

## Factors Influencing Management of Post-Abortion Care by Doctors and Nurses in Health Facilities in South West Nigeria

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### Abstract

**Background:** Unsafe abortion practices are of great public health concern as they remain a leading cause of maternal mortality worldwide. Post-abortion care and management especially post-abortion contraception have been identified as a cost-effective method of preventing unintended pregnancies from occurring thus improving maternal health.

**Objective:** This study sort to investigate how information, motivation and behavioral constructs influence the management of post-abortion care specifically contraception care giving by healthcare providers (doctors and nurses) in South Western, Nigeria.

**Methodology:** A descriptive cross-sectional design was conducted among 420 participants using a 44-item validated structured questionnaire. Descriptive statistics, and correlation analysis was conducted to give statistical responses to the research questions and hypotheses using SPSS version 25.

**Results:** Respondents level of information was  $9.44 \pm 2.351$  with a prevalence score of 52.4%, mean score for motivation was  $24.62 \pm 3.628$  with a prevalence of 68.4%, mean score for self-efficacy was  $15.76 \pm 3.640$  with prevalence of 75.0% while mean score for practice was  $10.55 \pm 2.502$  with a prevalence of 70.3%. Motivation level and Self-efficacy level is significantly associated with practice of post abortion contraception ( $r^2 = 0.23$ ,  $P < 0.001$ ;  $r^2 = 0.34$ ,  $P < 0.001$ ).

**Conclusion:** There is need for more sensitization and dissemination of information on post-abortion contraception especially on early return to fertility after an abortion, counselling, importance of ensuring the woman leaves the facility with a method/referral and eliminating provider bias.

**Keywords:** Post-abortion care, contraception, Information, Motivation, Self-efficacy.

### Introduction

Abortion till date is a significant public health issue, as dangerous abortion practices remain a leading cause of maternal mortality worldwide, accounting for 4.7% to 13.2% of maternal deaths each year <sup>[1]</sup>. Worldwide, an estimated 99 million pregnancies occur each year, leading to an estimated 56 million induced abortions. Of the 56 million induced abortions, 25 million (45%) were unsafe <sup>[2]</sup>. Majority (97%) of unsafe abortions happens in developing countries <sup>[3]</sup> and Africa has the highest risk of deaths with 3 out of 4 abortions being unsafe (1). The high rates of unsafe abortion in developing countries can be attributed to the restrictions placed on abortion and difficulty in accessing contraception, sex education and other family planning services. When there's limited access to contraception,

there are high rates of unintended pregnancies and ultimately more abortions. The World Health Organization reports that nearly 23,000 women die each year from complications of unsafe abortion and about 6.9 million women in developing countries are treated for complications of unsafe abortion <sup>[4]</sup>.

In Nigeria, unsafe abortion is one of the major causes of maternal mortality, ill health and disability as it is illegal and only performed to save a woman's life. About 56% of unintended pregnancies ended in an induced abortion and the number of women who were treated for complications from an induced abortion in a health facility in 2012 was estimated at 212,000 <sup>[5]</sup>. In an effort to reduce the rate of repeated unintended pregnancies and improve women's overall health status, Post Abortion Care (PAC) was introduced as an important part of a woman's

health care. The post abortion care model contained three elements which were (i) emergency treatment services for complications of an unsafely induced abortion, (ii) post abortion family planning counselling and services, and (iii) links between emergency abortion treatment and comprehensive reproductive health services [6]. Findings reveal that the introduction of the post-abortion care model led to an increase in the use of modern contraceptives, reduced repeat abortion rates, reduced maternal mortality, reduced child mortality and reduced economic cost [7].

Despite evidence that providing contraceptives to women after abortion is effective in reducing unintended pregnancies and repeated abortions, many post-abortion clients leave the facilities without getting contraceptive counselling or services. Studies show that women who fail to leave the facility with a method are likely exposed to getting pregnant again leading to a repeat abortion. According to research, only 18% of facilities in Bangladesh providing PAC were including family planning services while in Georgia, Tanzania and Pakistan only 6%, 17% and 26% of clients respectively received a contraceptive method of their choice during PAC. Out of 10 post-abortion clients in Kenya, 9 reportedly left the facility with a condom due to limited options [8]. Another study sort to determine abortion rates in Western Nigeria as well as use of contraception among women who were repeatedly seeking induced abortion. It was reported that 23% of participants had reportedly had one or more previous abortions and about one-third of these women have had two or more previously induced abortions with only 21.5% using a contraceptive at their first intercourse after the procedure [9].

Also, studies reveal low awareness of family planning (6.4%) as a component of post-abortion care and low practice of post-abortion family planning (4.6%) [10]. Some of the barriers identified in providing post-abortion contraception includes lack of time, resources, trainings, absence of guidelines and lack of structure [11]. However, it appears that a research focusing on how these factors affect the practice of this service among health providers may not have been done.

This study will therefore focus on health provider's practice of post-abortion contraception services by examining how information about

post-abortion contraception, motivation to offer post-abortion contraceptive and self-efficacy (behavioural skill) may influence the provision of contraception after abortion.

## **Materials and Methods**

### **Study design**

This study employed the descriptive cross-sectional research design.

### **Study area**

This study was carried out in selected health facilities located within South Western Nigeria which is one of the six geo-political zones in Nigeria consisting of the following states; Ekiti, Lagos, Ogun, Ondo, Osun, Oyo. These six states are predominantly occupied by the Yoruba native and is considered the most educationally advanced geopolitical zone in Nigeria. The area is between longitude  $2^{\circ} 31'$  and  $6^{\circ} 00'$  East and latitude  $6^{\circ} 21'$  and  $8^{\circ} 37'$  North with a total land area of 77,818 km<sup>2</sup>. It is bounded in the East by Edo and Delta states, in the North by Kwara and Kogi states, in the West by the Republic of Benin and in the south by the Gulf of Guinea [16]. The population of South West Nigeria is estimated at 32.5 million people which is about 21% of the national population [17].

### **Study population**

The population for this study were doctors and nurses working in health facilities across three South Western states in Nigeria; Lagos, Ogun and Oyo.

### **Sample size determination**

The sample size was determined using the Cochran formula with a non-response rate of 10%. Minimum sample size was 419.

### **Sampling technique**

The multi-stage sampling technique was used to select the participating doctors and nurses. The first stage used the ballot system to select the participating states. The selected states were Lagos, Ogun and Oyo state. In the second stage, a table of random numbers was used to select participating local government areas from each state. A total of 10 local governments was selected from each state. The third stage used a purposive sampling method to select two clinics from each local government due to the large number of clinics in each area. 60 clinics were

selected in total. Finally, participants were selected based on their availability at the clinic and willingness to participate in the study.

### Data collection

A 44-item validated structured questionnaire with Cronbach's alpha of 0.709 was used to collect data. The information variable was measured on an 18-point reference scale, motivation was measured on a 36-point reference scale, the self-efficacy variable was measured on a 21-point reference scale and practice of post-abortion contraception was measured on 15-point reference scale. The instrument was pretested with 10% of the sample size from a similar study population but not the actual study population. Ethical approval was obtained from the Babcock University Health Ethical Review Committee. Information about the research and confidentiality statements was included in the written consent form distributed along with the instrument (questionnaire) used for the research with the aid of three research assistants.

### Data analysis

Data from this study was analysed using the Statistical Package for Social Sciences (SPSS) version 25.0. Descriptive statistics such as frequency, percentages, mean and standard

deviation was used to describe the demographic characteristics of the respondents and answer research questions. Items on the instrument was recoded and aggregated and the hypothesis was tested using correlation analysis.

### Results

Table 1 below presents the socio-demographic characteristics of the doctors and nurses who completed the study. Majority (69.8%) of respondents were above age 30 while 30.2% were below age 30. Of the respondents, 77.4% were female and 22.6% were male. A high proportion (72.6%) of respondents were Christians and a lesser proportion (27.4%) were Muslims. On Marital status, majority (61.2%) of the respondents were married while 35.5%, 3.1% and 0.2% were single, widowed and divorced/separated respectively. Also, most (40.5%) of the respondents were Registered Nurses while 25% were non-specialist doctors, 23.1% were Registered Nurses & Midwives and 11.1% were specialist doctors. Of these, 73.1% worked in private facilities while 26.9% worked in government owned facilities. Results reveal that 38.6% have worked for 6-10 years, 33.6% have worked 1-5 years, 17.4% have worked above 15 years and 10.5% have worked 11-15 years.

**Table 1.** Socio-demographic characteristics

Characteristics	Frequency (n=420)	Percentage (%)
<b>Age</b>		
Less than 30	127	30.2
More than 30	293	69.8
<b>Sex</b>		
Male	95	22.6
Female	325	77.4
<b>Religion</b>		
Christian	305	72.6
Muslim	115	27.4
<b>Marital Status</b>		
Single	149	35.5
Married	257	61.2
Widow	13	3.1
Divorced/Separated	1	0.2
<b>Professional Cadre</b>		
Non-specialist doctor	105	25.0
Specialist doctor	48	11.4
Registered Nurse	170	40.5
Registered Nurse & Midwife	97	23.1

<b>Employment</b>		
Private facility	307	73.1
Government facility	113	26.9
<b>Working years</b>		
1-5	141	33.6
6-10	162	38.6
11-15	44	10.5
Above 15	73	17.4

### **Information regarding post-abortion contraception**

The study revealed that 95.5% of the respondents had received information regarding post-abortion contraception. Of the 95.5% who had received information, 41.4% were from college curricula, 32.9% were from training events/programs, 7.9% were from colleagues/relatives, 6.9% received from an online source and 6.4% were from the mass media such as TV, radio etc. Also, 76.4% of respondents agree that providing contraception to a woman immediately after she has been treated for abortion complications is an essential component of post-abortion care. However, only 44.3% agree that fertility could return as early as one week after an abortion.

Also, 54.5% believed that certain methods of contraception should not be used after an abortion, 73.3% believe that pills and condoms were best for women who had no previous children and 60% believed that all methods of contraception were effective immediately post-abortion.

Respondents level of information was measured on an 18-point reference scale of 12 item questions with recoded response 0 and 1 and aggregate score not more than 4 for both correct and incorrect response. Mean and standard deviation score of  $9.44 \pm 2.351$  was recorded and the prevalent performance score of 52.4% implying that the level of information among respondents was slightly above average. (See table 2 for details)

### **Motivation toward offering post abortion contraception**

On motivation of doctor and nurses towards offering post-abortion contraception, 95.9% believed that post-abortion contraception is highly effective in reducing the rate of unplanned pregnancies and abortions. Majority (82.8%) had policies in their facilities that allowed for women

who have been treated after abortion complications to receive contraception immediately within the facility and only 23.6% reported frequent stock out of contraceptives.

The level of motivation to offer post-abortion contraception among the subjects was measured on a 36-point reference scale with 12 item questions with a recoded response of 3, 2, 1 and 0 on Likert scale, mean and standard deviation score of  $24.62 \pm 3.628$  and a prevalence level of 68.4% performance shows that respondents motivation to offer post-abortion contraception was above average. (See table 2 for details)

### **Self-efficacy in offering post-abortion contraception**

On self-efficacy of respondents, 89.3% had adequate knowledge on all methods of contraception and their side effects, 82.4% have received training in offering long-acting reversible methods and 83.4% agree that they can successfully insert an IUD or implant for a woman who is receiving post-abortion care.

The level of self-efficacy to practice post-abortion contraception among study population was measured on a 21-point reference scale of 7 item questions with recoded responses of 3,2,1 and 0 on Likert scale. Mean and standard deviation recorded was  $15.76 \pm 3.640$  and 75.0% prevalent score implying respondents had self-efficacy that was good. (See table 2 for details).

### **Practice of post-abortion contraception**

On respondents practice of Post-Abortion Contraception, 75.3% reveal that they often ensure women who receive post-abortion care leave the facility with a method, 81% agree to discussing all contraceptive options regardless of time constraints, 66.1% agree to discussing and offering all contraceptive options regardless of method available at facility at the time of the woman's care, 85.7% reveal that they discuss contraception whether or not there is a method available at the facility and 90.5% agreed to

referring and following up when a woman's preferred method is not available.

Practice level of post-abortion contraception was measured on a 15-point reference scale of 5 item questions with recoded responses of 3,2,1 and 0 on Likert scale, mean and standard deviation was  $10.55 \pm 2.502$  and prevalent performance level of 70.3% implying that respondents practice level was good. (See table 2 for details).

The research hypotheses were tested using Correlation analysis to assess the relationship

between Information, Motivation and Self-efficacy with practice of post abortion contraception. Result reveal a statistically significant relationship between Motivation and practice of post-abortion contraception ( $r^2 = 0.23$ ,  $P < 0.001$ ). Also, a statistically significant relationship existed between self-efficacy and practice of post-abortion contraception ( $r^2 = 0.34$ ,  $P < 0.001$ ). However, there was no significant relationship between information and practice of post-abortion contraception ( $r^2 = 0.06$ ,  $P = 0.20$ ). (See table 3 for details).

**Table 2.** Descriptive Characteristics of Composite Score of Respondents

Variables	Respondents in the study (n=420)			
	Maximum point rating scale	Mean ( $\bar{x}$ )	Standard error of mean (S.E)	$\pm SD$ (standard deviation)
Level of Information	18	9.44	0.115	2.351
Level of Motivation	36	24.62	0.177	3.628
Level of Self-efficacy	21	15.76	0.178	3.640
Level of Practice	15	10.55	0.122	2.502

**Table 3.** Correlation Analysis of the relationship between Information, Motivation and Self-efficacy with Practices of Post-Abortion Contraception

Variable	$r^2$	P-value	C.I
Information	0.06	0.20	-0.03 – 0.15
Motivation	0.23	<0.001	0.13 – 0.32
Self-efficacy	0.34	<0.001	0.27 – 0.42

## Discussion

This study was designed to investigate how information, motivation and behavioural constructs influence the management of post-abortion care specifically contraception care giving by healthcare providers (doctors and nurses) in South Western, Nigeria. Results reveal that majority (95.5%) of respondents had received information regarding post-abortion contraception and the information received does not influence the self-efficacy of respondents. According to the study, the use of contraceptives is seen as an essential component of post-abortion care by most of the respondents. Similarly, a study conducted in South-eastern Nigeria does not show much merits as only 6.4% of providers were aware of family planning as a component of post-abortion care (10). This improvement may be attributed to the fact that overtime a lot of focus has been placed on

contraception and improving contraceptive services as well post-abortion contraception.

Consequently, more than half of respondents did not agree that fertility can return as early as one week after an abortion and that they were certain methods of contraception a woman should not use after an abortion, similar to findings in China <sup>[12]</sup>. This study found that majority of the health providers recommended pills and condoms for nulliparous women which is similar to findings in Nepal <sup>[13]</sup>. Overall, the level of information respondents had regarding post-abortion contraception was 52.4% which is a little above average. More information regarding contraception immediately after treatment of abortion complication, return to fertility and provider bias needs to be disseminated in other to improve the use of contraception and reduce the rate of repeat unintended pregnancy.

On motivation, respondents personal and social motivation to offer post-abortion

contraception was assessed. Majority of the respondents believed that contraception after abortion is highly effective in reducing the rate of unplanned pregnancies and abortions. Also, majority of the respondents were not deterred to offer contraception by factors such as the side effect associated with using contraceptives and time it takes to counsel and offer a method contrary to findings in China which revealed that majority of providers had insufficient time to provide post-abortion counselling for family planning <sup>[12]</sup>.

Furthermore, most of the respondents worked in facilities whose policies allowed for post-abortion clients who have been treated for complications to receive contraception immediately. Most of these facilities are also well stocked with contraceptives and have Information, Education and Communication materials regarding contraception available at the facility. Majority of the respondents also reported having enough manpower at their respective facilities. These findings contradict those reported in Uganda and Nepal <sup>[13]</sup>. Overall, the respondents had a 68.4% motivational level to offer post-abortion contraception which is above average and this may be because respondents recognize the importance of contraception in preventing unplanned pregnancy based on their profession as well as the efforts of both governmental and non-governmental organizations in improving maternal health including family planning through awareness programs and trainings.

Majority of the respondents in this study agreed to having adequate knowledge on all contraceptive methods and have received training in offering LARC methods and can successfully insert and IUD or implant for a woman contrary to findings in the United States <sup>[14]</sup>. Respondents also agreed that they could make use of the WHO MEC Wheel and are confident of counselling women to take up a method. Overall, the respondents showed a 75% self-efficacy which is good and this may be attributed to the fact that majority have received some training on contraception.

More than half of the participants occasionally ensured women who had been treated left the facility with a contraceptive method. The importance of a woman leaving the facility with a method cannot be overemphasized as delay in providing contraception has been associated with

high risk of repeat abortions. Majority agreed they discussed all methods and slightly more than half did not see time as a hindrance. Majority discussed contraception regardless of availability at facility and also referred and followed up when woman's preferred method is not available. Overall participants showed good post-abortion contraception practices (70.3%). These findings are similar to findings in South-southern and Northern part of Nigeria where practice was high among providers but contrary to findings in South-eastern Nigeria which both revealed low post-abortion contraception practices <sup>[10,15,18,19]</sup>.

## Conclusion

In conclusion, the results suggest that the much information received by respondents does not influence the self-efficacy of respondents on post-abortion contraction practices. However, the level of motivation improved the self-efficacy in offering post-abortion contraception among respondents.

Based on the findings of this study the following are therefore recommended:

1. There is need for increased sensitization and dissemination of information on post-abortion contraception through incentives and motivation.
2. More needs to be done through online sources and mass media in providing information about post-abortion contraception. Though abortion in Nigeria is a controversial subject, its occurrence cannot be ignored and more needs to be done in reducing maternal mortality that stem from unsafe abortion.
3. Training and re-training of health care providers on post-abortion contraception especially the Long-acting reversible contraceptives and provider bias towards offering women who are nulliparous this method.
4. Emphasis should be placed on LARC methods because there is evidence of higher efficacy of LARC in reducing the incidence of repeat abortion.
5. The government should ensure that facilities are always fully stocked with all contraceptive methods of contraception in order to improve on-site delivery of contraception.

## Acknowledgements

The researcher wishes to express gratitude to everyone who contributed to the success of this research.

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