Reproductive Morbidity among Tribal and Non-tribal Women in India: A Special Focus to Domestic Violence

Ruchi Sogarwal[1] & L. K. Dwivedi[2]

Extended Abstract

Introduction

India is a home to almost more than half of the world's tribal population. Approximately more than 533 tribes were spread throughout different parts of India (Swain 2003). These tribes constitute around 8 percent of the total population whereas the largest concentrations of tribals (15.4 million) are found in Madhya Pradesh (Chopra and Makol 2004). These tribes have peculiar characteristics that not only they are geographically distinct but also it has been found that each tribe having its own unique customs, traditions, beliefs and practices. Even within a particular tribal entity, differences in dialect, health practices, unique customs, values, and traditions are apparent (Naik *et al.* 2005).

Scheduled tribes are the lowest and traditionally poorest castes of the Hindu caste system. The term-scheduled tribes refer to various aboriginal ethnic minorities who are concentrated in their traditional lands in different parts of India. As members of the scheduled tribes have distinctive social identities and face different forms of social and economic discrimination. So, it can be argued that women belonging to scheduled tribes are having a higher chance of reproductive morbidities and are likely to face enormous domestic violence.

Reproductive morbidity of either tribal or non-tribal women was rarely addressed in a country like India where it is considered as a part of natural process. Most of the times women hesitate to reveal it due to the cultural barriers, for example, tribal communities

[1]Technical Officer, Research & Division, National AIDS Control Organization (NACO), New Delhi
[2] Lecturer, Deptt. of EMS, International Institute for Population Sciences, Mumbai, India.
E-mail: laxmikdwivedi@rediffmail.com

have specific Gods for their health and disease, which further prevents them to utilize the modern health facilities. Women usually do not consult physicians or gynecologists due to inhibition or due to a lack of perception of causes of disease and their only contact with the health care system is through health workers of family welfare programs (Bang 1987). There is a general agreement that the health status of tribal population in India is very poor and has distinct problems because of special placement in difficult or isolated areas where modern health facilities are not available. So, the reproductive health problems of tribal women deserve special attention because tribal groups have existed on the fringe of Indian society (Naik *et al.* 2005). These groups of people may be uninformed or unresponsive to the gynecological morbidities as compared to non-tribal population. Therefore, there is a need to investigate and explore whether or not tribal communities are more vulnerable to reproductive health problems as opposed to non-tribal women.

However, the argument between health status and domestic violence is not well established. One may argue that working women are more likely to have monetary autonomy and freedom of movement and thereby better health and less domestic violence, but on the other hand if women work in an unsanitary environment then it direct affects the health. Different studies (Choudhury 1986; Mukherjee 1986,1990; Rizvi 1986; Basu *et al.* 1987, 1989, 1990; Bardhan 1989; Roy 1986, 1990; Huq 1990; Mahapatra *et al.* 1990; Bhatia *et al.* 1997; Jejeebhoy 1998; Sadhu *et al.* 2001; Sogarwal *et al.* 2006) have tried to establish the association between socio-economic and demographic variables with reproductive health problems in different settings but very few (Heise *et al*. 1994; Audinarayana 2004) are in the case of association between domestic violence and reproductive health problems. In light of above discussion, the hypothesis of this paper is that, domestic violence against women has an influence on their reproductive

health problem/s among tribal and non-tribal women in India. In addition, this paper attempts to examine the prevalence of reproductive health problems based on symptoms and tries to assess treatment-seeking behaviour of tribal and non-tribal women in Madhya Pradesh, India.

Methodology

According to census, 2001 the percentage of scheduled tribe population in Madhya Pradesh (including Chhattisgarh, central part of India) is highest among all the states in India. Therefore, for the present study, data for tribal and non-tribal women of Madhya Pradesh (including Chhattisgarh) have been extracted from the National Family Health Survey-2 (1998-99). As a component of this survey, interviews were completed with 6941 reproductive-aged women residing in households in Madhya Pradesh. The NFHS-2 collected information from ever-married women on the basis of self-reported symptoms of gynecological problems occurring in the three months prior to the survey.

In NFHS-2, basically, women were asked whether they had experienced symptoms of gynecological morbidity in the three months prior to the survey. Women were asked if they had experienced abnormal vaginal discharge; women who reported abnormal vaginal discharge were then asked if they experienced a) itching or irritation with the discharge, b) unusual odor with the discharge, c) severe lower abdominal pain with the discharge, or d) fever along with the discharge. Women were then asked if they experienced pain or burning while urinating, pain in the abdomen or vagina during intercourse or blood after sex when not menstruating. Intercourse related symptoms were asked only to currently married women. All the women who reported at least one symptom were asked a follow-up question whether they had sought formal treatment for the symptoms. The total interviewed currently married women of age 15-49 years from tribal and non-tribal areas are 1321 and 5268 respectively.

Reporting of at least one symptom of gynecological problem is considered here as the dependent variable. The dependent variable is dichotomized as the presence or absence of morbidity. Available literature suggests that prevalence of gynecological problems could possibly be influenced by a number of socio-economic factors such as education, income and rural-urban residence as well as by demographic factors such as age, parity, pregnancy wastage and contraceptive use (Oomman 2000; Rangaiyan and Sureender 2000; Rani and Bonu. 2003; Chellan 2004). Taking these issues into account, the considered socio-economic and demographic variables are as follows: place of residence (rural/urban), age of the women (<=19 years/20-24 years/25 years and above), parity of women (0/1/2-4/5 and above), standard of living (low/medium/high), educational status (illiterate/middle school completed/high school and above), caste (non-tribe/tribe), autonomy (low/medium/high), working status (no/yes), ever experienced pregnancy wastage (no/yes), ever beaten (no/yes) and currently using contraceptive method (no/yes). A logistic regression model was fitted to a binary outcome, coded as 1 if the woman reported any of the eight symptoms of gynecological morbidity (abnormal vaginal discharge, itching or irritation in the vaginal area, unusual odor associated with the discharge, severe lower abdominal pain with the discharge, pain or burning while urinating, pain in the abdomen or vagina during intercourse, and/or blood after sex when not menstruating), and 0 if no symptoms was reported.

Results and Discussions

The prevalence of any single self-reported symptom of gynecological morbidity among currently married women of Madhya Pradesh is around 46 percent. It is slightly higher than at the national level (39 percent). It is interesting to note that the self reported symptoms of any one gynecological health problem among currently married women of tribal and non-tribal women are 44 percent and 47 percent respectively. Although, the

percentage of reporting differs, no significant difference has been found in the reporting of any health problems among tribal and non-tribal population. Further, it can also be visualized from the analysis that significantly more tribal women have reported all the symptoms of gynecological morbidities as compared to non-tribal population (Table 1).

It is clearly illustrated in Table 1 that both tribal and non-tribal women have reported more the symptoms of any abnormal vaginal discharge (34 and 37 percent respectively) compared to any other symptoms of gynecological morbidities whereas the prevalence of symptoms of bleeding after intercourse is lowest in both the population. It has been further examined that vaginal discharge accompanied by lower abdominal pain is higher in tribal (22.0 percent) than any other problem, whereas among non-tribal women vaginal discharge accompanied by itching/irritation is reported high (24.2 percent).

Table 2 presents the proportion of symptomatic women who sought treatment according to the type of providers they consulted. Among those who reported any one symptom of gynecological problems, about 78 percent tribal women and 67 percent non-tribal women had not received any treatment or advice. A higher proportion of non-tribal women sought treatment from the private medical sector and not from the public medical sector. Although this result is true for tribal women, the difference in seeking treatment from private and public sector is wider in case of non-tribals compared to tribal women. Further, it shows that availability and accessibility of medical facilities are very much restricted in the tribal population. Another important reason may be that tribal women are not as aware about health facilities as the non-tribal population.

In this paper, the number of gynecological problems that women reported was considered to examine the severity of problems. It is clearly evident that more women do seek treatment as the number of problems increases. Table 3 shows a clear picture that tribal women tended to move for treatment only when problems become more serious, whereas

non-tribal women show a somewhat consistent trend. However, even with two symptoms of gynecological problems only 23 percent among tribal, and 38 percent among non-tribal women received treatment. The rest continued to suffer without receiving any treatment. The analysis thus reveals that only when women suffer seriously, they tend to receive some medical care. Even in such cases, more than 60 percent women do not get any treatment.

Table 4 shows the self-reported symptoms of any reproductive health problems among currently married women and their treatment seeking behaviour by socio-economic and demographic characteristics. It is clearly illustrated in the table that as the age of the women increases, prevalence of any gynecological problems also increases in both tribal and non-tribal currently married women in Madhya Pradesh. The prevalence of reproductive morbidity is noticeably higher among those women who had five or more children among the non-tribals. On the contrary, among the tribal, the prevalence rate is higher among women who had not given birth. Among non-tribals, the prevalence rate for seeking treatment is higher among women who have not given any birth, whereas among the tribals the tendency to seek treatment is lowest among women who had one child. Tribal women of high economic status reported a higher prevalence of morbidity (50 percent). On the contrary, non-tribal women had not reported much variation in reproductive health problems by economic condition. On the other hand, the tendency of seeking treatment is positively associated with the economic status of women. More educated women reported higher reproductive health problems in the tribal population, whereas the higher educated non-tribal women were reporting less. But the observation is that the treatment seeking behaviour of educated tribal women is almost the same as illiterate non-tribal women. The same result has been found in case of economic status of household. Available literature has suggested that reporting of reproductive health

problems depend upon the education level of women and as one would expect better reporting among educated women because of better awareness related to health problems. Scheduled tribes are that special social groups that exhibit distinctive culture and geographical isolation and it create shyness to contact with the community at large. But education is much more competent to break down their isolation and shyness and so education generate the better reporting of reproductive health problems among tribal women. The reporting of any reproductive health problems among educated non-tribal women is on the line of earlier studies (Bhatia and Cleland 1995; Chellan 2004; Rani and Bonu 2003). It may be because of education increases the awareness and receptivity to new technologies, which further place the women into new environment of more conscious about their personal hygiene. Therefore, education and economic condition of women act differently for tribal and non-tribal women.

Logistic regression in Table 5 was attempted to assess the independent effect of selected socio-economic and demographic variables on any reported reproductive health problems. The prevalence of any problem is positively significant associated with the age of women, whereas a statistically insignificant relation has been observed with place of residence. Working women are likely to report more any gynecological problems than non-working women. The prevalence of gynecological problems is substantially higher among women who had ever experienced pregnancy wastage. It was found that domestic violence is playing a considerable role in explaining the reproductive health problems. It indicates that women who are beaten or physically mistreated by husband or close relatives are to a large extent suffering from reproductive health problems. Contraceptive users do report a marginally higher prevalence of any one symptom than non-users (odds ratio: 1.35). Scheduled tribe women are significantly reporting less any reproductive health problems as opposed to non-tribal women. The reasons for less reporting among

tribal women may be because of less awareness about problems and also to some extent it depends upon the woman's own perception. Since most of the tribal women are working in the paddy fields as laborers they frequently suffer different types of problems related to reproductive health. So after sometime, they considered these problems as a natural process.

Predicted probabilities of reporting of any reproductive health problems

For better understanding of the effects of the covariates under study, the predicted percent of women reporting any gynecological health problems are presented. The estimated probability is of the form:

Prob (event) = e^{z} /1+ e^{-z}

Or Prob (event) = 1 /1+ e^{-z}

Where $Z = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \ldots\ldots\ldots\ldots + B_kX_k$

e = the base of the natural logarithms

B_1 to B_k represent the logistic regression coefficients

X_1 to X_k represent the independent variables

It was decided to calculate predicted percents for only those selected independent variables that were statistically significant at 5 percent level of significance in the logistic regression model (Table 5). For the reporting of any gynecological problems, age of the women (<=19 years/20-24 years/25 years and above), parity of women (0/1/2-4/5 and above), caste (non-tribe/tribe), autonomy (low/medium/high), working status (no/yes), ever experienced pregnancy wastage (no/yes), ever beaten (no/yes) and ever used contraceptive methods (no/yes) were shown to have the strongest effects in the reporting of any problems. Hence, logistic regression analysis was carried out considering only these independent variables to predict the reporting of reproductive health problems. The logistic regression coefficients and predicted probabilities are presented in Table 6. It is

predicted that 38 percent of non-tribal women who are working, have two to four children, age is 20-24 years, have low autonomy, never experienced pregnancy wastage, currently not using contraceptives and never experienced any violence reported reproductive health problems. This percent increases to 45 percent if women were currently using contraceptives. This percent increases to 47 percent for women who have ever been battered. This percent goes up to 54 percent for those women who are currently using contraceptives and were ever beaten.

The percent of reporting any reproductive health problems for tribal women who are working, have two to four children, age is 20-24 years, have low autonomy, never experienced pregnancy wastage, currently not using contraceptives and never experienced any violence is around 35 percent. The percent increases to 41 percent if the women started to use contraceptives. There is 43 percent reporting if women have ever beaten and it further increases to 50 percent if women are currently using contraceptives.

Conclusions

The study among tribal and non-tribal women reveals a very high incidence of self-reported symptoms of gynecological morbidity in Madhya Pradesh. Only few had sought treatment and majority use the private sector for consultation/advice. The treatment seeking behaviour thus highlights serious bottlenecks in the existing gynecological morbidities. A majority of the women do not seek any medical assistance, even with multiple symptoms indicating gynecological morbidity. Study reveals that among tribal and non-tribal women, work status is playing a highly significant role in prevalence of self-reporting gynecological problems after adjusting all socio-economic, demographic as well as women's individual factors which are included in the study. On the other hand, domestic violence and contraceptive use are also showing highly significant role. This finding is similar to earlier results that beating is correlated with negative health

outcomes (Audinarayana 2004; Parish et al. 2004). It can be argued that domestic violence does not directly affect the woman's health but it is a proxy variable for woman's status in a household and also in a society where she lives. It exerts a negative impact on woman's behaviour and indirectly it is also restrict the woman's mobility. Another mechanism through which it works is that beating leads to unwanted and unsatisfying sex and further prompts the partner towards extra marital sex and these problems affect women's health. The results of the study stress the need for greater attention to the quality of care in reproductive health programmes in connection with gynecological morbidity.

Study based on self-reported symptoms, has its own limitations. More reporting of particular symptoms might have influenced the factors that emerged important in this study. Our findings clearly shows that problem of itching/irritation is significantly higher reported by non-tribal women whereas significantly more tribal women reported the problem of bad odour and bleeding after intercourse. So, it can be concluded that data provide the evidence that reporting of particular symptoms is somewhat associated particular group of women. If reporting of these problems would be culturally associated, it might alter our findings to some extent but it cannot change the present scenario. However, there is no evidence that women would like to seek treatment for particular symptoms in both the population groups (table not shown) but still result shows that slightly more number of women in both the population groups went for treatment for symptoms of vaginal discharge accompanied by fever. Sometimes, it is very difficult to predict that whether in reality is there any connection between reproductive health problems and presence of symptoms. It could also be happened that women considered particular symptom as a gynecological morbidity but it might be that it was a natural process.

It is well known that women have a preference to utilize the facilities of private sector in spite of that it is more expensive because private health facilities are more effective in comparison to public sector. Study clearly brings out the key point that if women were experiencing more number of problems then most of the non-tribal as well as tribal women would like to prefer to seek treatment from private sector. It means that the public sector is far behind to provide quality of services. Saha (2005) found that around 20 percent posts of medical officers and about 15 percent posts of para-medical staff were vacant in tribal areas compared to 15 percent and 10 percent in non-tribal areas respectively. It clears the lack of infrastructure in the public health sector.

Study recommends that separate and special strategies are required for providing health facilities among tribal and non-tribal population. Since most of the tribal communities are economically backward, so they cannot bear the expenses of private medical sector, which is often more costly as opposed to public health sector. Secondly, tribal population lives in geographically scattered areas, which are not easily accessible; therefore, more number of health centers with effective treatment and equipped infrastructures is required for meeting their basic reproductive health needs. More education should be spread on the priority basis among tribal population because it helps them to seek better treatment.

References

Audinarayana, N. 2004. "Does Domestic Violence Influence Reproductive Health of Women? An Examination of the NFHS-2 Data for Bihar and Tamil Nadu." Women, Health and Development, Department of Population Studies UGC-SAP (Phase-I) Sri Venkateswara University, Tirupati, India.

Bang, R.A. 1987. "Counselling and Choice in Family Planning." Paper Presented at International Conference on Better Health for Women and Children through Family Planning. Nairobi, October 5-9.

Basu, S.K. 1987. "Genetic, Socio-Cultural and Health Care among Tribal Groups of Lagadalpur and Kota Tehsils of Bastar District, Madhya Pradesh", In A.K. Kalla and S. Singh, eds., Anthropology, Development and Nation Building. New Delhi: Concept Publishing Company.

Basu, S. and G. Kshatriya.1989. "Fertility and Mortality in Tribal Population of Bastar District, Madhya Pradesh, India." Biol. Society: 6: 100.

Bhatia, J.C. and J. Cleland. 1995. "Self-reported Symptoms of Gynecological Morbidity and their Treatment in South India." *Studies in Family Planning* 26(4): 203-216.

Bhatia, J.C., J. Cleland, L. Bhagavan and N.S. Rao. 1997. "Levels and Determinants of Gynecological Morbidity in a District of South India." Studies in Family Planning 28(2): 95-103.

Chellan, R. 2004. "Gynecological Morbidity and Treatment Seeking Behaviour in South India: Evidence from the Reproductive and Child Health survey 1998-1999." Journal of Health & Population in Developing Countries / URL: http://www.jhpdc.unc.edu/.

Chopra, K. and N. Makol. 2004. "Common Health Problems Encountered by the Tribal Community in Bastar District" Health and Population: Perspective and Issues 27 (1): 40-48.

Haque, M. 1990. "Height, Weight and Nutrition among the Six Tribes of India". In Buddhadeb Chaudhuri, eds., Cultural and Environmental Dimension on Health. New Delhi: Inter-India Publications: 192-206.

Heise, L., J. Pitanguy and A. Germain. 1994. "Violence Against Women: The Hidden Health Burden." Washington D.C.: The World Bank.

Jejeebhoy, S. 1998. "Associations Between Wife-beating and Fetal and Infant Death: Impressions from a Survey in Rural India." Studies in Family Planning 29 (3): 300-08.

Mahapatra, S. 1990. "Cultural Pattern in Health Care: A View from Santal World." In Buddhadeb Chaudhuri, eds., Cultural and Environmental Dimension on Health. New Delhi: Inter-India Publications: 249-58.

Mukherjee, B. M. 1990. "Health Status of Manipuri Women with Special Reference to the Tribals." In Buddhadeb Chaudhuri, eds., Cultural and Environmental Dimension on Health. New Delhi: Inter-India Publications: 247-58.

Naik, E., A. Karpur, R.Taylor, B. Ramaswami, S. Ramachandra, B. Balasubramaniam, S. Galwankar, J. Sinnott, S. Nabukera, and H. M. Salihu. 2005. "Rural Indian tribal communities: An emerging high-risk group for HIV/AIDS." BMC International Health and Human Rights / URL: http://www.biomedcentral.com/1472-698X/5/1.

Oomman, N. 2000. "Poverty and Pathology: Rajasthani Women's Perceptions of Gynecological Morbidity and Their Implications for Research and Intervention." Workshop on Reproductive Health in India: New Evidence and Issues, Pune, India 2000; 28 February-1 March 2000.

Parish, W.L., T. Wang, E.O. Laumann, S. Pan and Y. Luo. 2004. “Intimate Partner Violence in China: National Prevalence, Fisk Factors and Associated Health Problems.” International Family Planning Perspectives 30 (4): 174-81.

Rangaiyan, G. and S. Sureender. 2000. “Women’s Perceptions of Gynecological Morbidity in South India: Causes and Remedies in a Cultural Context.” The Journal of Family Welfare 46(1): 31-38.

Rani, M. and S. Bonu. 2003. “Rural India Women’s Care Seeking Behaviour and Choice of Provider for Gynecological Symptoms.” Studies in Family Planning 34(3): 173-85.

Rizvi, S.N.A. 1986. "Health Practices of the Jaunsaris -A Socio-Cultural Analysis." In Buddhadeb Chaudhuri, eds., Tribal Health: Socio- Cultural Dimensions. New Delhi: Inter-India Publications.

Roy Burman, B.K. 1986. "Morbidity and Nutritional Status of the Scheduled Tribes of India." In Buddhadeb Chaudhuri, eds., Tribal Health: Socio-Cultural Dimensions. New Delhi: Inter- India Publications: 85-98.

Roy Burman, B.K. 1990. "Development Hazards to Health in Tribal India." In Buddhadeb Chaudhuri Cultural, eds., Cultural and Environmental Dimensions on Health. New Delhi: Inter-India Publications**.**

Sadhu, S., B.N. Bhattacharya, P.K. Majumdar and K.L. Mukherjee. 2001. “Reproductive Morbidity among Women in Weaker Sections in Calcutta Metropolitan Area.” Demography India 30 (2): 176-91.

Saha, P.K. 2003. “The Status of Family Welfare Services in Tribal Areas: Highlights of the Evaluation Process” Indian Journal of Community Medicine 28 (3) / URL: http://www.indmed.nic.in.

Sogarwal, R., K. Gupta and L.K Dwivedi. 2006. “Reproductive Health Problems among Urban Women: A Study of Four Metros Cities in India.” Accepted in Journal of Health and Population: Perspectives and Issues.

Swain, S. 2003. “Health Status of Tribal People.” Concept paper presented in the National Seminar on Health for all in New Millennium 24-26 February, NIHFW, New Delhi.

Table 1 Percentage of currently married women reporting reproductive health problems among tribal and non-tribal women in Madhya Pradesh

Reproductive Health Problems		**Tribal**	**Non-tribal**
Any abnormal vaginal discharge		33.6	36.6
Vaginal discharge accompanied by	Itching/Irritation	21.4	24.2
	Bad odour	17.0	13.6
	Abdominal pain	22.0	21.5
	Fever	13.2	12.1
	Other problem	8.3	9.7
Symptoms of a Urinary tract infection		23.7	22.8
Pain during intercourse		15.7	17.9
Bleeding after intercourse		6.4	3.3
Any reproductive health problems		43.9	46.6
Any two reproductive health problems		20.7	22.1
All problems		**2.5**	**1.3**

Table 2 Percentage of currently married women who sought treatment from different sources for any reproductive health problems among tribal and non-tribal women in Madhya Pradesh

Source of treatment for any reproductive health problems	**Tribal**	**Non-tribal**
Public medical sector	9.5	10.6
Private medical sector	15.2	22.7
Others (relatives/friends treatment/others)	1.4	1.7
Sought treatment from any source (multiple sources are possible)	23.3	32.5
Do not seek any treatment	76.7	67.5
Number of women	**1321**	**5268**

Table 3 Percentage of currently married women who sought treatment from different sources by number of symptoms of any reproductive health problems among tribal and non-tribal women in Madhya Pradesh

Gynecological Morbidity	**Sought Treatment**							
	Non-Tribal				**Tribal**			
	Public	**Private**	**Other**	**Total**	**Public**	**Private**	**Other**	**Total**
Any two problems	12.9	26.9	1.6	37.8	10.9	16.4	1.8	22.9
All problems	13.0	23.2	2.9	37.7	21.2	27.3	6.1	39.4

Table 4 Prevalence of any one symptoms and their treatment seeking behaviour of any reproductive health problems among currently married women by selected characteristics of tribal and non-tribal in Madhya Pradesh

Variables	**Any reproductive health problem**		**Treatment sought from any one source**	
	Tribal	**Non-tribal**	**Tribal**	**Non-tribal**
Place of residence				
Urban	41.3 (92)	43.0 (1636)	39.5 (38)	44.7 (703)
Rural	44.1 (1229)	48.2 (3632)	22.1 (542)	27.5 (1750)
Age (in years)				
<=19	38.3 (196)	43.6 (679)	17.3 (75)	19.9 (296)
20-24	44.9 (285)	44.1 (966)	18.0 (128)	26.1 (426)
>=25	44.9 (840)	47.8 (3623)	26.3 (377)	36.2 (1731)
Parity				
Not given birth	52.0 (150)	47.5 (594)	28.7 (282)	32.1 (78)
1	42.0 (138)	42.7 (660)	25.2 (282)	17.2 (58)
2-4	44.3 (594)	44.8 (2592)	35.5 (1162)	20.2 (263)
5 and above	41.2 (439)	51.1 (1422)	31.9 (727)	26.0 (181)
Economic status				
Low	45.4 (613)	46.7 (1410)	19.1 (278)	24.0 (658)
Middle	42.0 (652)	48.1 (2634)	27.4 (274)	32.0 (1267)
High	50.0 (56)	43.1 (1224)	25.0 (28)	43.9 (528)
Educational Status				
Illiterate	43.4 (1166)	48.1 (3312)	22.3 (506)	28.4 (1594)
Middle school completed	46.7 (137)	46.3 (1340)	29.7 (64)	36.6 (620)
High school and above	55.6 (18)	38.8 (616)	30.0 (10)	49.0 (239)
Working status				
No	35.9 (334)	43.8 (2831)	13.3 (120)	37.0 (1239)
Yes	46.6 (987)	49.8 (2437)	25.9 (460)	27.8 (1214)
Ever experienced pregnancy wastage				
No	43.5 (1306)	46.4 (5214)	22.7 (568)	32.3 (2421)
Yes	80.0 (15)	59.3 (54)	50.0 (12)	43.8 (32)
Ever beaten				
No	40.3 (968)	42.2 (4194)	29.4 (109)	36.0 (453)
Yes	53.7 (352)	63.8 (1074)	21.9 (471)	31.7 (2000)
Currently using contraceptive				
No	42.9 (896)	43.6 (2807)	19.5 (384)	26.4 (1223)
Yes	46.1 (425)	50.0 (2461)	30.6 (196)	38.5 (1230)
Total	**1321**	**5268**	**580**	**2453**

Note: *Total number is given in parenthesis.*

Table 5 Logistic regression results of reporting of any reproductive health problems by selected characteristics among women in Madhya Pradesh

Variables	Odds ratio	95% C.I.	
		Lower	Upper
Place of residence			
Rural(R)			
Urban	0.93	0.82	1.06
Caste			
Others(R)			
Scheduled tribe	0.85	0.74	0.97
Age (in years)			
<=19 (R)			
20-24	1.32	1.08	1.61
>=25	1.38	1.13	1.69
Parity			
Not given birth(R)			
1	0.77	0.62	0.96
2-4	0.65	0.53	0.80
4+	0.71	0.56	0.89
Economic status			
Low(R)			
Middle	1.05	0.93	1.17
High	1.01	0.85	1.20
Educational status of women			
Illiterate(R)			
Middle school completed	1.05	0.92	1.20
High school and above	0.86	0.69	1.07
Working status			
Not(R)			
Yes	1.24	1.11	1.38
Ever experienced pregnancy wastage			
No(R)			
Yes	1.97	1.17	3.31
Currently using contraceptive			
No(R)			
Yes	1.35	1.20	1.52
Ever beaten			
No(R)			
Yes	1.40	1.23	1.58
Autonomy			
Low(R)			
Medium	0.92	0.80	1.06
High	0.80	0.63	1.00

Table 6 Predicted probability of reporting of any reproductive health problems of women in Madhya Pradesh

Characteristics	Probability (%)
Non Tribe	
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently not using contraceptive + other than scheduled tribe+ never beaten	38.20
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy+ currently using contraceptive + other than scheduled tribe+ never beaten	45.26
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently not using contraceptive + other than scheduled tribe+ ever beaten	47.03
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently using contraceptive + other than scheduled tribe+ ever beaten	54.29
Scheduled Tribe	
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently not using contraceptive + scheduled tribe+ never beaten	34.62
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently using contraceptive + scheduled tribe+ never beaten	41.46
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently not using contraceptive + scheduled tribe+ ever beaten	43.19
Age 20-24+parity 2-4+ working + never experienced pregnancy wastage+ low autonomy +currently using contraceptive + scheduled tribe+ ever beaten	50.42