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## Navigating the Struggles of Beedi Workers Using the Garrett Ranking Approach: A Case Study of Jangipur Subdivision, Murshidabad

Kismode Doha<sup>1</sup>, Syed Naushad Ahmad<sup>1</sup>

<sup>1</sup>Department of Geography, Faculty of Science, Aligarh Muslim University, Aligarh, India

**Corresponding Author:** Kismode Doha; Email: [dohakismode@gmail.com](mailto:dohakismode@gmail.com)

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### ABSTRACT

Beedi making is an integral part of the country's unorganised sector, wherein labor is predominantly sourced from impoverished classes of society; Jangipur subdivision of Murshidabad is no exception. To rank the challenges faced by beedi workers comprehensively and objectively, this research applies the Garrett Ranking Technique. The analysis highlights that concern with health, inadequate income, and long working hours are some of the most significant stressors experienced by workers. Sickness and diseases are the results of long exposure to tobacco and unfavorable working conditions, low wages, and long hours of work, which compound economic difficulties. However, job insecurity and the lack of access to welfare measures for the population remain critical issues due to the informal nature of work. Furthermore, social prejudice for manual jobs is connected with the social status of the workers, but it appears to be diminishing due to higher literacy levels. Accordingly, the called for policy aids encompassing occupational health and other socio-economic domains of the beedi workers' lives corroborate this study's call to consider developing policy initiatives to support the physical, financial, and socio-security status of beedi workers, and in the process, facilitating social upliftment for them and serve as a guide for designing intervention strategies in this beleaguered segment of the workforce.

### INTRODUCTION

The beedi industry, characterized by the production of hand-rolled cigarettes using tendu leaves and a small amount of tobacco, represents a significant aspect of India's informal economy. Often referred to as the 'poor man's smoke,' beedis serve as a cheap source of tobacco consumption, particularly favoured by individuals from lower socio-economic backgrounds in both urban and rural areas. This industry predominantly operates within the informal sector, with a large proportion of its workforce comprising women and children who engage in home-based production under precarious conditions for meagre wages. According to the International Labour Organization (ILO, 2003), India hosts approximately 300 major beedi manufacturers alongside numerous small-scale contractors and producers involved in bulk beedi production. Government estimates suggest that there are approximately 4.4 million full-time workers and an additional 4 million individuals

engaged in ancillary roles within the beedi industry across India (Ministry of Labour and Employment, Government of India, 2015).

The state of West Bengal, particularly the Murshidabad district, is a significant centre for beedi production, with a substantial portion of the state's workforce employed in this sector. In Murshidabad, the Jangipur subdivision emerges as a key hub for the beedi industry, boasting a longstanding history of beedi manufacturing predating India's independence. Reports indicate that approximately 22 lakh individuals in West Bengal are involved in beedi rolling, with Murshidabad alone accounting for around 17 lakhs of these workers (NewsClick, 2023). Within the Jangipur subdivision, which houses the epicentre of West Bengal's beedi industry, an estimated nine lakh individuals are engaged in beedi-related occupations (NewsClick, 2023).

Despite the economic significance of the beedi industry, the workers involved in this sector face a

myriad of challenges. These challenges include low wages, hazardous working conditions, systemic exploitation, precarious employment arrangements, and a lack of social security benefits. Additionally, barriers such as low levels of education, limited skill adaptability, insufficient access to credit facilities, and a dearth of vocational training opportunities impede workers' ability to transition to safer and more lucrative livelihood alternatives. The Jangipur subdivision of Murshidabad mirrors these pervasive issues, highlighting the urgent need to address the socio-economic vulnerabilities faced by beedi workers in this region. In light of the aforementioned challenges, this study endeavours to apply the Garrett Ranking Technique to systematically assess and prioritize the problems confronted by beedi workers in the Jangipur subdivision. By employing this technique, the research aims to provide a structured analysis of the most pressing issues faced by beedi workers, thereby facilitating informed policy interventions and initiatives aimed at enhancing the socio-economic well-being of this marginalized workforce.

Arora et al. (2020) utilized nationally representative datasets to analyze trends in employment, profits, and wages within the bidi industry. Their study revealed a stark disparity, with bidi workers earning only 17% of wages compared to workers in other manufacturing sectors. This highlights the significant exploitation and income inequality prevalent among bidi workers.

The Committee on Subordinate Legislation (16th Lok Sabha) highlighted the exploitation of beedi workers, particularly women, in rural areas. They often receive wages below the National Minimum Wage Norms, unable to meet basic needs. Working from home excludes them from important regulations like the Beedi Workers Welfare Fund Act, 1976, and the Hazardous Industries provisions under the Child Labour Act, 1986.

Selim Jahangir (2018) examined the constrained lifeworlds of bidi workers in West Bengal's Murshidabad district. The research highlighted how bidi workers' daily lives revolve primarily around bidi-making activities, limiting their interactions beyond their immediate social circles. Their constrained social circles are further reinforced by the inability to connect with

individuals from higher socio-economic backgrounds due to perceived differences in lifestyles and attitudes. The study sheds light on the socio-spatial constraints faced by bidi workers, highlighting the need for inclusive social policies.

Several studies have emphasized that formal contracts and social protections are frequently absent from beedi workers' employment contracts, making them susceptible to job insecurity, unpredictable working conditions, and inadequate protections. Furthermore, research suggests that a large number of beedi women report having few work prospects, which frequently only last two to three days a week, if at all (Mohandas, 1980; Kumar et al., 2021; ILO, 2003).

In a report by Bandyopadhyay (2023), it was revealed that in Murshidabad district despite a minimum wage of Rs 178, actual earnings range lower, from Rs 100 to Rs 140. The West Bengal state's labour department acknowledges beedi workers as highly vulnerable, with reported earnings of only Rs 150 per 1,000 beedis rolled, falling below both state and national minimum wage standards.

In another media report by Roytalukdar (2020) from Tirunelveli, Tamil Nadu, the plight of beedi workers was highlighted. Despite beedi rolling being a common livelihood for many women from poor households, they struggle to sustain themselves on the meager income from this occupation.

Studies find that the majority of workers endure dire poverty, labouring for extensive hours during the prime years of their working lives while receiving wages below the minimum threshold (Saini and Jaitli, 2001; Alamelumangai and Sundram, 2020).

Sudina et al. (2015) conducted a study in selected villages of Karnataka, revealing that among the 200 beedi workers surveyed, 67.5% demonstrated average awareness, while 32.5% percent exhibited poor awareness regarding the accessible health and social welfare benefits. Since beedi workers are unaware of these perks, they are less likely to take advantage of them and are more vulnerable to exploitation.

Several studies have underscored the health challenges faced by beedi workers as a result of prolonged exposure to tobacco dust and chemicals, which can result in respiratory ailments and

musculoskeletal disorders. These issues are made worse by unfavourable working circumstances and restricted access to healthcare, which calls for enhanced workplace safety protocols and healthcare services (WHO, 2022; Sabale et. al. 2012; Raju et. al. 2015).

The existing literature underscores the myriad challenges confronting beedi workers, encompassing a spectrum of socio-economic and occupational barriers. These challenges underscore the precarious conditions faced by a marginalized workforce, perpetuating cycles of poverty and vulnerability. In light of these realities, the overarching objective of this study is to meticulously identify and prioritize the myriad problems faced by beedi workers. A comprehensive review of the literature provided critical insights into the multifaceted challenges encountered by beedi workers, thereby informing the selection of focal areas for investigation. From this review, seven common challenges emerged as recurrent themes warranting in-depth exploration. This selection process ensures a focused examination of the key challenges that significantly impact the well-being and livelihoods of beedi workers in the study area. By clarifying the severity and importance of various issues faced by this vulnerable workforce, the study's findings are expected to be a valuable resource for policymakers, non-governmental organisations (NGOs), and other stakeholders involved in promoting the rights and welfare of beedi workers.

## **METHODS**

The study was conducted in the Jangipur subdivision of Murshidabad district, West Bengal, which serves as a prominent hub for the beedi industry both within the state and the nation. This research relies on primary data obtained through a combination of interviews and a standardized questionnaire administered to beedi workers in the area. Primary data collection focused specifically on beedi workers actively engaged in the industry within the study area, taking into consideration the

literacy gap prevalent among this demographic. The subdivision comprises seven distinct blocks, and a sample size of 35 respondents was selected from each block. Therefore, a total of 245 samples were collected utilizing a combination of cluster and purposive sampling techniques. In this approach, the blocks of the subdivision were treated as clusters, while purposive sampling was employed to specifically target beedi workers meeting specific criteria, including a minimum of five years of experience in the beedi industry. This criterion was designed to gather opinions from employees who have considerable amounts of experience and knowledge of the difficulties that come with their line of work. During data collection, beedi workers were requested to rank the problems they encountered based on their lived experiences. This quantitative approach facilitated the systematic analysis of problem prioritization. Specifically, Garrett's Ranking Technique was applied to discern preferences, changes in the order of constraints, and advantages, assigning numerical scores to each based on the severity perceived by respondents. Garrett's Ranking Technique offers distinct advantages over simple frequency distribution methods by organizing constraints according to their perceived severity from the perspective of the respondents. Consequently, this technique enables a nuanced understanding of the relative importance assigned to different challenges by beedi workers. Moreover, it accounts for potential variations in rankings among respondents facing similar constraints, thereby enhancing the depth of analysis and interpretation.

### **Examining Preference and Ranking of Challenges Encountered by Beedi Workers**

This study looks into the challenges beedi workers deal with in their daily lives. We utilise Garrett's Ranking Technique to unbiasedly evaluate issues reported by employees and identify the most important challenges. We can prioritise issues according to worker preferences by using this strategy, as shown in Table 1.

Table 1. Ranking of Problems Faced by the Respondents

No	Problems faced by the Respondent	Ranks Given by the Respondent						
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>
1	Low Wages	31	37	29	51	46	27	24
2	Substandard Social Status	9	12	18	23	41	69	73
3	Health Issues	88	55	38	31	22	8	3
4	Job Insecurity	13	11	21	25	36	57	82
5	Long Working Hour	34	44	58	39	30	18	22
6	Insufficient Income	42	52	43	35	39	23	11
7	Difficult to access the Social Welfare Scheme	28	34	38	41	31	43	30

#### The Percent Position and Garret Value

Worker preferences were assessed through Garrett's technique, employing seven different scales. The percent position (calculated value), for every problem, was determined by utilising the pre-established Garrett ranking formula. Following that, a conversion table created by Garrett and Woodworth (1969) made it easier to convert

computed data into matching Garrett values that represented the relative significance of each problem that was found.

$$\text{Percent position} = 100 * (R_{ij} - 0.5) / N_j$$

$R_{ij}$  = Rank given for the  $i$ th variable by the  $j$ th respondent

$N_j$  = number of variables ranked by the  $j$ th respondent

Table 2. Percent Position and their corresponding Garret Value

No	Percent Position [1000 (R <sub>ij</sub> -0.5)/N <sub>j</sub> ]	Calculated Value	Garret Value
1	100 (1 – 0.5)/ 7	7.14	78
2	100 (2 – 0.5)/ 7	21.42	66
3	100 (3 – 0.5)/ 7	35.71	57
4	100 (4 – 0.5)/ 7	50.00	50
5	100 (5 – 0.5)/ 7	64.28	43
6	100 (6 – 0.5)/ 7	78.57	34
7	100 (7 – 0.5)/ 7	92.85	22

#### Calculation of Garret Value and Ranking

In this stage, each Garrett value (Table 2) was multiplied by its corresponding rank score (Table 1). Subsequently, row-by-row calculations were performed for each factor, resulting in individual scores being summed up to obtain the total value.

This total score was then divided by the total number of respondents to derive the mean score, as depicted in Table 3. The mean scores serve as the basis of Garrett's ranking where the most significant factor is usually the one with the greatest mean value.

Table 3. Calculation of Garret Value and Ranking

Description	Ranks Given by the Respondent							Total	Average	Rank
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>			
Low Wages	2418	2442	1653	2550	1978	918	528	12487	50.97	4
Substandard Social Status	702	792	1026	1150	1763	2346	1606	9385	38.31	7
Health Issues	6864	3630	2166	1550	946	272	66	15494	63.24	1
Job Insecurity	1014	726	1197	1250	1548	1938	1804	9477	38.68	6
Long Working Hour	2652	2904	3306	1950	1290	612	484	13198	53.87	3
Insufficient Income	3276	3432	2451	1750	1677	782	242	13610	55.55	2
Difficult to access the Social Welfare Scheme	2184	2244	2166	2050	1333	1462	660	12099	49.38	5

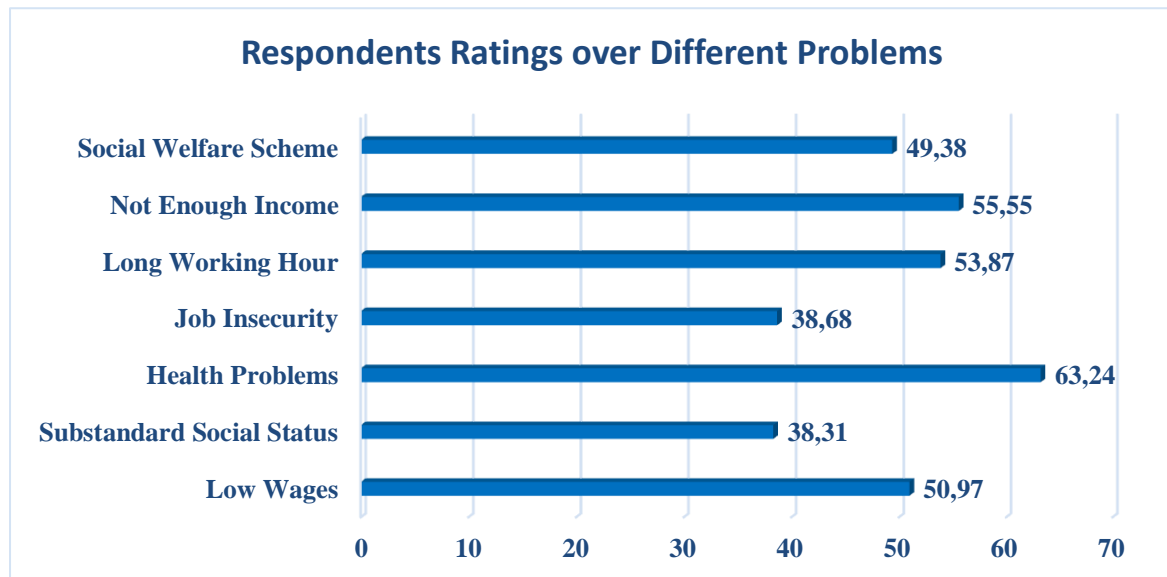


Figure 1. Respondent's Ratings over Different Problems using Garret Mean Scores

## RESULTS AND DISCUSSION

Based on the above analysis, it emerged that “Health Issues” represent the primary concern among Beedi workers, with a Garrett score of 15494 and an average score of 63.24. Subsequently, “Insufficient Income” ranked second, garnering a Garrett score of 13610 and an average score of 55.55. “Long Working Hours” secured the third position, with a calculated average score of 53.87. In contrast, with an average score of 31.58, “Substandard Social Status” received the lowest rating. A detailed summary of the average scores and ranks assigned to each problem is given in Table 3. Remarkably, a deeper look at Table 3 reveals that the average score difference between

ranks 1 and 2 is 7.69, greater than the average score difference for all seven concerns (3.56). This disparity is explained by the detrimental effects of extended work hours in a fixed posture, filthy workspaces, and ongoing tobacco dust exposure, all of which greatly worsen the health problems that the majority of beedi workers experience. Similarly, the difference in average scores between ranks 6 and 7 is around 11 points, remarkably lower than that of rank 5. The observed occurrence could potentially be explained by rising literacy rates, raising awareness of the fair treatment of people regardless of their line of work. In addition, the growing population in the developing nations of South Asia has raised the market for Beedis as they are a cost-effective form of tobacco consumption.

This heightened demand may lead to more work possibilities becoming available throughout the week. Further, Comprehensive knowledge of the difficulties experienced by beedi workers was obtained by applying an ethnographic approach and conducting in-depth interviews to gain additional insights into the problems that were presented below.

### **Health Issues**

According to the preferences given by the respondents, Health issues stand out as the most challenging issue confronted by Beedi workers in the study area. As stated earlier, the manual labour-intensive nature of the beedi industry, which is typified by tasks like rewinding thread, trimming tendu leaves, rolling beedis, folding beedi heads, and bundling beedis for convenient counting, compelled beedi workers to work long hours in one location. Additionally, unsanitary conditions and ongoing tobacco exposure put workers at risk for health issues. This observation is consistent with the remarks made by the WHO Representative to India, Dr. Roderico H. Ofriin, who stressed the risk associated with beedi rolling procedures. According to him, a thorough examination of 95 studies consistently demonstrated a high frequency of diseases or symptoms in different organ systems, highlighting the necessity of recognising beedi rolling as a risky practice.

### **Insufficient Income**

The income of beedi workers is significantly lower than that of workers in other manufacturing sectors, and even many unorganised sectors, which exacerbates the already existing income inequality. This discrepancy is mostly caused by the absence of suitable alternative livelihood options, which is especially problematic for unskilled beedi workers with weak bargaining power and is more common in rural areas. Thus, a cycle of suffering for beedi workers and their families is sustained by a lack of income. Affording basic necessities such as providing their kids with nutritious food, medical care, and education becomes an overwhelming task. Families become entangled in an ongoing battle for financial security as a result of this poverty cycle, which frequently lasts decades.

### **Long Working Hour**

In order to protect the welfare of employees working in beedi and cigar factories, the Beedi and Cigar Workers (Conditions of Employment) Act,

1966 mandates that no worker work more than nine hours a day or more than forty-eight hours a week. However, this law applies only to employees of industrial premises; it does not cover self-employed workers who operate from home, predominantly found in rural areas. As such, a large percentage of these labourers work longer than the required nine hours a day; in fact, many have been observed to commence and conclude their day with beedi-making activities, contributing to the blurring of boundaries between work and personal life. This lack of designated off-time further compounded the challenges confronted by workers in maintaining a healthy work-life balance within the beedi industry.

### **Low Wages**

To supposedly encourage productivity, beedi workers are paid according to the number of beedis they produce rather than the duration of time they labour. But the actual compensation per beedi is disproportionately low. For these workers, a decent wage might not even be guaranteed if they work longer than the suggested nine hours a day. This can be exemplified by the case of the Murshidabad district, where the minimum wage is set at Rs 178, considerably lower than the West Bengal government's prescribed minimum wage of Rs 267.44.

### **Difficult to Access the Social Welfare Scheme**

In order to improve the welfare and living conditions of beedi workers, the central and state governments implemented a comprehensive group Scheme. This initiative incorporates various benefits such as social security, financial aid, healthcare coverage, insurance, and housing support. However, lack of awareness and illiteracy among workers hinder their ability to access these benefits, with many finding the documentation and claiming process complex and challenging.

### **Job Insecurity**

Job insecurity poses a significant concern for unorganized sector workers in India, a reality prevalent within the beedi industry. Many workers in this sector operate without formal contracts or social security measures, relying solely on oral agreements. Furthermore, the availability of tendu leaves, which are frequently under the control of contractors, is essential to their way of life. During lean seasons, workers face unemployment and debt burdens or are compelled to migrate for employment opportunities. Moreover, instances of

workers speaking out against exploitation are met with threats of termination by contractors.

### Substandard Social Status

Despite the skill necessary for the profession, manual labour, especially rolling beedis, has long been associated with inferior castes in traditional Indian society, resulting in social stigmatisation. This inherited bias marginalizes the work of beedi workers, resulting in their exclusion from mainstream social circles dominated by individuals in more prestigious professions. However, there is a decreasing trend in such biases as education levels rise and awareness increases. Consequently, the issue of substandard social status emerged as a relatively less challenging concern for beedi workers in our study area, reflected by an average score of 38.31.

### CONCLUSIONS

This study employed the Garrett Ranking technique to systematically evaluate the difficulties experienced by beedi workers in the Jangipur Subdivision of Murshidabad. The findings of the study demonstrated the detrimental effects the beedi sector had on the welfare of its workers. Health issues emerged as the paramount concern, followed by insufficient income, long working hours, low wages, and difficulty accessing social welfare schemes, while, Job Insecurity and substandard social status are the least concern for the workers. The labour-intensive nature of beedi production, coupled with unsanitary conditions and prolonged tobacco exposure, underscores the urgent need for occupational health interventions. Furthermore, the meagre income exacerbates income inequality, perpetuating a cycle of poverty for workers and their families. Despite regulatory provisions, job insecurity persists, as many workers lack formal contracts and social security. Additionally, the social stigma associated with manual labour contributes to substandard social status for beedi workers, though this bias may diminish with rising education levels. Addressing these multifaceted challenges demands comprehensive policy interventions aimed at enhancing occupational health, financial stability, and social security for beedi workers.

### REFERENCES

- Alamelumangai, S., & Soma Sundram, P. M. (2020). *A Survey on Health Status of Women Beedi Workers in Mukkudal*. In B. W. Dharma Raja & Manonmaniam Sundaranar University, Minor Research Project Report. Manonmaniam Sundaranar University.
- An evidence-informed policy brief on occupational health hazards among bidiworkers. New Delhi: World Health Organization, Country Office for India; 2022. Licence: CCBY-NC-SA 3.0  
IGO.[https://cdn.who.int/media/docs/default-source/india-news/bidi-rolling-is-anoccupational-health-hazard--who-study/who\\_policy\\_brief\\_bidi\\_rollers\\_brochurel.pdf?sfvrsn=930a09f0\\_2](https://cdn.who.int/media/docs/default-source/india-news/bidi-rolling-is-anoccupational-health-hazard--who-study/who_policy_brief_bidi_rollers_brochurel.pdf?sfvrsn=930a09f0_2)
- Arora, M., Datta, P., Barman, A., Sinha, P., Munish, V. G., Bahl, D., ... & Tullu, F. (2020). The Indian bidi industry: trends in employment and wage differentials. *Frontiers in Public Health*, 8, 572638.
- Bandyopadhyay, O. (2023). *Beedi workers: a tale of exploitation*. Safety Management.
- Chakraborty. (2023, November 9). WB: Woes of Beedi Workers Continue in Murshidabad District. <https://www.newsclick.in>. Retrieved April 15, 2024, from <https://www.newsclick.in/wb-woes-beedi-workers-continue-murshidabad-district>
- Committee on Subordinate Legislation (Sixteenth Lok Sabha. The cigarette and other tobacco products (packaging and labelling) amendment rules 2014. Eleventh report; 2016.
- Garret, H. E., & Woodworth, R. S. (1969). Statistics in Psychology and Education. Vakils. Feffer and Simons Pvt. Ltd, 329, 67-71.
- Improving working conditions and employment opportunities for women Beedi workers in India (Report INT/02/M57/NET). (2003). Retrieved April 14, 2024, from [https://www.ilo.org/wcmsp5/groups/public/--asia/---ro-bangkok/---sro-new\\_delhi/documents/projectdocumentation/wcms\\_125467.pdf](https://www.ilo.org/wcmsp5/groups/public/--asia/---ro-bangkok/---sro-new_delhi/documents/projectdocumentation/wcms_125467.pdf)
- Indian Labour Year Book 2015. (2015). In <https://labourbureau.gov.in>. Government of India, Ministry of Labour and Employment. Retrieved April 13, 2024, from

- [https://labourbureau.gov.in/assets/images/pdf/ILYB\\_2015.pdf](https://labourbureau.gov.in/assets/images/pdf/ILYB_2015.pdf)
- Jahangir, S. (2018). Life worlds of the bidi workers in Murshidabad district of West Bengal: A qualitative assessment.
- Kumar, P., Kamath, A., Nayak, R., Kulkarni, M. M., Kamath, V. G., Mullapudi, S., & Bhagawath, R. (2021). Beedi rollers' perception toward alternative means of livelihood amid economic benefits. *Indian Journal of Community Medicine*, 46(2), 268-272.
- Mohandas, M. (1980). Beedi workers in Kerala: Conditions of life and work. *Economic and Political Weekly*, 1517-1523.
- Raju, S., D Souza, V., Punnoose, S., & D Souza, J. (2015). Comparative Study on the Health Problems between Beedi Rolling Women and non Beedi Rolling Women of a Selected Community at Mangalore. *Indian Journal of Public Health Research & Development*, 6(3).
- Roytalukdar, R. (2020). *Women continue to roll beedis despite low wages, health risks*. Village Square.
- Sabale, R. V., Kowli, S. S., & Chowdhary, P. H. (2012). Working condition and health hazards in beedi rollers residing in the urban slums of Mumbai. *Indian Journal of Occupational and Environmental Medicine*, 16(2), 72-74.
- Saini, R. S., & Jaitli, H. (2001). Beedi Industry-Working For Solutions: Working conditions and legal safeguards for beedi workers [Report]. Retrieved April 13, 2024.
- Sudina, M., & Lakra, A. J. (2015). Awareness on health and social welfare benefits among beedi workers—a community survey. *Manipal Journal of Nursing and Health Sciences* (MJNHS), 1(2), 100-103.
- World Health Organization: WHO. (2022). Bidi rolling is an occupational health hazard: WHO study.  
<https://www.who.int/india/news/feature-stories/detail/bidi-rolling-is-an-occupational-health-hazard--who-study>