Original Article

Harm elimination project for unsafe abortion in Nigeria: An operations research

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ABSTRACT

Context: The harm elimination model is designed to improve access to pre- and postabortion care including free contraception and address the challenges posed by unsafe abortion to the sexual and reproductive health of the women recruited for the study.

Aims: To determine the impact of the "Harm Elimination Project For Unsafe Abortion in Nigeria" (HELPUSAN) model on the rate of decision to keep the pregnancy by women seeking termination of pregnancy and the determinants of this decision.

Subjects and Methods: Over the 6-month period of this pilot survey, all women presenting for abortion were offered preabortion and postabortion counseling and services according to the study protocol. The study did not offer abortion services based on the abortion law in Nigeria. The clients were followed up for 6 weeks and assessed on decision to continue the pregnancy or not.

Results: Of 105 attendees, 12.4% declined enrolment, 59.8%had induced abortion, and 45.8% had spontaneous abortion. Among those who presented for postabortion care following induced abortion, the main method used for inducing the abortion process was drugs (80.5%). A total of 90 (97.8%) of the participants were confirmed to be pregnant of which 52 (57.8%) were viable. Also, of the 52 participants with viable pregnancies, 19 (36.5%) decided to retain their pregnancies, while 33 (63.5%) decided not to retain their pregnancies.

Conclusion: Almost 40% of clients presenting as pre abortion clients decided to retain the pregnancy. This work also once again highlights the high unmet need for contraception in Nigeria.

Key words: HELPUSAN; pre- and postabortion counseling; preventing unsafe abortion in Nigeria; unsafe abortion.

Introduction

Unsafe abortion, unfortunately, remains a major impediment to the achievement of the sustainable development goals. Despite numerous attempts at mitigating its unenviable contribution, it remains a common cause of maternal morbidity and mortality especially in low- and medium-income countries.[1-3] It is believed to account for as much as 15% of maternal deaths.[4] Postabortal sepsis is believed to be the commonest cause of these abortion deaths.[2] The obvious antecedent to unsafe abortion is unwanted pregnancy. Of the estimated over 213 million pregnancies worldwide in 2012, over 85 million (40%) are estimated to be unplanned.[5] The poor contraceptive prevalence in many of these regions contributes in no small way to the high rate of unplanned

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pregnancies. The contraceptive prevalence rate in Nigeria was found to be as low as 15% among women 15–49 years in 2014.[6]

Combating unsafe abortion and its sequelae has remained a major challenge. This is made even more difficult in climes with restrictive abortion laws as in Nigeria. Women in an attempt to procure abortions under the prevailing climate end up in settings that lack the minimum standards for such procedure and may incur complications as aftermaths of the poor environment or techniques used in the process.

While the laws on induced abortion may remain for quite a while, various measures have been proposed as means to stem the tide of maternal deaths from unsafe abortion. One of these is the model proposed in Uruguay by the Iniciativas Sanitarias.[6] They proposed a harm reduction model that combined aspects of pre- and postabortal care. This included health education, offer of counseling on options available to the client with unplanned pregnancy, and the range of postabortion care. This model was expected to work within the law while avoiding the dangers of unsafe abortion.

Following the report of success recorded in Uruguay, working in collaboration with the Society for Family Health, a research team was constituted to domesticate aspects of this work in Nigeria. This team developed an operations research on "Harm Elimination Project For Unsafe Abortion in Nigeria" (HELPUSAN). Harm elimination essentially entails the implementation of strategies that aim to reduce damage caused by behaviors that cannot easily be changed, especially in settings where such behaviors are driven underground by prohibitive and stigmatizing policies and practices.[7] Following a rigorous process of proposal writing, a pilot project was approved for Nigeria. This project has as its main goal, the elimination of complications and death due to unsafe abortion and increase the access to pre- and postabortion care. The research sought to determine the impact of the HELPUSAN model on the rate of decision to keep the pregnancy by women seeking termination of pregnancy and the determinants of this decision.

Subjects and Methods

This was a multicenter operations research using a cohort study design incorporating quantitative data collection with intention to treat analysis framework. It involved four study sites – two public health facilities and two private health facilities who offer predominantly maternal health services. It was a 6-month pilot study between the period of August 1 2015 and January 31 2016.

The study proper was preceded by a period of sensitization of the staff of the various study centers and also of medical practitioners including private practitioners in and around Benin City so that they may buy into the project by referring clients who fall within the interest group for the study. This was because of the sensitive nature of induced abortion. In addition, all the members of the research team had a 4-day training that was aimed at harmonizing the approach to the study by the various collaborating centers. The coordinating center was the Department of Obstetrics and Gynaecology of the University of Benin, Benin City.

The study population involved women who present voluntarily or are referred to the participating centers with unwanted pregnancies or history of recent spontaneous or induced abortion with or without complications. On identification, these women were informed about the study and the potential benefits and their informed consent to participate sought in writing. Those who declined consent were excluded from the study but were not denied the routine treatment in the respective clinics.

For each client, the study entailed three visits excluding emergencies. Visit 1 is the first contact. Visit 2 is 2 weeks after visit 1 and visit 3 was at 6 weeks after visit 1. The essence of visit 3 was to conduct an exit interview for all participants and to elicit their reaction to participation in the project. At exit, the clients are linked up with a family planning center for follow-up. The participants could also exit the program following referral for treatment for any serious complication outside the scope of the study. This could include complications requiring specialized care like renal dialysis, psychiatric complications, or major surgeries.

The participants' data were obtained using the structured interviewer administered questionnaire specifically designed for this work. The data collected included the sociodemographic and obstetric/gynecologic characteristics of the clients and the reason for attending the clinic. A pregnancy test was then carried out as well as an ultrasound scan to confirm and date the pregnancy as well as ascertaining its viability. This led to the identification of the three basic groups – those with live pregnancies, those with nonviable pregnancies, or with retained products of conception or features of complicated abortions and those who were not pregnant at all.

All the clients underwent reproductive health counseling. Those seeking induced abortion were asked the reason for their intention. The content of the abortion law in Nigeria, the implications of an induced abortion including possible

complications, and the option of retaining the pregnancy and possibly giving the baby out legally for adoption were discussed with them and where possible, with their partners. When the client insisted on procuring the abortion, she was informed that the study does not include any form of counseling on how or where the abortion can be procured. They were, however, told to consider the counseling and to return for follow-up in 2 weeks irrespective of their decision. They, however, could return before then to the clinic if any need arose.

Informed consent for this study was obtained from the Research and Ethics Committee of the University of Benin Teaching Hospital, Benin City. Information received as part of this research work was treated with utmost confidentiality. All the hard copies were kept secure in a locked shelve. The coded information bore no names as anonymous identifiers were used in the coding with the codes known only to the research team leaders.

Results

A total of 105 women presented at the four participating health facilities. A total of 13 (12.4%) women declined enrolment in the study, while 92 (87.6%) gave consent and enrolled in the study. Of the latter number, 38 (41.3%) presented to seek termination of pregnancy, 35 (38%) presented for postabortal care following induced abortion, 5 (5.4%) presented following spontaneous abortion for post abortion care, and the remaining 14 (15.3%) presented for counseling. Table 1 shows the sociodemographic characteristics of the participants. The mean age was 28.3 ± 6.5 years. Almost half of the participants were in the 26–35 age bracket. They were almost equally split between being married and being single. Table 2 shows the previous obstetric characteristics and use of contraception by the participants. While this was the first pregnancy in a fifth of them, another fifth had just one previous pregnancy while the others had more than one previous pregnancy. Of the 71 with at least one previous pregnancy, more than half of them had at least one previous termination of pregnancy. On the knowledge and use of contraception, almost all the participants were aware of contraception. Despite this fact, only a third had used any form of modern contraception. Of these, about half reported the use of condoms as their preferred method of contraception.

For those seeking termination of pregnancy, the predominant reason for this was that they were unmarried for the single participants or that they had enough babies for those who were married. In addition, there were other majorly social reasons like fear of dropping out of school, lack of social support, among others. It is interesting that 10 of the

Table 1: Sociodemographic characteristics of the participants

Characteristics	Frequency (n=92)	Percent (%)
Age group (years)*		
16-25	30	32.6
26-35	47	51.1
36-45	15	16.3
Marital status		
Single never married	47	51.1
Married	44	47.8
Widow	1	1.1
Educational level		
No formal education	9	9.8
Primary	11	12.0
Secondary school	32	34.8
Postsecondary	40	43.5
Occupation/employment		
Professional	13	14.1
Semiskilled	19	20.6
Unskilled/unemployed	38	41.3
Others†	22	23.9
Number of sexual partners*		
1	54	58.7
>1	20	21.7
No response	18	19.6
Takes alcohol		
Yes	22	23.9
No	63	68.5
No response	7	7.6

Table 2: History of previous pregnancies among the participants and use of contraception

Characteristics	Frequency	Percent (%)
Total number of previous pregnancies (n=92)		
0	21	22.8
1	18	19.6
>1	53	57.6
Total number of deliveries (n=71)		
0	21	29.5
1	20	28.2
>1	30	42.3
Had induced abortions (n=71)		
Yes	34	59.8
No	37	40.2
Had spontaneous abortions (n=71)		
Yes	21	45.8
No	50	54.2
Aware of contraception (n=92)		
Yes	81	88.0
No	11	12.0
Previous use of contraception (n=92)		
Never	61	66.3
Previous/current user	31	33.7
Contraceptive method used (n=31)		
Condoms	16	51.6
OCP	7	22.6
Others	8	25.8

Table 3: Relationship between socio-demographic characteristics and gynaecologic history and decision to retain pregnancy following counseling of the study participants

Variables	Retained pregnancy		*P*	Unadjusted OR (95% CI)
	Yes (*n*=19)	No (*n*=33)		
Age group (years)				
16-25	6 (50.0)	6 (50.0)	0.539	1.8 (0.3-9.3)
26-35	9 (31.0)	20 (69.0)		0.8 (0.2-3.4)
36-45*	4 (36.4)	7 (63.6)		1
Marital status†				
Single never married	9 (34.6)	17 (65.4)	0.773	1.2 (0.4-3.7)
Ever married*	10 (38.5)	16 (61.5)		1
Educational level				
Primary	2 (18.2)	9 (81.8)	0.312	0.3 (0.5-1.5)
Secondary	5 (35.7)	9 (64.3)		0.7 (0.2-2.6)
Tertiary*	12 (44.4)	15 (55.6)		1
Occupation/employment				
Employed	17 (43.6)	22 (56.4)	0.099	4.3 (0.8-21.7)
Unemployed*	2 (15.4)	11 (84.6)		1
No of sexual partners				
1*	12 (36.4)	21 (63.6)	0.148	1
≥1	5 (62.5)	3 (37.5)		2.9 (0.6-14.4)
No response	2 (18.2)	9 (81.8)		0.4 (0.1-2.1)
Takes alcohol				
Yes	4 (40.0)	6 (60.0)	0.810	1.2 (0.3-4.9)
No*	14 (35.9)	25 (64.1)		1
No of previous pregnancy				
0	2 (33.3)	4 (66.7)	0.984	0.8 (0.1-5.3)
1	4 (36.4)	7 (63.6)		1.0 (0.2-3.9)
≥1*	13 (37.1)	22 (62.9)		1
Previous induced abortions				
Yes	13 (39.4)	20 (60.6)	0.739	1.5 (0.4-5.8)
No*	4 (30.8)	9 (69.2)		1

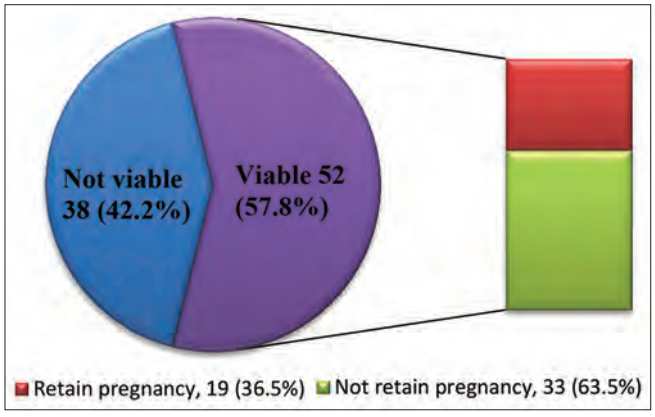

Figure 1: Pregnancy viability and outcome of counseling intervention of study participants

respondents cited that the pregnancy was too close to their last delivery that was by cesarean section. For those who were presenting following induced abortion, 80% of them reported having attempted the termination by the use of drugs acquired from the chemists/pharmacies predominantly misoprostol.

Of the 92 participants, 2 were eventually found not to be pregnant as they had a negative pregnancy test. These were offered counseling as in postabortion care. Of the remaining, ultrasound scan revealed that 52 of them had on-going pregnancies while the remaining 38 had either retained products of conception or had empty uteri.

Figure 1 shows that of the 52 participants with on-going pregnancies, one-third of them agreed to retain the pregnancy while the remaining two-thirds opted to still proceed for termination of pregnancy. Those who opted to retain their pregnancy were referred for antenatal care hence exited the study after this while the others were offered counseling especially to avoid unsafe abortion. However, based on the protocol of this research, no specific option of pregnancy termination was offered. Following counseling, this group of participants was asked to return for follow up irrespective of their subsequent action in two weeks. Incidentally none of these participants returned for follow up. Of the 38 participants that presented for post abortal care, 35 (92.1%) returned for follow up. Table 3 shows the

statistical relationship between the characteristics of the participants and their decision to retain the pregnancy for those who presented for pregnancy termination. Of all the factors compared, the strongest was that of employment as the employed ladies were 4.3 times more likely to retain the pregnancy than the unemployed. None of the factors studied, however, reached statistical level of significance.

Discussion

This study is a report of ladies who essentially had unplanned pregnancies and either desired or had already undergone a pregnancy termination. Of the 92 participants, about 40% were pre abortion with a similar percentage presenting postinduced abortion. The study found a high unmet need for contraception with a high rate of repeat induced abortion (over half of the respondents, who had an unwanted pregnancy and were either seeking a termination of pregnancy or presenting postabortion, had a previous induced abortion). In addition, while over 80% were aware of contraception, over 60% had never used. Of the 31 respondents (about 30%) that had ever used, about half of them were using condoms, while about a quarter used oral contraceptive pills. It was also found that counseling led to over a third of the respondents deciding to continue with the pregnancy. There was a tendency for women who are employed and have higher educational level to lean toward pregnancy retention following counseling.

It is worrisome that over half of the respondents had a previous induced abortion. This may be linked to the important concept of the unmet need for contraception. This is buttressed by the finding that despite the high knowledge of contraception, over 60% of respondents have never used any. Previous reports have found a high prevalence of the nonuse of contraception despite being sexually active.[8,9] This is even worse in some circumstances where abortion seems to have been used as means of contraception. The reasons have been cited that there exists the erroneous belief that contraception is more deleterious to future pregnancy than an abortion which is seen as a transitory measure to solve an immediate problem.[8,9] This extensive counseling involved in this project was a big benefit as most of these myths were corrected. This obviously has positive feedback on the knowledge base on sexually active women.

While the unmarried respondents hinged more on their marital status of being single and other social reasons, the married couples cited issues of not wanting another baby, baby coming too soon, and to recent cesarean section. However, the underlying concept still remains unwanted pregnancy facilitated by lack of effective family planning method. Many of the clients presenting for postabortion care used medical management for termination of their pregnancy. The major drug here was misoprostol. The widespread use of misoprostol for pregnancy termination by abortion seekers has been variously reported.[6,10] In the event of complications, they eventually present to the health facility as cases of incomplete abortion.

Despite the presentation for termination of pregnancy, it must be noted that some women may not be pregnant. This study found only two clients as not being pregnant hence were reassured and counseled. This finding is similar to findings in Uruguay and Tanzania.[6,11] Delayed period is a major differential. This study, therefore, also helps highlight the need for confirmation of a pregnancy before an attempt at termination of pregnancy as a way of reducing harm form unsafe abortion. Terminating a pregnancy when in fact the uterus is empty can lead to over enthusiastic curettage and further complications in a case where pregnancy termination was unwarranted. It must also be mentioned that ectopic gestation has often been reported as a finding in cases of induced abortion and is worth taken note of.[12]

A notable way of harm reduction in unsafe abortion is counseling that leads to the decision by the mother to retain the pregnancy. It also eliminates other effects including the often quoted issue of regret following termination of pregnancy. This study had a pregnancy retention rate of 36% of those with viable pregnancies which is reasonably comparable to the 21% reported in a study in Latin America.[6] While these patients were routinely referred for antenatal care, the added benefit of the counseling received is noteworthy. It is believed that this will enhance the decision that will help avoid an unwanted pregnancy in these clients. Counseling of all these clients on the tenet of HELPUSAN is welcome as counseling has been shown to have stress reductive effect in addition to its benefit of increasing rationale decision making.[13]

There was a high rate of return for follow up by the clients who had post abortion care (92%). This was in sharp contrast to the 0% return for follow-up rate by those who presented pre abortion. This is comparable to a low follow-up visit rate of 20% for those seeking pregnancy termination in the Uruguayan report.[6] The high follow-up rate for postabortal care is likely related to the need for reassessment following the initial assessment and management. However, in the pre abortion cases, apart from the counseling, those who insist on going ahead with the pregnancy termination may feel disappointed that they could not achieve their termination in these centres as planned and may not see any need in returning. Their care may have been in the centers where they had the termination. The

follow up was made worse by the fact that many of these clients declined follow-up phone calls from the project counsellors.

The rate of pregnancy retention in this work tended toward an association with improved socioeconomic status, awareness of the abortion law, a previous induced abortion, and possessing a tertiary education. In a similar study in Tanzania, only 1 of 55 postproject-survey respondents had retained the pregnancy.[11] While this is a sharp difference from the finding of this project, the referenced survey did not include over 50 participants that could not be contacted. It may just be that these were the candidates that may have decided to retain their pregnancy.

A major area of distinction between this work and similar works in Uruguay and Tanzania lay in the fact that no specific advice on methods or facility to have the pregnancy terminated for those who decided to go ahead with the termination of pregnancy was offered. In the other compared works, they could offer advice on the use of misoprostol and even on appropriate dosage and method of use. They also reported the ease with which the drug could be gotten over the counter in the drug stores.[6,11] In Nigeria, it is considered illegal to prescribe drugs capable of causing an abortion. In the words of the law in section 230, 'Any person who unlawfully supplies to or procures for any person anything whatever, knowing that it is intended to be unlawfully used to procure the miscarriage of a woman, whether she is or is not with child, is guilty of a felony, and is liable to imprisonment for three years.[14] On this basis and for compliance with the existing law, prescription or specific advice to use any drug for pregnancy termination was avoided. This obviously must have had the negative impact of the clients not returning for follow up.

Another area of distinction was the fact that there was no phone call follow up to contact defaulters to follow up. This was due to the fact that the clients mainly objected to such phone follow up; hence, it was abandoned to preserve privacy and clients confidentiality. This mainly affected those who were seen as pre abortion clients.

The inability to give specific advice on the use of drugs to effect pregnancy termination and even to prescribe these was a major limitation imposed on this project by the prevailing restrictive abortion law. It is noteworthy to, however, state that the unlimited access to misoprostol and other similar drugs is not without complications hence should not be indiscriminately used. The inability to use phone details to contact clients also was a limiting factor to achieving more in this work. Another was the fact that this was a project mainly in the city with a small sample size. This will limit generalization. However, we know that this was a pilot project. It is hoped that lessons learnt here can be used on a larger scale to eliminate harm due to unsafe abortions. The low client recruitment was also a limitation. This is related to the abortion law in the country and the fact that the study took place in two public hospitals and two private hospitals where abortions are not performed. Most women desiring such services are unlikely to visit these centers. The ones seen were because of the publicity given to the work being done in the designated centers. Furthermore, while the centers tried to offer special individualised counseling that was confidential, the clients are not always so trusting in these public centers on issues of confidentiality; since, there are many staff working in these health facilities.

Despite these seeming drawbacks, the project produced very strong points. Virtually every client seen had expert counseling – the impact of which is geometric in nature. More specifically, over a third of clients with viable pregnancies decided to retain their pregnancies. There was increase in capacity, knowledge, and skills of the care givers following the training that was part of this project. This work obviously has brought the issue of unsafe abortion and unwanted pregnancy once again to the front burner.

Conclusion

In summary, this pilot project highlighted the finding of the HELPUSAN. It highlighted the importance of counseling in the management of clients who present with unsafe abortion. Based on clarification on some misconceived fears, almost 40% of clients presenting as preabortal clients decided to retain the pregnancy. This work also once again highlights the high unmet need for contraception in Nigeria. This work will obviously need to be scaled up to widen its scope to reach even the rural areas where its impact may be even more profound. An issue that must be tackled, however, is that of confidentiality especially when varied centers are used.

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Conflicts of interest

There are no conflicts of interest. S. JDK receives honoraria from SFH for lectures and trainings.

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