

**PROXIMATE DETERMINANTS OF WOMEN'S USE OF BIRTH CONTROL METHODS IN
OTA, OGUN STATE**

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ABSTRACT

Fertility regulation and pregnancy prevention are among the major health challenges of the 21st century in sub-Saharan Africa, especially in Nigeria. Contraception has been identified as an effective means of combating the problem of unwanted pregnancy and unsafe abortion and it is equally an effective means of family planning and fertility control and therefore very important in promoting maternal and child health. Women between ages 18 and 47 (n=143, mean=30.4 years) were sampled. A survey research questionnaire made up of four trajectories and consisting of sixteen (16) items was used in this study. The study made use of frequency counts, percentage, t-test analysis and regression analysis. The SPSS software was used to analyze the data. Results indicate a good knowledge of types of contraception with more than a third (83%) aware of condom as a contraceptive method. However, very few women were aware of modern contraceptive methods such as implants (9%) and spermicides (5%). The study indicates that knowledge of contraception ($\beta = 2.244$; $t = 2.356$; $p < .05$), employment status ($\beta = 1.955$; $t = 2.257$; $p < .05$) and age ($\beta = 1.530$; $t = 2.203$; $p < .05$) were good predictors of women's contraceptive use. There was also a significant difference in women's use of contraceptives based on contraceptive self-efficacy ($t = 3.387$, $p < .05$). Based on these findings, the study shows the need for strong advocacy, enlightenment and community mobilization for improved awareness and use of contraceptives in fertility control and preventing unwanted pregnancies.

Keyword: Women, contraceptive use, birth control, unwanted pregnancy

Introduction

The United Nations Population Fund (UNFPA) and others have recognised the need for specific health sector reform and for the expansion of health services to meet the reproductive and sexual health needs of women (UNFPA, 1997). In many parts of Africa, adolescent and women sexuality and reproductive health (SRH) remains a highly charged moral issue, which is compounded by the fact that in most cases, reproductive health services are not oriented towards adequately meeting needs (Katz and Naré, 2002; Warenus, Faxelid, Chishimba, Musandu, Ong'any and Nissen, 2006; Wood and Jewkes, 2006). Addressing adolescent SRH therefore requires multifaceted interventions that include gaining community-wide acceptance in addition to providing information, life skills, support and access to youth-friendly services for adolescents and young and old mothers (Bearinger, Sieving, Ferguson and Sharma, 2007; Mmari and Magnani, 2003; Williamson, Parkes, Wight, Petticrew and Hart, 2009).

Birth control methods are the deliberate limiting, usually by contraceptive means, of the number of children born (Encarta, 2009). Contraceptives are devices, drugs, or methods for preventing pregnancy, either by preventing the fertilization of the female egg by the male sperm or by preventing implantation of the fertilized egg. A woman who uses contraception may have more opportunities to be able to work and engage in community-based activities because having fewer children may relieve some of the domestic burden inherent in raising a large family. A second side to this also exist. The same woman may be negatively perceived by the community for failing to produce as many children as expected. Conclusively, the impact of birth control use or non-use on the lives of women is multifaceted; depending on contextual and mediating factors. The UNFPA has detailed some of the consequences of denying sexual and reproductive rights worldwide. Amongst these are several morbidities and mortalities (UNFPA, 1997).

Reproductive health care services are essential for the exercise of reproductive rights and additionally, women's rights to dignity and autonomy are being abused in the existing delivery of reproductive health services in many countries (Moronkola, Ojediran, Amosu, 2006; Cook, 1995; Germain and Ordway, 1989). In Nigeria, about 800 women out of every 100,000 die in the process of giving birth to other Nigerians (Federal Ministry of Health, Save the Children, ACCESS, 2009; Society of Obstetric and Gynecology of Nigeria, n.d.). This figure masks wide regional disparities which range from 339 per 100,000 live births in the South West to 1,716 per 100,000 live births in the North East as indicated by the presentation from a recent study on Maternal Mortality Situation and Determinants in Nigeria. Furthermore, other Reproductive Health indices are also dismal; the contraceptive prevalence rate is 8.9% and total fertility rate of 5% (Society of Obstetric and Gynecology of Nigeria, n.d.). As reported by Godeau, Gabhainn, Vignes, Ross, Boyce & Jodd (2008) in a study on contraceptive use in 24 countries, they observed that adolescent fertility regulation and pregnancy prevention are among the major health challenges of the 21st century in developing and developed countries. Contraception has been identified as an effective means of combating the problem of unwanted pregnancy and unsafe abortion. It is equally an effective means of family planning and fertility control and therefore very important in promoting maternal and child health. Access to quality reproductive health and family planning services remain poor in Nigeria.

Effective and consistent use of contraception involves engaging in a set of skills which include frank communication about birth control between partners, dealing with partner demands, and acquisition and use of specific devices (Gilchrist and Schinke, 1983). As a result of this cognitive-behavioural intervention, students showed marked improvements in efficacy ratings of their own abilities to use birth control, exhibited more effective contraceptive problem solving abilities, and had greater intentions to use contraception at next intercourse than did a group of students not receiving the intervention. In an attempt to build efficacy through a cognitive-behavioural treatment, Gilchrist and Schinke (1983) developed an intervention for adolescents who presented factual material on reproduction and birth control together with skills training and practice.

Amazigo, Silva, Kaufman and Obikeze (1997) observed that the gravity of the problems of contraceptive use is more highlighted by the 1990 Demographic and Health Survey which discovered that about 40 percent of all teenage women in Nigeria had either given birth or were expecting their first child. However, the 2008 edition of the Nigerian Demographic and Health Survey (NDHS) found that only 9.7 percent of married women use a modern method of contraception, while 20% of women have an unmet need for family planning services. With access to information about methods to delay and space births, unmet need tends to increase as more women want to use contraception. A study by Ugoji (2008) showed

that young people often know little or have incorrect information about contraception and even when they can name contraceptives, they often do not know where to get them or how to use them. But in a survey of 2388 Nigerian Undergraduates, Arowojolu, Ilesanmi, Roberts and Okunola (2002) discovered that 87.5 percent were knowledgeable about contraception and approve its use.

Research has shown that women's reproductive health is largely ignored in most parts of Africa due to cultural practices and in some locales, religious considerations. The staggering rate of teenage pregnancies, unwanted pregnancies and other health issues arising from lack of birth control reveals an urgent need for reproductive health information especially as it relates to birth control measures. Nigeria has the highest fertility/morbidity level in Africa. Lack of adequate knowledge of birth control methods impact negatively on the use of contraceptives and this consequently leads to high rate of miscarriages, unsafe abortion, stillbirths, unwanted children and a reduction in employment prospect for women. Other complications such as infant or maternal deaths might also occur (Machel, 2001; Magadi, 2003, 2006). In addition, available evidence shows that most pregnancies to adolescent girls in sub-Saharan Africa are unintended or mistimed and the use of family planning methods among this group remains low (Cleland, Mohammed & Shah, 2006; Magadi, 2003; Magadi and Curtis, 2003; Manzini, 2001). As noted by Moore, Miller, Gleib & Morrison (1995), inconsistent, ineffective or non-use of contraceptives are risk factors for unintended pregnancy. The purpose of this study is to examine the proximate factors such as marital status, age, level of education, employment status, religion, and knowledge of contraception and self efficacy that determines women's use of birth control methods in Ota, Ogun State.

Contraceptive use is an instance of healthy behaviour that requires behaviour change. In conceptualizing this study, some theories such as the Health Belief Model and the Theory of Planned Behaviour were employed to serve as guide and signpost for the study. Theories and models of health behaviour have grown largely out of social psychological literature. Health behaviour theories are extremely important to both our understanding of health behaviours as well as form a basis from which interventions aimed at increasing health behaviours are developed. Two theories formed the bedrock of this study and the first is the Health Belief Model (Rosenstock, 1974), a widely used psychological model in explaining and predicting health behaviours by focussing on attitudes and beliefs of individuals. The second was the Theory of Planned Behaviour (TpB, Ajzen and Fishbein, 1980). This theory also predicts deliberate behaviour, because behaviour can be deliberative and planned.

Methods

Design

This study employed descriptive survey method. Leedy & Ormrod (2001) describe the survey method of research as the research that simply looks with intense accuracy at the phenomenon of the moment and describes precisely what the researcher sees, making a careful record of what is observed so that he can analyze the meaning of the information obtained. According to McQueen & Knussen (2006), the survey method helps to collect data from large numbers of participants on a particular topic and may involve self-report questionnaires or highly structured interviews. This method was adopted because of its flexibility and effectiveness in information gathering.

Sample and Sampling Procedure

A total of 143 respondents were involved in this study. Stratified and simple random sampling was employed in selecting the respondents to cater for demographic variables such as location of clinic/health centre, age and type of vocation/employment among others.

Instrument

The instrument used for data collection was a 16-item questionnaire titled "The Determinants of Contraceptive Use Questionnaire". The questionnaire was derived from several sources including previous literature, discussion with women, and input from my students. The questionnaire was divided into four sections. Section A was based on demographic data with includes age, employment status, religion, marital status, number of children and education qualification. One question was added to this section seeking to establish the participant's knowledge of the different types of contraceptives. Section B has eight (8) items measuring contraceptive self efficacy. Section C was designed to elicit information on knowledge of contraception with four (4) items while Section D elicited information with four (4) items on participant's use of contraception. The sections were structured as a Likert-type rating scale but recoded

during analysis as categorical variables, for example, the self efficacy scale was later recoded as either high self efficacy or low self efficacy.

Psychometric Properties

The Determinants of Contraceptive Use Questionnaire was designed, pilot tested and validated by the researchers. The reliability estimate of the scales obtained from a test-retest coefficient range from 0.73 to 0.87 for the three scales making up the questionnaire, with a Cronbach alpha of 0.79. This was sufficient for the conduct of the study. The questionnaire was certified by peer researchers to have content validity. For the construct validity, the study has a convergent validity (.75 to .86) with the KABP (Ingham & Stone, 2006).

Procedure for Data Collection

The questionnaire forms were administered to the respondents with the aid of trained research assistants who doubled as interpreters where necessary. They helped to interpret to those who could not speak and/or understood English. The questionnaires were collected on the spot. This ensured 100% response rate. Data was collected from October 2012 through to early January 2013. The data were expressed as both descriptive and inferential statistical methods, such as frequency counts and percentages, t-test and regression analysis and a P-value of 0.05 was considered as significant. All statistical analyses were performed using SPSS (SPSS version 17 for Windows, SPSS Inc., Chicago, IL).

Ethical Considerations

Prior to administering the questionnaire, the purpose of the study was explained to the participants. Participation was voluntary and there was no incentive given for participation. Those who agreed to participate were made to sign while others opted for oral acceptance. Anonymity was assured by asking participant not to write their names on the questionnaire forms. There were no identifiable risks to the participants. They were also informed about their right to quit at any time during the study.

Research Question

1. What is the knowledge level of the participants on the different methods of contraception

Hypotheses

1. There is a significant combined contribution of age, educational qualification, number of children, contraceptive knowledge and employment status in the prediction of women's use of contraception
2. There is a significant difference in the use of contraception based on the self-efficacy of women

Data Analysis

RESULTS

Table 1 reveal that more primary school holders (39.2%), married (64.3%) and those with two or three children (44%) constituted the majority in this study. Participants between 26 and 35 years accounted for 65 (45%) of the sample while those between 18 and 25 years and 36 years plus made up 24% and 31% respectively. In terms of employment status, 46% are employed by government or private firms while 42% were self employed. 17 women reported they were unemployed.

Table 1: Socio- Demographic Characteristics of Participants

Socio Demographic Variables n = 143	
Age (mean = 30.4)	
18-25 years	34(24)
26-35 years	65(45)
36 years +	44(31)
Education	
Primary	56(39)
Secondary	39(27)
Tertiary	48(34)
Marital Status	
Single	25(18)

Married	92(64)
Divorce/Widowed	4 (3)
Cohabiting	22(15)
Religion	
Christianity	54(38)
Islam	79 (55)
ATR	10(7)
Employment Status	
Unemployed	17(12)
Self Employed	60(42)
Govt/Private	66(46)
Number of Children	
None	11(7.7)
1	24(16.8)
2-3	63(44)
4-5	34(23.8)
6+	11(7.7)

Table 2: Knowledge of Contraceptive Methods

Methods	Frequency (%)
Condoms	119 (83)
Injectables	66 (46)
Implants	13 (9)
Spermicides	7 (5)
Abstinence	48 (34)
Withdrawal	37 (26)
Emergency contraceptive	11 (8)
Pills	91 (64)
IUD	68 (48)

Table 2 reveals that majority of the women (83%) are aware of condom as a contraceptive method and this was quickly followed by pills (64%), IUD (48) and injectables (46%). Other methods are abstinence (34%) and withdrawal (26%). The information indicates that very few women are aware of implants (9%) and spermicides (5%).

Table 3a: Relative Contribution of the Predictors on the Criterion Variable

Predictor Variables	Unstandardized Coefficients		Standardized Coefficients	t-ratio	Sig.
	B	Std. Error	Beta		
(Constant)	13.868	2.993		4.633	.000
knowledge	2.244	.953	.221	2.356	.020
Employment	1.955	.866	.223	2.257	.026
No of Children	-1.390	.032	-.127	-1.347	.180
Age	1.530	.695	.207	2.203	.029
Education	.521	.318	.032	2.278	.693

Dependent Variable: Contraception Use

Table 3a reveals that number of children ($\beta = -1.390$; $t = 1.347$; $p > 0.05$) and level of education ($\beta = 0.521$; $t = 2.278$; $p > 0.05$) of the five predictor variables were not predictors of women's contraceptive use. Contraceptive knowledge ($\beta = 2.244$; $t = 2.356$; $p < .05$), employment status ($\beta = 1.955$; $t = 2.257$; $p < .05$) and age ($\beta = 1.530$; $t = 2.203$; $p < .05$) were strong predictors of women's contraceptive use. Knowledge of contraception was however the strongest or most potent predictor of women's contraceptive use. The first part of the hypothesis which states that there is a significant relative contribution of age, educational qualification, and number of children, contraceptive knowledge and employment status in the prediction of women's use of contraception was accepted for knowledge of contraception, employment status and age but rejected for number of children and level of education.

Table 3b: Combined Contribution of the Predictors on the Criterion Variable and Model Summary of Multiple Regressions^b

R= .412 R²= .170 R² Adj= .140 Std Err= 6.943					
Source	SS	df	MS	F	Sig.
Regression	1351.966	5	270.393	5.610	.000
Residual	6603.460	137	48.200		
Total	7955.427	142			

a. Predictors: (Constant), knowledge, Employment, No of children, Age, Education

b. Dependent Variable: Contraception Use

Table 3b reveals that when all the predictor variables were entered into the regression model at once, there was a significant combined contribution ($r = .412, r^2 = .170; F_{(5, 137)} = 5.610; p < 0.005$). In this study, 17 percent of the variation in women’s use of contraception appears to be accounted for by the combination of knowledge of contraception, number of children, employment status, age and education. The second part of the hypothesis which states that there will be a combined contribution of the predictor variables was accepted.

Table 4: t-test on Use of Contraception based on Self-Efficacy

Self Efficacy	No of Cases	Mean	Std Dev	df	t value	Sig.
High	106	24.10	6.910	141	3.387	.001
Low	37	19.43	8.068			

The resulting difference in self-efficacy and use of contraception shows that there is a significant difference in women’s use of contraceptives based on self-efficacy ($t = 3.387, p < .05$). The hypothesis was sustained.

Discussion

In this study, knowledge of contraception, employment status and age were good predictor of women’s contraceptive use while level of education and number of children were not. However, 17 percent of the variation in women’s use of contraception was accounted for by the combination of number of children, knowledge of contraception, employment status, age and education. Study in Nigerian population did not show association between number of children and use of contraception (Amos, 2007; Narzary, 2009) and a multivariate analysis by Rahayu, Ufomo and Mcdonald (2009) showed that age above 30 years, having more than 3 children and having a secondary level education was associated with higher use of contraceptives in Indonesia. In this study, knowledge of contraception was a significant predictor of women’s contraceptive use. Report from Alan Guttman Institute (1994) supports the view that women are likely to use contraception because contraceptive information is available. In a study by Ranjana & Awdhesh (2012), it was reported that women who have married at age 18 or above are more likely to use contraceptive. Hence, age is of great importance in women’s use of contraception. A study by Padma, Kamat & Sajjan (2003) showed that education was not associated with use of contraceptive methods, but the study by Belachaw and Asnake (2007) showed that more number of literate women used contraceptives compared to illiterates while Bhasin, Pant, Metha & Kumar (2005) noted that more number of illiterates used contraceptive methods compared to literates but the difference was not statistically significant.

This study revealed that though women were aware of different types of contraception, very few were aware of modern methods. Levels of contraceptive knowledge are high, and usage is higher among older women. Narzary (2009) the result reveals that there is a huge difference in contraceptive use between women who knows all modern methods of contraception and those who knows only some of them. Higher contraceptive use was associated with higher educational level (Agyei & Migadde, 1995). Greater knowledge about contraception was found among women with a secondary or higher education, among women with three or more surviving children and among urban women.

In this study, young women aged between 18 and 25 years had low self-efficacy (56%) compared to high self-efficacy in the 26-35 year range (81%) and older women above 35 (86%). However, there was a change in the trend as regards knowledge of contraception. Younger women (18-25 years) displayed better

knowledge of contraception (74%) than older women (61%). Women with high self efficacy were more favourably disposed to contraceptive use than women with low self efficacy. Hence, self belief in the use of contraceptives actually increases and predicts contraceptive use. It is well documented that women with high self efficacy are motivated, well driven, striving always for success and competitive while women with low self efficacy are seen as failures or quitters. To achieve self-directed change, people not only need reasons to alter risky habits, but they also must believe in their ability or efficacy to exercise personal control (Bandura, 1992; Gecas and Schwalbe, 1983). The findings of this study corroborate those of Brafford and Beck (1991), Heinrich (1993) and Levinson (1986). These studies indicated the importance of self-efficacy in the use of contraception. They all agreed that individuals with higher self-efficacy were more likely to use contraception.

Conclusion and Recommendations

The State of the World Children Report 2009 stated that 1 out of 9 global maternal deaths occurred in Nigeria. If people, especially women and young girls are not aware of good contraceptive methods, there will be increase in the incidence of unwanted pregnancies. It is found that having knowledge of various contraceptive methods has a great effect on its use and with increase in age and education; there is also steady increase in contraceptive use. There is the need to educate women on modern contraceptive methods and their use. Also, enlightenment campaign and other forms of psycho-education targeted at women and their reproductive needs may help build their self confidence in the ability to use contraceptives as self-efficacy correlated highly with the use of contraception. More effort is therefore expected from government agencies and ministries in the quest for better enlightenment, enabling environment and policies geared towards encouraging women's use of birth control methods.

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