

Behavioural Determinants of Fertility among Garo Women in Rural and Urban Meghalaya: Evidence from Bajengdoba and Tura, West Garo Hills

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Abstract

Behavioural factors such as fertility preferences, satisfaction with family size, and desired family size play a significant role in shaping reproductive behaviour. However, evidence on these determinants among the indigenous Garo population of Meghalaya remains limited. This study examined the relationship between mothers' satisfaction with the number of children, desired family size, and fertility among Garo women in the rural village of Bajengdoba and the urban town of Tura, West Garo Hills, Meghalaya. A community-based cross-sectional study was conducted among 485 ever-married Garo mothers aged 15–49 years using a structured interview schedule. Fertility was assessed by the number of live births, and data were analysed using descriptive statistics, one-way analysis of variance (ANOVA), and paired Student's *t*-test. The findings revealed that a higher proportion of mothers in Tura (93.0%) were satisfied with their family size than those in Bajengdoba (74.6%). In Bajengdoba, satisfied mothers had significantly higher mean numbers of live births than dissatisfied mothers ($p < 0.001$), whereas no significant difference was observed in Tura. Among dissatisfied mothers, the difference between actual and desired family size was significant only in Tura ($p < 0.01$), indicating stronger preferences for smaller families among urban women. The findings suggest that behavioural factors influence fertility among Garo women and reflect the ongoing fertility transition associated with urbanization, education, and improved access to reproductive health services. The study highlights the need for culturally appropriate family planning interventions to support informed reproductive decision-making among indigenous communities.

Keywords: Fertility behaviour, fertility preferences, family size satisfaction, Garo women, Meghalaya, reproductive health.

Introduction

According to the Theory of Planned Behaviour, reproductive decisions are influenced by individual attitudes, social norms, and perceived control over fertility. In addition to biological and socioeconomic factors, behavioural and psychological traits that influence reproductive decision-making also have an impact on reproductive behaviour. Important behavioural predictors of fertility include women's perceptions of the size of their families, satisfaction with the number of living children, fertility preferences, and intended family size. These variables affect the size of the completed family, birth spacing, contraceptive use, and reproductive intentions Bongaarts (2001). The term "fertility preferences"

refers to people's beliefs and aspirations around starting a family, including their goals, expectations, wants, and ideals. Researchers are realising more and more that these preferences are dynamic and evolve as people go through different phases of life. A variety of societal and personal factors, such as age, the number of children already born, health, professional advancement, and relationship changes, such as starting a new partnership or going through a divorce, influence decisions about having children. These life events can have a big impact on how people prepare and think about their future fertility Gray et al. (2013). Due to delayed childbearing, the proportion of individuals and couples experiencing difficulty conceiving has increased in recent decades, potentially impacting their reproductive plans and strategies. However, despite the increasing prevalence of infertility, little is known about its influence on people's fertility desires and expectations. Traditional sociocultural norms including male-child preference, perception of children as economic assets, and religious opposition to contraception were also significantly associated with higher fertility (Ukwubile and Adeyi, 2026).

Over recent decades, India has experienced a marked decline in fertility. According to NFHS-5, the national total fertility rate reached 2.0 births per woman, reflecting an increasing preference for smaller families. Nevertheless, fertility preferences remain heterogeneous across socio-cultural groups, particularly among tribal populations where traditional institutions continue to shape reproductive behaviour IIPS & ICF (2021).

Earlier research has shown that men and women differ in their perceptions of the social and economic consequences of having children. Men and women have different reproductive intentions as affected by employment security, availability of childcare and career progression, but men have relatively low knowledge of fertility Hammarberg et al. (2017). The fathers' involvement in childcare is positively associated with the fertility intentions of the fathers, but not those of the mothers. In contrast, fathers' involvement in housework is positively associated with the fertility intentions of the mothers, but not those of the fathers. Furthermore, education, the self-assessed household economic situation, and employment status are associated with fertility intentions, while gender-related values are not Ishchanova (2026). Demographic research has shown interest in exploring how the impact of various events that increase uncertainty in a person's life, such as changes in subjective and objective economic situations, relationship status, and age, influence the revision of fertility desires and expectations Gray et al. (2013) Heiland et al. (2008).

Need of the Study

Despite the decline in fertility observed throughout India, significant differences persist between rural and urban populations and among tribal communities. Most fertility studies have focused on biological and socio-economic determinants, whereas behavioural factors such as satisfaction with family size and reproductive preferences have received relatively little attention among indigenous populations.

The Garo tribe of Meghalaya represents one of the largest matrilineal tribal populations in Northeast India. Although education, urbanization, and healthcare access have improved considerably during recent decades, traditional reproductive norms remain influential, especially in rural communities. Very few studies have examined behavioural determinants of fertility among Garo women, particularly with respect to satisfaction with family size and desired fertility. Understanding these behavioural characteristics is essential for designing culturally appropriate family planning programmes and reproductive health interventions.

Furthermore, information on whether women achieve their desired family size and how satisfaction with the number of children influences fertility is lacking. Such information is important for evaluating the effectiveness of family planning programmes and understanding the ongoing fertility transition among tribal populations.

Therefore, the present study was undertaken to examine the relationship between mothers' satisfaction with the number of children, desired family size, and fertility among Garo women residing in the rural village of Bajengdoba and the urban town of Tura, Meghalaya.

Materials and methods

A cross-sectional study was conducted among Garo mothers from Bajengdoba village (rural) and Tura town (urban) of West Garo Hills District, Meghalaya. The study included ever-married Garo women who had experienced at least one pregnancy and were permanent residents of the study areas. Data on family size, fertility preferences, satisfaction with the number of children, and desired family size was obtained using structured interview schedules. The study involved a total of 485 Garo mothers aged 15-49 years, with 233 mothers from Bajengdoba (rural) and 252 mothers from Tura (urban). Fertility was measured using the number of live births. Mothers were classified according to whether they were satisfied or dissatisfied with the number of children they had. Data were analysed using IBM SPSS Statistics Version 20. Descriptive statistics were used to summarize frequencies, percentages, means, and standard errors. Differences in mean live births between satisfied and dissatisfied mothers were examined using one-way Analysis of Variance (ANOVA), while paired Student's t-test was used to compare the actual and desired number of children among dissatisfied mothers.

Results

Mothers' satisfaction with family size

Table 1 presents fertility according to mothers' satisfaction with the number of children. In Bajengdoba, 159 mothers (74.6%) reported satisfaction with their current family size, whereas 54 mothers (25.4%) expressed dissatisfaction. Similarly, in Tura, the majority of mothers (93.0%) were satisfied, while only (7.0%) remained dissatisfied.

Mothers who were satisfied with their family size had significantly higher mean numbers of live births than dissatisfied mothers. In Bajengdoba, satisfied mothers had a mean of 3.22 ± 0.12 live births compared with 1.59 ± 0.13 among dissatisfied mothers. In Tura, the corresponding values were 2.55 ± 0.09 and 2.19 ± 0.30 , respectively.

Table 2 One-way ANOVA demonstrated a highly significant difference between satisfied and dissatisfied mothers in Bajengdoba ($F = 49.37, p < 0.001$). However, the association was not statistically significant in Tura ($F = 0.94, p > 0.05$).

Desired family size

The comparison between actual and desired family size among dissatisfied mothers revealed important behavioural differences between rural and urban populations.

Table 3. In Bajengdoba, dissatisfied mothers had an average of 1.26 ± 0.13 children compared with a desired family size of one child. Although the actual family size exceeded the desired number, the difference was not statistically significant ($t = 1.95, p > 0.05$).

Conversely, dissatisfied mothers in Tura had an average of 2.12 ± 0.28 children despite expressing a desire for only one child. The difference between actual and desired family size was statistically significant ($t = 3.92, p < 0.01$).

These findings suggest that urban mothers have stronger preferences for smaller family size than their rural counterparts.

Table 1: Fertility by mother's satisfaction and dissatisfaction with the number of their children

Satisfied?	Bajengdoba			Tura		
	No. of mothers	No. of live births	Mean number of live births $\pm$ SE	No. of mothers	No. of live births	Mean number of live births $\pm$ SE
No (%)	54 (25.4)	86	1.59 ± 0.13	16 (7.0)	35	2.19 ± 0.30
Yes (%)	159 (74.6)	512	3.22 ± 0.12	212 (93.0)	540	2.55 ± 0.09

Table 2: ANOVA for live births between mother who are satisfied and dissatisfied with the number of their children

Source of variation	Bajengdoba					Tura				
	SS	df	MS	F	p-value	SS	Df	MS	F	p-value
Between groups	106.77	1	106.77	49.37	$p < 0.001$	1.92	1	1.92	0.94	$p > 0.05$

Table 3: Distribution of the actual and desired number of children

	Bajengdoba (n = 54*)		Tura (n = 16*)	
	Number of children	Mean $\pm$ SE	Number of children	Mean $\pm$ SE
Actual	68	1.26 ± 0.13	34	2.12 ± 0.28
Desired	54	1 ± 0.00	16	1 ± 0.00
t – value	1.95, df = 53, $p > 0.05$		3.92, df = 15, $p < 0.01$	

* Include mothers who are dissatisfied with the number of their children

Discussion and Conclusion

The present study examined the influence of behavioural characteristics, particularly mothers' satisfaction with the number of children and desired family size, on fertility among Garo women residing in rural Bajengdoba and urban Tura. The findings indicate that behavioural factors are important determinants of reproductive behaviour and reflect the ongoing fertility transition occurring within indigenous communities of Meghalaya.

The majority of mothers in both study areas reported satisfaction with their current number of children, although satisfaction was considerably higher in urban Tura (93.0%) than in rural Bajengdoba (74.6%). This finding suggests that urban women are more likely to achieve their reproductive goals, probably because of higher educational attainment, improved access to family planning services, greater

contraceptive use, and increased autonomy in reproductive decision-making. Similar observations have been reported in the National Family Health Survey-5, where urban women were more likely than rural women to achieve their desired family size. A recent analysis of fertility preferences among women in Meghalaya by Pautunthang (2024) reported a steady decline in the ideal number of children between 1992 and 2021 and showed that education, wealth, and media exposure significantly increased the desire to stop childbearing after two or fewer children. Similar findings were reported by Khongji (2013), who observed a declining trend in ideal family size among women in Meghalaya and identified education and urban residence as major determinants of reproductive preferences, indicating that fertility transition is underway among the indigenous matrilineal populations.

In the present study, mothers who were satisfied with their family size had significantly higher mean live births than dissatisfied mothers in Bajengdoba. This observation reflects the traditional reproductive norms prevailing in many rural tribal societies, where larger families continue to be socially valued because children contribute to household labour, economic security, and continuity of the family lineage. These findings are consistent with the fertility transition theory proposed by Caldwell (1982), that fertility behaviour changes as the perceived economic value of children shifts from producers to dependents. In traditional societies, larger family size often remains advantageous, whereas modernization encourages investment in fewer children with better education and health.

Conversely, no statistically significant association was observed between fertility and satisfaction with family size in Tura. This finding indicates that reproductive decisions among urban Garo women are becoming increasingly independent of the number of children already born. Urban women may be more influenced by educational aspirations, employment opportunities, delayed marriage, and the increasing economic cost of childrearing than by traditional family norms. Similar conclusions were reported in the recent Meghalaya study by Pautunthang (2024), which found that women with higher education and greater media exposure were significantly more likely to prefer smaller families and discontinue childbearing.

The comparison between actual and desired family size among dissatisfied mothers provides additional evidence of changing reproductive preferences. In Tura, the actual number of children was significantly higher than the desired number of children, indicating that many women had exceeded their preferred family size. This discrepancy may represent unmet need for family planning, delayed adoption of contraception, or unintended pregnancies during earlier reproductive years. Married women in the Garo Hills are generally aware of family planning methods; however, the adoption of modern contraceptive methods remains relatively low. This is primarily because many women are restricted by their families, do not perceive contraception as necessary, or lack adequate knowledge about its use. Consequently, contraceptive methods are typically adopted only after women have attained their desired family size Marak & Limbu (2026), whereas those dissatisfied with their family size may continue childbearing depending on their reproductive goals Ajzen (1991). As a result, family size preference has emerged as a key indicator in demographic and reproductive health research. Similar findings have been reported by Bongaarts (2021), that differences between desired and achieved fertility are frequently the result of barriers to contraceptive access, imperfect fertility regulation, and evolving reproductive intentions throughout one's life.

In contrast, the difference between actual and desired family size was not statistically significant among dissatisfied mothers in Bajengdoba. This suggests that reproductive expectations among rural Garo women remain relatively consistent with prevailing social norms. Although some mothers expressed

dissatisfaction, their desired family size did not differ substantially from the number of children already born.

Another important observation is the rural–urban contrast in behavioural determinants. Urban women exhibited greater satisfaction with their achieved family size despite having lower fertility than rural women. This finding reflects the demographic transition occurring in Meghalaya, where urbanization is associated with delayed marriage, higher educational attainment, increased female labour-force participation, and improved reproductive health services. Women from East Garo Hills and South Garo Hills predominantly preferred two to three children, although preferences for larger families persisted in some Garo areas. This suggests that fertility transition is occurring within the Garo population, but traditional norms favouring relatively larger families continue to influence reproductive behaviour in some rural communities Pautunthang (2024). The rural–urban differences observed in the present study are further supported by Khongji (2013), who demonstrated that urban residence was significantly associated with a lower ideal number of children among women in Meghalaya. The study concluded that improvements in education, socio-economic status, and exposure to modern ideas contribute to declining fertility preferences, even within the traditionally high-fertility matrilineal societies of the state.

Overall, the present study demonstrates that behavioural determinants are becoming increasingly important in regulating fertility among Garo women. Rural women continue to exhibit reproductive preferences consistent with traditional tribal norms, whereas urban women increasingly favour smaller family sizes. These findings highlight the influence of education, socio-economic development, and access to reproductive health services in shaping fertility preferences among indigenous populations. Strengthening reproductive counselling, improving family planning services, and promoting female education may further help couples achieve their desired family size while improving maternal and child health outcomes.

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