

Sources of Contraceptive Information as Predictors of Contraceptive Use among Women in Tarauni Local Government Area of Kano State, Nigeria

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Abstract

This study is conducted to assess the influence of radio, poster/billboard/leaflet and healthcare workers as media for contraceptive messages on the use of family planning by women of reproductive age in Tarauni Local Government Area of Kano State, Nigeria. The study used descriptive survey research design. Questionnaires was used to collect data from one hundred and twenty respondents, selected using simple and systematic random sampling technique. The study used frequency tables and percentage to analyses the data, while chi-square was used to answer the research questions at a 0.05 level of significance. The findings of this study indicate that listening to contraceptive messages on radio; reading or seeing contraceptive messages on posters, billboards and/or leaflets and meeting and talking with health care worker on contraceptives strongly influenced use of family planning. The study recommends that Government and other implementing agencies should use the mass media especially radio and posters/billboards/leaflets as the main source of Family planning information at the community level to ensure wider reach and depth of information. All Healthcare workers should be trained on basic family planning method and should offer family planning services routinely to all women of reproductive age who visit hospitals and clinics.

Keywords: Family planning, contraceptives, information, messages, Communication.

Introduction

Family Planning has gained tremendous acceptance and its use has increased globally over the past decades resulting in social and economic benefits for countries that have achieved significant contraceptive prevalence rate²⁵. However, many developing countries especially in sub-Saharan Africa continue to have a high unmet need for family planning. It is estimated that 222 million women have unmet need for family planning globally with most of the women living in developing countries¹⁰. The interplay of several factors significant of which are individual and household factors including demographic, biological, socioeconomic and behavioural variables are associated with this low contraceptive use⁹.

Common among these factors that have extensively been examined by several studies to have influence on the prevalence of contraception are age, education, religion, number of living children, standard of living, working status, occupation, type of marriage, location of

residence, ethnicity, husband's approval and strength of national family planning programs within countries^{4,9,12,14,23,28}. In addition, supply issues including limited choice of methods; limited access to contraception, fear or experience of side-effects; poor quality of available services; users and providers bias; gender-based barriers have been identified as other factors that influence use of family planning¹⁹.

Nigeria is one of the many developing countries that are still experiencing high fertility rate and low contraceptive prevalence rate (CPR). For over fifteen years the country's CPR for modern contraceptive methods (mCPR) has remained below 15% and fertility rate still above 5. There is sharp variation between the North and South of the Country; for instance, a Northern State of Kano where this study was conducted has a mCPR of 5.6 and fertility rate of 6.^{21,37} The absence of population policy and poor investment in family planning has kept the population high beyond the carrying capacity of the national

economy leaving about 50% of the citizens below poverty line with attendant poor health indices - high rates of induced abortion, maternal morbidity and mortality, and infant mortality - and slow economic growth²⁷. Furthermore, poor investment in strategic behaviour change communication have been adduced as responsible for low demand and use of family planning in Nigeria.

Therefore, better understanding of the effects and strengthening of the main sources of contraceptive information like friends or siblings, media, formal education and health workers may significantly influence the use of family planning^{3,17,26}.

Access to family planning information can enhance uptake of services and the use of family planning has been associated with the media used in communicating contraceptive messages. Many studies have shown that community-level exposure to family planning media messages increases the odds of contraceptive use^{9,33,36}.

Mass media like television, radio and print have capacity to inform, educate and entertain large number of people in societies. Therefore, public interventions intended to create positive change within societies are communicated through these channels. Creating positive changes or preventing negative changes in health-related behaviors can be achieved through mass media campaigns. Therefore, mass media is often exploited to promote use of family planning through creating changes in contraceptive knowledge of women, men, couples; facilitating change in attitude, and increasing knowledge of sources of products and services¹⁹. However, the power of mass media to achieve behavior change is enhanced by the presence in society concurrent availability of required services and products, availability of community-based programmes, and policies that support behaviour change.¹⁶

Exposure to behavior change communication messages is associated with the use or intention to use modern family planning.^{7,22} Specifically, exposure to radio drama has the power to increase knowledge, improve attitude and increase use of modern contraceptives among women including the uneducated ones.³⁴ A review of NDHS data from Bangladesh,¹⁵ Kenya,⁶ and Ethiopia¹ on exposure to mass media and use of family planning indicated strong relationship. Most of the studies were focused on the use of radio and Television both of which indicated significant

effect on the use of modern contraceptive. Meanwhile, Charles F. Westoff, (1995) observed in a study in Kenya that the more the exposure to more variety of media the more the likelihood of using family planning and the lower the total fertility rate. More so, women who had experience no exposure to family planning messages on mass media had 15% chances of using contraceptives and likely to have average of 5.5 children compared to a woman who is exposed to three types of media and reported to have 50% chance of using contraceptives and a fertility rate of 4.7.⁶ Although several studies have shown significant association between exposure to mass communication and use of modern family planning methods even among young people,^{19,22,35} but others have only observed weak or even negative relationship between direct exposure to mass media and use of contraceptive.^{7,32}

Healthcare providers are sources of reproductive health information including family planning messages for women of reproductive age in the course of interaction in health facility or during outreach activities in the communities. Interaction between providers and clients create impression in the minds of the clients that either encourages positive response and desire to seek healthcare services or discourage the individuals from seeking healthcare services. Individual's contact with healthcare provider is associated with consistency between family planning method and reason for initiating contraception.¹¹ More so, type of provider and number of staff that provide contraceptive services within a facility have been shown to increase the odd of client using family planning.³⁰

This may be due to opportunity for clients to make choices among providers. However, negative attitude of the staff administering family planning services have been shown among other factors to account for low use of contraceptive services among women of reproductive age especially adolescents.²⁴ As high as 16% of respondents in a study on knowledge, attitudes and practice of contraceptives who were not utilizing the health care services for contraceptives, did so because the providers were not friendly.²⁹ In the same study, 42% of respondents were of the view that improving uptake of family planning services demand that healthcare providers should display positive

attitude towards clients by being caring, patient, and friendly.

The persistent low contraceptive prevalence rate and high fertility rate is a source of concern for the local authority and healthcare practitioners. The challenges to use of family planning are multi-dimensional with significant demand side gaps. This study is expected to expand understanding on the role that access to contraceptive messages play in enhancing uptake. It will attempt to show how the different sources of contraceptive information influences use of contraceptives and thereby serve as a resource for health planners and social and Behavioural communication expert in the design and dissemination of contraceptive messages at the community level. The outcome of the study will inform appropriate intervention needed to increase CPR, lower unmet need and decrease fertility rate in the state. Therefore, the assessment of effect of sources of contraceptive messages on the use of contraceptives among women of reproductive age in Tarauni LGA would provide insights into the causes of observed levels and trends in the use of family planning in the Nigerian context.

The main aim of this research is to assess the ways in which the different sources of contraceptive messages influence the use of family planning among women of reproductive age in Tarauni local government area. Therefore, the study attempts to test the following hypothesis

1. Exposure to contraceptive messages on radio does not influence use of family planning
2. Exposure to contraceptive messages on posters/billboard/leaflet is not associated with use of family planning?
3. Contact of women with family planning providers does not influence their use of contraceptives

Methods

Research design

This study was conducted using the descriptive cross-sectional survey design to assess the effects of sources of contraceptive information on the use of family planning among women living in Tarauni Local Government Area in the ancient city of Kano, Nigeria.

Sample and sampling technique

The population of the study comprised of Women of Reproductive Age- aged 15-49 living in urban and rural parts of Tarauni local government area of Kano State.

The study used multiple sampling techniques to select four location and one hundred and twenty respondents for interview. The communities in the Local Government were stratified into urban and rural areas and two communities were randomly selected from each stratum making a total of four communities (that is, Gyadi-gyadi Arewa, Gyadi-gyadi Kudu, Dantsinke and Darmanawa Yamma). Thirty households were assigned to each community and the households were selected using systematic random sampling – each third household was selected. In each eligible household, a woman of reproductive age who agree to participate in the study and gave verbal consent was selected as a respondent and interviewed. To ensure validity and reliability of the study instrument, the researcher sought the expert opinion of researchers at the Bayero University Kano, and Society for Family Health, Nigeria.

The instrument was then pre-tested using twenty (20) respondents from Hotoro Community of Nassarawa LGA of Kano State, which was not part of the study area. The pre-testing conforms with the observation of Cooper and Schindler (2007) that pretesting questionnaires helps the researcher find ways to increase participants' interest; helps in discovering question content, wording and sequencing problems before the actual study and helps in exploring ways of improving overall quality of study. Pearson product moment correlation coefficient (PPMCC) was used and a coefficient of $(r) = 0.74$ was obtained, indicating that the instrument was good enough to be used for data collection.

Data collection

The researcher developed a questionnaire used to collect data on sources of contraceptive messages and their impact on family planning use among women in Tarauni Local Government Area of Kano State. The decision to use questionnaire and its structure was based on the nature of data that were collected, the size and distribution of the population and the objectives of the study. Four Data collectors were identified,

trained and deployed to the selected communities for data collection using the questionnaire.

The Data Collectors administered the questionnaires on 120 respondents to obtain primary data used for the purpose of this study. The questionnaire contained questions that were constructed in English language but was administered to the respondents in Hausa language because majority of the respondents were native Hausa speakers.

Data analysis

This study sought to establish the extent to which sources of contraceptive information influence the use of contraceptives among women of childbearing age. It was therefore suitable to analyze data using descriptive analysis. Data quality control and cleaning commenced in the field during supervision, which ensured that all the information on the questionnaires were properly collected and recorded and checked for completeness of data and internal consistency. In analysing the raw collected data, the researcher was guided by the objectives of the study and the research questions. The study adopted the use of frequency tables, simple percentage and Chi-square statistics to analyse the data at a 0.05 alpha level of significance. The whole analysis was done using Statistical Package of Social Sciences (SPSS) version 20.0.

Ethical considerations

The researcher sought and obtained ethical approval from the Kano State Ethical Committee before undertaking the research. Respondents were informed that the information they gave was purely for research purposes and would be confidential. Each study participant was made to give verbal consent voluntarily. To achieve anonymity of the data gathered from the respondents, they were not required to give their names.

Results

The results of the study are presented in tabular form as shown below.

Table 1 gives the summary statistics of the study population. The age of respondents ranged from 15 to 45 years and grouped into 5 years each.

The distribution shows steady increase in

number of respondents from 15-19 up to the maximum in 30-35 after which it declined to the lowest at 45-49. The mean and median age was 31 years with the bulk of the respondents below 35 years. Greater proportions of the study population (95%) are currently married while 2.5% are widowed and 2.5% are singles. The table further reveals that all the FP methods were known to the respondents, but some were more widely known. The respondents were more likely to source family planning information from a health worker/mobilizer (84.2%) than from poster/billboards/leaflets (83.3%) and radio (77.5%). Meanwhile, the respondents had discussed family planning with others including parents (27.5), spouse (85.8), health worker (81.7) and friends (70) with the spouse being the most preferred for family planning conversation. Furthermore, most respondents know where to access contraceptive service, live within 15 minutes walking distance of service delivery point, and belief that family planning services are effective and affordable.

Table 2 shows the effect of source of contraceptive information on the use of Family planning among the study population. It reviewed the influence of promotion of Family Planning on the use contraceptives. The study shows that access to information on FP have positive impact on use of contraception. More than 70% of those who heard radio jingles, seen poster/billboards/leaflets, and talked to health worker on FP in the last six months are currently using Family Planning method.

Table 3 above shows a chi-square (X^2) Statistical computation on source of contraceptive information on the use of family planning method at 0.05 alpha level of significance degree of freedom of 1. The calculated chi square values for listened to Radio message on FP in the last six months, seen poster/billboard/leaflet on FP in last six months and discussed FP with a health care worker in the last six months were higher than the critical value for each.

Therefore, the research question that source of contraceptive information does not influence the use of contraceptives is rejected since the calculated value is greater than the critical values indicating that there is significant association between source of contraceptive information and use of family planning method.

Table 1. Characteristics of respondents

Characteristic	Number	Percentage (%)
Respondent Age		
15-19	5	4.2
20-24	12	10
25-29	26	21.7
30-34	48	40
35-39	14	11.6
40-44	11	9.1
45-49	4	3.3
Respondent Marital Status		
Currently married	114	95
Widowed	3	2.5
Never married	3	2.5
Heard or seen FP method		
Pills	106	88.3
Emergency Contraceptive	10	8.3
Male Condom	67	55.8
Female Condom	32	26.7
Injectables	113	94.2
Implant	101	84.2
IUD	95	79.2
Foaming Table	7	5.8
Diaphragm	2	1.7
Rhythm	18	15
LAM	9	7.5
Withdrawal	5	4.2
Source of FP Information:		
Radio	93	77.5
Poster/billboard/leaflet	100	83.3
Health worker/Volunteer	101	84.2
Currently Using FP Method	91	75.8
Discussed FP with		
Parents	33	27.5
Spouse/sex partner	103	85.8
Healthcare worker	98	81.7
Friends	84	70
Know a place where FP method if provided	117	97.5
FP available with 15 minutes walking distance	92	76.7
FP Methods are effective	95	79.2
FP method is expensive	19	15.8

Table 2. Access to Contraceptive information and use of contraceptive method

Description	Currently Using Contraceptive Method		
	Yes	No	Total
Heard Radio message on FP in the last 6 months			
Yes	76	17	93
No	15	12	27
Seen poster/billboard/leaflet on FP in the last 6 months			
Yes	83	17	100
No	8	12	20
Met and talk with health worker/mobilizer on FP			
Yes	89	12	101
No	2	17	19

Table 3. Chi-square Summary of sources of contraceptive information on use of family planning method

Access to contraceptive information		Are you currently using any methods of contraception, Child Spacing method		Cal. X2	Df	Prob	Critical Value	Decision
		Yes	No					
Listened to Radio message on FP in the last six months	Yes	76	17	7.817	1	0,001	3.84	S
	No	15	12					
Seen poster/billboard/leaflet on FP in last six months	Yes	83	17	16.815	1	0.001	3.84	S
	No	8	12					
Discussed FP with a health care worker in the last six months	Yes	89	12	52.536	1	0.001	3.84	S
	No	2	17					

[P<0.05; S=Significant; NS=Not Significant]

Discussion

The findings on the research question on whether sources of contraceptive information affect usage among women of reproductive age showed significant association. Specifically, the study reveals that, listening to FP messages on the radio, seeing poster, billboard or leaflets on Family Planning and discussing FP with a health worker within six months to the study were significantly associated with the use of family planning. The use of mass media has been shown to increase awareness of family planning and consequently its use have been widely reported.^{9,19} Similarly, the role of health care provider in the promotion of contraceptive access has been emphasized by several studies.^{5,13,20}

The significant influence of both electronic and print media on family planning use as observed in this study may have been enhanced by their role in increasing knowledge of where

contraceptive services are provided and the nearness of the service delivery point to place of residence and presence of friendly providers as similarly observed by Melanie Wakerfield (2010). Exposure to family planning messages on radio including radio magazine, drama or jingles have been observed to increase knowledge and improve attitude on the effectiveness of family planning and consequently increase use of modern contraceptives even among uneducated women.^{6,34}

The interaction between health worker and client has shown very strong association with the use of family planning. Trained and friendly provider can provide high quality services that dispel misconception, offer contraceptive choices and continuous support. This way, clients are assured of the effectiveness, affordability, and ease of access of contraceptives and thereby increasing usage. Saima Hamid and Rob

Stephenson (2006) have reach similar conclusion, where they noted that both type and number of providers was associated with increased use of family planning in health facility. Although, women of reproductive age were more likely to seek the opinion of their spouse on family planning compared with health worker, friend or parent before using a method but despite the strong association between discussion among couples and use of family planning,¹⁸ the current study has observed a stronger association between discussion with health worker than any of the other categories of persons.

Conclusion

The use of radio, posters/ billboards/leaflets and health workers to disseminate reproductive health messages increases the use of contraceptives among women of reproductive age. Therefore, Government and other implementing agencies should use the mass media as the main source of Family planning information at the community level and healthcare workers across health facilities should be trained on client friendly family planning services to make services routinely available and accessible to every woman who visits a facility.

Limitations

This study is limited to the assessment of influence of sources of information that are prevalent and easily accessible in the intervention communities. It excludes other factors that may equally influence use of family planning. More so, the study was restricted to a local Government area due to time and financial constraints, however, the selection of communities and respondents for the study ensures adequate representativeness for accuracy of findings.

References

- [1]. Abebe Gizaw and Nigatu Regassa (2011). Family planning service utilization in Mojo town, Ethiopia: A population-based study. *Journal of Geography and Regional Planning* Vol. 4(6), pp. 355-363.
- [2]. Adeyemi, T.O and Adu, E.T. (2010). Enrolment analysis and the availability of physical facilities for the Universal Basic Education Programme in Ekiti State, Nigeria. *Middle East Journal of Scientific Research*.
- [3]. Ankomah, A., J. Anyanti, and M. Oladosu (2011). Myths, misinformation and communication about family planning and contraceptive use in Nigeria. *Open Access Journal of Contraception* 2011 (2):95-105.
- [4]. Audu, B., Yahya, S., Geidama, A., Abdu Ssalam, H., Takai, I., Kyari, O. (2008). "Polygamy and the use of contraceptives". *International Journal of Gynaecology and Obstetrics* 101(1): 88-92.
- [5]. Blake, M., and Babalola, S. (2000). "Impact of a Male Motivation Campaign on Family Planning Ideation and Practice in Guinea". In *Field Report No 13*. Center for Communication Programs. Baltimore: Johns Hopkins University. Bloomberg School of Public Health.
- [6]. Charles F. Westoff and German Rodriguez (1995). The Mass Media and Family Planning in Kenya. *International Family Planning Perspectives*. Vol. 21, No. 1 (Mar., 1995), pp. 26-31+36. Guttmacher Institute. DOI: 10.2307/2133602. <https://www.jstor.org/stable/2133602>.
- [7]. Chukwuedozie K. A., Clifford O, Ijeoma D. A. and Chidiebere A. N. (2016). Access to mass media messages, and use of family planning in Nigeria: a spatio-demographic analysis from the 2013 DHS. *BMC Public Health* BMC series – open, <https://doi.org/10.1186/s12889-016-2979-z>.
- [8]. Cooper, D.R., & Schindler, P.S. (2007), *Business Research Methods*, (9th ed.). Illinois, McGraw-Hill.
- [9]. Ejembi, C. Dahiru, T. and Aliyu, A. (2015). Contextual Factors Influencing Modern Contraceptive Use in Nigeria, A DHS working paper, USAID, (120).
- [10]. Federal Ministry of Health (2014). *Nigeria Family Planning Blueprint (Scale-Up Plan)*. Federal Government of Nigeria.
- [11]. Georgine Lamvu, Markus J.Steiner, Sean Condon and Katherine Hartmann (2006). Consistency between most important reasons for using contraception and current method used: the influence of health care providers. *Contraception: Volume 73, Issue 4, April 2006, Pages 399-403*. <https://doi.org/10.1016/j.contraception.2005.10.007>.
- [12]. Iheyinwa, C.S. and Muiyiwa, O. (2016). Socio-Demographic Factors, Contraceptive Use and Fertility Preference among Married Women in SouthSouth Region of Nigeria. *International Conference on African Development Issues (CU-ICADI 2016)*.
- [13]. Kabagenyi, A., Ndugga, P., Wandera, S.O and Kwagala, B. (2014) "Modern contraceptive use among sexually active men in Uganda: does discussion with a health worker matter?". *BMC Public Health* 14: 286. doi: 10.1186/1471-2458-14-286.
- [14]. Mackenzie H, Drahota A, Pallikadavath SW and Dean T (2013). What kind of family planning delivery mechanisms increase family planning acceptance in

developing countries? *A mixed method Systematic Review* 67 (134).

[15]. Mazharul Islam, M. and Saidul Hasan, A. H. M. (2000). Mass Media Exposure and its impact on family planning in Bangladesh. *Journal of Biosocial Science*, Cambridge University Press, Volume 32, Issue 4 pp. 513-526.

[16]. Melanie A. Wakefield, Barbara Loken Robert CHornik (2010). Use of mass media campaigns to change health behavior. *The Lancet*, Volume 376, Issue 9748, 9–15 October 2010, Pages 1196. [https://doi.org/10.1016/S0140-6736\(10\)60809-4](https://doi.org/10.1016/S0140-6736(10)60809-4).

[17]. Monjok, E., A. Smesny, J.E. Ekabua, and J.E. Essien (2010). Contraceptive practices in Nigeria: Literature review and recommendation for future policy directions. *Open Access Journal of Contraception* 2010 (1):9-22.

[18]. Mostafa Kamal, S.M. and Islam, A. (2010) “Contraceptive Use: Socioeconomic Correlates and Method Choices in Rural Bangladesh”. *Asia-Pacific journal of Public Health* 22: 436 (DOI: 10.1177/1010539510370780).

[19]. Mwaikambo, L., Speizer, I. S., Schurmann, A., Morgan, G., & Fariyal Fikree. (2011). What works in family planning interventions: A systematic review of the evidence. *International Journal*, 42(2), 36–41.

[20]. Nalwadda, G., Mirembe, F., Byamugisha, J., Fanelid, E. (2010). “Persistent high fertility in Uganda: young people recount obstacles and enabling factors to use of contraceptives”. *BMC Public Health* 10(1): 530.

[21]. National Bureau of Statistics (2017). Demographic Statistics Bulletin. nigerianstat.gov.ng/download/775.

[22]. Neeru Gupta, Charles Katende and Ruth Bessinger (2004). Associations of Mass Media Exposure with Family Planning Attitudes and Practices in Uganda. <https://doi.org/10.1111/j.1728-4465.2003.00019.x>.

[23]. Nwankwo, B.O, Ogueri, E. (2006). “Influence of Husband’s Decision on the Use of Modern Contraceptives Among Rural and Urban Married Women in Imo State, Nigeria”. *International Journal of Tropical Medicine* 1(40): 140-144.

[24]. Okech T, Wawire NW and Mburu T (2011). Contraceptive Use among Women of Reproductive Age in Kenya’s City Slums, *International Journal of Business and Social Science* 2 (1) 22-43.

[25]. Olugbenga- Bello, A. Abodunrin, O. and Adeomi, A. (2011). Contraceptive Practices Among Women in Rural Communities in South- Western Nigeria, *Global Journal of Medical Research*, 11(2).

[26]. Oye-Adeniran, B., I.F. Adewale, A.V. Umoh, A. Oladokun, A. Gbadegesin, and E.E. Ekanem. (2006). Community-based study of contraceptive behavior in Nigeria. *African Journal of Reproductive Health* 10 (2):90-104.

[27]. Oyedokun, A. O (2007). Determinants of Contraceptive Usage: Lessons from Women in Osun State, Nigeria, *Journal of Humanities and Social Sciences*, (1)2.

[28]. Palamuleni, M. E. (2013). Socio-economic and demographic factors affecting contraceptive use in Malawi. *African Journal of Reproductive Health*, 17(3), 91–104. doi.org/10.4314/ajrh.v17i3.

[29]. Ramathuba, D. U., Khoza, L. B., & Netshikweta, M. L. (2012). Knowledge, attitudes and practice of secondary school girls towards contraception in Limpopo Province. *Curationis*. [http://doi.org/10.4102/curationis.v35i1.4535\(1\)](http://doi.org/10.4102/curationis.v35i1.4535(1)).

[30]. Saima Hamid and Rob Stephenson (2006). Provider and Health Facility Influences on Contraceptive Adoption in Urban Pakistan. *International Family Planning Perspectives*. Vol. 32, No. 2 (Jun., 2006), pp. 71-78. Published by Guttmacher Institute. <https://www.jstor.org/stable/4147595>.

[31]. Simiyu, J. (2009). Revitalizing a Technical Training Institute in Kenya. A Case Study of Kaiboi Technical Training Institute. Germany: UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training. Retrieved from <http://www.unevoc.unesco.org/publication>.

[32]. Stella Babalola, Lisa Folda and Hadiza Babayaro (2008). The Effects of a Communication Program on Contraceptive Ideation and Use Among Young Women in Northern Nigeria. Wiley Online Library. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1728-4465.2008.168.x>.

[33]. Stephenson, R., Baschieri, A., Clements, S., Hennink, M., and Madise, N. (2007). Contextual influences on modern contraceptive use in sub-Saharan Africa. *American Journal of Public Health*, 97(7), 1233–1240. doi.org/10.2105/AJPH.2005.071522.

[34]. Thomas W. Valente, Young Mi Kim, Cheryl Lettenmaier, William Glass and Yankuba Dibba (1994). Radio Promotion of Family Planning in The Gambia. *International Family Planning Perspectives*. Vol. 20, No. 3 (Sep., 1994), pp. 96-100. Published by: Guttmacher Institute. DOI: 10.2307/2133511. <https://www.jstor.org/stable/2133511>.

[35]. Ummulkhulthum A. Bajoga, Ken L. Atagame, Chinelo C. Okigbo (2015). *Media Influence on Sexual*

Activity and Contraceptive Use: A Cross Sectional Survey among Young Women in Urban Nigeria. African Journal of Reproductive Health; Vol 19, No 3 (2015).

[36]. Wang, W., S. Alva, R. Winter, and C. Bugert (2013). Contextual influences of modern contraceptive use among rural women in Rwanda and Nepal. DHS Analytic studies no. 14. Washington DC USA: USAID.

[37]. National Population Commission (NPC) [Nigeria] and ICF (2019). *Nigeria Demographic and Health Survey 2018*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.