Knowledge, Attitudes, and Perceptions of Unsafe Abortion among Reproductive-Age Women in Rural Ghana: A Cross-sectional Study

Esther Selasi Avinu[1*], Daniel Mensah[2], Frederick Tetteh[3]

[1]School of Nursing and Midwifery, Department of Nursing and Midwifery, Presbyterian University, Ghana; Asante-Akyem Agogo Campus.

[2]Faculty of Medical Sciences, Department of Physician Assistantship, Presbyterian University, Ghana; Asante-Akyem Agogo Campus.

[3]School of Biomedical and Allied Health Sciences, Department of Emergency Medicine Technology, All Nations University, Koforidua, Ghana.

***Corresponding author's email:** selasi.avinu@presbyuniversity.edu.gh

ORCID ID: 0000-0002-6902-4102

Open Access

Cite this article as:

Avinu, E. S., Mensah, D. & Tetteh, F. (2026). Knowledge, Attitutdes and Perceptions of Unsafe Abortion among Reproductive-Age Women in Rural Ghana: A Cross-Sectional Study. Ghana Journal of Nursing and Midwifery, 2026 (v2i31), 42 – 60. https://doi.org/10.69600/GJNMID/2026.v2.i3.42-60.

Received: 4th November 2025

Revision Received: 17th January 2026

Accepted for Publication: 4th February 2026

Paper DOI:

[https://doi.org/10.69600/GJNMID/2026.v2.i3.42-60]

Journal URL: https://gjnmid.com

Journal DOI: https://doi.org/10.69600

ISSN (Online): 3057-3602

Abstract

This study aimed to assess women's knowledge, attitudes, and perceptions regarding unsafe abortion at the Gynaecological Outpatient Clinic of Agogo Presbyterian Hospital in Ghana, generating foundational evidence to guide future research and inform targeted interventions. A descriptive cross-sectional survey among women aged 15-49 attending the Gynaecological Outpatient clinic at Agogo Presbyterian Hospital in Ghana was conducted. A convenience sample of 100 women was recruited during data collection. This sample size was considered adequate for an exploratory survey, as samples of 50–100 participants are commonly recommended to obtain reasonably stable estimates of key parameters in preliminary quantitative research (Hertzog, 2008; Julious, 2005; Teare et al., 2014). Data were collected using a structured self-administered questionnaire and analysed in Stata version 14.0 using descriptive statistics. The study found high general awareness, with 98% of respondents having heard of abortion and only 7% reporting no knowledge of the legal indications in Ghana. Nonetheless, recognition of specific legal grounds varied, with 28–49% identifying rape, incest, or maternal health risk as permissible. A large proportion of participants (68%) reported feeling uncomfortable discussing abortion, primarily due to stigma (94%). Even so, 75% recognised unsafe abortion as a major health concern, and shame (32%) was identified as a key factor contributing to unsafe practices. Notably, 55% of respondents report they would likely consider an unsafe abortion. Although awareness of abortion is high, knowledge of specific legal indications is variable, and stigma limits open discussion, contributing to unsafe practices. Targeted interventions addressing legal knowledge and societal attitudes are needed to reduce unsafe abortion and related health risks in Ghana.

Keywords: Abortion, Reproductive Health Services, Women's Health, Ghana.

Introduction

Unsafe abortion continues to be a significant global health concern, particularly in low- and middle-income countries, where laws, stigma, and limited resources restrict access to safe services (WHO, 2019). An estimated 25 million unsafe abortions occur globally each year (WHO, 2019),

with sub-Saharan Africa experiencing higher rates of morbidity and mortality (Singh et al., 2018). In Ghana, abortion is legal under certain conditions, but unsafe procedures still significantly contribute to maternal deaths despite efforts to improve access to safe abortion and care (Susheela Singh, Remez, Sedgh, Kwok, & Onda, 2018; Sundaram, Juarez, Bankole, & Singh, 2012). To address this preventable problem and improve reproductive health, it is necessary to understand how women of reproductive age perceive and conceptualise unsafe abortion.

Globally, unsafe abortion remains a leading cause of maternal mortality and complications such as sepsis, haemorrhage, and infections (WHO, 2019). The World Health Organisation (W.H.O.) defines unsafe abortion as a procedure to terminate an unintended pregnancy conducted by individuals lacking requisite expertise or in settings that do not adhere to minimal medical standards (WHO, 2019). In sub-Saharan Africa, about 77% of abortions are unsafe, worsened by restrictive laws, poor healthcare, and social stigma (Ganatra et al., 2017). Improving women's awareness of safe abortion and shifting social attitudes can reduce unsafe practices (Susheela Singh et al., 2018). As of 2018, unsafe abortion accounted for approximately 13% of maternal deaths in Ghana, highlighting the persistent nature of this public health challenge (Susheela Singh et al., 2018). Further country-level studies and program reports highlight that unsafe abortion continues to significantly contribute to maternal morbidity and mortality in Ghana, though estimates differ across studies and data sources (Aladago, Boakye-Yiadom, Asaarik, & Aryee, 2019; Awudu, 2021; Ghana Statistical, 2018; Gyaase et al., 2024). However, our literature review did not find a recent, nationally representative update (from 2020 to 2024) that replaces the 2018 estimate. Although the 1985 law permits abortion in certain cases, access remains limited, especially in rural areas (Aniteye & Mayhew, 2013). Research shows that misinformation, fear of stigma, and lack of awareness about legal provisions contribute to the high rates of unsafe abortion practices (Atakro et al., 2019).

Women's knowledge, attitudes, and perceptions about abortion will undoubtedly shape their reproductive health decisions. Limited understanding of safe services and legal rights often leads women to unsafe practices (Ganatra et al., 2017). In Ghana, many women are unaware of abortion laws, and societal views link abortion with immorality, discouraging safe options (Aniteye & Mayhew, 2013; Atakro et al., 2019). Cultural and religious beliefs also influence perceptions, increasing stigma and reducing open discussion on reproductive health (Atakro et al., 2019).

While previous studies have investigated abortion practices and awareness of abortion laws in Ghana (e.g., among urban youth and university students), limited research has been specifically directed towards rural settings such as Asante Akyem North (Atakro et al., 2019; Klc et al., 2020) . In rural settings, factors such as limited access to formal health services, strong cultural and religious norms, and socioeconomic challenges may influence knowledge, attitudes, and behaviours around unsafe abortion in ways that differ significantly from urban populations. By focusing our investigation on women of reproductive age in Asante Akyem North, this study addresses a vital gap in the literature. It provides context-specific evidence to inform locally relevant, socially sensitive interventions.

Research Objectives

This study aimed to assess women's knowledge, attitudes, and perceptions regarding unsafe abortion at the Gynaecological Outpatient Clinic of Agogo Presbyterian Hospital in Ghana,

generating foundational evidence to guide future research and inform targeted interventions. The specific objectives of this were to: 1) Assess the level of knowledge about unsafe abortion and its complications among women of reproductive age; 2) Examine attitudes toward abortion legalization and disclosure; 3) Explore perceptions regarding factors driving unsafe abortion practices; and 4) Identify perceived barriers to safe abortion services

Theoretical Framework

The Health Belief Model (HBM) provides a useful framework for understanding women's knowledge, attitudes, and perceptions regarding unsafe abortion. According to the HBM, health-related behaviors are influenced by individuals' perceived susceptibility to a condition, perceived severity of its consequences, perceived benefits of preventive or corrective actions, perceived barriers to taking action, cues to action, and self-efficacy (Green, Murphy, & Gryboski, 2020; Rosenstock, 1974; Skinner, Tiro, & Champion, 2015). In the context of unsafe abortion in Ghana, women's decisions to seek safe or unsafe abortion services may be shaped by their awareness of the health risks (perceived severity and susceptibility), understanding of legal indications and benefits of safe services (perceived benefits), societal stigma or access constraints (perceived barriers), external prompts such as advice from healthcare providers or media campaigns (cues to action), and confidence in their ability to access care (self-efficacy). Using the HBM provides a structured lens to explore these factors and inform interventions aimed at reducing unsafe abortion.

Material and Methods

Study design and setting

This facility-based descriptive cross-sectional study was conducted in September 2024. at Agogo Presbyterian Hospital (APH), a 250-bed facility located in a farming community in the Ashanti Region of Ghana and accredited by the National Health Insurance Scheme. APH serves as a secondary healthcare facility and the district hospital for Asante Akyem North, offering general and specialised medical services. These services include Internal Medicine, Obstetrics and Gynaecology, General Surgery, Child Health, Ultrasonography, Ophthalmology, Public Health, and Dental Health. The hospital provides comprehensive reproductive health services, including family planning, safe abortion services and post-abortion care. Its catchment population is approximately 85,000, of whom 51% are female, with about 34% residing in rural areas (Ghana Statistical Service, 2024).

Sample Size Determination

A sample size of 100 participants was deemed adequate for this exploratory survey, as samples of 50–100 are commonly recommended for preliminary quantitative studies to provide reasonably stable estimates of key proportions and variability without aiming for hypothesis testing (Hertzog, 2008; Julious, 2005). This range also aligns with guidance for pilot and feasibility studies, which suggest that 70–100 participants offer sufficient precision for estimating parameters needed to plan future research (Teare et al., 2014). Practical considerations, including the limited data collection period and the flow of eligible clinic attendees, further informed the achievable sample size.

Participants' recruitment, Inclusion, and Exclusion criteria

Participants were selected through a convenience sampling method at the Gynaecology outpatient clinic of the APH in September 2024. Due to the practical limitations of applying a probabilistic sampling method in this exploratory study, a convenience sampling technique was employed. Inclusion criteria were: (1) women aged 15-49 years; (2) attending the gynecology outpatient clinic during the study period (2nd -30th September, 2024); (3) able to understand English or Twi and provide informed consent (or assent with guardian consent for those 15-17 years); and (4) willing to participate. Exclusion criteria included: critically ill patients unable to participate, women with cognitive impairments that prevented informed consent, and those who declined participation after an initial invitation. Two research assistants with a nursing background received 2 days of training on research ethics, informed consent procedures, and questionnaire administration. They approached women in the waiting area, provided a 5-10 minute overview of the study objectives and procedures, ensured understanding, and conducted eligibility screening using a standardised checklist. Participants were assured that participation was voluntary and would not affect their care at the facility. Written informed consent (and guardian consent, where applicable) was obtained privately prior to data collection. Each participant was assigned a unique study identification number to prevent duplicate responses. We recognise that recruiting from a gynaecology clinic may introduce selection bias, as women attending this clinic may be more health-aware, have better access to healthcare, or have specific reproductive health concerns compared to the general population of reproductive-age women in the district. This limitation is acknowledged and discussed further in the limitations section. The numbers of women approached, screened, deemed eligible, and enrolled were documented in a recruitment log. A total of 150 women attending the clinic were approached, of whom 130 expressed willingness to participate. Of these, 30 were not recruited because they either did not meet the inclusion criteria or declined to proceed after the study procedures were explained, leaving 100 eligible women enrolled.

Data collection, management, and analysis

A structured questionnaire was developed following an extensive literature review of comparable KAP studies on abortion (Atakro et al., 2019; Boah, Bordotsiah, & Kuurdong, 2019; Gyaase et al., 2024; Klu, Yeboah, Kayi, Okyere, & Essiaw, 2022). Three experts, a reproductive health specialist, a public health researcher, and a midwifery educator, reviewed the initial draft to ensure content validity. Their feedback informed revisions to improve clarity, refine item wording, and ensure cultural appropriateness. Although the questionnaire was available only in English, trained research assistants provided on-the-spot translation into Twi when needed. The questionnaire was pretested with 10 women of reproductive age at Juansa Health Center, located approximately 10 km from the study site. The pretest assessed item clarity, average completion time (about 45 minutes), and overall face validity. Based on participant feedback, several modifications were made, including simplifying medical terminology related to abortion complications, adding additional response options for sources of information, and reordering sections to improve flow. Individuals who participated in the pretest were excluded from the final study sample. The final instrument comprised four sections: the first and second sections each

contained six items to collect demographic data and assess women's knowledge of abortion and unsafe abortion, respectively. The third and fourth sections each included four items addressing attitudes and perceptions toward unsafe abortion. Although the questionnaire was designed for self-administration, trained research assistants were available to support participants with low literacy or anyone who requested assistance, ensuring consistent interpretation of all items. For participants who were unable to read, the questionnaire was administered as a structured interview in a private area to maintain confidentiality. Overall, 60% of participants completed the questionnaire independently, while 40% required assistance. ***Data Analysis:*** Data were analysed using Stata version 14.0. Descriptive statistics were computed for all variables. Categorical variables (demographics, knowledge items, attitude responses, perception responses) were summarised using frequencies and percentages. Continuous variables such as age were summarised using means and standard deviations. Given the exploratory nature of this study and the use of convenience sampling, inferential statistics to test associations between variables were not deemed appropriate.

Ethical considerations

Ethical approval for the study was obtained from the Institutional Review Board of the Faculty of Health and Medical Sciences, Presbyterian University, Ghana (Approval No.: APH/ADM/RES-135/24, dated August 28, 2024). Additional administrative permission was provided by the Hospital Administrator of Agogo Presbyterian Hospital. For participants aged 15–17 years (n = 4), written informed consent was obtained from parents or legal guardians, and assent was obtained from the minors after confirming their understanding of the study and their right to withdraw at any time. Participants aged 18 years and above provided written informed consent independently. Participants were provided adequate information regarding the research objectives, benefits, risks, and voluntary participation in the study. Given the sensitive nature of the topic, participants were informed of the availability of counselling services at the facility. Research assistants were trained to identify signs of distress, and participants were given the option to pause or discontinue the interview at any point. Contact information for the facility's counselling services was provided to all participants. Data collected was kept confidential and anonymised. Coding systems were developed to ensure that data sources were identifiable only by the researcher.

Results

Demographic Data of Respondents

Table 1 presents the characteristics of the study respondents. Participants were categorised into standard reproductive age groups. The distribution revealed a mean age-group score of 3.25 (SD = 1.67), indicating that most respondents belonged to the 25–29 years category. The lowest category was 1 (15–19 years), and the highest was 7 (45–49 years), reflecting a wide age range typical of a diverse reproductive-age population. This distribution suggests that the sample mainly consisted of adults in their late twenties, a group often linked to heightened health-seeking behaviour and reproductive decision-making. About 40% of the respondents were single, and 35% had a tertiary education. The majority (81%) identified as Christians, and 41% were students.

Over half (53%) had no children, while 25% were traders and 25% were married. Notably, 53% of participants reported having no children, consistent with the young age profile (54% aged 15-26) and the high proportion of single participants (40%).

Table 1: Distribution of Demographic Data of Respondents

Variables	Frequency (n=100)	Percentage (%)
Age Group		
15-19	13	13.0
20-24	26	26.0
25-29	26	26.0
30-34	10	10.0
35-39	12	12.0
40-44	9	9.0
45-49	4	4.0
Religious Affiliation		
Christian	81	81.0
Islamic	19	19.0
Highest level of Education		
No formal Educ	28	28.0
Primary	5	5.0
Secondary	24	24.0
Tertiary	35	35.0
Vocational	6	6.0
Other	2	2.0
Marital status		
Single	40	40.0
Married	25	25.0
Divorce	5	5.0
Co-habitating	30	30.0
0ccupation		
Student	41	41.0
Farming	12	12.0
Trading	25	25.0
Aprenticeship	19	19.0
Housewife	3	3.0
Number of children		
None	53	53.0
1	12	12.0
2	9	9.0
3	12	12. 0

4 and above	14	14. 0

Knowledge of Respondents on Unsafe Abortion

Among the 98 participants who had heard of abortion, multiple sources of information were reported (**Table 2**). Over half (54%) cited peers and friends. Slightly more than one-third (35%) mentioned family as their source, while 20% obtained information from hospitals. Concerning the legal conditions for abortion in Ghana, nearly half (49%) indicated that it is permissible "when the mother's health is at risk." In comparison, 46% stated it is allowed "when the pregnancy is unexpected." Only 7% were unaware of the legal provisions. Furthermore, 53% defined unsafe abortion as one performed using traditional methods, and 28% associated it with procedures outside healthcare facilities. A significant majority (63%) identified death as a potential complication of unsafe abortion, yet 65% reported not having received information regarding its associated dangers.

Table 2: Knowledge of respondents on unsafe abortion

Variables	Frequency (n=100)	Percentage (%)
Ever heard of abortion		
Yes	98	98.0
No	2	2.0
Source of information*		
Families and relatives	35	35.0
Peers and friends	54	54.0
Media/ public	18	18.0
Social media	11	11.0
Hospital	20	20.0
Other (church, books)	8	8.0
Appropriate cases for abortion in Ghana*		
Rape	28	28.0
Incest	39	39.0
When the health of the mother is in danger	49	49.0
When it is unexpected	46	46.0
I don't know	7	7.0
Definition of unsafe abortion		
Performed by a qualified healthcare provider in a standard medical environment.	8	8.0
Performed outside a healthcare facility.	28	28.0
Abortion using the traditional method.	53	53.0
I don't know.	31	31.0

Complications of unsafe abortion		
Bleeding	45	45.0
Infection	34	34.0
Infertility	47	47.0
Death	63	63.0
I don't know	7	7.0
Education on the dangers of unsafe abortion		
Yes, from a healthcare provider		
Yes, from friends/ family	5	5.0
Yes, from the media/public	21	21.0
No, I haven't received any information	9	9.0
	65	65.0

*Note: Multiple responses were allowed; percentages may total >100%

Attitudes of Respondents Towards Unsafe Abortion

Table 3 provides a summary of respondents' perspectives on unsafe abortion. Concerning the legalisation of abortion, slightly more than one-third (39.0%) of respondents expressed the view that it should be legalised with restrictions. A substantial proportion (68.0%) of respondents indicated that they feel uncomfortable discussing unsafe abortion. Additionally, 55 % of respondents indicated they might consider an unsafe abortion.

Table 3: Attitudes of participants towards unsafe abortion.

Variables	Frequency	Percentage (%)
Abortion should be ...		
Legal and accessible	37	37.0
Legal but with restrictions	39	39.0
Illegal	16	16.0
Don't know	8	8.0
Stigma around abortion		
A great deal of stigma	57	57.0
Some stigma	11	11.0
Very little stigma	26	26.0
No stigma at all	6	6.0
Comfort discussing abortion		
Very comfortable	16	16.0
Somewhat comfortable	16	16.0
Not comfortable at all	68	68.0

Likelihood of considering unsafe abortion		
Very likely	18	18.0
Likely	37	37.0
Not very likely	30	30.0
Not at all	15	15.0

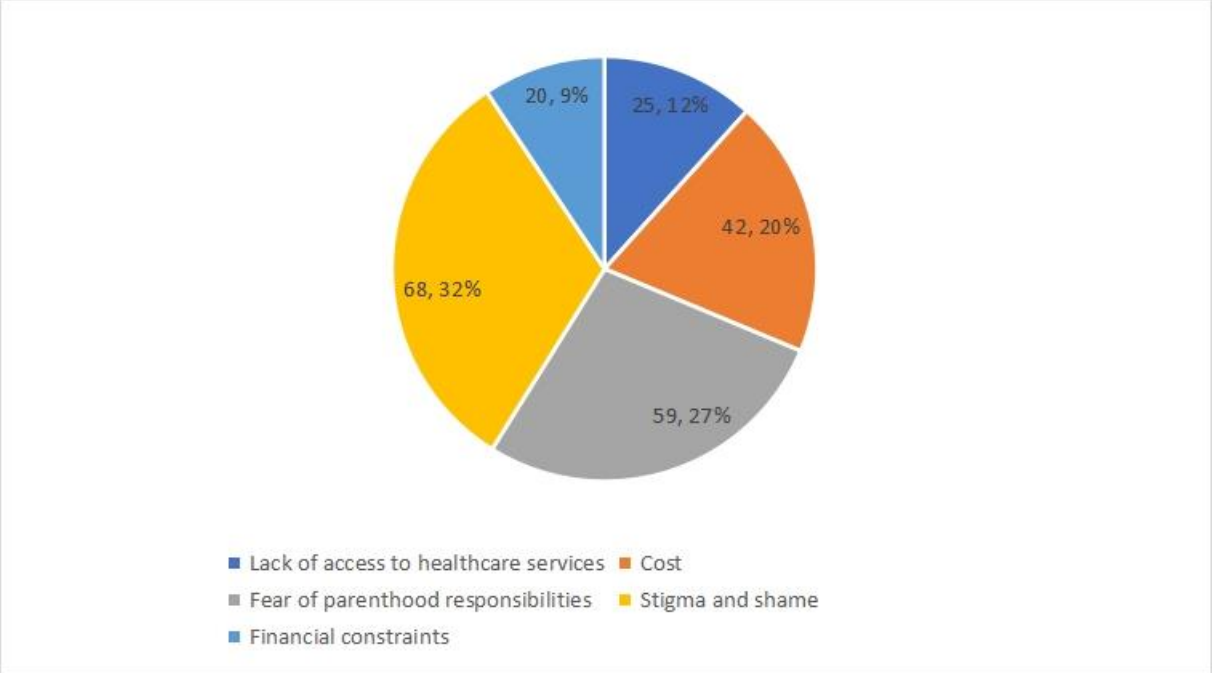
Perception of participants towards unsafe abortion

Table 4 shows respondents' views on unsafe abortion and related topics. Most (75%) see unsafe abortion as a serious health issue, while 26% disagree or are unsure. A majority (68%) reject the idea that unrestricted abortion encourages promiscuity. Furthermore, 39% believe discrimination plays a role in unsafe abortion, whereas 27% disagree and 34% are undecided.

Table 4: Perception of participants towards unsafe abortion

Variables	Frequency (n=100)	Percentage (%)
Unsafe abortion as a serious health concern		
Strongly agree	49	49.0
Agree	26	26.0
Neutral	3	3.0
Strongly disagree	5	5.0
Disagree	17	17.0
Legalizing abortion without restrictions will make women promiscuous.		
Strongly agree	7	7.0
Agree	18	18.0
Neutral	7	7.0
Strongly disagree	9	9.0
Disagree	59	59.0
Discrimination leads to unsafe abortion		
Yes, it is likely	39	39.0
No, it isn't	27	27.0
It maybe	34	34.0

Figure 1: Distribution of Perceived Reasons for Seeking Unsafe Abortion



Note: *Participants could select multiple reasons; numbers represent the frequency of selection among 100 participants.*

Figure 1 summarises the distribution of perceived reasons for seeking unsafe abortion. Among the 100 participants, the most commonly reported reason was stigma and shame (32%), followed by fear of parenthood or responsibilities (27%). Cost (20%) and lack of access to healthcare services (12%) were also considered significant factors. Financial constraints (9%) were the least frequently mentioned reason.

Discussion

This study explored women's knowledge, attitudes, and perceptions about unsafe abortion among women aged 15-49 in Asante Akyem Agogo, located in the Ashanti Region of Ghana. The age distribution in our study, mainly women aged 20–29, mirrors the reproductive profile of those most likely to use routine gynecologic and reproductive health services. This focus on women in their twenties corresponds with Ghanaian data indicating that women under 30 are especially vulnerable: younger women in Ghana have considerably lower chances of accessing safe abortion services compared to older women (Ramashwar, 2013).

Furthermore, a study based on Ghana's 2017 Maternal Health Survey found that women aged 20–24 made up a significant portion of unsafe abortions, mainly due to a lack of contraceptive use, limited legal awareness, and socio-economic obstacles (Ballu, 2019; Boah et al., 2019).

Data from a national survey show that Ghanaian women aged 15–24 experience high rates of unintended pregnancy and have abortion rates similar to older women. Over half of abortions in this group are obtained from informal providers (Keogh et al., 2021).

Our findings align with these trends, indicating that young adult women in Ghana face a higher risk of unintended pregnancy and unsafe abortion, emphasising the need for age-specific counselling

and services. Additionally, including women across the entire reproductive age range reveals that older women also need targeted prevention and care.

The higher distribution of tertiary education (35%) within our rural study population is likely indicative of sample characteristics and patterns of healthcare utilisation, such as the propensity of better-educated women to seek facility-based care or to travel for services. It may also reflect phenomena such as the return migration of graduates and overarching national increases in tertiary enrollment. Official statistics and educational reports confirm a rising trend in tertiary participation; however, disparities in educational attainment between rural and urban areas persist. Therefore, the findings should be generalised with caution to similar facility-based rural populations, as broader community surveys of a broader rural demographic may reveal a lower prevalence of tertiary education. Furthermore, Agogo is home to several tertiary institutions, including Presbyterian University, as well as teacher-training and nursing/midwifery colleges. This likely contributes to an increased concentration of residents with higher education qualifications and students seeking health services within the local catchment area. The presence of institutions often leads to both temporary and permanent residency driven by academic pursuits, and the families associated with educational employment, which can elevate the representation of tertiary-educated individuals relative to other rural districts. The high proportions of single (40%) and nulliparous (53%) participants may suggest that preventing and managing unintended pregnancies are particularly important concerns for this subgroup. This is consistent with previous research showing that unsafe abortion is a major concern among young women in sub-Saharan Africa, who face increased risks because of socio-economic barriers and inadequate access to reproductive health services (Sedgh et al., 2016). The predominance of Christian participants (81 %) warrants consideration of how faith-based beliefs may have shaped responses. This finding is consistent with previous Ghanaian studies that suggested that religious affiliation strongly influences abortion stigma and service-seeking behavior (Aniteye et al., 2016; Atakro et al., 2019; Awoonor-Williams et al., 2020).

Nonetheless, the fact that a majority did not endorse the idea that legal abortion contributes to promiscuity points to more complex, perhaps pragmatic, perspectives among Christian women. Future research should explore how women negotiate the tensions between religious convictions and reproductive health needs in their lived contexts.

Knowledge on Unsafe Abortions

The study found that nearly all participants (98%) knew about abortion, consistent with similar studies where general awareness remains high despite ongoing misinformation (Reiger et al., 2020). However, only 28% correctly identified abortions outside healthcare facilities as unsafe, while a majority (53%) associated unsafe abortion primarily with traditional methods (such as herbs). This misconception is especially worrying because it implies that women might think modern methods (such as misoprostol obtained from pharmacies without medical guidance) are naturally safe, regardless of the setting or supervision. This emphasises a vital gap in health education messaging, which must underline that safety depends not only on the method itself but also on the support of a qualified provider and suitable medical backup for any complications. This indicates that although abortion is widely recognised, knowledge of safety standards is limited, potentially leading to riskier practices

(Ganatra et al., 2017).

Respondents frequently mentioned complications like death (63%) and infertility (47%), showing a general awareness of the serious risks linked to unsafe abortion. Alarmingly, only 5% of participants had received information about the dangers of unsafe abortion from healthcare providers, compared with 21% who received such information from friends or family and 9% from media sources. This highlights a critical gap in healthcare communication and underscores a significant failure in the delivery of reproductive health education. The higher reliance on friends and family (21%) compared to healthcare providers (5%) as sources of information emphasises the importance of informal networks, which could result in misinformation or gaps in knowledge (Kumar, Hessini, & Mitchell, 2009).

Attitudes Toward Unsafe Abortions

The attitudes survey revealed that 37% of respondents support making abortion legal and easily accessible, whereas 39% favour legal abortion with some restrictions. This finding indicates conditional support for legalisation instead of overall endorsement. Ghanaian studies have consistently found that public opinion varies with context: many individuals openly support abortion when it is narrowly justified (such as to save a woman's life, in cases of rape, or severe fetal abnormalities) while they oppose unrestricted access on moral or religious grounds. This ambivalence mirrors findings among health-profession students and community samples in Ghana (Abubakari, Gmayinaam, & Osei, 2023; Oppong-Darko, Amponsa-Achiano, & Darj, 2017). Additionally, 57% of participants reported facing substantial stigma related to abortion, a pattern consistent with findings from Ghana and other African nations where abortion is still a culturally sensitive topic (Aniteye & Mayhew, 2013; Atakro et al., 2019; Oyeniran et al., 2019). This stigma probably explains why 68% of respondents feel uncomfortable discussing abortion openly. The social stigma linked to abortion has been shown to push women towards secret procedures, raising the risk of complications (S. Singh, 2010). The finding that 55% of respondents expressed a likelihood of considering unsafe abortion highlights a crucial gap in access to appropriate reproductive-health services. Several factors may account for this willingness. In many communities, restrictive social norms and fear of judgment discourage women from seeking legal and medically supervised care. Financial barriers also play a significant role, as safe services may be perceived as costly or difficult to reach, particularly for younger or economically dependent women. This pattern suggests that availability alone is not enough; women need both practical and social support to access safe care. Our finding is consistent with research in Ghana showing that a substantial number of women (especially those who are younger or of lower socio-economic status) resort to unsafe options because of stigma, cost, and uncertainty about the legal framework for abortion (Aniteye & Mayhew, 2013; Atakro et al., 2019; Ramashwar, 2013). These studies similarly report that even when safe services exist, women may not feel empowered to use them, or may lack clear information about where safe care is provided. These findings suggest that existing pathways to safe services might not adequately address the needs of many women. Personal and structural barriers still drive some individuals to unsafe options. This highlights the importance of interventions that offer accessible, youth-friendly, and affordable services, alongside community strategies to combat stigma and raise awareness of legal rights. Improving provider communication, increasing the visibility of safe service locations, and providing targeted counselling for high-risk

groups could help reduce reliance on unsafe methods. Ultimately, a comprehensive, multi-level strategy is needed to tackle both service obstacles and the social factors that influence women's choices.

Perceptions of Unsafe Abortion

Nearly three-quarters of the respondents agreed or strongly agreed that unsafe abortion poses a significant health risk, indicating a strong awareness of its potential dangers. Notably, the majority did not believe that legalising abortion without limitations would encourage promiscuity, thereby challenging the common misconceptions that restrictive policies reduce abortion rates or moral decline (Sedgh et al., 2016) . This finding is consistent with the growing body of evidence indicating that access to safe abortion and comprehensive sexual and reproductive health services does not lead to increased sexual activity. Instead, such access serves to diminish the risks associated with unsafe procedures and may be linked to enhanced contraceptive utilisation. Public health messaging, coupled with local experiences in harm reduction, likely elucidates why participants dismissed the prevalent counterargument of promiscuity. Policy-oriented analyses within the region similarly reveal minimal empirical support for the allegation of promiscuity hypothesis (Dreweke, 2019; Njokwe & Kijima, 2025). This perspective suggests a possible openness to policy changes and public health interventions regarding abortion in Ghana. Additionally, 39% of respondents believe discrimination probably contributes to unsafe abortion, whereas 34% are uncertain about its influence. Discrimination, whether social, economic, or institutional, has been identified as a major factor pushing women towards unsafe abortions, mainly due to fear of judgment or denial of appropriate medical treatment (Awoonor-Williams et al., 2018; Harris et al., 2016).

Reasons for Seeking an Unsafe Abortion

The paradox identified in our findings (where the majority of participants acknowledge unsafe abortion as a significant health concern (75%), yet more than half (55%) would consider it) highlights the profound influence of social pressure. Stigma and shame, cited by 68% of respondents as primary reasons for unsafe abortion, appear to supersede concerns regarding health risks. This is further corroborated by the fact that 68% of participants expressed discomfort in discussing abortion, indicating that silence and judgment serve to reinforce the avoidance of formal healthcare services. Addressing this issue necessitates more than merely enhancing access to safe services; it requires comprehensive stigma-reduction interventions at multiple levels. At the individual level, reproductive health education must empower women with accurate information and support. At the community level, engagement with opinion leaders, including traditional and faith leaders, can facilitate the transformation of attitudes that sustain secrecy. At the institutional level, training healthcare providers to deliver respectful and non-judgmental care is vital to minimising fears of mistreatment. A coordinated strategy across these levels is likely to diminish stigma, foster greater transparency in decision-making, and reduce dependence on unsafe procedures. These results align with previous research indicating that social stigma and concerns about unintended pregnancy consequences often obstruct access to safe abortion services (Atakro et al., 2019; Jayaweera, Ngui, Hall, & Gerdts, 2018). The high costs of post-abortion care and limited access to health services underscore the structural challenges women encounter, especially in rural or low-resource areas (Izugbara et al., 2020).

Limitations

While the study offers valuable insights, several limitations should be noted:

1. Cross-sectional design: The cross-sectional nature of this study constrains our capacity to establish temporal relationships or causality between knowledge, attitudes, perceptions, and actual abortion-seeking behaviors. Longitudinal studies would more effectively capture how these factors develop over time.
2. Social desirability bias: Due to the stigmatised nature of abortion in Ghana, participants may have given socially acceptable responses rather than their true opinions, possibly underestimating support for abortion access or overestimating knowledge. The use of self-administered questionnaires might have somewhat reduced this bias, but it likely still remains.
3. Recall bias: Participants' reports of past information sources or knowledge may be subject to recall bias, particularly for information received months or years earlier.
4. Limited assessment of actual behaviour: This study assessed knowledge, attitudes, and perceptions but did not capture actual abortion experiences or behaviours, limiting our understanding of the relationship between reported attitudes and actions.
5. Questionnaire limitations: Some questions may have been ambiguous or leading (e.g., the promiscuity question), potentially introducing response bias. The questionnaire was not based on a validated scale, which may affect reliability and comparability with other studies.
6. Facility-based recruitment: Recruiting from a hospital gynaecology clinic may have selected for women with better healthcare access, higher health literacy, or specific reproductive health concerns, limiting generalizability to community-dwelling women who do not access healthcare services.
7. Single geographic location: Findings from Asante Akyem Agogo may not be generalizable to other regions of Ghana with different cultural contexts, healthcare infrastructure, or urbanisation levels.
8. The absence of qualitative depth: Although the quantitative data uncovered significant patterns, qualitative interviews could have offered more comprehensive insights into the underlying reasons behind these findings, especially concerning the mechanisms through which stigma impacts decision-making.
9. Power and inferential limitations: The sample size of 100, while sufficient for descriptive analysis, constrained our capacity to perform robust inferential statistical analyses or to identify associations between variables. Language considerations: While questionnaires were available in English, nuances in translation may have affected comprehension or response patterns. Cultural concepts related to abortion may not translate directly across languages.

Recommendations for Service Delivery and Public Health Programming

Based on the findings of this study, it is recommended that reproductive health stakeholders in Ghana adopt a multi-level approach to addressing unsafe abortion. First, there should be intensified community-based reproductive health education to improve women's understanding of the legal conditions for abortion and the dangers of unsafe procedures. Education campaigns should target not only women of reproductive age but also families, religious leaders, and community influencers, as their perceptions strongly shape attitudes and stigma. Second, the health system must expand access to safe abortion and post-abortion care services, particularly in rural and peri-urban areas such as Agogo. This involves strengthening referral systems, training healthcare providers to provide non-judgmental, confidential services,

and ensuring affordability through integration with health insurance. Third, policymakers should consider advocating for clearer communication of Ghana's abortion law, coupled with the implementation of culturally sensitive interventions to challenge stigma and discrimination. Finally, partnerships among government, civil society, and educational institutions can play a vital role in developing sustainable awareness programs, empowering women to make informed reproductive health choices, and ultimately reducing maternal morbidity and mortality linked to unsafe abortion.

Recommendations for future research

Since this study employed an exploratory descriptive cross-sectional design, future research should adopt longitudinal and mixed-method approaches to capture more profound insights into the evolving knowledge, attitudes, and perceptions of women toward unsafe abortion. Longitudinal studies would help establish causal relationships between women's knowledge and their reproductive health behaviours over time, while qualitative methods, like in-depth interviews, could provide a richer understanding of the cultural, religious, and personal contexts shaping abortion decisions. Additionally, expanding the study to multiple healthcare facilities and rural communities across Ghana would enhance generalizability, and comparative studies across regions or countries could highlight context-specific drivers and inform tailored interventions.

Conclusion

This study reveals critical insights into the complex interplay of knowledge, attitudes, and perceptions driving unsafe abortion in rural Ghana. While nearly all participants had heard of abortion, substantial knowledge gaps exist regarding legal provisions and safe access pathways. The paradox of high risk awareness (75% recognising unsafe abortion as a serious health issue) yet substantial willingness to consider unsafe methods (55%) underscores that knowledge alone is insufficient. Stigma and shame emerge as the predominant drivers, creating a climate of silence that pushes women toward clandestine, unsafe procedures despite awareness of dangers. Addressing unsafe abortion in settings like Asante Akyem Agogo requires a comprehensive, multi-level approach: improving legal literacy, expanding access to youth-friendly services, training providers in non-judgmental care, and implementing community-based stigma reduction programs. Only by simultaneously tackling knowledge gaps, systemic access barriers, and deep-rooted social stigma can Ghana make meaningful progress toward the Sustainable Development Goals for maternal health.

Acknowledgements

We express our gratitude to the APH for permitting this research to be conducted within their facility. We also extend our appreciation to the women attending the gynaecological clinic at the APH for their valuable time and participation in this study.

Competing Interests

The authors declare that they have no conflicts of interest related to the materials presented in this article.

Funding

No external funding was received for this study.

Authors' Contribution

ESA designed the study; ESA and DM collected the data; ESA, DM, and FT conducted the descriptive analysis; ESA prepared the final manuscript; FT and ESA reviewed the manuscript. All authors reviewed and

approved the final version.

References

Abubakari, S., Gmayinaam, V. U., & Osei, E. (2023). Knowledge and attitude towards Ghana's abortion law: A cross-sectional study among female undergraduate students. *PLOS Glob Public Health, 3*(4), e0001719. doi:10.1371/journal.pgph.0001719

Aladago, D. A., Boakye-Yiadom, A., Asaarik, M. J., & Aryee, P. A. (2019). THE CONSEQUENCES OF ABORTION RESTRICTIONS FOR ADOLESCENTS' HEALTHCARE IN GHANA: THE INFLUENCE OF GHANA'S ABORTION LAW ON ACCESS TO SAFE ABORTION SERVICES. *UDS International Journal of Development, 6*(1), 1-9. doi:10.47740/334.UDSIJD6i

Aniteye, P., & Mayhew, S. H. (2013). Shaping legal abortion provision in Ghana: using policy theory to understand provider-related obstacles to policy implementation. *Health Res Policy Syst, 11*, 23. doi:10.1186/1478-4505-11-23

Aniteye, P., O'Brien, B., & Mayhew, S. H. (2016). Stigmatized by association: challenges for abortion service providers in Ghana. *BMC Health Serv Res, 16*(1), 486. doi:10.1186/s12913-016-1733-7

Atakro, C. A., Addo, S. B., Aboagye, J. S., Menlah, A., Garti, I., Amoa-Gyarteng, K. G., . . . Boni, G. S. (2019). Contributing factors to unsafe abortion practices among women of reproductive age at selected district hospitals in the Ashanti region of Ghana. *BMC Womens Health, 19*(1), 60. doi:10.1186/s12905-019-0759-5

Awoonor-Williams, J. K., Baffoe, P., Aboba, M., Ayivor, P., Nartey, H., Felker, B., . . . Biney, A. A. E. (2020). Exploring Conscientious Objection to Abortion Among Health Providers in Ghana. *Int Perspect Sex Reprod Health, 46*, 51-59. doi:10.1363/46e8920

Awoonor-Williams, J. K., Baffoe, P., Ayivor, P. K., Fofie, C., Desai, S., & Chavkin, W. (2018). Prevalence of conscientious objection to legal abortion among clinicians in northern Ghana. *Int J Gynaecol Obstet, 140*(1), 31-36. doi:10.1002/ijgo.12328

Awudu, S. (2021). *A conflict of interest: a socio-legal analysis of the barriers to accessing comprehensive abortion care in Ghana.* Retrieved from http://hdl.handle.net/2105/61040

Ballu, R. O. (2019). *Determinants of Unsafe Abortion among Women of Reproductive Age Group in Ghana, Evidenced from Maternal Health Survey 2017 Data.* University of Ghana, Retrieved from https://ugspace.ug.edu.gh/server/api/core/bitstreams/66a88569-e0a5-41de-8c43-a01a34323329/content

Boah, M., Bordotsiah, S., & Kuurdong, S. (2019). Predictors of Unsafe Induced Abortion among Women in Ghana. *J Pregnancy, 2019*, 9253650. doi:10.1155/2019/9253650

Dreweke, J. (2019). Promiscuity propaganda: Access to information and services does not lead to increases in sexual activity. *Guttmacher Policy Review, 22*, 29-36. Retrieved from https://www.guttmacher.org/gpr/2019/06/promiscuity-propaganda-access-information-and-services-does-not-lead-increases-sexual

Ganatra, B., Gerdts, C., Rossier, C., Johnson, B. R., Jr., Tunçalp, Ö., Assifi, A., . . . Alkema, L. (2017). Global, regional, and subregional classification of abortions by safety, 2010-14: estimates from a Bayesian hierarchical model. *Lancet, 390*(10110), 2372-2381. doi:10.1016/s0140-6736(17)31794-4

Ghana Statistical, S. (2018). *Ghana Maternal Health Survey 2017*. Retrieved from https://dhsprogram.com/pubs/pdf/FR340/FR340.pdf

Ghana Statistical Service. (2024). *MULTIDIMENSIONAL POVERTY REPORT Asante Akim North Municipal*. Retrieved from https://statsghana.gov.gh/gssmain/fileUpload/pressrelease/Asante_Akim_North_Municipal.pdf2

Green, E. C., Murphy, E. M., & Gryboski, K. (2020). The health belief model. *The Wiley encyclopedia of health psychology*, 211-214. doi:doi.org/10.1002/9781119057840.ch68

Gyaase, P., Attah, J., Mensah, P., Adzordor, P., Braimah, A., Ntiamoah, E., . . . Sampson, D. B. (2024). Determinants of Unsafe Abortion among Women of Reproductive Age (15-45yrs) in the Central Region, Ghana: A Facility Based Crossectional Study at Dunkwa Municipal Hospital. *Asian Journal of Pregnancy and Childbirth, 7*(1), 137–153. Retrieved from https://www.journalajpcb.com/index.php/AJPCB/article/view/140

Harris, L. F., Awoonor-Williams, J. K., Gerdts, C., Gil Urbano, L., González Vélez, A. C., Halpern, J., . . . Baffoe, P. (2016). Development of a Conceptual Model and Survey Instrument to Measure Conscientious Objection to Abortion Provision. *PLOS ONE, 11*(10), e0164368. doi:10.1371/journal.pone.0164368

Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Res Nurs Health, 31*(2), 180-191. doi:10.1002/nur.20247

Izugbara, C., Wekesah, F. M., Sebany, M., Echoka, E., Amo-Adjei, J., & Muga, W. (2020). Availability, accessibility and utilization of post-abortion care in Sub-Saharan Africa: A systematic review. *Health Care Women Int, 41*(7), 732-760. doi:10.1080/07399332.2019.1703991

Jayaweera, R. T., Ngui, F. M., Hall, K. S., & Gerdts, C. (2018). Women's experiences with unplanned pregnancy and abortion in Kenya: A qualitative study. *PLOS ONE, 13*(1), e0191412. doi:10.1371/journal.pone.0191412

Julious, S. A. (2005). Sample size of 12 per group rule of thumb for a pilot study. *Pharmaceutical Statistics, 4*(4), 287-291. doi:https://doi.org/10.1002/pst.185

Keogh, S. C., Otupiri, E., Castillo, P. W., Li, N. W., Apenkwa, J., & Polis, C. B. (2021). Contraceptive and abortion practices of young Ghanaian women aged 15-24: evidence from a nationally representative survey. *Reprod Health, 18*(1), 150. doi:10.1186/s12978-021-01189-6

Klc, T. R., Ames, S., Zollinger, B., Ansong, D., Asibey, O. O., Benson, S., & Dickerson, T. T. (2020). Abortion in rural Ghana: Cultural norms, knowledge and attitudes. *Afr J Reprod Health, 24*(3), 51-58. doi:10.29063/ajrh2020/v24i3.6

Klu, D., Yeboah, I., Kayi, E. A., Okyere, J., & Essiaw, M. N. (2022). Utilization of abortion services from an unsafe provider and associated factors among women with history of induced abortion in Ghana. *BMC Pregnancy and Childbirth, 22*(1), 705. doi:10.1186/s12884-022-05034-x

Kumar, A., Hessini, L., & Mitchell, E. M. (2009). Conceptualising abortion stigma. *Cult Health Sex, 11*(6), 625-639. doi:10.1080/13691050902842741

Njokwe, G., & Kijima, Y. (2025). Abortion legalization, teen sexual and reproductive health behaviors, and women's empowerment in South Africa. *Journal of Health, Population and Nutrition, 44*(1), 302. doi:10.1186/s41043-025-01034-7

Oppong-Darko, P., Amponsa-Achiano, K., & Darj, E. (2017). "I Am Ready and Willing to Provide the Service … Though My Religion Frowns on Abortion"-Ghanaian Midwives' Mixed Attitudes to Abortion Services: A Qualitative Study. *Int J Environ Res Public Health, 14*(12). doi:10.3390/ijerph14121501

Oyeniran, A. A., Bello, F. A., Oluborode, B., Awowole, I., Loto, O. M., Irinyenikan, T. A., . . . Fawole, B. (2019). Narratives of women presenting with abortion complications in Southwestern Nigeria: A qualitative study. *PLOS ONE, 14*(5), e0217616. doi:10.1371/journal.pone.0217616

Ramashwar, S. (2013). Youth, poverty linked to unsafe abortion among women in Ghana. *International Perspectives on Sexual and Reproductive Health, 39*(1), 48-48. Retrieved from https://www.jstor.org/stable/23408829

Rosenstock, I. M. (1974). The Health Belief Model and Preventive Health Behavior. *Health Education Monographs, 2*(4), 354-386. doi:10.1177/109019817400200405

Sedgh, G., Bearak, J., Singh, S., Bankole, A., Popinchalk, A., Ganatra, B., . . . Alkema, L. (2016). Abortion incidence between 1990 and 2014: global, regional, and subregional levels and trends. *The Lancet, 388*(10041), 258-267. doi:https://doi.org/10.1016/S0140-6736(16)30380-4

Sheehy, G., Polis, C., Otupiri, E., & Moreau, C. (2024). Knowledge of abortion legality among health facility staff in Ghana. *PLOS ONE, 19*(8), e0308371. doi:10.1371/journal.pone.0308371

Singh, S. (2010). Global consequences of unsafe abortion. *Womens Health (Lond), 6*(6), 849-860. doi:10.2217/whe.10.70

Singh, S., Remez, L., Sedgh, G., Kwok, L., & Onda, T. (2018). Abortion worldwide 2017: uneven Progress and unequal AccessAbortion worldwide 2017: uneven Progress and unequal access. Retrieved from https://www.guttmacher.org/sites/default/files/report_pdf/abortion-worldwide-2017.pdf

Skinner, C. S., Tiro, J., & Champion, V. L. (2015). Background on the health belief model. *Health behavior: Theory, research, and practice, 75*, 1-34.

Sundaram, A., Juarez, F., Bankole, A., & Singh, S. (2012). Factors associated with abortion-seeking and obtaining a safe abortion in Ghana. *Stud Fam Plann, 43*(4), 273-286. doi:10.1111/j.1728-4465.2012.00326.x

Teare, M. D., Dimairo, M., Shephard, N., Hayman, A., Whitehead, A., & Walters, S. J. (2014). Sample size requirements to estimate key design parameters from external pilot randomised controlled trials: a simulation study. *Trials, 15*, 264. doi:10.1186/1745-6215-15-264

WHO. (2019). *Preventing unsafe abortion: Evidence brief*. Retrieved from https://srhr.dspace-express.com/server/api/core/bitstreams/7789f027-4df3-4ebf-867d-7da384652d78/content