

## Research Article

# Pattern of family planning practices among Janani Suraksha Yojana beneficiaries: Central Uttar Pradesh, India

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## ABSTRACT

**Background:** Short birth interval adversely affects the maternal and neonatal health. The use of contraceptive methods is still one of the biggest challenges in developing countries despite various programs. Janani Suraksha Yojana was started with aims to achieve national targets for contraception.

**Methods:** The present study was a cross sectional study conducted in Lucknow district amongst the women admitted in three blocks of rural area health centers. The blocks were selected by simple random sampling method. A total of 400 women who delivered in the labor wards of the health centers were interviewed and enrolled.

**Results:** In the present study, out of 400 mothers, 39(9.8%) mothers had their first delivery below the age of 18 yrs. According to modified Udaï Pareek Scale, 56.3% of the mothers belonged to 5th socio-economic status. Birth spacing was the purpose to use family planning (FP) methods among 121(55.5%) of the mothers. The use of FP method was significantly associated with occupation of mothers and their husband and education of mothers. It was also found that the use of FP method was significantly ( $p=0.001$ ) higher among those beneficiaries who had birth interval > 3 years (72.1%) in contrast to 2-3yrs (68.8%), 1-2yrs (60.2%) and < 1yr (36.4%).

**Conclusions:** JSY is a promising program for promotion of contraception. Knowledge about the family planning methods should be provided to the beneficiaries during their ANC visits as during this period they are more receptive to family planning methods.

**Keywords:** Family planning, Birth spacing, Contraception

## INTRODUCTION

The mission of government of India is to achieve Universal access to reproductive health by the year 2015 as a part of millennium development goal (MDG). It is but, still far from the being achieved. The role of family planning and programs related to reproductive health are of immense importance to public health in decreasing the

fertility rate of developing nations.<sup>1</sup> Despite being varied levels of contraceptive prevalence in major areas and sub-regions, it has been found that 63 percent of the women were using various methods of contraception all across the world.<sup>2</sup> Globally, the use of modern contraception has risen slightly, from 54% in 1990 to 57% in 2012.<sup>3</sup> The family planning methods can not only helps in proper

birth spacing but they also reduce maternal as well as neonatal mortality and morbidity both.<sup>4</sup>

The National Family Planning program in India was launched in 1952 with the main objective of population stabilization, which would improve the development of country, which is directly related to fertility rate.<sup>5</sup> The program also benefitted in preventing the transmission of sexually transmitted infections, cancers and HIV/AIDS. In India most of the deaths of women are related, either due to complications during pregnancy, on partum or post-partum hence the urgent of an hour is to improve maternal and child health.<sup>6</sup> Since 1990, there has been a considerable decline in maternal mortality to nearly half but it still falls alarmingly short of the MDG target. Low socioeconomic status and lack of knowledge also leads to early marriage and high adolescent birth rates, which adds to maternal mortality. Inadequacy of government funds for family planning methods also adding a lot in the failure to fulfill commitments in improving women's reproductive health.<sup>7,8</sup> Janani Suraksha Yojana (JSY) was launched in 2005 under National Rural Health Mission (NRHM), to reduce the Maternal Mortality Ratio (MMR). Accredited social health activist (ASHA), an essential part of JSY, forms an integral bridge between community and public health schemes. The aims of JSY were to promote institutional delivery by trained health professionals. Cash benefits were being given for antenatal care during pregnancy period, institutional care during delivery and even in post-partum period. With this background knowledge the focus of the study was to assess the pattern and determinants of birth spacing among JSY beneficiaries.

## METHODS

### Study design

The present study is a cross sectional study conducted amongst the women who were admitted at health Centers in three blocks of rural area of Lucknow district.

### Sampling technique and Sample size

Out of nine blocks in Lucknow district, three Blocks were selected by simple random sampling method. One primary health center (PHC) and two community health centers (CHC), which conduct deliveries on routine basis. A sample size of 266 was estimated by taking the prevalence of contraceptive method usage as 37%. The design effect of 1.5 was taken due to multistage sampling procedure. The starting point was chosen randomly. Thus a total of 400 women who delivered in the labor wards of the health centers were interviewed and enrolled.

### Ethical issues

Permission from ethical committee of the institute was taken, and all beneficiaries were explained about the purpose of study. Written informed consent was obtained

from these women after explaining in detail about the study.

### Data collection

A pre tested semi-structured questionnaire was prepared to know the determinants of family planning practices. Pilot testing was done over 40 beneficiaries. Modified Udai Pareek scale was used to know socio economic status of the mothers.

### Data analysis

SPSS 20 version was used to analyze the data and results were presented in the form of frequency and percentages.

## RESULTS

In the present study, out of 400 mothers, 249(62.3%) were in the age group of 25-35 years. Only 39(9.8%) mothers had their first delivery below the age of 18 yrs. 313(78.3%) were Hindu and 169(42.3%) belonged to SC/ST category. 265(66.2%) were having nuclear family. 113(28.3%) were illiterates, whereas 183(45.8%) were having primary and higher education. Similar educational pattern was found in their husbands also. 132(33%) of the mothers and 122(30.5%) of their husbands were unemployed. According to modified Udai Pareek Scale, 225(56.3%) of the mothers belonged to 5th socio-economic status. (44.8%) of the mothers had BPL card. (71%) of the mothers availed JSY services in their previous delivery and nurse/Auxiliary Nurse Midwife/Aaganwadi workers/ASHA (75.7%) were the main motivating person.

**Table 1: Knowledge and family planning practices of mothers.**

Family planning practices	N=400(%)
<b>Knowledge about family planning methods</b>	
Yes	337 (84.25%)
No	63 (15.75%)
<b>Use of any method after previous delivery N=337(%)</b>	
Yes	218 (64.7)
No	119 (35.3)
<b>Type of method used*</b>	
Pills	112 (51.4)
Injectable	30 (13.9)
Condom	156 (71.6)
IUD	19 (8.7)
E-pills	23 (10.6)
Others	11 (5.0)
<b>Purpose of use</b>	
Birth Spacing <sup>#</sup>	121 (55.5)
Limiting Birth <sup>\$</sup>	97 (44.5)

\*Multiple responses

# Birth spacing: The lengths of intervals between births to women in the population.

\$ Limiting birth: deliberate limitation of childbearing by measures to control fertility and to prevent conception.

The knowledge and family planning practices of mothers have been described in the Table 1.

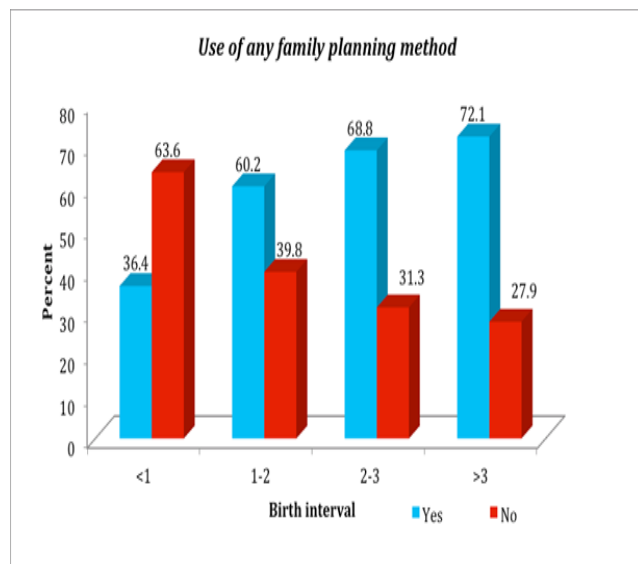
**Table 2: Relation between biosocial profile of the mothers and use of any family planning (FP) method.**

Biosocial Profile	No. of mothers	Mothers using FP methods				p-value
		Yes		No		
		No.	%	No.	%	
Age (yrs.)						
18-24	75	48	64.0	27	36.0	0.48
25-30	142	92	64.8	50	35.2	
31-35	107	61	57.0	46	43.0	
36-40	76	43	56.6	33	43.4	
Religion						
Hindu	313	192	61.3	121	38.7	0.79
Muslim	87	52	59.8	35	40.2	
Caste						
General	79	44	55.7	35	44.3	0.49
OBC	152	97	63.8	55	36.2	
SC/ST	169	103	60.9	66	39.1	
Type of family						
Nuclear	265	157	59.2	108	40.8	0.31
Joint	135	87	64.4	48	35.6	
Education of Beneficiaries						
Illiterate	113	59	52.2	54	47.8	0.04*
Just literate	104	61	58.7	43	41.3	
Primary school	51	37	72.5	14	27.5	
Middle	132	87	65.9	45	34.1	
Occupation of beneficiaries						
Unemployed	132	87	65.9	45	34.1	0.02*
Farm worker	86	58	67.4	28	32.6	
Unskilled worker	99	48	48.5	51	51.5	
Others	83	51	61.4	32	38.6	
Education of Husband						
Illiterate	108	62	57.4	46	42.6	0.49
Just literate	99	58	58.6	41	41.4	
Primary school	46	32	69.6	14	30.4	
Middle	147	92	62.6	55	37.4	
Occupation of Husband						
Unemployed	122	80	65.6	42	34.4	0.04*
Farm worker	93	64	68.8	29	31.2	
Unskilled worker	102	52	51.0	50	49.0	
Others	83	48	57	35	42.2	
Socio economic status						
III	85	49	57.6	36	42.4	0.18
IV	90	49	5.4	41	45.6	
V	225	146	64.9	79	35.1	

According to which out of 337, 218 (64.7%) of the mothers were using methods of contraception after their previous delivery. Husbands of 156 (71.6%) beneficiaries used condom. Birth spacing was the purpose to use family planning methods among 121(55.5%) of the

mothers. The relation between biosocial profile of the mothers and use of any family planning (FP) method has been described in Table 2, which showed that the use of FP method was significantly associated with occupation of mothers and their husband and education of mothers.

However, use of family planning method is not associated with biosocial profile of mothers. The Figure 1 describes the use of FP method was significantly ( $p=0.001$ ) higher among those beneficiaries who had birth interval  $> 3$  years (72.1%) in contrast to 2-3yrs (68.8%), 1-2yrs (60.2%) and  $< 1$ yr (36.4%).



**Figure 1: Percentage of Use of Family Planning Methods in relation with Birth Interval in years.**

## DISCUSSION

In this study conducted among JSY beneficiaries it was found that about 10% mothers' age of marriage was less than legal age of marriage that is 18 years in India. It is almost similar to average age of the marriage in UP (16.3yrs) according to Sample Registration Survey 2009. In the current study education of mother as middle school & above ( $p=0.03$ ) was found significant. In a multivariate analysis<sup>9</sup> the education of women was an important factor in the following of birth spacing, similarly a cross-sectional study in Nepal<sup>10</sup> also noted the same association. In our study we found that education of husband plays no significant role in following birth spacing. Similarly in a study conducted among two states UP and Kerela<sup>11</sup> it was found that husband's education did not have much effect on birth interval, but on the contrary Setty-Venugopal V and colleagues<sup>12</sup> showed that husband's education plays a pivotal role in following birth spacing.

In the study maximum number of the beneficiaries (33%) and their husbands (30.5%) were unemployed. Nearly quarter of the beneficiaries and their husbands were unskilled workers. The unskilled worker ( $p=0.03$ ) were significant factors found in the multivariate analysis also showed the same association.<sup>8</sup> The multivariate cox regression by different investigators showed that a husband's work status, were one of the only significant predictor of longer inter birth intervals. In our study it was found that maximum number of beneficiaries, 56.3%

( $n=225$ ) belonged to grade V socioeconomic status, followed by 22.5% in grade IV and 21.3% in grade III socioeconomic class.<sup>13</sup> Socioeconomic status was also significantly highlighted in following birth spacing by study.<sup>9</sup> The negative effects of close spacing for older siblings are in fact larger for the low-income group.<sup>14</sup> In the current study majority of beneficiaries were Hindu 78.3% ( $n= 313$ ) followed by Muslims, which were 18% ( $n= 72$ ). It found that religion did not strongly affect the risk of birth other than for first births in Uttar Pradesh.<sup>11</sup>

The female sterilization was the most widely accepted method by contraceptive users (19%), followed by IUDs (14%), according to United Nations publication report 2013. In the developed nations 18% users used pills and condoms each, whereas on the contrary, users in developing nations preferred female sterilization (21%) and IUDs (15%).<sup>15</sup> In our study it was found that majority of study population were using male condoms (71.6%), only 11% were favoring for female sterilization and 19% were using IUDs as the accepted method of contraception. It was also found that birth spacing was the purpose to use family planning methods among (55.5%) of the mothers. In a study in Lagos<sup>16</sup> in which they found that male condom was the most prevalent (45%) in the study population, 69% of the population used contraceptives for birth spacing. In an another cross sectional study it was found that the contraceptive prevalence before the current pregnancy was 57.6%.<sup>16</sup> In a different family planning clinic it was found that (46.7%) females used injectable, (17.1%) were using pills, (17.1%) favored IUDs, (10.5%) used tubal ligation; and (8.6%) of the population condoms.<sup>17</sup> In a comprehensive study among five European countries it was found that oral pills were the most commonly used by 22 million populations as a method of contraception. Male and female sterilization were the main methods of contraception in women aged 40 years and older.<sup>18</sup> In a different study conducted among multiparous women it was observed that 34.6% of their studied population used condom as the most preferred method of contraception.<sup>19</sup>

## CONCLUSION

Despite majority of women having awareness about birth interval, they lacked the knowledge about the proper gap between two successive pregnancies. So the awareness in this direction is needed they should also be made aware about the multidimensional benefits about the birth interval. Knowledge about the family planning methods should be provided to the beneficiaries during their ANC visits as during this period they are more receptive to family planning methods. The knowledge about the contraception was more among the educated class. Majority of the beneficiaries had the knowledge about contraception, but they should also be told about various methods of contraception. They should also be told about the advantages of permanent sterilization for limiting births, once the family size has been achieved. Balanced information regarding various method of contraception

should be given to the women along with their husband together as they both are the decision makers of the family. Beneficial effects of injectable must be discussed so as to facilitate the decision making of the study population. The Janani Suraksha Yojana scheme is proving to be effective in decision making of the population but the goals are still lagging behind to fulfill the millennium development goals.

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