Vol. 5, No.1 (August 2009) 44-66

Contraceptive Use among Tribal Women of Central India: Experiences among DLHS-RCH –II Survey

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Abstract:

Central India (Madhya Pradesh & Chhattisgarh) is one of the most populous regions of India and about 23 percent of its population is tribal (Census 2001). It is an economically and demographically backward region - the per-capita income and literacy rate is far lower as compared to other regions of the country. The utilization of Reproductive and Child Health (RCH) services are comparatively low among scheduled tribes (ST) of this region. The paper provides a comprehensive contraceptive use status among ST of Central India. An attempt is also made to know how far scheduled tribes differ from non-tribes using District Level Health Survey (DLHS-RCH II, 2002-04) round II data. The knowledge of family planning method is almost universal and most of the tribal women are aware of at least one modern method. However, only 42 percent of them were using family planning methods as compared to 58 percent non-tribal women. Out of 42 percent current users of family planning methods, 32.7 percent were using female sterilization and 1.8 percent male sterilization. This shows that about 82 percent of current users in tribal population were sterilization users only. Bi-variate results show that use of sterilization increases with age of women, marital duration, female literacy, and number of surviving male child.

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Introduction

India launched its state sponsored unique family planning programme in early fifties. Since the programme initiated in 1951, India's demographic and health profile has changed considerably. The fertility and mortality rates have declined to about two-fifth. The National Family Welfare Programme in India has traditionally sought to promote responsible and Planned Parenthood through voluntary and free choice of family planning methods best suited to individual acceptors. In April 1996, the programme was renamed Reproductive and Child Health (RCH) programme and given a new orientation to meet the health need of women and children more completely. The programme now aims to cover all aspects of women's reproductive health throughout their lives. With regard to family planning, the new approach emphasizes the target-free promotion of contraceptive use among eligible couples, the provision to couples to choose contraceptive methods and to assure high quality care (IIPS & ORC Macro, 2000).

Although Indian Population policy changed over time, the demographic goal to reduces fertility and stabilise population remained its main feature (Pachauri, 2004). The immediate objective of National Population Policy was to address the unmet needs of contraception in order to bring the total fertility rate to replacement level by 2010 and its long-terms objective was to achieve population stabilization by 2045 (GoI, 2000). Several state Governments also formulates state population policies that were contrary to the principle enshrined in the national policy. Realizing the seriousness of the rapidly growing population and the high infant and child mortality rates, the Government of Madhya Pradesh has decided to set the goal of achieving replacement fertility level of 2.1 by 2011 (GoMP, 2000).

Nationally, the use of contraception has increased over the period, in a mere period of six and half years between NFHS-1 & NFHS-2, the contractive prevalence increased from 41 percent during 1992-93 to 48 in 1998-99 (IIPS & ORC Macro, 2000). But there exist large-scale variations and diversities in the demographic situation and socio- economic and cultural milieu between and within the states and regions of the country. Contraceptive prevalence in northern and central states is comparatively very low. As per NFHS-2, among large states, Bihar (25%), Uttar Pradesh (28 %) have lowest current use of contraception followed by Rajasthan (40 %), Assam (43 %) and Madhya Pradesh (44 %). The knowledge and use of contraception is much lower among weaker section of societies. In Madhya Pradesh, only 37.7 percent Scheduled Castes (SC) women and 32.9 percent Scheduled tribes (ST) used any contraception in

comparison to 54.7 percent among other castes women (IIPS & ORC Macro, 2001). Use of sterilization by couples with three or more children and minor use of spacing methods, particularly in rural areas and tribal women, is a major cause for concern (IIPS & ORC Macro, 2000).

Central India (undivided Madhya Pradesh) marked by a complex social stricture, a predominantly agrarian economy, a difficult and inaccessible terrain, and scattered settlements over vast area, which poses several formidable problems to family planning and reproductive health delivery systems. The region is also one of the most populous regions of India, encompasses highest tribal population. More than 23 percent of its total population is tribal (Census 2001). It is an economically and demographically backward region - the per-capita income and literacy rate is far lower in these states as compared to other states of the country. The utilization of RCH services, i.e. use of contraception, antenatal and other services are comparatively poor among tribes of this region (Ranjan, 2004). The objective of this exercise is to study the knowledge and use of family planning methods among tribes of this region. The paper provides a comprehensive contraceptive use status among scheduled tribes of Central India. Besides this, an attempt is also made to know how far scheduled tribes differ from non-tribes, a comparative analysis between them is carried out.

Data source and methods

The information collected by District Level Health Survey (DLHS-RCH II: 2002-04) round two survey is used to examine the level of knowledge and use of contraception among tribal women of Central India. The DLHS-RCH survey was carried out in two phases by Ministry of Health and Family Welfare, Government of India and funded by World Bank. International Institute for Population Sciences (IIPS), Mumbai, as a nodal agency collected the data with the help of different regional agencies in all the district of the country. Using systematic random sampling, 1120 households were selected from each district of the country. The survey made available magnificent information on coverage of antenatal care and immunization, extent of safe deliveries, contraceptive prevalence, unmet need for family planning, awareness about RTI/STI and HIV/AIDS at district and state level (IIPS, 2006).

The present analysis is based on 50,720 currently married women aged 15-44 years in central India, comprising 38,024 from Madhya Pradesh and 12,695 from Chhattisgarh states.

Overall survey comprises 10,276 tribal women (6,598 from Madhya Pradesh & 3,678 from Chhattisgarh) from these states. Most of the analyses are carried out with help of SPSS-12.0 statistical package and results are presented in univariate and bi-variate tables. Wherever needed the results for tribal women are compared with that of non-tribal women. The chi-square test is used to study the significance of variation in knowledge and use of contraception by background characteristics of tribal women.

Results

Socio-economic background characteristics of tribal women

According to 2001 population census about 23 percent of total population of central India (Chhattisgarh and Madhya Pradesh) was tribal population. In DLHS-RCH-II, 20.3 percent of total interviewed women in reproductive age group (15-44) were tribal and remaining (79.7 percent) were non-scheduled tribe women (Table 1). Table 2 presents percentage distribution of interviewed tribal women by selected background characteristics. About 64 percent tribal women were in their peak reproductive (20-34 years) age groups. Three-fourth of women (74 percent) got married before attaining the legal age at marriage and sixty percent of them were married for more than 10 years at the time of interview. Only 20 percent tribal women reported that they could read and write, whereas 47.3 percent women's husbands were literate. Most of tribal women (97.7 percent) are believer of Hindu religion. More than half of tribal women had 3 or more surviving children at time of survey, while another 14 percent of them did not have any surviving children. Similarly, about 28 percent and 33 percent women did not have any surviving son and daughter respectively. Tribal population is the most backward section of community and most of them survive below poverty line (Ranjan, 2004; Jain, 2006). It is also observable from table that majority of tribal women (85.5 percent) were from lower standard of living (low SLI) households and only less than 4 percent of them belonged to higher standard of living (high SLI) households.

Table 1: Scheduled tribe population in Central India

Population / Women	Chhattisgarh	Madhya Pradesh	Total
Population (according to Census 2001)			
Scheduled Tribes (ST)	6616596 (31.7)	12233474 (20.3)	18850070 (23.2)
Non-scheduled tribes (Non-ST)	14217207 (68.3)	48114549 (79.7)	62331756 (76.8)
Total Population	2,08,33,803	6,03,48,023	8,11,81,826
Women aged 15-44 yrs. (DLHS-RCH II, 2002-04 survey)			
Scheduled Tribes (ST)	3678 (29.0)	6598 (17.4)	10276 (20.3)
Non-scheduled tribes (Non-ST)	9017 (71.0)	31426 (82.6)	40444 (79.7)
Total Women	12,695	38,024	50,720

Note: Figure in parenthesis shows the percentage.

Table 2: Percentage distribution of scheduled tribe women by different background characteristics

Background Characteristics	% women	Background Characteristics	% women
Age (in yrs)		**Children Surviving**	
15-19	10.4	0	14.1
20-34	64.5	1	15.8
35+	25.1	2	19.0
Age at consummation (in yrs)		3	21.5
<18	74.0	4	15.4
18+	26.0	5+	14.2
Marital duration (in yrs)		**Sons surviving**	
< 5	19.5	0	27.9
5-9	21.3	1	31.0
10-14	20.6	2	26.6
15+	38.6	3+	14.5
Education of women		**Daughter surviving**	
Illiterate	80.1	0	32.9
Literate	19.9	1	31.9
Education of husband		2	19.3
Illiterate	52.7	3+	15.9
Literate	47.3	**Standard of living**	
Religion		Low	85.5
Hindu	97.7	Medium	11.0
Non-Hindu	2.3	High	3.5
N	**10276**		

Knowledge of family planning methods

The knowledge of at least one contraceptive method is almost universal throughout the country (IIPS & ORC Macro, 2000). The analysis also reveals that knowledge of at least one method,

particularly a permanent method is almost universal in central India and even among tribal women. However, the knowledge of temporary contraceptive methods is considerably lower among tribal women as compared to their non-tribal counterparts (Table 3). Only 56.6 percent tribal women were aware of any temporary contraceptive method in comparison of 80.3 percent non-tribal women. Among official sponsored temporary methods, contraceptive oral pills (52.5 percent) were most popular modern temporary method among tribal women followed by condoms (34.1 percent) and IUD (28.4 percent). Every four out of ten women were aware of at least one traditional method, but relatively more tribal women (28.7 percent) were aware of contraceptive herbs as compared to non-tribal women (20.2 percent). On the other hand, other traditional methods such as rhythm/abstinence and withdrawal were relatively less popular among tribal women. Over all, the knowledge of modern temporary contraceptive methods is considerably lower as compared to that of permanent methods.

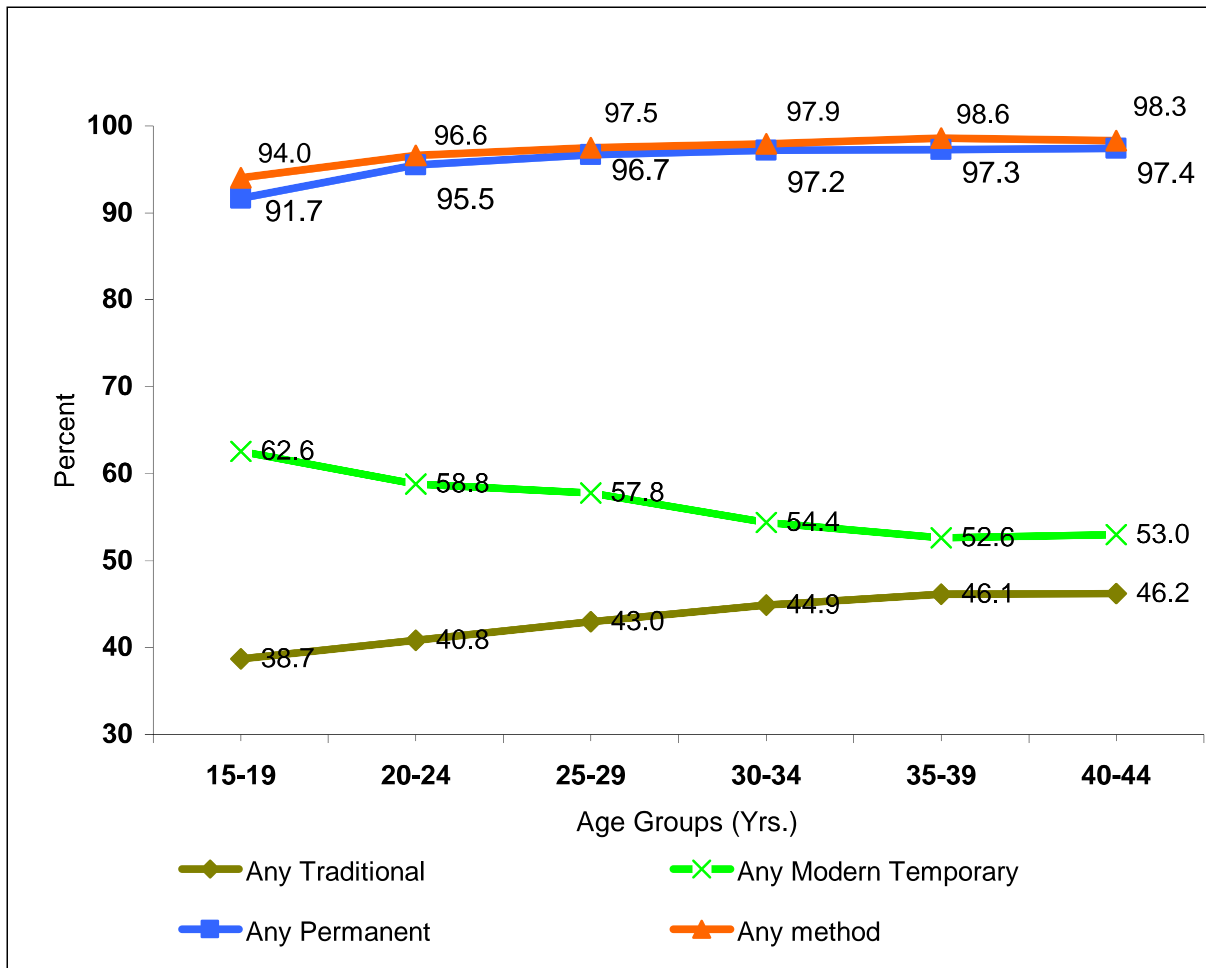
Table 3: Knowledge of different contraceptive methods among women of central region

Methods	**ST**	**Non-ST**	**Total**
Any method	97.3	98.0	97.9
Any permanent method	96.1	97.4	97.1
Female sterilization	96.1	97.3	97.1
Male sterilization	67.3	73.2	72.0
Any modern temporary method	56.6	80.3	75.5
IUD	28.4	58.8	52.6
Pills	52.5	77.1	72.1
Condoms	34.1	61.8	56.2
Norplant	1.6	2.9	2.6
Injectables	12.2	26.2	23.4
Any traditional methods	43.2	43.5	43.4
Contraceptive herbs	28.7	20.2	21.9
Rhythm/ Abstinence	25.7	33.1	31.6
Withdrawal	17.3	23.3	22.1
ISM contraceptives	0.3	0.7	0.6
N	**10276**	**40444**	**50720**

It is expected that the knowledge of contraceptive methods will vary with the age of women and it will be higher among older age cohorts. The analysis also shows that 94 percent of women aged 15-19 years were aware of at least one method of contraception, which increased to 98.3 percent among women aged 40-44 years. Similarly the knowledge of permanent methods also increased from 91.7 percent among younger women (15-19 years) to 97.4 percent among women aged 40-44 years. But in case of temporary modern methods, the level of knowledge demonstrated a declining trend with the age of women. Thus, it shows an inverse relationship

between knowledge of modern temporary methods and age of women. On the other hand, the knowledge of traditional methods shows a positive association with the age of women, i.e. relatively more old aged women were aware about traditional methods than younger women (Fig. 1).

Fig. 1: Knowledge of contraceptive methods by age of tribal women



To examine the differences in the knowledge of modern contraceptive methods among tribal women, bi-variate analyses are carried out and chi-square test is used for statistical significance. Though the most of tribal population in central India are followers of Hindu religion, but the knowledge of modern spacing method was significantly lower among Hindu tribal women (56.4 percent) as compared to non-Hindu tribal women (68.5 percent). As expected, younger women and those who married after age 18 years were better aware about modern spacing methods (Table 4). Similarly, the awareness of temporary contraceptive methods

was higher among recently married women. Education of women and her partner play a significant role in the awareness and the use of family planning methods. The study also reveals higher awareness of traditional methods in literate women and among those whose husbands were literate. Similar to age and marriage duration, comparatively fewer higher parities women were aware of modern spacing methods. Though only a few tribal women belong to higher SLI households, but about 92 percent of them were aware of modern spacing methods as compared to 52.1 percent of their counterparts from low living standard households (Table 4). The study establish that household economic status play a significant role in awareness and knowledge of modern contraceptives methods.

Table 4: Knowledge of any modern temporary contraceptive methods among scheduled tribe women by their background characteristics

Background characteristics	% ST women	
Religion	χ^2 = 13.8, p=0.00, df=1	
Hindu	56.4	10040
Non-Hindu	68.5	235
Age (in years)	χ^2 = 32.2, p=0.00, df=2	
15-19	62.6	1070
20-34	57.2	6629
35-44	52.8	2576
Age at consummation (in yrs)	χ^2 = 45.4, p=0.00, df=1	
<18	54.7	7602
18+	62.2	2674
Marital Duration (in yrs)	χ^2 = 58.8, p=0.00, df=3	
<5	62.3	2002
5-9	58.5	2186
10-14	57.4	2117
15+	52.4	3971
Women education	χ^2 = 420.3, p=0.00, df=1	
Illiterate	51.6	8227
Literate	76.7	2049
Husband education	χ^2 = 188.8, p=0.00, df=1	
Illiterate	50.3	5415
Literate	63.7	4860
Children ever born (CEB)	χ^2 = 19.9, p=0.00, df=4	
0	57.6	1295
1	57.9	1343
2	59.0	1665
3	58.7	1825
4	53.6	1603
5+	54.3	2543
Standard of living (SLI)	χ^2 = 526.7, p=0.00, df=2	
Low	52.1	8785
Medium	81.0	1126
High	91.5	364
Total	**56.6**	**10276**

Current use of contraception

Although all women in central India knew at least one contraceptive method, but only 54.6 percent of them were using any contraception method. Current contraceptive prevalence among tribal women was relatively lower - only 42.1 percent of currently married, non-pregnant tribal women were using some method of contraception (Table 5). Majority of these tribal users were using female sterilization (32.7 percent), i.e. more than three-fourth of total contraception use. Sterilization among scheduled tribes couples account 84 percent of current contraceptive use as compared to about 88 percent in non-tribes couples. Female sterilization alone contributes 78 and 74 percent of current contraceptive prevalence respectively among tribal and non-tribal women. Only 3 percent tribal couples used modern temporary methods against 10 percent non-tribal couples and around 4 percent tribal and non-tribal coupes were using traditional methods. A wide gap between knowledge and practice of family planning is noticed both among scheduled tribes and non-tribes women. But the gap was relatively wider for tribal women, as about 96 percent tribal women were aware of female sterilization but only one-third of them were using female sterilization. Similarly about 57 percent tribal women were aware of at least one modern temporary method and less than 4 percent of them were using modern spacing methods.

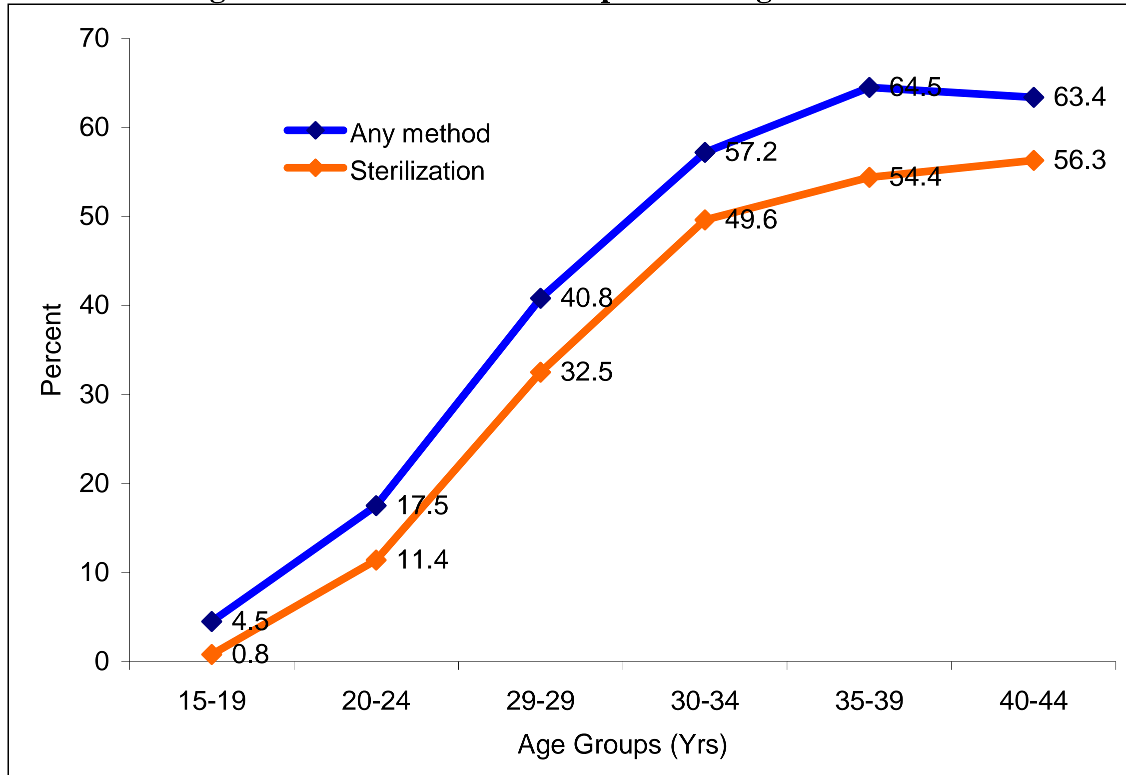
Table 5: Current use of family planning among non-pregnant women

Methods	ST	Non-ST	Total
Use of any contraception	42.1	57.7	54.6
Different Methods			
Female sterilization	32.7	42.6	40.6
Vasectomy	1.8	0.7	1.0
No-scalpel vasectomy	0.1	0.1	0.1
IUD/copper-T/loop	0.3	1.2	1.1
Oral pills	1.5	2.9	2.6
Condom/Nirodh	1.3	6.0	5.1
Other modern methods	0.2	0.2	0.2
Rhythm/periodic abstinence	1.8	2.3	2.2
Withdrawal	0.3	0.8	0.7
Other traditional Methods	2.0	0.8	1.0
N	**9084**	**36871**	**45955**

The use of contraceptive methods varies with age of women, younger women are relatively less to use contraceptive as compared to older cohort women. The use of contraception increased from 4.5 percent among women aged 15-19 to as high 64.5 and 63.4 percent among women aged 35-39 and 40-44 respectively. Most of current users except women in age group 15-19 were sterilization users. The proportion of women or their husbands who adopted sterilization

increased from 0.8 percent in age 15-19 to 56.3 percent in age group 40-44 years (Fig 2). The gap between proportion of any method use and sterilization use varies from about 4 to 10 percent. Since the sterilization contribute for about 88 percent of total contraceptive use, thus with increase in age of women both the use of any contraceptive method and sterilization use also increases.

Fig. 2: Current use of contraception among tribal women



The differences in contraceptive use by background characteristics of women give a better insight of contraceptive use in a community. Though the contraceptive prevalence was comparatively higher among non-Hindu, but there was no difference in the use of sterilization by religion (Table 6). It is obvious that use of any contraceptive method and sterilization increases with the age, and marital duration. It is due to relatively higher use of permanent methods, which is used to limit the family size after attaining a desired family size. Though the use of contraception was almost similar among literate and illiterate tribal women, however significantly more illiterate women (35.8 percent) adopted sterilization as compared to literate women (29.7 percent). In case of husband's education, women having literate husband were

comparatively more to use of any contraceptive method, but there was no difference in the use of sterilization by husband's education.

Table 6: Use of contraception and sterilization by selected background characteristics of tribal women

Back ground characteristics	% ST women		
	Any Contraception	**Sterilization**	**N**
Religion	χ^2=12.1, p=0.002	χ^2=0.00, p=0.984	df=1
Hindu	41.8	34.6	8871
Non-Hindu	57.2	34.6	217
Age (in yrs)	χ^2=1038.7, p=0.000,	χ^2=944.6, p=0.000,	df=2
15-19	4.5	0.8	852
20-34	37.9	30.6	5706
35+	64.1	55.2	2531
Age at consummation (in yrs)	χ^2=26.1, p=0.000,	χ^2=73.9, p=0.000	df=1
<18	43.5	37.2	6745
18+	37.8	27.3	2344
Marital duration (in yrs)	χ^2=1688.6, p=0.000,	χ^2=1680.9, p=0.000	df=3
< 5	7.7	2.1	1592
5-9	24.6	17.3	1794
10-14	45.3	37.4	1881
15+	62.9	54.9	3822
Education of women	χ^2=4.27, p=0.118,	χ^2=23.2, p=0.000	df=1
Illiterate	41.9	35.8	7317
Literate	42.5	29.7	1772
Education of husband	χ^2=12.4, p=0.002,	χ^2=0.00, p=0.981	df=1
Illiterate	40.4	34.6	4844
Literate	44.0	34.6	4246
Standard of living	χ^2=173.9, p=0.000,	χ^2=29.1, p=0.000	df=2
Low	39.9	33.9	7747
Medium	48.4	35.8	1002
High	72.1	47.9	340
Children Surviving	χ^2=1915.7, p=0.000,	χ^2=1781.8, p=0.000,	df=5
0	2.4	0.4	1126
1	12.1	5.1	1322
2	39.8	31.4	1721
3	62.9	54.9	2047
4	63.5	55.0	1482
5+	51.8	42.9	1393
Sons surviving	χ2=1855.9, p=0.000,	χ2=1847.6, p=0.000	df=3
0	8.3	3.8	2280
1	38.8	28.9	2811
2	66.1	58.8	2590
3+	59.0	51.7	1408
Daughters surviving	χ^2=548.5, p=0.000,	χ^2=437.7, p=0.000	df=3
0	24.4	19.6	2827
1	48.8	40.7	2920
2	54.1	46.0	1817
3+	47.4	37.4	1525
Total	**42.1**	**34.6**	**9089**

The contraceptive prevalence as well as adoption of sterilization is positively associated with the household living standard. Contraceptive prevalence was 39.9 percent among women from low SLI households, which increased to 72.1 percent among women from higher SLI. A similar trend is also observed in case of sterilization prevalence - the proportion of women or whose partner adopted sterilization increased from 33.9 percent in low SLI households to 47.9 percent high SLI households. The higher contraceptive prevalence rate among women from medium and higher SLI and relatively lower adoption of sterilization among them may be due to higher acceptance of modern spacing methods in these groups. Contraceptive prevalence increased steadily from 2.4 percent among women having no children to 63.5 percent among women having four or more surviving children. Contraceptive prevalence by number of surviving sons and daughters indicate existence of considerable son preference in central India. Only 8.3 percent women with no surviving son were using any contraceptive method in comparison of 24.4 percent women with no surviving daughter. Similarly about 20 percent couples with no surviving daughter accepted sterilization against 4 percent couples with no son. The contraceptive prevalence and use of sterilization increase more rapidly with the increase in number of surviving sons as compared to that in case of daughters. This also reflects higher preference for male child among tribal communities (Table 6).

Among sterilized couples, the duration of sterilization use indicate that comparatively more scheduled tribe couples (20.1 percent) as compared to non-tribal couples (15.6 percent) has accepted sterilization recently, i.e. within last two years. However, about 40 percent non-tribal and 37 percent of tribal women or their husband accepted sterilization eight or more years prior to date of survey (Fig. 3). This reflects that relatively more tribal couples had adopted sterilization recently as compared to non-tribal couples.

Fig. 3: Duration of Sterilization use

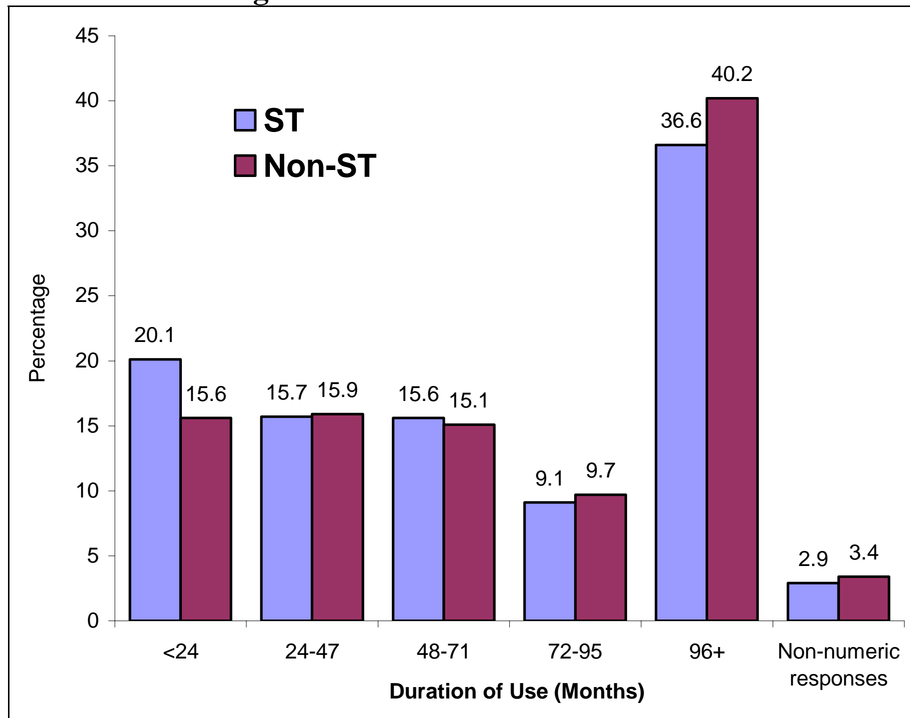


Table 7 shows the distribution of sterilized couple by the duration of use and age at sterilization. Women who gave non-numeric responses or couples who were using sterilization for 8 or more years were excluded for this analysis. It is observed that about two-third of non-tribal as well as tribal women accepted sterilization during their twenties. About 26 percent women or their husband had undergone sterilization in their early twenties (20-24 year), whereas another 40 percent couples had adopted sterilization in their late twenties (25-29 years). Very few women (8–12 percent) accepted sterilization after age 35 years. But it is observable that the proportion of women, particularly tribal women accepting sterilization in early twenties have increased. Among recent users (using for last 3 or less years), about 26 - 29 percent tribal women had accepted sterilization in early twenties (20-24 years) as compared to 20 percent those who were using for more than 6 years. This reflects that more and more tribal couples are adopting sterilization in younger ages. But increasing adoption of sterilization by young tribal couples is really a matter of concern.

Table 7: Duration of sterilization by age at sterilization among women of central India (excluding non-numeric and users of 8+ years)

Duration of sterilization (yrs)	Age at sterilization (in yrs)						N
	<20	20-24	25-29	30-34	35-39	40-44	
% of ST women							
< 2	1.9	28.7	39.5	21.9	6.5	2.1	631
2-3	1.2	25.9	42.4	21.4	7.3	1.8	495
4-5	0.6	25.9	42.7	24.8	12.0	0.0	492
6+	1.8	19.9	42.6	23.2	6.7	0.0	284
Total	1.2	25.7	41.5	22.7	8.1	1.2	1902
% of Non-ST women							
< 2	1.2	26.7	39.2	22.2	8.5	2.2	2499
2-3	1.9	25.0	40.1	24.4	7.5	1.1	2550
4-5	1.0	25.5	40.0	25.3	8.0	0.2	2419
6+	1.5	27.0	40.3	25.1	6.1	0.0	1547
Total	1.4	26.0	39.9	24.1	7.7	1.0	9015

Sources of family planning methods

Family planning methods and services in India are provided primarily through a network of Government Hospitals and Urban Family Welfare Centers in urban areas and Primary Health Centres (PHC) and Sub Centres in rural areas. Sterilization and IUD insertions are carried out mostly in Government Hospitals and PHCs (IIPS & ORC Macro, 2000). Almost 91 percent tribal user reported that they received contraception form public sources whereas only about 77 percent non-tribal couples received it from Government sources (Table 8). Private sector, including private hospital/clinic, doctors, nurses, and drug stores supplied contraceptives to only 9 percent of currently using tribal couples, but 22 percent non-tribal couples received contraceptive methods from private sector. Similarly in case of sterilization about 98 percent of sterilized tribal couples and 91 non-tribal couples adopted sterilization at public sector. Among public sources, Government Hospital and CHC/PHC centers supplied about half of total contraception used. Family Planning or RCH camps are another major source of contraceptive supply. About 38 percent tribal women and 23 percent non-tribal women received contraceptives from Family planning or RCH camps. In case of sterilization, about 52 percent tribal couples and 61 percent non-tribal couples were undergone sterilization at Government Hospitals or CHC/PHC centers. However, comparatively more tribal couples (41 percent) in comparison of non-tribal (28.0 percent) undergone sterilization at family planning/RCH camps. This reflects that family planning /RCH camps are attracting more tribal women, or more and more these type of camps are arranged in tribal areas.

Table 8: Sources of contraception and sterilization for currently users

Sources of contraception & sterilization	% ST women		% Non-ST women	
	Any method	Sterilization	Any method	Sterilization
Government Facilities	**90.5**	**97.7**	**76.9**	**91.1**
Govt./Municipal Hospital	29.3	30.9	38.0	44.8
CHC/PHC	20.1	21.6	13.4	16.0
Family Planning/RCH Camps	37.7	40.9	22.8	28.0
Sub Centre	2.4	2.3	1.6	1.6
Govt. Doctors	0.4	2.0	0.6	0.6
Govt. nurse/ANM	0.6	0.0	0.5	0.1
Private Facilities	**8.6**	**3.4**	**22.0**	**8.6**
Pvt. Hospital	2.0	2.0	6.1	6.6
Pvt. Doctors	0.6	0.1	1.4	1.1
Pvt. Nurse	0.1	0.0	0.2	0.2
Out reach/MCP clinic	0.5	0.5	0.2	0.1
Mobile clinic	0.1	0.1	0.2	0.0
Chemist	3.9	0.1	13.0	0.1
Others	1.4	0.6	0.9	0.5
DK	0.5	0.3	0.7	0.2
Missing	0.4	0.3	0.3	0.2
N*	3446	3146	19873	16008

* N may not be uniform as information is missing for some cases

Quality of services and satisfaction level

Though most of sterilizations were performed at Government hospital, PHCs, Sub-centres or at RCH/Family Planning camps, but only about 22 percent couples were informed about possible side effects of sterilization before their sterilization. This shows that most of couples/women did not receive appropriate information about sterilization, which reflects the poor quality of services. Comparatively more tribal women (42 percent) as compared to non-tribal women (31.2 percent) received any follow-ups visits after sterilization. This may be possible because most of sterilized tribal women/couple underwent sterilization at Government hospitals, CHC/PHC or at family planning/ RCH camps. So there are possibilities that they would have undergone sterilization at Government health facilities because of motivation they received from health personals, so they would have been visited by those health personals in good faith. They might also have re-visited the health facility to collect the monetary incentives. But overall it is interesting that more than 90 percent sterilized couples were satisfied with use of sterilization (Fig 4).

Contraceptive morbidities and treatment seeking

Among sterilized couples, about 17 percent tribal and non-tribal women reported that they experienced some kind of post-sterilization complications/problems. But among those who had any kind of problem, about 52 percent tribal and 56 percent non-tribal women sought any kind of treatment or received advices for their complications. Among those who sought treatment about 85 percent tribal couples and 91 percent non-tribal couples sought treatment or advices from doctors. ANM/Nurses provided information to 14 percent tribal and 6 percent non-tribal couples only (Table 9). This divulges that in most of cases doctor was main source of treatment or advice but relatively a good proportion of tribal couples (14 percent) also received treatment from ANM/Nurses.

Fig. 4: Percent of sterilized couple received information about side effect, and follow-ups

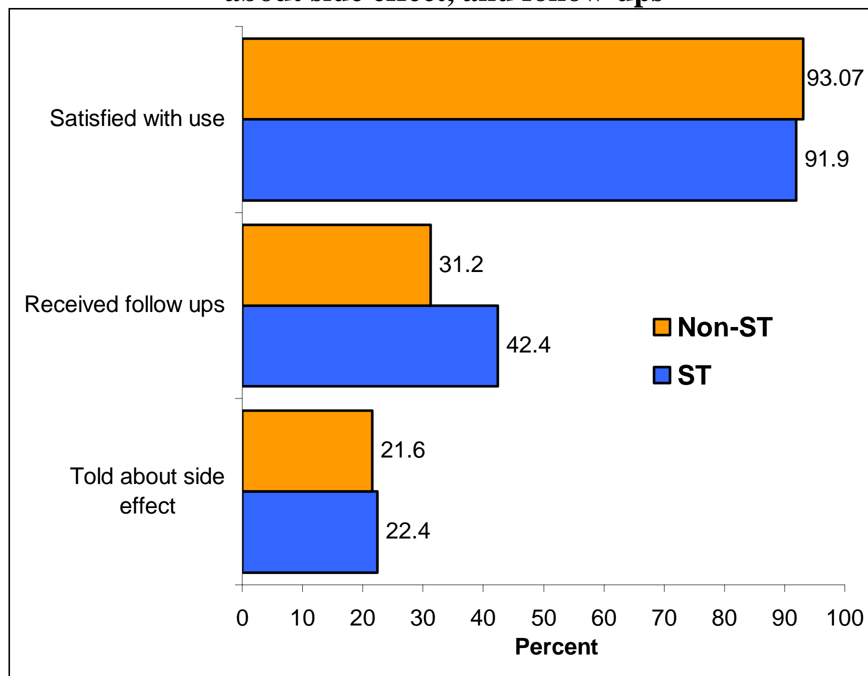


Table 9: Proportion of sterilized couple had any problem, sought treatment and source of information

Problem/sought treatment/source of treatment	ST	Non-ST	Total
Experienced any problem	16.7 (528)	16.7 (2669)	16.7 (3197)
Sought treatment	51.5 (272)	56.4 (1506)	55.6 (1778)
Sought treatment from (N)	**272**	**1506**	**1778**
Doctor	85.5	90.8	89.7
ANM/Nurse/LHV	14.0	6.2	7.4
Traditional dai	0.0	0.1	0.1
Relative Friends	0.0	0.9	0.7
Chemist/medical shop	0.7	1.3	1.2
Others	1.5	0.7	0.8
Missing	0.4	0.1	0.1

Discussion

Central India (Madhya Pradesh and Chhattisgarh) has highest number and percentage of tribal population in the country with 45 scheduled tribes (ST) that account for 23 percent of region population. The region has inaccessible terrain and settlements are scared over vast area, which posses several formidable problem to family planning and reproductive health delivery system (Dey, 2003). There are only few surveys, which provide information on the differential level of family planning practices among the tribes of the country. DLHS-RCH survey which covers all districts of the country provides a unique opportunity to know the family planning behaviour of these groups and to learn whether and to what extent their behaviour differs from other caste groups.

Awareness plays an important role in motivating females to have a favourable attitude towards family planning. The study revealed that almost all tribal women know at least one family planning methods (modern or traditional), however, the knowledge of temporary methods is relatively poor among them. The findings of the study are similar to many other micro level studies carried out among tribes of central India (Pandey, 2002; Roy, 1999; Tiwari, 1998; Verma, 1998; Saha et al., 2007). The poor literacy status and limited availability of mass media, such as radio and T.V. in tribal areas also play a role in impoverished awareness of temporary contraceptive methods (Jain, 2006). The Government higher reliance on female sterilization and

its endorsement promote higher knowledge and use of sterilization. ICRW study in Madhya Pradesh also illustrate that though the Government has recently shifted away from its long standing policy of promoting female sterilization as the primary form of family planning, the reality is that Government health service providers offers very little information about and access to temporary methods of contraception (ICRW, 2004). The main reason being sterilization requires one time motivation which vigorously promoted by health workers and was independent of educational attainment of the acceptors, whereas the motivation for the spacing methods requires sustained efforts (Basu, Kapoor and Basu, 2004).

The knowledge of traditional methods is also lower among tribal women- this could be because of since traditional methods of birth control were practiced by only few tribal men, this knowledge was largely inherited. It was, therefore, not unusual that a large segment of population was not knowledgeable about traditional methods of family planning. On the other hand, persistent and widespread message by the state Government on the availability of modern contraceptive methods leads to better awareness about modern contraceptive methods among the people (Basu, Kapoor and Basu, 2004; Santhya, 2003).

The wide gap between knowledge and use of contraception is observed and the gap was significantly wider for tribal women than that for non-tribal women. The present study showed that almost all women of central India knew at least one contraceptive method, but only about half of them were using any contraceptive method. The contraceptive prevalence among tribal women is relatively lower – about 42 percent of tribal women used some method of contraception against 58 percent non-tribal couples. Inadequate knowledge of contraceptive methods, and incomplete or erroneous information about where to obtain methods and how to use them are the main reasons for not accepting family planning in India (Mishra et al.,1999 Viswanathan, Godfrey and Yinger, 1998). Among users of family planning, more than eighty percent tribal couples are using a non-reversible method. The female sterilization alone contributed for more than three-fourth of total contraception uses. Which suggest that tribal women are mainly using family planning methods to limit their family size and spacing of children is quite neglected in central India. Many other studies carried out among different tribes in central Indian and other parts of county also reported similar observations (Pandey, 2002; Basu, Kapoor and Basu, 2004; Saha, et al., 2007; Sharma, Sharma and Nagar, 2005; Susuman, 2006).

The higher acceptance of sterilization among tribes is due to their poor economic condition and the financial incentives associated with sterilization. Unsystematic ways of motivation for spacing methods by health workers and lack of awareness about various family planning methods among the tribals could be contributing factors for their heavy reliance on sterilization. Many micro level studies conducted among most backward primitive scheduled tribes of central India also revealed that despite of Government ban on sterilization among primitive tribes in 1979, monetary reasons are most important reasons for higher acceptance of sterilization in these groups (Pandey, 2002; Roy, 1999; Tiwari, 1998; Verma, 1998). These micro level studies also explored that in some primitive tribal groups, in about 15 - 20 percent cases both husbands and their wives adopted sterilization. This is mainly because of monetary incentives associated with sterilization and over emphasizes on sterilization by Government health service providers (Pandey, 2002).

The many other level studies demonstrated that most of tribal women undergone sterilization after completing their family size, i.e. after having at least three surviving children. The present study also shows similar results and illustrated that most of sterilized couple adopted sterilization after having three surviving children or having at least two surviving sons. Many other studies carried out in tribal communities of the region showed that most of sterilized women adopt sterilization after completing 35 years, and mean age of women at the time of sterilization vary from 34-36 years (Pandey, 2002; Verma, 1998; Tiwari, 1998: Roy, 1999). But the present study shows that about two-third of women adopt sterilization in their twenties (20-29 years). This is really a matter of concern that why more and more women are accepting sterilization in that yearly ages. Early age at marriage, higher illiteracy, poor awareness about the other contraceptive methods and monetary and other incentives associated with sterilization are few possible cause of high reliance and acceptance of sterilization in younger ages.

The National Population Policy affirm the government’s commitment to the provision of quality service, information and counseling, and expanding contraceptive method choices in order to enable people to make voluntary and informed choices (GoI, 2000). But it is also now widely acknowledged that the quality of family planning services is generally poor. Little consideration is given to interpersonal interactions (Levine et al., 1992). The present study also shows that only two out of ten sterilized couples were told about the possible side effect of sterilization before the sterilization and only one-third received any post-operation follow-ups.

This reflects the poor quality of health services delivered at Government Hospital and CHCs/PHCs.

Conclusion

It is important to learn that there are considerable differences in the awareness and use of contraception among tribal and non-tribal population of central region. Though the knowledge of at least one contraceptive method is almost universal among women, but the knowledge of temporary methods is much lower among tribal women. More than forty percent tribal women are not aware about modern spacing methods. A wide gap between knowledge and use of contraception exists among both tribal and not tribal women, but contraceptive prevalence is significantly lower among tribal women. About eighty percent of total contraceptive users in tribal communities are using sterilization and merely 3 percent of them use any modern temporary methods. Although sterilization is safe and most effective technique, but it cannot serve the needs of all couples in the different stages of the reproductive life cycle. Thus, a large proportion of couples remained unserved because of non-availability of proper contractive technology. Temporary contraceptive methods allow women who may want children in the future to control their fertility now. In a country such as India with high infant and child mortality rates, women who already have children may wish to keep the option open to have more until they feel confident that the children they already have will survive. In such situation, temporary contraceptive methods can play an important role in helping women achieve their goals for completed family size (Pathak et al., 1998). Thus family welfare programme need to do more to promote knowledge of modern spacing methods through education campaigns and IEC programme in tribal areas and make serious efforts to fulfill the unmet need of spacing methods.

Many studies shows that very often people do not utilize the family planning facilities available to them. This is particularly conspicuous in case of poor tribal groups. Many women also face family opposition to use the use of temporary contraceptives. Within the patriarchal set-up in India, women have relatively little power. The role of husband has been noted in several studies of decision making related to the use of contraception, especially during the early years of marriage. But in tribal communities the involvement of husband in decision making regarding family planning use is almost nil (Saha, et al., 2007). Thus there is a need to involve husbands in family planning programme. The involvement of males in family planning programme will help in promoting temporary methods in these communities.

The lower use of temporary contraceptive methods by tribal communities and their higher reliance on sterilization is a matter of concern. The study demonstrated that most of tribal women undergone sterilization in their twenties, this is another serious concern which need to be looked at more critically. Many studies conducted in the primitive tribes of this region reported that despite a ban on sterilization among primitive tribal group many tribal couples adopted sterilization because of monetary incentives. Pandey (2002) in his study on Kamar and Hill Korwa tribes explored that in many cases both husband and wife undergone sterilization. Thus Government should seriously re-think about it policy of monetary incentives to sterilization acceptors in tribal areas, particularly in primitive tribes.

In poor, rural, and tribal areas, supplies of temporary contraceptives at primary health centres and local clinics are frequently inadequate or absent. Thus to increase use of contraception, especially in peak reproductive age groups, family planning programme needs to strengthen its supply chain – including regular supply of Pills, IUD and condoms, and improvement in the quality of family planning services is essential. However, the finding of study suggests a need for strengthening the overall family planning progamme in the Central India. State Governments in the region clearly need a revamping in their health education and IEC activities to boost up the knowledge and use of modern temporary methods in this region.

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