REVIEW ARTICLE

Teenage Pregnancy Among Tribal Populations: A Review of Socio-Cultural, Health, and Policy Perspectives

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ABSTRACT

Adolescence (10–19 years) represents a pivotal transition between childhood and adulthood, marked by rapid biological and social changes with long-term implications for health. In 2025, adolescents constituted nearly one-sixth of the global population (1.3 billion), yet this group experiences a substantial burden of preventable morbidity and mortality. Approximately 1.1 million adolescents die each year due to health and non-health-related causes, including injuries, violence, suicide, sexual and reproductive health complications. While early adolescents (10–14 years) are primarily affected by inadequate hygiene, sanitation, and water access, older adolescents (15–19 years) face increased risks associated with poor nutrition, unsafe sexual practices, and substance use. Globally, in 2023, nearly 13% of adolescent girls and young women gave birth before the age of 18, highlighting persistent vulnerabilities.

This review synthesizes evidence on the prevalence of teenage pregnancy among tribal communities in India, examines the socio-cultural and demographic determinants influencing early childbearing. It also reviews current policy frameworks addressing adolescent reproductive health. Teenage pregnancy among India's tribal populations remains a major public health challenge, necessitating targeted interventions. Culturally responsive, community-based, and multisectoral approaches that integrate health, education, and social protection systems are crucial for reducing early pregnancies and improving adolescent health outcomes.

Early childbearing disrupts normal growth and development, adversely affecting girls' health, educational attainment, and economic prospects. These risks are exacerbated in India's tribal populations, where cultural norms, limited access to reproductive health services, and structural inequities contribute to disproportionately high rates of adolescent pregnancy.

KEYWORDS

Teenage pregnancy; Adolescent health; Tribal population; Socio-cultural determinants;

INTRODUCTION

As per World Health Organization (WHO), Teenage pregnancy or Adolescent pregnancy is defined as pregnancy in girls between the age of 10 to 19 years (1). Although the global adolescent birth rate (ABR) has declined,

progress has been uneven, and adolescent pregnancy remains concentrated in disadvantaged populations (1,5).

Adolescent pregnancy is a public health issue worldwide, carrying emotional, physical, and financial costs for the mother, father, child, and community (2). It represents a "double burden" of reproduction and growth for the young mother (3). In high income countries like USA, teenage pregnancies are often seen as a social issue, commonly occurring among unmarried girls, however in India teenage pregnancy occurs within marriage and are often welcomed by the society. The situation is further complicated by the fact that young girls in developing countries are often physically and psychologically immature for reproduction, making early pregnancy high risk (3,4). Adolescent pregnancy can have serious consequences on the adolescent girl's health. In 2023, globally an estimated 13% of adolescent girls and young women had deliveries before the age of 18 years. Early pregnancy, delivery and childbearing during adolescence, can disrupt girls' healthy development and negatively affect her health, education, and future livelihood. Many pregnant adolescent girls dropped out of school, which impacts their educational and employment opportunities. Adolescent pregnant girls often face social stigma and a drop in their status at home and in their community (5).

India is home to a vast array of tribal communities, with 705 officially recognized Scheduled Tribes or also known as Adivasis, represent a significant portion of the population, estimated at around 8.6%. Major tribal groups include the Bhil, Gond, Santhal, Munda, and others, each with distinct cultural traditions and languages (6).

Correspondingly, most tribal women in India, experience sexual debut as married adolescents. According to major surveys, about 50% of tribal women were already married by 16 who were between the ages of 20 and 24 in India. High level of poverty, ignorance and high-risk beliefs and practices, inadequate and non-accessibility of health resources, among the tribal communities has contributed to the early marriage and early pregnancy of this population (7).

Epidemiology and Prevalence

Adolescent Pregnancy is a phenomenon that is present worldwide. About 10% of adolescent girls and young women of Latin America, South Asia and the Caribbean gave birth before 18 years of age, this percentage is more than double when considering the regions of sub-Saharan Africa. In Africa, around 25% of adolescent girls and young women (about 11 million) gave birth before 18 years of age during this same period.

The ABR (Adolescent Birth Rate) is the annual number of births to adolescent girls and young women aged 10–14 or 15–19 years per 1,000 adolescent girls and young women in that age group. It is a critical measure of early childbearing. ABR declined from 64.5 births per 1000 women aged 15–19 years in the 2000 to 41.3 births per 1000 women in 2023 (4). Globally in 2023, ABR was about 1 birth per 1,000 girls aged 10-14 years and 39 births per 1,000 adolescent girls and young women aged 15-19 years. Sub-Saharan Africa reported the highest regional ABR at 3 births per 1,000 adolescent girls aged 10-14 years and 93 births per 1,000 adolescent girls aged between 15 to 19 years.

India, among the most populous country, has an adolescent population of 253 million (20%), which is one-fifth of its own population (8). According to National Family Health Survey (NFHS-5) 2019-21, in India, 7 percent of adolescent girls aged 15-19 have begun childbearing, 5 percent of women have had a live birth and 2 percent of women are pregnant with their first child. The level of adolescent childbearing reduced slightly between 2015-16 (8%) and 2019-21 (7%). Teenage pregnancy to be more common in rural areas. 8% of women in rural areas in the age group 15-19 have begun childbearing. The prevalence decreases with an increasing level of education. 18% of girls with no schooling aged 15-19 have already begun childbearing, compared to just 4 % of women who had 12 or more years of education. Economic status also plays a significant role; incidences of teenage pregnancy decrease as wealth increases. Only 2% of teenage girls from the richest wealth

quintile have begun childbearing, whereas it increases to 10% in the poorest group. Scheduled Tribe women in this age group shows high prevalence of teenage pregnancy (9%) compared to women from other caste or tribe categories. Similarly, 8% of Muslim girls aged 15–19 have started childbearing, a rate higher than that observed in other religious groups. Among currently married women aged 15-19 years, 53% have already begun childbearing. States such as Tripura (22%), West Bengal (16%), Andhra Pradesh (13%), Assam (12%), Bihar (11%), and Jharkhand (10%) report the highest rates of teenage pregnancy among all states and union territories (9).

A systematic review on adolescent pregnancy in South Asia by Samikshya P. et al, it was found that lower literacy, poor economic status, and natives of rural region and those belonging to Muslim community are the commonest factors associated with teen pregnancy (10). These prevalence patterns are shaped by multiple social, cultural, and economic determinants, as outlined below.

Determinants & Risk Factors: Various studies conducted in Lower- and Middle-Income Countries indicate that risk factors related to adolescent pregnancy are higher among girls with lower levels of education and those from economically weaker sections (11,12). Multiple factors contribute to adolescent pregnancies and births. One key factor is the societal pressure in many cultures for girls to marry and have children at a young age. As of 2021, an estimated 650 million women worldwide were married as children. Child marriage significantly increases the risk of adolescent pregnancy, as girls who marry early often were not allowed to make their own choices in making decisions about delaying childbearing or using contraception (13). Additionally, in many contexts, girls may choose to become pregnant due to limited access to education and employment opportunities, where early motherhood is perceived as a valued life path (14).

A study on 102 teenage mothers assessing the contributing factors of adolescent pregnancy in Sunsari district of Nepal (Gautam L et al), revealed notable socio-economic and knowledge gaps. 56.9% belonged to Muslim community, and over one-third were illiterate. A significant 26.5% experienced pregnancy loss, mainly 81.48% of stillbirths. 55.9% were not aware about the term Adolescent pregnancy and 69.6% had insufficient knowledge overall. A major 96% were not using family planning often due to family pressure and lack of spousal support and cultural acceptance of early marriage (15).

A Recent study among the tribal population in rural area of Udaipur, Rajasthan, explored the perceptions and challenges of adolescent pregnancy. The data was thematically analyzed, revealing limited awareness and knowledge, health related issues, absence of parental and spousal support, emotional stressors, and societal restrictions (16).

Limited Awareness & Knowledge: There is limited awareness regarding pregnancy and childbearing among tribal adolescents. Many of them do not even know the location of their nearest healthcare facility. Their approach towards contraception use is very casual and they fail to understand use of it. Likewise, they are not much prepared to motherhood and even lack knowledge of appropriate antenatal-postnatal care and services and nutrition during pregnancy, which along with limited knowledge of contraception acts as a significant barrier to reducing teenage pregnancies. They are unaware of family planning and birth spacing. Repeated pregnancy in shorter duration deteriorates their health, body weight, nutrition, and increased responsibilities (16).

A scoping review on perception, behavioral practices and understanding of adolescent pregnancy among teenage girls in India found that only few girls perceive that early pregnancy can be harmful, unsafe, and dangerous, while others feel that it is acceptable, a cool activity, valid in love relationship. Few articles revealed that girls' practices use of contraception to prevent pregnancy while adolescents are still unaware of the family planning practices. It also concludes that there are limited evidence and a major gap in perception, understanding and practices among adolescents about pregnancy (17).

The large gap in knowledge and lack of awareness regarding pregnancy and contraception directly increases the risk of unintended pregnancy in tribal girls. In Indian context, the consequences of this gap in knowledge are amplified by the fact that 45% of women are married by age 18 and 63% by age 20. In 2006, 14% of all children's born were result of unintended pregnancy, and 43% of married women aged 15-19 years contributed nearly 16% of India's total fertility, with an ABR of 73.23 births per 1000 women aged between 15-19 years in 2013 (18).

Early/Child Marriage: As per Rachakonda et al. (2014), early marriage and traditional gender roles are important factors that contribute to teenage pregnancy (3). In some parts of sub-Saharan Africa, "early pregnancy is often seen as a blessing because it is proof of the young woman's fertility" (3). In India, traditional rural communities are more commonly associated with early marriage and subsequently teenage pregnancy (3). Similar sentiments are shared by Kuari et al in their 2025 study, and despite the prohibition of child marriage act 2006, early marriages remain a common occurrence (19).

Census of India 2011 reveals that over one crore (10 million) women aged 15-19 years were married, which exposes them to early childbearing. Disturbingly, one in every three married teenagers in the states of Bihar, Rajasthan, West Bengal, and one in four in Jharkhand, Assam, Madhya Pradesh had already had a childbirth (20). Same dataset suggests that in India, 4.8 lakh (4,80,000) married teens between 15-19 years were in their 4th parity as of 2011. In 2015-16, 11.9% of girls aged 15-19 years were married, with rural areas showing double the prevalence (14.1%), compared to urban areas (6.9%) (20).

"Marriage is often seen as a rite of passage, and fertility as a measure of womanhood in tribal communities" (21). In South Asian societies, marriage is often perceived as a social license to begin their reproductive stage shortly after (19).

Socio-economic and Educational Context

The challenges as discussed are compounded by socio-economic factors. Tribal communities in India, often face poverty, deprivation, and inadequate or lack of access to healthcare services, with poor literacy (43.1% illiterate) and poor living conditions as noted by (22,23). Education plays a critical protective role, since tribal women who attained higher education were associated with decrease in the proportion giving birth before 18 years (29).

Kumari et al. (2025) noted while comparing NFHS-4 and NFHS-5 data, adolescent pregnancy are higher among those who are not educated (declined from 21.4% to 19.2%) and those with primary education (declined from 15.6% to 13.4%). Higher education significantly decreased the chances of adolescent pregnancies (11.2% to 10.5%), and adolescent from poor background remains at higher risk. As per Nair (2018), the proportion of women between 15-19 years of age who were illiterate or primary education experiencing teenage pregnancy was almost three times greater than those with secondary or higher education (19). Kumari et al. (2025) confirm this, noting that women with no education had the highest prevalence (21.4% to 19.2%) and those with secondary or higher education were significantly less likely to become pregnant. Education empowers women to delay marriage and childbearing (19).

Poverty compels girls to discontinue their education and traps them in a vicious cycle where early motherhood compromises their educational and economic potential. (23) It was also noticed that girls from poor backgrounds, slums, and rural areas exhibits poor nutritional status and have less access to health services. Similarly, Kumari et al. (2025) found that poorest adolescents had a higher prevalence of pregnancies (11.2% to 10.5 % from NHFS-4 to NFHS-5).

Lack of Parental and Spousal support

Tribal communities mostly have conservative background. Teenage married girls do not get enough parental and spousal support. Parents, due to societal pressure, force their daughters to marry at teenage. Younger daughters are married along with their elder ones due to financial restrictions. Often parents marry their young girls to a man much older than her, this often results in ideological differences, lack of emotional support, neglection, non-

cooperation and even domestic violence by the spouse or partner leading to deteriorated physical, mental, and emotional health (16).

In Shri et al.'s 2023 study on prevalence and adverse outcomes of pregnancy in Bihar and Uttar Pradesh, two-third women suffered sexual violence (65%), while 29% and 26% of them suffered emotional and physical violence, respectively. They also found that low education level, age gap between couple, and violence had statistically significant association with undergoing pregnancy (24).

Health Consequences & Maternal Outcomes

Complications from pregnancy and childbirth are leading causes of death for girls aged 15-19 in developing countries. The risk of death following pregnancy is twice as high for women aged 15-19 than for those aged 20-24, and up to five times higher for girls aged 10-14 (3). As per Sharma et al. (2001), the risk of pregnancy complications was 2.5 times higher among pregnant teenagers compared to mothers in their twenties (25).

For all preterm births, Scheduled Tribe women have disproportionately high perinatal health risks, including a higher proportion of stillbirth (11.77%) compared with women not in Scheduled Tribes (8.86%). Overall, the stillbirth rate for Scheduled Tribe women stands at 3.06%, versus 1.73% for women not in Scheduled Tribes (26). Early neonatal deaths among this group accounts for 71.4%, that is much higher than the percentage of late neonatal deaths (28.6%), with the main causes being premature delivery and low birthweight, followed by mothers' poor socioeconomic status and inadequate antenatal care among Scheduled Tribes. Furthermore, the higher reported death rates among female neonates compared to male neonates raise serious concerns, as the survival of female newborns is crucial for the long-term growth and sustainability of the population (27). Stillbirth and early neonatal death are leading causes of poor perinatal health in India's Scheduled Tribes population. These adverse outcomes of pregnancy are preventable by adequate antenatal care and childbirth in hospitals. However, in 2024, there is low coverage of maternal and child health services in India, as only 23% of women in Scheduled Tribes received antenatal care and only 82% of births are in hospitals (28). Adverse pregnancy outcomes are influenced by poverty, illiteracy, inadequate antenatal care, stillbirths, and neonatal deaths

, but so do stillbirths, fetus loss, and early neonatal deaths. Moreover, in 2023, only 75% of newborns received all birth dose immunizations, highlighting gaps in timely and adequate vaccination coverage among children from Scheduled Tribes. Birth dose immunizations are crucial for neonates (29,30).

Teenage girls of Madia-Gond community often risk their lives by using traditional herbs as abortifacients to abort pregnancy secretly. This potentially leads to infections and severe blood loss causing incomplete abortion. Consumption of alcohol and tobacco by teenage girls worsens the outcome of pregnancy and have adverse health consequences. Deliveries conducted by untrained "dais" with improper sanitation and sterilization expose girls and newly born to post-delivery infections and prematurity. Both mother and child become highly vulnerable to infections and thus sepsis. Moreover, financial restrictions and cultural barrier restrict their access to healthcare facilities. Apart from this, double burden of daily wage labor alongside household work becomes strenuous to teenage girls leading to poor health and causing preterm births, low birth weight, and intra-uterine death of the babies (31).

Interventions & Programs: Adolescent pregnancy among Tribal population requires strict interventions and programs to fill the gap in knowledge and awareness among teenage girls and prevent them from deteriorating their physical, mental, emotional, and sexual health. Some Interventional studies have been done in the past to relieve the burden both globally and in India.

Policies and Social Reforms in India

Rashtriya Kishor Swasthya Karyakram (RKSK)

Launched by the Ministry of Health and Family Welfare launched on January 7, 2014. This program targets approximately 253 million adolescents—both boys and girls; across rural and urban areas; regardless of education and marital status with a special focus on

marginalized and underserved groups. RKSK broadens the scope of adolescent health program in India moving beyond just sexual and reproductive health to also address nutrition, injuries, and violence (including gender-based violence), non-communicable diseases, substance misuse, and mental health. A core strength of the program is its health promotion approach marking a shift from the existing clinic-centric services to promotion, prevention and reaching adolescents in their own setting, such as in schools, families, and communities.

Integrated Tribal Development Projects (ITDP): Also known as Integrated Tribal Development Agencies is area-based development initiatives established by the Government of India to improve the socio-economic conditions of tribal populations. These projects operate in geographically defined tribal-majority areas, typically where the Scheduled Tribe (ST) population is 50% or more.

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA) now known as Scheme for Adolescent girls (SAG)

The Ministry of Women and Child Development (MWCD) in India started the Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG), also known as SABLA, in April 2011. It is a major social welfare program. It is a program funded by the government that aims to help girls aged 11 to 18 with a wide range of developmental issues, both in and out of school. The program started in 205 chosen districts across India. These districts were chosen based on a composite index that looked at things like the number of girls who dropped out of school, the number of women who could read and write, and the number of child marriages. SABLA takes a whole-person approach to improving girls' health, nutrition, life skills, and overall well-being. The program uses the existing infrastructure of the Integrated Child Development Services (ICDS), which serves both rural and urban areas. (30). This scheme under Mission Saksham Anagwadi and Poshan 2.0 is Scheme for Adolescent girls (SAG) in aspirational districts and Northeast states.

Conclusion

The issue of adolescent pregnancy in India's tribal communities stems from a complex web of intertwined poverty, sociocultural norms, and systemic gaps within healthcare access and utilization. While there has been progress from both national and international initiatives, for example, a marginal decline in the childbearing rate to 7% from 8% between 2015-2016 to 2019-2021, tribal communities disproportionately bear the brunt of early childbearing and the myriads of negative health outcomes associated with it.

Culturally relevant and comprehensive frameworks must be implemented to successfully address these community-led initiatives.

Recommendation

Integrating education-linked health interventions, such as adolescent-friendly health education, life-skills training, and continuation of schooling during and after pregnancy, can contribute to improved maternal understanding, health-seeking behavior, and long-term outcomes. Health services should be tailored to meet the unique needs of adolescent mothers, with a special focus on tribal-dominant districts. Adolescent-friendly clinics, flexible service delivery models, and capacity building of healthcare providers in culturally sensitive care can enhance utilization and improve outcomes across both tribal and non-tribal populations

Authors Contribution

All authors have contributed equally.

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Conflict of Interest

There are no conflicts of interest.

Declaration Of Generative AI And AI Assisted Technologies In The Writing Process

I hereby declare that I have utilized generative AI and AI-assisted technologies (such as language models) solely for the purpose of improving language clarity and grammar. The

use of these tools was limited to supporting the writing process and did not contribute to the generation of original research.

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