



# Beyond the leaves: Unveiling the societal impact of research on the self-perceived quality of life among indigenous female tea garden workers<sup>☆</sup>

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## ABSTRACT

Most indigenous women in the sub-Himalayan region of Northern Bengal have been engaged in wage labor within tea gardens. The payment system within these gardens has often lacked transparency, resulting in these workers receiving compensation below the legal minimum wage. This persistent uncertainty has had a profound impact on social behavior and self-satisfaction among the workforce. Notably, no prior study has explored the quality of life experienced by these women workers through a comprehensive examination of their perceptions, determinants, and narratives. The study, conducted in a district of West Bengal, meticulously selected 10 Tea Gardens (TGs) for investigation. This research project employs a mixed type of ethnographic data collection, encompassing both qualitative and quantitative methods, and utilizes the WHOQOL-BREF questionnaire. The findings of the study reveal a consistent pattern of deprivation and inequality experienced by tribal women at various stages of their lives. Furthermore, the research outcomes have provided valuable insights into the overarching societal impacts, encapsulated as follows: 1) the self-reported quality of life sense of the tribal women merely touched by other researchers signifies that these women rarely lived a decent life with utmost priority in every aspect, such as their physical strength, psychological health, and societal well-being; 2) Policymakers can address the factors contributing to the challenges faced by these women, fostering improvements in their overall quality of life.

## Specifications Table

Subject area	3301: Social Science (miscellaneous)
Category/categories of societal impact	Health, Societal
Sustainable Development Goals (SDGs) the research contributes to	Goal 3: Good Health and Well being Goal 5: Gender Equality
Resource availability	As this is a societal impacts review of former research, the criteria will not be applicable
Related research article	Majumder S, Chowdhury IR. Quality of Life and Associated Determinants among Female Tea Garden Workers of Indigenous Communities in Sub-Himalayan West Bengal, India: A Cross-Sectional Mixed Methods. <i>Contemporary Voice of Dalit</i> . Published online February 1, 2023: <a href="https://doi.org/10.1177/2455328x221150627">https://doi.org/10.1177/2455328x221150627</a>
Stage of research	Exhibits the societal impacts of the research work (Complete)

## Societal impacts: vulnerable quality of life (QoL) experienced by the indigenous tea women

It has been substantiated by prior studies that the tribal population in India has been the most marginalized and poverty-ridden group, contending for basic amenities while remaining oblivious to development [1,2]. Indigenous women, constituting part of marginalized and vulnerable communities, have confronted numerous challenges, encompassing restricted access to resources, education, and healthcare. In Sub-Himalayan North Bengal, a majority of indigenous women have been employed as wage workers in tea gardens. Despite their engagement in this sector, these individuals have consistently faced significant socio-economic hardships, especially in securing the minimum wage requisite for their sustenance and well-being. The payment system within tea gardens has recurrently lacked transparency, leading to

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workers frequently receiving wages below the legally mandated minimum. This practice has resulted in the denial of fair compensation for their labor, limiting their capacity to fulfil their basic needs.

The nexus between sustainable development and the enhancement of the quality of life for indigenous women has been well-established. Investments in their education, livelihoods, and social empowerment have exhibited a long-term positive impact on their communities and the environment. The eradication of age-old inequalities is imperative for fostering gender equality, empowering women within these societies, and ensuring the equitable development of society at large. It is evident that when a woman is empowered, treated equitably, and remunerated fairly without the presence of discrimination, her capital is channelled more effectively towards her family and children, culminating in improved education and health outcomes for subsequent generations. Additionally, elevating the quality of life for indigenous women serves as a potential pathway out of the cyclical challenges of poverty and food insecurity in these communities. From this standpoint, understanding their standard of living can facilitate the identification of specific areas necessitating attention and intervention. Nonetheless, there remains a dearth of research scrutinizing the quality of life experienced by female workers using perceptual, deterministic, and narrative methodologies.

Building upon the previously identified research problem, this study has aimed to scrutinize the self-reported quality of life (QOL) among economically and socially isolated tribal female tea garden (TGs) workers, employing the World Health Organization quality of life measure. The living conditions and quality of life of indigenous women engaged in tea gardens have been examined through an analysis of various factors, including socio-economic conditions, utilizing the World Health Organization Quality of Life Brief Version (WHOQOL-BREF) [3,4]. The findings have emphasized the necessity to enhance overall societal support and living standards for these underprivileged women, thereby improving their quality of life. In the pursuit of fostering inclusive and sustainable approaches to health and well-being, this research has facilitated participatory mechanisms for evaluating subjective quality of life. The capacity of this research to significantly impact the overall welfare of indigenous women employed in tea gardens in Sub-Himalayan West Bengal, India, lies in its potential to increase their knowledge and consciousness. It also holds the promise of influencing policy modifications, promoting empowerment, reducing disparities, and enhancing their overall quality of life.

This study, having focused on empirical facts and subjective narratives, has aimed to contribute to an academic understanding of the delicate existence of indigenous tea garden workers in the area. Its contribution has extended to having shed light on health and mental health issues faced by indigenous women, with the potential outcome of having improved health services and support systems. Overall, the research has positioned itself as a valuable resource for comprehending and addressing the challenges faced by indigenous tea garden workers, contributing to broader discussions on societal well-being. The findings have underlined the need for targeted efforts to have improved educational access and reduced illiteracy rates among women, particularly in tribal communities. Having addressed these issues can play a pivotal role in promoting gender equality, enhancing the quality of life, and combating marginalization. Societal relevance has lain in recognizing and addressing the systemic barriers that have hindered women's empowerment and opportunities, ultimately having led to a more inclusive and equitable society. It has been a crucial step in ensuring that no one has been left behind in progressing and developing towards having achieved the Sustainable Development Goals.

#### **Methodology: cross-sectional mixed method approach**

The study has supported the rights of indigenous communities to live with dignity and attain mental and physical well-being. Its objective has been to expedite progress towards sustainable development and foster social equity while identifying bottlenecks and advocating for inclusive

policy integration to achieve these objectives. The scholarly article represents a cross-sectional community-based investigation that documented the challenging lives of women tribal workers in an age-old industry in the region. Conducted in a rural setting (Jalpaiguri district in West Bengal), the study carefully selected 10 tribal groups (TGs).

A mixed type of ethnographic data collection, encompassing both qualitative and quantitative methods, has been an essential and indispensable component of this research project. Extensive qualitative interviews were conducted with female TG laborers, selected from a convenience sample of tribal communities as participants in the primary study. A total of 378 women, ranging from 18 to 60 years old, were interviewed. These interviews encompassed members of three major tribal communities and seven minor tribal communities in the area, based on their concentration. The WHOQOL-BREF questionnaire, available in both English and Bengali forms, was employed for this research. Evaluating quality of life extensively, the questionnaire comprises 26 items across four domains: physical, psychological, social interactions, and environmental (see Fig. 1) [3–7].

This study stands out as the first of its kind to document tribal women's quality of life by adopting a mixed-methods research approach, integrating both quantitative and qualitative research designs to provide a holistic understanding of societal impacts with cause-and-effect relationships. In the data analysis phase, descriptive and inferential statistical techniques were employed, further corroborating the narratives provided by the participants.

Subsequently, researchers constructed and utilized multivariate linear regression models to explore the factors predicting self-perceived quality of life (QOL) dynamics. This analytical method facilitated the concurrent assessment of numerous independent factors, considering their combined impact on the dependent variable—the quality of life (QOL) of the individuals under investigation. Identifying significant predictors aimed to offer valuable insights into the factors most influencing an individual's QOL trajectory, assisting in the development of targeted interventions, policies, and strategies to enhance QOL outcomes and overall well-being [8].

#### **Results and implications**

The findings of this scholarly article illuminate the socio-economic fragility of tribal women working in the TGs. These women consistently confront deprivation and inequality throughout various stages of their lives. A concerning fact that requires attention is the high prevalence of female illiteracy among all the respondents. These findings highlight a significant issue in terms of educational disparities and access to literacy for tribal women that might lead to more improvisation.

The research outcomes have provided valuable insights into the significant societal impacts (Fig. 2), which can be summarized as follows: 1) the self-reported quality of life sense of the tribal women that were merely touched by others; 2) the policymakers endeavor to alleviate the underlying causes that contribute to an environment of improvisation. Throughout the interview, many participants courageously shared their personal experiences as individuals affected by illiteracy, unemployment, and social injustices. The findings of the study indicate an alarming social situation among the female respondents, especially those from tribal communities. At 27%, female illiteracy creates inequities and lowers their well-being and social status. These challenging circumstances have significantly impacted their quality of life, leading to marginalization and exclusion from various opportunities and resources. The participants emphasized how these interconnected issues have contributed to their overall disadvantaged position in society, limiting their access to education, job opportunities, and the ability to meet their basic needs. The narratives collected from the participants highlight that the forced dropout from early school due to family financial constraints among tribal women has a significant societal impact. Also, the improvised conditions not only affect the female individual involved but also contribute to the overall problem of low

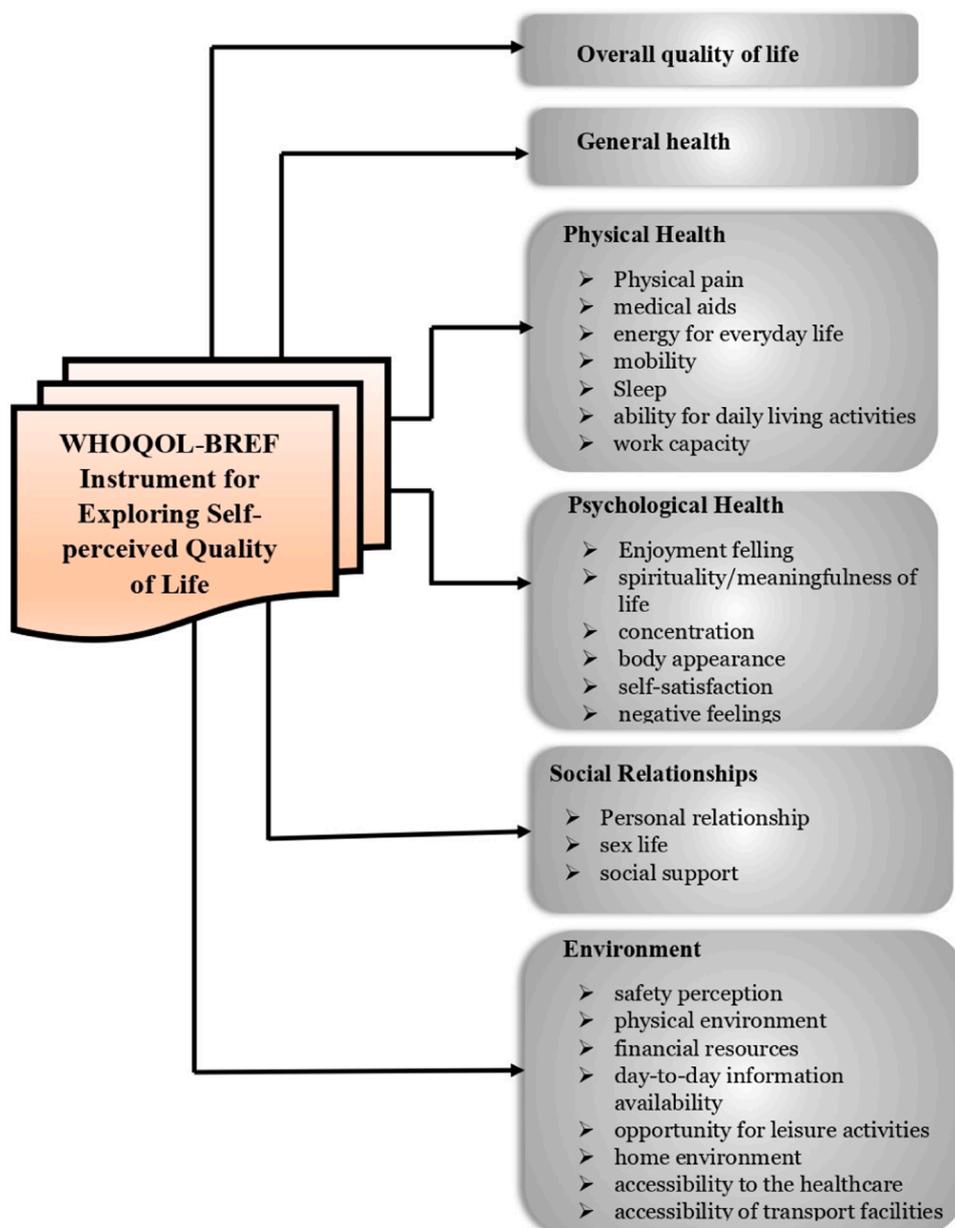


Fig. 1. Major domain and associated items of WHOQOL-BREF instrument administered during study.

literacy rates and limited skill development in the community. The narrative provided by the respondent implies a societal impact that extends beyond individuals and has inter-generational consequences. The chances of future generations escaping the cycle of poverty are greatly diminished by a lack of access to education, basic health services, nutritional support, the minimum wage, and better jobs. In order to strengthen their financial capital and resilience against poverty, secondary sources of income were found to be crucial. The participants also expressed their vulnerability because they live in dilapidated houses and are landless, which leads to social exclusion. The most important problems arise in environmental domain were the limited access to health care, transportation facilities, financial resources, and the availability of information.

Further, a closer examination of the items within the environmental domain reveals a diverse depiction. The results indicate poor scenarios regarding self-perceived QOL among tribal female TG workers concerning the environment (Fig. 3). This implies that their surroundings diminish their QOL. It exposes problems with their living and working

environments that can negatively impact their health. Meanwhile, by providing appropriate resources and initiatives, it is possible to promote positive change and uplift the well-being of tribal female TG workers in their working and living environments. A participant informed the researchers with great grief that her family suffered the greatest societal adjustment and isolation during her pregnancy due to uncertain financial constraints, poor transportation options, and limited availability of modern medical treatment. She said her home was nearly 12–14 kilometers away from the nearest government hospital, where they were mostly forced to travel on foot due to insufficient fares. But the sad reality is that, after going through the undesirable circumstances, they did not receive proper medical treatment.

The findings highlight the importance of improving health services, access to resources, and community participation in tribal areas. By reducing social marginalization and improving the overall quality of life, improving the living conditions, health facilities, and general socio-economic well-being of tribal communities can have positive societal outcomes. In addition, their well-being and social integration can be

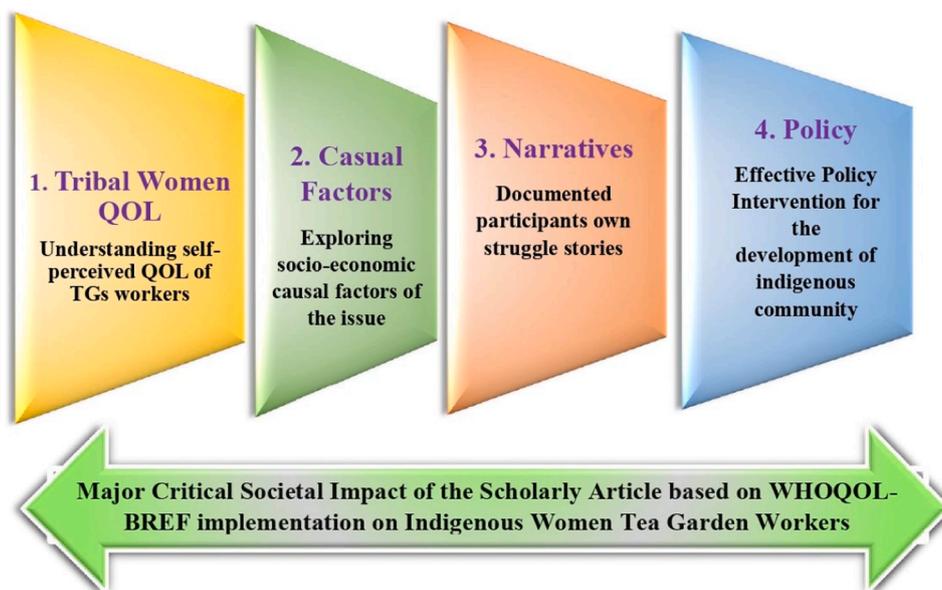


Fig. 2. Synopsis of critical societal impacts of the research.

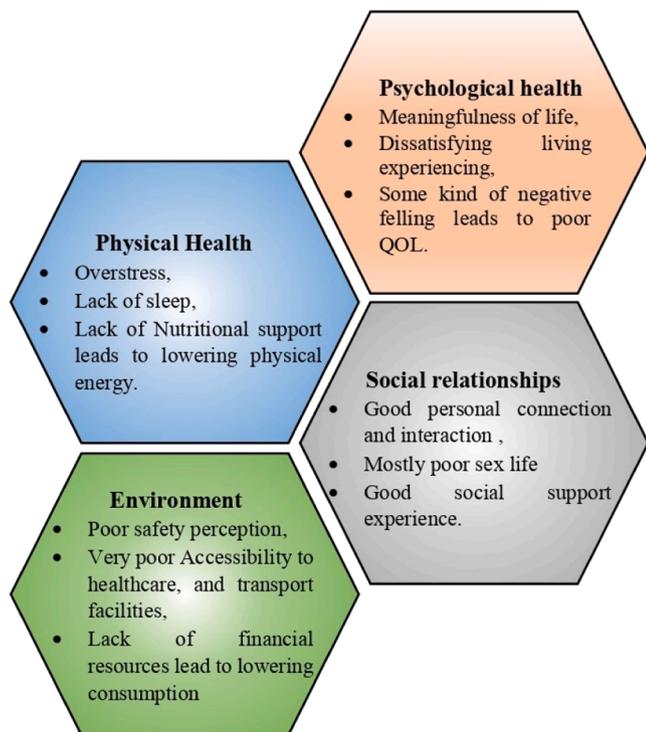


Fig. 3. Critical outcomes of quality of life among Indigenous female tribal tea garden workers based on WHOQOL-BREF and self-narratives.

further enhanced by promoting sustainable livelihoods and creating opportunities for leisure activities.

In this study, the predictors of the composite quality of life (QOL) score among TG tribal women workers were examined using multivariate linear regression analysis. This suggests that ethnicity, age, personal and family income, education, housing, social participation, working conditions, neighboring relationships, availability of health centers, socioeconomic class, and age categories are important determinants of quality of life and the dynamics associated with it. Understanding these factors enables policymakers, non-governmental organizations (NGOs), and other appropriate parties to formulate interventions, social safety

nets and support systems aimed at enhancing the welfare of this susceptible group. It is possible to promote inclusivity and ultimately lead to a more equitable and fulfilling life for this marginalized community by addressing the identified predictors and implementing appropriate interventions.

This study represents a crucial foundational step in capturing the intricate societal impacts that have proven challenging to measure in previous research due to the inclusion of extraneous factors that obscure the desired outcomes. The academic-related impacts of this research are twofold. Firstly, by providing a validated mixed method mechanism for quantifying and subsequently validating the outcome of the quality of life of tribal women, it establishes a solid framework that can be utilized in future studies in this area—also, the research work leads to a wealth of new knowledge and insights into societal development. Secondly, the findings of this study are likely to contribute to the academic richness of the field, as evidenced by increased citations and references to the research. A comprehensive approach is necessary to address these societal impacts, with a focus on.

- Improvement of access to quality education for all, with targeted support for marginalized communities is necessary.
- Lifting families out of poverty requires the creation of subsistence job opportunities, scope for livelihood diversification and decent wages.
- Improve basic health care infrastructure and provide emergency medical assistance within close vicinity.
- Establishing social safety nets to support vulnerable families in difficult times is our goal.
- Promote community-led development initiatives and empower local stakeholders to address their unique challenges.

Furthermore, by uncovering the societal implications associated with the circumstances of tribal women in the tea industry, we hope to raise awareness and stimulate dialogue on issues such as gender equality, labour rights, social inclusion, and sustainable development. We believe that the study has the potential to contribute not only to academic knowledge but also to the development of practical solutions and advocacy efforts aimed at promoting positive change in the lives of tribal women and the broader tea industry.

Overall, our extended study seeks to provide a comprehensive analysis of tribal women’s quality of life in the context of their roles as plantation labourers in the tea industry. We aim to present a compelling

narrative that emphasizes the urgency and significance of addressing these women's challenges to promote positive changes in their lives and communities by examining multiple dimensions and highlighting societal impacts. As researchers, our work is committed to making a real difference by discovering a transformative opportunity that lies at the heart of tribal communities to bring about positive change. The short-term impact of our study holds great promise for empowering tribal women and catalysing progress on a number of fronts. Our work to provide a way forward for local stakeholders and government agencies includes literacy and skills development programmes based on local needs that teach basic reading and writing, as well as vocational skills and basic digital literacy. Based on our research findings, we offer the implementation of microfinance programs and the provision of entrepreneurship assistance as strategies to empower women in achieving economic self-sufficiency through the establishment of small-scale enterprises and initiatives. We advocate for gender equality and aim to spark community discussions that promote the recognition of women's access to education, decision-making roles, and equal opportunities. In essence, it brings attention to the specific hardships faced by tribal women, makes society more aware of their struggles, and encourages empathy and support for them. We are committed to ensuring that all women, regardless of their origins, have an opportunity to live a dignified and respectful life.

### Funding

None.

### Ethical statement

Compliance with ethical standards. Data in this study were duly collected with the prior consent of the participants and researchers agreed to maintain the highest level of data protection rights of the participants. The study did not include any identifying information. Additionally, the study did not involve any kind of clinical research, harmful conduct and did not include any patients or trials. Thus, no ethical review was required.

### CRediT authorship contribution statement

**Majumder Suranjan:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Software, Validation, Visualization, Writing – original draft, Writing – review & editing. **Chowdhury Indrajit Roy:** Writing – review & editing.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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