Section: Community Medicine

Original Research Article

KNOWLEDGE, ATTITUDE, AND PRACTICE OF CONTRACEPTION AMONG POSTPARTUM WOMEN ATTENDING A TERTIARY CARE MEDICAL COLLEGE HOSPITAL IN SOUTHERN INDIA: A CROSS-SECTIONAL STUDY

Vandana Khargekar[1], Guruckeeran Nakkeeran[2], Rashmi R[3], Zeen Lasvy Oliveira[4], Rinjumol Mathew[5]

[1,3]*Assistant Professor, Department of Community Medicine, BGSGIMS, Bengaluru, India.*
[2]*Training Resident Doctor, Department of Internal Medicine, Portsmouth Hospitals University NHS Trust, United Kingdom.*
[4]*Senior Resident, Department of Community Medicine, BGSGIMS, Bengaluru, India.*
[5]*Assistant Professor cum Statistician, Department of Community Medicine, BGSGIMS, Bengaluru, India.*

Received *: 11/10/2025*
Received in revised form *: 02/12/2025*
Accepted *: 19/12/2025*

Corresponding Author:
Dr.Vandana Khargekar
Assistant Professor, Department of Community Medicine, BGSGIMS, Bengaluru, India.
Email: vandanakhargekar@gmail.com

DOI:10.70034/ijmedph.2025.4.531

Source of Support: Nil,
Conflict of Interest: Nonedeclared

Int J Med Pub Health
2025; 15 (4); 2962-2969

ABSTRACT

Background: Family Planning has been recognized as one of the most cost-effective solutions for achieving gender equality and equity by empowering women with knowledge. Access to quality family planning is not only a human right; it is extremely important for individual and societal well-being, and for the nation's development as a whole. A wise step that a nation like India can take to improve the overall socio-economic status of the society and for the development of the nation is to invest in family planning. With this background the present study was undertaken. **Aims &Objective:** To estimate the knowledge, attitude, and practice of contraception among the postpartum women attending a tertiary care medical college hospital in southern India.

Methodology: A cross-sectional observational study was conducted in the outpatient department of Obstetrics and Gynecology on postpartum women who came for follow-up in this institution. All the postnatal women were interviewed with a pre-designed questionnaire and information on sociodemographic variables, awareness, and knowledge of various contraceptive methods, family planning methods were obtained. The results were presented in descriptive statistics and graphs. Based on the suitability of data associated factors were tested statistically using a chi-square test.

Results: in our study majority of them were aware of Female Sterilization (99%) and Condoms (95.9%) 90.8% of the study subjects got information about contraceptive methods from Family members and friends.

Conclusion: Females with lower levels of education require continued education and regular communication about the importance of fertility control. The use of contraceptives among adolescents is significantly different from that of married couples, and it is influenced by educational, developmental, social, and psychological factors. The study highlights that knowledge and awareness do not always lead to a positive attitude towards the use of contraceptives.

Key words: knowledge, attitude, practice, contraception, postpartum women, southern India.

INTRODUCTION

Over the years, social scientists have argued the relationship between demographic change and economic outcomes, and it is now well established that improving literacy and economic conditions for individuals lowers birth rates, while low fertility, in turn, plays a positive role in economic growth.[1]

Family Planning has been recognized as one of the most cost-effective solutions for achieving gender equality and equity (goal 5) by empowering women with knowledge and agency to control their bodies and reproductive choices by accessing contraceptive methods.[2]

The use of contraception prevents pregnancy-related health risks for women, especially for adolescent girls, and when births are separated by less than two years, the infant mortality rate is 45% higher than it is when births are 2-3 years apart and 60% higher than it is when births are four or more years apart.[3]

Only 18% of married women, who were aged between 15 to 44 years, used contraceptives and female sterilization was more popular than the spacing method, even at this very young age.[4] India has to overcome many challenges as more than half of its population is in the reproductive age group and 68.84 percent of Indians reside in rural areas.[5]

Access to quality family planning is not only a human right; it is extremely important for individual and societal well-being, and for the nation's development as a whole. A wise step that a nation like India can take to improve the overall socio-economic status of the society and for the development of the nation is to invest in family planning.[1] With this background the present study was undertaken.

Research Question: What is the prevalence of knowledge, attitude, and practice of contraception among the postpartum women attending a tertiary care medical college hospital in southern India?

Primary Objective:

- To estimate the knowledge, attitude, and practice of contraception among the postpartum women attending a tertiary care medical college hospital in southern India.

Secondary Objective:

- To determine the association between knowledge, attitude, and practice with demographic variables.

MATERIALS AND METHODS

Study Design: Cross-sectional study

Study Period: 4 Months

Place of Study: Dept. of OBG, BGS Global Institute of Medical Sciences, Bangalore

Sample Size: 101 patients

The sample size is calculated by assuming a prevalence of 50%. At 5% level of significance and 10% absolute allowable error,

$$n = \frac{Z^2_{1-\alpha/2} * p * (1-p)}{d^2}$$

n=96.0

Considering 5% non-response, the estimated sample size is 100.8, therefore at least 101 samples should be included in the study.

A. **Sampling Technique:** Convenience Sampling Method
B. **Inclusion criteria:** All mothers who attended postnatal care during the study period and volunteered to participate in the study.
C. **Exclusion criteria:** Critical ill mothers, unable to communicate mothers were excluded from the study
D. **Methodology:** A cross-sectional observational study was conducted in the outpatient department of Obstetrics and Gynaecology on postpartum women who came for follow-up in this institution. All the postnatal women were interviewed with a pre-designed questionnaire and information on sociodemographic variables, awareness, and knowledge of various contraceptive methods, previous and current use of family planning methods, source of information, utilization, and reasons for use/non-use of family planning methods were obtained.
E. **Statistical Analysis:** All the Data collected were compiled using Microsoft excel and analysed using SPSS 20. The results were presented in descriptive statistics and graphs. Based on the suitability of data associated factors were tested statistically using a chi-square test.

RESULTS

Table 1: Distribution of study participants based on socio-demographic characteristics

Age Group (Years)	n (101)	%	Education Status	n (101)	%
16 – 20	14	13.9	Illiterate	3	3.0
21 – 25	52	51.5	Primary school	2	2.0
26 – 30	29	28.7	Middle school	1	1.0
31 – 35	6	5.9	High School	15	14.8
Total	101	100.0	Intermediate	35	34.6
			Graduate	44	43.6
Residence			Professional	1	1.0
Urban	72	71.3	**Occupation Status**		
Rural	29	28.7	Semi-professional	7	6.9

			semiskilled	1	1.0
Religion			Skilled	8	7.9
Hindu	91	90.1	Unskilled	13	12.9
Muslim	8	7.9	Professional	0	0.0
Christian	2	2.0	Housewife	72	71.3
Total	101	100.0	**Socio-Economic Status**		
			Upper Middle class	22	21.8
Type of Family			Upper Lower class	31	30.7
Nuclear	65	64.4	Middle	1	1.0
Joint	11	10.9	Lower Middle class	35	34.6
3 generation	25	24.7	Lower Class	12	11.9

Table 1 shows 51.5% belonged to the age group of 21-25yrs, 71.3% belonged to urban areas, 90.1% were Hindus, 64.4% belonged to Nuclear family, 43.6% were graduates, 71.3% were housewives and 34.6% belonged to Lower Middle class as per modified B.G. Prasad Classification

Table 2: Distribution of the study population according to parity

Parity	n	%
P_1	57	56.4
P_2	39	38.6
P_3	5	5.0
Total	101	100.0

Table 3: Distribution of the study population the according to the duration of marriage

Duration of Married Life	n	%
<5	74	73.3
>5	27	26.7

98 (97%)of the study subjects had ever heard about family planning/ birth spacing/ contraceptive methods.

Table 4: Aware of Methods of contraception among study participants who ever heard about family planning

Aware of Methods of contraception	n (98)	%
Condoms	94	95.9
OCP	77	78.6
IUCD-CuT	84	85.7
Male Sterilization	56	57.1
Female Sterilization	97	99.0
injectables	32	32.7
Calendar method	43	43.9
I-pill	19	19.4
Implants / Patches	17	17.3
Temperature method	10	10.2

From the above table it is clear that majority of them were aware of Female Sterilization (99%) and Condoms (95.9%)

Table 5: Source of information about contraceptive methods among the study participants who ever heard about family planning

Source of information about contraceptive methods	n (98)	%
Family members and friends	89	90.8
Paramedics and doctors	71	72.4
mobile phones	67	68.4
Radio	29	29.6
Television	53	54.1
Newspapers/ Magazines	29	29.6

From the above table it is clear that about 90.8% of the study subjects got **information about contraceptive methods** from Family members and friends

Table 6: Use of contraceptive methods among the study participants who ever heard about family planning

Use of contraceptive	n	%
Regular	30	81.1
Irregular	7	18.9

Table 7: Contraceptives having impact on future fertility

If yes which method	n (26)	%
Condom	4	15.4
Cu T	23	88.5
OCP	18	69.2
Injections	10	38.5
Hormones	3	11.5
Implants	3	11.5

28 (27.7%) of the study subjects thought contraceptives had undesirable effects and 26 (25.8%) believed that it has an impact on future fertility. Majority (88.5%) believed that Cu T had impact on future fertility

Table 8: Side effects of contraceptives as perceived by the study subjects:

	n (98)	%
does it cause Acne(pimples)?	7	9.5
does it lead to Infection?	12	16.2
Does it cause Excessive / irregular bleeding?	12	16.2
Does it cause mood changes?	3	4.1
Does it have risk of causing Cancers?	1	1.4
Does it cause Breast tenderness?	6	8.1
Does it cause Nausea/vomiting/lack of appetite?	4	5.4
Does it have risk of Loss of libido?	1	1.4
Does it cause male partner dissatisfaction?	11	14.9
Does it have risk of cardiovascular disease and stroke?	0	0.0
Does it lead to Headache and migraine?	8	10.8
Have you experienced any of the above-mentioned symptoms from previous contraceptive use?	9	12.2

Table 9: Benefits apart from family planning as perceived by the study subjects

Benefits apart from family planning	n (98)	%
Prevention of sexually transmitted infection	49	50.0
Reduces the risk of anemia	7	7.1
Reduces the risk of specific Cancer	11	11.2
Controls periods	1	1.0
Do you think lactational amenorrhoea is an effective contraceptive?	25	25.5

Table 10: Distribution of Study Subjects Depending On Lactational Amenorrhoea Effective as A Contraceptive

How long is lactational amenorrhoea effective as a contraceptive?	n (98)	%
3 to 4 months	17	17.3
6 to 9 months	7	7.1
Don't Know	74	75.6

Table 11: Distribution of Study Subjects Depending on the contraceptive methods they are planning to use

What contraceptive methods are you planning to use	n (58)	%
Condoms	43	74.1
IUCD	13	22.4
OCPs	9	15.5
Calendar method	1	1.7
Injectables	1	1.7
Implants / Patches	1	1.7
Permanent sterilization	34	58.6

58 among the study subjects were planning to use contraceptive methods now

Table 12: Reason for not using contraceptive methods

Reason for not using contraceptive methods	n (43)	%
Fear of side effects	12	27.9
Want to have next child soon	18	41.9
Spouse disapproval	3	7.0
Affection on lactation	7	16.3
Lactational amen itself is protective	11	25.6
The custom of staying away from the husband (6 to 9 months) and staying in the mother's home	0	0.0
Cost factor	0	0.0

Table 13: Association between KAP and different demographic characteristics

		Knowledge				Practise (Contraceptive used)				Attitude (plan to use contraceptives)			
		No	Yes	Total	p value	No	Yes	Total	p-Value	No	Yes	Total	P-Value
Age	Less than 25	3 (5.8)	49 (94.2)	52		43 (82.7)	9 (17.3)	52		31 (59.6)	21 (40.4)	52	0.09
	Greater than or equal to 25	0 (0.0)	49 (100.0)	49	0.24	21 (42.9)	28 (57.1)	49	<0.001 *	21 (42.9)	28 (57.1)	49	
Residence	Rural	3 (10.3)	26 (89.7)	29		22 (75.9)	7 (24.1)	29		17 (58.6)	12 (41.4)	29	
	Urban	0	72	72	0.02	42	30	72	0.09	35	37	72	0.36

		(0.0)	(100.0)		*	(58.3)	(41.7)			(48.6)	(51.4)		
Religion	Hindu	3 (3.3)	88 (96.7)	91		55 (60.4)	36 (39.6)	91		43 (47.3)	48 (52.7)	91	
	Others	0 (0.0)	10 (100.0)	10	0.9	9 (90.0)	1 (10.0)	10	0.08	9 (90.0)	1 (10.0)	10	0.01*
Type of Family	Joint / 3 Generation	1 (2.8)	35 (97.2)	36		25 (69.4)	11 (30.6)	36		17 (47.2)	19 (52.8)	36	
	Nuclear	2 (3.1)	63 (96.9)	65	0.9	39 (60.0)	26 (40.0)	65	0.34	35 (53.8)	30 (46.2)	65	0.52
Education	Intermediate & below	3 (5.4)	53 (94.6)	56		41 (73.2)	15 (26.8)	56		31 (55.4)	25 (44.6)	56	
	Graduate & Professional	0 (0.0)	45 (100.0)	45	0.25	23 (51.1)	22 (48.9)	45	0.02*	21 (46.7)	24 (53.3)	45	0.38
Occupation	Employed	2 (6.9)	27 (93.1)	29		17 (58.6)	12 (41.4)	29		16 (55.2)	13 (44.8)	29	
	Unemployed	1 (1.4)	71 (98.6)	72	0.19	47 (65.3)	25 (34.7)	72	0.53	36 (50.0)	36 (50.0)	72	0.63
Socioeconomic status	Lower Middle and above	0 (0.0)	58 (100.0)	58		29 (50.0)	29 (50.0)	58		24 (41.4)	34 (58.6)	58	
	Upper lower & below	3 (7.0)	40 (93.0)	43	0.07	35 (81.4)	8 (18.6)	43	0.001*	28(65.1)	15(34.9)	43	0.01*

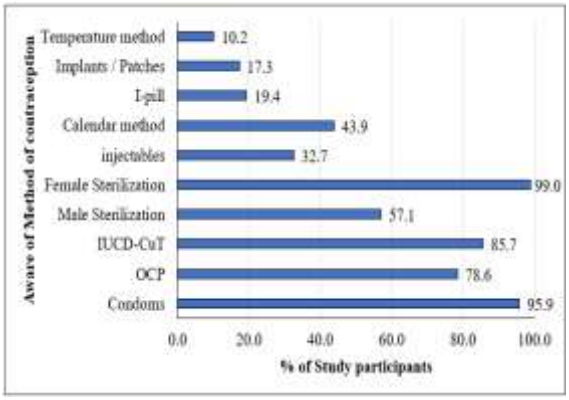

Figure 1

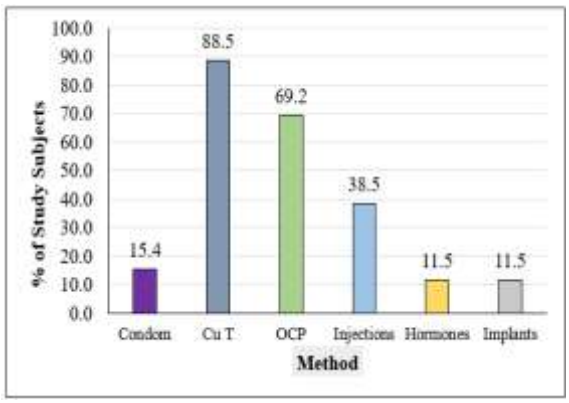

Figure 3

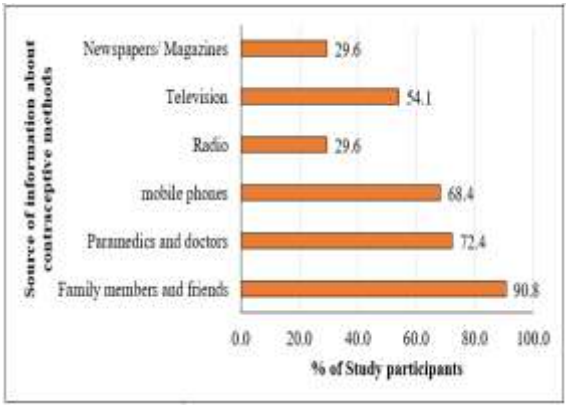

Figure 2

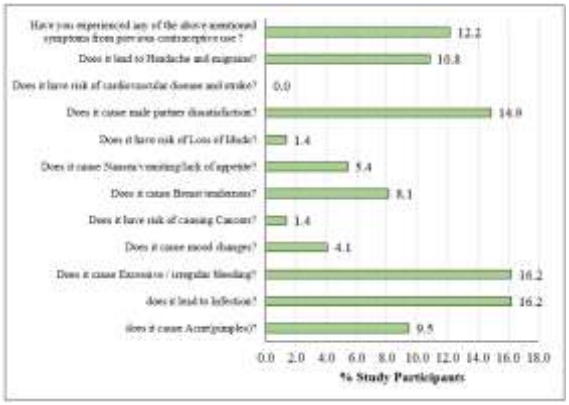

Figure 4

37 (36.6%) of the study subjects had used Contraceptive postpartum/postabortion.

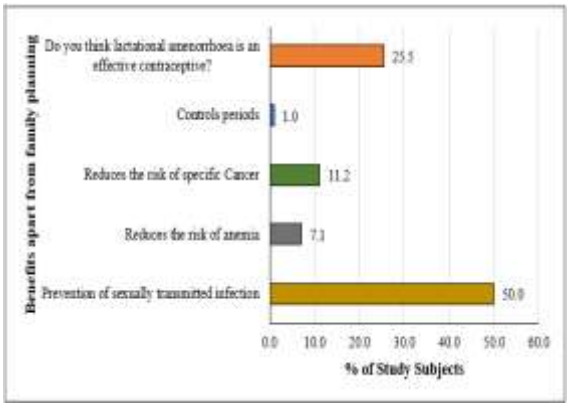

Figure 5

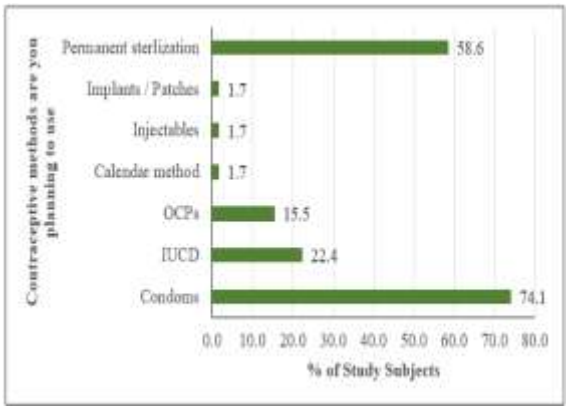

Figure 6

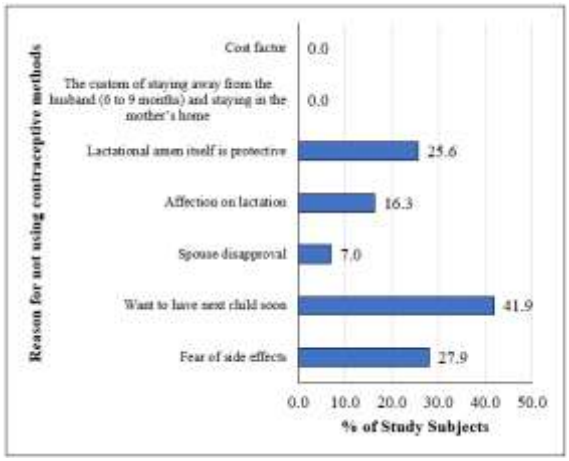

Figure 7

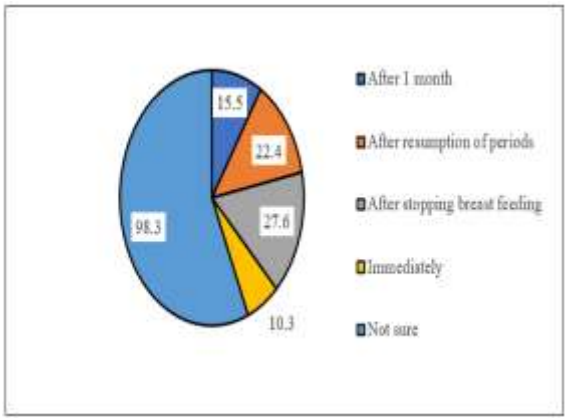

Figure 8

73 (74.5%) of the study subjects thought men and women have equal responsibility toward contraception.

DISCUSSION

This study was aimed to assess the knowledge, attitude, and practice of contraception methods among postpartum women. The common acceptance of birth control is an important part of modern development and is necessary for the incorporation of women into economic and social life. In the present study 97% of the study subjects had heard about family planning/ birth spacing/ contraceptive methods. All our study participants were married compared to 80.4% of the participants who were not married,[6] and 87.5% in a study among university students in Uganda,[7] and another in Kilimanjaro, Tanzania,[8] where 76.6% of the participants were single. In the present study majority of them were aware of Female Sterilization (99%) and Condoms (95.9%) compared to the majority of participants who mentioned condoms (88.0%) and oral contraceptives (83.5%) as the frequently known methods of contraception.[6] A study conducted in 1995 by Fantahun MI et al. showed the level of knowledge of contraception to be 75%.[9] Aggarwal O et al. in Delhi,[10] conducted the survey in 500 undergraduate students of the medical colleges of Delhi and reported the knowledge regarding contraception to be 83.5%, which was comparable to the study conducted in Ludhiana by Benjamin,[11] et al. among 527 senior secondary school children, where 87% were aware of contraception. Study conducted by Arowojolu AO[12]et al. from Nigeria, where a survey of 2388 Nigerian undergraduate students showed the contraceptive knowledge level to be 87.5%.

In the present study it is clear that about 90.8% of the study subjects got information about contraceptive methods from Family members and friends compared to a study conducted by Shokat W[6]which showed that the most common sources of information were mass media, friends, and health-care workers. Similar findings were reported in studies in Kilimanjaro,[8] and Botswana,[13] but different from studies among similar groups in India,[14] where media was the commonest source of information, and in Nigeria,[15] where health care facilities were the most common sources of information. 86%,[14] of the college students had knowledge of contraception and 69% knew about the source of availability in a study conducted by Renjhen P.[14] The main source of information was mass media (54%), health facility (42%), followed by personal relations i.e. spouse, friends and relatives (34%), and magazines (21%) in a study conducted by Kashyap P.[16] The results agree to the study by Ghike, et al., in which media including TV and radio was the main source of contraceptive information (70%),[17] and werein contrast to studies

by Pegu, et al., the source of information was mainly obtained from health workers (58.6%) followed by media (24.1%) and social circle (15.5%),[18] Having a reliable source of information such as mass media and health care facilities/workers is likely to provide youths with more correct and accurate information than friends/relatives; it is thus justifiable to direct efforts toward disseminating information through reliable sources. 36.6% of the study subjects had used Contraceptive postpartum/postabortion compared to About one in three students in a study conducted by Shokat W,[6] were using emergency contraceptives. The findings are similar to those reported in Ethiopia,[19] where about 40% of the students reported using emergency contraception, while in another study done among female undergraduates in Ahmadu Bello University in Nigeria,[20] about a quarter of the respondents had used emergency contraception, 3% in a study conducted by Kashyap P,[16] which is similar to the study by Tizta, et al.[21] There is a need to spread awareness for the use of these methods to decrease the number of unwanted MTPs. 81.1% used contraceptives regularly compared to 11%,[16] had not used any contraceptive method which is comparable to the study by Young, et al., in which it was 8%.[22] The majority of the women in the study conducted by Murry LL,[23] were not using any method of contraception (66.6%). Most responded that they were using abstinence as a contraceptive, when asked for the reason for not using one. 27.7% of the study subjects thought contraceptives had undesirable effects and 25.8% believed that it has an impact on future fertility. Majority (88.5%) believed that Cu T had impact on future fertility. Lack of knowledge of emergency contraceptives was the main reason given by non-users.

Women require accessible places where they are made to feel comfortable to discuss sexual needs and obtain correct information. Conversely, a fear of being embarrassed during purchasing and differing religious beliefs were the main reasons for not using contraception.

73 (74.5%) of the study subjects thought men and women have equal responsibility toward contraception which was similar to a study conducted by Murry LL,[23] and also supported by previous literature.[24,25] A study conducted by Aldabbagh RO,[26] showed that both partners were involved in making the final decision regarding the choice of contraception method and when to have another pregnancy, which provides good support to the female regarding contraception and modern sexual habits.

It is well known that spacing of children plays an important role in maintaining the health of the mother. Women need more awareness of FP methods and health care providers should include a focus on FP methods during instances of patient contact. Women should be counselled about FP methods during other health care interactions such as during infant immunization visits and routine outpatient and home visits. Free family planning services provided in government health centers remove the financial burden and may explain the increasing rates of the use of contraception methods. On the other hand, the use of contraception is allowed to conserve both mother's health and child rather than to restrict the family size.

CONCLUSION

Participants in this study are aware and have knowledge of contraception; however, their utilization of contraception and emergency contraception is relatively low. There should be the implementation of strategies for better utilization of these methods. For spreading the awareness and for effective usage of the contraceptive method, two-way communication is a better way while counseling the women. The use of many methods was denied as there were myths associated and these were spread blindly from one person to other. Most of the women were willing to take the reversible method of contraception rather than permanent method. We should promote the use of long-acting reversal method of contraception. Participation of males is essential in strengthening family planning services. Because contraception and family-planning decision-making are almost always the responsibility of both partners, the involvement of men in contraception knowledge issues is important. Females with lower levels of education require continued education and regular communication about the importance of fertility control. The use of contraceptives among adolescents is significantly different from that of married couples, and it is influenced by educational, developmental, social, and psychological factors. The study highlights that knowledge and awareness do not always lead to a positive attitude towards the use of contraceptives.

Limitations

the study population consisted of postpartum women from one hospital only. Therefore, we cannot generalize the findings from this study to all females. Second, participants practices and attitudes were self-reported; as a result, there might be an information bias because some information perceived to be sensitive by the participants might not be reported. Only married women were included in the study, which may not reflect the knowledge and practice of contraception use of the whole population.

Recommendations

There is need to evaluate the role of health care providers in promoting contraceptive use among general population. There should be awareness programs regarding the use, effects and side effects of contraceptives. There is an immense need of awareness programs for couples to overcome the barriers from male partners.

Acknowledgment
The authors would like to thank our participants involved in study for their cooperation in the study.
Conflict of Interest
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

REFERENCES

1. Muttreja P, Singh S. Family planning in India: The way forward. The Indian journal of medical research. 2018 Dec;148(Suppl 1):S1.
2. Starbird E, Norton M, Marcus R. Investing in family planning: Key to achieving the sustainable development goals. *Glob Health Sci Pract.* 2016;4:191–210.
3. Family Planning Can Reduce High Infant Mortality Levels. Guttmacher Institute. https://www.guttmacher.org/sites/default/files/report_pdf/ib_2-02.pdfaccessed on 31/05/2024
4. International Institute for Population Sciences. National family health survey (NFHS-3), 2005-06: India. International Institute for Population Sciences; 2007.
5. https://censusindia.gov.in/2011-common/censusdata2011.html accessed on 31/05/2024
6. Kara WSK , Benedicto M, Mao J. Knowledge, Attitude, and Practice of Contraception Methods Among Female Undergraduates in Dodoma, Tanzania April 02, 2019 Cureus 11(4): e4362.pg 1-10
7. Nsubuga H, Sekandi JN, Sempeera H, Makumbi FE: Contraceptive use, knowledge, attitude, perceptions and sexual behavior among female university students in Uganda: a cross-sectional survey. BMC Womens Health. 2016, 16:6. Accessed: November 13, 2018: 10.1186/s12905-016-0286-6
8. Sweya MN, Msuya SE, Mahande MJ, Manongi R: Contraceptive knowledge, sexual behavior, and factors associated with contraceptive use among female undergraduate university students in Kilimanjaro region in Tanzania. Adolesc Health Med Ther. 2016, 3:109-115. Accessed: August 9, 2018: 10.2147/AHMT.S108531
9. Fantahun M, Chala F, Loha M. Knowledge, attitude and practice of family planning among senior high school students in North Gondar. Ethiop Med J. 1995; 33: 21-9.
10. Aggarwal O, Sharma AK, Chhabra P. Study in sexuality of medical college students in India. J Adolesc Health. 2000; 26: 226-9.
11. A.I. Benjamin, P. Panda, Shavinder Singh, A.S. Bhatia Knowledge & Attitude of Senior Secondary School Students of Ludhiana Regarding Population Control & Contraception. Indian Journal of Community Medicine Vol. 26, No. 4 (2001-10 - 2001-12).
12. Arowojolu A O, Ilesanmi A O, Roberts O A and Okunola M A. Sexuality, Contraceptive Choice and AIDS Awareness among Nigerian Undergraduates. African Journal of Reproductive Health 2002; 6: 60-70.
13. Hoque ME, Ntsipe T, Mokgatle-Nthabu M: Awareness and practices of contraceptive use among university students in Botswana. Sahara J. 2013, 10:83-88. Accessed: December 12, 2018: 10.1080/17290376.2013.869649
14. Renjhen P, Kumar A, Pattanshetty S: A study on knowledge, attitude and practice of contraception among college students in Sikkim, India. J Turk Ger Gynecol Assoc. 2010, 11:78-81. Accessed: November 12, 2018: 10.5152/jtgga.2010.03
15. Oyedokun AO: Determinants of contraceptive usage: lessons from women in Osun State, Nigeria . Int J Humanit Soc Sci. 2007, 1:1-14.
16. Kashyap P, Prasad S. Assessing the Knowledge, Attitude and Practice of Contraception in Semi-Urban Area in India: A Qualitative Assessment of Contraceptive Usage, International Journal of Medical Research &Health Sciences, 2018, 7(10): 150-154
17. Ghike, Sunita, *et al.* "Awareness and contraception practices among women an Indian rural experience." *Journal of South Asian Federation of Obstetrics and Gynecology,* Vol. 2, No. 1, 2010, pp. 19-21.
18. Pegu, Bhabani, *et al.* "Knowledge, attitude and practices of contraception among married women." *International Journal of Reproduction, Contraception, Obstetrics and Gynecology,* Vol. 3, No. 2, 2017, pp. 385-88.
19. Hailemariam TG, Tesfaye T, Melese T, *et al.*: Sexual experiences and emergency contraceptive use among female university students: a cross-sectional study at Wachamo University, Ethiopia. BMC Res Notes. 2015, 8:112. Accessed: November 7, 2018: 10.1186/s13104-015-1070-7
20. Kolawole TOCA, Abubakar M, Zaggi H: Emergency contraceptives use among female students at Ahmadu Bello University, Zaria Kaduna State. TOJNED. 2015, 5:41-48.
21. Tilahun, Tizta, *et al.* "Family planning knowledge, attitude and practice among married couples in Jimma Zone, Ethiopia." *PloS One,* Vol. 8, No. 4, 2013, p. 61335.
22. Young, L. K., *et al.* "The contraceptive practices of women seeking termination of pregnancy in an Auckland clinic." *The New Zealand Medical Journal,* Vol. 107, No. 978, 1994, pp. 189-92.
23. Murry LL, Dabas S, Thuileiphy T, Kumari V, Gudiya G, Joshi P. Knowledge, Attitude and Utilization of FamilyPlanning Methods among Postpartum Women in a Selected Tertiary Care Facility in India. Journal of Midwiferyand Reproductive Health. 2021; 9(1): 2597-2604. DOI: 10.22038/jmrh.2020.48982.1604
24. Reed E, Donta B, Dasgupta A, Ghule M, Battala M, Nair S, *et al.* Access to Money and Relation to Women's Use of Family Planning Methods Among Young Married Women in Rural India. Maternal and child health journal. 2016; 20(6): 1203–10.
25. Smith E, Charantimath US, Wilson SF, Hoffman MK. Family planning in Southern India: A survey of women's attitudes. Health Care Women Int. Health Care for Women Internationa. 2017; 38(10): 1022–33.
26. Aldabbagh RO, Al-Qazaz HK. Knowledge and Practice of Contraception Use Among Females of Child-Bearing Age in Mosul, Iraq International Journal of Women's Health 2020:12 pg: 107 – 13.