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**ORIGINAL ARTICLE**

## **Adolescents' Knowledge, Attitude and Utilization of Emergency Contraceptive Pills in Nigeria's Niger Delta Region**

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### **ABSTRACT**

**Background and Objective:** Risky sexual activity among adolescents is on the increase and contraceptive prevalence rate is low which is evidenced by high rate of teenage pregnancy in Bayelsa state, Nigeria. This study assesses the adolescents' knowledge, attitude and utilization of emergency contraceptive pills (ECP) in Amassoma Community, Bayelsa State, in the Niger Delta region of Nigeria.

**Methods:** The study was a descriptive cross-sectional research design. A purposive sampling technique was used to select a sample of 220 respondents from the target population. Data were collected using a self-structured questionnaire. Descriptive and inferential statistics were used to analyze the data generated.

**Results:** Majority of the respondents had high level of knowledge and positive attitude towards emergency contraceptive pills but had low level of utilization. Concerns about what others may say, parental attitude, contraceptive availability, contraceptive accessibility, and peer influences were the major factors that influenced the utilization of contraceptive pills. There was no significant relationship between knowledge and utilization of emergency contraceptive pills, as well as level of knowledge and their utilization of emergency contraceptive pills.

**Conclusions and Global Health Implications:** Adolescents in the study were more likely to use emergency contraceptive pills, if parents and others reaction to adolescents' contraceptive use were positive about those. Health care professionals, especially nurses, should organize enlightenment programs to educate adolescents, parents and the public on the benefits of adolescents' contraceptives use, especially ECP.

**Key words:** Knowledge • Family Planning • Attitude • Utilization • Adolescents • Emergency Contraceptive Pills

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## Introduction

Adolescents are perhaps the most important group in a society, and given their size and characteristics, majority are exposed early to unplanned and unprotected sexual intercourse leading to unwanted pregnancy and sometimes unsafe abortions.<sup>[1,2]</sup> Vast majority of these young individuals are going through their reproductive years with very little access to sexual and reproductive health information and services.<sup>[3]</sup> Consequently, unintended pregnancy becomes a major challenge to the reproductive health of young adults in developing countries.<sup>[1]</sup> The increase in sexual activity, early pregnancy, and induced abortions among adolescents and have become major concerns in sub-Saharan Africa and understanding adolescent sexual behavior remains a challenge in the region.<sup>[4]</sup>

The consequences of unprotected sex, such as unintended pregnancy and unsafe abortion, can be prevented by access to contraceptive services including emergency contraception.<sup>[5]</sup> Given the high prevalence of adolescent pregnancy, developing interventions aimed at reducing unintended adolescent pregnancy has the potential to have a major impact on public health and one avenue for prevention of unwanted pregnancy is the emergency contraceptive pills.<sup>[6]</sup>

Emergency contraceptive pills are hormonal oral contraceptive pills that a woman can take within 72 hours after unprotected intercourse to reduce her risk of becoming pregnant.<sup>[7]</sup> Although emergency contraceptive pill is not recommended as a regular family planning method, it is a useful method after unprotected sexual intercourse to reduce the chance of unwanted pregnancies. Emergency contraception is most useful when there is a failure of barrier methods such as slippage and breakage of condoms or when sexual intercourse was unpredicted.<sup>[6,8]</sup>

Furthermore, Parker<sup>[7]</sup> reported that many adolescent females are at high risk of unintended pregnancy because they have limited knowledge of contraception and generally lack access to services or do not feel comfortable using these services. Parker<sup>[7]</sup> added that in general, adolescents' access to and awareness of regular contraception are

low, while awareness of and access to emergency contraceptive pills are even lower. Even where the concept of emergency contraception is known, knowledge of accurate use of the method is very low.<sup>[7]</sup>

Study carried out among university and post secondary students in several African countries found that while a quarter to three-quarters of youth had heard of emergency contraception, accurate knowledge about its use was minimal.<sup>[9]</sup> Parker<sup>[7]</sup> reported that in a study conducted by Arowajolu and Adekunle in Nigeria, 75 percent of students surveyed were aware of emergency contraception, but only 12 percent knew that the first dose of ECPs should be taken within 72 hours of unprotected intercourse. Tamire et al,<sup>[5]</sup> stated that adequate knowledge and utilization of emergency contraception are particularly important because of high rates of teenage pregnancy, which in this regard has been observed to be high in Bayelsa State, Nigeria. However, these studies focused on adolescents with an educational background or within an educational institution, despite the fact that sexual activities are rampant among adolescents regardless of their educational background. This study is a community based study that focused on the female adolescents in totality irrespective of the educational or religion or socioeconomic background. Furthermore, emergency contraceptive pills are used to prevent pregnancy after unprotected sexual intercourse unlike the regular methods of contraception that are taken before sexual contact. This is of paramount importance to the adolescents, since they have affinity for risky unprotected sexual intercourse, it is for this reason that the study aimed to assess the knowledge, attitude and utilization of emergency contraceptive pills among female adolescents in Amassoma Community, Bayelsa State.

## Method

This community based descriptive cross-sectional research design was used to assess the knowledge, attitude and utilization of emergency contraceptive pills among female adolescents in Amassoma community, Bayelsa State, which is in the core Niger Delta region between Delta and Rivers

States respectively. The research was conducted among Ijaw speaking community in Southern Ijaw Local Government Area of Bayelsa State between September 2014 and February, 2015. A purposive sampling technique was used to select female adolescents from the target population. A self-structured questionnaire was used to obtain data from the respondents. The questionnaire contained 37 question items and it was divided into 4 sections: 1) socio-demographic data; 2) knowledge on emergency contraceptive pills; 3) attitude to emergency contraceptive pills; and 4) utilization of emergency contraceptive pills and factors influencing the utilization of emergency contraceptive pills. Out of 220 questionnaires administered, 200 copies were retrieved resulting in 91% response rate. To ensure reliability of the instrument, a pre-test was conducted using 20 respondents from Ogobiri community within an interval of three weeks. These categories of respondents have similar characteristics with the population of this study. The test-retest at a three week interval period was subjected to a Pearson correlation coefficient of 0.84. The test confirmed that the instrument was suitable for the study. Ethical approval for the study was obtained from the paramount ruler of the community "Amananaowe" through the office of the Public Relations Officer (PRO) after a meeting with the Council of Chiefs to explain in detail the purpose of the study. Thereafter, respondents were briefed about the purpose of the study and their right to participate, or withdraw from the study. Data was analyzed using descriptive statistics of frequencies, percentages, and presented in table while inferential statistics of Pearson's Chi square ( $\chi^2$ ) was used to establish associations between the variables with level of significance set at 0.05(5%). Statistical Packages for Social Science (SPSS Version 20) was used to analyze the data.

## Result

Table I shows that majority 135 (67.5%) of the respondents were within the age range of 15-20 years, more than half 158 (79%) were Christian. Majority 170 (85%) of the respondents were students while 86 (43%) had tertiary education and 128 (64%) of the respondents claimed to be sexually active while 72 (36%) are not.

**Table I.** Sociodemographic characteristics of the study participants (n=200)

Variables	Frequency	Percentage
<b>Age</b>		
15-20	135	67.5
21-25	57	28.5
26-30	8	4.0
<b>Religion</b>		
Christian	158	79.0
Muslim	21	10.5
Traditional	21	10.5
<b>Educational status</b>		
None	26	
Primary	38	19.0
Secondary	50	25.0
Tertiary	86	13.0
<b>Occupation</b>		
Student	170	85.0
Civil servant	7	3.5
Trader	21	10.5
Others	2	1.0
<b>Are you sexually active</b>		
Yes	128	64.0
No	72	36.0
<b>Total</b>	<b>200</b>	<b>100.0</b>

Table 2 shows that majority 173 (86.5%) of respondents have heard of emergency contraceptive pills while 81 (46.8%) of the respondents first heard of the emergency contraceptive pills from their friends. Most 116 (58%) of the respondents mentioned postinor-2 as a type of emergency contraceptive pills against other pills while 42 (21%) did not mention any pills. More than half 165 (82.5%) of the respondents said that emergency contraceptive pills are used to prevent unwanted pregnancy and 138 (69%) of them opined that emergency contraceptive pills is used within 72 hours of intercourse. Majority 140 (70%) of them said that emergency contraceptive pills are not used when pregnancy is suspected as against 60 (30%) who disagreed.

Table 3 shows that majority 102 (51%) of the respondents agreed that they can use emergency contraceptive pills if need be. More than half 149 (74.5%) of the respondents disagreed to

**Table 2.** Respondents' knowledge of emergency contraceptive pill (n=200)

Variables	Frequency	Percentage
<b>Have you heard about emergency contraceptive pills?</b>		
Yes	173	86.5
No	27	13.5
<b>What are your source (s) of information about family planning?</b>		
Friends	81	46.8
Television/radio	17	9.8
Health workers	54	31.2
Magazine	21	12
Parents	0	0.0
<b>Types of emergency contraceptives pills mentioned</b>		
Postinor-2 (levonorgestrel)	116	58
Quinine	39	19.5
Ampicillin	3	1.5
No idea	42	21
<b>Are emergency contraceptives pills used within 72 hours of sexual intercourse?</b>		
Yes	138	69
No	62	31
<b>Are emergency contraceptive pills used to prevent unwanted pregnancy?</b>		
Yes	165	82.5
No	35	17.5
<b>Emergency contraceptive pills are not used when pregnancy is suspected?</b>		
Yes	140	70
No	60	30

the opinion that emergency contraceptive pills are taken only by promiscuous girls. Majority 113 (56.5%) of the respondents stated that emergency contraceptive pills are effective. Half 100 (50%) of the respondents affirmed that emergency contraceptive pills should not be used by married couple only and that it is not sin to use emergency contraceptive pills. Most 112 (56%) of the respondents agreed that emergency

**Table 3.** Attitude towards emergency contraceptive pills (n=200)

Variables	Freq (%)		
	Agree	Disagree	Undecided
I can use emergency contraceptive pills if need be	102 (51.0)	55 (27.5)	43 (21.5)
Emergency contraceptive pills are taken only by promiscuous girls	26 (13.0)	149 (74.5)	25 (12.5)
Emergency contraceptive pills are not effective	31 (15.5)	113 (56.5)	56 (28.0)
Emergency contraceptive pills should be used by married couple only	69 (34.5)	100 (50.0)	31 (15.5)
It is a sin to use emergency contraceptive pills	50 (25.0)	100 (50.0)	50 (25.0)
Emergency contraceptive pills will help to reduce abortion and its resultant effect	112 (56.0)	52 (26.0)	36 (18.0)

contraceptive pills will help to reduce abortion and its resultant effects.

Table 4 shows that 117 (58.5%) of the respondents have never used any form of contraceptive pills. More than half 139 (69.5%) of the respondents have never used ECP, only 61 (30.5%) have used it. Fifty one (83.6%) of the respondents were no longer on it. Most 40 (78.4%) of the respondents that have used it stopped because of heavy bleeding, 8 (15.7%) stopped because they wanted to use other methods, while 3 (5.9%) stopped because of nausea and vomiting. Forty (65.6%) of the respondents used postinor-2 each time they had unprotected sex. The 26 (42.6%) of the respondents that have used emergency contraceptive pills reported that they were introduced to emergency contraceptive pills by their friends, 11 (18%) mentioned health care provider while 18 (29.5%) mentioned patent medicine vendor. Majority 139 (69.5%) of the respondents said they dislike the use of emergency contraceptive pills because it can cause infertility later in future, while 50 (82%) of the respondents that used emergency contraceptive pills used it because of fear of interruption of education.

**Table 4.** Utilization of emergency contraceptive pills (ECP)

S. No	Variables	Response (n=200)	Frequency	Percentage
1	Have you ever used any form of contraceptive pills before?	Yes	83	41.5
		No	117	58.5
2	Have you ever used emergency contraceptive pills before?	Yes	61	30.5
		No n=61	139	69.5
3	If yes, what type of ECP did you use?	Postinor-2	40	65.6
		Don't know	21	34.4
4	How often do you use it?	Twice in a month	5	8.2
		Each time I had unprotected sex	50	81.9
		Once in a month	4	6.6
		Twice in a year	2	3.3
5	Are you still on it?	Yes	10	16.4
		No	51	83.6
6	If no, why did you stop	Heavy bleeding	40	78.4
		Using other methods	8	15.7
		Nausea and vomiting	3	5.9
7	Who introduced you to emergency contraceptive pill?	Friends	26	42.6
		Health care provider	11	18.0
		Patent medicine vendor	18	29.5
		Others	6	9.8
8	I use emergency contraceptive pills because of its secrecy	Yes	38	62.3
		No	23	37.7
9	Fear of interruption of education makes me to use emergency contraceptive pills	Yes	50	82.0
		No	11	18.0
10	I dislike the use of emergency contraceptive pills because it can cause infertility later in future	Yes	139	69.5
		No	61	30.5
		Total	200	100.0

Table 5 shows that majority 120 (60%) of the respondents said that side effect of the drug, 153 (76.5%) said concern about others opinion, 146 (73%) said poor knowledge about the method, 116(58%) said attitude of health care provider, 122 (61%) said non legalization of abortion in Nigeria, 155 (77.5%) said parental attitude, 119 (59.5%) said stigmatization associated with abortion, 134 (67%) said availability, 147 (73.5%) said Accessibility and 146 (73%) said peer influence are the factors responsible for the attitude of adolescents to emergency contraceptive pills.

Table 6 shows that there was no significant relationship between the level of knowledge of respondents and their attitude towards emergency contraceptive pill, as well as level of knowledge and

their utilization of emergency contraceptive pills with p value >0.05.

## Discussion

The study has assessed the knowledge, attitude and utilization of emergency contraceptive pills among female adolescents in Amassoma Community, Bayelsa State. Result showed that the majority of the respondents were within the age range of 15-20 years. According to Arowojolu and Adekunle<sup>[10]</sup> teenagers are the group mostly at risk of unplanned pregnancy following unprotected sexual intercourse. Akani et al,<sup>[11]</sup> noted that young people are exposed early to unplanned and unprotected sexual intercourse leading to unwanted pregnancy with decreasing age of menarche and onset of sexual activity. Most of

the respondents were Christians. This means that Christians predominate in the study area. Majority of the respondents were undergraduates. This is not surprising because a university is situated in the community.

Majority of the respondents reported that they have heard of emergency contraceptive pills. This contradicts the statement of Mollen et al,<sup>[11]</sup> that ECP is widely used in many countries and many

women particularly adolescents are unaware of this pregnancy prevention option. Most of the respondents' initial sources of information on emergency contraceptive pills were friends. This contradicts Tamire et al,<sup>[5]</sup> in their study conducted in Addis Ababa University where the main source of information was the media.

More than half of the respondents knew one form of emergency contraceptive pill with postinor-2 being the most popular. The result also showed that most of the respondents knew the recommended timeframe for the use and mode of action of emergency contraceptive pills. This implies that majority of respondents have adequate knowledge about emergency contraceptive pills. However this is in contrast to Parker<sup>[7]</sup> statement that even where the concept of emergency contraception is known, knowledge of accurate use of the method is very low.

Result of the study showed that most of the respondents agreed to the opinion that they can use emergency contraceptive pills if need be and that emergency contraceptive pills are not taken only by promiscuous girls or married couple. Moreover, half of the respondents affirmed that it is not a sin to use emergency contraceptive pills. Majority of the respondents also said that emergency contraceptive pills are effective and can help to reduce abortion and its resultant effect. This shows that majority of the respondents have positive attitude towards emergency contraceptive pills usage. The result of this study correlate with the finding of a similar study conducted by Tesfaye, Tilahun and Girma<sup>[12]</sup> that respondents have positive attitude towards emergency contraception pill.

**Table 5.** Factors influencing the utilization of emergency contraceptive pills (n=200)

Variables	Response	Frequency	Percentage
Side effects of the drugs	Yes	120	60.0
	No	80	40.0
Concern about what others may say	Yes	153	76.5
	No	47	23.5
Poor knowledge about the method	Yes	146	73.0
	No	54	27.0
Attitude of health care provider	Yes	116	58.0
	No	84	42.0
Non legalization of abortion in Nigeria	Yes	122	61.0
	No	78	39.0
Parental attitude	Yes	155	77.5
	No	45	22.5
Stigmatization associated with abortion	Yes	119	59.5
	No	81	40.5
Availability	Yes	134	67.0
	No	66	33.0
Accessibility	Yes	147	73.5
	No	53	26.5
Peer influence	Yes	146	73.0
	No	54	27.0
	Total	200	100.0

**Table 6.** Relationship between attitude, utilization and knowledge of emergency contraceptive pills

Variables	Knowledge on emergency contraceptive pills		Pearson Chi-square $X^2$ (P-value)	DF	Remark
	Low knowledge	High knowledge			
Attitude					
Positive	15	150	0.480	1	Not significant
Negative	25	10	(0.499)		
Utilization					
Low	27	9	0.443	1	Not significant
High	22	3	0.588		

Our study showed that despite the fact that majority of the respondents are sexually active, more than half of them have never used emergency contraceptive pills. This result corroborates the finding of Okonofua, (1999); cited by Aziken, Okonta, and Ande<sup>[13]</sup> that contraceptive use among adolescents is low. Postinor-2 (levonorgestrel) was the most commonly used emergency contraceptive pills among respondents and majority of the respondents stopped using it because of side effect of heavy bleeding during menstruation and risk of infertility later in future. Majority of the respondents were introduced to emergency contraceptive pills by friends and preferred it because of its secrecy. The finding of this study illustrated that there is low level of usage of emergency contraceptive pills which supported the findings of Tesfaye, Tilahun and Girma who reported low usage of contraceptives despite positive attitude.<sup>[12]</sup>

Concern about what others may say, parental attitude, availability, accessibility and peer influences were the major factors identified by the respondents that influences the utilization of emergency contraceptive pills by adolescents. This finding is in with Lee and Ogden<sup>[14]</sup> that barriers to the use of emergency contraceptive pills exist, such as concerns about what others may think, concerns about adverse effects, a perceived threat to the woman's "moral identity and the reluctance by health workers to provide the method because of the belief that they are abortifacients."<sup>[10, 14]</sup> In addition, Parker<sup>[7]</sup> stated that providers have biases and misconceptions which pose significant barriers to ECP use by adolescents. Some health care providers, parents, and policy-makers fear that adolescent knowledge or use of ECPs may lead to more unprotected intercourse and a decrease in the use of a regular method of contraception.<sup>[7]</sup>

Findings of this study revealed that there was no significant relationship between the knowledge of respondents and their attitude towards emergency contraceptive pill, as well as knowledge and their utilization of emergency contraceptive pills with p value >0.05. This implies that attitude and utilization are not influenced by the respondents' level of knowledge of emergency contraceptive pills. This study contradicts Arowojolu and Adekunle report

that lack of utilization is due to poor knowledge and perception of the method and their effectiveness by youths.<sup>[10]</sup>

## Conclusions and Global Health Implications

Adolescents need reliable information about and access to contraceptives in order to protect themselves from unintended pregnancies. This information is important for all adolescents whether they are sexually active or abstaining from sex. In addition, health care professionals especially nurses should organize enlightenment programs to educate adolescents, parents and the general public on adolescents contraceptives, since others' opinion, parental attitude and accessibility were the major factors influencing utilization. Furthermore, in order for the adolescents to practice contraception, there is need to have counseling as well as confidential and safe services in a favorable environment, hence government should provide youth friendly services for the adolescents where they can have easy access to sexual and reproductive health issues including contraceptives.

**Ethical Considerations:** *Ethical approval for the study was obtained from the paramount ruler of the community where the study was conducted working with the University authorities.* **Conflict of Interest:** *The authors declare that they have no conflicts to declare for this study.*

### Key Messages

- Most of the adolescents had low utilization of Emergency Contraceptive Pills (ECPs) despite their adequate knowledge and positive attitude.
- More than half of the adolescents in our study have never used ECPs, although majority of them were sexually active.
- Parental attitude, contraceptive availability, contraceptive accessibility, other people's opinions, and peer pressure were the major factors influencing utilization of ECPs by adolescents in our study.

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