

Knowledge of pregnant mothers toward cesarean section delivery

Of all respondents 32(100%) had heard about caesarean delivery and 16(50%) had received information from the media. This was because local media platforms like radios and community address systems host health workers who discussed various health issues including cesarean section. This disagrees with a study by Al—Sulamy et al, (2019) carried out in Saudi Arabia which found that 98.5% of mothers had heard about cesarean section from health workers implying that there is a need to sustain awareness creation in all media to ensure timely circulation of information regarding cesarean section delivery.

Three-quarters of the respondents 24(75%) defined cesarean section as a surgical incision made through the uterus to deliver a baby. This was attributed to the fact that health educators often give an introduction about the subject, i.e. cesarean section hence mothers are aware of its meaning. This finding agrees with a study by Yaqoub et al, (2022) carried out in Saudi Arabia which found that all mothers were aware that cesarean section involves an incision made on the abdomen to remove the baby. This result calls for initiatives to promote and strengthen health education as part of service delivery.

The majority of the respondents 27(84.3%) mentioned that proper hygiene is recommended after a cesarean section. This was because they knew that poor hygiene could put them at risk of incision site infections. Similarly, Atuhaire (2020) in his study at Mbarara Regional Referral Hospital found out that mothers knew about proper hygiene as one of the recommendations for mothers after a cesarean section. However, there is still a need for continuous health education regarding c

CONCLUSION

Mothers had moderate knowledge because they had ever received information about cesarean sections from the media. They knew the meaning of C/S and recommended hygiene after a cesarean section. However, they had limited knowledge about the necessary preparations needed for a cesarean section.

RECOMMENDATION

Ministry of Health should sensitize the public that the cesarean section procedure is one of the options for delivery and is offered at free cost at all public facilities.

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AVAILABILITY OF DATA

Data used in this study is available upon request from the corresponding author.

LIST OF ABBREVIATIONS

ANC	antenatal Care
C/SC	caesarean Section
FSB	Fresh Stillbirth
HMIS	Health Management Information system
MD	Maternal death
NND	Neonatal death
SDG	Sustainable development goal
UBOS	Uganda Bureau of Statistics
UNMEB	Uganda Nurses and Midwives Examination Board
WHO	World Health Organization.

AUTHORS CONTRIBUTION

MRO designed the study, conducted data collection, cleaned and analyzed data, and drafted the manuscript, MKK supervised all stages of the study from conceptualization of the topic to manuscript writing and submission, RA supported in study conceptualization general supervision and mentorship

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CONFLICT OF INTEREST

The authors declare no conflicting interest.

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