

ORIGINAL RESEARCH ARTICLE

Assessment of knowledge, attitude and practice on family planning among women of reproductive age at hospitals and clinic centers in the rural Western Sierra Leone

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Abstract

Informed decisions about one's sexual and reproductive health can be made through family planning. Women of reproductive age in rural Sierra Leone's Western area were asked to participate in a survey to determine their attitudes and knowledge toward family planning and the use of contraceptives. A descriptive cross-sectional study survey was conducted in the Western Area Rural of Sierra Leone. Females in the range of 15 to 49 years old were included in the study. The research was conducted from November 2021 to December 2021. Using a pre-designed and pretested questionnaire, 180 women were assessed for their knowledge, attitudes, and practices regarding family planning. According to the study, all participants knew about family planning, but only 68.3% had used contraceptives. There were more than half who learned about it from the media. The study found that 95% of participants had a positive attitude towards contraceptives. Most commonly, contraceptives used were oral pills (31.6), injections (21.1%), implants (19.1%), lactational amenorrhea (13.8%), condoms (8.8%), and intrauterine devices (5%). In our study, the most common reasons given by participants for not using contraceptives were; not willing to disclose 52.6%, a desire for a child 19.2%, fear of side effects 15.7%, currently pregnant 8.7%, and against religious beliefs 3.5%. The study shows that even if people are aware and educated about contraceptives, they may not use them. Educating and motivating people and improving access to family planning services are still necessary to improve the effectiveness and appropriateness of contraceptive use and halt the population growth trend. (*Afr J Reprod Health* 2022; 26 [6]:15-21).

Keywords: Contraceptives, family planning, knowledge, attitude, practice, Sierra Leone

Résumé

Des décisions éclairées concernant sa santé sexuelle et reproductive peuvent être prises grâce à la planification familiale. Les femmes en âge de procréer dans la zone rurale occidentale de la Sierra Leone ont été invitées à participer à une enquête pour déterminer leurs attitudes et leurs connaissances à l'égard de la planification familiale et de l'utilisation des contraceptifs. Une enquête d'étude transversale descriptive a été menée dans la zone rurale occidentale de la Sierra Leone. Des femmes âgées de 15 à 49 ans ont été incluses dans l'étude. La recherche a été menée de novembre 2021 à décembre 2021. À l'aide d'un questionnaire préconçu et prétesté, 180 femmes ont été évaluées pour leurs connaissances, leurs attitudes et leurs pratiques en matière de planification familiale. Selon l'étude, tous les participants connaissaient la planification familiale, mais seulement 68,3 % avaient utilisé des contraceptifs. Il y en avait plus de la moitié qui l'ont appris par les médias. L'étude a révélé que 95 % des participants avaient une attitude positive envers les contraceptifs. Le plus souvent, les contraceptifs utilisés étaient les pilules orales (31,6 %), les injections (21,1 %), les implants (19,1 %), l'aménorrhée de lactation (13,8 %), les préservatifs (8,8 %) et les dispositifs intra-utérins (5 %). Dans notre étude, les raisons les plus courantes données par les participants pour ne pas utiliser de contraceptifs étaient ; non disposé à divulguer 52,6%, désir d'enfant 19,2%, peur des effets secondaires 15,7%, actuellement enceinte 8,7% et contre les croyances religieuses 3,5%. L'étude montre que même si les gens sont conscients et éduqués sur les contraceptifs, ils peuvent ne pas les utiliser. L'éducation et la motivation des populations et l'amélioration de l'accès aux services de planification familiale sont encore nécessaires pour améliorer l'efficacité et la pertinence de l'utilisation des contraceptifs et stopper la tendance à la croissance démographique. (*Afr J Reprod Health* 2022; 26[6]:15-21).

Mots-clés: Contraceptifs, planification familiale, connaissances, attitude, pratique, Sierra Leone

Introduction

Family planning is a choice made by couples and individuals based on knowledge, attitude, and responsible decisions¹. When a couple decides to limit or space the number of children they have, they use contraceptive methods². There are many aspects of family planning that are concerned with the reproductive health of a mother, the spacing between pregnancies, avoiding unwanted pregnancies or abortions, and preventing sexually transmitted diseases^{3,4}.

Mother and child health indicators in Sierra Leone rank among the worst globally⁵. This can be addressed in several ways, one of which is expanding the availability of contraceptive services, especially in rural areas. In Sierra Leone, family planning services have been deficient. Contraceptive prevalence rates for modern methods were only 3.9% in 2000 and 6.7% in 2008 during the country's decade-long civil conflict (1991–2002)^{6,7}. Modern methods had a contraceptive prevalence rate of 15.6% in 2013, while traditional methods had a rate of 1.0%, according to the latest population-based estimate from 2013. Furthermore, only 25.0% of married women in Sierra Leone who want to avoid getting pregnant do so by using contraception, indicating that the country's overall demand for family planning services is low by international standards. This means that only 37.5% of the total family planning demand is met by modern methods, which falls well short of the Sustainable Development Goal target of at least 75%^{8,9}. Ebola's (2014–2016) epidemic has been shown to have reduced family planning services¹⁰.

The maternal, neonatal, and under-five mortality rates in sub-Saharan West Africa are still high. Increased family planning is one of the most effective methods to accomplish and deal with this problem and delay the first pregnancy¹¹. In Sierra Leone, adolescent pregnancies account for around 28% of all births¹², and 40% of all maternal deaths occur in this age group^{13,14}. Teenage pregnancy and the risk of STIs and HIV infection are two crucial issues in adolescent reproductive and sexual health¹⁵. Sexually active unmarried youths are best served by using two forms of protection rather than none. According to the Sierra Leone Demographic and Health Survey, only 1% of women aged 15 to 24 use condoms, while 23% use some form of modern contraception¹². Inadequate sexual

knowledge and risk perception, as well as lack of skills and power to negotiate safe sex options, are factors influencing youths' use of condoms and contraception¹⁶.

Women who use contraceptives report fewer unwanted pregnancies, fewer abortions, and decreased death and disability rates associated with pregnancy and childbirth complications. They have to go through childbirth less frequently, which can be life-threatening. Conceivable contraceptive use reduced maternal mortality by 44% in 2008, according to Ahmed *et al.*¹⁷, and satisfying the unmet need for contraception would have reduced mortality by another 29%. One study found that birth spacing of at least two years can reduce infant mortality by 13%, and birth spacing of at least three years can reduce it by 25%¹⁸. Family planning can play an essential role in a country's transition from high birth and death rates to low birth and death rates by declining fertility rates. The government can save money by providing social sector services to fewer people. The environment benefits from less stress on arable land and water resources and lowers carbon dioxide emissions^{19,20}.

Understanding family planning options is a significant problem for most women of childbearing age. Even though they are familiar with the names of a few contraceptive pills, they have no idea where they can get them or how to use them properly. A lack of knowledge, attitudes, and practices among women of reproductive age may be due to misunderstandings or misinformation^{21,22}. This study aims to assess the Knowledge, Attitude, and Practice of family planning among Women of Reproductive Age at hospitals and clinic centres in Western Area Rural Sierra Leone.

Methods

A descriptive cross-sectional study survey was conducted in Goderich, Adonkia, Ogoo Farm, Lakka, Sussex, and Hamilton in the Western Area Rural of Sierra Leone. Women between the ages of 15 and 49 were included in the study. The research was conducted from November 2021 to December 2021.

Sample size and sampling method

A random sampling of 180 participants of reproductive-age women 15–49 years, 30 from each of the six communities; Goderich, Adonkia, Ogoo

Farm, Lakka, Sussex and Hamilton in the Western Area Rural, Sierra Leone, who visited the communities' hospitals and clinics and willing to participate during the study period were selected for this research.

Inclusion criteria

Women of reproductive age group, 15-49 years living in any of the six areas and willing to participate in our study.

Exclusion criteria

Women below or above the reproductive age group, those not willing to participate in our survey, and those outside the study communities.

Data collection

After obtaining the participants' informed written consent and explaining the study's goals, data were collected using an interview method and a semi-structured, pretested, and validated questionnaire. To protect the participants' privacy, they were given assurances. They were asked about their age, socioeconomic status, education, occupation, knowledge, attitude, and various methods of contraception they used.

Statistical analysis

Descriptive statistical measures in SPSS version 25, such as frequencies and percentages, were used to analyze 2019 Microsoft Excel worksheet data. Tables were used to illustrate the findings. Since the study's sample size was small, the research can not make inferences or predict family planning. There may have been information bias due to the stigma associated with the use of contraceptives and participants' reluctance or inability to understand the questions. Therefore, descriptive statistics were considered the best to understand what happens or exists in the study population.

Results

Among the 180 women in the study, more than 37.2% were in the 21-30 age bracket. A little over half of the participants were married (56.1%). The majority were Muslims (72.2%), followed by Christians (27.8%). The majority of the women

(81.1% of the population) were literate. A monthly income of Le,1,000,000-1,500,000 is earned by 33.9% of the participants. About one-third of the participants were housewives (35.6%) (Table 1).

Knowledge

All the women had heard of various methods for preventing pregnancies. Media sources provided information on contraceptives to 52.7% of women (Table 2). Only 27.7% of the women polled stated that family planning was a means of ensuring a small and happy family (Birth Spacing). Oral contraceptive pills are known by 31.6% of the respondents. Condoms were known to 8.8% of respondents, while intrauterine devices and contraceptive implants were known to 19.4% and 21.1% of respondents. Lactational amenorrhea was known to 13.8% of respondents. They were aware that Marie Stopes (52.2%) and medical shops/pharmacies (36.1%) sold contraceptives (Table 2). Contraceptives prevent unwanted pregnancies, but only 3% of women know that condoms prevent sexually transmitted diseases.

Attitude

Women who did not use contraception but were willing to do so in the future were 31.6%; women who knew that family planning is beneficial were 95%, while 83.3% want to encourage their family and friends to do the same (Table 3).

Practice

More than one-third of the 123 women who had used contraceptives had taken oral pills, while less than one-sixth had used the intrauterine method. Injections were used by 21.1% of participants, while implants were used by 27.6%. The methods were chosen by 96.7% of the women because they were convenient and comfortable to use (Table 4).

Barriers to using contraception

When asked why they didn't use contraceptives, 52.6% of women said they had no idea. The reasons for not using any form of contraception ranged from a desire to avoid pregnancy complications to a fear of side effects. 8.7% of women surveyed were currently pregnant, while 3.5% were against religious beliefs (Table 5).

Table 1: Sociodemographic correlates (n=180)

Characteristics	Frequency	Percentage
Age		
15-20 years	34	18.9
21-30 years	67	37.2
31-35 years	40	22.2
36-40 years	22	12.2
41-49 years	17	9.4
Marital Status		
Married	101	56.1
Single	62	34.4
Divorced	2	1.1
Separated	10	5.6
Widowed	5	2.8
Religion		
Christianity	50	27.8
Islam	130	72.2
Educational Level		
No formal education	34	18.9
Primary education	9	5.0
Secondary education	94	52.2
Tec/voc. Education	14	7.8
Teachers training college	4	2.2
University education	25	13.9
The income per Month in Leones (Le)		
100,000-500,000	26	14.4
500,000-1,000,000	25	13.9
1,000,000-1,500,000	61	33.9
1,500,000-2,000,000	54	30.0
2,000,000-3,000,000	11	6.1
3,000,000-4,000,000	3	1.7
Occupation		
Unemployed	21	11.7
Student	26	14.4
House wife	64	35.6
Teacher	6	3.3
Trader	63	35.0

Discussion

Family planning is a way of thinking and living that individuals and couples adopt based on knowledge, attitude, and responsible decisions¹. It is up to the married couple to decide how many children they want to have and how often they want to have them through contraceptive devices². Reproductive health, birth spacing, unwanted pregnancies and abortions, sexually transmitted diseases, and improving the quality of life for the mother, fetus, and the family are family planning issues^{23,24}.

Eighty-one per cent of the women in this study are literate, with 59.4% of them being in the 21-35 age range. A survey by Srivastava *et al.* found a similar age range, but with a much lower literacy rate, at 53.4%, than ours at 81.1%.²⁵ In a rural area of Dakshina Kannada, 52.4% of the

women using contraceptives were between 15 and 34. According to Mohanan *et al.*²⁶, 46.5% of Ethiopian women were under 29 in a study by Kasa *et al.*. In contrast, in a survey conducted by Prachi *et al.* in Sikkim, 92.4% of women were under 34 years^{27,28}.

Participants in this study were aware of the various methods of birth control. In a study by Prachi *et al.*, 94.2% of participants were mindful of contraceptives. In contrast, Tilahun *et al.*, in their research, found an even higher percentage of participants, 96%, who were aware^{27,29}. Another similar study by Rao *et al.* found that 81% of their study subjects were aware of contraception.³⁰ Omo-Aghoja *et al.* and Becker have also found similar results in their studies^{31,32}.

Most of those who have learned about contraceptives in our study, 52.7% knew about them via T.V. / Radio, Newspapers / Magazines, and from 26.1% friends and family, and 21.1% from health personnel, whereas in Srivastava *et al.*²⁵ studies, 70% learned about contraceptives from those around them and 39% from radio and television.

It is clear from the results of this study that 68.3% of women have used contraceptives at some point in their lives. Most commonly used were oral pills (31.6), injections (21.1%), implants (19.1%), lactational amenorrhea (13.8%), condoms (8.8%) and intrauterine devices (5%). A study by Nayak *et al.* in Karnataka found that 18% of women used pills, 41% utilized Cu-T, 27% had tubectomy, 59% utilized condoms, 10% utilized injectable hormonal contraception and 3% utilized emergency contraception³³. Tizta *et al.* and Pegu *et al.* found similar results in Ethiopia and Meghalaya^{29,34}.

Women who had never used contraceptives were found to be 36.1% in the current study, more than in previous studies by Nayak *et al.* and Young *et al.* (11% and 8%, respectively)^{33,35}. Even so, our findings were comparable to those of Sherpa *et al.*, 38.2%, Prachi *et al.*, 44.6% and Srivastava *et al.*, which found that 55% of participants had never used contraceptive methods in their studies^{25,28,36}.

In our study, the most common reasons given by participants for not using contraceptives were; not willing to disclose 52.6%, a desire for a child 19.2%, fear of side effects 15.7%, currently pregnant 8.7% and against religious beliefs 3.5%. In Ethiopia, 44% say they need a child, so they don't use contraception, and 23.1% say they're afraid of

Table 2: Knowledge and awareness regarding contraception (n=180)

Characteristics	Frequency	Percentage
Do you know/Have you heard about family planning	180	100.0
Source		
T.V/Radio/Newspaper/Magazine	95	52.7
Friends/Relatives	47	26.1
Health personnel	38	21.1
Methods of contraception		
Oral Contraceptive Pills	57	31.6
Condoms	16	8.8
Intrauterine Device (IUD)	9	5.0
Contraceptive Implant	35	19.4
Contraceptive Injections	38	21.1
Lactational amenorrhea	25	13.8
Source of availability		
Government hospital	21	11.6
Marie Stopes	94	52.2
Medical shop / Pharmacy	65	36.1
Reason for using contraceptive		
To prevent Sexually transmitted disease	7	3.0
Birth spacing	50	27.7
Reducing the number of children	54	30.0
To prevent unintended pregnancy	69	38.3

Table 3: Attitude towards family planning (n=180)

Attitude	Frequency	Percentage
Contraceptive use is a good thing.	171	95%
Would you encourage a friend/relative to participate in family planning?	150	83.3%
I have never used family planning, but open to Family planning.	57	31.6%

Table 4: Contraceptives in the past used (n=123)

Contraceptive Used	Frequency	Percentage
Oral Contraceptive Pills	39	31.7
Condoms	16	13.0
Intrauterine Device (IUD)	8	6.5
Contraceptive Implant	34	27.6
Contraceptive Injections	26	21.1
Reasons for using them		
Easily available	80	65.0
Comfortable and easy to use	119	96.7
Inexpensive	69	56.0

side effects²⁹. 25.5% of women in Sikkim say lack of knowledge is why they are not using contraceptives, while 14.8% of the women refuse to

Table 5: Barriers to using contraceptives (n=57)

Barrier of contraceptive method	Frequency	Percentage
Currently Pregnant	5	8.7
Desire to have a child	11	19.2
Against religious beliefs	2	3.5
Fear of side effects	9	15.7
Not willing to Disclose	30	52.6

give reasons why they are not using contraceptives, according to Prachi et al. study. in Sikkim²⁸.

Conclusion

Contraception is a topic about which the participants in this study are well-versed and have a positive outlook. However, it was discovered that the various methods of contraception were not being used to their full potential. Our findings show that even when women are aware of the benefits of contraception, they do not always go out and use it. Before implementing a family planning program, one needs to know the community's level of awareness and practices. To increase contraceptives, people need to be educated and motivated, and family planning services need to be improved.

Limitation

Because cross-sectional research cannot be used to examine behaviour over a long period, and because the snapshot times are not always guaranteed to represent the entire community, the present study had limitations. There may have been information bias due to the stigma associated with the use of contraceptives and participants' reluctance or inability to understand the questions. As a result, the study's knowledge, attitude, and practices may have been overestimated or underestimated.

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Competing interests

The authors have declared that they have no conflicts of interest in the work they have written.

Ethics approval and consent to participate

Njala University Sierra Leone's Ethical Review Committee gave the project permission and approval to conduct the survey. Participants were made aware of the study's goals and purpose, and they signed a consent form stating that they understood and agreed to those goals. During the data collection period, parental consent was obtained for those study participants under 18 years old.

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Contribution of authors

Conceptualization: A.H. Koroma, E.Y. Fofanah. Validation: I. A. Bakarr, J. Johnny, A.H. Koroma, J. B. Saidu. J.A. Musa Methodology: A. H. Koroma, E. Y. Fofanah, A. Osborne Data Curation: S. M. T. Williams, A. Osborne, E. Y. Fofanah, C. Bangura Original draft preparation: A. H. Koroma, E.Y. Fofanah. Writing-review and Editing: A. H. Koroma, A. Osborne, C. Bangura S. M. T. Williams, J. Johnny, J. B. Saidu, J.A. Musa, I. A. Bakarr. Supervision: A. H. Koroma.

References

- World Health Organization. Standards for maternal and neonatal care. Geneva: World Health Organization; 2006.
- Central Statistical Agency. Ethiopian Demographic and Health Survey 2016 key indicators report. Addis Ababa and Maryland, Ethiopia; 2016.
- World Health Organization. Fact sheets on family planning, World Health Organization. <https://www.cycletechnologies.com/single-post/2017/02/14/World-Health-Organization-Updated-Family-Planning-Contraception-Fact-Sheet>.
- United Nations. World contraceptive use, 2009 wall chart. New York United Nations Population Division:UnitedNations;2009.http://www.un.org/esa/population/publications/contraceptive2009/contracept2009_wallchart_front.pdf.
- Bryce J, Victoria C, Berman P and Cesar V. Fulfilling the health agenda for women and children: the 2014 report, 2014, https://data.unicef.org/wp-content/uploads/2015/12/Countdown_to_2015-Fulfilling-the-Health_Agenda_for_Women_and_Children-The_2014_Report-Conference_Draft_159.pdf
- Leone S. The status of women and children in Sierra Leone, https://books.google.co.in/books/about/The_status_of_women_and_children_in_Sier.html?id=cLa3AA-AAIAAJ&redir_esc=y
- Leone S. Health survey, 2008, <http://www.mamaye.org.sl/sites/default/files/evidence/SL%20DHS%202008.pdf>
- Statistics Sierra Leone, ICF International. Sierra Leone demographic health survey 2013. Rockville, MD: ICF International, 2014.
- Alkema L, Kantorova V, Menozzi C and Biddlecom A. National, regional, and global rates and trends in contraceptive prevalence and unmet need for family planning between 1990 and 2015: a systematic and comprehensive analysis. *Lancet* 2013; 381(9878): 1642–1652.
- UNFPA. Rapid assessment of Ebola impact on reproductive health services and service seeking behaviour in Sierra Leone table of contents, 2015, http://www.mamaye.org.sl/sites/default/files/evidence/UNFPA%20study%20synthesis_March%2025_final_d.pdf
- Black RE, Levin C, Walker N, Chou D, Liu L, Temmerman M and DCP3 RMNCH Authors Group. Reproductive, maternal, newborn, and child health: key messages from disease control priorities 3rd edition. *Lancet*. 2016;3(388): 2811–24. [https://doi.org/10.1016/S0140-6736\(16\)00738-8](https://doi.org/10.1016/S0140-6736(16)00738-8). Epub 2016 Apr 9. Review. PubMed PMID: 27072119
- Statistics Sierra Leone (SSL) and ICF International. Sierra Leone Demographic and health survey 2013. Freetown and Rockville: SSL and ICF International; 2014.
- Nove A, Matthews Z, Neal S and Camacho AV. Maternal mortality in adolescents compared with women of other ages: evidence from 144 countries. *Lancet Glob Health*. 2014;2(3): e155–64.
- November L, Sandall J. 'Just because she's young, it doesn't mean she has to die': exploring the contributing factors to high maternal mortality in adolescents in eastern Freetown; a qualitative study. *Reprod Health*. 2018; 15(1):31.
- Chandra-Mouli V, Svanemyr J, Amin A, Fogstad H, Say L, Girard F and Temmerman M. Twenty years after an international conference on population and development: where are we with adolescent sexual and reproductive health and rights? *J Adolesc Health*. 2015; 56:1–6.
- Yakubu I and Salisu WJ. Determinants of adolescent pregnancy in sub-Saharan Africa: a systematic review. *Reprod Health*. 2018;15(1):15
- Ahmed S, Li Q, Liu L and Tsui AO. Maternal deaths averted by contraceptive use: an analysis of 172 countries. *Lancet* 2012; 380(9837): 111–125.
- Rutstein SO. Further evidence of the effects of preceding birth intervals on neonatal, infant and under-five-years mortality and nutritional status in developing countries: evidence from the demographic and health

- surveys, 2008, <https://dhsprogram.com/pubs/pdf/WP41/WP41.pdf>
19. Moreland S and Talbird S. Achieving the Millennium Development Goals: the contribution of fulfilling the unmet need for family planning, 2006, http://pdf.usaid.gov/pdf_docs/Pnadm175.pdf
 20. O'Neill BC, Liddle B, Jiang L, Smith KR, Pachauri S, Dalton M and Fuchs R. Demographic change and carbon dioxide emissions. *Lancet* 2012; 380(9837): 157–164.
 21. Gaur DR, Goel MK and Goel M. Contraceptive practices and related factors among female in the predominantly rural Muslim area of North India. *Internet J World Heal Soc Polit.* 2008;5(1):1–5.
 22. Oyedokun AO. Determinants of contraceptive Usage: lessons from Women in Osun State, Nigeria. *J Humanity Soc Sci.* 2007; 1:1–14.
 23. Adeyomo AR, Asabi O and Adedoturo O. Knowledge and practice of contraceptives among women of reproductive ages in the southwest, Nigeria. *Int J Engineering Sci.* 2012;1(2):70-6.
 24. World Health Organization. India and Family Planning: An overview. http://www.searo.who.int/entity/maternal_reproductive_health/documents/india-fp.pdf.
 25. Srivastava R, Srivastava DK, Jina R, Srivastava K, Sharma N and Saha S. Contraceptive knowledge attitude and practice (KAP) survey. *J Obstet Gynecol India.* 2005;55(6):546-50.
 26. Mohanan P, Kamath A and Sajjan BS. Fertility pattern and family planning practices in a rural area in Dakshina Kannada. *Indian J Com Med.* 2003;28(1):15-8.
 27. Kasa AS, Tarekegn M and Embiale N. Knowledge, attitude and practice towards family planning among reproductive-age women in a resource-limited setting of Northwest Ethiopia. *BMC Res Notes.* 2018;11:1-6.
 28. Renjhen P, Gupta SD, Barua A, Jaju S and Khati B. A study of knowledge, attitude and practice of family planning among the women of reproductive age group in Sikkim. *J Obstet Gynecol India.* 2008;58(1):63-7.
 29. Tilahun T, Coene G, Luchters S, Kassahun W, Leye E, Temmerman M and Degomme O. Family planning knowledge, attitude and practice among married couples in Jimma Zone, Ethiopia. *PLoS One.* 2013;8(4):e61335.
 30. Rao PD and Babu MS. Knowledge and use of contraception among Racha Koyas of Andhra Pradesh. *Anthropologist.* 2005;7(2):115-9.
 31. Omo-Aghoja LO, Omo-Aghoja VW, Aghoja CO, Okonofua FE, Aghedo O and Umueri C. Factors associated with the knowledge, practice and perceptions of contraception in rural southern Nigeria. *Ghana Med J.* 2009;43(1):15-21.
 32. Becker S. Measuring unmet need: wives, husbands or couples? *Int Fam Plann Perspec.* 1999;25(1):72- 80.
 33. Nayak AU, Ramakrishnan KG, Venkateswar KN and Vijayshree M. Assessing the Knowledge, attitude and practice of contraception in rural India: a necessary step in achieving population control. *Int J Reprod Contracept Obstet Gynecol.* 2017; 6:3328-31.
 34. Pegu B, Gaur BP, Sharma N and Santa Singh A. Knowledge, attitude and practices of contraception among married women. *Int J Reprod Contracept Obstet Gynecol.* 2017;3(2):385-8.
 35. Young LK, Farquhar CM, McCowan LM, Roberts HE and Taylor J. The contraceptive practice of women seeking termination of pregnancy in an Auckland clinic. *N.Z. Med J.* 1994; 107:189-91.
 36. Sherpa SZ, Sheilini M and Nayak A. Knowledge, attitude, practice and preferences of contraceptive methods in Karnataka Udupi district. *J Family Reprod Health.* 2013;7(3):115-20.