



## Impact of education on adoption and awareness regarding birth control measures among women

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### Abstract

The present was an attempt to assess the impact of education on married women on family planning and birth control measures, and to find the level of adoption and impact of birth control measures adopted by married women. The sample was selected through random sampling technique. For the sample, 400 married women were selected, 200 illiterate and 200 literate. The sample was collected with the help of readymade scale namely, "Family planning and birth control scale" constructed by Ramachandrapa (1989) and self-constructed questionnaire. The study shows that there is medium level of impact of education on family planning and birth control measures among women. Adoption level of birth control measures is also found at medium among women irrespective of their educational status. However, women have high level of awareness irrespective of their educational status.

**Keywords:** education, adoption, awareness, birth control, women

### Introduction

Family planning is defined "as the intricate process by which persons, if they wish, can determine for themselves the timing, spacing and number of children to be born to them". It means family planning is the activity/ activities by which a family is planned (Calister, 1973) <sup>[1]</sup>. There are several definitions of family planning. An expert committee (1971) of the WHO defined family planning as "a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote health and welfare of the family group and thus contribute effectively to the social development of a country". Family planning is sometimes used as a synonym or euphemism for the use of birth control; however, it often includes a wide variety of methods, and practices that are not birth control. It is most usually applied to a female-male couple who wish to limit the number of children they have and / or to control the timing of pregnancy (also known as spacing children). Family planning may encompass sterilization, as well as abortion (Mischell, 2007) <sup>[5]</sup>.

Birth control is the use of any practice, methods, or device to prevent pregnancy from occurring in a sexually active women also referred to as family planning, pregnancy prevent, fertility control, or contraception ; birth control methods are designed either to prevent fertilization of an egg implantation of a fertilized egg in the uterus (Medicine Net. Com, 1996). A variety of barrier or "Occlusive" methods, suitable for both men and women are available. The aim of these methods is to prevent live sperm from meeting the ovum. Barrier methods have increased in popularity quite recently because of certain contraceptive and non-contraceptive advantages. The main contraceptive advantage is the absence of side effect associated with the "Pill" and IUD. The non-contraceptive advantages include some protection from sexually transmitted diseases, a reduction in the incidence of pelvic inflammatory

disease and possibly some protection from the risk of cervical cancer. Barrier methods require a high degree of motivation on the part of the user. In general, they are less effective than either the Pill or the Loop. They are only effective if they are used consistently and carefully (Skirne, 1984) <sup>[7]</sup>.

### Review of Literature

Ngome and Odimegwu (2014) <sup>[6]</sup> examine the influence of both individual, household and community variables in influencing adolescent contraceptive use in Zimbabwe. Data from the 2010\11 Zimbabwe demographic health survey (ZDHS), supplemented by additional data from the measure DHS consultants were used. A total weighted sample of 457 non-pregnant adolescent women aged 15-19 years. The odds of contraceptive use were higher for adolescent women with one or more children ever born (odds ratio (or), 13.6) and for those ever married (or, 2.5). Having medium and high access to media also increased the odds of using contraceptives.

Thyagarajan *et al.* (2014) <sup>[9]</sup> conducted a survey to identify the determinants of contraceptive usage in India based on the data from all the three consecutive rounds of National Family Health Surveys. Binary logistic regression was used in order to measure the likelihood of contraceptive usage by each of the independent variables. Though the level of influence of each independent variable varied across the three surveys, most of the variables considered were found to be significant. The development indicators show a major influence on the contraceptive usage throughout the period under study. More specifically, the education and occupation of not only the respondent, but also of their spouse found to be significant predictors of contraceptive usage. Also, exposure to mass media is an influencing factor for contraceptive usage.

Kamalifard *et al.* (2014) <sup>[3]</sup> conducted a study to determine the Continuation and Discontinuation Reasons of LD Contraceptives among Iranian Women. This cohort study was

conducted from 2003 to 2006. Samples were 462 women presenting to one of 13 randomly selected health centers at Tabriz, a metropolis in the northwest of Iran. For data analyses inferential statistical tests were used. In this study duration of OCPs usage rate of 1, 6, 12, 18, 24, 36, 48, and 54 months were as 88.96, 58.01, 44.59, 37.59, 30.52, 19.06, 9.99, and 2.78 per cent respectively. The most common reasons for discontinuation were anger (35.5 per cent), nausea (16.2 per cent), and trend to pregnancy (22 per cent). The relation was significant between continuation and variables including: use of OCPs as first method, having a strong information source, satisfaction of method ( $p=0.000$ ), women ( $p=0.0096$ ) & husbands' job ( $p=0.032$ ) and their literacy level ( $p=0.0155$ ).

Ferede (2013) [2] conducted a survey on Multilevel Modeling of Modern Contraceptive Use among Rural and Urban Population of Ethiopia. The data set has a two-level hierarchical structure, with over 16,700 women nested within eleven geographical regions in Ethiopia. Women use of contraceptive was also considerably varied among regions in the preliminary bivariate analysis. In Ethiopia, Women desire for more children was found to be the main reason that woman's do not practice contraceptives. The deviance-based chi-square value is significant for multilevel random intercept model implies that in comparison to the model with multilevel random intercept and fixed slope model the multilevel random intercept and random coefficients model has a better fit.

Solanki *et al.* (2013) [8] conducted a survey to compare met & unmet need groups of contraception with socio-economic, demographic, accessibility & family Planning (FP) related factors. Community based cross-sectional, comparative study was conducted among 363 married women of reproductive age groups in rural area selected by stratified simple random technique. Mean age of study subjects was  $24.12 \pm 4.45$  years & average number of children per women was 2.02. Males were more literate than females (69.1 per cent Vs 47.2 per cent). 51.8 per cent women were belonging to lower socio-economic status. Early marriages were still prevalent in this study (53.7 per cent). Prevalence of met group of contraception was 59.2 per cent & that of unmet need for contraception was 44.1 per cent. Met groups were mainly from 20-29 years age group (46.6 per cent); most of them (46.8 per cent) were literate & were from high socio-economic group (30.9 per cent) compared to unmet need groups.

### Objectives of the study

1. To assess the impact of education on married women on family planning and birth control measures.
2. To find the level of adoption and impact of birth control measures adopted by married women.

### Methodology

The present study was conducted in Kashmir region of the J&K state. The primary as well as secondary source of data was utilized to obtain the information. The sample for the study consisted of married women only, comprising age group of 18-50 years from rural and urban areas, illiterate as well as literate women. As per census 2011, the total population of married women in J&K in the reproductive age group of 15-49 years is 2011, 867. In order to calculate sample size for the present study the online "sample size calculator" was obtained

from [www.surveysystem.com/sscalc.htm](http://www.surveysystem.com/sscalc.htm). The sample size for present study was determined at the confidential level of 95 per cent with confidence interval of 5. In this way, the sample size for present study was calculated as 384, which was finally considered as 400. Thus the sample for the present study comprised 400 married women in the age group of 18-50 years, out of which 200 were from rural areas (100 literate and 100 illiterate) and 200 were from urban areas (100 literate and 100 illiterate). The tools used for the present study comprised Self constructed questionnaire regarding, awareness, adoption, perception and impact regarding family planning and birth control measures. Moreover, Family planning and Birth Control Attitude Scale constructed by Dr. M. Rajamanickam (1998) was also used under the study. The data obtained through scale and questionnaire was consolidated, analyzed and interpreted as per the requirement of the objectives, using specific statistical tools for example percentage, chi-square and correlation. The p-value of  $\leq 0.05$  was considered significant. IBM SPSS 20 Software was used for data analysis.

### Results and Discussion

Tables 1 shows that, 79.5 per cent ( $f=159$ ) illiterate and 90.0 per cent ( $f=180$ ) literate women have medium concern towards impact. Such concern among illiterate and literate women are found statistically significant  $\chi^2$  (2,  $N=400$ ) = 9.038,  $p < 0.05$ . About, 64.5 per cent ( $f=129$ ) illiterate and 83.0 per cent ( $f=166$ ) literate women have medium concern towards adoption. Such concern among illiterate and literate women are found statistically highly significant  $\chi^2$  (2,  $N=400$ ) = 20.824,  $p < 0.05$ .

Table 2 shows that 81.0 per cent ( $f=162$ ) illiterate and 86.0 per cent ( $f=172$ ) literate women have high concern towards population problem. It is found that 84.0 per cent ( $f=168$ ) illiterate and 84.0 per cent ( $f=168$ ) literate women have high concern towards family planning. Furthermore 89.0 per cent ( $f=178$ ) illiterate and 86.5 per cent ( $f=173$ ) literate women have medium concern towards birth control. Moreover, 60.0 per cent ( $f=120$ ) illiterate and 63.5 per cent ( $f=127$ ) literate women have medium concern towards fertility control. Additionally, 69.0 per cent ( $f=138$ ) illiterate and 74.5 per cent ( $f=149$ ) literate women have medium concern towards birth control methods: abortion. About, 87.0 per cent ( $f=174$ ) illiterate and 86.5 per cent ( $f=173$ ) literate women have medium concern towards contraceptive method. In addition, 52.0 per cent ( $f=104$ ) illiterate women have high concern and 52.5 per cent ( $f=105$ ) literate women have medium concern towards sterilization. It is found that, 91.5 per cent ( $f=183$ ) illiterate and 95.5 per cent ( $f=191$ ) literate women have low concern towards age of marriage. About, 87.5 per cent ( $f=175$ ) illiterate and 85.5 per cent ( $f=171$ ) literate women have medium concern towards overall attitude.

Insignificant differences are observed among illiterate and literate women regarding their attitudinal levels for population problems  $\chi^2$  (2,  $N=400$ ) = 4.077,  $p > 0.05$ , family planning  $\chi^2$  (2,  $N=400$ ) = 0.160,  $p > 0.05$ , birth control  $\chi^2$  (2,  $N=400$ ) = 0.933,  $p > 0.05$ , fertility control  $\chi^2$  (2,  $N=400$ ) = 0.909,  $p > 0.05$ , birth control methods: abortion  $\chi^2$  (2,  $N=400$ ) = 3.034,  $p > 0.05$ , contraceptive method  $\chi^2$  (2,  $N=400$ ) = 0.180,  $p > 0.05$ , sterilization  $\chi^2$  (2,  $N=400$ ) = 3.015,  $p > 0.05$ , age of marriage

$\chi^2$  (2, N=400) = 4.258,  $p > 0.05$  and for overall attitude  $\chi^2$  (2, N=400) = 2.135,  $p > 0.05$ . Sharma and Pasha (2012) found that Use of contraceptives is not very high in India. Only around 61.5% women, aged 15 to 49 years declare to have used any contraceptive method once in their life at least. While 62.6% of these women were Hindu, only 54.1% of the Muslim women claimed to have ever used contraceptives.

The mean scores of attitudes regarding family planning and birth control among illiterate women and literate women are present in Table 3. There is no differences among illiterate and literate women for their mean scores of family planning (M=23.34, SD=3.09, N=200 and M=23.49, SD=2.79, N=200 respectively), birth control measures (M=26.71, SD=2.16, N=200 and M=26.62, SD=1.98, N=200 respectively), fertility control (M=23.72, SD=1.65, N=200 and M=23.79, SD=1.68,

N=200 respectively), birth control methods: abortion (M=23.81, SD=1.35, N=200 and M=23.76, SD=1.41, N=200 respectively), sterilization (M=23.03, SD=2.87, N=200 and M=23.25, SD=3.30, N=200 respectively) and age of marriage (M=27.06, SD=3.43, N=200 and M=27.59, SD=3.28, N=200 respectively). The mean scores of attitudes regarding population problems is more among literate than illiterate women (M=23.99, SD=2.34, N=200 and M=24.35, SD=2.07, N=200 respectively), regarding contraceptive methods is more among literate women than illiterate women (M=25.31, SD=2.34, N=200 and M=24.84, SD=1.98, N=200 respectively) and regarding attitude overall is more among literate women than illiterate women. (M=196.63, SD=8.34, N=200 and M=197.99, SD=9.26, N=200 respectively).

**Table 1:** Adoption and awareness of birth control measures as per educational status of women

Level	Education					
	Illiterate (n=200)		Literate (n=200)		Total (n=400)	
	F	%	F	%	F	%
Impact ( $\chi^2=9.038$ , $df=2$ , $p\text{-value}=.011$ ) ( $r=-.144$ , $p\text{-value}=.004$ )						
High	39	19.5%	18	9.0%	57	14.2%
Medium	159	79.5%	180	90.0%	339	84.8%
Low	2	1.0%	2	1.0%	4	1.0%
Adoption ( $\chi^2=20.824$ , $df=2$ , $p\text{-value}=.000$ ) ( $r=.137$ , $p\text{-value}=.006$ )						
High	64	32.0%	34	17.0%	98	24.5%
Medium	129	64.5%	166	83.0%	295	73.8%
Low	7	3.5%	0	0.0%	7	1.8%

Based on field survey (N=400) df denotes degree of freedom  $\chi^2$  denotes chi square P denotes Kernal Pearson level of significance r denotes spearman's correlation

**Table 2:** Awareness levels regarding family planning and birth control as per educational status of women

	Education					
	Illiterate (n=200)		Literate (n=200)		Total (n=400)	
	F	%	F	%	F	%
Population Problem ( $\chi^2=4.077$ , $df=2$ , $p\text{-value}=.130$ ) ( $r=-.070$ , $p\text{-value}=.162$ )						
High	162	81.0	172	86.0	334	83.5
Medium	35	17.5	28	14.0	63	15.8
Low	3	1.5	0	0.0	3	0.8
Family Planning ( $\chi^2=.160$ , $df=2$ , $p\text{-value}=.923$ ) ( $r=-.001$ , $p\text{-value}=.983$ )						
High	168	84.0	168	84.0	336	84.0
Medium	28	14.0	29	14.5	57	14.2
Low	4	2.0	3	1.5	7	1.8
Birth Control ( $\chi^2=.933$ , $df=2$ , $p\text{-value}=.627$ ) ( $r=-.036$ , $p\text{-value}=.471$ )						
High	12	6.0	17	8.5	29	7.2
Medium	178	89.0	173	86.5	351	87.8
Low	10	5.0	10	5.0	20	5.0
Fertility control ( $\chi^2=.909$ , $df=2$ , $p\text{-value}=.635$ ) ( $r=-.009$ , $p\text{-value}=.862$ )						
High	59	29.5	57	28.5	116	29.0
Medium	120	60.0	127	63.5	247	61.8
Low	21	10.5	16	8.0	37	9.2
Birth Control Methods: Abortion ( $\chi^2=3.034$ , $df=2$ , $p\text{-value}=.219$ ) ( $r=.085$ , $p\text{-value}=.091$ )						
High	50	25.0	36	18.0	86	21.5
Medium	138	69.0	149	74.5	287	71.8
Low	12	6.0	15	7.5	27	6.8
Contraceptive method ( $\chi^2=.180$ , $df=2$ , $p\text{-value}=.914$ ) ( $r=-.021$ , $p\text{-value}=.677$ )						
High	19	9.5	21	10.5	40	10.0
Medium	174	87.0	173	86.5	347	86.8
Low	7	3.5	6	3.0	13	3.2
Sterilization ( $\chi^2=3.015$ , $df=2$ , $p\text{-value}=.221$ ) ( $r=.040$ , $p\text{-value}=.429$ )						

High	104	52.0	95	47.5	199	49.8
Medium	94	47.0	105	52.5	199	49.8
Low	2	1.0	0	0.0	2	0.5
Age of Marriage ( $\chi^2=4.258$ , $df=2$ , $p\text{-value}=.119$ ) ( $r=.082$ , $p\text{-value}=.100$ )						
High	3	1.5	0	0.0	3	0.8
Medium	14	7.0	9	4.5	23	5.8
Low	183	91.5	191	95.5	374	93.5
Attitude Overall ( $\chi^2=2.135$ , $df=2$ , $p\text{-value}=.344$ ) ( $r=-.069$ , $p\text{-value}=.166$ )						
High	19	9.5	26	13.0	45	11.2
Medium	175	87.5	171	85.5	346	86.5
Low	6	3.0	3	1.5	9	2.2

Based on field survey (N=400) df denotes degree of freedom  $\chi^2$  denotes chi square P denotes Karl Pearson level of significance r denotes spearman's correlation

## Summary and Conclusion

Family planning is the practice of controlling the number of children in a family and the intervals between their births, particularly by means of artificial contraception or voluntary sterilization. The study shows that there is medium level of impact on family planning and birth control measures among women. Adoption level of birth control measures is also found at medium among women irrespective of their education status. However, women have high level of awareness irrespective of their educational status. The low status of women is the most patriarchal constraints in India. Unintended and unplanned pregnancies pose a major challenge to the reproductive health of women. Family planning services offer various economic benefits, permits individuals to influence the timing and the number of births, which is likely to save lives of children. By reducing unwanted pregnancies, family planning service can reduce injuries illness and death associated with childbirth, abortion and sexually transmitted infections (STIs) including HIV/AIDS. Therefore, for the continuous development there is a severe need to adoption the family planning and birth control measures.

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