



CORRELATES OF INFORMATION-SEEKING BEHAVIOUR AND USE OF LARCS AMONG WOMEN IN SAGAMU LOCAL GOVERNMENT AREA OF OGUN STATE, NIGERIA

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ABSTRACT: *Long-Acting Reversible Contraceptive (LARC) methods are highly effective methods of birth control including intrauterine devices (IUD) and the implant. There is often a lower rate of usage with these methods due to factors such as high upfront cost, invasive insertion methods, and possible side effects. This research established the correlates of information seeking behavior and use of long acting reversible contraceptives among women attending infant welfare clinic in Sagamu Local Government Area of Ogun State. A cross-sectional survey research design of the was employed in the study. Two hundred and sixty-three (263) women attending infant welfare clinic were sampled for this study. A self-designed questionnaire was the main instrument used for data collection, which was pilot tested through test-re-test and yielded a reliability coefficient (index) of 0.813. Five research questions and four hypotheses were formulated and tested. Analyses of data was done using both descriptive (frequency counts and percentages) and inferential (multiple regression) statistics fixed at the .05 significant levels. The findings from this study showed significant associations between knowledge on information about LARC, media influence, enabling factors and the level of use of LARC and information seeking behavior on long acting reversible contraceptives (LARC) among women attending infant welfare clinic in Sagamu Local Government Area of Ogun State. In conclusion, women's information seeking behaviour on the use of long acting reversible contraceptives (LARC) was significantly associated with knowledge, media, policies, cost and availability of LARC as well as the level of use of LARC. The study therefore recommends that there is the need for Local Government health Officials to invest in LARC sensitization campaign for both rural and urban communities' strategies towards such efforts would help to increases the prevalence of modern contraception including LARC in the country.*

KEYWORDS: Information Seeking Behavior, Long Acting Reversible Contraceptives, Women, Infant Welfare Clinic.

INTRODUCTION

Unintended pregnancy remains a major global challenge among sexually active women of childbearing age, while non-use of modern contraception and inconsistent use of short-term contraceptive methods are linked to the reasons associated with unintended pregnancy (Nhlumayo, 2017). Family planning is the first element of primary health care to be made available, especially in countries with weak health infrastructure. Meanwhile, the determinants of the use of contraceptives remain key variables in the evaluation of family planning programmes (Ogboghodo, Adam & Wagbatsoma, 2017). Although the annual number of global maternal mortality has substantially decreased from 532000 in 1990, to



303000 in 2015, it still remains very high in sub-Saharan Africa, as the region accounts for around two-thirds of the current level of maternal deaths (66.3%) (Adedini, Omisakin, & Somefun, 2019).

According to World health organization (2019) report, every day in 2017, approximately 810 women died from preventable causes related to pregnancy and childbirth. Also, between 2000 and 2017, the maternal mortality ratio (MMR, number of maternal deaths per 100,000 live births) dropped by about 38% worldwide. The World health organization report also indicates that 94% of all maternal deaths occur in low and lower middle-income countries.

About 99% of maternal deaths occur within developing countries such as Nigeria, which is regarded as the most populous country in sub-Saharan Africa. Similarly, Nigeria has poor maternal, newborn and child mortality indices. The country has a maternal mortality rate (MMR) of 576 deaths per 100,000 live births and estimates which indicate that maternal deaths are responsible for about a third of all deaths among women of reproductive age (Okereke, et al. 2019). It is also estimated that about 200 million women who want to use safe and effective family planning methods are unable to do so, often leading to unwanted pregnancies. Also, out of 190 million women who become pregnant each year, more than 50 million have abortions. Many of the abortions are clandestine in nature and performed under unsafe conditions (UNFPA, 2012; Ogboghodo, Adam & Wagbatsoma, 2017). The world health organization through its various programmes have continued to provide support to various countries on the need to reduce maternal mortality rate, the level of awareness on the various types of family planning remains a critical issue of concern.

Information seeking behavior about long acting reversible contraceptive (LARC) is more often than not predicated upon the socio-economic status of the women that access the health facilities as research shows that there was increase in the demand of LARC when the methods were provided free of charge in comparison to other modern methods (Okafor, 2016). This may also be due to the fact that the methods do not require frequent facility visits. Task-shifting policy with strong information system might provide insight into the changing trend (Adako & Okunfulure, 2016).

There has been a general trend showing that LARC uptake has overtime continued to gain some increase. A critical look at the sub-regional disparities in contraceptive prevalence across SSA reveals that the Southern African sub-region has a high contraceptive prevalence rate of about 62 percent, almost exclusive of modern methods. Studies also show that unmet need for family planning is relatively low at 13 percent among users in most sub-regions in SSA (Adedini, Omisakin & Somefun, 2019). This is in contrast to Western Africa where the unmet need is 25 percent and contraceptive prevalence rate is estimated at 15 percent (Adedini, Omisakin & Somefun, 2019). Modern contraceptive prevalence rate (mCPR) was estimated at 11 percent among Nigerian women. These low rates of mCPR have been associated with high rates of unintended pregnancy in the region. These have serious public health implications as unintended pregnancies are a leading cause of maternal and child mortality in SSA (Adedini, Omisakin, & Somefun, 2019). Nigeria is currently on 13.9 mCPR for all women of child bearing age. The contraceptive prevalence rate (CPR) among married women varies with age, rising from 3% among women age 15-19 to a peak of 23% among women age 35-39 before declining to 13% among women age 45-49. Despite these statistics, Nigeria is yet to derive significant benefits of family planning, as her use of contraceptives has remained persistently low and the prevalence of modern contraceptive use stagnating at



10% among currently married women which is much lower than the African average (United Nations, 2013; World Bank, 2013; Ejembi, Dahiru & Aliyu, 2015; Adako & Okunfulure, 2016). According to Ugwu (2012), high maternal mortality rate in Nigeria is attributed to the country's youth sexuality. Ugwu further noted other factors characterized by maternal mortality rate as low contraceptive usage by the youth, high incidence of illegal abortion among the youths, lack of sex education from parents and teachers, and ignorance of issues relating to contraception among the youth.

Although the adoption of family planning methods cannot by itself cause a substantial reduction in risk of pregnancy, for high-risk groups however, it may be effectively used to address about half of all maternal mortality in the developing world, especially for high-risk groups (Winikoff & Sullivan, 1987). Unwanted pregnancy that results in unsafe abortion may be prevented by using different contraceptives. This can be made easy if adequate information is provided to women of child-bearing age about the various types of contraceptives and their usage. Information seeking behavior therefore is the patterns of behavior that people display when they experience information needs, make choices about where and how to look for information, and reflect or act on the information they obtain (Choo, 2006)

According to the Central Intelligence Agency World Factbook (2018), Nigeria's population was projected to grow from more than 186 million people in 2016 to about 392 million in 2050, making it the world's fourth most populous country in the world. The high population growth in Nigeria will continue because of population momentum due to its high birth rate. Also, Nigeria's Maternal Mortality Rate (MMR) was 814 deaths/100 live births according to the 2015 estimate of the World Health Organization (2018). Among currently married women, injectable and withdrawal (each used by 3%), followed by male condoms (used by 2%) are the most popular methods (NDHS, 2018).

Contraceptive prevalence in Nigeria was reported at 20.4 % in 2016. Also according to NDHS 2013, the prevalence of contraceptive use varies significantly when urban areas (>25%) are compared with rural areas (9%) (Olanipekun, 2018). The concern here is that since the Millennium Development Goals (MDG) were set in 2000, there have been steps deliberately taken by Nigerian government to reduce incidences of unwanted pregnancies. Long acting reversible contraceptives, (LARCs) have proven to be highly effective with good continuation rates, and are cost-effective compared to other methods, when used more than one year. Despite these advantages about LARC methods, there is a low uptake of these methods globally particularly in sub-Saharan Africa (Nhlumayo, 2017). At the same time, the level of information-seeking behavior regarding the use of LARC remains an issue of concern to this study. Thus, the need for this research to establish the predictors of information-seeking behavior and use of LARCs among women in Sagamu Local Government Area of Ogun State, using the Theory of Precede-proceed Model.

Research Hypotheses

1. There is significant association between knowledge on information about LARC and information seeking behavior on long acting reversible contraceptives (LARC) among women attending infant welfare clinic in Sagamu Local Government Area of Ogun State.



2. There is significant association between media influence and information seeking behavior on long acting reversible contraceptive (LARC) among women attending infant welfare clinic in Sagamu Local Government Area of Ogun State.
3. There is significant association between enabling factors and information seeking behavior on LARC among women attending infant welfare clinic in Sagamu Local Government Area of Ogun State.
4. There is significant association between the level of use of LARC and information seeking behavior on LARC among women attending infant welfare clinic in Sagamu Local Government Area of Ogun State.

METHODOLOGY

Research Design: This study adopted a cross-sectional survey design. The application of a cross-sectional survey method is appropriate in obtaining the behavioral pattern of a given population based on their knowledge, opinion, attitude and perception concerning a given phenomenon.

Population: The population of this study was three hundred and ninety-six (396) women attending infant welfare clinic.

Sample and Sampling Technique: The sample size for this study was determined by applying the Cochran (1997) formula while a sample of 263 women attending infant welfare clinic were selected for the study. A multi-stage sampling procedure was used to select the various facilities. The Multi-stage sampling technique was chosen because it is a stage-by-stage system of sampling. The facilities were first selected through stratified random sampling method. Secondly, proportional stratified random sampling method was used for the selection of 263 women that attended infant welfare clinic, the selection of the women who attended infant welfare clinic at each facility was done. However, selection of the women attending infant welfare clinic was done using simple random sampling technique in which a sample of 263 will be selected.

Instrument for Data Collection: The instrument used for this study was semi-structured survey questionnaire. The research instrument was divided into five (5) sections and focuses on demographic variables, respondents' personal factors (knowledge, attitude and perception), environmental factors (media, friends relation, Physical location), enabling factors (policies, cost, availability of LARC), level of use of LARC method, and level of information seeking behavior on LARC. However, the instrument was subjected to a pilot testing among twenty-six (26) women attending infant welfare clinic in two health centers in Ikenne, Ogun State. This was to test and improve on the proposed questionnaire to be used for the study. All the twenty-six (26) copies distributed were recovered, while reliability test result yielded a coefficient value of 0.813.

Method of Data Collection: The researcher and two research assistants were involved in the administration of the instruments to each of the sample respondents chosen. The research assistants were health workers in the primary health care facilities selected and trained for the purpose of this study. They were given an orientation on the research and how to carry out



the administration of the questionnaires. A period of four weeks was used in the administration of instrument and collection of data. Both administration and collection of data were done the same day.

Method of Data Analysis: Multiple regression analyses was used to test hypotheses one to four. The hypotheses were tested at 5 percent level of significance ($\alpha = 0.05$) using the SPSS 23 version software.

Ethical Consideration: An ethical clearance was obtained from the Babcock University Health and Research Ethics Committee (BUHREC).

RESULTS

Table 1: Logistic regression output for factors influencing respondents' use of LARC

Variables	Beta Coefficient	Standard Error	Sig.	Exp (Beta)
Demographic/personal factors:				
Age (year)	-.162**	.048	.001	.850
Marital (married=1, otherwise=0)	2.785**	.846	.001	16.199
Type of marriage (polygamy=1, otherwise=0)	-2.849**	.736	.000	.058
Religion (Christianity =1, otherwise=0)	1.664**	.565	.003	5.282
Number of children	.767**	.253	.002	.464
Education level (yrs)	.159**	.073	.031	1.172
Edu level spouse (yrs)	.549**	.117	.000	1.731
Occupation (Salaried=1, otherwise=0)	-.754	.709	.288	.471
Occupation of spouse	6.190**	1.447	.000	487.648
Income (Naira)	.000	.000	.114	1.000
Income of Spouse (Naira)	.000**	.000	.001	1.000
Personal factor: knowledge	.017	.201	.934	1.017
Personal factor: Attitude	.604**	.122	.000	.547
Personal factor: Perception	.797**	.158	.000	2.219
Media influence	-.365**	.094	.000	.695
Friends/relative influence	.597**	.131	.000	1.816
Health system	.277**	.085	.001	1.320
Enabling factor	-.320**	.138	.020	.726
Info seeking behavior	.464**	.101	.000	.629
Constant	-16.618**	5.241	.002	.000
Chi-square	72.00**			
Nagelkerke R Square	0.61			
Cox & Snell R Square	0.46			
-2 Log likelihood	203.610			

** Sig @ $P < 0.05$



The personal factors include demographic, knowledge, attitude and perception. As regards the age distribution, it was revealed that age had no significant association with the respondents' information seeking behavior. For the marital status of the respondents, it was revealed that marital status had a significant positive association with information seeking behavior. This implied that the married respondents had higher probability to seek for information. For the type of marriage, it was revealed that type of marriage had no significant association with the respondents' information seeking behavior. Also, the respondents' religion had no significant association with information seeking behavior. For the number of children, the respondents' number of children did not have any significant association with the information seeking behavior. Likewise, respondents' occupation, their spouse's occupation, the respondents' monthly income and their spouse's monthly income had no significant association with information seeking behavior of the respondents.

For the respondents' level of knowledge, it was revealed that the respondents' level of knowledge had significant positive association with the information seeking behavior. This invariably implies that the higher the level of the respondents' knowledge the more the respondents would seek information. On the respondents' attitude, the result revealed that attitude had no significant association with the respondents' information seeking behavior. The respondents' perception had a significant positive association with information seeking behavior. This implies that the respondents' positive perception improves their level of information seeking behavior. In summary, from this analysis, it could be deduced that respondents' marital status, their level of education, the educational level of their spouse, knowledge of LARC and perception were statistically significant personal variables influencing level of information seeking behavior. For these factors, the null hypothesis is therefore rejected in favour of the alternative hypothesis. Conversely, respondents' age, type of marriage, religion, number of children, occupation, monthly income, their spouse occupation and income and attitude had no statistically significant relationship or influence on the information seeking behavior.

The environmental factors include media influence, friends/relative, and health system. On media influence, it was revealed that respondents' media influence had no significant association with the respondents' information seeking behavior. The respondents' friends/relatives also had no significant association with their information seeking behavior. However, on the health system, the result showed that the health system had a significant positive association with information seeking behaviour of the respondents. This implies that the improvements in the health system and their impact on the respondents will lead to increase in how respondents seek information. Thus, the null hypothesis is rejected in favour of the alternative hypothesis for environmental factor with respect to health system variable.

The respondents' enabling factors has a significant positive association with their information seeking behavior. This implies that the enabling factors have a high probability of either promoting the respondents' information seeking behavior about long active reversible contraceptives (LARC). Therefore, the null hypothesis is rejected in favor of the alternative hypothesis.

The diagnostic result for the Logit model shows that the -2 Log Likelihood statistics (which is generally used to compare nested models) was negative suggesting that the dependent variable is a discrete variable. It also confirmed that the label that is predicted is binary in nature, and the output of the logistic regression function is the probability that the label is



one. The chi-square value (72.0), which determines the overall goodness of fit of the model, is statistically significant ($p < 0.05$). This shows that the model is significant and thus of good fit for the analysis. Nagelkerke's R^2 and Cox & Snell's R^2 are both Pseudo R^2 . The Nagelkerke's R^2 is 0.61 which indicates that the model is good (above 60%). This corroborates the chi-square result for the model. Also, the Cox & Snell's R^2 is 0.46, indicating that 46% of the probability of the dependent variable (use of LARC) is explained by the logistic model. Results shows that marital status, respondents religion, number of children, respondents' educational level spouses' educational level, occupation of spouse, income level of respondents and their spouse, attitude of the respondents, perception, influence of friends/relatives, and the health system, and the respondents' information seeking behaviour were significant with a positive sign (at $p \leq 0.05$). Also, respondents age, type of family, media influence and enabling factors were significant variables with negative sign (at $p < 0.05$). The output of the regression analysis satisfied the test for previously stated study hypotheses.

DISCUSSION OF FINDINGS

It was shown from the outcome of this study that respondents' level of education, the educational level of their spouse, knowledge of LARC, perception and marital status were statistically significant personal variables associated with the level of information seeking behavior. These findings suggest that the currently available LARC methods may not be accepted in part because of inadequate knowledge among reproductive age women. Sensitization of such women could therefore help. However, it also appears that increasing levels of education may improve usage of contraceptives and reduce risk of unwanted pregnancies. Notably, increasing education among women could mean that such women can use the short-acting methods even more correctly allowing such methods to be more effective. Education therefore is likely to increase the effective options available to women and facilitate increased client choice (USAID, 2017).

The result showed that the health system has a significant positive association with information seeking behavior of the respondents. This implies that the improvements in the health system and their impact on the respondents will lead to increase in how respondents seek information. This finding was consistent with the findings in previous study of Dada (2017) and Kolawole (2019) in their various studies that healthcare workers especially nurses are the key information providers for women of reproductive age on their reproductive health and wellness. The reason for information seeking on reproductive health especially on the Use Long Acting Reversible Contraceptive (LARC) is to acquire the ability to cope with the unknown. The results of the study also showed that the respondents had a relatively high level of media influence associated to information seeking behavior on Long Active Reversible Conceptive but not with friends/relative and health system.

The respondents' enabling factors has a significant positive association with their information seeking behavior. It was shown that respondents' educational level, spouses' educational level, occupation of spouse, income level, marital status, religion, number of children, attitude of the respondents, perception, influence of friends/relatives, and the health system, are correlates of the respondents' information seeking behavior. This implies that the enabling factors have a high probability of either promoting the respondents' information



seeking behavior about long active reversible contraceptives (LARC). The finding that the level of education of the respondents as well as their spouses was positively correlated with information seeking behavior on the use of LARC. This supports existing evidence which indicates direct relationship between education level and information seeking behavior on the use of family planning methods (Apanga & Adam, 2015; Olaitan, 2011). The association demonstrated in this study between marital status, number of children and contraceptive use is also reported elsewhere (Ajong, et. al., 2016; Wulifan, et. al., 2016).

This finding shows that age, marital status, family type, religion, number of children, spouse educational level, spouse occupation, spouse income, attitude, and perception increases the chances of using LARC. Therefore, personal factors are good correlates of use of LARC. Women who are married, had two or less children were more likely to use LARC compared to those women who are not married and had three or more live children. This finding is consistent with the studies conducted in Ethiopia, Nepal and Iran (Bhandari, et. al., 2019, Takelab et. al., 2015) and contradicts with the other studies conducted in Ethiopia and Uganda (Tibaijuka et. al., 2017; Biza, et. al., 2017). Women and couples who believed that two or a smaller number of children would not be sufficient in their life, might have wanted to space the pregnancies and hence preferred using a LARC method.

LARC use will progressively increase with respondents' educational level, spouses' educational level, occupation of spouse, income level of respondents and their spouse. This result is consistent with the studies conducted in Ethiopia and Nigeria respectively (Gultie, et. al., 2016, Johnson, 2017), as these studies found the positive association LARC use with higher educational level and income level of respondents and their spouse. It should be noted, husband's education also influenced the use of LARC. More educated men might have known the various methods of FP and their benefits including positive decision making on LARC use. Also educated husband of women do have decision making practices together (Kolawole, 2019). Women having her husband as skilled worker, parity less than two, and desire of having future children, positively influenced the use of LARC (Bhandari, et. al., 2019).

This finding shows that media influence, friends/relative influence and health system increases the chances of using LARC. Therefore, environmental factors are good correlates of use of LARC. There are various obstacles to effective modern contraceptive provision and use. In trying to obtain contraception, women may find laws or policies preventing their access (based on age, parity, or marital status and consent) or health providers that are in opposition to their use, in addition to potentially prohibitive costs and poor local service provision (Blumenthal et al., 2011; Greene & Stanback, 2012; Vernon et al., 2007). In using contraception, women may face unsupportive partners or spouses, in addition to peer pressure and social norms that discourages their use. Stigmas around contraception, including the idea that women carrying condoms is a prostitute or promiscuous, also exist (Williamson et al., 2009). Generally, little knowledge of how to obtain or use modern contraceptive correctly is common, media influence, friends/relative influence and health system may either enhance or pervert these of LARC (Chandra-Mouli et al., 2014).

This finding shows that government's policies, information on LARC, and use of LARC without frequent visits clinics increases the chances of using LARC. Enabling factors are good correlates of use of LARC. Thus, in order to enhance use of LARC among the respondent's intervention must target enhancing their information seeking behavior. The



implication of this is that political support and adequate information in terms of education should never be underestimated as an important component to effective LARC use and enabling factor. This supports the previous study that political support, government's policies, and educational outreach conducted by governments through various ministry of health explicitly bridged the gap in knowledge and address social stigma that may keep women away from LARC (Blumenthal et al., 2013).

CONCLUSION

This study found that women's information seeking behavior on the use of long acting reversible contraceptives (LARC) was significantly influenced by personal, environmental and enabling factors. The personal predictors of women's information seeking behavior on the use of long acting reversible contraceptives (LARC) are knowledge, attitude and perception. Also, the environmental predictors of women's information seeking behavior on the use of long acting reversible contraceptives (LARC) are the media, friends, health system factor related while the enabling predictors are policies, cost and availability of LARC.

RECOMMENDATIONS

1. There is need for Local Government health Officials to invest in LARC sensitization campaign for both rural and urban communities' strategies towards such efforts would help to increase the prevalence of modern contraception including LARC in the country.
2. Cultural and religious beliefs against the use of modern contraceptives including LARC should be countered through training of community and religious leaders on benefits of family planning for individuals and the nation as a whole.
3. Reasons for not seeking for information on LARC are fear of side effects and cost. Therefore, the ministry of health and other non-profit organization (NGOs) should address these issues through adequate and reliable information, and timely follow-up of users.

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