



A cross sectional study to assess the knowledge and attitude among married women of reproductive age regarding female sterilization in selected hospitals of Shillong, Meghalaya

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Abstract

Rapid growth of a country’s population is a major hindrance towards the overall development of a country.

Family planning practices in India has always been a challenging scenario. Female sterilization is becoming the choice for fertile age couples. This is because it has

proven to be effective and does not require multiple procedures.

The present study aims to assess the level of knowledge and attitude among married women of reproductive age and to find the association between knowledge and attitude with the selected demographic variables regarding female sterilization in selected hospitals of Shillong, Meghalaya.

A cross sectional study was conducted in Ganesh Das Government Maternity & Child Health Hospital, Shillong, Meghalaya from April 2023. A structured knowledge and attitude-based questionnaire was used to collect data from 192 married women of reproductive age. Analysis was done using descriptive and inferential statistics (chi-square).

Out of 192 participants, most of the participants i.e., 81(42.19%) have heard about female sterilization from health care professionals. Out of 192 participants, 68(35.42%) had good knowledge, 93(48.44%) had average knowledge and 31(16.14%) had poor knowledge. Out of 192 participants 104(54.16%) have favorable attitude and 88(45.84%) have unfavorable attitude towards female sterilization. The study found significant association between knowledge with age, education, religion, occupation and place of residence. The study also found significant association between attitude with place of residence and educational level.

Based on the findings of the study, average level of knowledge was identified among the participants. Thus, this study suggests that a well planned mass education and communication strategy can further enhance the knowledge of married women of reproductive age on female sterilization.

Keywords: Knowledge, Attitude, Married women, Female sterilization, Reproductive age.

Introduction

Background of the study

Rapid growth of a country's population is a major hindrance towards the overall development of a country. India is the second most populous country of the world after China and the various studies have projected that India will be world's number one populous country surpassing China by 2025. Family planning practices in India has always been a challenging scenario. According to NFHS-5 fieldwork for Meghalaya (2019-20), female sterilization is 7.1 in urban and 5.2 in rural. Realizing the danger of population explosion, family planning programme was first politically launched in India in 1952 to promote contraception. Female sterilization is becoming the choice for fertile age couples. This is because it has proven to be effective and does not require multiple procedures.

Need of the study

In India, sterilization is the most frequently used method of modern contraception, and is used primarily by women. The contemporaneous assessment of sterilization literature focuses only on trends and patterns that are limited to socioeconomic considerations. No study has been employed to highlight the knowledge and attitude of married women of reproductive age regarding female sterilization in Meghalaya. A cross sectional study was conducted in Inpatient and Outpatient Department of Obstetrics & Gynecology Department, Ganesh Das Government Maternity & Child Health hospital, Shillong, Meghalaya.

Objectives of the study

Primary objective(s)

1.To assess the level of knowledge and attitude among married women of reproductive age regarding female sterilization in selected hospitals of Shillong, Meghalaya.

Secondary objective(s)

- 1.To find out the association of knowledge with selected demographic variables.
- 2.To find out the association of attitude with selected demographic variables.

Operational definitions

Knowledge; The known fact or information which the married women of reproductive age have regarding female sterilization.

Attitude: The feeling or opinion which the married women of reproductive age have regarding female sterilization.

Married women- Women who have contracted a marriage recognized by the marriage act of the place where it is being contracted.

Female sterilization- It is also known as tubal ligation. It is a permanent method of contraception in women in which the fallopian tubes are cut open and clipped or tied up to block the passage of egg into the uterus.

Reproductive Age - Age of a female from 21 yrs to 49 yrs.

Assumptions

- 1.The married women will have little knowledge on female sterilization.
- 2.There will be association between knowledge regarding female sterilization and married women with the demographic variables.
- 3.There will be association between knowledge and attitude regarding female sterilization and married women.

Methodology

Research approach

In this study, the quantitative research approach was considered appropriate in order to assess the knowledge and attitude of married women of reproductive age regarding female sterilization.

Research design

A non-experimental cross sectional study to assess the knowledge and attitude of married women of reproductive age regarding female sterilization.

Variables

Variables are the qualities, properties, or characteristics of people, objects, situations, concepts, activities, attributes, attitudes, etc., that can change or may vary according to the stimulus. The variables can be manipulated or measured.

Independent variables are qualities or properties that can be manipulated by the researcher to cause an effect on the **dependent variables**

Independent variables: Demographic variables (Age, Educational qualification, Religion, Occupation, Area of living).

Outcome variables: Knowledge and attitude of female sterilization among married women.

Setting of the study

The present study was conducted from 10th April 2023 to 22nd April 2023 in In-Patient Department and Out-Patient Department of Ganesh Das Government Maternal & Child Health hospital, Shillong.

Ethical considerations

Prior permission will be obtained from

- 1.Principal of College of Nursing, NEIGRIHMS
- 2.NEIGRIHMS Scientific Advisory Committee (NSAC)
- 3.Institutional Ethics Committee (IEC)
- 4.Director of NEIGRIHMS
- 5.Medical Superintendent of NEIGRIHMS
- 6.The Head of the Department of the selected IPD of Ganesh Das Government Maternal & Child Health hospital, Shillong.
- 7.Informed consent from the participants.

Study population

In the present study, the population comprises of married women of reproductive age attending the selected IPDs and OPDs of Ganesh Das Government Maternal & Child Health hospital, Shillong.

Sample technique: Purposive Sampling Technique.

Sample size: The sample size of the study is 192.

Criteria for sample selection

Inclusion criteria: Married women of reproductive age.

Exclusion criteria: Married women who are not willing to give consent to participate in the study. Married women who cannot read and write.

Data collection procedure

The final data collection was done from 10th April to 22nd April, 2023 in IPD and OPD of Obstetrics & Gynecology Department in Ganesh Das Government Maternal & Child Health hospital, Shillong, Meghalaya. Prior permission was taken from Medical Superintendent, Nursing Superintendent and Head of the Department of selected IPD of Ganesh Das Government Maternal & Child Health hospital, Shillong.

After the permission was obtained, the study was conducted. Prior to the data collection, informed consent was taken from the participants and informed consent document was also given to the participants in order to acquaint them with the procedure and purpose of the study. It also states the confidentiality and anonymity of the results.

Subsequently, the self-administered questionnaire was given to the participants which was validated by various experts. An approximate time of 15-20 minutes was given to the participants to complete the questionnaire.

Scoring of the tool

Section I: It consists of 5 questions related to socio-demographic data of participants and was not scored.

Section II: It consists of 12 structured-based questionnaires to assess the knowledge among married women of reproductive age regarding female sterilization. Each item was allotted a score of 1.

Section III: It consists of 12 structured-based questionnaires to assess the attitude among married women of reproductive age regarding female sterilization.

Interpretation of score

Section II: Level of knowledge of the participants

For good knowledge: Category score is 9-12

For average knowledge: Category score is 5-8

For poor knowledge: Category score is 0-4.

Section III: Level of attitude of the participants

For favorable attitude: Category score is 42-60

For unfavorable attitude: Category score is less than 42.

Analysis and interpretation

Analysis and interpretation of the data was done by using both descriptive and inferential statistics based on the objectives of the study.

Organization of the findings

The data was analyzed, interpreted and presented under the following headings:

Section I: Findings related to the socio-demographic characteristics of the participants.

Section II: Findings related to level of knowledge and attitude of participants regarding female sterilization with the demographic variables.

Section III: Findings related to association of knowledge and attitude of participants regarding female sterilization with the demographic variables.

Section I: Socio-demographic characteristics of the participants

Table 1: Table showing the distribution of participants according to age of the participants, N=192

Age(in years)	Frequency (f)	Percentage (%)
21-30	114	59.38%
31-40	58	30.20%
41-49	20	10.42%

The data represented in table 1 shows that majority of the participants i.e., 114 (59.38%) belong to the age group of 21-30 years.

Table 2: Table showing distribution of participants according to educational qualification of the participants N=192

Education	Frequency(f)	Percentage (%)
Primary	36	18.75%
Secondary	97	50.52%
Higher Secondary and above	59	30.72%

The data represented in table 2 shows that educational qualification of majority of the participants i.e., 97 (50.52%) in the study is secondary level of education.

Table 3: Table showing distribution of participants according to religion of the participants, N=192

Religion	Frequency(f)	Percentage (%)
Christian	132	68.75%
Hindu	46	23.96%
Others	14	7.29%

The data represented in table 3 shows that majority of the participants i.e., 132(68.75%) are Christian.

Table 4: Table showing distribution of participants according to occupation of the participants, N=192

Occupation	Frequency(f)	Percentage (%)
Employed	53	27.60%
Unemployed	139	72.40%

The data represented in table 4 shows that majority of the participants i.e., 139(72.40%) are unemployed.

Table 5: Table showing distribution of participants according to place of residence, N=192

Place of residence	Frequency(f)	Percentage (%)
Rural	107	55.70%
Urban	85	44.30%

The data represented in table 5 shows that majority of the participants i.e., 107(55.70%) are from rural area.

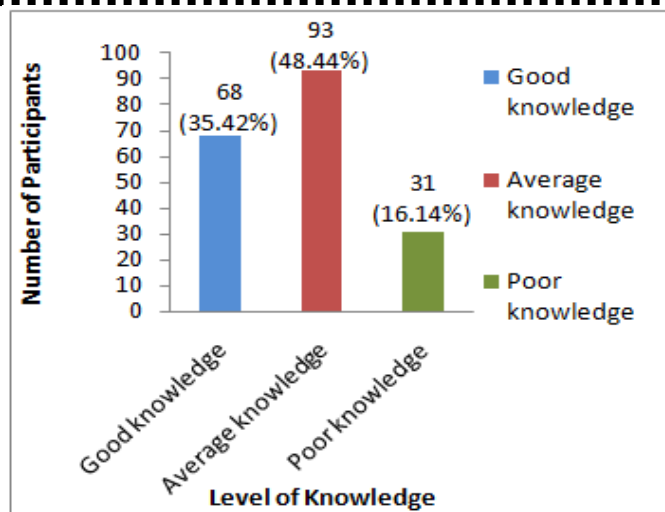
Table 6: Table showing distribution of participants according to their source of information regarding female sterilization, N=192

Source of information	Frequency(f)	Percentage (%)
Relatives	50	26%
T.V, Newspaper	54	28.12%
Healthcare professionals	81	42.19%
Others	7	3.69%

The data represented in table 6 shows that majority of the participants i.e., 81(42.19%) have chosen health care professionals as their source of information.

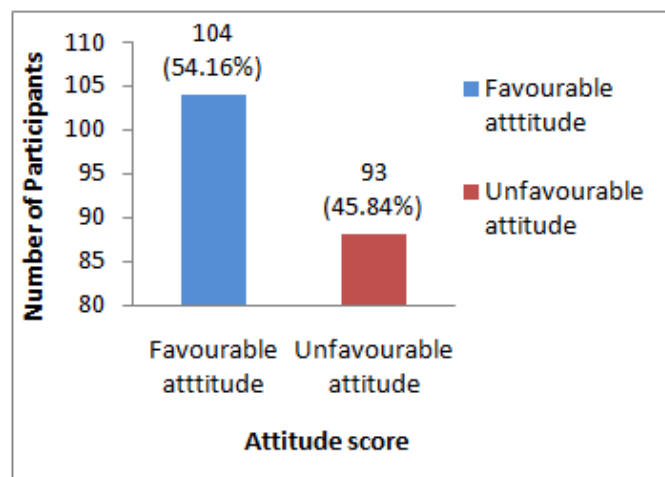
Section II: Level of knowledge and attitude of participants regarding female sterilization with the demographic variables

Figure 1: Bar graph showing frequency and percentage distribution of the participants according to their level of knowledge regarding female sterilization, N=192.



The data represented in figure 1 shows that majority of the participants i.e., 93(48.44%) have average knowledge regarding female sterilization.

Figure 2: Bar graph showing frequency and percentage distribution of the participants according to their attitude score regarding female sterilization, N=192



The data represented in figure 2 shows that majority of the participants i.e., 104(54.16%) show favorable attitude toward female sterilization.

Section III: Association of knowledge and attitude of participants regarding female sterilization with selected demographic variables

Table 7: Chi-square value showing association between knowledge and selected demographic variables, N=192

Variables	Good	Average	Poor	df	Tabulated value	Calculated value	
Age (in years)	21-30	56	38	20	4	9.49	*28.06
	31-40	33	18	7			
	41-49	6	12	2			
Place of residence	Rural	26	62	19	2	5.99	*11.5
	Urban	42	33	10			
Education	Primary	7	19	10	4	9.49	7.19
	Secondary	31	51	15			
	Higher Secondary and above	30	25	4			
Occupation	Employed	18	32	3	2	5.99	*6.11
	Unemployed	50	63	26			
Religion	Christian	36	70	26	4	9.49	*17.43
	Hindu	27	17	2			
	Others	5	8	1			

Level of significance p value < 0.05

The data represented in table 7 shows that the calculated chi square value of age ($\chi^2=28.06$), religion ($\chi^2=17.43$), occupation ($\chi^2=6.11$), and area of living ($\chi^2=11.5$), are found to be statistically significant. This proves therefore, that there is an association of knowledge regarding female sterilization with age, place of residence, occupation and religion of the participants.

Table 8: Chi-square value showing association between attitude and selected demographic variables, N=192

Variables	Favorable	Unfavorable	Df	Tabulated value	Calculated value
Age (in years)					
21-30	59	55	2	5.99	0.71
31-40	33	25			
41-49	12	8			
Place of residence					
Rural	51	56	1	3.84	*4.12
Urban	53	32			
Education					
Primary	16	20	3	7.82	*10.23
Secondary	46	51			
Higher Secondary	19	9			
Graduation and above	23	8			
Socio-economic status					
Employed	34	19	1	3.84	2.94
Unemployed	70	69			
Religion					
Christian	65	67	2	5.99	3.54
Hindu	32	14			
Others	7	7			

Level of significance p value < 0.05

The data represented in table 8 shows that the calculated chi square value of area of living ($\chi^2 = 4.12$) and education ($\chi^2 = 10.23$) are found to be statistically significant. Hence, there is an association of attitude regarding female sterilization with place of residence and education of the participants.

Discussion

In the present study, “A cross sectional study to assess the knowledge and attitude among married women of reproductive age regarding female sterilization in selected hospitals of Shillong, Meghalaya”, majority of the participants with respect to age belong to the age group of 21-30 years i.e., 114(59.38%). The educational

qualification of majority of the participants i.e., 97(50.52%) according to the study is secondary level of education. Majority of the participants with respect to religion are Christian i.e., 132(68.75%). Majority of the participants with regards to occupation are unemployed i.e., 139(72.40%). Majority of the participants with respect to place of residence are from rural area i.e., 107(55.70%). Majority of the participants i.e., 81(42.19%) have chosen healthcare professionals as their source of information. Majority of the participants i.e., 93(48.44%) have average knowledge regarding female sterilization.

Majority of the participants i.e., 104(54.16%) show favorable attitude towards female sterilization. The study demonstrates that there is an association of knowledge regarding female sterilization with age, place of residence, occupation and religion of the participants. The study also shows that there is an association of attitude towards female sterilization with place of residence and education of the participants.

A similar study conducted in Obstetrics and Gynaecology out-patient department NEIGRIHMS, Shillong (2014) revealed that out of 174 women, 20(11.5%) had knowledge regarding female sterilization.

Conclusion

Based on the findings of the study, it can be concluded that majority of participants attending IPD & OPD department have average knowledge regarding female sterilization. The study also shows that there is an association between knowledge with age, area of living, occupation and religion. It is also evident that there is an association between attitude with area of living and education.

References

1. Phukan RS, Overpopulation in India-Causes, Effects and How to control it, April 22, 2022. Available from

- <https://www.mapsofindia.com/myindia/india/overpopulation-in-india-causes-effects-and-how-to-control-it>(Accessed: February 2, 2022).
2. Govt. of India Ministry of Health and Family Welfare, National family health survey-5 (2019-20) State fact sheet, Meghalaya, International Institute for Population Sciences (Deemed University). Available from <http://www.rchiips.org/nfhs>(Accessed: February 25,2022).
 3. Srivastav A, Khan MS, Chauhan CR³, Knowledge, attitude and practices about contraceptives among married reproductive females, *International Journal of Scientific Study*.2014;1(5):2-4.
 4. Sharma SK. *Nursing Research and Statistics*. 2. RELX India Private Limited: Elsevier, 2017. 101-9,206-240,256,299-315,382-6,409-11.
 5. Prilly A, Ong T, Moudy EUD. A Cross-sectional Study on tubectomy preference for fertile age couples in the Urban area of Tangerang.2016-2018
 6. Huda FA, Robertson Y, Chowdhuri S, Sarker BK, Reichenbach L, Somrongthong R. Contraceptive practices among married women of reproductive age in Bangladesh: a review of the evidence. *Reproductivehealth*. 2017 Dec;14(1):1-9.
 7. Erlenwein J, Kundu S, Schippert C, Soergel P, Hillemanns P, Staboulidou I. Attitude toward, acceptance of and knowledge about female sterilization as a method of contraception. *European Journal of Obstetrics & Gynecology and Reproductive Biology*. 2015 Feb 1;185:83-7.
 8. Iti J, Mudaraddi R. A Cross-sectional Study on Urban and Rural Difference of Knowledge and Attitude towards Family Planning Methods, Gadag, Karnataka. *Annals of Community Health*. 2021 Jan 1;8(4):60-3.
 9. Sanjay kumar B. *INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH*. Parity.;40(06):2.
 10. QAZI M, Saqib N, Gupta S. Knowledge, attitude and practice of family planning among women of reproductive age group attending outpatient department in a tertiary centre of Northern India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2019 May 1;8(5):1775-84.
 11. Shettian N, Ajila D. Factors influencing the acceptance and awareness of permanent method of family planning. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2018 Mar 1;7(3):875-9.
 12. Thulaseedharan JV. Awareness and actual knowledge regarding contraceptive methods among young women in Trivandrum district, Kerala, India. *International Journal of Medical Science and Public Health*. 2018 Feb 1;7(2):103-10.
 13. Nayak AU, Ramakrishnan KG, Venkateswar KN, 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 Jul 26;6(8):3328-1.
 14. Fahim MA, Ranjan PD, Namita. A Study on Socio-demographic and Cultural factors influencing women undergoing laparoscopic tubectomy camps conducted at UHTC, Aam Talaab, Raichur.2017:32-36.
 15. Chaurasia A, Sachan N, Singh S, Saxena S. A study of demographic variables affecting tubectomy in a tertiary care centre in India.
 16. Digole DN, Nagaonkar AS, Deo DS, Vedpathak VL, Dahire PL. Knowledge, attitude and practice of contraceptives in mothers attending the urban health center: a cross sectional study. *Journal of Evolution*

of Medical and Dental Sciences. 2014 Aug
11;3(34):9124-9

17. Vaidyanathan A, Priya KC, Seenivasan P, Malini G, Kaarthika T, Nathan D, Aarthi M. A comparative study on the contraceptive methods preferred in rural and urban areas in Tamilnadu. *Stanley Medical Journal*. 2014;1(2):4-8.
18. Kalra R, Phadnis S, Joshi A. Perceptual analysis of women on tubectomy and other family planning services: a qualitative study. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*. 2015 Feb 1;4(1):94-9.
19. Prachi R, Das GS, Ankur B, Shipra J, Binita K. A study of knowledge, attitude and practice of family planning among the women of reproductive age group in Sikkim. *Religion*. 2008;35(44years):34.
20. Ojah J, Baruah M.K, Baishya AC. A retrospective analysis on profile of beneficiaries of permanent sterilization from Urban slum of Guwahati city of Assam at Marwary Maternity Hospital for a period of 10 years. 2002-2012
21. Pegu B, Gaur BP, Sharma N, Singh AS. Knowledge, attitude and practices of contraception among married women. *Int J ReprodContraceptObstet Gynecol*. 2014 Jun 1;3(2):385-8.
22. Dey S. A Study on family planning acceptance among slum dwellers in Shillong, Meghalaya 2014 March:111-114.