

# Awareness and Determinants of Contraceptive use among Nursing Mothers in Bellary, Karnataka

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## ABSTRACT

**Introduction:** The nursing mothers, who have already delivered a child in recent period, may prefer to avoid or delay future pregnancy, or may not even have given a thought about it. Among those who prefer to delay next pregnancy, many are unaware of family planning practices. This is mainly influenced by the prevailing sociodemographic factors in their families.

**Aim:** To study the prevailing Knowledge, Attitude and Practice of contraception and the influence of sociodemographic factors on family planning practices among the healthy nursing mothers.

**Materials and Methods:** A cross-sectional study was conducted among 2500 healthy breast feeding mothers who delivered at Medical College Hospital (MCH), Vijayanagara Institute of Medical Sciences (VIMS), Bellary during Dec 2011 to Nov 2013. They were interviewed using a pre structured questionnaire in the post natal wards on 2<sup>nd</sup> to 7<sup>th</sup> postpartum day. Later these mothers were educated and counseled regarding various suitable contraceptive methods. The data collected were analysed using percentage and chi-square test.

**Results:** The proportion of willingness for contraception is more among women in the age group 19-29 years, among literate husband and wife, among women belonging to nuclear families and with higher socioeconomic status. Muslim women were least receptive to contraceptive advice.

Regarding awareness of contraceptive methods only 46% had knowledge regarding family planning methods. A total of 43% mothers opted to limit family size. Among 16% of mothers who did not want to limit family size, 70% had no male child.

In most of the families, final decision regarding family planning method was taken by husband alone or by elders. The most important reason for lack of family planning practices was lack of awareness (57.2%).

**Conclusion:** Many of the nursing mothers are not aware of contraceptive practices. But these women are very receptive to contraceptive advice. Also, the decision of family planning depends not only on the couples but even on elders of the family. Hence, a combined family approach to educate and counsel the entire family including elders is needed. The major determinant is education of the entire family regarding family planning practices.

**Keywords:** Counseling, Family planning services, Postpartum period

## INTRODUCTION

With a population of 1.21 billion with 17.64% decadal growth rate, India is the second most populous country in the world [1]. Although the Total Fertility Rate has dropped from 3.6% (1991) to 2.58% (2012), there are still miles to go to reach the replacement level of 2.1 set by National Population Policy, 2000 [2]. The acceptance of contraceptive methods varies within societies and also among different castes and religious groups. The factors responsible operate at the individual, family and community level with their roots in the socio-economic and cultural milieu of Indian society [3]. The current contraception prevalence rate of Bellary is 55.1% lagging behind other districts of Karnataka [4].

Many of the nursing mothers who prefer to delay next pregnancy are unaware of family planning practices. Hence, the present study is conducted among nursing mothers who delivered at Vijayanagara Institute of Medical Sciences, Bellary, to know the prevailing contraceptive awareness and the various sociodemographic factors affecting it. This study also enabled in reaching out maximum number of mothers at a time when they are most receptive to contraceptive advice.

## MATERIALS AND METHODS

This was a cross-sectional study, conducted in the post natal wards between Dec 2011 and Nov 2013 among nursing mothers who delivered at Vijayanagara Institute of Medical Sciences, Bellary. The study included all the healthy breast feeding mothers. Women with bad obstetric history, psychiatric disorders, no living issues, not breast

feeding due to various reasons, who have undergone concurrent puerperal sterilization, medical disorders like severe anaemia, heart disease etc., were excluded from the study. Institutional ethical clearance was obtained. After taking written informed consent from the mothers, postgraduate residents and the interns interviewed the mothers using the pretested structured questionnaire in the post natal wards between 2<sup>nd</sup> and 7<sup>th</sup> postpartum day. The questionnaire was based on two sets of variables,

- Socio economic and demographic conditions indicated by the back ground variables.
- Dependent variables and willingness for family planning methods.

Considering the sentimental issue of contraception and sensitivity of the topic the interview was conducted on individual basis. Information was collected regarding her age, education, husband's education, religion, per capita income, age at marriage, number of living children, husband wife discussions, sex of living children, desire for more children, influence by elders and religious decisions. This was followed by mass education and counseling for a group of around 10-15 women regarding various suitable methods of contraception with the help of Audio visual aids. The advantages and drawbacks were explained and patients were offered "cafeteria approach" to use any contraceptive method they wanted. The data collected were analysed using percentage and chi square test. Chi-square test was used when 2 variables were compared, and to know whether the test results were significant or not.

Segmentation based on		Population	%	Willing for contraception (Number)	%	Not willing (Number)	%	p-value
Age	15 -19	271	11	259	95.5	12	4.5	0.001 p<0.01
	20 - 24	1405	56	1236	88	169	12	
	25 - 29	775	31	565	73	210	27	
	30 -34	49	02	25	51.3	24	48.7	
Literacy- wife	literate	2017	81	1714	85	303	15	0.001 p<0.01
	Illiterate	483	19	371	77	112	23	
Husband	Literate	806	32	698	86.6	108	13.4	0.002 p<0.01
	Illiterate	1694	68	1387	82	307	18	
SES	Class 2	143	06	141	99	2	1	0.000 p<0.001
	Class 3	427	17	362	84.7	65	15.3	
	Class 4	1218	49	1015	83.4	203	16.6	
	Class 5	712	28	567	79.7	145	20.3	
Type of family	Joint	1972	79	1578	80	394	20	0.000 p<0.001
	Nuclear	528	21	507	96.2	21	3.8	
Religion	Hindu	2027	81	1713	84.6	314	15.4	0.000 p<0.001
	Muslim	456	18	357	78.4	99	21.6	
	Christian	17	01	15	90.9	2	9.1	
Age at marriage	15 – 20	1976	79					0.030 p<0.05
	21 – 25	495	20					
	26 – 30	29	01					
Number of living children	1	1384	55	1207	87	177	13	0.000 p<0.001
	2	696	28	636	91	60	9	
	3-4	405	16	233	56.8	172	43.2	
	>5	15	1	9	55.5	6	44.5	

**[Table/Fig-1]:** Demographic characteristics of participants and willingness for contraception.

## RESULTS

A total of 2500 eligible married women in the reproductive age group were interviewed. Most of the women in the study were in the age group 20-29 years (87% of study). 81% of mothers were literate and 19% were illiterate. What was enlightening and interesting in the present study was 68% of husbands were illiterate as unexpected. More number of mothers was educated as compared to their husbands. 77% of mothers were from lower socioeconomic status according to Modified B.G. Prasad's classification. Out of total, 57% of mothers were from rural area and 43% from urban area. A total of 79% of study population married within 20 years of age. An 81% of women were Hindus, 18% Muslims and 1% Christians. A 21% of mothers were from nuclear family and 79% from joint family. The total number of living children in the families was predominantly conforming to the 2 child norm currently practiced in India.

The proportion of willingness for contraception is more among women in the age group 19-29 years ( $p < 0.001$ ), among literate husband and wife ( $p < 0.01$ ), among women belonging to nuclear families ( $p < 0.001$ ) and with higher socioeconomic status ( $p < 0.001$ ). Nuclear families will be more effective and beneficial by allowing women to take individual decisions and couples not to be influenced by family pressure to conceive. In the present study, Muslim women were least receptive to contraceptive advice ( $p < 0.05$ ). The proportion of women with 1 child willing for spacing methods after proper education and counseling was 87% ( $p < 0.001$ ) [Table/Fig-1]. Regarding awareness of contraceptive methods only 46% of study population had knowledge regarding family planning methods [Table/Fig-2]. A 31% of women who had awareness were literate,

Awareness	No of women	Percentage (%)
Yes	1144	46
No	1356	54
Total	2500	100

**[Table/Fig-2]:** Distribution of women according to awareness about the family planning practices.

Reason	No of women	Percentage (%)
Few children	107	27
No male child	274	70
No female child	13	03
Total	394	100

**[Table/Fig-3]:** Reasons for not limiting family size.

Final decision takers	No of women	Percentage (%)
Wife	09	0.3
Husband	1151	46.1
Husband and wife both	11	0.4
Elders	1284	51.4
Husband and elders	11	0.5
Don't know	16	0.6
All combined	18	0.7
Total	2500	100

**[Table/Fig-4]:** Distribution of women according to final decision takers in the family.

Reasons	No of women (%)
Lack of awareness	1430 (57.2)
Socioeconomic issues	915 (36.6)
Gender issues	877 (35.1)
Myths and misconceptions	510 (20.4)
Inappropriate services	489 (19.56)
Influence of Medical factors	28(1.1)

**[Table/Fig-5]:** Distribution of women according to final decision takers in the family.

and 69% were illiterate. The awareness of contraception is not zero among illiterate. But the literate couples would understand better and show willingness for contraception after counseling. This implies that apart from literacy status separate education regarding family planning is needed. A 43% of mothers opted to limit family size as 71% had already 2 children, 23.9% had 3 children and 5% had 1 male child. Among 16% of mothers who did not want to limit family size, 70% had no male child [Table/Fig-3]. This is still one of the major determinants in using family planning methods even after having healthy children. In most of the families, final decision regarding family planning method was taken by husband alone or by elders [Table/Fig-4].

The main reason for non usage of contraception was lack of awareness, followed by socioeconomic issues and gender issues [Table/Fig-5].

## DISCUSSION

In the present study, 56% of the women are between 20-24 years of age group. This corresponds with the peak reproductive age group in which most pregnancies occur. Similarly in studies by Padma mohanan et al., Christian Ewhrudjakpor the peak reproductive age group was between 20-24 years and most of the study population were in this age group [5,6]. The proportion of willingness to use contraception after educating and counselling among women in the younger age group i.e. 15-29 years is more compared to women in age group between 30-34 years. Studies by Padma mohanan et al., Arbab et al., Tehrani et al., Tonjam Joshila., Vasundhara et al., quoted that acceptors of contraception were more in the higher age group [5,7-10]. As most of the study results quoted, women of

higher age group are acceptors of family planning, it is suggested that the age at marriage has to be increased, which in turn may help in population stabilization. As per our study result it is concluded that, women of younger age group accept and show willingness for contraception after proper educating and counselling. Women who had no awareness regarding family planning practices showed willingness for contraception after educating and counseling. Hence counseling plays a very important role in the acceptance of family planning practices by women.

Women with 2 or more children 77% (35% of total women) conceived within first 2 years after the first child. Our results are comparable with the results of NFHS-3 [11]. According to NFHS-3 [11], the median interval between births in India is 31 months. Average number of children per woman as per our study population is 1.64. According to NFHS – 3 [11], at current fertility levels, a woman in India will have an average of 2.7 children in her lifetime.

The proportion of women willing for contraception either temporary or permanent, with 1 child is 87%, with 2 children is 91%, 3-4 children is 56.8% and greater than 5 children is 55.5% which is statistically significant. This shows that women with one child show willingness for spacing methods after proper counseling. Therefore the primipara group of women has to be targeted by adequate counselling for spacing methods.

Increase in the percentage of contraceptive usage with the increase in the education level of both husband and wife was observed. Literacy level influences the behavior of male partner when it comes to take joint decision regarding contraception [3].

Contraceptive use is maximum among women with higher socio-economic status compared to women with lower socio-economic status.

The willingness to use contraceptive method among women in nuclear families (96.2%) is more compared to women in joint families (80%). Study by SM Pandey et al., shows that the contraceptive use rate is higher in the nuclear families i.e. 79.44% [3]. Family structure is a significant factor for usage of contraceptives.

The peak age of marriage was between 15-20 years (79%). According to NFHS 3 [11] median age at first marriage is 17.2 years. Women and men living in urban areas and those with higher levels of education marry later than their rural and less educated counterparts.

The willingness for contraception among Hindu women was 84.6% compared to 78.4% among Muslim women. Only 2% of women had religious decisions regarding family planning methods [Table/ Fig-6].

Regarding limiting and spacing methods of family planning, the final decision was taken by elders in 51.4% and by husband alone in 46.1%. Husband and wife both together took decision in only 0.4% of families. In most of the families, mother alone is not allowed to take decision regarding family size. Probably in years to come family planning can be improved by women empowerment. As elders interfere in the decisions of the couple in these matters, educating elders also and counseling them about family planning practices and the advantages of adopting small family norm is needed.

Among the women wanting to limit or space family size, majority of the women i.e. 71% already had 2 children. This study result proves the currently practiced 2 child norm in our country. Among women who did not want to limit family size, 70% had no male child. Most men and women would like to have at least one male child. A 58% of the couples had discussions regarding limiting and spacing of family and 42% did not have discussions. Most couples do not discuss with each other when to have their first child, birth spacing or contraception. Among the women willing for contraception, 40% opted permanent methods, 38% opted temporary methods and 22% opted both.

Majority of women do not use contraception due to lack of awareness, fear of side effects and socioeconomic issues. By proper education regarding various contraceptive methods and offering the cafeteria approach, mothers can be helped to limit family size.

Author/ year/ no of cases	Padma mohanan et al[5]/ 2003/ 1007	A A Arbab et al[7]/ 2009/1300	Ramezani tehrani et al[8]/ 2001/ 4177	T.Joshila et al[9]/ 2012/700	Vasundhara Sharma et al[10]/ 2012/ 682	S.choudary et al[12]/ 2011/483	S.Ghosh et al[13]/2013/342
Population group	Rural community	Married women	Post partum women	Married women	Post partum women	Eligible couples	Married women
Region	Asaigoli village	PHC Qatar	University hospital Tehran	Imphal Manipur	Medical university, lucknow	PHC Agroha	Medical college West bengal
Age group/ population%/ willingness%	15-19/ 2.6/0 20-24/13.2/9.2 25-29/19.3/28.3 30-34/17.0/41.2 35-39/12.2/45.5 40-44/20.3/36.3 45-49/15.0/9.6	<25/-/14.7 25-29/-/28.1 30-39/-/39.9 40-49/-/17.3	21-35 / 72/68.1 <20 / 26.5/41.1 >35 / 1.5/68.8	<24/-/21.6 25-29/-/43.3 30-34/-/63.5 35-39/-/54.2 >40/-/54.3	<20/2.2/0 21-25/50.6/37.5 26-30/40.5/52.2 >30/6.7/10.2	15-19/-/56.3 20-24/-/58.1 25-29/-/58.6 30-34/-/65.4 >35/-/43.4	<30/-/31.7 >30/-/40
Literacy wife/ population %/ willingness %	IL/ 40.7/27.4 P/ 30.5/32.1 S/ 24.6/24.9 D/ 4.0/25.0	IL/-/5.6 P/-/14.8 S/-/34.4 UD/-/45.1	IL / 3.8/ 56.1 P / 30.4/59.5 I /40.2/60.8	IL/-/39.1 P/-/54.2 S/-/60.4 D/-/68.7	IL/-/39.1 P/-/54.2 S/-/60.4 D/-/68.7		IL/-/53.5 P/-/48.3 S/-/66.5 D/-/72.6
Literacy husband/ population %/ willingness%			D / 71.8/59.8 UD /25.3/65.6 IL / 3/52.9				
Type of family/ population %/ willingness %	N/ 43.1/39.8 E/ 15.8/19.7 J /40.9/19.1					J/-/52.4 N/-/61.3	J/-/28 N/-/34
Religion / population %/ willingness %	H /49.8/37.4 M/ 44.7/18.5 C/ 5.3/22.9				H/85.6/93.7 M/14.4/5.2		H/-/36 M/-/28
No of living children/ population %/ willingness %	0/ 11.9/0 1-2 /37/32.5 3-4/ 30/48.0 >- 5/ 32.1/19.0		1 / 50/39.2 2 /36.4/ 82.7 3 /11.7/86.9		1/37.5/0 2/34.8/53.3 3/23.2/38.8 >4/4.5/7.9		0/-/100 1/-/53.8 2/-/62 3/-/49.1 >4/-/77.7
Awareness			Y – 74.4 N – 25.6				

**[Table/Fig-6]:** Comparison of values with earlier literature [5,7-10,12,13].

## LIMITATIONS

The limitations of the study are follow-up of women after counseling, failure to counsel husbands and elders. The questionnaire does not ask whether the earlier deliveries are institutional or not. This will give the KAP amongst women about the usual counseling given to mothers in immediate postpartum period. The post partum counseling has to be made a routine in institutional deliveries. There should be proper follow up of women atleast by the case workers and re-counseling has to be done.

To increase the prevalence of contraceptive methods it would be very much important to speed up social welfare programs in order to uplift the person sitting on the lowest stair of the social hierarchy. It can be done only by giving right education to the people that keeps ahead view of the society in the right direction. Literacy is a weapon that not only breaks social barriers, superstition, gender bias & wrong faiths in the context of accepting family planning methods but also brings equal opportunity to grow up that develops a sense of co-existence [3].

## CONCLUSION

Post partum women form a key audience who will be receptive to contraceptive advice. Imparting correct knowledge at correct time

can easily motivate them for adoption of proper family planning method. Unfortunately still the decision of using a contraceptive method is in the hands of elders or on husbands. Thus it is good that a combined family approach should be followed by authorities to counsel people. As our target population which is currently women only can not suffice to apply family planning methods in Indian scenario.

The current urban phenomenon of nuclear family, where elders will not interfere is good for controlling population explosion.

As the government gives incentives to couples who opt permanent sterilization, which is an effective drive, it should also give incentives to couples who follow temporary methods and delay pregnancies. Couples who adopt one child norm or 2 children norm should be encouraged by benefits either in the form of children's education or health insurance.

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### PROFORMA

#### SL NO:

Awareness and determinants of contraceptive use among nursing mothers at teaching Medical College Hospital.

#### WRITTEN INFORMED CONSENT

I understand that the present dissertation work is about family planning and about influencing factors on its practices. I have understood in my own language the protocol, which includes socioeconomic and personal information in the form of questionnaire. Also I am made to understand that I will have an opportunity to ask questions about it and any question I have asked will be answered to my satisfaction. I consent voluntarily to be a participant in this study.

#### SIGNATURE OF PARTICIPANT

Name :  
IP NO :  
Age :  
Address :  
Contact no :  
Date of admission :

#### HISTORY

Obstetric Score :  
Interval between marriage and conception :  
Interval between previous pregnancy and present conception:  
Details of previous pregnancy :

#### GENERAL PHYSICAL EXAMINATION :

Pulse :  
BP :  
Pallor:  
Icterus:  
Edema:

#### SYSTEMIC EXAMINATION:

CVS :  
RESPIRATORY SYSTEM :  
PER ABDOMEN :  
PER VAGINA :

**MODE OF DELIVERY:** Vaginal / Instrumental / Caesarean section

#### NEONATAL RECORDS:

Sex :  
Birth weight :  
Socio- Demographic Factors:  
Wife's Education : Illiterate ( )  
Primary ( )  
Secondary ( )  
Matriculation ( )  
Husband'S Education : Illiterate ( )  
Primary ( )  
Secondary ( )  
Matriculation ( )

Monthly Income of the Family :  
Socio Economic Status: Class I ( )  
Class II ( )  
Class III ( )  
Class IV ( )  
Class V ( )

Duration of Marriage :  
Age of Wife at Marriage : 15-20 ( )  
21-25 ( )  
26-30 ( )

Type of Family: Nuclear ( )  
Joint ( )

Husband Wife Discussions Regarding Family Planning : Yes ( ) No ( )

Number of Living Children :  
 Desire for more Children : Yes ( ) No ( )  
 Cant Say ( )  
 Religion : Hindu ( )  
 Muslim ( )  
 Christian ( )  
 Religious Decisions : Yes ( )  
 No ( )  
 Marriage Relation Ship : Strained ( )  
 Normal ( )  
 Who takes final decisions in such Matters: herself ( )  
 Husband ( )  
 Elders ( )  
 Don't Know ( )  
 Combined ( )  
 Whether wants to limit family size: Yes ( )  
 No ( )  
 Not Yet Decided ( )  
 Why Limit Family Size : 2 Children ( )  
 3 Children ( )  
 Having Male Child ( )  
 Having Female Child ( )  
 Why not limit family : Few Children ( )  
 No male child ( )  
 No female child ( )  
 Aware of contraception : Yes ( )  
 Fully ( )  
 Partially ( )  
 No ( )  
 Choice of Contraception : Barrier Contraceptives ( )  
 Intrauterine Devices ( )  
 Oral Contraceptives ( )  
 Injectable Contraceptives ( )  
 Emergency Contraception ( )  
 Male Sterilization ( )  
 Female Sterilization ( )  
 Impression :

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