Nigerian Journal of Health Promotion
ISSN: 0995-3895
HEPRAN
Vol 18, No1, 2025

Utilization of Family Planning Methods among Women Accessing Maternal and Child Health Care Services in Kogi State

Sarah Ngukuran Burbwa[1*], Augustina Abuh[1], Dinah Nguamo Kimbi[2]

[1]Department of Human Kinetics and Health Education, Faculty of Education, Benue State University, Makurdi, Benue State

[2]Department of Human Kinetics and Health Education, College of Education Katsina-Ala, Benue State

Corresponding author:** ***(sburbwa@bsum.edu.ng)

Abstract

The study investigated utilization of family planning methods among women accessing maternal and child health care services in Kogi State. The study was guided by three research questions and two hypotheses. The cross-sectional descriptive survey research design was used for the study. The population of the study comprised all the 9,528 women who registered and access maternal and child health care services in 86 healthcare centers in Kogi State. A sample size of 476 women representing 5 per cent of the total study population was drawn using the multi-stage sampling procedure. A valid and reliable self-developed Utilization of Family Planning Methods Questionnaire (UFPMQ) was used for data collection. Mean and standard deviation were used to answer the research questions, while the hypotheses were tested using one-way Analysis of Variance (ANOVA) and a sample independent t-test statistics at .05 level of significance. The findings of the study revealed moderate extent of utilization of barrier methods ($\bar{x}$=2.65 $\pm$1.10); natural methods ($\bar{x}$=2.57 $\pm$1.03) and hormonal methods ($\bar{x}$=2.51 $\pm$1.02) among women accessing maternal and child health care services in Kogi State. The findings further showed that those 33-49years had higher mean scores ($\bar{x}$=2.69. SD =0.77) than 15-32years ($\bar{x}$=2.66, SD= 1.10), 14years and below($\bar{x}$=2.58, SD= 1.16), and 50years and above ($\bar{x}$=2.56, SD=1.11); Location (Urban $\bar{x}$=2.87, SD= 1.26) and low extent of (rural $\bar{x}$=2.01, SD= 1.15) in utilization of family planning methods in Kogi State. There was a significant difference in the extent of utilization of family planning methods among the women in Kogi State based on: age ($F_{(3,456)}$=394.92, p<0.000); and location (t-cal=-20.37, p<0.000). However, health workers should consider age and rural location in the course of education on family planning methods to strengthen utilization and reduce maternal mortality and improve child spacing

Keywords: Family planning methods, Extent of utilization, Age, Location

Introduction

Utilization of family planning methods among women accessing maternal and child health care services in Nigeria remains a critical public health concern, given its implications for maternal and child well-being, population growth and socio-economic development. Despite efforts to integrate family planning into routine maternal and child health services, uptake remains suboptimal due to factors such as limited awareness, cultural and religious beliefs, and inadequate access to quality services (Afolabi, et al., 2015). Family planning not only reduces maternal mortality by preventing high-risk pregnancies but also improves child survival by allowing adequate spacing between births. Reports showed that in 2018, about

250 million unwanted pregnancies occurred worldwide (World Health Organization [WHO], 2018). Unplanned pregnancies constitute about 80 million cases, out of which 46 million pregnancies were aborted unsafely (Fortier, 2015). These high rates of unplanned pregnancies and unsafe abortions have led to about 1.4 million of maternal deaths worldwide, making it the leading cause of death among women (WHO, 2022). Strengthening family planning services within maternal and child health care settings could lead to improved reproductive health outcomes in Nigeria.

Family planning methods are activities offered to help couples achieve, spacing and timing of their pregnancies. Uthman, et al. (2022) defines family planning methods as making conscious and informed decisions about the initiation of sexual activity, safe and effective use of contraceptive. Similarly, Ajayi et al. (2018) avers that family planning methods provide opportunity for adequate spacing of pregnancies for health and economic reasons. The authors confirmed that babies born-spaciously tend to have good quality care, abundance of quality food, high chance of receiving quality education to the desired extent, good training and adequate quality care. The WHO (2018) also defines family planning methods as educational, comprehensive, medical or social activities which enable individuals to determine freely the number and spacing of their children and to further select the means by which this may be achieved. It therefore means that any woman conceivable age can receive family planning methods to control childbearing frequency.

Women accessing maternal and child health services can opt for utilization of any of the family planning methods depending on how they feel it can serve the particular purpose for utilizing that particular family planning method. Owoyemi et al. (2020) described utilization as the patronage of health by the target population for whom the services are design for. Utilization of family planning means the proportion of women who need family planning services and actually receive it within a specified period for the benefit of women, and the family. Therefore, given the importance of family planning methods, a study conducted by Azubuike (2019) showed that the method of contraception known and used were male condoms, implants, injectables and pills. Wani, et al. (2019) revealed that a high proportion (73.3%) of the women who participated in their study had ever practiced a family planning method, 60.3 per cent of the respondents were currently practicing a family planning method, while 45.4 per cent of the men were using condoms as a family planning method. However, Odetola (2015) opined that utilization of family planning methods is essential for improved maternal health related outcomes, control of the population growth as well as achievement of the sustainable development goals. Oyewole (2020) disclosed that without effective utilization of family planning methods such as natural methods, hormonal methods or barrier methods, achieving the objectives of family planning may be 'chasing shadow' even when the services are provided. However, Marianne (2023) posits that utilization of family planning methods is influenced by several factors such as age and location.

Age is one of the variables that can influence the utilization of family planning methods among women. For the women, the child bearing age ranges from 15-49 years. According to Oyewole (2020), women of earlier stage of 15-20 years are the premature and the highest risk group, those of 21-30 years are at better age and lesser risk and have greater chances of having more children, those from 31-40 years have lesser chance of conceiving because fertility tends to decline after 30 and those above 40 years of age are more likely to experience miscarriages and have children with chromosomal defects than younger women. Age, therefore, plays a very important role in determining the extent of utilization of family planning methods. Adeoye et al. (2023) revealed that younger women have enhanced knowledge of modern health care and place more emphasis on utilizing health care services

including family planning. A study by Moris (2015) revealed that the extent of utilization of family planning methods among women of reproductive age between 26-30 years was moderately high, the extent of utilization of family planning methods among women of reproductive age between 31-49 years was very high, while there is low extent of utilization of family planning methods among women of reproductive age between 15 – 25 years. However, Eze and Adhure (2014) found that many women irrespective of their age are not utilizing family planning methods due to lack of access to family planning methods which are found in distant locations.

Location refers to the geographical area where one lives which can be referred to as urban or rural. Oyewole (2020) reported that location and proximity have important impact on utilization of family planning methods. According to Eze and Adhure (2014), most people in the rural areas utilize family planning methods to a low extent than those in the urban areas. This is because the extent of enlightenment and awareness is always more in the urban than in the rural areas. Moreover, those in the rural areas are cumbered with one superstitious belief or another. Others believe that having many children gives dignity to the woman. It is worthy to note that when married couples find out that family planning methods are near their dwelling places, they will like to utilize the facilities. As a result, couples may value the family planning methods irrespective of the number of children because it is available and accessible to them. Duru, et al. (2018) stated that most rural communities in Kogi State do not have family planning units, the ones available may not be accessible due to distance or cost of transportation to the health centers. However, Vasundhara et al. (2011) showed that 44.6% of the population of women in rural areas utilized condom for family planning methods. This study therefore investigated the extent of utilization of family planning methods among women accessing maternal and child health care services in Kogi State.

Utilization of family planning (FP) methods among women accessing maternal and child health services in Nigeria especially in Kogi State, remains critically low, particularly when analyzed by age and location. Despite a high awareness rate of 93% among women of reproductive age, only 11% of married women use any form of contraception and a mere 8.5% rely on modern methods, with short-acting options such as pills and injectables being the most common (Owoyemi, et al., 2020).Younger women, particularly adolescents and those in rural areas, often face barriers such as limited access to information, cultural and religious misconceptions and inadequate health infrastructure, which hinder their ability to make informed reproductive health choices. Conversely, older women and those in urban settings may have better access to services but still encounter challenges related to provider bias, fear of side effects, and partner disapproval. These age and location-based disparities appear to contribute to high rates of unintended pregnancies, poor maternal health outcomes and increased strain on child health services, underscoring the need for targeted, culturally sensitive interventions to improve family planning uptake across different demographic groups in the state. It is based on the above rationale that this study investigated utilization of family planning methods among women accessing maternal and child health care services in Kogi State based on age and location.

Purpose of the Study

The purpose of this study was to investigate the utilization of family planning methods among women accessing maternal and child health care services in Kogi State. Specifically, the study determined:

1. extent of utilization of family planning methods among women accessing maternal and child health care services in Kogi State;

2. extent of utilization of family planning methods among women accessing maternal and child health care service based on age in Kogi State; and
3. extent of utilization of family planning methods among women accessing maternal and child health care service based on location in Kogi State.

Research Questions

The following research questions guided the study:

1. What is the extent of utilization of family planning methods among women accessing maternal and child health care services in Kogi State?
2. What is the extent of utilization of family planning methods among women accessing maternal and child health care services based on age in Kogi State?
3. What is the extent of utilization of family planning methods among women accessing maternal and child health care services based on location in Kogi State?

Hypotheses

1. There is no significant difference in the extent of utilization of family planning methods based on age ($p \leq 0.05$).
2. There is no significant difference in the extent of utilization of family planning methods based on location ($p \leq 0.05$).

Methods

This study adopted a cross-sectional descriptive survey research design. The population of the study comprised all the 9,528 women who registered and access maternal and child health care services in 86 healthcare centers in Kogi State (Kogi State Ministry of Health, 2023). The sample size was 476 women representing 5% of the total population of the study. A multi-stage sampling procedure was adopted for this study. In the first stage, 2 senatorial districts (Kogi Central and Kogi East) were selected using simple random sampling technique. In the second stage, 6 local governments (two out of the 5 from Kogi Central and 4 out of the 9 from Kogi East) were selected using proportionate sampling technique. At the 3rd stage, 20 health Centers were proportionately selected from the 6 local government Areas selected for the study. In the 4th stage, 476 women attending MCH care services from the 20 healthcare centers were proportionately selected and used for the study.

A self-developed “Utilization of Family Planning Methods Questionnaire (UFPMQ)". The questionnaire contained 25 items structured on four-point Likert-type rating scale of Strongly Agree (SA) = 4, Agree (A) =3, Disagree (D) =2 and Strongly Disagree (SD)=1. The instrument was validated by three experts from the Department of Human Kinetics and Health Education one expert from the Department of Mathematics and Science Education and one from the Department of Educational Foundations, all in the Faculty of Education, Benue State University, Makurdi. The instrument was trial tested on 40 women using Cronbach’s Alpha which yielded a reliability coefficient of 0.91. The data collected were analyzed using mean and standard deviations to answer the research questions using limits of numbers, a mean response score of 3.50 – 4.00 was considered high utilization, 2.50 – 3.49 was considered moderate utilization, 1.50 – 2.49 was considered low utilization and 1.00 – 1.49 was considered No utilization. Null hypothesis one was tested using one-way Analysis of Variance (ANOVA) while hypothesis two was tested using independent sample t-test statistics at .05 level of significance.

Results

Table 1:

Mean Analysis of the Extent of Utilization of Family planning Methods among Women Accessing Maternal and Child Health Care Services in Kogi State (n=460)

S/N	Items	*Mean*	*SD*	*Remark*
	Barrier Methods			
3	How often do you use condom during sex?	2.66	1.12	Moderate
4	How frequent do you use condom with a casual sex partner?	2.73	1.14	Moderate
5	How often do you use diaphragm?	2.47	1.14	Low
6	How often do you use foam?	2.87	.94	Moderate
7	How often do you use spermicides?	2.53	1.14	Moderate
	Cluster Mean	**2.65**	**1.10**	**Moderate**
	Hormonal Methods			
8	How regular do you use implants?	2.51	1.09	Moderate
9	How regular do you take your pills?	2.50	1.10	Moderate
10	How regular do you take two monthly injections?	2.41	1.08	Low
11	How regular do you take three monthly injections?	2.68	.89	Moderate
12	How often do you use IUCD?	2.43	.93	Low
	Cluster Mean	**2.51**	**1.02**	**Moderate**
	Natural Method			
13	How often do you go for lactation amenorrhea?	2.60	1.09	Moderate
14	How often do you go for periodic abstinence?	2.56	1.02	Moderate
15	How often do you use withdrawal method?	2.55	0.97	Moderate
	Cluster Mean	**2.57**	**1.03**	**Moderate**

Key: 3.50 – 4.00 = High Utilization; 2.50 – 3.49 = Moderate Utilization; 1.50 – 2.49 = Low Utilization; 1.00 – 1.49 = No Utilization

Results in Table 1 indicate moderate extent of utilization of barrier methods ($\bar{x}$=2.65 $\pm$1.10); natural methods ($\bar{x}$=2.57 $\pm$1.03) and hormonal methods ($\bar{x}$=2.51 $\pm$1.02) among women accessing maternal and child health care services in Kogi State

Table 2

Mean Analysis on Extent of Utilization of Family Planning Methods among Women Accessing Maternal and Child Health Care Services based on Age (n=460)

Age	N	Barrier Methods	Hormonal Methods	Natural Methods	Cluster Mean	*SD*	Level of Utilization
		M(SD)	*M(SD)*	*M(SD)*			
14 years and below	36	2.61(1.12)	2.57(1.21)	2.55(1.14)	2.58	1.16	Moderate
15-32 years	165	2.66(1.10)	2.63(1.13)	2.69(1.07)	2.66	1.10	Moderate
33-49 years	187	2.73(1.11)	2.58(1.12)	2.75(1.07)	2.69	0.77	Moderate
50 years and above	72	2.56(1.04)	2.24(1.14)	2.89(1.14)	2.56	1.11	Moderate

Table 2 shows moderate utilization of family planning methods by women of all age range. That is those 33-49 years had higher mean scores (M=2.69, SD=0.77) than 15-32 years (M=2.66, SD=1.10), 14 years and below (M=2.58, SD=1.16), and 50 years and above (M=2.56, SD=1.11).

Table 3
Mean Analysis on Extent of Utilization of Family Planning Methods among Women Accessing Maternal and Child Health Care Services based on Location (n=460)

Location	N	Barrier Methods	Hormonal Methods	Natural Methods	Cluster Mean	*SD*	Extent of Utilization
		M(SD)	*M(SD)*	*M(SD)*			
Urban	287	2.81(1.78)	2.88(0.92)	2.93(1.09)	2.87	1.26	Moderate
Rural	173	2.49(1.09)	1.34 (1.14)	2.21(1.21)	2.01	1.15	Low

Table 3 shows moderate extent of utilization of family planning methods by women from urban location (M=2.87, SD=1.26) and low utilization by women from rural location (M=2.01, SD=1.15).

Table 4:

One-Way Analysis of Variance (ANOVA) on the Extent of Utilization of Family planning methods among Women Accessing Maternal and Child Health Care Services Based on Age in Kogi Sate

Source of Variation	M ($\bar{X}$)	SD (δ)	F (3,456)	*p*-value
14 years and below	2.58	1.16	394.92	0.000
15-32 years	2.66	1.10		
33-49 years	2.69	0.77		
50 years above	2.80	1.11		

Table 4 indicates analysis of variance (ANOVA) on the extent of utilization of family planning methods among women accessing maternal and child health care services based on age. The result of the analysis shows ($F_{(3,456)}$ = 394.92, P<0.05). Since p=0.000 is less than significant value of 0.05, the null hypothesis was rejected. This result indicates significant difference in the extent of utilization of family planning methods among women accessing maternal and child health care services based on age.

t-Test Analysis of Significant Difference in the Extent of Utilization of Family Planning Methods among Women Accessing Maternal and Child Health Care Services Based on Location

Location	N	M ($\bar{X}$)	SD (δ)	Df	t	*P*	Decision
Urban	287	2.87	.45				
				458	-20.37	0.000	Significant
Rural	173	2.01	.51				

Significant, p≤0.05

Table 5 indicates that the t-value, = -20.37and the P-value is 0.000 which is less than the alpha level of 0.05. Therefore, the null hypothesis was rejected. This result indicates significant difference in the extent of utilization of family planning methods among women accessing maternal and child health care services based on location.

Discussion

Results in Table 1 indicated moderate extent of utilization of barrier methods, natural methods and hormonal methods. This finding is not surprising and expected because utilizing family planning methods has health benefits for the mother, the baby and the whole family. This finding agrees Azubuike (2019) who reported high extent of utilization of hormonal methods in the form of injectables, pills and implants. This finding collaborates Wani et, al. (2019) who reported that all the women studied had utilized one method of family planning or the other. This finding however disagreed with Mosha (2013) who revealed that majority of the respondents (73.2%) have not used any family planning methods.

The findings in Table 2 showed moderate extent of utilization of family planning methods among the women based on age 33-49years; 15-32years; 14years and below and 50years and above. This finding is not surprising as women aged 15–49 years are in the reproductive age and need family planning to space pregnancies/births. The finding agreed with Moris (2015) who reported moderate extent of utilization of family planning methods among women of between 26- 30 and 31-49 years, was moderately high and very high respectively. Results in Table 4 however, showed that there is a significant difference in the extent of utilization based on age. This finding is not surprising as the difference in the extent of utilization of family planning methods among women of reproductive age between 26-30 years and 31-49 years may be attributed to varying life stage priorities and experiences. Women in their late 20s may be establishing their careers, starting families or spacing births, leading to a moderate level of family planning utilization. In contrast, women between 31-49 years may have achieved their desired family size, be more aware of the importance of family planning due to previous experiences and thus be more likely to utilize family planning methods to limit or space future pregnancies, resulting in a higher level of utilization. The implication of the results is that the age grade should be considered in the education of the women with regards to utilization of family planning for improved mother and child health

Results in Table 3 revealed the overall moderate extent of utilization in urban location and low extent in rural location in Kogi State. There is significant difference in the extent of utilization of family planning methods based on location among women accessing maternal and child health care services. This finding is not surprising as Duru et al. (2018) stated that rural communities in Kogi State do not have family planning units, the ones available may not be accessible due to most distance or cost of transportation to the health centers. The findings of this study agreed with the finding of Vasundhara et al. (2011) which showed that 44.6% of the population of women in rural areas utilized condom as one of the family planning methods. Their utilization of condom other than other family planning methods may be because they see condom as the easiest family planning service to be utilized. However, generally, women in urban areas utilize family planning methods more than those in rural areas due to better access to healthcare services, higher levels of education, greater exposure to family planning information, and increased autonomy in reproductive decision-making. Urban settings often provide more opportunities for employment and economic empowerment, which can influence women to delay or limit childbearing. In contrast, rural women may face barriers such as limited health infrastructure, cultural or religious constraints, and lower awareness of contraceptive options.

Conclusion

The findings have shown that there is moderate extent of utilization of barrier, natural and hormonal methods of family planning. Age and location are important factors considered in the utilization of family planning methods Maternal and child health care providers should encourage women to strengthen utilization of family planning methods such as IUCD, two months injectables and diaphragm in Kogi State. Health workers should consider age in the course of education on family planning methods to strengthen utilization and reduce maternal mortality and improve child spacing Women in rural locations should improve on the utilization of family planning methods. This could be achieved by improved education, improved access to health care facilities and services among women in rural areas in Kogi State.

References

Adeoye, L. P., Babafemi, M. O., Balogun, F. A., Saidu, M., Olutayo, F. J., & Eunice, O. E. (2023). Determinants of utilization of family planning services among women of child-bearing age attending family planning clinic in Primary Health Centre, Felele, Ibadan, Oyo-State. *International Journal of Health Systems and Medical Sciences 2*(8), 86–93.

Afolabi, B. M., Ezedinachi, E. N. U., & Oduwole, O. O. (2015). Knowledge, attitude and use of family planning methods among women in a tertiary health institution in South Western Nigeria. *Nigerian Medical Journal, 56*(3), 175–179.

Ajayi, A. I., Adeniyi, O. V., & Akpan, W. (2018). Maternal health care visits as predictors of contraceptive use among childbearing women in a medically underserved state in Nigeria. *Journal of Health, Population and Nutrition,* 37(1), 19-28.

Amarachi, S. (2019). Utilization of family planning methods and promotive measures among married couples in Imo State Nigeria. *International Journal of Population Research*, *3*(2), 43-51

Duru, O.L., Idris, M.U. & Bello, E.H. (2018). Challenges of accessibility and utilization of family planning services in rural areas of Kogi State. *International Journal of Current Research and Academic Review*, 6(2), 87-84.

Eze, B. U. & Adhure, H. (2014). Hindrances of effective usage of family planning methods among women in Adankolo Lokoja Urban Area of Kogi State. *International Journal of Current Research and Academic Review*, *2*(10), 182-190.

Fortier, L. (2015). Cultural barriers to family planning: Overcoming socio-cultural barriers, mains, misconceptions to scale up family planning methods. *A paper presented at International Conference on Family Planning in Addis Ababa. Nov, 14*.

Kogi State Ministry of Health. (2023). *Statistics of women attending maternal and child health services*. Hospitals Management board bulletin 2023.

Marianne, B.R.N. (2023). *Family planning/conceptive methods.* https://wwww.nurseslabs.comp/nursing-process

Moris, R.M. (2015). Assessing the extent of utilization of family planning methods among women of reproductive age (15-49 years) in North Kaybala.

Odetola, T. D. (2015). Health care utilization among rural women of child-bearing age: A Nigerian experience. *Pan African Medical Journal*, 3(2), 15-21.

Owoyemi, J.O., Ifatimehin, O.O, Egwuaba, E. & Obaka, P.I. (2020). Accessibility and utilization of familyplanning services among married couples in Kogi State, North Central Nigeria. *Central African Journal of Public Health*, *6*(3), 110-121.

Oyewole, M. (2020). The utilization of family planning methods among rural women in Ogun State, Nigeria. *International Journal of Management, Entrepreneurship, Social Science and Humanities*, *3*(2), 1–13.

Uthman, M. K., Bello, I. S., Fadugbagbe, A. O., Olajubu, T. O., Ismail, W. O., & Ibrahim, A. O. (2022). Unmet needs for family planning and its determinants among women of reproductive age in Ilesha Southwest Nigeria: A cross-sectional study. *SAGE Open Medicine*, *10*, 27550834221115979.

Vasundhara, S., Uday, M. Vinita, D. & Shally, A. (2011). Socio demographic determinants and knowledge, attitude, practice: Survey of family planning. *Journal of Family Medicine and Primary Care*, *1*(3), 43-47.

Wani, R. T., Rashid, I., Nabi, S. S. & Dar, H. (2019). Knowledge, attitude, and practice of family planning methods among healthcare workers in Kashmir – A cross-sectional study. *Journal of Family Medicine and Primary Care*, *8*(4), 1319-1325.

WHO (2018). Family planning/contraception key fact sheet. Retrieved on 8th February 2018, from http://www.whoint/newsroom/fact-sheets/detail/familyplanningconcep-tion.

WHO (2022). *WHO issues new guidelines on abortion to help countries deliver lifesaving care. Departmental news 2022*. https://who.int/news/item/09-03-2022-access-to-safe-abortion-critical-for-health-of-women-and-girls.