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Women's Prior Knowledge of The Abortion Law and Decision-Making on Choice of Place for Abortion Services in Accra, Ghana

ABSTRACT:

Background: Despite less restrictive abortion laws in Ghana than in other African Countries, women still resort to unsafe abortions. This study examines the cross-sectional relationship between women's prior knowledge of Ghana's abortion law and type of provider accessed in Accra, Ghana.

Methods: Women seeking induced abortion (320) and those being treated for post-abortion complications (81) were sampled from four purposive selected health facilities (2 public and 2 private). Bivariate and multivariable binary logistic regression models were estimated to test the study hypothesis that prior knowledge of abortion laws informs women's decision for options.

Results: Less than half of respondents knew abortion was legal in Ghana. In both bivariate (OR=4.959; 95% CI 3.418, 7.193) and multivariable (OR=6.45, 95% CI 4.25, 10.08) models, women who knew the legalities and those educated were more likely to seek safe abortions. The prospect of seeking safe abortions was lower among women reporting boyfriends/fiancés and teachers/bosses as those responsible for the index pregnancy.

Conclusions: Regardless of a woman's background, knowledge on abortion laws influences decisions on choice of place for services. Education on the law is therefore required for informed decisions in Ghana.

Keywords: Androgen-Independent Malignancy; Advanced Prostate Cancer; Cabergoline Treatment; Case Report.

Abbreviations: CAC: Comprehensive Abortion Care; FP: Family Planning; ICPD: International Conference on Population and Development; NGO: Non-Governmental Organization; OR: Odds Ratio; PAC: Post Abortion Contraception; R3M: Reducing Maternal Mortality and Morbidity.

BACKGROUND

Globally, about 205 million women become pregnant with nearly one in five pregnancies (40-50 million) ending in terminations annually. Half of all abortions are estimated to be unsafe and more than 80% of these occur in developing countries [1]. After the 1994 International Conference on Population and Development (ICPD) in Cairo, there have been increased campaigns towards the provision of safe induced abortion in countries where it is legal [2]. In fact following the ICPD,

laws on induced abortion in some countries (e.g. Zambia) have either been repealed or relaxed to make safe abortion services available to women especially on health grounds [3]. Yet still, about 90% of women in Africa live in countries where abortion laws are restrictive [4].

Research evidences have suggested that women who find induced abortion acceptable seek it themselves or recommend it to others [5]. Nevertheless, the lack of knowledge of laws on abortion [6], coupled with limited access to care, poor quality and high cost of services, social stigma and norms as well as clinical risks [7][8][9] may constrain women's utilization of safe abortion providers/methods.

The repeal of the 1960 Ghanaian Criminal Code (Act 29, sections 58, 59 & 67) in 1985, gave rise to the Provisional National Defense Council Law 102 which liberalized the abortion law of Ghana. The law states that, induced abortion is legally accepted if a pregnancy emanates from rape (non-consensual penetrative sexual intercourse), defilement of a female idiot (consensual or non-consensual sex with a girl below 16 years and/or mentally challenged), incest (consensual or non-consensual sex with a female of blood relation), or pregnancy that poses risk to the life/health of the woman or fetus with gross abnormalities [10][11]. These legal provisions for abortion make Ghana's abortion law open to a liberal interpretation, due to the broad application of "health" (social, physical and mental) as a basis for procuring induced abortion [12]. The process of establishing "health" grounds for induced abortion is also less rigorous and this, in essence, makes the performance of elective induced abortion restricted to a licensed medical practitioner in an approved government or private health facility.

In Ghana, despite a less restrictive environment for induced abortion than in other African Countries, unsafe induced abortions account for about 12% of maternal deaths in the country [13]. National estimates show that about one in five Ghanaian women aged 15 to 45 years have ever had an abortion, with significant differences by socioeconomic characteristics [14].

Using a simple random sample of women treated for complications of unsafe abortion as well those seeking safe abortion services in selected private and public health facilities in Ghana, the study tests the hypothesis that women's prior knowledge of the abortion law of Ghana positively influences the choice of place for induced abortion. While there is a plethora of studies [15][16] on various aspects of induced abortion in Ghana, there is currently no study on women's prior knowledge of the abortion law of Ghana and choice of place for abortion services. Additionally, there are no specific related studies of this kind in other parts of the world. Nonetheless, the closest so far is a study [17], which highlighted women's awareness of the conditions under which induced abortion could be granted in appropriate health facilities but short of relating this awareness to effect of the law on decisions relating to choice of place for an induced abortion.

METHODS

Study sites

This study was conducted in the Accra metropolis involving four purposively selected registered abortion providing health facilities (i.e 2 public and 2 private) that participated in the Reducing Maternal Mortality and Morbidity (R3M) project in Accra, Ghana. The population of the metropolis was estimated at 2,242,505 in 2010 and around 841,533 are women within the ages of 15-49 years (Ghana Statistical Service, 2012). The Ghana Health Service in collaboration with a consortium of five multinational organizations (Engender Health, Ipas, Marie Stopes International, Population Council, and the Willows Foundation), initiated the R3M project in the Greater Accra, Eastern and Ashanti regions following initial piloting in 17 districts in 2007.

The R3M project provided financial and technical assistance to enable the government to significantly expand women's access to modern family planning (FP) and comprehensive abortion care (CAC) (see, Sundaram et al., 2014 for comprehensive evolution of the project). The R3M supported facilities were selected for the study due to an organized system for abortion data collection in these large pilot facilities for safe abortion and the quality of abortion services proposed to be provided to ensure client safety. For the study region, the Accra Metropolis was selected because of its role as the national capital with people of varied backgrounds and the widely availability of abortion providers and options to methods. Although this study was not part of the R3M project, the study was nested on the R3M project using its facilities because these facilities are fit for purpose.

Sampling and data collection

The study was a cross-sectional quantitative study that involved women receiving treatment for post-abortion

complication (or seeking induced abortion). A recorded number (9,494) of women who obtained abortion from the selected facilities between January and December 2010 served as the sampling frame. Using an online Reosoft sample size estimator [18], an estimated sample of 370 women was targeted. However, to correct for non-response there was an oversampling by 10% (and rounded to ≈ 401), hence in this study, 401 women seeking induced abortion (320) and those being treated for post-abortion complications (81) were interviewed in the four public (2) and private (2) health facilities selected.

The sample was distributed among the facilities based on the proportion of abortion registered cases (N=9,494). Due to high abortion stigma and issues of confidentiality, the study did not to include the names and percentage of respondents sampled from the identified facilities. Respondents were identified from the clinical database and interviewed. Face-to-face and/or telephone interviews with consented women were conducted in an office within the clinics until the allocated sample was achieved. The study was given ethics approval by the Ghana Health Service Ethics Review Committee and permission was given by the facilities in which the respondents were picked from.

Interviews were conducted by 10 trained female nurses for a period of 6 months. Health workers provide an optimum avenue for interviewing abortion clients especially in settings where abortion stigma is high [19]. An interviewer-administered paper-based questionnaire was used with interviews lasting 40 minutes. Type of care/treatment provided to women was not an inclusion criterion. Translated versions of the research instrument into Ga and Twi, the two dominant Ghanaian languages spoken in the study sites were used for interviewing if the respondent was not literate in English. All interviews were done at discharge.

Data analysis

Data from all the 401 women interviewed were used in the analysis. Although the respondents were interviewed in approved abortion facilities, the cadre of service providers and method of abortion sought by respondents were applied to determine whether abortion was safe or unsafe. Those whose initial attempt at abortion did not occur at any legally approved/licensed facilities in Ghana were coded as using an unsafe method/provider facility, taking the value=0. Those without prior complications or symptoms of prior tampering with the pregnancy or had earlier sought abortion from a registered facility were captured as using a safe abortion method/provider, coded=1. Self-report of type of service and cadre of provider being sought was verified through patients' folders/medical records at the facility.

Regarding knowledge of abortion laws, respondents were asked a battery of questions on conditions under which they thought induced abortion was permissible. With "yes", "no" and "don't know" responses, the following questions were asked: abortion is permissible if the pregnancy was due to rape; resulted from defilement; pregnant woman is of unsound mind/mentally challenged; pregnancy is a risk to the life of the pregnant woman or can cause injury to the physical health or maternal health of the woman/increased likelihood of fetal abnormalities. Since these conditions were mutually exclusive, a woman was considered to have knowledge of the law if she responded "Yes" to at least 80% of the questions. This threshold was used because of the near-public silence on the subject in the country. We were of the view that it is prudent to allow greater flexibility in deriving a construct for knowledge of abortion law. The following other covariates of induced abortion were also captured for analysis: level of education, occupation, age, marital status, parity and number of previous abortions.

Descriptive statistics with corresponding chi-squared values were computed to explore the bivariate relationship between knowledge of the abortion law as well as the other covariates earlier mentioned. For each category of the explanatory factors, the within group proportions were computed. In the next level of the analysis, two binary logistic regression models were estimated. The first model involved only knowledge of the abortion law and whether initial abortion attempt was safe or unsafe. Secondly, a multivariable involving knowledge of abortion law and the aforementioned variables were fitted in the model. Clustering was done through selecting facilities with similarities. A clustering algorithm was also developed to determine the number of clusters at the facility levels using proportions of abortion services provided. These were done in such a way that the facilities in the same group (cluster) were more similar to each other than to those in other groups (clusters). STATA 14.0 (College Station, Texas 77845 USA) was used for the data analysis.

RESULTS

Background Characteristics of the respondents

Table 1 presents the background characteristics of the respondents. About (34%) of the respondents were between ages 20-24 years with the minority aged 35+ years (9%). Approximately half (50%) of the respondents had never married. The rest were either married/in-union (42%) or formerly married but currently divorced, separated or widowed (8%). Slightly more than half (55 %) of the respondents had had at least secondary level education. Around 11% of the respondents were unemployed and the rest were either in school/ apprenticeship training program (34%) or were working (37%). The majority of the women (81%) were Christians. Over half (53%) of the respondents had no living children prior to having an abortion. Similarly, more than half of the respondents (52%) reported one previous abortion before the index pregnancy. Two-thirds (63%) of women reported that their boyfriends or fiancés were responsible for the pregnancy and 54% of the respondents reported the pregnancy was aborted with the consent of their sexual partner responsible for the pregnancy. The proportion of abortions done at 5^{+} months gestation was about 15.7%.

Table 1: Background Characteristics of respondents

Background Characteristics	N	Percentage Frequency (%)
Level of education		
No Education	11	2.7
Primary	78	19.5
Middle/Junior Secondary School	100	24.9
Senior Secondary/Higher	212	52.9
Age		
15-19	51	12.7
20-24	134	33.4
25-29	113	28.2
30-34	65	16.2
35+	38	9.5
Marital status		
Never married	201	50.1
Married/In-union	168	41.9
Formerly married	32	8.0
Occupation		
Not working	46	11.5
Working	148	36.8
Student/Apprentice	135	33.7
Others	72	18.0
Ethnicity		
Akan	199	49.6
Ewe	167	41.6
Ga/Dangbe	32	8.0
Mole-Dagbani	3	0.8
Religion		
Christian	325	81
Islam	70	17.5
Others	6	1.5
Number of living children		
None	212	52.9
One	78	19.5
Two	57	14.2
Three	33	8.2
Four+	21	5.2
Number of previous abortions		
None	88	21.9
One	210	52.4
Two	65	16.2
Three+	38	9.5
Gestation of pregnancy at termination		
One month	106	26.4
Two months	153	38.2
Three months	45	11.2
Four months	34	8.5
Five months+	63	15.7
Man involved in pregnancy		
Husband/live-in partner	104	25.9
Boyfriend/fiancé	253	63.1
Teacher/boss	36	9.0
Casual acquaintance	8	2.0
Reason for abortion		
Unplanned/did not want at the time	247	61.6
Forced/coerced to abort	85	21.2
Health/medical advice	30	7.5
Extra-marital pregnancy/infidelity	21	5.2
Prefer not to say	18	4.5
Collaborator in decision making		
Personal decision – no one involved	131	32.7

With sexual partner	218	54.4
With mother	33	8.2
Others (e.g. friends)	19	4.7

Source: Field data

Of the 401 women who participated in the study, majority of the respondents' (268) had no idea about the abortion law of Ghana. For those respondents who knew about the abortion law (133), there were marked variations in responses concerning the legal provision for an abortion. About 33% knew that abortion was permissible under at least one of the four conditions [rape (33%), defilement (27%), incest (21%), and health reasons (12%)] used to develop the knowledge construct. Overall, the (78%) of the respondents reported using safer induced abortion method/provider as the first point of contact for abortion-seeking. Regarding knowledge of the abortion law and place of abortion, 92% of women who knew that abortion was legal initiated their abortion process safely. In contrast, a comparatively lower proportion (71%) of those who stated that abortion was not permissible by the law resorted to a safe provider ($p < 0.05$).

The data also revealed significant association between the number of previous abortions, person responsible for the pregnancy and the reason for abortion and place of abortion. On the other hand, the chi-square test did not return significant association between education, age, marital status, ethnicity, occupation, religion and parity and place of abortion on the other hand.

Table 2: P- Value comparing proportion among levels of categorical variables

Factor	N	Proportion using licensed facilities	P- Value
Knowledge of abortion law (N=401)			
No idea about abortion law	268	71	0.001
Knows about abortion law	133	92	
Level of education			
Primary	78	76	0.138
Middle/Junior Secondary School	111	73	
Senior Secondary/Higher	212	82	
Age			
15-19	49	71	0.352
20-24	134	78	
25-29	111	76	
30-34	65	79	
35-44	39	90	
Marital status			
Never married	199	76	0.437
Married/In-union	167	81	
Formerly married	32	78	
Occupation			
Not working	45	80	0.551
Working	148	78	
Student/Apprentice	134	75	
Others	69	84	
Ethnicity			
Akan	199	76	0.482
Ewe	167	81	
Ga/Dangbe	32	78	
Mole-Dagbani			
Religion			
Christian	326	78	0.843
Islam	70	77	
Number of living children			
None	212	78	0.419
One	78	72	
Two	57	83	
Three	33	85	
Four+	20	85	
Number of previous abortions			
None	88	84	0.019
One	200	75	
Two	62	89	
Three+	26	65	
Gestation of pregnancy			
One month	106	76	0.201
Two months	153	76	
Three months	45	84	
Four months	34	70	
Five months	63	87	
Man involved in pregnancy			
Husband/live-in partner	104	87	0.048
Boyfriend/ fiancé	253	76	
Teacher/boss	32	66	
Casual acquaintance	7	71	

Reason for abortion			
Unplanned/did not want at the time	247	83	0.007
Forced/coerced to abort	79	65	
Health/medical advice	22	68	
Extra-marital pregnancy/infidelity	21	81	
Prefer not to say	15	87	
Collaborator in decision making			
Personal decision – no one involved	131	76	0.930
With sexual partner	218	79	
With mother	33	78	
Others (e.g. friends)	19	79	
* p < 0.05			

Source: Field Data

In Table 3, two binary logistic regression models are presented. Model 1 dealt with the bivariate relationship between knowledge of abortion law and whether a woman first used a safe or an unsafe facility for abortion. Significantly, women who indicated that abortion was legal were more than three times likely (OR=4.9; CI=3.41, 7.19) to utilize a safe procedure/provider than women who thought induced abortion was illegal. After adjusting for other known predictors of unsafe/safe abortion [Model 2], it was observed that the odds of using a safe method/provider for abortion increased significantly among those who said abortion was legal under the stated conditions (OR=6.54; CI=4.25, 10.08).

Table 3: Unadjusted and adjusted logistic regression models of knowledge of abortion law and use of licensed abortion service provider

Explanatory factors	Model 1		Model 2	
	OR	95% CI	OR	95% CI
Knowledge of abortion law				
No idea about abortion law	1	[1,1]	1	[1,1]
Knows about abortion law	4.959***	[3.418,7.193]	6.545***	[4.250,10.08]
Level of formal education				
Primary education			1	[1,1]
Middle/JSS			0.845	[0.704,1.014]
Secondary & higher			1.550***	[1.214,1.979]
Age category				
15-19			1	[1,1]
20-24			3.975***	[2.026,7.800]
25-29			4.052***	[2.111,7.778]
30-34			2.482	[0.738,8.345]
35 & higher			18.82***	[10.29,34.45]
Marital status				
Never married			1	[1,1]
Married/living with a man			0.663	[0.398,1.103]
Formerly married			0.374	[0.135,1.037]
Occupation				
Not working			1	[1,1]
Working			0.655	[0.366,1.171]
Student/apprentice			1.005	[0.464,2.179]
Others			0.802	[0.514,1.252]
Ethnicity				
Akan			1	[1,1]
Ewe			0.917***	[0.881,0.954]
Ga/Dangbe			0.862	[0.638,1.165]
Mole-Dagbani			2.032**	[1.315,3.139]
Religion				
Christian			1	[1,1]
Islam			0.603	[0.278,1.310]
Number of living children				
None			1	[1,1]
One child			0.837	[0.618,1.133]
Two children			3.614***	[2.391,5.464]
Three children			1.985	[0.578,6.820]
Four & above			4.875***	[2.946,8.068]
Number of previous abortions				
None			1	[1,1]
Once			0.311***	[0.218,0.446]
Twice			0.780	[0.232,2.623]
Thrice & higher			0.247*	[0.0815,0.746]
Gestation of pregnancy				
One month			1	[1,1]
Two months			0.828	[0.446,1.538]
Three months			1.021	[0.375,2.782]
Four months			0.279***	[0.139,0.561]
Five months			2.311**	[1.317,4.056]
Man involved in pregnancy				
Husband/partner			1	[1,1]
Boyfriend/fiancé			0.420**	[0.238,0.741]
Techer/boss			0.437*	[0.206,0.925]
Casual acquaintance/coerced			0.946	[0.296,3.023]
Reason for abortion				
Unplanned/ did not want at the time			1	[1,1]
Forced/coerced to abort			0.299**	[0.135,0.660]

Health reason/medical advice			0.216***	[0.0987,0.473]
Extra-marital pregnancy/ infidelity			0.255***	[0.122,0.533]
Prefer not to say			4.806*	[1.364,16.94]
Collaborator in decision-making				
Personal decision – no one			1	[1,1]
Sexual partner			0.544*	[0.322,0.918]
Mother			1.246	[0.254,6.122]
Mother			1.227	[0.242,6.223]
Constant	2.481	[0.179,34.42]	8.859	[0.417,188.1]
AIC	396.4		230.0	
Log likelihood	-196.2		-112.0	
N	401		282	
* p < 0.05, ** p < 0.01, *** p < 0.001				

Source: Field Data

Some categories of respondents were more inclined to use a safer abortion provider. These include women with Secondary and higher education (OR=1.55; CI=1.21, 1.97) compare to those with Primary education and older women, especially those aged 35 years and above (OR=18.82; CI=10.29, 34.45), women at parity two (OR=3.61; CI=2.39, 5.46) or four and above (OR=4.85; CI=2.946,8.068) compared to women at parity zero, older gestation of pregnancy (second trimester) (OR=2.31; CI=1.31, 4.05) compared to those within one month of pregnancy.

The prospect of using a safe method/provider for induced abortion was lower among women who reported boyfriends/ fiancés and teachers/bosses as the men responsible for the index pregnancy. Similarly, women who indicated that they required the final consent of their sexual partners before they could obtain an induced abortion tended to use unsafe providers than women who took personal responsibility for getting abortion or were autonomous **(Table 3, Model 2).**

DISCUSSION

This study explored women's prior knowledge of the abortion law and choice of place for services in selected health facilities in the Accra, Ghana. In Ghana, unsafe abortions (i.e abortions done in unregistered health facilities and/or by unlicensed provider) contributes to 14% of maternal deaths and illness in Ghana [20]. Providing women who need abortion services with safer facilities, methods and competent providers has substantial cost implications for health systems as well as to individual women. Consequently, in countries such as Ghana, the quest to provide safer induced abortion to women whose needs clashes with 'moral', 'ethical' and religious practices, may promote secrecy and ultimate use of unsafe providers or self-induction with dangerous chemicals and materials [21]. Although induced abortion is widely accessible in Ghana, it is highly procured from unauthorized places and most often in unapproved facilities such as pharmacies/chemical sellers, traditional herbal providers and open markets [22]. This study was conducted to explore how women's prior knowledge of the abortion law of Ghana informs their decisions on choice of place for induced abortion in Ghana. The author also controlled for the effects of women's education, age, occupation, ethnicity, religion, number of children ever had/parity, person responsible for pregnancy, collaborators in abortion decision-making, number of previous abortions, gestation of pregnancy, and the underlying reasons for abortion.

A considerably lower proportion (33%) knew that induced abortion could be provided under at least two of the four key legally acceptable conditions. Similarly low levels of knowledge on abortion laws have been reported in Mexico, South Africa, Zambia and Nepal, with knowledge of abortion laws ranged between 16% and 50% [23][24].

The findings underscore the importance of raising awareness about abortion laws due to the impacts such knowledge exerts on abortion decision making in respect to choice of place for services. This is consistent with a recent study [25], which noted that women's knowledge of abortion law in Zambia was a positive signal to the use of safe methods and facilities. As already documented [26][27], the burden of abortion morbidity and mortality is higher in settings where laws are restrictive on availability and utilization of safe abortion services. Nonetheless, even in settings where abortion is legal and women have good appreciation of the law, sometimes, uncertain views have been expressed in connection with types of pregnancies that should or should not be aborted [28]. For women who are uncertain about what the law says on induced abortion, the likelihood to resort to licensed facilities/ providers could be a persistent danger. In a conservative society such as Ghana, using mass public education to raise awareness about legal prescriptions regarding safe abortion could be resisted. An alternative approach around this could be the application of mHealth applications (e.g. use of mobile phone text messages) in alerting women about their rights to

safe abortion. Such an approach has been piloted in Indonesia and appears promising [29].

Findings show that better educated women reported higher use of licensed facilities than women with basic education (primary/junior secondary school). In fact more than half of the women who reported for management of post abortion complications had not more than secondary level education and had first accessed an abortion from unsafe environment. This observation is consistent with expectation as well as existing studies [30], pointing out that formal education enhances women's choices and decision-making on their reproductive health. Underpinning this is the element of sociocultural determinants of induced abortion which shows that better educated women are more likely to have read or learned something about safe abortion in school or social media which informs their decision [31]. Consequently, they are also more likely to have larger social networks and might have interacted with people who are cognizant of the legal prescriptions of abortion in the country to influence their decisions.

The data suggest that higher number of previous abortions was positively associated with using unlicensed methods/providers for induced abortion. Among the possible reason underlying this is that they might not have experienced adverse outcome with their previous abortions hence felt no vulnerabilities to using the same methods and perhaps thought the same route could be successful again. Additionally, the observation that the proportion of abortions at 5+ months gestation constitutes about 15.7% reflects late decision making for induced abortions in some situations hence a rise in mid-trimester abortions in the study area irrespective of any limitations. This is plausible with the increasing availability of cheap medication abortifacient drugs over the counter globally which offers women easy access to self-inducing abortions at any gestation using medication despite the associated risks [32][33].

It was also observed that the likelihood of using an unsafe provider for induced abortion was greater among women who attributed their pregnancies to boyfriends and teachers/bosses compared to women who claim their husbands/live-in partners were responsible for the index pregnancy that was aborted. For married women, the decision to have an induced abortion, most probably might have been jointly taken which increases the likelihood of using safer methods/providers. Meanwhile, women who were coerced/forced to have an abortion by someone else, likely male partners, had higher risks of using unsafe methods/providers as the first step. A previous study [34] reported that male partners played key roles in women's abortion decision making through pressure to abort or indirectly through refusing responsibility for pregnancy, making such women vulnerable to unsafe abortions.

A limitation to this study is recall bias or selective reporting. There is the possibility some of women who had attempted induced abortion through unsafe means might have become aware of the legal position on the subject during post-abortion care (PAC) counselling. This might lead to an over estimation of their knowledge on the abortion law. Also, since this was a facility based study, generalizing the findings to the entire metropolis or country is impossible. Women who used unsafe methods/providers but did not have any complications could not be captured. Despite these limitations, some of the characteristics of the respondents were similar to those reported in previous abortion studies [14][15]. The stigma surrounding abortion in Ghana considerably affect response rates in population-based studies [35][36] and facility-based studies offer a good source for obtaining insights into abortion issues.

CONCLUSION

The study revealed an important interrelationship between knowledge of abortion law on decisions for choice of place, provider and method for induced abortion in Ghana. With increased public education and advocacy on availability of safe abortion services within the confines of the Ghanaian laws, the use of unsafe methods and facilities may decrease, which will save women's lives.

DECLARATIONS

Ethics approval and consent to participate

Ethical approval for the study was sought from the Ghana Health Service Ethical Review Committee. A written consent for data collection and publication was also sought from the Accra Metro Directorate of Health Services and participants. To ensure optimal patient privacy and confidentiality, the background characteristics of patients excluded any contact information that could disclose the specific identity of patients.

All respondents consented to participate in the study prior to data collection. Consent to participate in the study was also obtained from the parents/guardians of the minors (minors are considered anyone under the age of 16) included in this study. In two cases where the minors indicated they had no parents/guardians to consent for them but were interested to participate in the study, they recommended a 'person in loco parentis' (i.e an adult of sound mind known to the minor) to consent for the minor to participate in the study. This is in line with the legal provisions and abortion policies of Ghana for minor's consent to have an induced abortion in Ghana.

Consent to publish

All the respondents and institutions involved in the study consented for publication of the results.

Availability of data and materials

The data sets used and/or analysed during the current study are available on reasonable request.

Competing interests

The author declares no competing interests in this study

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Authors' Contribution

This paper is sole authorships from conception of the study to report writing.

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