ISSN: 2476-8642 (Print)
ISSN: 2536-6149 (Online)
www.annalsofhealthresearch.com
African Index Medicus, Crossref, African Journals Online, Scopus, C.O.P.E & Directory of Open Access Journals

Annals of HEALTH RESEARCH

(The Journal of the Medical and Dental Consultants' Association of Nigeria, OOUTH, Sagamu, Nigeria)

Volume 10 | No. 3 | July - Sept., 2024

IN THIS ISSUE

PUBLISHED BY THE MEDICAL
AND DENTAL CONSULTANTS ASSOCIATION
OF NIGERIA, OOUTH, SAGAMU, NIGERIA.
www.mdcan.oouth.org.ng

Annals of Health Research
(The Journal of the Medical and Dental Consultants Association of Nigeria, OOUTH, Sagamu, Nigeria)

Volume 10, Issue 3: 240-252
September 2024
doi:10.30442/ahr.1003-03-243

ORIGINAL RESEARCH

Factors Influencing Delay in Seeking Post-abortion Care among Women in Keffi, Nasarawa State

Kever RT*[1], Gana MK[2], Binga SF[2]

[1]College of Medical Sciences, University of Maiduguri, Borno State, Nigeria
[2]Federal Medical Centre Keffi, Nasarawa State, Nigeria

*Correspondence: Dr RT Kever, College of Medical Sciences, University of Maiduguri, Borno State, Nigeria.
E-mail: robertkever72@unimaid.edu.ng ; ORCID – https://orcid.org/0000-0001-9154-5169.

Abstract

Background: Unsafe abortion complications are a significant public health concern, particularly in underdeveloped countries, resulting in maternal mortality. Delays in seeking Post-abortion Care (PAC) at the clinical area leave health workers minimal options for resolving the situation.
Objective: To identify the factors that contribute to the delay in obtaining PAC among women with post-abortion complications in Keffi, Nasarawa State.
Methods: A mixed-method, prospective, cross-sectional survey was carried out at the Federal Medical Centre Keffi. A total of 60 patients were polled, and 15 of the polled patients participated in in-depth interviews. Quantitative and qualitative data were gathered by questionnaires and structured interview guides, respectively.
Results: The predictors of delayed presentation were age 15-24 years (OR = 16, CI = 1.42 – 180.90, p = 0.047), a secondary level of education (OR = 38, CI = 4.15 – 347.89, p < 0.001), earning less than ₦30,000/Month (OR = 25.00, CI = 3.45 – 180.98, p = 0.001), living in rural areas (OR = 5.20, CI = 1.72 – 47.30, p < 0.001), having an abortion performed at a chemist's shop (OR = 7.564, CI = 6.70 – 10.00, p = 0.011), and use of herbs to induce abortion (OR = 1.23, CI = 1.04 – 1.45, p = 0.047).
Conclusion: The study identified younger age, low level of education, occupation, place of residence, low income, and previous history of induced abortion as factors contributing to delayed presentation for PAC. Effective counselling for the use of contraceptives among women who are not ready for pregnancy is recommended.

Keywords: Delay in Seeking Care, Induced Abortion, Post-abortion Care, Post-abortion Complications, Nigeria.

Introduction

Abortion is estimated to occur in one out of every five pregnancies worldwide, totalling around 56 million abortions per year. [1] In Sub-Saharan Africa, approximately 520 people die for every 100,000 unsafe abortions [2,3] conducted by an individual without enough training in an environment that does not satisfy the basic medical requirements or both. [1] In Nigeria, unsafe abortion is prevalent and one of the leading causes of maternal mortality and morbidity.[4] It is vital to note that induced

abortion is illegal in Nigeria unless when it is necessary to save a woman's life.[5] Despite the law, abortion is nonetheless common and frequently conducted illegally and dangerously.[6] This problem is exacerbated when the patient delays or fails to seek specialist care after experiencing post-abortion difficulties.

The saying "a stitch in time saves nine" is widely believed to be accurate. As a result, when patients experience complications from unsafe abortions, the speed with which they seek treatment at a health facility determines the likelihood of difficulties progressing to severe morbidity or mortality.[7] A recent anecdotal observation in Nasarawa State found that a significant percentage of women delay obtaining Post-abortion Care (PAC), lowering the likelihood of early identification and prompt treatment. It is unfortunate that if maternal mortality and pregnancy-related concerns are not addressed immediately, the possibility of achieving a lowered Sustainable Development Goal 3.1 by 2030 may become a mirage.[8] The objective of this study was to identify the factors that contribute to the delay in obtaining PAC among women with post-abortion complications in Keffi, Nasarawa State, Nigeria.

Methods

Area of Study

The study was conducted in the Department of Obstetrics and Gynaecology, Federal Medical Centre, Keffi (FMCK) Nasarawa State, North-central Nigeria. The department has an average of twenty patients presenting for post-abortion complications per month. It caters for people from diverse ethnic groups and socio-economic classes. It serves as a referral centre for neighbouring areas. This hospital was selected because it is the only functional public Comprehensive Emergency Obstetrics and Neonatal Care centre in the state and, as such, had larger numbers of patients receiving post-abortion care.

Study design

This study was a prospective, cross-sectional survey with mixed-method data collection. The dependent variable was "delayed presentation for treatment", which stems from the Three Delay Model [9], while factors that predict the delay were categorised into enabling, predisposing, and need factors, which stem from Anderson's Health Utilization Model.[10]

Study population

The study population includes patients with a diagnosis of unsafe abortion presenting with post-abortion complications at the Obstetrics and Gynaecology Department of FMCK.

Inclusion and exclusion criteria

Patients included in the study were women with a diagnosis of unsafe abortion and those who consented to participate in the study. In contrast, those who had therapeutic, spontaneous, and safe abortions were excluded.

Sample size and sampling technique

All respondents who presented with post-abortion complications in FMCK between January and February 2023 were recruited in the study. Sixty women who consented to participate in the study responded to the questionnaire, and 15 women from consenting women with delayed presentation were purposefully sampled to participate in the in-depth interviews (IDIs). The number of IDIs conducted was determined by data saturation.[11]

Research Instruments

The quantitative data was collected using a researcher-developed and pretested questionnaire, while the qualitative data was collected using an interview guide. A questionnaire comprising 27 items was developed and structured into four sections.

Section A was a combination of eight open and closed-ended questions that elicited relevant information on socio-demographic data such as age, marital status, religion, ethnicity, educational level, occupation, average monthly income, and residence. Section B was a combination of three questions on delay in seeking care, such as the time between the onset of complications and arrival at the health facility. The time between the onset of manifestations of abortion complications [12] and presentation at the Centre for PAC services was measured in hours. Delay in obtaining PAC was defined as accessing PAC services more than 24 hours after the onset of the manifestations of abortion complications. Section C consisted of six questions on the enabling factors influencing late post-abortion complication presentation, such as type of health facility, distance to a healthcare facility, and registration of health insurance. At the same time, Section D involved a combination of 14 open and closed-ended questions on health needs such as previous abortion experience and reason for the abortion.

Content validity was achieved through an extensive and rigorous review of the most recent and relevant literature to ensure the instrument adequately captured all the variables and ensured the validity of the questionnaire.[13] Furthermore, the instrument was presented to jurors, who gave their input and acknowledged its proficiency in measuring the factors influencing the delay in seeking PAC services. Ten copies of the questionnaire were pretested among women who had delayed seeking PAC at Federal Medical Centre Makurdi, one of the tertiary healthcare centres in the neighbouring state. Structural validity was evaluated through factor analysis, according to the degree of similarity between the hypothetical structure of the questionnaire conceived by the researcher and the actual observed data. The correlation coefficient for each item and its related domain was calculated and obtained using the correlation coefficient model to show the structural validity. The instrument's reliability was determined using a test-retest method, yielding Cronbach's α coefficient of 0.85.

Procedure

Women were recruited for two months from the FMCK's maternity ward. Two female nurse midwives were trained to recruit women for the study. All women admitted for unsafe abortions had their records reviewed to determine if they matched the inclusion criteria at the time of admission. If the respondent met the requirements, the study's goal was explained to her, and she was invited to participate. After getting written consent, the female nurses administered the questionnaire face-to-face. A total of 60 patients responded to the questionnaire, and 15 out of the polled patients participated in the in-depth interviews conducted using an interview guide in a face-to-face, informal conversational setting. The questions explored the factors that influenced the delay in seeking PAC. Each interview lasted 30 to 40 minutes; one research assistant took notes during the interview, and the other moderated the discussion. Following each interview, the researcher analysed the collected data to see if any new insight could influence future interviews. All interviews were held on the hospital premises in a peaceful and quiet setting. High levels of confidentiality were maintained.

Data analysis

Quantitative data were coded and averaged to produce composite scores for each participant across all factors. The data was analysed using SPSS version 25. The normality test demonstrated that the data was normally distributed. Categorical variables were presented using fundamental frequencies and proportions. The association between categorical variables and delays was determined using the Chi-square and Fisher's exact tests. Categorical variables with significant associations were further subjected to

logical regression analysis. How were the qualitative data analysed?

Ethical considerations

Ethical clearance was obtained from the Research Ethics Committee of Federal Medical Centre Keffi (Number: NHREC/20/12/2012). Participation was voluntary through duly signed informed consent; participants had the freedom to withdraw or decline participation even after signing the consent form should they have a change of mind without consequences; respondents were not allowed to write their names on the questionnaire to ensure the enforcement of anonymity. The data collection was void of the possibility of tracing the participants' identities through personal responses.

Results

A total of 60 respondents completed the survey. Table I shows the demographic profile of the participants. The ages ranged between 15 and 44 years. The modal age class of the participants was 15-24 years, while less than half (22; 36.7%) were within the age of 25-34 years. Most of the participants (32; 53.3%) were single, of the Christian faith (32; 53.3%) and had at least secondary education (40; 66.7%). A majority (52; 86.7%) earned less than ₦30,000 monthly, while few earned more than ₦30,000 monthly. Nine in ten (n= 54, 90.0%) of the participants resided in a rural area, while 10% were urban dwellers. A higher proportion of women delayed in presentation for PAC compared to their counterparts who did not delay (54; 90.0% vs 6; 10.0%). Age of respondents (χ^2 = 5.561, p = 0.034), religion (χ^2 = 3.936, p = 0.047), education (χ^2 = 13.358 p = 0.002), occupation (χ^2 = 10.209, p = 0.017), income (χ^2 = 16.410, p = 0.002), and place of residence (χ^2 = 17.305, p<0.001) had a significant association with time of presentation of women at the hospital for PAC (Table I).

Table II revealed that increasing the age of the respondents reduces the likelihood of delayed presentation. Participants aged 15 – 24 years were 16 times more likely to delay presentation when compared to those aged 35 – 44 years (OR = 16, 95% CI = 1.42 – 180.90, p = 0.047). Those aged 25 – 34 years old were only ten times more likely (OR = 10, 95% CI = 0.87 – 114.75, p = 0.037). Muslim participants also had 23% higher odds of delayed presentation than their Christian counterparts (OR = 1.23, 95% CI = 1.04 – 1.45, p = 0.047). Participants with secondary-level education were 37 times more likely to delay than those with tertiary-level education (OR = 38, 95% CI = 4.15 – 347.89, p<0.001). Civil servants had a 25% less chance of delaying (OR = 0.75, 95% CI = 0.50 – 1.12, p = 0.015), while traders were 29% less likely to delay when compared to students. Income lower than ₦30,000 increased the odds of delay by 24 times (OR = 25.00, 95% CI = 3.45 – 180.98, p = 0.001), and residence in rural areas raised the odds of delay by five more times (OR = 5.20, 95% CI = 1.72 – 47.30, p<0.001).

Table III shows no significant relationship between enabling factors and the time of presentation for PAC. A high proportion of those on health insurance (92%) delayed seeking PAC, while 100% of those who were not on health insurance of the same participants also delayed.

The type of health facility close to their residence, the distance of the health facility to their residence, and the perceived attitude of healthcare personnel were also not significantly related to delayed presentation. While 88.9 % of the participants still delayed their presentation despite perceiving healthcare workers' attitudes as friendly, only a few did not.

Table I: Association between predisposing and time of presentation for post-abortion care

	Time of presentation				
Factors	***Delayed n (%)***	***Not delayed n (%)***	***Total N (%)***	χ^2	***p-value***
Proportion	54 (90.0)	6 (10.0)	60(100.0)		
Age (Years)				***5.561***	0.034**
15 – 24	32 (59.3)	2 (33.3)	34 (56.7)		
25 – 34	20 (37.0)	2 (33.3)	22 (36.7)		
35 – 44	2 (3.7)	2 (33.4)	4 (6.6)		
Marital status				0.727	0.742
Single	28 (51.9)	4 (66.7)	32 (53.4)		
Married	24 (44.4)	2 (33.3)	26 (43.3)		
Widowed	2 (3.7)	0 (0.0)	2 (3.3)		
Religion				3.936	0.047**
Christianity	26 (48.1)	6 (100.0)	32 (53.3)		
Islam	28 (51.9)	0 (0.0)	28 (46.7)		
Education				13.358	0.002**
Non-formal	10 (18.5)	0 (0.0)	10 (16.7)		
Primary	4 (7.4)	0 (0.0)	4 (6.7)		
Secondary	38 (70.4)	2 (33.3)	40 (66.7)		
Tertiary	2 (3.7)	4 (66.7)	6 (10.0)		
Occupation				10.209	0.017**
Civil servant	6 (11.1)	2 (33.3)	8 (13.3)		
Trading	10 (18.5)	4 (66.7)	14 (23.3)		
Student	22 (40.7)	0 (0.0)	22 (36.7)		
Unemployed	2 (3.7)	0 (0.0)	2 (3.3)		
Housewife	14 (25.9)	0 (0.0)	14 (23.3)		
Income (Naira)				16.410	0.002**
<30,000	50 (92.6)	2 (33.3)	52 (86.7)		
30,000 – 59,000	4 (7.4)	4 (66.7)	8 (13.3)		
Place of residence				17.305	<0.001**
Rural	52 (96.3)	2 (33.3)	54 (90.0)		
Urban	2 (3.7)	4 (66.7)	6 (10.0)		

Table IV revealed that previous history of induced abortion ($\chi^2 = 6.342$, p = 0.012), place of performance of the last induced abortion ($\chi^2 = 7.56$, p = 0.023), the reason for abortion ($\chi^2 = 18.000$, p = 0.001, place where the current abortion was procured ($\chi^2 = 21.400$, p<0.001), use of herbs ($\chi^2 = 3.936$, p = 0.004 had significant association with the time of presentation for PAC.

Table V shows that participants with a previous history of induced abortion (OR = 0.77, 95% CI = 0.62 – 0.95, p = 0.012) were less likely to delay by a 23% chance, while those who had an abortion performed at a chemist's shop (OR = 7.564, 95% CI = 6.70 – 10.00, p = 0.011) were about seven times more likely to delay presentation. The use of herbs (OR = 1.23, 95% CI = 1.04 – 1.45, p = 0.047) increased the odds of PAC delay by 23%, and those that did the abortion outside the hospital were 100% more likely to delay (OR = 2.00, 95% CI = 1.14 – 3.52, p<0.001).

Table II: Logistic regression analysis of significant predisposing factors associated with delayed presentation of post-abortion care

Factors	*OR*	*95% CI*	*p-value*
Age			
15 – 24	16	1.42 – 180.90	0.047
25 – 34	10	0.87 – 114.75	0.037
35 – 44	RC		
Religion			
Islam	1.23	1.04 – 1.45	0.047
Christianity	RC		
Level of education			
Non-formal	3.00	1.00 – 9.30	0.017
Primary	3.00	1.00 – 9.30	0.035
Secondary	38	4.15 – 347.89	<0.001
Tertiary	RC		
Occupation			
Civil servant	0.75	0.50 – 1.12	0.015
Trading	0.71	0.51 – 0.99	0.034
Housewife	0.33	0.11 – 1.03	0.001
Unemployed	0.33	0.11 – 1.03	0.001
Student	RC		
Income			
<30,000	25.00	3.45 – 180.98	0.001
30,000 – 59,000	RC		
Place of residence			
Rural	5.20	1.72 – 47.30	<0.001
Urban	RC		

OR – Odd Ratio; CI – Confidence Interval; RC – Reference Category

Qualitative analysis of in-depth interviews showed that all the interviewees expressed induced abortion as being morally and religiously not good. The vast majority were not aware of the health implications of delayed presentation of post-abortion complications, while lack of finance was the major reason for delay. Factors such as far distances to a suitable healthcare facility, stigmatisation, and use of herbs also formed essential reasons for the delay in seeking PAC services. Many reported the use of self-medication and herbs as being cheaper and curative.

Discussion

The proportion of women who delayed seeking PAC after undergoing unsafe abortions was higher in Keffi compared to the level observed among women in other populations. [14] These delays may be due to the general misconception that "abortion is morally and religiously evil".

Following this misconception, seeking abortion and PAC services is often regarded as an act of moral and religious decadence, especially in Nigeria, where there is an acclaimed high level of religiosity. When women clandestinely undergo the procedure, they find it difficult to seek care even when they are aware of impending complications.

Table III: Association between predictive factors and time of presentation

	Time of presentation				
Factors	***Delayed***	***Not delayed***	***Total***	χ^2	***p-value***
Been on health insurance				0.000	1.000
Yes	4 (7.4)	0 (0.0)	4 (6.7)		
No	50 (92.6)	6 (100.0)	56 (93.3)		
Type of health facility close to residence				4.521	0.265
Tertiary	2 (3.7)	0 (0.0)	2 (3.3)		
General Hospital	6 (11.1)	2 (33.3)	8 (13.3)		
PHC	30 (55.6)	2 (33.3)	32 (53.4)		
Private hospital	8 (14.8)	2 (33.4)	10 (16.7)		
Chemist	8 (14.8)	0 (00)	8 (13.3)		
Distance of health facility to residence				1.667	0.197
</=5km	4 (7.4)	2 (33.3)	6 (10.0)		
>5km	50 (92.6)	4 (66.7)	54 (90.0)		
Category of available health care personnel				1.690	0.488
Qualified	20 (37.0)	4 (66.7)	24 (40.0)		
Not Qualified	8 (14.8)	0 (0.0)	8 (13.3)		
Don't know	26 (48.2)	2 (33.6)	28 (46.7)		
Perceived attitude of healthcare personnel				0.021	0.886
Friendly	48 (88.9)	6 (100.0)	54 (90.0)		
Not friendly	6 (11.1)	0 (0.0)	6 (10.0)		

One of the interviewees synchronised:
"*I could not report to my mom, who is a Nurse, after the flush, despite the dangers, because she will think I have failed her and will also look at me as a sinner*" (20-year-old, rural resident).

Previous research in Nigeria found that lack of access to adequate medical professionals, facilities, and equipment predicts illicit abortions and late reporting among females. [15] The high expense of safe abortion services, as well as distrust in healthcare providers, were mentioned as impediments to safe abortion availability in Ghana. [16] In this study, ignorance of the health implications, financial difficulties, a long distance to a reputable healthcare facility, and a sense of stigma all play an essential role in influencing the delay in obtaining PAC. It has also been demonstrated that when women attempt an abortion, the majority seek to self-induce by ingesting herbs/chemical concoctions, inserting objects into the vagina, or consulting traditional healers. Women's resources and mobility to access care, particularly at younger ages, are limited when compared to cohorts of older women; these factors have been shown to restrict women's overall healthcare-seeking behaviour, particularly around sexual and reproductive health needs, and exacerbate delays in seeking PAC. [1, 17]

Women in our study mentioned severe provider prejudice, a lack of privacy, and secrecy from official healthcare personnel as factors contributing to delay in getting PAC in formal settings, as narrated:
"*I was in my boyfriend's house after the flush out, at about 11 pm, when the pain became unbearable. I managed to get here on Okada (motorcycle), but I wasn't willing to come because of my previous experience with the workers here during my last admission. I felt like the healthcare providers were judging me the moment I walked in. There was no sense of privacy; everyone seemed to know my business. I also got the impression that they were hiding information from me. This made me extremely*

hesitant to seek care in a formal setting because I couldn't trust that they had my best interests at heart." (19 years old, urban dweller, university undergraduate). Previous findings in southwestern Nigeria support this narrative. [18]

Table IV: Association between need factors and delayed presentation for post-abortion care

	Time of presentation				
Variables	***Delayed n (%)***	***Not delayed n (%)***	***Total N (%)***	χ^2	***p-value***
Ever had an induced abortion before				6.342	0.012**
Yes	20 (37.0)	6 (100.0)	26 (43.3)		
No	34 (63.0)	0 (0.0)	34 (56.7)		
Place of performing the abortion				7.56	0.023**
At a chemist's shop	18 (90.0)	4 (66.7)	22 (84.6)		
At home, though, the use of herb	2 (10.0)	0 (0.0)	2 (7.7)		
Private hospital	0 (0.0)	2 (33.3)	2 (7.7)		
Were there any post-abortion complications at that time				1.843	0.175
Yes	12 (60.0)	6 (100.0)	18 (69.2)		
No	8 (40.0)	0 (0.0)	8 (30.8)		
Do you have children?				0.067	0.796
Yes	28 (51.9)	4 (66.7)	32 (53.3)		
No	26 (48.1)	2 (33.3)	28 (46.7)		
Wanted the aborted pregnancy at that time				2.549	0.110
Yes	14 (25.9)	4 (66.7)	18 (30.0)		
No	40 (74.1)	2 (33.3)	42 (70.0)		
Reasons for aborting it				18.000	0.001**
Financial reason	0 (0.0)	2 (50.0)	2 (11.1)		
Health reason	4 (28.6)	0 (0.0)	4 (22.2)		
Too close/too many pregnancies	6 (42.8)	0 (0.0)	6 (33.4)		
Partner's pressure	0 (0.0)	2 (50.0)	2 (11.1)		
A combination of the above reasons	4 (28.6)	0 (0.0)	4 (22.2)		
Was this current abortion performed in a hospital?				21.400	<0.001**
Yes	6 (11.1)	6 (100.0)	12 (20.0)		
No	48 (88.9)	0 (0.0)	48 (80.0)		
Level of severity of complication				1.637	0.509
Not severe	22 (40.7)	4 (66.7)	26 (43.3)		
Severe	2 (3.7)	0 (0.0)	2 (3.3)		
Very severe	30 (55.6)	2 (33.3)	32 (53.4)		
Use of herbs				3.936	0.004**
Yes	28 (51.9)	0 (0.0)	28 (45.7)		
No	26 (48.1)	6 (100.0)	32 (53.3)		
Are you aware that complications can happen for delayed presentation?					
Yes	28 (51.9)	6 (100.0)	34 (56.7)	3.326	0.068
No	26 (48.1)	0 (0.0)	26 (43.3)		

Research on clinicians has revealed that they can be judgmental, openly antagonistic, or even deny care to patients requesting PAC services. [19] Furthermore, healthcare providers, including those educated in youth-friendly services, may not adequately preserve privacy and confidentiality.

Table V: Logistic Regression of predictors of delayed presentation for post-abortion care

Factors	OR	95% CI	p-value
Ever had an induced abortion			
Yes	0.77	0.62 – 0.95	0.012
No	RC		
Place of performing that abortion			
At a chemist's shop	7.564	6.70 – 10.00	0.011
At home, through the use of herbs	RC		
The current abortion was performed in the hospital.			
Yes	RC		
No	2.00	1.14 – 3.52	<0.001
Use of herb			
Yes	1.23	1.04 – 1.45	0.047
No	RC		

OR – Odd Ratio; CI – Confidence Interval; RC – Reference Category

Table VI: Themes from in-depth interview

Question	*Theme*
General view about abortion	Morally and religiously not good
Reasons for delayed presentation	Not aware of the health implication
	Financial problem
	Far distance to a good healthcare facility
	Stigmatisation and healthcare provider prejudice
	Use of self-medication and herbs when discomfort was noticed
Reasons for self-medication and use of the herb	It is cheaper; it is curative, and the inability to afford hospital bill

Unsafe abortion remains a public health issue in Nigeria, and early presentation of patients for PAC is critical to successful treatment outcomes. [20] The bulk of abortion services are performed by unskilled health staff in backstreet clinics that lack the required equipment for effective patient management, including executing intrauterine procedures that may necessitate surgical procedures.[6] As a result, if patients suffer problems from unsafe abortions, the speed with which they receive treatment determines the likelihood of complications progressing to severe morbidity or death.[7]

Previous research has identified individual characteristics, such as women's age, educational attainment, and residence, as well as societal factors, like the effectiveness of in-country abortion policies in meeting women's healthcare needs, as potential drivers of timely care-seeking decisions. [21] In this study, it was discovered that women's features have a significant impact on the delay in seeking PAC. Women's ages

influence the timing of care-seeking.[13] We found that teenagers aged 15-24 were more likely to experience delays in seeking care than their older peers over 35. Notably, this age was also associated with the highest prevalence of abortion complications. The decision-making process for seeking care requires understanding and expertise on the patient's side and her social support network. Education, and therefore women's autonomy and empowerment, play an essential role in this process.[22] In this study, we discovered that participants with secondary education were more likely to delay seeking care than those with university education. These findings support the idea that education and, more broadly, decision-making autonomy in women's healthcare help them make safe, reasonable decisions when confronted with health hazards. [13, 23] occupation and source of income also influence the timing of obtaining care. [24] Our study indicated that students and individuals earning less than ₦30,000 per month are more likely to delay obtaining post-abortion treatment than their peers with higher-paying formal and informal professions. Most of them rely on their parents for tuition and monthly pocket money. These findings demonstrate the group's incompetence and lack of a solid social support network.

Although women may make timely decisions to seek care, they may still encounter delays in obtaining adequate care facilities. [25] Delays in reaching adequate facilities for women with life-threatening obstetric problems have been identified as a primary contributor to high maternal mortality in most underdeveloped nations. [26, 27] In this study, we discovered that rural women had a higher risk of delay than urban women. Similarly, rural women's experiences from the IDIs in this study confirm a lack of regular commuter transit, large distances, and an inadequate road network. In many cases, women experiencing these life-threatening gynaecological complications have limited access to care at lower-level clinics that are not equipped to handle them.[28]

Another noteworthy observation of this study is that women who experienced stigma as a result of previous unsafe abortions performed outside of the hospital and, most likely with the use of herbs, were more likely to delay presentation than those who did not experience such feelings. The majority of participants gave similar testimonies during the interview sessions. This is similar to another qualitative study examining women's experiences. [29] Women who hold stigmatised abortion attitudes may be misled by the belief that they are violating societal standards, like considering women's expected role as mothers. This viewpoint may contribute to their decision to delay presentation for PAC or preserve secrets to decrease the number of people who learn that they had an abortion and avoid stigma.

Limitations

The study had a few limitations. First, because this is an institutional study, its generalizability will be limited. We may have overlooked a fraction of women who sought PAC in private hospitals. Second, even though we employed anonymous measures in data collection, the survey may have had some reporting bias. Given the subject's sensitive nature, some women may respond in ways they believe are socially acceptable.

Conclusion

Women in the research setting were found to report late for PAC services. Delayed reporting for PAC services was more common among younger women, those who have experienced stigma, those with lower levels of education, civil servants, women from low-income families, and those from rural areas. These findings highlight the importance of developing youth-friendly

PAC services and integrating PAC into the country's youth programmes. International non-governmental organisations in Nasarawa State can subsidise the cost of PAC and, indeed, Nigeria to encourage many to report early for post-abortion care, especially among those women with low socio-economic backgrounds. Healthcare providers within the study area should initiate counselling for the use of contraceptives among those who are not ready for pregnancy. Healthcare personnel should also display high professionalism by maintaining maximum decorum and patient confidentiality.

Acknowledgement: The study participants are appreciated for their valuable time. The authors also acknowledge the staff members of Federal Medical Centre, Keffi, for their support with data collection.
Authors' Contributions: GM and BS conceived the study and reviewed the literature. KR conducted data analysis and interpretation and drafted the manuscript. All the authors revised the manuscript for sound intellectual content and approved the final version of the manuscript.
Conflicts of Interest: None.
Funding: Self-funded.
Publication History: Submitted 27 February 2024; **Accepted** 21 July 2024.

References

1. World Health Organization. Unsafe Abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2020. Geneva: https://apps.who.int/iris/handle/10665/42976.

2. Ngalame A, Tchounzou BR, Neng H, Mangala FG, Inna R, Kamdem DM, *et al.* Improving Post Abortion Care (PAC) Delivery in Sub-Sahara Africa. Open J Obstet Gynecol 2020;10:1295-1306. http://dx.doi.org/10.4236/ojog.2020.1090119.

3. World Health Organization. Trends in maternal mortality: 1990-2015: estimates from WHO, UNICEF, UNFPA, World Bank Group and the United Nations population division: Executive summary. World Health Organization, 2015.

4. Bell SO, Omoluabi E, Ola-Olorun F, Shankar M, Moreau C. Inequities in the incidence and safety of abortion in Nigeria BMJ Global Health 2020;5:e001814. https://doi.org/10.1136/bmjgh-2019-001814

5. Bankole A, Adewole IF, Hussain R, Awolude O, Singh S, Akinyemi JO. The Incidence of Abortion in Nigeria. Int Persp Sexual Reprod Health 2015;41(4):170–181. https://doi.org/10.1363/4117015

6. Centre for Reproductive Rights. Nigeria's Abortion Provisions. 2020 Https://reproductiverights.org/en/world-abortion-laws/nigerias-aborion-provisions.

7. Srinil S. Factors associated with severe complications in unsafe abortion. J Med Assoc Thai 2011;94:408–414.

8. Sustainable Development Goals: 17 goals to develop our World.2015 https://www.fao.org/3/CA3121EN/ca3121en.pdf. Accessed on 16 October 2023

9. Barnes-Josiah D, Myntti C, Augustin A. The "three delays" as a framework for examining maternal mortality in Haiti. Social Science & Medicine. 1998;46:981–993. https://doi.org/10.1016/S0277-9536(97)10018-1

10. Andersen RM. National health surveys and the behavioural model of health services use. Med Care 2008;46:647–653. DOI: 10.1097/MLR.0b013e31817a835d

11. Guest G, Namey E, Chen M. A simple method to assess and report thematic saturation in qualitative research. PLoS ONE, 2020;15:1-17. https://doi.org/10.1371/journal.pone.0232076

12. Mutua MM, Maina BW, Achia TO, Izugbara, CO. Factors associated with delays in seeking post-abortion care among women in Kenya. BMC Preg Childbirth 2015;15:240-248. https://doi.org/10.1186/s12884-015-0660-7.

13. Tormey R, Laperrouza M. The development, validation, and use of an interprofessional project management questionnaire in engineering education" Eur J Eng Educ 2023;48:502-517. https://doi.org/10.1080/03043797.2023.2171854

14. Wang H, Liu Y, Xiong R. Factors associated with seeking post-abortion care among women in Guangzhou, China. BMC Women's Health 2020;20:120-128. https://doi.org/10.1186/s12905-020-00980-0.

15. Tunde AI. Socio-economical and sociological factors as predictors of illegal abortion among adolescents in Akoko West local government area of Ondo state. Nigeria. Pub Health Res 2013;3:33–36. https://doi.org/10.5923/j.phr.20130303.01

16. Bain LE, Zweekhorst MB, Amoakoh-Coleman M, Muftugil-Yalcin S, Omolade AI, Becquet R, *et al.* To keep or not to keep? Decision making in adolescent pregnancies in Jamestown, Ghana. PloS one. 2019;14:1–18.
17. https://doi.org/10.1371/journal.pone.0221789

18. Bright T, Felix L, Kuper H, Polack S. Systematic review of strategies to increase access to health services among children over five in low-and middle-income countries. Trop Med Int Health 2018;23:476–507. https://doi.org/10.1111/tmi.13044

19. Bankole A, Malarcher S. Removing barriers to adolescents' access to contraceptive information and services. Stud Fam Plann 2010;41:117–124. https://doi.org/10.1111/j.1728-4465.2010.00232.x

20. Håkansson M, Oguttu M, Gemzell-Danielsson K, Makenzius M. Human rights versus societal norms: a mixed methods study among healthcare providers on social stigma related to adolescent abortion and contraceptive use in Kisumu, Kenya. BMJ Global Health 2018;3;1-13:e000608. https://doi.org/10.1136/bmjgh-2017-000608

21. Olukoya P. Reducing maternal mortality from unsafe abortion among adolescents in Africa. African Journal of Reproductive Health/La Revue Africaine de la Santé Reproductive 2004;8:57–62. https://doi.org/10.2307/3583306

22. White JS, Speizer IS. Can family planning outreach bridge the urban-rural divide in Zambia? BMC Health Serv Res 2007;7:143-152. https://doi.org/10.1186/1472-6963-7-143

23. Al Riyami A, Afifi M, Mabry RM. Women's Autonomy, Education and Employment in Oman and their Influence on Contraceptive Use. Reprod Health Matters 2004;12:144–154. http://dx.doi.org/10.1016/S0968-8080(04)23113-5

24. Kabiru CW, Ushie BA, Mutua MM, Izugbara CO, Kabiru CW. Previous induced abortion among young women seeking abortion-related care in Kenya: a cross-sectional analysis. BMC Preg Childbirth 2016;16:104-114. https://doi.org/10.1186/s12884-016-0894-z

25. Gelaye AA, Taye KN, Mekonen T, Gelaye AA. Magnitude and risk factors of abortion among regular female students in Wolaita Sodo University, Ethiopia. BMC Womens Health. 2014;14:50-59. https://doi.org/10.1186/1472-6874-14-50

26. Gabrysch S, Campbell OMR. Still too far to walk A literature review of the determinants of delivery services use. BMC Pregnancy Childbirth. 2009;9:1-18. https://doi.org/10.1186/1471-2393-9-34

27. Kabakyenga JK, Östergren P, Turyakira E Pettersson KO. Knowledge of obstetric danger signs and birth preparedness practices among women in rural Uganda. Reprod Health 2011;8:33-43. https://doi.org/10.1186/1742-4755-8-33

28. Islam M, Yoshida S. Women are still deprived of access to lifesaving essential and emergency obstetric care. Int J Gynecol Obstet 2009;106:120-124. https://doi.org/10.1016/j.ijgo.2009.03.022

29. Echoka E, Makokha A, Dubourg D, Kombe Y, Nyandieka L, Byskov J. Barriers to emergency obstetric care services: accounts of survivors of life-threatening obstetric complications in Malindi District, Kenya. Pan Afr Med J 2014;17(Supp 1):4:15-20. https://doi.org/10.11694/pamj.supp.2014.17.1.3042

30. Gelman A, Rosenfeld EA, Nikolajski C, Freedman LR, Steinberg JR, Borrero S. Abortion stigma among low-income women obtaining abortions in western Pennsylvania: a qualitative assessment. Perspect Sex Reprod Health 2017;49:29–36. https://doi.org/10.1363/psrh.12014