



ISSN: 2091-2749 (Print)
2091-2757 (Online)

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Submitted

1 Aug 2020

Accepted

15 Oct 2020






How to cite this article

Roshani Agrawal Khatri,
Nirmala Ghimire, Rashmi Joshi
Shrestha, Mamata Sherpa
Awasthi, Niran Shrestha.
Factors affecting the choice of
contraceptives among married
women of reproductive age.
Journal of Patan Academy of
Health Sciences.
2020Dec;7(3):95-103.

DOI:

<https://doi.org/10.3126/jpahs.v7i3.33833>

Factors affecting the choice of contraceptives among married women of reproductive age

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Introduction: Family planning refers to a conscious effort by a couple to limit or space the number of children through the use of contraceptive methods. This study aims to identify the factors affecting the choice of contraceptives among married women of reproductive age.

Method: A descriptive cross-sectional study design was adopted among 326 samples at Family Planning Sansthaagat Clinic, Lalitpur from July to September 2017. Face-to-face interview using a structured questionnaire was used for data collection. Association between married women's socio-demographic variables with factors affecting the choice of contraceptives were analyzed. SPSS 16 was used for statistical analysis. Ethical approval was taken from the Institutional Review Board of Tribhuvan University, Institute of Medicine.

Result: Study revealed that 100% of the respondents had known about condoms and pills as contraceptives methods. 314(96.3%) of the respondents were using a modern method of family planning. Among them, 186(59.2%) were using an implant. One hundred and seventy-three women (53.1%) had started using contraceptives after the birth of their first child. 142(43.6%) stated that they discontinued using some contraceptives in the past. The main reason for discontinuation was due to side effects of 70(49.3%). Purposes of using contraceptives, preference for child sex are the significant factors for the choice of contraceptives.

Conclusion: This study result revealed that most of the respondents were using a modern method and among them, Implant was the most practiced family planning method. Women's active involvement in decision-making regarding the use of contraceptives can play an important role in its utilization.

Keywords: choice, contraceptives, factors, married women

Introduction

Family planning is a conscious effort by the couple to space or limit the number of children using contraceptive methods.¹ Globally 222 million women in developing countries would like to control childbearing but are reluctant due to limited choice of methods, limited access, fear or experience of side effects, religious belief, poor quality of services, and gender-based barriers.²

If all women had access to modern methods, an additional 24 million abortions (of which 14 million would be unsafe), 6 million miscarriages, 70,000 maternal deaths, and 500,000 infant deaths can be prevented.³

In Nepal, there has been a slow decline in the unmet need for family planning services from 28% in 2011 to 24% in 2016. The use of modern methods is constant at 43%.¹ A study done in a community of Nepal showed that 81.3% were using modern methods, and 91.6% were involved in decision making for contraceptive choice. Depo-Provera was used by 54.5% of respondents.⁴

The present study aims to explore the factors affecting the choice of contraceptives among married women.

Method

A quantitative descriptive cross-sectional design was used to find out the factors affecting the choice of contraceptives among married women of reproductive age (15-49 y) at Family Planning Sansthatagat Clinic, Lalitpur, Nepal, from July to September 2017. It is the referral centre for family planning. The sample size was calculated by using Yamane's

formula, $n = N/1+N(e)^2$, where n = sample size, N = known population of the study area, e = allowable error. The minimum sample size for 95% confidence level with 5% allowable error (e) was 295 and adding 10% non-response, the total sample size was 326.⁵ Non-probability purposive sampling technique was used and a face-to-face interview using a structured questionnaire was used for data collection.

The data collection proforma had two parts. Part one, 9-items on socio-demography (age, ethnicity, religion, educational level, occupation, husband educational level, number of children, monthly income); part two: 11-items on factors of contraceptive choice (source of information, distance to family planning institution, purpose of contraceptive use, plan for number of children, sex preference of the child, decision maker about the contraceptive, types of known family planning methods, family planning method used, started using contraceptives, side effects due to contraceptives, avoided using any contraceptives). Factors affecting choice of contraceptives were assessed using the questionnaires.

Pre-testing of the instrument was done among 33(10%) women meeting the inclusion criteria in the same setting. The samples included in the pretesting were excluded from the main study. Ethical approval was taken from Institutional Review Board of Tribhuvan University, Institute of Medicine and administrative approval was taken from District Public Health Office (DPHO), Lalitpur, Nepal.

Privacy was maintained by collecting data from the respondents in a separate room of the family planning clinic. Confidentiality was maintained by using

the code numbers and using the collected data for research purposes only. Each respondent was informed that she had the right to withdraw from the study at any time if they wish to discontinue. Verbal informed consent was obtained from each of them before conducting the face-to-face interview for data collection. The duration of the interview was about 30 minutes, which was mentioned before conducting the interview. A team of researchers collected the data. Then collected data were edited, classified, coded, categorized, and entered in SPSS (version 16) and again checked, cleaned, edited, and coded for further analysis.

The data were analyzed in descriptive statistics such as frequency, the percentage for categorical variables, and mean, the standard deviation for continuous variables. Inferential statistics such as the chi-square test and odds ratio were used. SPSS 16 was used for statistical

analysis. $p < 0.05$ was considered statistically significant.

Result

Among the total of 326 respondents, the mean age was 33.83 ± 6.8 y, range 20-48. Hindus were 255(78.2%), homemaker 136(41.7%), literate 213(65.3%). Among literate women, 73(34.3%) had a primary level of education. And, 279(85.6%) husbands were literate, 85(30.5%) having a secondary level of education.

Seventy-five (23%) were married for 16-20 y, 265(81.3%) had 1-2 children. The Source of information was relative, friend, or neighbour in 196(45.1%). Distance to family planning institutions was less than 30 minutes (by vehicle) for 73.9% of the respondents.

Table 1. Decision maker about contraceptives, Types of known family planning methods, family planning method used among reproductive aged women, N=3260

Characteristics	N	%
Decision-maker about contraceptives		
Both (husband & wife)	227	69.6
Self	75	23.0
Spouse	20	6.1
In-laws	4	1.2
Types of known family planning methods		
Condom	326	
Pills	326	100
Depo	325	99.7
Implant	324	99.4
Minilap/Laparotomy	281	86.2
Vasectomy	280	85.9
Copper-T	248	76.1
Foam/Jelly	5	1.5
Diaphragm	2	0.6
Family planning method used		
Modern	314	96.3
Traditional	12	3.7
In modern method (n=314)		
Implant	186	59.2
Copper-T	82	26.1
Condom	24	7.6
Pills	22	7.1

Table 2. Started using contraceptives, side effects due to contraceptives, avoided using any contraceptives, reason for avoidance among reproductive aged women, N=326

Characteristics	N	%
Started to use contraceptives		
Immediately after marriage	20	6.1
After 1st child	173	53.1
After 2nd child	104	31.9
After 3rd or more child	29	8.9
Side effects due to contraceptives		
No	265	84.4
Yes	49	15.6
Discontinued any contraceptives		
No	184	56.4
Yes	142	43.6
If yes, Reason for discontinuation (n=142)		
Due to side effects	70	49.3
To regain fertility	48	33.8
Fear of side effects	21	14.8
Lack of information	3	2.1

Table 3. Factors associated with the choice of contraceptives among reproductive-aged women

Characteristics	Male method N(%)	Female Method N(%)	p-value	OR (95% CI)
Age				
≤35	18(9.3)	175(90.7)	0.278	1.607(0.677-3.813)
≥36	8(6.0)	125(94.0)		
Educational status				
Literate	21(9.9)	192(90.1)	0.085	2.364(0.866-6.452)
Illiterate	5(4.4)	108(95.6)		
Spouse educational status				
Literate	24(8.6)	255(91.4)	0.309	2.119(0.483-9.250)
Illiterate	2(4.3)	45(95.7)		
Duration of marriage y				
≤15	17(9.9)	155(90.1)	0.179	1.767(0.764-4.089)
≥16	9(5.8)	145(94.2)		
Number of children				
≤2	23(8.7)	242(91.3)	0.328	1.837(0.533-6.329)
≥3	3(4.9)	58(95.1)		
Purpose of using contraceptives				
Birth spacing	10(14.7)	58(85.3)	0.021	2.608(1.125-6.043)
Birth control	16(6.2)	242(93.8)		
Preference for child sex				
Yes	8(14.5)	47(85.5)	0.050	2.390(0.983-5.814)
No	18(6.6)	253(93.4)		
Decision maker				
Others	4(16.7)	20(83.3)	0.102	2.545(0.799-8.130)
Self	22(7.3)	280(92.7)		

Birth control was the purpose of using contraceptives in 258(79.1%) and 186(57.1%) had planned for 1-2 children. Among the respondents, 57(17.5%) had

sex preference, and 32(56.1%) preferred having a son.

Purpose of using contraceptives and preference of child sex were significant

factors associated with the choice of contraceptives, Table 3.

Discussion

In the present study, about half of the women (45.1%) had gained information regarding family planning from relatives, friends, and neighbours, and 1/4th from health personnel (29.8%) and mass media (24.6%). Similar findings were reported from eastern Nepal as a source of information, television (25.9%) and health workers (23.6%).⁶ Nigeria study found information from health personal (76.7%), media (11.2%), friends and relatives (9.4%).⁷

In the present study 1/5th (20.9%) used contraceptives for birth spacing and 4/5th (78.9%) for birth control. A study from Egypt found nearly half (41.3%) used contraceptives for spacing, and a limited number of children (58.7%).⁸ A study from Birgunj, Nepal found 1/3rd (31.58%) used contraceptives for birth spacing.⁹

With regards to the sex preference of the child, the majority (82.5%) had no sex preference. Similarly, a study from Dhulikhel, Nepal found 2/3rd (69.1%) had no sex preference.⁴

Regarding decision-maker about contraceptives 3/4th (69.6%) of the respondents made a decision as a couple and 1/4th (23.0%) decided by themselves. However, a study conducted in Dhulikhel, Nepal found the majority (91.6%) made decisions as a couple.

Present study findings showed that all of the respondents (100%) had known about condoms and pills, 99.7% Depo-Provera, 99.4% Implant, and 76.1% knew about IUCD. This result is consistent with the

study done in Kotang, Nepal where almost all 97(86.6%) knew about Depo-Provera followed by pill (83.0%), condoms (75.0%), the implant (57.1%), and IUCD (40.2%).¹⁰ Study done in Kathmandu found most widely known contraceptives were condom (84%), pills (82%), and Depo-Provera (71.50%).¹¹

Regarding the type of family planning method used, most of the respondents (96.3%) were using modern methods. This finding resembles the study done in district hospital Lamjung, Nepal where 68% were using modern contraception methods. This shows women's' reluctance to permanent surgical methods or implants.¹² A study done among Nepalese female migrants living in Japan showed only 43.3% were using modern contraceptive methods. This may be due to the free availability of contraceptives in Nepal.¹³

A study from Turkey revealed Intrauterine device was the most commonly used method 46.4%.¹⁴ The patriarchal nature of the society may be promoting the belief that family planning is a 'woman's business'. A study done among youths in Kathmandu valley showed that the most commonly used method was condoms (47.7%).¹⁵

In this study, half (53.1%) of respondents stated that they started using contraceptives after the birth of their first child. This finding is consistent with the study done in Bangalore, India where 69.4% used contraception after the birth of their first child.¹⁶

In the present study, 43.6% of the respondents had discontinued contraceptives. The reason for discontinuation in half (49.3%) was due to side effects and in 1/3rd (33.8%) was to

regain fertility. Consistent results were seen in studies done in Dang (42%) and Kathmandu (58.6%) where a major reason for not using contraceptives was due to fear of side effects.^{17,18} Another study done in Kotang, Nepal is dissimilar with the findings of the study where the cause of discontinuation was due to side effects (20%) and to regain fertility (7.5%).¹⁰

Considering the association between socio-demographic variables and determinants of the choice of contraceptives, in our study mainly two factors, purpose of using contraceptives and preference of child sex have shown to be significant (OR=2.608, $p=0.021$, OR =2.39, $p=0.05$ respectively). A study done in Kerala, India showed that preference of child sex ($p=0.001$) was the statistically significant factor associated with a pattern of use of contraceptive.¹⁹ A study done in Ethiopia revealed different factors, i.e., age (AOR): 1.94, (95%CI: 1.170-3.216)], women who had educated husband [AOR: 0.28, (95%CI: 0.117-0.666)], Marital status [AOR: 2.81, (95%CI: 1.344-5.855)] and Spousal announcement about family planning issues [AOR: 2.58, (95%CI: (1.276-5.202))] as factors associated with contraceptive utilization.²⁰

Conclusion

The purpose of using contraceptives and preference for child sex were significant factors for the choice of contraceptives among married women of reproductive age.

Acknowledgement

I would like to express my gratitude towards my co-workers for their encouragement, cooperation, and moral support.

Conflict of Interest

None

Funding

None

Author Contribution

Concept, design, planning, literature review; Data collection/analysis - RAK, NG, RJS, MSA, NS; Draft manuscript- RAK, NG; Final manuscript- RAK, NG, RJS, MSA, NS.

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Supplements

Questionnaire

Part I: Demographic Information

1. Age (In years)
2. Ethnicity
 - a. Brahmin/chettri
 - b. Janajati
 - c. Newar
 - d. Dalit
 - e. Muslim
 - f. Others
3. Religion
 - a. Hindu
 - b. Buddhist
 - c. Muslim
 - d. Kirat
 - e. Christian
 - f. Others

4. Educational Status
 - a. Literate
 - b. IlliterateIf, literate, level of education (completed)
 - a. Primary
 - b. Secondary
 - c. Higher secondary
 - d. Bachelors and above
5. Occupation
 - a. Homemaker
 - b. Service
 - c. Agriculture
 - d. Student
 - e. Others(specify)
6. Husband's Educational Status
 - a. Literate
 - b. IlliterateIf, literate, level of education (completed)
 - a. Primary
 - b. Secondary
 - c. Higher secondary
 - d. Bachelors and above
7. Years of marriage.....
8. The number of children.....
9. Family monthly income
 - a. Less than 10,000
 - b. 10,000-20,000
 - c. 21,000-30,000
 - d. More than 30,000

Part II: Questionnaires related to factors affecting the choice of contraceptives

10. From which sources did you get information about various family planning methods?
 - a. Mass Media(Radio/Television/Newspaper)
 - b. Health Personnel/Facilities
 - c. Relatives/Friends/Neighbor
 - d. Others
11. How far is the health facility for the family planning services from your home?
 - a. Less than 30 minutes
 - b. 30 minutes to 1 hour
 - c. More than 1 hour
12. Do you have a desire for another child?
 - a. Yes
 - b. No
13. Do you have a sex preference for a child?
 - a. Yes
 - b. NoIf Yes:
 - i. Boy
 - ii. Girl
14. Why do you use the family planning method?
 - a. For spacing
 - b. For limiting

15. Who is the decision-maker in your family for selecting contraceptive methods?
 - a. Yourself
 - b. Your Husband
 - c. Mutual (You and your husband)
 - d. Your In-laws

16. How many children are you planning to have?
 - a. 1-2 children
 - b. 3-4 children
 - c. Not decided

17. What are the types of contraceptive methods you are aware of? (You can choose more than one option)
 - a. Condoms
 - b. Oral contraceptive pill
 - c. Implants
 - d. Depo-Provera
 - e. IUCD
 - f. Male sterilization
 - g. Female sterilization

18. What contraceptive method are you currently using?
 - a. Traditional method
 - b. Modern method
 - i. If Modern method (Please specify)
 1. Condoms
 2. Oral contraceptive pill
 3. Implants
 4. Depo-Provera
 5. IUCD
 6. Tubal ligation

19. When did you start using contraceptives?
 - a. Soon after marriage
 - b. After the first child
 - c. After the second child
 - d. After the third child

20. Have you experienced any kind of side effects due to contraceptive use?
 - a. Yes
 - b. No

21. Have you ever discontinued any contraceptive method?
 - a. Yes
 - b. No
 - i. If yes, what was the reason for discontinuation?
 1. Due to the presence of side effects
 2. A desire for more children
 3. Fear of side effects
 4. Fear of infertility
 5. Lack of information