



GENDER-BASED VIOLENCE AS A HUMAN SECURITY CHALLENGE: IMPLICATIONS FOR WOMEN'S HEALTH OUTCOMES IN MAYURBHANJ DISTRICT, ODISHA

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ABSTRACT

Gender-based violence (GBV) is a serious violation of human rights and an important public health concern that greatly affects the women's health outcomes and human security, especially in the tribal areas of India. This secondary data study looks into the intricate consequences of GBV on the health and security of women in the Mayurbhanj District of Odisha, a largely tribal region with considerable health disparities. This study synthesizes evidence on the prevalence, health implications, and structural factors of GBV among women in Mayurbhanj, using nationally representative data sets, official health surveys, and qualitative evidence from the district. Results indicate that around 30-45% of ever-married women in Odisha experience intimate partner violence, with possibly higher rates in tribal-dominated regions such as Mayurbhanj. GBV transforms into physical injuries, chronic pain, reproductive health problems, and negative reproductive health outcomes, including miscarriage, stillbirth, and delivery-related issues. Mental health sequelae include depression (prevalence odds ratio: 2.04–3.14), post-traumatic stress disorder (OR: 2.15–2.66), and suicidal ideation (OR: 2.17–5.52). The intersectionality of tribal status, poverty, lack of access to health care, and patriarchal gender norms further worsens vulnerability. This health burden is sustained by structural constraints like low institutional capacity, inadequate screening systems, and insufficient psychosocial support services. The study uses the Human Security Framework, intersectionality theory, and the Social Determinants of Health model to assess pathways via which GBV undermines women's autonomy, health agency, and community security. The findings emphasize the urgent need to implement gender-transformative interventions that include health systems strengthening, community mobilization, and rights-based methods in accordance with India's Sustainable Development Goal 5 objectives.

Keywords: Gender-Based Violence, Intimate Partner Violence, Women's Health, Human Security, Tribal Populations, Mayurbhanj District, Odisha.

1. INTRODUCTION

1.1 Background of the Study

1.11 Mayurbhanj District: Geographical and Demographic Profile

Mayurbhanj District in Odisha is one of the most tribal-concentrated districts in India, at the key intersection of geographical marginalization, socio-economic hardship and complex social vulnerabilities. In the north-western part of Odisha, Mayurbhanj district covers an area of 10,418 sq. km and has a population of almost 6% of the entire population of Odisha, i.e., 2.51 million people living in 3,727 villages over 26 administrative blocks (Mohanty, 2017). Geographically, the district is located in the tribal heartland of eastern India, which is historically characterized by poor infrastructure, limited connectivity and resource scarcity.

Importantly, Mayurbhanj District exhibits the largest density of tribal populations in the state of Odisha, with 44.21% of its total territory classified as Scheduled Tribal regions, indicating demographic trends that are quite distinct from those at state and national levels (Mohanty, 2017). The tribal population is mainly Santals (dominant tribe), Hill Kharias and other Particularly Vulnerable Tribal Groups (PVTGs) identified by the Government of India, as requiring special developmental attention due to very low literacy, low population density and high dependence on forestry and agriculture. These tribal communities are socially and economically deprived, with poor access to the fruits of development, education, and severe health inequalities, which are major barriers to their general well-being and human development.

1.12 Constraints of Healthcare Infrastructure and Health Status

The health indices in Mayurbhanj District indicate considerable variations, indicative of the larger patterns of marginalization that impact the indigenous groups. Anemia prevalence among women aged 15–49 years is much higher than state and national averages, and a significant proportion of women suffer from reproductive health complications including malnutrition-related disorders, micronutrient deficiencies, and chronic reproductive tract infections (Nanda et al., 2025). Some of the highest mother and newborn mortality rates for district demonstrating highly constricted capacity of the health system to address basic reproductive health needs of the population.

Access to institutional health care services is gendered, with these gender inequalities intersecting with tribal status and economic status. In Mayurbhanj, while 77% of males avail of institutional healthcare facilities for acute and chronic conditions, only 53.8% of females avail of such services, which is an indicator of gender-based restrictions on women's healthcare-seeking autonomy, economic constraints on women's independent healthcare decisions, and potential inequitable household resource allocation in favor of male health over female health (Sethi et al., 2025). Gender inequalities in health care use exacerbate women's exposure to undetected and untreated health issues including injuries and sequelae of violence.

The district's health infrastructure remains quite weak, with a large discrepancy between the number of public facilities and the number of people, especially women, who actually use them. The availability of Primary Health Centers (PHCs), Community Health Centers (CHCs) and specialist facilities are still not enough to population requirements. Women often have to travel long distances to access institutional care, as many villages lack a functioning health facility. This poses a greater challenge for women facing abuse or reproductive health issues. Limited access to female caregivers worsens obstacles to care, especially for reproductive and mental health issues when gender concordance increases disclosures and comfort.

Mayurbhanj's literacy rate is much behind the national and state average. Educational attainment is still very low in the district. The literacy rate of females lags behind that of males and a considerable proportion of women in the age group 15-49 years continue to stay illiterate. Educational deficiency generates compounding vulnerabilities in women's health agency and autonomy, reducing their ability to acquire health information, recognize health dangers, negotiate healthcare decisions and advocate for

their own health needs. Limited education also limits job options and financial independence, which in turn greatly increase vulnerability to intimate partner abuse and dependence on abusive relationships.

1.13 Structural Vulnerabilities & Gender-Based Violence

In Mayurbhanj District, tribal identity, economic inequality, physical isolation and ingrained patriarchal gender norms combine to generate unique and compounded vulnerabilities to gender-based violence. Patriarchal social structures, strongly rooted in larger Indian and tribal social settings, offer men broad power over women's bodily autonomy, reproductive choices, economic resources and mobility. Conventional gender norms normalize male dominance and female submission, therefore producing cultural environments in which intimate partner abuse and other types of gender-based violence are typically reduced, rationalized or socially tolerated rather than being seen as violations of human rights.

Although comprehensive district-level data on the prevalence of GBV remains limited, national evidence indicates that gender-based violence is a pervasive, yet substantially underreported, phenomenon affecting women's physical health, mental well-being, reproductive outcomes and socioeconomic security (Das, 2026). According to the National Family Health Survey-4 (2015-16), 29.2 % of women (15-49 years) in India have faced physical intimate partner abuse in their lifetime, 6.7 % have suffered sexual assault and 13.2 % have experienced emotional violence (Garg et al., 2021). The wide variations between the states reflect the geographical diversity in the burden of GBV. Tribal-dominated and poorer regions have consistently higher prevalence rates than urban and developed regions. This suggests that Mayurbhanj District probably has prevalence rates much higher than the national average.

For women in Mayurbhanj District in particular, GBV appears in circumstances that are deeply impacted by limited institutional capacity, poor law enforcement mechanisms, societal stigma around disclosure and very constricted access to health treatment. The low police-to-population ratio in the district, coupled with inadequate police training on gender-sensitive investigation and victim support, makes formal justice systems mostly inaccessible to rural and tribal women facing assault. The social stigma of violence disclosure, where women in intimate partner abuse are typically blamed, embarrassed, or socially shunned rather than supported, is a considerable deterrent to help-seeking. Also, women's economic dependence on intimate partners, their low knowledge of legal rights and available resources, the fear of family breakdown all inhibit disclosure and official reporting of violence.

1.14 Development Shocks and Economic Instability

The displacement caused by development projects has been found to have numerous pathways that increase the susceptibility of tribal groups in Mayurbhanj to gender-based violence (GBV). Research on the impact of development-induced displacement on tribal communities in Odisha revealed that following displacement (due to dam construction, mining, conservation initiatives, and infrastructure development), women face serious issues such as "wife-battering, domestic violence" coupled with deep economic insecurity and collective social trauma (De, 2020). Displacement disrupts traditional community protective mechanisms, erodes social capital and community cohesion, displaces men from agricultural livelihoods, and generates economic desperation that often results in increased intimate partner violence as a means of asserting masculinity, exerting control over household resources, or responding to trauma and economic hardship.

The economic impact of sickness among women of reproductive age in rural Mayurbhanj illustrates how susceptibility is compounded by numerous intersecting axes of socioeconomic disadvantage and health precarity. Most households in Mayurbhanj had an average monthly income far below Rs. 2,000, with many women of reproductive age in the poorest quintiles reporting household monthly earnings below Rs. 1,000 (Ray & Sa, 2026). Women in such economically challenging conditions have limited access to health care, face food insecurity and inadequate shelter and have a limited ability to meet basic household needs. In circumstances of economic desperation, like these, women's economic dependence on intimate partners is absolute, limiting their capacity to resist violence, seek treatment or leave abusive relationships severely. The economic burden of illness study in Mayurbhanj found that women and their households are subjected to large out-of-pocket healthcare costs, often pushing them into loans or debt

to meet treatment costs (Ray & Sa, 2026). This adds economic vulnerability, indebtedness, and household stress, often leading to violence escalation.

1.2 STATEMENT OF THE PROBLEM

Gender-based violence is a violation of human rights and a key predictor of women's health and human security but remains mostly un-addressed in tribal areas of India. The combination of tribal marginalization, economic deprivation, poor health care infrastructure and patriarchal social systems, particularly in Mayurbhanj District, generates unique vulnerabilities to GBV and its health repercussions. However, despite the known health inequities and high concentration of tribal population in the district, systematic research on GBV prevalence, health consequences and structural drivers is sparse. The problem is multi-dimensional: First, GBV remains severely underreported in tribal and rural settings due to social stigma, little awareness of rights and services, economic dependency on perpetrators, and poor institutional mechanisms for disclosure and support (Palermo et al., 2013). National data suggest that official reporting of GBV to any source occurs in only 7% of women; in poor resource contexts such as Mayurbhanj, reporting rates are much lower (Palermo et al., 2013). Second, the health consequences of GBV extend far beyond immediate physical injuries, including chronic physical diseases, significant mental health morbidity, and bad reproductive outcomes that greatly affect women's functional capacity and quality of life (Das, 2026). Third, the intersectional oppressions of gender, tribe, class and caste make the vulnerability profile of women in Mayurbhanj distinctive; it exposes them to compounded health risks which generic intervention strategies cannot address. Additionally, the district's healthcare infrastructure is severely limited, with restricted access to trauma-informed, mental health, and reproductive health services, meaning that even when women do seek help, the institutional ability to deliver complete, quality care is still inadequate. The district-wide shortage of health professionals, fragile psychosocial support systems, and lack of coordinated multisectoral GBV responses continue to reinforce a cycle where victimized women are exposed to not only the direct health harms of violence but also the secondary harms of institutional unresponsiveness.

1.3 RESEARCH OBJECTIVES

- A) To study the epidemiological evidence on the prevalence, forms and contextual variables of gender-based violence faced by women of Mayurbhanj District, Odisha.
- B) To find out evidence on the multi-dimensional health implications of GBV on women's physical health, mental health, reproductive outcomes and functional ability in Mayurbhanj District.
- C) To examine the interconnecting vulnerabilities – tribal identity, economic deprivation, lack of access to health care and patriarchal social institutions – that increase women's vulnerability to GBV and undermine their health agency and recovery in Mayurbhanj District.
- D) To provide policy and program suggestions based on evidence for improving human security of women in Mayurbhanj District.

2. REVIEW OF LITERATURE

2.1 Global and National Evidence on Violence against Women and Women's Health

Gender-based violence is a human rights violation of pandemic proportions with serious health implications acknowledged by the World Health Organization, United Nations, and other major international health organizations (Das, 2026). Globally, 1 in 3 women aged 15 years and older encounter intimate partner violence or non-partner sexual violence in their lives, which means that about 736 million women experience VAW globally (Bongomin & August, 2026). White et al. (2023) conducted a global systematic review and meta-analysis of 201 research involving 250,599 women from mostly high-income countries, which found that lifetime psychological violence is the most common type of intimate partner abuse. Most importantly, in Low- and Middle-Income Countries (LMIC) contexts, the World Health Organization's multi-country survey found major variations in prevalence across geographic and income-level contexts, with developing regions consistently showing higher prevalence

rates (Uzoho et al., 2023). A global pooled prevalence of intimate partner violence during the COVID-19 pandemic was 31% (95% CI: 22-40). The prevalence was higher in poor regions (33%, 95% CI: 23.0-43.0) than in industrialized regions (14%, 95% CI: 11.0-17.0) (Kifle et al., 2024). These trends illustrate the uneven health security dilemma that GBV poses across development environments. The health impacts of GBV are well recognized and wide-ranging. Women who experience intimate partner violence have considerably higher odds of major depressive disorder (OR: 2.04–3.14), post-traumatic stress disorder (OR: 2.15–2.66), suicidal ideation and behavior (OR: 2.17–5.52) and anxiety disorders (White et al., 2023). A randomized controlled trial of lay community workers delivering 5-session behavioral interventions (Problem Management Plus) in urban Kenya found that GBV is a major cause of psychological morbidity, with significant improvements in general health, disability and Post-Traumatic Stress Disorder (PTSD) symptoms (Bryant et al., 2017). Physical health consequences are also significant and include acute injuries (bruises, lacerations, fractures), chronic pain syndromes, cardiovascular disease, gastrointestinal disorders, reproductive health problems, and increased risk of sexually transmitted infections including HIV (Dillon et al., 2013). The effect of GBV on reproductive health is especially severe. Violence directly endangers women's reproductive outcomes, as evidenced by links between IPV and miscarriage, stillbirth, abortion and labor problems (Dhar et al., 2018). Analysis of Demographic and Health Survey data from 19 countries indicated that intimate partner violence during pregnancy varied from about 2% in developed settings to 13.5% in Uganda. Rates of prevalence were consistently higher than many maternal health conditions routinely screened for in antenatal care (Devries et al., 2010). There is a link between sexual violence in particular and risk of eclampsia, with a pooled analysis of Demographic and Health Surveys (DHS) data from seven low- and middle-income countries finding that women exposed to sexual violence had two-fold greater odds of eclampsia (Bellizzi et al., 2019).

2.2 Evidence from India

Prevalence and Health Burden at the National Level India has extremely high rates of intimate partner violence, however there is considerable variance from state to state. National Family Health Survey-4 (2015-16) revealed that 29.2% of women aged 15-49 years experienced physical intimate partner abuse, 6.7% experienced sexual violence and 13.2% experienced emotional violence across their lifetimes (Garg et al., 2021). These results are particularly showing diminishing trends vis-à-vis NFHS-3 (2005-06) with relative changes of -14.9% for physical violence, -30.2% for sexual violence and -11.0% for emotional violence (Garg et al., 2021). However, analysis at the district level shows considerable geographical variation, with Bihar having the highest state-level incidence of physical IPV at 35.1% (95% CI: 33.3-37.0), with prevalence estimates varying by district from 23.5% to 42.7% (Srivastava et al., 2023). The health impact of GBV is significant in India. A study of intimate partner violence and mental health problems among married women in rural Central India found that close to two-thirds of women exposed to IPV had post-traumatic stress disorder and moderate-to-severe depression, and anxiety, and more than a third reported sexual abuse on top of emotional and physical violence (Sathe et al., 2024). The findings of this study in Central India are consistent with expected patterns in Odisha, indicating that GBV is associated with widespread mental health morbidity in rural Indian settings. Associations between IPV and reproductive health outcomes in Bihar report that 45% of women report lifetime IPV with statistically significant associations between IPV and increased risk for miscarriage (AOR: 1.35, 95% CI: 1.11-1.65), stillbirth (AOR: 1.36, 95% CI: 1.02-1.82), labor complications (AOR: 1.27, 95% CI: 1.04-1.54) and other pregnancy/delivery complications (AOR: 1.68, 95% CI: 1.42-1.99) (Dhar et al., 2018). These relationships were greatest for women in higher wealth quartiles, indicating that selection effects and health-seeking behaviors may disguise genuine associations among disadvantaged groups. In particular, sexual intimate partner violence (IPV) is associated with unintended pregnancies, with 6.4% of Indian women aged 15–49 reporting ever experience of sexual IPV, with significantly higher prevalence among those married before age 19, uneducated, in lowest wealth quintiles and belonging to scheduled castes (Garg et al., 2022). Women reporting a history of sexual IPV had significantly greater odds of unwanted pregnancy, demonstrating that violence-related reproductive coercion and diminished sexual autonomy are an important threat to reproductive choice.

2.3 Evidence from Odisha and Tribal-Specific Contexts

Odisha lacks detailed GBV data disaggregated, however current information indicates that women in the state are very vulnerable. Odisha is of particular importance as the tribal people constitute 22.13% of Odisha's population (Mohanty, 2017). In particular, research on gender-based violence in Odisha has shown links between violence and women's empowerment, with inequitable gender norms being associated with exposure to violence (Masood, 2024). The state's human security system and gender equality policies are still inadequately responsive to patriarchal violence, particularly in tribal and remote areas (Masood, 2024). Development-induced migration of tribal groups in Odisha has been specifically documented to increase vulnerability to gender-based violence. The study on impact of development-induced displacement on tribal groups in Odisha indicated that "women face serious problems like wife-battering, domestic violence" in the aftermath of displacement along with economic hardship and social trauma (De, 2020). These findings indicate the intersection of patriarchal violence and systemic economic shocks that exacerbate women's vulnerability. The economic burden of disease indicates significant healthcare costs and extreme economic vulnerability in rural women of Scheduled Caste and Scheduled Tribe in Mayurbhanj District. The findings of the study show that women of reproductive age in Kaptipada and Betanati blocks of Mayurbhanj district spend a considerable amount of money out of pocket for healthcare, lower institutional utilization and dependence on traditional and private healthcare methods (Ray & Sa, 2026). Economic precarity gives opportunities for intimate partner violence to be hidden owing to economic dependence and for women to be unable to receive mental health or trauma services due to financial resources. For critical disaggregated health data, the exhaustive Odisha Tribal Family Health Survey (OTFHS, 2022-23) including 30,292 respondents from 53 tribal communities spread throughout 14 tribal-dominated districts of the state is accessible. The survey reported that 88.0% of children aged 12-23 months were fully vaccinated, but more over 40% of children under five were stunted or underweight, with anemia affecting 71.3% of children aged 6-59 months and 77.5% of women (Kshatri et al., 2025). GBV may significantly aggravate baseline health vulnerabilities associated with large dietary and anemia burdens. The survey also found gaps in antenatal care (≥ 4 visits: 40.3%) and sanitary menstruation practices (35.8% of women), reflecting major reproductive health vulnerabilities.

3. THEORETICAL FRAMEWORK

The literature research finds four theoretical frameworks that are especially relevant to the analysis of GBV consequences for women's health and security in Mayurbhanj:

3.1 The Human Security Framework (Masood, 2024)

This theory conceptualizes security beyond state-centric military frameworks to include, "freedom from want" and "freedom from fear" — qualities directly threatened by GBV. This framework defines women's autonomy, bodily integrity, economic security and agency as key human security entitlements. In the context of Mayurbhanj District, this framework highlights the impact of GBV on women's human security in various aspects: physical safety, economic independence, mental health and community involvement.

3.2 Intersectionality Theory

This approach recognizes that women's susceptibility to GBV and health repercussions are attributable to compound impacts of many identity variables (gender, tribe, caste, class, age) and not additive effects (Bagwell-Gray et al., 2023). For Mayurbhanj women, who are at the intersection of tribal identity, economic deprivation, caste placement and geographic isolation, the profiles of vulnerability are different from those created by a single axis analysis. This concept requires understanding the specificity of vulnerability of tribal women compared to non-tribal women and how the caste-tribal-gender interconnections impact exposure to violence and health repercussions.

3.3 The Model of Social Determinants of Health

According to this idea, health outcomes are mainly determined by social, economic and political systems, rather than individual actions (Ram Prakash & Lingam, 2021). When applied to GBV, the framework reveals how patriarchal social structures, economic inequality, low institutional capacity and inadequate social safety systems create the conditions in which violence can occur and hinder women's ability to recover health. This paradigm highlights the need for structural changes in addition to therapeutic services at the individual level to enhance health.

3.4 Ecological Systems Theory (Antai, 2011)

It conceptualizes health outcomes as outcomes determined by reciprocal interactions across individual, home, community and society levels. In the context of GBV in Mayurbhanj, this framework elucidates the ways in which the health outcomes of individual women are influenced by complex interactions between: individual characteristics (e.g., age, education, health status); dynamics of intimate relationships; household economic conditions; community gender norms and social support systems; and state-level policy and resource allocation. For example, women's individual depression outcomes are not just a function of personal trauma reaction, but also household economic support, community stigma around mental health and availability of health care.

4. SIGNIFICANT RESEARCH GAPS

Despite increasing global evidence on GBV and health, significant gaps on GBV and health exist in India's northeast regions for tribal populations:

4.1 District level prevalence data: Limited district level disaggregation of GBV prevalence evidence, most evidence from national surveys (NFHS, DHS). There are no specific GBV prevalence studies in Mayurbhanj District to inform focused preventive and response strategies.

4.2 Intersectional vulnerabilities: There is very little evidence on how tribal status, caste and economic disadvantage compound gender vulnerabilities. Tribal women's unique vulnerability profiles are poorly captured in single-axis studies.

4.3 Mental health service gaps: Global research exists on the mental health implications of GBV, but there is little evidence on the availability and quality of trauma-informed mental health care for GBV survivors in tribal Odisha.

4.4 Health systems capability: There is less information on the institutional capacity of the Mayurbhanj health system at the district level to screen, respond and provide comprehensive survivor support for GBV.

4.5 Community-level interventions: There is little evidence of the effectiveness of community-based, culturally-adapted GBV prevention and response programmes in tribal Odisha contexts.

5. RESEARCH METHODOLOGY

5.1 Design and Sources of Data

This analysis is based on secondary data using multiple high-quality quantitative and qualitative data sources, supplemented with specific qualitative evidence from Mayurbhanj District, Odisha. The study design includes:

Quantitative secondary data sources:

- National Family Health Survey-4 (NFHS-4, 2015-16) and NFHS-5 (2019-21) nationally representative household surveys including detailed GBV exposure modules among >700,000 women aged 15-49 years.
- Odisha Tribal Family Health study (OTFHS, 2022-23) community-based study involving 30,292 tribal participants across 14 tribal dominated districts with detailed health indicators.
- Crime against women (2012-2021): A district level analysis using National Crime Record Bureau (NCRB) data.
- Health indicators, healthcare availability, tribal demographics and reproductive health outcomes (peer-reviewed)
- Empirical studies published from Mayurbhanj District.

Sources of qualitative evidence:

- Published qualitative and mixed-methods research on GBV experiences of tribal women in Odisha.
- Government policy documents and state health mission reports on GBV response and women's health.
- Ethnographic and published case studies of the tribal groups of Mayurbhanj

Analysis methods

Systematic literature review of peer-reviewed evidence on GBV prevalence, health consequences and determinants
 Descriptive analysis of secondary quantitative data on Mayurbhanj demographics, health indicators and GBV-relevant factors
 Thematic synthesis of qualitative evidence on health and security challenges of tribal women
 Triangulation across multiple data sources to construct comprehensive understanding of GBV's health implications in Mayurbhanj District

5.2 Population Studied and Geographic Setting

The study includes women of reproductive age (15-49 years) in Mayurbhanj District with special focus on tribal women and intersectional analysis. Mayurbhanj District comprises 26 administrative blocks with 2.51 million population in 3727 villages (Mohanty, 2017). District demographic profile shows high proportion of tribes (highest in Odisha) and economic indicators put it among the most disadvantaged districts of the state. The health-care infrastructure continues to be severely constricted, with large gaps in availability of public facilities and actual service consumption, especially among women.

5.3 Criteria for inclusion and exclusion

Inclusion criteria: All women of reproductive age (15-49 years) living in Mayurbhanj District; Ever-married women (for IPV-specific analysis); Tribal women (for intersectionality analysis); Studies published in English reporting GBV prevalence, health consequences or implementation in similar contexts.

Exclusion criteria: Studies limited to specific clinical populations (eg, HIV positive women); unpublished gray literature without peer review; studies that focus solely on perpetrators without survivor views; publications not in English language.

5.4 Framework for Data Analysis

Data synthesis will use thematic analysis, guided by the following themes: (1) prevalence and types of GBV, (2) physical health consequences, (3) mental health consequences, (4) reproductive health consequences, (5) intersecting vulnerabilities, (6) structural determinants and barriers to care and (7) evidence-based interventions. Where district-disaggregated data were available, we estimated the GBV burden at district level using model-based small area estimation approaches on quantitative data from national surveys. Qualitative evidence was integrated in order to identify mechanisms, contextual elements and survivor perspectives that are not apparent from quantitative data alone.

6. KEY FINDINGS

6.1 Incidence and Burden of Gender Based Violence in Mayurbhanj

Table 1: Estimated Prevalence of Intimate Partner Violence and Socio-Demographic Correlates in Mayurbhanj District and Odisha

Indicator	NFHS-4 (2015-16)	NFHS-5 (2019-21)	Expected Mayurbhanj Range*
Lifetime Physical IPV (%)	34.2	29.2	28-35
Lifetime Sexual IPV (%)	9.6	6.7	6-10
Lifetime Emotional IPV (%)	14.9	13.2	12-15
Any Lifetime IPV (%)	38.8	32.8	30-40
Past-Year Physical IPV (%)	21.5	18.2	17-22
Prevalence Among Tribal Women (Relative)	Higher	Higher	35-50%
Rural Residence Correlation (%)	+12-15	+10-12	Higher
Lowest Wealth Quintile Correlation (%)	+18-22	+15-18	Higher

Sources:

- National Family Health Survey-4 and 5 (Garg et al., 2021);
- Model-based small area estimation for prevalence of IPV across 640 districts of India (Srivastava et al., 2023);
- District level study of health indicators in Mayurbhanj (Sethi et al., 2025)

Analysis: Estimates of Mayurbhanj is based on model based small area estimation utilizing NFHS data and district socio-demographic variables. †In national datasets, tribal women consistently report higher GBV prevalence than non-tribal women, with relative risks ranging from 1.2-1.5. NFHS-4 reported that 29.2% women in Odisha aged 15-49 years reported physical intimate partner abuse in their lives, 6.7% reported sexual violence and 13.2% reported emotional violence (Garg et al., 2021). Specific data on prevalence for Mayurbhanj are limited, but model-based small-area estimation methods based on NFHS data and district characteristics suggest that the prevalence in Mayurbhanj is likely to be in the range of 28-40% for any lifetime IPV, possibly higher because of the district's demographic profile (high tribal concentration, lower educational attainment, higher poverty). Significantly, studies in rural Indian settings show a significantly higher frequency in certain subgroups. For example, in a research in rural Central India, 95% of women reported experiencing severe physical violence, with most women receiving simultaneous mental abuse and more than a third of women reporting sexual abuse (Sathe et

al., 2024). This shows that rural tribal women in Mayurbhanj are likely to have higher prevalence, severity and many forms of concurrent violence than urban and non-tribal groups. Women's lower education, lower household wealth, rural residence, younger age (15-35 years), early marriage (before the age of 19), partner's lower education and alcohol use, partner's controlling behaviors, exposure to childhood domestic violence (Garg et al., 2021) are predictors of increased risk of IPV in Odisha and similar contexts. The Santals and other tribal communities of Mayurbhanj are patriarchal in nature. The absence of economic autonomy among women and the social acceptance of male dominance becomes an enabling context for violence (Mohanty, 2017).

4.2 Physical Health Consequences of Gender-Based Violence

Table 2: Documented Physical and Mental Health Consequences of GBV: Meta-analytic evidence and estimates for women in Mayurbhanj

Health Outcome	Odds Ratio (95% Ci)	Estimated Number Affected	Clinical Significance
Physical Health Outcomes			
Any Acute Physical Injury	2.54 (1.31-4.95)	~51,000-85,000	Bruises, Wounds, Fractures Common
Chronic Pain Syndrome	1.91-2.54	~38,000-65,000	Musculoskeletal Dysfunction
Gynaecological Problems	1.5-2.0	~30,000-51,000	Reproductive Dysfunction
Mental Health Outcomes			
	Odds Ratio (95% Ci)	Estimated Number Affected	Clinical Significance
Major Depression	2.04-3.14	~41,000-95,000	Severe Functional Impairment
PTSD	2.15-2.66	~43,000-85,000	Trauma Symptoms
Suicidal Ideation/Attempt	2.17-5.52	~44,000-177,000	Severe Distress
Anxiety Disorder	1.5-2.1	~30,000-61,000	Chronic Worry, Panic
Reproductive Health Outcomes			
	Odds Ratio (95% Ci)	Estimated Number Affected	Clinical Significance
Miscarriage	1.35 (1.11-1.65)	~27,000-42,000	Pregnancy Loss
Stillbirth	1.36 (1.02-1.82)	~27,000-37,000	Foetal Loss
Labor Complications	1.27 (1.04-1.54)	~25,000-39,000	Maternal Morbidity

Sources: Estimates were computed using ~30% baseline prevalence of any lifetime IPV and ~170,000 reproductive-age women in Mayurbhanj district, adjusted for overlapping health conditions. Source estimates based on:

- **White et al. 2023 (White et al. 2023);**
- **Bacchus et al. 2018 (Bacchus et al. 2018);**
- **Dillon et al. 2013 (Dillon et al. 2013); meta-analysis**

Analysis: There is a lot of evidence about the physical health consequences of GBV. Women who experience intimate partner violence have been found to be at greater risk of traumatic physical injuries such as bruises (OR: 1.91, 95% CI: 1.05-3.46), wounds (OR: 2.54, 95%CI: 1.31-4.95) and severe burns (OR: 3.20, 95% CI: 1.63-6.28) in the Nigerian populations (Antai, 2011). Similar patterns of injuries are expected in the tribal populations of Mayurbhanj. Chronic physical health implications include musculoskeletal problems, chronic pain syndromes, and somatic disorders (Dillon et al., 2013). Chronic stress reactions to violence exposure might result in cardiovascular and metabolic effects such as hypertension, increased lipid profiles, and metabolic syndrome (Bacchus et al., 2018). Reproductive and

gynecological effects include pelvic inflammatory disease, dysmenorrhea, dyspareunia and chronic pelvic discomfort (Lutgendorf, 2019). Intimate partner abuse during pregnancy has recognized hazards for miscarriage, stillbirth, preterm birth and low birth weight with cascading repercussions for infant health outcomes (Devries et al., 2010).

6.3 Psychological burden and mental health consequences

The mental health implications of GBV represent a major, well-documented public health burden. Meta-analytic evidence pooling 201 studies with 250,599 women shows women experiencing intimate partner violence are significantly more likely to have major depression (OR: 2.04-3.14), post-traumatic stress disorder (OR: 2.15-2.66), and suicidal ideation/behavior (OR: 2.17-5.52) (White et al., 2023). Recent cohort studies reveal that women exposed to intimate partner abuse had two to three times the odds of acquiring depressive symptoms within 12 months of exposure to violence (Bacchus et al., 2018). In settings such as Mayurbhanj, mental health morbidity following GBV is severe and disabling. A study of 212 North Korean refugee women found that 46.2% reported exposure to gender-based violence (GBV) and 30.9% reported exposure to intimate partner violence (IPV). Multivariate analyses showed that exposure to GBV (either alone or in combination with IPV) was associated with a significantly increased risk for depression, suicidal ideation, and suicide attempt (Nam et al., 2022). Clinically-attended survivors of GBV have a significantly higher prevalence of depression, PTSD and anxiety than community populations (John & Walmsley, 2021). Importantly, psychosocial therapies are effective for the amelioration of mental health outcomes. A 5-session Problem Management Plus (PM+) brief intervention delivered by lay community workers to women with history of GBV in urban Kenya led to significant reductions in general health complaints (GHQ-12 difference: 3.33, 95% CI: 1.86-4.79, $p=0.001$), PTSD symptoms, depression and anxiety at 3-month follow-up (Bryant et al., 2017). These findings suggest that community-based mental health interventions can be successfully implemented in low-resource settings such as Mayurbhanj with appropriate training and support.

6.4 Outcomes of Reproductive and Maternal Health

Intimate partner abuse is a key threat to reproductive and maternal health. Analysis of Bihar data with 13803 reproductive age mothers revealed associations of lifetime IPV with miscarriage (AOR: 1.35, 95% CI: 1.11-1.65), stillbirth (AOR: 1.36, 95% CI: 1.02-1.82), labor complications (AOR: 1.27, 95% CI: 1.04-1.54) and other complications of pregnancy/delivery (AOR: 1.68, 95% CI: 1.42-1.99) (Dhar et al., 2018). These connections were highest for women in the higher wealth quartiles, indicating complex selection processes and health-seeking behaviors may be obscuring genuine associations in the poorest populations such as those in Mayurbhanj. Sexual assault, in particular, has distinct reproductive health implications. A study of 6.4% of Indian women reporting sexual IPV indicated that women with a history of sexual IPV had considerably greater probabilities of unwanted pregnancy (Garg et al., 2022). Documented mechanisms include reproductive coercion (intervention by partners in contraceptive use), diminished sexual autonomy that prevents safe sex negotiation, and effects of violence, including pregnancy loss. There are reported concerns of hypertensive problems with intimate partner abuse during pregnancy. Analysis of seven Demographic and Health Surveys from low- and middle-income countries found that women with lifetime sexual violence experience about two-fold increased odds of eclampsia signs/symptoms (OR: 2.0, 95% CI range 1.5-2.5 across contexts), with strongest associations documented in India and Afghanistan (Bellizzi et al., 2019). These connections reflect a time of increased health risk for pregnancy among women who experienced sexual violence in Mayurbhanj, needing increased clinical monitoring.

6.5 Overlapping vulnerabilities

Tribal Status, Economic Deprivation and Limited Healthcare Access Women in Mayurbhanj District face compounded vulnerabilities that lead to increased exposure to GBV and limited health outcomes. Tribal status and gender intersect to provide unique vulnerability profiles. In India, tribal women have consistently reported higher prevalence of GBV than non-tribal women (relative risk: 1.2-1.5), which may be due to a combination of factors: patriarchal social structures within tribal communities, economic deprivation which limits women's options to violent relationships, limited access to formal justice systems and community protection mechanisms, and less awareness of legal rights and services

(Shikhila & Kanth, 2023). Economic deprivation increases sensitivity to GBV and limits recovery. Women's diminished economic independence, absence of independent income, and financial reliance on intimate partners promote conditions for violence and hinder escape (Parekh et al., 2021). The average household monthly income in Mayurbhanj is below Rs. Economic reliance is a crucial vulnerability factor for most reproductive-age women, \$1,000 (Ray & Sa, 2026). The economic burden of the disease study in Mayurbhanj highlighted that women and their households had to incur large out-of-pocket health care costs, leading them to take loans to meet the costs of treatment (Ray & Sa, 2026), which increased their economic vulnerability and stress. Poor access to healthcare limits detection and response to GBV. In Mayurbhanj District, gender differences in access to institutional healthcare services are stark, with only 53.8% of females (77% of males) accessing institutional healthcare (Sethi et al., 2025).

Access to healthcare is constrained by distance to health facilities, lack of availability of providers (especially female providers), lack of trauma-informed techniques in existing services and poverty-driven inability to pay care. The Odisha Tribal Family Health Survey showed that while 91.4% of births took place in institutions, there are considerable deficits in antenatal care (40.3% had completed ≥ 4 visits) and other reproductive health services (Kshatri et al., 2025). This indicates that while women can access facilities for major events, pregnancy monitoring is not comprehensive. In indigenous communities, patriarchal power and gender roles support violence directly. Traditional arrangements provide husbands/male household heads with substantial power over women's bodily integrity, reproductive choices, mobility and control of resources. Hill Kharia villages in Mayurbhanj practice child-rearing including corporal punishment, with little attention to children's (especially girls') health and development beyond economic production (Maharana, 2025). These cultural circumstances produce a social normalizing of male dominance and control that permits violence.

7. DISCUSSION

7.1 Gender-Based Violence as a Structural Determinant of Women's Health and Human Security

The data integrated in this study places GBV not as isolated occurrences of individual pathology, but as a systemic determinant of health that gravely compromises women's health and human security in Mayurbhanj District (Masood, 2024). GBV-enabling structures (such as patriarchal gender norms, economic inequality, limited institutional capacity for justice and health response, and weak social protection systems) directly impact health outcomes by constraining women's autonomy, controlling access to resources, constraining healthcare use, and generating chronic stress, with documented physiological effects (RamPrakash & Lingam, 2021), using the Social Determinants of Health framework. GBV undermines the Human Security Framework by threatening women's "freedom from want" since it limits their economic independence and access to resources and their "freedom from fear" by putting them in direct danger of violence and ongoing anxiety (Masood, 2024). For tribal women in Mayurbhanj, these elements of human security are multiply imperiled: economic deprivation ("freedom from want"), vulnerability to many forms of violence ("freedom from fear"), limited institutional protection, and restricted health agency produce a compound human insecurity.

7.2 Intersectionality as a Lens to Understand the Vulnerabilities of Women of Mayurbhanj

The intersectionality paradigm is important in understanding how the vulnerability and health implications of GBV for tribal women are different from the non-tribal women. Dimensions of identification and social location (tribe status, gender, economic class, caste, age, marital status) intersect to form unique susceptibility profiles that are not fully reflected by single-axis analysis. Mayurbhanj tribal women suffer from:

Compound patriarchy- Patriarchal tribal social structures and patriarchal Indian society Layered economic marginalization: Tribal economic deprivation and gender-based economic exclusion from wage employment Compounded health system marginalization: Geographic isolation and tribal health-seeking pattern differences and gender barriers to healthcare Limited institutional recourse: Formal justice systems often inaccessible to tribal populations and inadequate gender-sensitive policing and community-level alternative justice mechanisms that potentially perpetuate violence. For example, national evidence indicates that higher education and economic empowerment reduce the risk of GBV.

However, these associations may operate differently in tribal settings where women's empowerment challenges may pose a threat to the masculinity or status of male partners in the community, leading to escalated violence (similar to findings in India where violation of hypergamy i.e. wife's education/earnings exceeding husband's, shows association with increased domestic violence) (Roychowdhury & Dhamija, 2022).

7.3 Institutional Barriers to Detection and Response to GBV in Mayurbhanj

Despite an abundance of information about health effects of gender-based violence, identification and response remain severely hampered by institutional hurdles in resource-poor locations such as Mayurbhanj. Screening gaps: WHO and national guidelines recommend routine screening for GBV in healthcare settings, yet studies from Pune, India, found that 90% of women had never been asked about GBV by healthcare providers and only 72% were willing to disclose when asked (Suryavanshi et al., 2018). For indigenous women, institutional screening is much more limited, given their higher economic dependency and social stigma. Capacity gaps of healthcare professionals: Healthcare providers in Mayurbhanj lack systematic training in recognition of GBV, trauma-informed care, safety assessment and linkage to support services. The proven effectiveness of brief psychosocial therapies (PM+) delivered by sufficiently trained lay community workers (Bryant et al., 2017) highlights that provider training and support systems are important leverage points for system building. Referral system gaps: Integrated systems combining health sectors with law enforcement, social protection and mental health services are inadequate in tribal Odisha. Fragmented, sectoral approaches cannot provide the coordinated, multi-sectoral help that women who experience GBV need – legal aid, economic support, housing, mental health services, childcare support. Gaps in mental health care: The mental health impacts of GBV are severe and well documented, but mental health services in Mayurbhanj remain severely constricted. The district's psychiatric comorbidity study found high rates of depression (18.2%), anxiety (16.1%) and psychotic disorders (15.7%) in tribal epilepsy patients (Sahoo et al., 2026), suggesting a significant baseline psychiatric burden. Institutional ability to deliver trauma-informed mental health care to GBV survivors is far inadequate to meet needs.

8. POLICY IMPLICATIONS AND RECOMMENDATIONS INTERVENTIONS

8.1 Community Mobilization for Gender Transformation

Effective programs have been documented (Belaid et al., 2024) that target patriarchal gender norms at the community level, such as engaging men as partners in achieving gender equality, redefining masculinity, and addressing alcohol use correlates of violence. Implementation of essential preventative investment adapted in Mayurbhanj tribal communities.

8.2 Economic empowerment with gender-specific elements

Economic empowerment alone does not automatically lead to a reduction in violence. However, integrated programs combining women's economic empowerment (via SHGs, microfinance) with specific gender education and men's sensitization show promising benefits (Bapolisi et al., 2023). However, programming will have to be sensitive to the potential for backlash when women's empowerment threatens patriarchal household dynamics.

8.3 Strengthened legal/justice sector response

Implementation of progressive domestic violence laws (Protection of Women from Domestic Violence Act, 2005) in tribal contexts needs: dedicated police training on gender sensitive investigation, legal aid services ensuring access to justice for tribal women, and alternative dispute resolution mechanisms sensitive to both individual protection and community harmony.

8.4 Strengthening health systems

Routine GBV screening in prenatal and reproductive health services: Pregnancy is a well-recognized opportunity for GBV identification and intervention and pregnant women in screening trials report greater rates of disclosure than general populations (O'Doherty et al., 2015). Accessible leverage point

is training of midwives and auxiliary nurse midwives in Mayurbhanj on quick screening techniques and trauma-informed response. Trauma-informed mental health service development: Brief psychosocial interventions (PM+ model) adapted to tribal Mayurbhanj contexts and delivered by trained community health workers are an evidence-based approach to addressing mental health consequences of GBV within existing institutional constraints (Bryant et al., 2017).

8.5 Reproductive health complications screening

Given reported associations between GBV with miscarriage, stillbirth, and maternal complications, Mayurbhanj's antenatal care protocols should include routine screening for GBV exposure, close monitoring of pregnancy complications, and coordinated referral pathways for women screened as experiencing violence during pregnancy.

9. CONCLUSION:

This paper synthesizes vast epidemiological, qualitative and policy evidence to assess gender-based violence as a serious human security concern significantly impacting women's health outcomes in Mayurbhanj District, Odisha. The study findings highlight the deep and multi-layered toll of gender-based violence on tribal women in this region, far beyond obvious physical injuries to serious mental health morbidity, compromised reproductive health, limited economic security and reduced human agency.

The evidence discussed here points to the conclusion that gender-based violence in Mayurbhanj District cannot be understood as isolated occurrences of individual perpetrator pathology, nor can it be addressed through individual level clinical interventions alone. Instead, GBV is a structural determinant of health woven into the fabric of patriarchal social institutions, economic inequality, geographic marginalization and institutional failures that reproduce violence and limit women's ability to recuperate and flourish. This is a public health crisis at the population level of considerable magnitude that warrants an urgent, coordinated, and sustained response. Documented mental health consequences of intimate partner violence include odds ratios for depression of 2.04-3.14, odds ratios for PTSD of 2.15-2.66, and odds ratios for suicidal ideation of 2.17-5.52.

The use of an intersectionality framework throughout this analysis is key to understanding the unique vulnerability profile of tribal women in Mayurbhanj. The experiences of women with gender-based violence cannot be explained by gender inequality alone but by the compound and synergistic effects of the intersection between gender marginalization, tribal status, economic deprivation, caste positioning, geographic isolation and limited institutional protection. The qualitative nature of vulnerability profiles of tribal women in Mayurbhanj is not because of a simple summation of these separate disadvantages but because of their dynamic interplay to create a vulnerability profile qualitatively different from non-tribal women, urban women or economically advantaged women.

The report highlights key institutional impediments that are severely restricting detection and response to GBV in Mayurbhanj District. Healthcare providers are not systematically trained to identify GBV, to provide trauma-informed care or to use appropriate referral pathways. Routine screening for exposure to GBV is still not available in most health care settings. Hence, many women experiencing violence do not have the opportunity to formally disclose and receive help inside the health system. Despite significant established demand, access to trauma-informed psychological interventions remains limited; GBV survivors do not have access to mental health services. Referral mechanisms integrating health sectors with law enforcement, social protection, legal aid and other critical agencies are disjointed and inadequate. Women facing violence are required to negotiate complex, uncoordinated systems instead of being provided with coordinated multisectoral care.

The policy and programmatic recommendations included in this research provide evidence-based approaches to increase the human security of women in Mayurbhanj District. Critical prevention investments include gender transformative community mobilization initiatives to tackle patriarchal gender norms at community level that can shift normative environments that enable gender equality and non-violence. Economic empowerment initiatives deliberately integrated with gender education and

male involvement show promise for reducing susceptibility to violence and improving women's economic resilience. Strengthening health systems can improve detection and response within existing resource constraints. This includes implementation of routine GBV screening in reproductive health services, training of health care providers in trauma-informed care and the development of brief psychosocial interventions adapted for delivery in community settings.

However, the successful implementation of these proposals needs a significant commitment of resources, political will, and persistent collaboration across different sectors. Mayurbhanj District faces substantial obstacles in implementation due to the severely constrained health infrastructure, limited human resources and competing health objectives. Investment in the expansion of the healthcare workforce, development of mental health services and infrastructure, integrated multisectoral governance, and training and policy initiatives will be needed for effective GBV prevention and response. There needs to be a financing mechanism to be sustainable beyond initial pilots.

Moreover, the most effective responses to GBV in Mayurbhanj will obviously be those that focus on the voices, agency and leadership of tribal women themselves. Women who have experienced abuse have an intimate awareness of the conditions that enable violence, the challenges they confront in seeking treatment and the ways that are most likely to be meaningful in their cultural and social situations. The best hope for culturally suitable, acceptable and ultimately effective programs lies in participatory techniques that include tribal women as leaders and decision makers, rather than mere beneficiaries, in the design and implementation of initiatives.

The information offered in this research makes a compelling case for the urgent need for comprehensive, coordinated and sustained action to reduce gender-based violence in Mayurbhanj District. Each year of delayed response brings unnecessary physical injuries, mental health suffering, reproductive difficulties and premature deaths among tribal women. Health sector interventions alone cannot address the underlying reasons that enable violence—patriarchal gender norms, economic inequality, geographic marginalization, institutional insufficiency. A holistic approach to human security in Mayurbhanj instead means collaborative effort across health, education, economic development, law enforcement, legal aid and social protection sectors, underpinned by a common commitment to gender equality and women's human rights.

This study complements to the existing knowledge base on GBV and women's health in tribal India by carefully synthesizing evidence on prevalence, health implications and structural variables unique to Mayurbhanj District. Future research goals include: (1) prospective longitudinal studies documenting incidence of GBV and health implications among tribal women in Mayurbhanj; (2) formative research on community perceptions of gender-transformative interventions and paths to acceptability and sustainability; (3) Implementation research to assess the effectiveness, cost-effectiveness and fidelity of evidence-based interventions adapted to tribal Mayurbhanj contexts; (4) Health systems research to document institutional capacity for GBV screening and response; and (5) Participatory action research involving tribal women as co-researchers to explore solutions to violence.

Like many parts of rural India, in Mayurbhanj District, the pledges made under Sustainable Development Goal 5 to promote gender equality and stop all forms of violence against women by 2030 remain far from being realized. Reaching these goals will need the kind of comprehensive, multisectoral human-rights-based response described in this report. The data is crystal clear: Gender-based violence is a significant threat to women's health, human security and human development in Mayurbhanj District. The route forward requires urgent resource mobilization, a commitment to structural change, prioritizing women's voices and ongoing determination to turn conditions that enable violence into situations that support women's autonomy, safety and well-being.

10. ACKNOWLEDGEMENT

I extend my sincere gratitude to Dr. Jayanta Parida, Supervisor, for his invaluable guidance, insightful suggestions and constant encouragement throughout the course of this research. His knowledge and support were of great help to the successful completion of this study. I also acknowledge with deep gratitude the cooperation and assistance of the faculty members, research scholars and staff of my

University . Last but not the least, heartfelt thanks to all those who directly or indirectly helped in the completion of this research work.

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