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Original Article

KNOWLEDGE, ATTITUDE, AND CONTRACEPTIVE USE AMONG POST-PARTUM WOMEN ATTENDING THE POST-NATAL CLINIC OF A MODEL PRIMARY HEALTHCARE CENTRE IN NIGERIA

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ABSTRACT

Background of study: Family planning is a positive health attribute that benefits the pregnancy, child, the father, the mother, and society, yet it is not adequately utilised, especially in developing countries. The study aimed to assess the knowledge, attitude and contraceptive use among post-partum women.

Methodology: A facility-based cross-sectional research in a Model Primary Healthcare Centre, located in Ozuoba, Rivers State, was carried out. Four hundred post-natal women participated in the study and were sampled by a simple random sampling technique. Interviewer interviewer-administered questionnaire was used to collect data after written informed consent was obtained from the participants.

Results: The mean age of the respondents was 30.1(±6.2). The percentage of post-partum women who know about family planning was 97.8%. The major sources of information were the hospital (63.0%), Friends and relatives (18.0%), and the mass media (13.8%). The percentage of good attitudes toward family planning was 32.8%. The prevalence of the utilisation of family planning was 57.6%. The most common family planning services used were implants (31.0%), injectables (20.3%), exclusive breastfeeding (18.5%) and safe period (11.5%). The factors that were significantly associated with family planning were the age of the women, the occupation of the woman, and the number of children in the household and the educational status of the husband.

Conclusion: The major reasons for practising family planning were child spacing, economic reasons, and husband approval. The major deterrents to family planning utilisation were the fear of side effects, wanting more children, husband's disapproval and religious barriers. Achieving maximum utilisation of family planning is indispensable, and it requires a holistic approach at the individual, health facility, community, government and Non-governmental levels.

Keywords: family planning, contraceptives, post-partum women, health facility, knowledge

INTRODUCTION

The significance of contraception, also known as family planning, cannot be overstated, as it holds immense importance for various entities such as individual family members, the entire family unit, the community, society as a whole, the nation, and even the universe. The benefits derived from family planning services and supplies are truly remarkable, as they currently prevent a staggering "187 million unintended pregnancies every year, including 160 million unplanned births and 105 million abortions" (Olamijulo & Olorunfemi, 2012). It has now been firmly established "that uncontrolled population growth poses as the single most crucial hindrance to national development. Consequently, the promotion of family planning, particularly in countries with high birth rates, possesses the potential to alleviate poverty and hunger, while also averting 32% of all maternal deaths and nearly 10% of childhood deaths. Furthermore, it could significantly advance primary education for all individuals and contribute to long-term environmental sustainability (Nansseu et al., 2015). Initiatives aimed at improving family planning in developing countries were set into motion during "the 1960s, with the number of countries adopting official policies to support family planning" witnessing a substantial increase from a mere two in 1960 to 74 by 1975, and eventually reaching 115 by 1996 (Nansseu et al., 2015). Although regional variations were observed, the percentage of married women in developing regions who utilised contraception witnessed a remarkable growth from less than 10% in 1960 to nearly 60% by 2000 (Nansseu et al., 2015). However, many of the world's poorest nations, primarily located in sub-Saharan Africa (SSA), continue to grapple with high fertility rates and significant unmet family planning needs. Regrettably, it is anticipated that the populations of these nations will double in the coming decades, exacerbating the existing challenges (Nansseu et al., 2015). Nigeria, with its population of "40 million women of childbearing age (ranging from 15 to 49 years), experiences a disproportionately high level of health issues related to childbirth. Despite accounting for only 2.4% of the global population, Nigeria currently contributes to 10% of global deaths among pregnant mothers. Shockingly, the country's "maternal mortality rate stands at 576 per 100,000 live births, making it the fourth-highest in the world. Additionally, an alarming number of approximately 262,000 babies die at birth in Nigeria each year, representing the second-highest" national total globally. The country's infant mortality rate currently "stands at 69 per 1,000 live births, which further escalates to 128 per 1,000 live births for children under the age of five" (UNICEF, 2015). Disturbingly, around one in every five pregnancies in Nigeria is unplanned, with approximately half of these unintended pregnancies resulting in illegal abortions (Olamijulo & Olorunfemi, 2012). Deaths following maternal mortality are largely preventable. Additionally, Nigeria's fertility rate of six children per woman is unacceptable (Olamijulo & Olorunfemi, 2012), leading to overpopulation and its negative impact. Improving the awareness, knowledge, attitude and practice of post-partum women will significantly ameliorate these problems. Some studies on knowledge and contraceptive use done in Nigeria were community-based in the rural areas several years ago (Okeowo & Olujide, 2014; Nansseu et al., 2015). And other studies have shown an improvement in family planning uptake, and there is a need to continuously assess current knowledge and utilisation of family planning (Olamijulo, J. A., & Olorunfemi, G., 2012). This study aimed to assess the knowledge, attitude and contraceptive use among post-partum women attending the post-natal clinic of a primary healthcare centre in Port Harcourt, Rivers State, Nigeria

METHODOLOGY

Study Area

The study was conducted in Port Harcourt, the capital of Rivers state, Nigeria at the Modern Primary Health Centre situated in Ozuoba, which is part of the Obio/Akpo local government area of Rivers state. Port Harcourt stands as a bustling metropolis. In terms of population, it ranks as the fifth most populous city in Nigeria, following Lagos, Kano, Ibadan, and Benin. Port Harcourt is situated along the Bonny River and occupies a prime location within the Niger Delta.

Study design: A descriptive cross-sectional study design was employed

Study Population: The study population included all postpartum women who accessed healthcare services at the Modern Primary Health Centre.

Sample Size Determination

Sample size was calculated using the Cochran formula for descriptive studies
n= Z2 pq/d2. where
n = The minimum sample size
Z = Standard normal deviate of the 95% confidence, which is 1.96
P = Prevalence or proportion of outcome measure from previous studies,
q =1-p
d= Precision or margin of error usually fixed at 5 %(0.05)
A study in Lagos, Nigeria, found that 57.6% of respondents had used one form of contraceptive method or another (Olamijulo & Olorunfemi, 2012).
A 10% non-response rate was applied, and the final sample size for the study was 400

Sampling Technique

The simple random sampling technique was used in this study on each post-natal clinic day until the sample size for the study was covered.

Study Instruments

A semi-structured interviewer-administered questionnaire was used to collect data for this study. It has five sections: Section the socio-demographic characteristics of the women, Section B- the Knowledge, Section C- attitude, Section D- practice of family planning and Section E- determinants of family planning practice. The questionnaire was interviewer-administered and presented in English.

Data Analysis

Data were organised and presented in tables, frequencies, percentages and figures.
Descriptive analysis was done to summarise data using proportion, mean and SD (Standard Deviation). Bivariate and multivariable logistic regression analysis methods were employed for variables with a p-value ≤ 0.05. In the univariate analysis, variables with $p \leq 0.05$ were considered for multivariable logistic regression analysis using SPSS version 25.0

Ethical Considerations

Ethical clearance was obtained from the ethics research committee of the school of Graduate Studies, University of Port-Harcourt and approval from the primary healthcare centre. Written informed consent was obtained from each participant after clearly addressing and informing them about the purpose, risk, and benefit of the study.

RESULTS

There were 400 interviewer administered questionnaire with a 100% responses rate achieved. The mean age of the respondents was 30.1 (±6.2) years. The majority of the participants were in the age range 30-34 years and they made up 33.3% of the study participants. This is followed by women in the age group of 20-24 years who make up 23.3% of the study participants. The study showed that 77.0% of the respondents live in the urban area while 33.0% of the respondents visit the facility from the rural community. Catholics had the highest proportion (36.8%), followed by the Protestants (31.0%) of the total respondents. Majority of the respondents were married women; they constitute 73.5 % of the participants. Those with tertiary education were 54.8% and women with secondary school education were 37.3% of the respondents. Majority of the participants are into business and they consist of 42.8% of the respondents. The professionals among the women make up 14.0%, closely followed by the students (13.5%). The proportion of house wives and civil servants were equal at 12.0% each. The level of education of the spouse was assessed. It was found that the level of the education of the spouse was very high as those with tertiary education had a percentage of 62.0%. this was higher than that of the participants those with secondary education was 29.0%. Those in monogamous homes had the highest percentage which is 67.3%. next was those were single mothers and they make up 18.6% of the study participants. A high percentage (54.5%) of the respondents have children less than 3 in numbers. This was followed by women with children between 3-5 in numbers with a percentage of 44.3%. the with above 5 children were proportionately very few and consist of only1.3% of the study participants. A 97.8% of awareness level of family planning was shown in the study. See table 1.

Table 1: The level of awareness of post-partum women

Response	Frequency (N)	Percentage (%)
Yes	391	97.8
No	9	2.3
Total	400	100.0

Most of the information about family practice was from the hospital, which was 63.0%, followed by friends and relatives (18.0%). The percentage of women who heard about family planning from the mass media and social media platforms was very low compared to the percentage of respondents who got the information from the hospital. This shows a poor mass media and social media campaign for family planning. See table 2

Table 2: Source of information on family planning

Source	Frequency (N)	Percentage (%)
Hospital	252	63.0
Mass media	55	13.8
Friends and relatives	72	18.0
Social media	12	3.0
None	9	2.3
Total	400	100.0

The percentage of respondents with good knowledge was very high (89.0%), followed by women with fair knowledge (9.8%) on family planning. This high proportion of good knowledge may be attributable to health education at the hospital on family planning during antenatal clinic and postnatal clinics. In this study, the good attitude was surprisingly lower than expected (32.8%). Poor attitude to contraceptive had the highest percentage which was 41.8%. The prevalence of ever used contraceptive was 57.6% which was above average but it is not adequate. The most utilized contraceptive method was the implants (31.0%), the next prevalent contraceptive method utilized was the injectables (20.3%) followed by exclusive breastfeeding (18.5%), and oral pills (14.8%). Occupation is significantly associated with the level of knowledge in this study, the professionals were the most knowledgeable. The educational status of the spouse of the participants was significantly associated with the level of knowledge of contraceptives. This may mean that educated partners have influence on their wives with regards to family planning. Age was significantly associated with attitude to family planning, the women in the age group of 30-34 years had the highest percentage (92.5%) for good attitude towards contraceptives. Among the factors that facilitate the uptake of contraceptives, child spacing (41.3%) had the highest percentage, followed by economic difficulties (22.8%), husband's approval was 18.0%. The other reasons for family planning uptake were health reasons (7.5%), and stop birthing (7.0%).
The major reason discouraging the uptake contraceptives was the fear of possible side effects (58.5%), followed by 11.3% of the post-partum woman wanted more children. The other factors discouraging the

uptake of contraceptives were husbands' disapproval (8.8%), religious reasons (7.5%), poor health reasons (7.2%) and cost (0.3%).

DISCUSSION

This study was facility-based research carried out in a primary modern health centre in Rivers state. There were 400 post-natal women who participated in the study.

From the study, the mean age of the respondents was 30.1(±6.2) years. This is similar to results obtained in studies by Ali et.al. (2015), Wani *et. al.* (2019), Olamijulo and Olorunfemi (2012), Silesh *et.al.* (2022), Nansseu *et. al.* (2015), and Schrumpf *et. al.* (2020). This is expected as this age falls within the reproductive age group. However, studies by Asekun-Olarinmoyu *et. al.* (2013) in Osogbo, Osun state; Bajracharya A. (2015) in Kathmandu Medical college Hospital, Rao *et. al.* (2016) in Bellary, Karnataka, India and the study by Anguzu *et. al.* (2014) in Uganda had an average age that is less than what is obtained in this study. This study showed that the majority of the participants were in the age interval of 30-34 years, and they made up 33.3% of the study participants. This is in agreement with results from the study by Okeowo *et. al.* (2014) in Ogun state. Contrary to this, a study by Etokiden *et. al.*(2017) in Cross Rivers state showed that the majority of the respondents were 45 years and above. The reason for this is likely because it was a community-based study and not among postpartum women Majority of the respondents were married women, as they constitute 73.5 % of the respondents. This is similar to results from studies by Bajracharya A. (2015) in Kathmandu Medical College Hospital (71.8%), Rao *et. al.* (2016) in Bellary, Karnataka, India, and Anguzu *et. al.* (2014) in Uganda (72.6%). However, the percentage of respondents who were married in our study was lower than what was obtained in studies by Rao *et. al.* (2016) in Bellary, Karnataka, India (79%), Okeowo *et. al.* (2014) in Ogun state (80%), Olamijulo and Olorunfemi (2012) and in the University of Lagos Teaching Hospital (90.7%). The differences in the percentage of married women in the studies could be due to the region where the study was carried out, the socio-cultural system of the area of study and even the religion may influence the pattern of the marital status of the study. Most of the respondents were educated in this study. Those with tertiary education had a very high level of education, which was 54.8%. this is above 50% of the total respondents. This is very important when considering "knowledge and awareness of family planning." The percentage of participants with secondary school education was low, which was 37.3%. This is similar to the findings in the study by Etokiden *et. al.* (2017) in Cross Rivers state, Olamijulo and Olorunfemi (2012) in University of Lagos Teaching Hospital, and Wani *et. al.* (2019) in Kashmir, India. The level of education in our study was higher compared to studies carried by Okeowo *et. al.* (2014) in Ogun state, Anguzu *et. al.* (2014) in Uganda, Ali et.al. (2015) in Khartoum, Sudan and Nansseu *et. al.* (2015) in Cameroon. The higher the educational status of a woman the better her socioeconomic status her ability to seek for information about her health. It is expected that the women "with higher education to be more knowledgeable about family planning activities or services" which may give them a good attitude towards family planning. The prevalence of knowledge observed in our study closely aligns with the findings of Wani et al. (2015), in which all participants demonstrated knowledge regarding various family planning methods. Notably, the primary sources of information in that particular study were health training programs. This correlation can be expected given that the study participants were exclusively health workers, thus emphasizing the significance of access to reliable health education programs. Similar results were obtained in a study conducted by Olamijulo and Olorunfemi (2012) at the University of Lagos Teaching Hospital, where the majority of participants exhibited "fair to excellent knowledge of family planning methods," with only a few displaying poor knowledge. The antenatal clinic emerged "as the primary source of information for family planning," followed closely by friends. This finding further supports the notion that hospitals serve as a pivotal hub for the dissemination of family planning information through health education initiatives. Family planning is not widely accepted or practiced in some regions of the world, due to various factors such as social norms, gender inequality, poverty, and religious beliefs. Therefore, it is important to change the negative attitudes towards family planning and make it more accessible and acceptable for all women. When attitude is poor towards family planning, "the utilization of family planning commodities and services" will be poor if they are available and therefore benefits that are associated with family planning will be missed. Our study showed "that despite the high

percentage of awareness and knowledge about family planning," the attitude score for family planning was surprisingly low. This is less than 50% and similar to findings by Olamijulo *et. al.* in Lagos university Teaching hospital. One possible reason could be misinformation or inappropriate knowledge about family planning. Studies done by Bajracharya A. (2015), Wani *et. al.* (2015), Handady *et. al.* in Sudan, and Etokiden *et. al.* in Cross Rivers, found good attitude to family planning among the respondents. Good attitude will positively correlate with increased utilization of family planning services.

Our study showed that the prevalence of ever used contraception was 57.7%. This finding is very close to the findings in the study by Bajracharya et al. (2015), and Olamijulo *et. al.* (2012) but lower that the results from the studies by Nansseu *et. al.* (2015) in Cameroon, Wani *et. al.* (2015) in Kashmir India, and Etokiden *et. al.* in Cross River state and Okeowo *et. al.* in Ogun state. The prevalence of family planning utilization in our study was higher that what was found in the studies by Handady et. al.(2015) in Sudan, Silesh et.al.(2022) and Asekun- Olarinmoye et. al.(2013) study in Osun state. The commonest family planning methods ever utilized were the implants, injectables, Exclusive breastfeeding, and the oral contraceptive pills. Similar low "utilization of family planning services was found in the studies by Asekun-Olarinmoye et. al. (2013) study in Osun state where the prevalence of ever using family planning was 30% and the prevalence of current family utilization was 13.1%. low utilization of family planning was found in a study carried out in Ethiopia by Silesh et.al.(2022) where the prevalence of family planning utilization was 21.3%; and the prevalence of family planning utilization" by the study done by Handady *et. al.* in Sudan was 40%. It goes to tell that other very important factors which include health, economic, religion, culture, the husband factor influence the tendency for a woman who is aware and have knowledge of family planning to utilize family planning. Contrary to the findings in our study, the studies by Bajracharya et. al., Nanssue et. al., Olamijulo et. al., Wani et. al., and Etokiden et. al., had a high prevalence of utilization of family planning services.

The contraceptive implant was the commonest family planning method practiced by our study participants which was also the commonest family planning method used in the Ethiopian study by Silesh et. al.(2022). The implant is a long-lasting contraceptive that does not require daily motivation of the participant. It does not require the cooperation of the partner and it is free in most government facility. The contraceptive pill is the fourth most common family planning method used in our study by the post-natal participants but it is the commonest family planning method used in Bajracharya A. (2015) study at Kathmandu Medical college Hospital, Handady *et. al.* (2015) in Sudan, and Okeowo et. al.(2014) in Ogun state. The reason for its popular use includes that it is relatively common in many facilities, it is free for use in many family planning facilities. It is one of the most common family planning commodities the participants can see outside the hospital facility. They are very popular especially because it is an oral medicine. It is also cheap to buy. However, it requires motivation for daily use at same time every day. It also requires the cooperation of the partner.

Our study showed that the injectable contraceptives were the second most frequently use by our study participants. Injectables were the most preferred in the study at rural Ghana by Eliason e. al. (2013). The use of injectables not as popular oral contraceptive pills because it not as available as the oral pills, its procedure for use is invasive (injecting the client), it requires the attention of the health care provider on regular bases to give the injection Exclusive breastfeeding was the third "most frequently used family planning method" in our study which is a natural method of family planning. Contrary to this, exclusive breastfeeding was among the commonest family planning practice found in the studies by Eliason *et. al.* (2013) in a rural Ghana and Okeowo *et. al.* (2014) among women in rural area in Ogun state. The use of exclusive breastfeeding in rural areas may point to the fact that family planning commodities may not be available in these facilities and therefore the women are encouraged to practice the natural methods. Another possible reason for the use of exclusive breastfeeding as among the commonest family planning method in the rural areas may be due to cost; the women may not be able to afford the artificial family planning commodities.

Other natural family planning method were the most frequent methods practised. The study by Muhammad & Bhola (2019) in Yoba state showed that the withdrawal method was the most frequent family planning method used. The study by Nanssue et. al.(2015) Mbouda district in Cameroon showed that the most common family planning method was the safe period; the study by Silesh *et. al.* (2022) in Ethiopia showed that abstinence was the second most practised family planning method after implant;" and in the Eliason *et. al.*

study, the withdrawal method was among the frequently utilised family planning practices. Condoms were among the most frequently used family planning methods in some of the studies. The study by Nanssue et. al. (2015) Mbouda district in Cameroon showed that condom was the second most frequently used family planning, Olamijulo *et. al*. (2012) in Lagos showed that male condom was the most frequently used family planning method, and in Wani *et. al.* (2015) in Kashmir in India, two-thirds of the study participants were using condoms. The condom is one of the most popularly recognised family planning commodities. It is very popular because it is the most common family planning commodity that male use, especially in developing nations and Sub-Saharan Africa. Its use is beyond couples or people in relation because it is frequently used by individuals having casual affairs and for protection from "sexually transmitted diseases and the Human Immunodeficiency Virus (HIV).

In our study, the most frequent reasons for family planning utilisation were child spacing, followed by economic reasons, husband approval and wanting to stop birthing.

Child spacing was also the most common reason found in the study by Bajracharya *et. al.* Handady *et. al.* in Sudan stated that the major reasons for utilising family planning practice were spouse encouragement, economic reasons and health protection. Husband approval and encouragement a very important factors that should be explored "to increase the utilisation of family planning services." Male involvement should be strategised into family planning programmes to improve utilisation. In our study, there was a list of reasons why the participants wanted to discontinue or did not want to utilise family planning services. The most common reason was "the fear of side effects." This was the commonest reason found in the studies by Bajracharya *et. al.,* Nansseu *et. al.,* Muhammad & Bhola et. al., Okeowo et.al. (2014). in the Ogun state study, it was shown that those participants who did not utilise family planning were afraid of weight gain and migraine headaches. The next most common barrier to utilisation of family planning was wanting more children. Most of the participants do not want to start or continue family planning in our study because they want more children. This finding was found in studies by Olamijulo *et. al*.(2012) in Lagos University Teaching Hospital, Handady *et. al*. (2015) in Sudan and Etokiden *et. al.* (2017) in Cross Rivers state. The cost of family planning commodities, transportation and other indirect costs were reasons why some participants in our study could not utilise family planning. Many women are discouraged from utilising artificial family planning commodities by some religions. This was a reason for not utilising family planning by some of the participants in our study and the studies by Muhammadu & Bhola (2019) in Yobe state, Etokidem *et. al.* (2017) in Cross Rivers state and Okeowo *et. al.* (2014) in Ogun state. In this study, factors such as the woman's age and occupation, the educational attainment of her husband, as well as the number of children in the household, all played a significant role in shaping the knowledge, attitudes, and actual utilisation of family planning services. These variables were closely linked to how women perceived and made decisions regarding their reproductive health and family planning needs.

CONCLUSION

The knowledge, attitude and family planning utilization of post-partum women at the primary health care level is low and it is important to address it from the root starting at the primary health care level where most of the women who visit the primary health care are of low socio-economic status land are the most to benefit from family planning. Addressing the health facility factor, which includes training of health facility workers and provision of family planning commodities, is very important in achieving a higher prevalence of family planning utilisation.

Limitations

This study is limited because it was conducted only among post-partum women and only in a primary healthcare setting. There would be a need to extend the study to the secondary and tertiary levels of health for a more robust study.

Future directions

It is recommended that more comprehensive research should be carried out among secondary and tertiary health facilities in all geopolitical zones in Nigeria.

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