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SOCIOECONOMIC AND BIOLOGICAL VULNERABILITIES OF SEASONALLY MIGRANT WOMEN BRICK FIELD WORKERS IN BERABERIA, WEST BENGAL

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ABSTRACT

This study investigates the socioeconomic and biological vulnerabilities of seasonally migrant women brick field workers in Beraberia Mouza, West Bengal, India. Using a cross-sectional survey design, 120 women workers from three brick kilns were studied. The findings reveal severe vulnerabilities: 58.82% of women were married before age 15, with 50.75% giving birth within one year of marriage. Occupational hazards are significant, with 46.51% working until their sixth month of pregnancy. Only 17.24% received medical cards for healthcare access, and 81.9% did not utilize free antenatal check-ups. Nutritional assessment showed 30.17% were underweight (BMI <18.5). Adverse birth outcomes were prevalent, with 13.79% experiencing perinatal mortality and 35.4% reporting underweight births. The study also found high rates of occupational diseases, with back pain (23.28%) and muscle pain (14.08%) being most common. The research highlights the urgent need for policy interventions targeting reproductive health access, workplace safety, and nutritional support for this vulnerable population. The findings contribute to the broader understanding of gender-based vulnerabilities in informal labour sectors and can inform targeted interventions for improving maternal and child health outcomes

Keywords: Women Brick Workers, Occupational Health, Reproductive Health, Maternal Health, Seasonal Migration, Socioeconomic Vulnerability

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1. INTRODUCTION

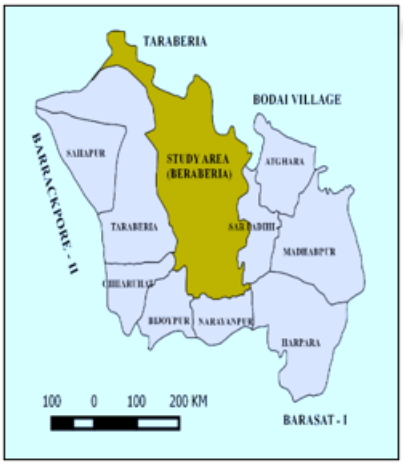
The informal brick kiln industry across South Asia represents a significant sector employing large numbers of seasonal migrant workers, particularly women, under challenging socioeconomic conditions. In India, particularly in West Bengal, brick manufacturing serves as a crucial source of employment for rural migrants, yet it operates largely within the informal sector with limited regulatory oversight. Women workers in this industry face unique vulnerabilities that intersect across multiple dimensions - from occupational hazards to reproductive health challenges.

Despite the substantial body of research documenting labour conditions in South Asian brick kilns, there remains a notable gap in understanding the specific vulnerabilities faced by women workers in West Bengal's brick production hubs. This study focuses on Beraberia Mouza, a significant brick-making region in North 24 Parganas district, to examine women workers' multifaceted challenges. By investigating early marriage patterns, reproductive health access, workplace conditions, nutritional status, and adverse birth outcomes, this research aims to provide comprehensive evidence of the socioeconomic and biological vulnerabilities affecting this population.

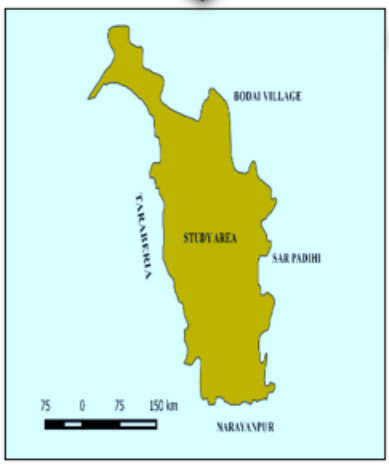
The findings of this study hold particular significance for policymakers, healthcare providers, and labour rights advocates working to improve conditions for women in informal sectors and can inform targeted interventions to address their unique needs.

2. LOCATION OF STUDY AREA

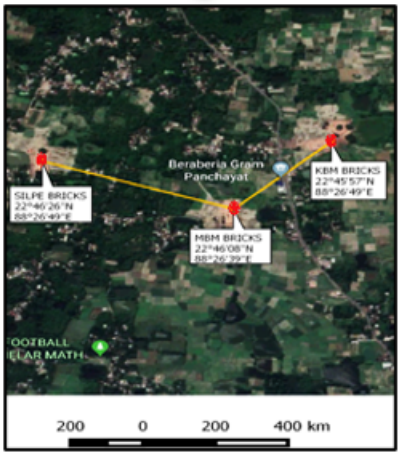
The research was conducted in Beraberia Mouza, situated within the Beraberia Gram Panchayat, Amdanga Tehsil, North 24 Parganas district, West Bengal, India. The area encompasses a total geographical extent of 5.16 square kilometers and is strategically located 12.6 km from the sub-district headquarters of Amdanga and 11 km from the district headquarters at Barasat, which serves as the nearest urban center.



Source: Amdanga Panchayat Samiti and Beraberia Gram Panchyat



Source: Beraberia Gram Panchyat



Source: All three Bricks Fields are marked on Map with the help of Google

The study specifically focused on three brick fields namely KBM BBS, Maha Laxmi Bricks Manufacturers (MBM), and Silpe within Beraberia Mouza. These brickfields were precisely located and mapped using geographical coordinates and Google Earth technology. The brick fields are conveniently accessed via two primary transportation routes: the Duttapukur-Nilgunj road and the Golabari-Nilgunj road, which provide critical connectivity to the area.

The location is characterised by robust transportation infrastructure, with the Golabari-Nilgunj Road facilitating access to Barrackpore, Barasat, and Habra through extensive bus routes. The northwestern segment of Beraberia is additionally traversed by the PMGS road, which extends towards Taraberia, further enhancing the area's accessibility.

3. LITERATURE REVIEW

The informal brick kiln industry across South Asia employs a significant proportion of migrant labour under challenging working conditions and socioeconomic vulnerabilities (Sarkar, 2013; Fell, 2018). Women constitute a crucial yet disadvantaged subset, facing distinct burdens perpetuating across generations (Huda et al., 2022). While studies have documented gender vulnerabilities in brick kiln employment in Nepal, Pakistan, and certain Indian states (Joshi et al., 2013; Ali et al., 2020; Khan et al., 2022), evidence from West Bengal's brick production hubs employing seasonal migrants remains limited.

Child marriage is pervasive among these communities, driven by poverty, lack of education, and regressive gender norms (ICRW, 2011; Jahan, 2012). High rates of marriage before age 18 culminate in adolescent pregnancies, elevating risks like obstetric complications, low birth weight, preterm birth, and infant/maternal mortality (Joshi et al., 2013; Ali et al.,

2020; UNFPA, 2013). Utilization of reproductive health services like family planning, prenatal care, and skilled birth attendance is low among migrant brick kiln workers (Subramanian et al., 2014; Malmstrom, 2019). Financial constraints, mobility barriers, linguistic differences, and lack of outreach programs impede access (Sheikh et al., 2015; Suresh et al., 2016). Poor health literacy restricts the adoption of birth spacing, safe delivery practices, and childhood immunizations (Kushwaha et al., 2019).

Brick production involves strenuous labour, dust/smoke exposure, and ergonomic hazards, compounded during pregnancy (Sett & Sahu, 2014; Hossain et al., 2021). Yet, workplace policies accommodating prenatal needs like reduced workloads, alternative duties, or paid leave are inadequate (Huda et al., 2022). Continued engagement in hazardous tasks increases the risks of miscarriage, premature births, low birth weight, and perinatal mortality (Muttahara et al., 2019; Sohel et al., 2022). Migrant workers face high food insecurity, micronutrient deficiencies, and undernutrition (Majumder, 2013; Singh et al., 2016). Temporary worksites with rudimentary facilities and irregular wages restrict dietary quality and caloric intake, exacerbating risks for pregnant/lactating mothers and children (Singh et al., 2017; Aktar et al., 2021). Anthropometric studies indicate high underweight, stunting, and wasting prevalence (Malik et al., 2018; Rahman et al., 2022).

These deprivations manifest in adverse reproductive outcomes, with elevated premature births, low birth weight, stillbirths, and neonatal mortality compared to national averages (Naz et al., 2016; Nath et al., 2021; Khan et al., 2022). Lack of emergency obstetric and postnatal care access exacerbates vulnerabilities (Joarder et al., 2021). The literature highlights intersecting risks of early marriage, inadequate reproductive health access, hazardous workplace conditions, undernutrition, and elevated pregnancy-childhood risks for women employed in brick kilns. However, evidence focused on West Bengal's operations remains scarce. This study contributes granular data illuminating socioeconomic and biological vulnerabilities in this context to inform potential interventions.

OBJECTIVES

The overall objective of this study is to investigate the socioeconomic and biological vulnerabilities faced by seasonally migrant women employed in brick kilns in Beraberia Mouza, West Bengal. The specific objectives are:

1) To assess the prevalence of early marriage and adolescent pregnancies among women brick kiln workers and understand the underlying socioeconomic drivers.
2) To evaluate women's access to and utilization of reproductive health services including family planning, antenatal care, safe delivery practices and childhood immunisations.
3) To examine the workplace conditions and occupational hazards encountered by pregnant women engaged in brick production activities.
4) To determine the nutritional status of women workers by analysing anthropometric indicators like body mass index (BMI).
5) To quantify the burden of adverse birth outcomes such as premature births, low birth weight, stillbirths and neonatal mortality experienced by women in this population.
6) To identify potential gaps in policies, welfare programs and interventions aimed at safeguarding the rights and well-being of migrant women workers in brick kilns.

By comprehensively investigating these inter-related dimensions, the study aims to provide a granular evidence base highlighting the vulnerabilities of women brick kiln workers in Beraberia. The findings can inform policies, programs and advocacy efforts by government agencies, non-profits, brick kiln owners and worker collectives towards ensuring social protection, improved working conditions, access to public services and ultimately better health outcomes for this underserved population. This localized research further contributes to the broader literature on gender, migration, and occupational health hazards in informal labour sectors.

4. RESEARCH METHODOLOGY

A cross-sectional study design using a survey method was employed to collect primary data from women brick kiln workers in Beraberia Mouza, West Bengal. Three operational brick kilns - KBM BBS, Maha Laxmi Bricks Manufacturers

(MBM), and Silpe were selected as the study sites. Using simple random sampling, a total of 120 women workers were surveyed, with 40 respondents from each of the three kilns. The sample included both local workers as well as seasonal migrants, predominantly from the states of Bihar and Jharkhand. A structured questionnaire was used to collect quantitative data on demographic characteristics, age at marriage, reproductive history, workplace roles during pregnancy, access to maternal health services, birth outcomes, and anthropometric measurements. Necessary approvals were obtained from the respective brick kiln operators and local authorities prior to data collection. Ethical protocols regarding informed consent, confidentiality and voluntary participation were adhered to throughout the research process.

5. RESULTS

Nature of Migration in Brick Field Labour of Beraberia Mouza:

The brick field industry in Beraberia Mouza demonstrates a significant dependence on migrant labour, with 93.33% of workers being migrants and only 6.67% comprising local workers. The migration pattern is predominantly seasonal (84.17%), with workers typically engaging in the industry for 6-8 months (Table 29 &30). The primary source regions for these migrants include Bihar (34.17%), Jharkhand (33.33%), and other districts of West Bengal (25%) (Table 28). The Population share of the seasonally migrated labourers in the study area is 52.55% male and 47.45% female.

The push factors driving migration include unemployment (28.23%), poverty (21.09%), and lack of services (11.90%) in their native villages (Table 26). Correspondingly, the pull factors comprise higher wages (30.43%), job opportunities (26.09%), and employment safety (15.38%) (Table 27). Most migrants (62.50%) work for 5-10 months before returning to their place of origin, while 27.50% stay for 10-15 months.

These workers often migrate under contractual systems managed by contractors (locally known as Sardars), who frequently provide advance payments, potentially leading to exploitative working conditions and unhygienic living environments.

Sector-Wise Distribution of Female Workers in Brick Fields:

The study reveals a distinct pattern in the sector-wise distribution of female workers in brickfields. Women are predominantly engaged in two labour-intensive tasks: carrying and moulding.

In the KBM brick field, 39.02% of female workers are involved in carrying activities, while 45.57% are engaged in moulding. Similarly, in the MBM brick field, 39.59% of women work in carrying, and 56.25% are employed in moulding. The Silpe brick field exhibits an even higher concentration of women in carrying tasks, with 76.92% of female workers involved, while 23.08% are engaged in moulding (Table 25). These figures highlight the physically demanding nature of work undertaken by women in brickfields. Carrying bricks and moulding clay requires considerable physical strength and endurance, exposing women to various occupational hazards and health risks. Notably, there is a minimal representation of women in other sectors within the brick fields, such as loading, coal handling, supervisory roles (mistri), and operating machinery like JCBs. This disparity suggests that women are often relegated to the most labour-intensive and low-skilled tasks within the brick industry.

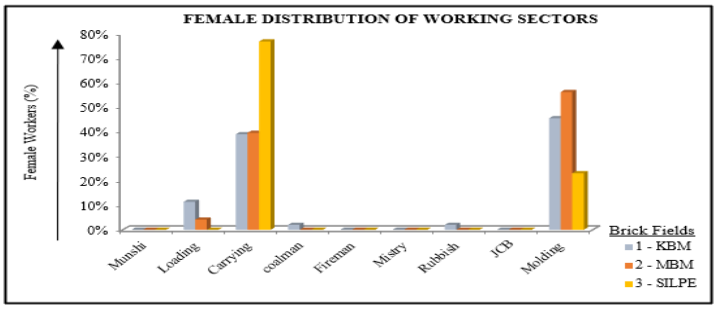


Fig No. 01

The sector-wise distribution of female workers in brickfields underscores the need for interventions addressing the occupational health and safety concerns these women face, as well as initiatives aimed at empowering them and providing opportunities for skill development and diversification of roles.

Demographic Profile:

The demographic profile of the surveyed women brick kiln workers unveils concerning trends. The age distribution reveals a disturbing 9.48% (Table - 3) were below 15 years, a blatant violation of child labour laws. This underscores the prevalence of child exploitation in this informal sector. The majority (78.45%) were currently married, reflecting the pervasiveness of early marriages in this community. Alarmingly, an equal proportion (40.52%) fell within the 15-30 and 30-45 age groups, highlighting the engagement of women across critical reproductive ages in this hazardous occupation. The marital status breakdown, including 6.9% widowed and 2.58% divorced cases (Table 4), points towards the socioeconomic vulnerabilities these women potentially encounter as single earners or heads of households, compounded by their informal employment status.

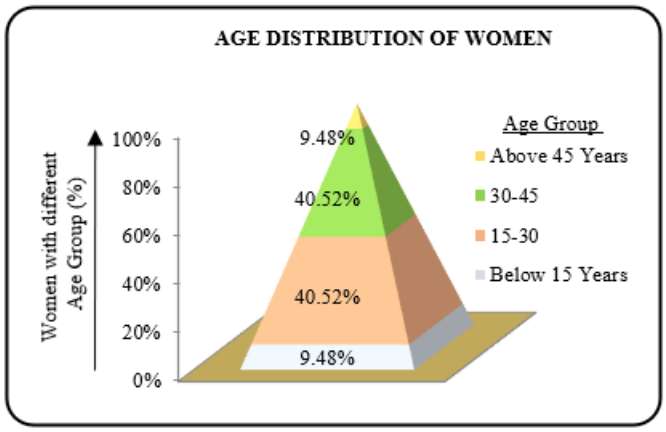


Fig No. 02

Early Marriage and Adolescent Pregnancies: The data exposes a grave human rights issue - a staggering 58.82% of women were married before the legal age of 15, significantly exceeding national estimates, while only 4.9% married after the legal age of 18 (Table 5). This widespread practice of child marriage perpetuates a vicious cycle of adolescent pregnancies, with 50.75% giving birth within one year of marriage and 75.44% within three years (Table 6).

Photograph No-1: A women had Early Marriage Respondent, Sangeeta Mahato,

These early pregnancies elevate the risks of obstetric complications like eclampsia, anaemia, and maternal mortality. They also contribute to adverse neonatal outcomes such as premature births, low birth weight, and stunting, perpetuating intergenerational health disadvantages. Notably, over one-third (36.21%) reported involving their children in brick kiln labour, a consequence of curtailed educational opportunities due to early marriage and poverty, reinforcing the perpetuation of hazardous child labour (Table 7).

Reproductive Health Access:

Access to essential reproductive and maternal health services emerged as a significant challenge for these women. Only 17.24% received medical cards (Table 17) facilitating public health service utilisation during pregnancy. A mere 59.48% reported utilising vaccines, while 40.52% did not (Table 18), reflecting potential gaps in antenatal care awareness and outreach. Childhood immunisation rates were alarmingly low, with 30.17% remaining unimmunised, undermining efforts towards preventable childhood diseases. Concerningly, 81.9% did not avail of free antenatal check-ups at the local public health centre (Table 19), potentially due to mobility constraints, linguistic barriers, lack of targeted outreach programs, or unawareness. These systemic exclusions from reproductive health services compound the risks faced by these vulnerable women throughout the critical periods of pregnancy, childbirth, and postpartum recovery.

Marriage and Fertility:

Marriage and fertility patterns among the women brick kiln workers reflect systemic deprivations. A staggering 78.45% were currently married (Table 4), with 58.82% married before the legal age of 15 (Table 5), perpetuating early pregnancies and curtailed opportunities. Concerningly, 87.07% had given birth, with 40.52% having three or more children, including 14.66% with over four children (Table 8), exceeding India's total fertility rate. Alarmingly, 50.75% gave birth within one year of marriage, 75.44% within three years (Table 6), elevating risks of adverse maternal/neonatal outcomes. These figures reflect limited reproductive health access, lack of family planning awareness, and entrenched sociocultural norms. The findings align with evidence across South Asia (Khan et al., 2022; Sohel et al., 2022), underscoring the urgent need for interventions targeting adolescent health, women's empowerment, and legal enforcement against child marriages in this vulnerable population.

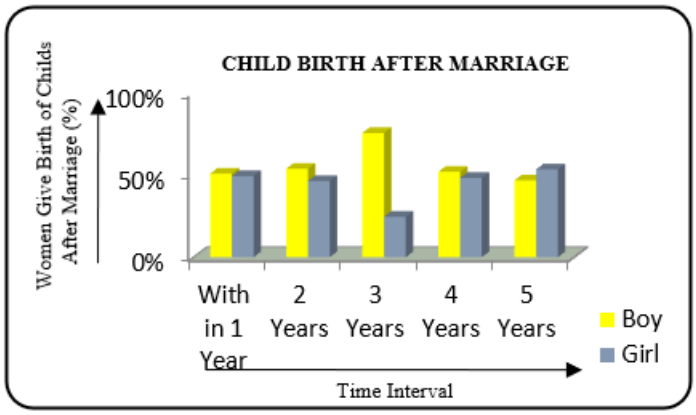


Fig No. 03

Workplace Conditions and Hazards:

The data unveils disturbing workplace practices that directly jeopardise maternal and fetal health outcomes. A substantial 43.97% were engaged in moulding operations (Table 1), which involve strenuous physical labour, repetitive lifting of heavy loads, and ergonomic hazards. Alarmingly, 46.51% continued working until the sixth month of pregnancy, while 22.1% persisted until the eighth month, and 8.14% even beyond (Table 16), contravening recommendations for reduced workloads during the prenatal period. These findings reflect the lack of provisions like alternative duties, workplace accommodations, or paid prenatal leave, underscoring the urgency for policy interventions and improved labour standards. Qualitative accounts from the respondents further highlighted the absence of such safeguards, amplifying the risks faced by pregnant women in this informal sector.

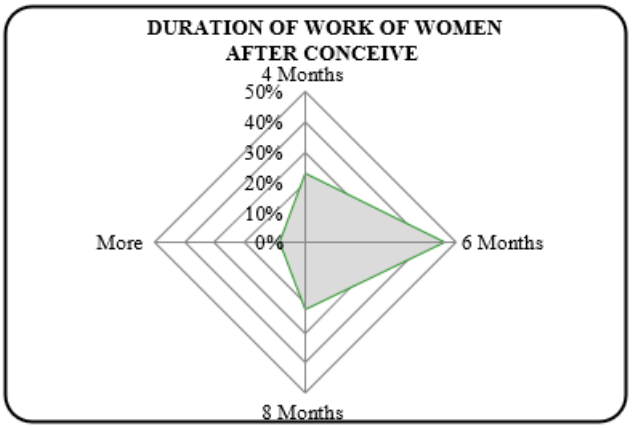


Fig No. 04

Nutritional Status: Anthropometric assessments paint a concerning picture of undernutrition among these women workers. A startling 30.17% had a Body Mass Index (BMI) below 18.5, indicating underweight status, attributable to food insecurity, poverty, lack of balanced diets, and potential micronutrient deficiencies. Only 57.76% fell within the normal BMI range of 18.5-24.9, while 12.07% were overweight (BMI 25-29.9), with no cases of obesity recorded (Table 21A & B). This nutritional profile reflects the convergence of socioeconomic deprivations and inadequate dietary intake, which can have severe implications for maternal health, fetal development, and transgenerational outcomes. The physically demanding nature of brick kiln work may also contribute to the low prevalence of overweight or obesity in this population.

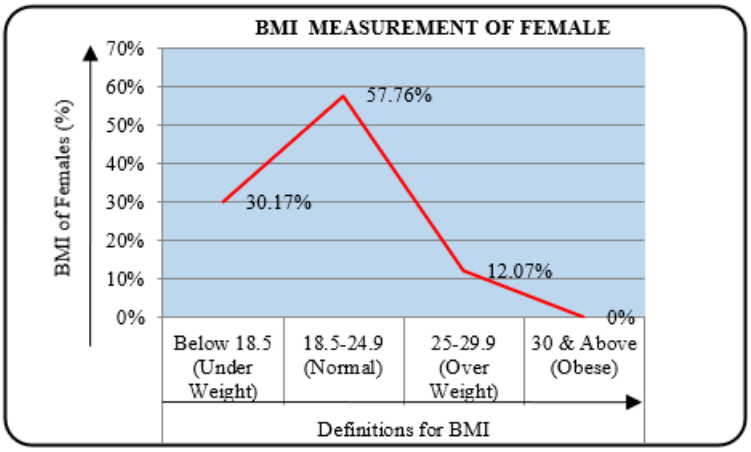


Fig No. 05

Adverse Birth Outcomes:

The survey reveals alarmingly high rates of adverse pregnancy and birth outcomes, underscoring the cumulative impact of the socioeconomic and biological vulnerabilities faced by these women. Perinatal mortality, defined as stillbirths or deaths within the first week of life, affected 13.79% (Table 8) with 10.34% losing one child before birth (Table 9). Neonatal mortality, occurring within the first 28 days after birth, was equally concerning at 21.55%, with 12.93% losing one newborn (Table 11). The burden of premature births stood at 18.1% (Table 13), while a staggering 35.4% had underweight births, with 20.69% reporting one underweight child (Table 14). These adverse outcomes not only reflect gaps in access to emergency obstetric care and postnatal services but also underscore the long-term repercussions of early marriage, inadequate reproductive health services, hazardous workplace conditions, and undernutrition faced by these women throughout the critical periods of pregnancy and childbirth.

The seasonal and chronic diseases faced by women brick field workers:

The seasonal and chronic diseases faced by women brick field workers are a major concern, reflecting the harsh working conditions and lack of adequate healthcare facilities. The data from the study provides valuable insights into the health vulnerabilities of these marginalized workers.

Seasonal Diseases: Women workers suffer from a range of seasonal diseases directly linked to their occupation in the brick fields. The data reveals that a significant proportion of women experience back pain (23.28%), nail problems (12.64%), muscle pain (14.08%), cuts on the body (5.75%), and accidental injuries (6.9%). These health issues are primarily caused by the physically demanding nature of their work, involving tasks such as carrying heavy loads of bricks, molding clay, and exposure to hazardous working environments. Other prevalent seasonal diseases among women workers include sleeping problems (7.76%), skin allergies (2.87%), itching (2.87%), and ear infections (2.01%) (Table 22). These conditions can be attributed to the prolonged exposure to dust, extreme temperatures, and poor hygiene conditions prevalent in the brick fields.

Chronic Diseases: The study highlights that the seasonal health problems faced by women workers often lead to the development of chronic diseases over time. The data shows a high prevalence of low vision (41.12%) and orthopedic issues (21.51%) among female workers. These conditions are likely exacerbated by the repetitive strain and physical exertion associated with their work, coupled with inadequate access to proper medical care. Additionally, a significant proportion of women workers suffer from body weakening (17.76%) and low hearing (12.15%) (Table 23), which can be attributed to the cumulative effects of malnutrition, poor living conditions, and prolonged exposure to noise pollution in the brick fields.

The data highlights the urgent need for interventions to address the occupational health hazards faced by women brick field workers, including the provision of proper safety equipment, access to healthcare facilities, and the implementation of measures to improve their overall living and working conditions.

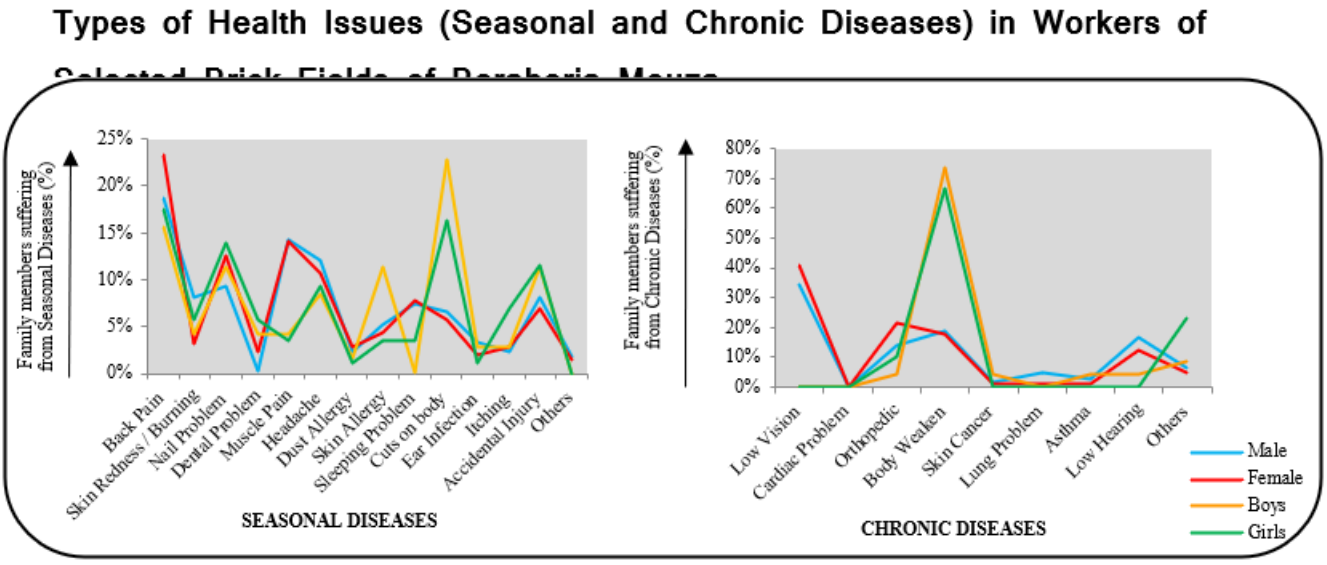


Fig No. 06

Addiction type of women workers:

The study reveals a concerning pattern of substance addiction among women brick field workers. While the rates are lower compared to their male counterparts, a significant portion of women indulge in habits that can have detrimental effects on their health and well-being. The most prevalent addiction among women workers is tea consumption, with 60% of them reporting regular tea intake. While tea itself may not be harmful, excessive consumption can lead to health issues like anxiety, insomnia, and digestive problems. Another worrying trend is the use of tobacco products, with 28.42% of women workers consuming tobacco and 6.32% using biri (local cigarettes). Tobacco consumption is a well-known risk factor for various respiratory diseases, cardiovascular problems, and certain types of cancer. Additionally, 4.21% of women workers reported using ghutka, a smokeless tobacco product that is associated with an increased risk of oral cancer and other oral health issues. Although the rates of alcohol consumption (1.05%) and cigarette smoking (0%) are relatively low among women workers, any level of addiction to these substances can have severe health consequences and contribute to the overall vulnerability of these marginalized women (Table 24).

6. DISCUSSION

The findings reveal disturbing socioeconomic and biological vulnerabilities perpetuating across generations among women employed as migrant brick kiln workers in Beraberia Mouza. Their high prevalence corroborates similar evidence documented across other Indian contexts (Nath et al., 2021; Sohel et al. 2022) and broader South Asian brick kiln populations (Khan et al., 2022; Huda et al., 2022).

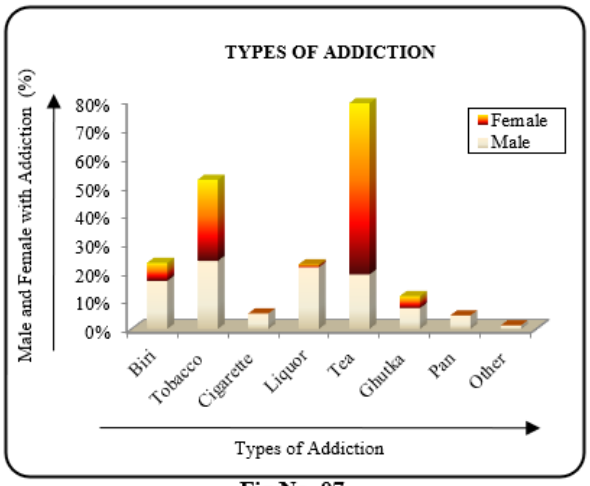


Fig No. 07

Rampant child marriage and adolescent pregnancies influence long-term health trajectories. The staggeringly high 58.82% of women married before age 15 exceeds even national estimates which peg India's child marriage prevalence at 27% as of 2015-16 (UNICEF, 2022). Poverty, lack of educational opportunities and entrenched sociocultural gender norms continue driving this regressive practice among migrant worker communities (ICRW, 2011; Jahan, 2012). Entry into married life and subsequent pregnancies during adolescence elevates obstetric risks like anaemia, eclampsia, preterm birth and low birth weight (UNFPA, 2013). The impacts perpetuate intergenerationally, with over a third reporting their own early marriages contributed to their children's engagement as child labourers. Limited access and utilization of reproductive health services like family planning, vaccinations, prenatal monitoring and skilled childbirth exacerbate these vulnerabilities. Negligible coverage of services like medical cards and facility-based deliveries underscores systemic exclusions.

Recommendations

- Implement strict enforcement of child marriage prevention laws through enhanced monitoring systems and community-based interventions, given the alarming 58.82% prevalence of marriages before age 15.
- Establish mobile health units specifically designed for brick kiln sites to provide reproductive healthcare services, addressing the critical gap where 81.9% of workers don't utilize antenatal services.
- Develop comprehensive occupational safety guidelines for pregnant workers, including mandatory work modifications after the fourth month of pregnancy, considering 46.51% currently work until their sixth month.
- Institute mandatory employer-provided nutritional supplementation programs, addressing the 30.17% underweight prevalence among women workers.
- Create a standardized medical card system with dedicated tracking mechanisms to ensure universal healthcare access, improving upon the current 17.24% coverage rate.
- Establish on-site childcare facilities to prevent intergenerational perpetuation of child labour, noting that 36.21% of workers' children are currently engaged in brick kiln work.
- Implement regular health screening programs focusing on prevalent occupational diseases, particularly addressing the 23.28% suffering from back pain and 14.08% with muscle pain.
- Develop skill diversification programs to reduce women's concentration in high-risk tasks like carrying (76.92% in some facilities) and molding.
- Create a dedicated social security framework for seasonal migrant workers, including maternal benefits and paid leave provisions.

- Establish workplace substance abuse prevention programs, addressing the 28.42% tobacco use prevalence among women workers.

7. CONCLUSION

This comprehensive study of women brick kiln workers in Beraberia Mouza, West Bengal, reveals a complex web of intersecting vulnerabilities that significantly impact maternal and child health outcomes. The research demonstrates how socioeconomic deprivations, including widespread child marriage and limited educational opportunities, combine with hazardous workplace conditions and inadequate healthcare access to create substantial health risks. The findings highlight systematic exclusions from essential services, with only 17.24% having medical cards and 81.9% not accessing free antenatal care. The prevalence of occupational diseases, particularly back pain (23.28%) and muscle pain (14.08%), alongside concerning rates of adverse birth outcomes, underscores the urgent need for intervention. These challenges are further compounded by prevalent undernutrition, with 30.17% of women being underweight. The study's findings contribute significantly to understanding gender-based vulnerabilities in informal labor sectors and emphasize the critical need for integrated policy approaches combining occupational safety measures, healthcare access improvements, and social protection initiatives to address the multifaceted challenges faced by this vulnerable population.

ACKNOWLEDGEMENT

None.

CONFLICT OF INTEREST

None.

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ANNEXURE

Table No. 1: Women Engaged

Women Engaged Sectors						
Molding	Drying	Firing	Carrying	Ticket System	Loading	Others
43.97%	0	0	48.28%	6.03%	0.86%	0.86%

Table No. 3: Age Distribution of Women

Age Distribution of Women			
Below 15 Years	15-30	30-45	Above 45 Years
9.48%	40.52%	40.52%	9.48%

Table No. 4: Marital Status

Their Marital Status				
Single	Married	Widow	Divorce	Other
12.07%	78.45%	6.90%	2.58%	0

Table No. 5: Age of Marriage of

Age of Marriage of Women			
Below 15 Years	15-20	20-25	Above 25 Years
58.82%	18.63%	17.65%	4.90%

Table No. 6: Child Birth after

Child Birth after Marriage		
Baby Born	Boy	Girl
Within 1 Year	50.75%	49.25%
2 Years	53.73%	46.27%
3 Years	75.44%	24.56%
4 Years	51.85%	48.15%
5 Years	46.67%	53.33%

Table No. 7: Early Marriage and Children

Early Marriage of Women leads their children to same work	
Yes	No
36.21%	63.79%

Table No 8: Child Bearing Capacity

Child Bearing Capacity					
Yes (Times)					No
One	Two	Three	Four	More	
22.41%	24.14%	13.79%	12.07%	14.66%	12.93%

Table No. 9: Occurrence of Perinatal

Occurrence of Perinatal Mortality			
Yes (Times)			No
One	Two	Three	
10.34%	3.45%	0	86.21%

Table No. 11: Occurrence of Neonatal

Occurrence of Neonatal Mortality			
Yes (Times) 21.55%			No
One	Two	Three	
12.93%	8.62%	0	78.45%

Table No. 13: Birth of Pre Mature Children

Birth of Pre-Mature children			
Yes (Times) 18.1%			No
One	Two	Three	
12.93%	4.31%	0.86%	81.90%

Table No. 14: Birth of underweight Children

Birth of Underweight children			
Yes (Times)			No
One	Two	Three	
20.69%	10.40%	4.31%	64.60%

Table No. 16: After conceive work

After Conceive how many Months Work			
4 Months	6 Months	8 Months	More
23.26%	46.51%	22.10%	8.14%

Table No. 17: Card for

Any card for Pregnant	
Yes	No
17.24%	82.76%

Table No. 18: Vaccines used by

Any Vaccines Used by Pregnant	
Yes	No
59.48%	40.52%

Table No. 19: Free Check up

Free Check Up Facilities	
Yes	No
18.10%	81.90%

Table No. 21_A: BMI Measurement of Females

BMI Measurement of Females			
Definitions for BMI			
Below 18.5 (Under Weight)	18.5-24.9 (Normal)	25-29.9 (Over Weight)	30 & Above (Obese)
30.17%	57.76%	12.07%	0%

Table No.- 22 Seasonal Diseases

Seasonal Disease	
TYPES OF DISEASES	Female
Back Pain	23.28%
Skin Redness / Burning	3.16%
Nail Problem	12.64%
Dental Problem	2.30%
Muscle Pain	14.08%
Headache	10.63%
Dust Allergy	2.87%
Skin Allergy	4.31%
Sleeping Problem	7.76%
Cuts on body	5.75%
Ear Infection	2.01%
Itching	2.87%
Accidental Injury	6.90%
Others	1.44%

Table No. : 23 Chronic Diseases

Chronic Diseases	
TYPES OF DISEASES	Female
Low Vision	41.12%
Cardiac Problem	0
Orthopedic	21.51%
Body Weaken	17.76%
Skin Cancer	0.93%
Lung Problem	0.93%
Asthma	0.93%
Low Hearing	12.15%
Others	4.67%

Table No. 24: Types of Addiction

Types of Addiction		
TYPES	Male	Female
Biri	16.83%	6.32%
Tobacco	23.81%	28.42%
Cigarette	5.40%	0
Liquor	21.59%	1.05%
Tea	19.05%	60%
Ghutka	7.30%	4.21%
Pan	4.75%	0
Other	1.27%	0

Table No. 25: Female Engaged in Different Working

Male and Female Distribution of Different Working Sectors			
	Female		
Sectors	1 - KBM	2 - MBM	3 - SILPE
Munshi	0	0	0
Loading	11.40%	4.16%	0
Carrying	39.02%	39.59%	76.92%
coalman	2.01%	0	0
Fireman	0	0	0
Mistry	0	0	0
Rubbish	2%	0	0
JCB	0	0	0
Molding	45.57%	56.25%	23.08%

CALCULATION OF BMI = Weight (kg) / Height in meter^2

Table No.21_B: BMI ranges with

BMI Range	Status
Below 18.5	Under Weight
18.5-24.9	Normal Weight
25-29.9	Overweight
30 & above	Obesity

Source: www.nhlbi.nih.gov (National Heart, Lung and Blood Institute)

Table No.26: Push Factor

Push Factors	
Lack of Safety	7.48%
Lack of Service	11.90%
Poverty	21.09%
Social Problem	2.39%
Unemployment	28.23%
Natural Hazard	5.10%
Resource Scarcity	4.42%
Conflicts	1.36%
Others	18.03%

Table No.27: Pull Factor

Pull Factors	
Safer Environment	0.67%
Job Opportunity	26.09%
Good Behavior	2.34%
Less Political Disturbance	1.67%
More Wage	30.43%
Good Food Supply	4.68%
Political Security	1.35%
Friend and Family	9.36%
Employment Safety	15.38%
Others	8.03%

Table No. 28: Migrant's Place of Origin

Migrant's Place of origin						
Inter District	Other District	Outside State				
		Bihar	Jharkhand	UP	Odisha	Other
7.50%	25%	34.17%	33.33%	0	0	0

Table No.29: Type of Migration

Type of Migrant		
Seasonal	Permanent	Daily
84.17%	7.50%	8.33%

Table No. 30: Residence Type

Residence Type	
Local	Migrated
6.67%	93.33%

Table No.31: Population Share

Share of Population		
Male	Female	Total
52.55%	47.45%	100%

Table No.32: Duration of Migration

Duration of Migration			
Below 5	5-10	10-15	Above 15
0	62.50%	27.50%	10%