International Journal of Applied Social Science *RESEARCH PAPER*
Volume 5 (10), October (2018) : 1755-1764 ISSN : 2394-1405 (Print)
Received : 09.09.2018; Revised : 15.09.2018; Accepted : 23.09.2018

Determinants of Contraceptive use in Matrilineal Tribal Communities in India: A Comparative Study of Garo and Khasi Tribes of Meghalaya

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ABSTRACT

Despite a pretty conducive socio-cultural environment for contraceptive use in matrilineal set-up, why a very low percentage of women adopt family planning method is still to be explored. So, present study aims to find out the determinants of contraceptive use among the Garo and Khasi matrilineal tribal women of Meghalaya, India. This study uses the latest round of National Family Health Survey 2015-16 unit level data. Out of total 9,021 women aged 15-49 years interviewed, 4,068 currently married women and who reported their mother tongue to be either Garo or Khasi are retained. Percentage distribution, mean and standard deviation are calculated to understand the nature of the data. Data are cross-tabulated between independent and dependent variable. The binary logistic regression is adopted to assess the determinants of contraceptive use. The Garos rely on pills, whereas Khasis depend mainly on sterilization. The women whose living children is equal to their ideal number and women who are exposed to mass media are more likely to adopt a family planning method. On the contrary, rural women are less likely to use any contraceptive method. Further, with the increase in age, women are less likely to adopt family planning method in both the communities.

Key Words : Matrilineal culture, Tribal, Garo, Khasi, Family planning

INTRODUCTION

Meghalaya, one of the states of India, is located in the north-eastern part of the country. It shares an international border with Bangladesh in the west and south, and a national border with Assam in the north and east. The total population of the state as per the 2011 Census is 29.67 Lakh and the density of population is 132 per square KM, with sex ratio 989 women per 1000 male. About 86.1 per cent of her population are scheduled tribe, and 74.59 per cent are Christian. Garo, Jaintia, and Khasi are the three matrilineal tribes that constitute about 80 per cent of the total state population and 91 per cent of tribal population. Matrilineal culture is one of the uniqueness of the state. This cultural practice is opposite to that of the dominant patriarchal culture.

Contraceptive use is a widely studied subject matter. But the studies on the dynamics of contraceptive use in the matrilineal tribal cultural set-up is hard to find. Unlike other tribals of the country, Garo and Khasi tribes of Meghalaya are comparatively more educated, and most interestingly have more decision making power. Study (Khongji, 2013) also indicates that women in Meghalaya appear to enjoy a higher level of autonomy under their traditional matrilineal kinship system than

How to cite this Article: Narzary, Pralip Kumar and Ladusingh, Laishram (2018). Determinants of Contraceptive use in Matrilineal Tribal Communities in India: A Comparative Study of Garo and Khasi Tribes of Meghalaya. *Internat. J. Appl. Soc. Sci.,* **5** (10) : 1755-1764.

women in other communities under the patriarchal kinship system of the country. A study also records that Khasi woman makes all major decisions and are the heads of the household and custodians of wealth (Chyne *et al.,* 2017). Other study shows that the decision to use a condom is taken jointly by both wife and husband according to 37 (74%) of 50 married women (Marak and Bhatnagar, 2015). Contrastingly, other researcher demonstrated that the intensity of discrimination was higher in health and decision making as compared to the other parameters considered in the study (Gupta *et al.,* 2013) also they are not entirely free from subordination (Nongbri, 2000). Further, literature exposes that discrimination against women is an unfortunate reality among the Khasi community of Meghalaya (Gupta *et al.,* 2013). Somewhat hinting towards a similar situation of women in Meghalaya, study says that microfinance is a potent tool of women empowerment even in matrilineal tribal cultural settings (Lyngdoh and Pati, 2013).

A study on Garo matrilineal community of Bangladesh suggested that sex preference was a significant determinant of current use of contraceptives among Garo women and the preference was biased toward girls (Islam *et al.,* 2009). But other literature (Kamal and Hassan, 2013) found no significant preference for a son over daughter among the patrilineal tribals of Bangladesh. Finding suggests that social vulnerabilities and higher fertility preferences are the driving force for lower spacing contraception use among tribals (Battala *et al.,* 2016). In tribal areas, health care seeking behaviors and healthcare delivery are significantly affected by socio-cultural and geographic factors (Sundararajan *et al.,* 2013). Nevertheless, what impedes contraceptive use in such conducive environment is still to be explored. Hence, the present study may help to understand why the matrilineal women do not prefer to use any contraception.

The percentage of contraceptive use among the currently married women in India progressed from 40.7 to 53.5 during 1992-93 to 2015-16. But during the same period, the contraceptive use in Meghalaya has improved from just 20.7 per cent to only 24.3 per cent. In India, use of contraceptive method among the currently married women is lowest in Meghalaya (Manipur and Bihar). Only 24 per cent of them use a family planning method, whereas it is 54 per cent for India as a whole and as high as 76 per cent in Punjab (IIPS and ICF, 2017a). Even the neighbouring state of Assam has double of Meghalaya (54%). There is also a regional variation within the state. It is only 13 per cent in the East Garo Hills district, but as high as 34 per cent in West Garo Hills (IIPS and ICF, 2017b).

METHODOLOGY

The present study uses the latest round of National Family Health Survey 2015-16 unit level data. In Meghalaya, the survey was conducted in all the seven districts during April to September 2015. Information was collected from 9,201 women of age 15-49 years from 7,327 households. However, in the present study, only 4,068 currently married women reporting their mother tongue as Garo or Khasi are retained for the analyses. The response rate for women was 97 per cent (IIPS and ICF, 2017b). Along with the core issues, National Family Health Survey 4 also provides information on respondent's mother tongue. So, to identify the matrilineal women, two languages namely Garo and Khasi are available.

Initially, frequency and percentage distribution are found out to know the pattern of contraceptive use. Then the result is converted to pie-chart for better comprehensions. Further, the proportion of particular method to total contraceptive use is calculated, and results are presented as stack-bar diagrams. Then data is cross-tabulated to find out the association between independent and dependent variables. Mean, and standard deviation are calculated to find out the differentials in some of the

characteristics by contraceptive use status. At last binary-logistic regression is adopted to find out the determinants of contraceptive use. All the results are provided separately for Garos and Khasis. The entire statistical analysis is carried out in SPSS 20 version, and Microsoft Excel is used to prepare the graphs.

Description of the variables :

Age of the women: Age of the women between 15 – 24 is grouped under a single category 'upto 24', others are classified into conventional five years' age group. But in the multi-variate analysis, the continuous variable is used.

Women's education: This variable is used as provided in the data set.

Marital duration: It is derived by subtracting age at marriage from current age. Then it is categorized into five groups. However, it is used as a continuous variable in the regression analysis.

Wealth index: This variable is used as provided. This is a composite index of household assets. At the national level, the entire sample is classified into equal quintiles, but need not be so at the other levels.

Residence: NFHS classifies place of residence as Urban and Rural, and it is used as provided.

Religion: NFHS provides information on various religions. But looking into the sample distribution, it is recorded into only two categories *viz*., 'Christian' and 'Others'.

Exposure to mass media: This variable is constructed by taking three variables - 1) Frequency of reading newspaper or magazine, 2) Frequency of listening to the radio, 3) Frequency of watching television. The women who replied 'Not at all' to all these three questions are considered as not exposed to mass media.

Exposure to family planning message: Questions were asked about whether – 1) Heard family planning on radio last few months, 2) Heard family planning on TV last few months, 3) Heard family planning in newspaper/magazine last few months. The women if replies 'Yes' to all the three of them, she is considered as exposed to family planning message.

Variables on fertility: Living daughters is computed by adding 'daughters at home' and 'daughters elsewhere'. Similarly, living sons is computed by adding 'sons at home' and 'sons elsewhere'. Then, living daughters and living sons are added to form the number of 'living children'.

Difference between ideal and living children: **'**Ideal number of daughters' and 'Ideal number of sons' are used as provided. But 'ideal number of children' is computed by adding the ideal number of daughters and sons, leaving non-numeric response as 'Others'.

Fertility preference: The first three options to fertility preference question is left as it is provided (they are 1= Want no more; 2 = Undecided; 3 = Want no more); then the other three options are grouped together to form the fourth category (a) Sterilized (respondent/ partner), b) Declared infecund, c) Never had sex), which is not applicable. Because of large number of sample in the fourth category, this variable is not included in the multi-variate analysis.

RESULTS AND DISCUSSION

Pattern of use :

It is found (Fig. 1) that the percentage of contraceptive use among the currently married matrilineal women in Meghalaya is not much different from each other. But huge differences are noted in the pattern of its use. Among the Garos, 71 per cent of the total users use pills, followed by female sterilization (11.21%) (Fig. 2). But among the Khasis, the dependence is more on female

sterilization (45.08%) followed by pill (15.54%) and IUD (13.47%). The dependence on methods like traditional methods, injection, condoms is quite negligible in both the communities.

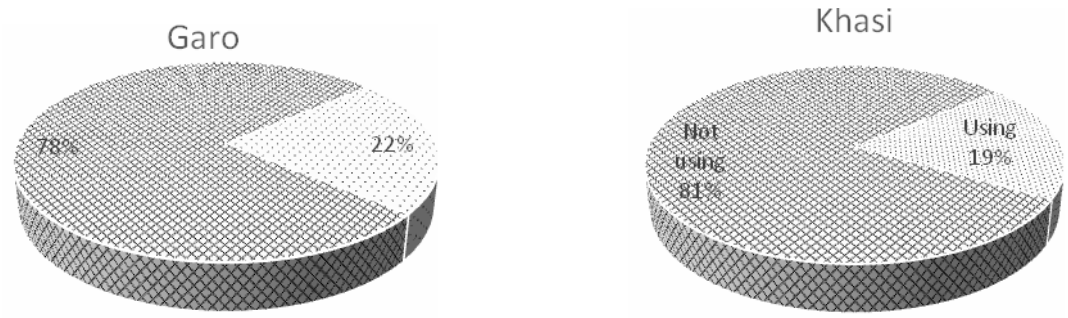

Fig. 1 : Percentage distribution of currently married matrilineal women by contraceptive use status

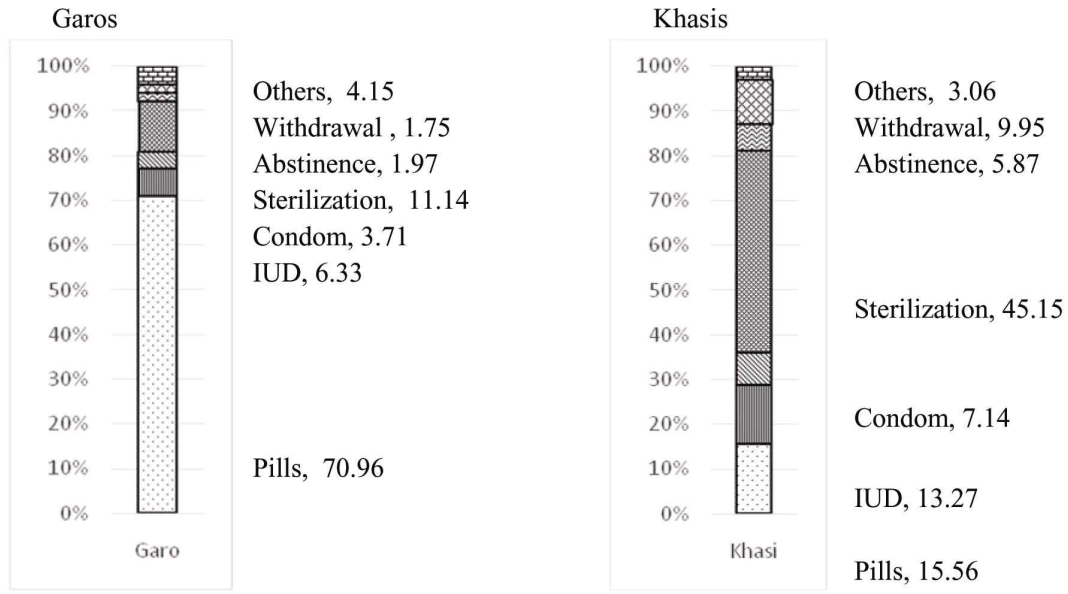

Fig. 2 : Proportion of each method users to total users

The percentage of contraceptive use by age shows two nodes among the Garos (Table 1). But in Khasi community, a single nod is observed among the women aged of 35-39 years. No apparent relationship between education and contraceptive use is noted in the Garo community. Whereas, a distinct positive relation is noted in the Khasi community. In Garo community, the contraceptive use increases with the marital duration till 11-15 years of marriage; then it goes declining. But it constantly increases till 16-20 years of marital duration in the Khasi community, then it declines. No distinct relationship is observed between wealth index and contraceptive use in Garo community, but a clear positive relationship is noted in the Khasi community.

The use of contraceptive methods is much higher among the urban women in both the communities. However, the urban-rural gap is much higher among Khasi community. The use of

Table 1 : Per cent distribution of currently married women by contraceptive and according to background characteristic

Background	Garo tribe (N =2042)			Khasi tribe (N=2027)		
	Not using	Using	Cases	Not using	Using	Cases
Women's age						
Up to 24	86.3	13.7	256	92.5	7.5	362
25 – 29	81.5	18.5	470	82.1	17.9	446
30 – 34	70.6	29.4	347	78.5	21.5	424
35 – 39	72.1	27.9	412	69.4	30.6	314
40 – 44	67.5	32.5	231	76.0	24.0	279
45 – 49	86.2	13.8	326	84.6	15.4	201
Mean (SD)	33.8(8.6)	34.2(7.0)	33.9(8.2)	32.0(8.0)	34.2(6.7)	32.5(8.0)
Women's education						
Illiterate	79.2	20.8	471	83.9	16.1	242
Primary	73.6	26.4	382	83.7	16.3	692
Secondary	78.6	21.4	1095	79.6	20.4	899
Higher	73.4	26.6	94	70.6	29.4	194
Marital duration						
Up to5 years	86.4	13.6	391	91.3	8.7	539
6 – 10	79.8	20.2	431	81.6	18.4	418
11 – 15	68.2	31.8	352	76.4	23.6	390
16 – 20	71.8	28.2	404	69.1	30.9	298
21 and above	80.3	19.7	463	78.0	22.0	381
Mean (SD)	13.5(8.5)	14.4(6.8)	13.7(8.2)	11.7(8.4)	14.3(6.9)	12.2(8.2)
Wealth index						
Poorest	88.1	11.9	243	88.2	11.8	204
Poorer	78.0	22.0	828	86.3	13.7	709
Middle	72.0	28.0	603	79.2	20.8	713
Richer	80.4	19.6	240	73.3	26.7	270
Richest	76.4	23.6	127	60.9	39.1	133
Residence						
Urban	72.2	27.8	194	68.5	31.5	480
Rural	78.1	21.9	1848	84.4	15.6	1546
Religion						
Christian	76.7	23.3	1913	80.8	19.2	1795
Others	89.9	10.1	129	79.7	20.3	232
Mass media						
Not exposed	90.2	9.8	264	89.4	10.6	388
Exposed	75.7	24.3	1178	78.6	21.4	1639
FP message						
Not exposed	78.2	21.8	1061	85.0	15.0	899
Exposed	76.9	23.1	981	77.2	22.8	1128
Total	77.6	22.4	2042	80.7	19.3	2027

contraceptive methods is much higher among the Christian women in Garo community, whereas there is hardly any difference across the religion in Khasi community. Use of contraceptive methods

is comparatively much better among the women who are exposed to mass media. But surprisingly there is not much difference in contraceptive use between women who are not exposed and women exposed to the family planning message in Garo community. Whereas there is a significant difference in Khasi community.

The number of living daughters and sons are slightly higher among the users of contraception. It is true for both the communities (Table 2). But fertility is marginally higher in the Khasi community than Garos. The ideal number of daughters is slightly higher than sons in Garo community. But it is equal in Khasi community. Whereas, the total ideal children is marginally higher in Khasi community.

Table 2: Contraceptive use status by fertility behaviour and fertility preferences

Fertility behaviour and fertility preferences	Garo tribe			Khasi tribe		
	Not using	Using	Total	Not using	Using	Total
Mean living daughters	1.2(1.1)	1.5(1.0)	1.3(1.0)	1.5(1.4)	1.7(1.2)	1.5(1.4)
Mean living sons	1.2(1.1)	1.5(1.2)	1.3(1.1)	1.6(1.5)	1.7(1.3)	1.6(1.5)
Mean living children	2.4(1.6)	2.9(1.5)	2.5(1.6)	3.1(2.3)	3.4(1.8)	3.2(2.2)
Mean ideal number of daughters	1.7(0.9)	1.8(0.8)	1.7(0.9)	2.2(1.4)	1.9(1.2)	2.1(1.3)
Mean ideal number of sons	1.5(0.9)	1.6(0.8)	1.5(0.9)	2.1(1.4)	1.9(1.2)	2.1(1.3)
Mean ideal number of children	3.1(1.6)	3.3(1.2)	3.2(1.5)	4.3(2.5)	3.8(2.0)	4.2(2.4)
Difference in daughters						
Ideal greater than living	81.6	18.4	920	86.3	13.7	935
Ideal equal to living	71.8	28.2	793	65.7	34.3	540
Ideal smaller than living	77.2	22.8	276	75.9	24.1	253
Others	96.2	3.8	53	93.7	6.3	300
Difference in sons						
Ideal greater than living	81.1	18.9	789	85.3	14.7	835
Ideal equal to living	74.3	25.7	865	69.9	30.1	617
Ideal smaller than living	74.6	25.4	335	76.4	23.6	275
Others	96.2	3.8	53	93.7	6.3	300
Difference in total children						
Ideal greater than living	82.0	18.0	1111	86.1	13.9	1097
Ideal equal to living	66.8	33.2	608	56.8	43.2	384
Ideal smaller than living	80.3	19.7	269	77.6	22.4	246
Others	96.2	3.8	53	93.7	6.3	300
Fertility preference						
Want more	89.9	10.1	692	89.0	11.0	1035
Undecided	67.9	32.1	408	87.2	12.8	358
Want no more	72.8	27.2	739	84.0	16.0	343
Total	77.6	22.4	2042	80.7	19.3	2027

Note: figures in the parenthesis are Standard Deviation

The result shows that among the women who want more children, about 10 per cent of them are using one or the other methods of contraception. This implies that about one-tenth of the currently married women in matrilineal communities are currently spacing their next birth. In Garo community, about one-third of the women who are undecided about having another child uses contraception, whereas it is only 12.8 per cent in the Khasi community. Among the women who do not want any more children, the use of the contraceptive method is much higher in Garo community. It is 27.2 per cent among the Garos, but only 16 per cent among the Khasis.

Determinants of contraceptive use :

Results of binary logistic regression :

Multi-variate results (Table 3) show that difference between ideal and living children, exposure to mass media, place of residence and age of the women are some of the most determining factors of contraceptive use in matrilineal communities. The women whose living children is equal to their ideal number of children and women who are exposed to mass media are most likely to adopt a family planning method. On the contrary, rural women are less likely to use any contraceptive method. Further, with the increase in age, women are less likely to adopt family planning method in both the communities.

In Garo community, the number of living daughters and sons plays a significant role in contraceptive use. As the number increases, women are more likely to adopt a family planning

Table 3 : Odds of using contraceptive method among the currently married matrilineal tribal women in Meghalaya

Background characteristics	Garo			Khasi		
	Odds ratio	Lower	Upper	Odds ratio	Lower	Upper
Women's age	0.970*	0.947	0.993	0.954**	0.925	0.985
Number of daughters	1.226**	1.086	1.385	1.027	0.923	1.143
Number of sons	1.285***	1.143	1.445	0.951	0.860	1.052
Women's education						
Illiterate						
Primary	1.205	0.853	1.701	0.923	0.601	1.418
Secondary	0.876	0.637	1.204	0.895	0.575	1.395
Higher	1.361	0.719	2.577	1.200	0.657	2.190
Marital duration	0.995	0.970	1.020	1.063***	1.029	1.099
Wealth index						
Poorest						
Poorer	1.792*	1.137	2.824	0.930	0.561	1.543
Middle	2.341**	1.447	3.787	1.232	0.727	2.087
Richer	1.438	0.807	2.560	1.260	0.685	2.318
Richest	1.667	0.834	3.333	2.122*	1.033	4.359
Residence						
Urban						
Rural	0.652*	0.447	0.951	0.693*	0.514	0.936
Religion						
Christian						
Others	0.359**	0.197	0.654	1.008	0.698	1.455
Mass media						
Not exposed						
Exposed	3.279***	2.027	5.306	1.561*	1.016	2.397
FP message						
Not exposed						
Exposed	0.781*	0.617	0.988	1.128	0.847	1.503
Difference in total children						
Living smaller than Ideal						
Living equal to Ideal	2.305***	1.740	3.052	3.957***	2.943	5.322
Living greater than Ideal	1.107	0.747	1.640	1.841**	1.270	2.668
Others	0.174*	0.040	0.756	0.450**	0.269	0.753

method. But this result is not significant for Khasi women. Wealth index of the household is found to have a significant effect on contraceptive to some extent in both the communities. In Garo community, compared to poorest women, poorer and middle-class women are more likely to use a contraceptive method. Though richer and richest women are also more likely use contraceptive, the result is not significant. In Khasi community, compared to the poorest women, the richest women are more likely to adopt a family planning method. Though non-Christian Garo women are less likely to use family planning method, the result is not significant for Khasi women. In Garo community exposure to family planning message has a significant negative effect on adopting a family planning method. But it is not true for the Khasi women. Marital duration does not show a statistically significant relationship with contraceptive use in Garo community. But in Khasi community, with the increase in marital duration, women are more likely to adopt a family planning method. One of the striking findings is that when socio-economic factors are controlled, education does not play any significant role in contraceptive use in matrilineal communities.

Discussion :

Matrilineal culture is pretty much different from that of dominant patriarchal culture. In this culture, women enjoy a better status than those women of patriarchal societies. In Meghalaya, where the matrilineal culture is predominant, women are believed to enjoy higher autonomy (Khongji 2013), make all major household decisions (Chyne *et al.,* 2017) decide about contraceptive use along with the husband (Marak and Bhatnagar, 2015). But the persistently low level of contraceptive use in the state is one of the issues of concern.

Marked differences in the pattern of contraceptive use, the dominance of pills among the Garos and sterilization among Khasis, is a clear indication of the existence of socio-cultural differences existing within the matrilineal communities. A study (Subba, 2008) also highlighted the existence of cultural variations within the Khasi community itself. This finding implies that socio-cultural practice plays a crucial role in choosing a method. It further points towards the need for a deeper investigation into the cultural practices that hinder the use of contraception and choice of a method. This also demonstrates the need for a community-based approach in addressing family planning issue particularly in matrilineal cultural set-up, and in general as well.

Women more likely to adopt a family planning method when their living children is equal to ideal number suggests that due to the high ideal number of children and due to not achieving that number, women are not resorting to any family planning method. So, steps are needed to mould the attitude of women towards using family planning method at least for spacing for her health and health of the children. Compared to urban women, rural women are socio-economically backward. Rural women are less equipped with knowledge and may have a higher ideal number of children. This is reflected in terms of contraceptive use as well. Thus, there is a need for focussing family planning programs more in rural areas, of course without neglecting urban poor. Exposure to mass media equips women with various information and make them aware of the consequences of having larger family size. As such, women with exposure to mass media are more likely to adopt family planning method. Whereas, exposure to family planning message may not be that effective to influence women to use contraception. Thus, mass media should play a leading role in imparting educative messages regarding family planning. Such message should be not from a family planning perspective; rather it should be from a health perspective. Similar to another study (Kamal *et al.,* 2007) the present study found that with the increase in age, women are less likely to use contraception in matrilineal societies. This may be because, with the increase in age, their libidos were lower than

before, so it was possible to observe periodic abstinence (Kamal *et al.,* 2007). It may also happen that older women resorting to periodic abstinence may not have reported using a method.

The existence of son preference in male-dominated patriarchal societies is well noted. Contrary to that, one of the studies (Narzary and Sharma, 2013). Found daughter preference in the matrilineal tribal societies in Meghalaya. Similarly, NFHS 2015-16 survey report also indicates that in Meghalaya as a whole, both women and men have a preference for daughters over the sons (IIPS and ICF, 2017a). However, in the present study, no such indication is noted among the currently married matrilineal tribal women. One of the reasons for low contraceptive use in Meghalaya, which is not apparent from the present study, is that because of the traditional matrilineal norms, the indigenous people of the state of Meghalaya do not support the use of any form of contraception to prevent births (or any conscious effort to prevent births) (Khongji, 2013). Hence, studies incorporating qualitative research to explore such cultural norms are needed to find out the exact reasons for not using family planning method.

Limitations :

The mother tongue of only Garo and Khasi tribe are provided in the present data set. Hence, one of the three tribes, Jaintia, following matrilineal culture could not be identified and had to be dropped from the present study. One way of identifying Jaintia tribe could have been to include all the scheduled tribe samples (other than Garo and Khasi) as Jaintia tribe. Under the assumption that sample from remaining scheduled tribe (other than Garo, Khasi, and Jaitia) population is negligible. But as it would have been difficult to say with confidence that the result pertains to matrilineal culture, we have just included above mentioned two tribes. Further, there is also a remote possibility that among the Garo and Khasi tribe, few might have reported their mother tongue as other than Garo and Khasi, respectively. Hence, results of the present study pertain to only the matrilineal tribal women who reported their mother tongue as either Garo or Khasi. Besides that, there is no way to check if a sample from another tribe (other than Garo and Khasi) have reported their mother tongue as either Garo or Khasi.

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