

Examining Determinants of Health among Safai Karmacharis (“Ex-Untouchables” Caste) in Mumbai

Lalit Khandare and Pradeep S. Salve

The purpose of the two-phase, sequential mixed methods study using Critical Caste Theory (CasteCRT) was to explore the socioeconomic condition, intergenerational caste-based slavery, and health vulnerability of municipal workers associated with the collection, transportation, and landfilling of municipal solid waste in Mumbai. The first phase involved in-depth interviews of 10 Safai Karmacharis and 12 key informants from the Municipal Corporation of Greater Mumbai (MCGM). Individual interviews inquired about household and parental information, migration history, reasons for migration, work history, and expectations from the municipal corporation. The second phase involved cross-sectional survey of 360 Safai Karmacharis from six municipal wards of the MCGM. To identify the diagnosed causes of death, 100 households were interviewed who had lost their earning member in the previous 3 years. A study of Safai Karmacharis employed in the BrihanMunicipal Corporation of Mumbai found that the policies directed at uplifting of workers have been institutionalizing caste-based occupations. The Warsa Hakka policies of the government assure employment of the Safai Karmacharis' progeny. Other findings highlighted the need to address precarious working conditions; the need for change in caste-specific recruitment processes; educational, financial, and healthcare support; efforts to address their psychosocial slavery; and freedom to voice their concerns. This paper elaborates the factors that keep generations of Safai Karmacharis in this occupation and recommends practical solutions to break the vicious cycle.

Keywords: Safai Karmacharis, untouchability, slavery, manual scavenging, institutional slavery, apartheid, Municipal Corporation of Greater Mumbai, CasteCRT, municipal waste removal

Lalit Khandare, Director, MSW Program, Co-Chair of Claire Argow Social Work Program, Pacific University, 4000 East 30th Ave, Building 19, Eugene, Oregon. He can be contacted at lalitkhandare@pacificu.edu. Pradeep S. Salve, Assistant Professor, Department of Population Development, International Institute for Population Sciences, (IIPS), Mumbai, India. He can be contacted at pradeep_salve@iipsindia.ac.in.

Introduction

Sant Gadge Baba Gram Swachata Abhiyan, Swachh Abhiyan started by the National Democratic Alliance (NDA) government and Nirmal Bharat Abhiyan started by the UPA (United Progressive Alliance)-led government had ambitious targets on sanitation and the Clean India Campaign. Some of the targets are focused on open defecation-free villages (toilets for every household); clean rivers; and access to clean roads, railways, and public utilities. One of the major burdens of realizing these ambitious targets was the sanitation workers, who have been historically recruited from “ex-untouchable” castes. Mahatma Gandhi is projected as a symbol of Clean India Campaign; he and many other leaders justified using spiritual reasons for inter-generational continuation of the role of scavenging and cleaning for Scheduled Castes (SCs)¹. The present research used Critical Caste Theory (CasteCRT) to investigate the contemporary structural issues of municipal workers or *Safai Karamcharis* revealing the ways in which government policy itself keeps generations of workers in this occupation. The study revealed the government’s inadequate implementation of social welfare schemes and policies developed for the upliftment of *Safai Karamcharis*. The study examined the different but interlinked components of the vicious cycle that forces generations of municipal workers to be stuck in the same occupation.

Theoretical Background

The everlasting issue of untouchability is reproduced over centuries, and it can be best understood with CasteCRT. CasteCRT analyzes various themes in understanding institutionalized caste-based occupations. First, similar to CRT’s notion that racism is “normal, not aberrant, in American society” (Delgado, 1995, p. xiv), the CasteCRT claims that caste and untouchability are the basic foundations of Indian society and have become the norm and have been idealized throughout the country for generations. Hence, it is essential to expose the nature and causes that violate the basic human rights of “ex-untouchable” castes. The portrayal of a caste-blind society is an illusion, and must be deconstructed. Second, we use several epistemological traditions to understand caste-based oppression, including liberalism, law and society, feminism, Ambedkarism, Anti-racism, and pragmatism. Third, beneficiaries of the post-colonial democratic society were caste-Hindus who delineated limited rights of Dalits and the marginalized. Fourth, experiential knowledge helps to analyze the myths, presuppositions, and wisdoms to express a common culture about race/caste. These “stories, or narratives, are extremely important among CRT scholars in that they add necessary contextual

¹The articles 341 and 342 of the Indian Constitution include a list of castes formerly known as the “untouchables,” which are practically referred to as the “Scheduled Castes,” for special entitlement in national parliament, state legislatures, municipality boards, and village councils, and jobs in the public sector and higher education.

contours to the seeming 'objectivity' of positivist perspectives" (Delgado, 1995; Williams, 1995). Fifth, we critique and reinterpret contemporary laws within the context of their limitations and explore how they are weak and reinforce caste hierarchy. Sixth, we exposed the cumulative risk and increased risk of harm when a group of individuals is forced into environmentally toxic and unhygienic situations. Seventh, in light of social determinants of health, we argue that caste-based occupations are state-supported mechanisms to reinforce the group-differentiated morbidity.

Systemic oppressive caste-based practices can be epistemologically explored from various perspectives. The age-old caste-based slavery has continued in modern forms. For example, "ex-untouchables" are forced to continue conservancy work and manual scavenging. Conservancy work includes work requirements that can be termed as manual scavenging, such as cleaning manual excreta by hand. Entering in sewage is an extreme form of modern atrocity unseen in recent history; we can compare such atrocity with Jews put in gas chambers during the Nazi rule. A type of slavery has been forced upon involuntary war captives and transatlantic slave trade using coercion or compulsion. Other characteristics of slavery were that it was acceptable for other ethnic groups who may be outside one's own community. The arrangement of slavery gives the right of ownership over another person. The "owner" can decide about the person's life and work as if they were commercial goods. Untouchability came into practice around 400 BC within the Vedic religious tradition of caste hierarchy with graded occupations. Religious scriptures like *Naradiya Samhita* enlist duties of slaves such as disposal of human excreta and in another scripture, *Vajasaneyi Samhita*, the Chandals and Paulkasa are addressed as slaves, and are assigned the work of removal of human excreta. Similarly, war captives were assigned derogatory occupations, when they continued these jobs they were not excluded from the mainstream society. During Muslim rule, sweeping and scavenging had become a profession. The war captives were forced to clean latrines, bucket privies, and dispose of night soil. When they were freed, they were not accepted by the society so they formed a separate caste and continued their work. The practice of manual scavenging became further a formal profession during British rule, especially due to the need in municipalities, cantonments, and railways (Sachchidananda, 2001). These castes were forced to perform the most menial occupations in the society. Some of the jobs were cleaning and maintaining sanitation in the society, disposing of dead animals, and engaging in leather-related occupations which was usually considered as taboo by other members of the society. CasteCRT exposes over a period of time, social norms defined certain caste-based occupations as pure and others as impure and unwanted. These ritual caste-based norms were further institutionalized during post-colonial (post 1947) rule in the Indian subcontinent.

The forms of slavery based on caste are a confluence of voluntary and involuntary participation of members of the Indian society. Conservancy work is a typical example where we can observe the institutionalized form of untouchability or modern slavery in post-colonial society. The involuntary participation of conservancy workers in the occupations is due to social, economic, psychological, and

religious factors. They seemingly participate voluntarily in the job market due to lack of access to education, healthcare, housing, and other basic necessities. This population of conservancy workers comes from predominantly Scheduled Caste (ex-untouchable castes). The population of ex-untouchable caste is around 201.4 million according to the 2011 census (Office of the Registrar General & Census Commissioner, 2011). According to the National Family Health Survey 2015–16 (NFHS-4), 70.7% of Scheduled Tribe and 50.8% of Scheduled Caste members were in the lowest two wealth brackets compared to 37.6% of other backward caste, and 24.8% of other castes (IIPS, 2016).

Materials and Methods

The workers maintaining cleanliness in cities are popularly known as Safai Karamcharis throughout India. The Municipal Corporation of Greater Mumbai (MCGM) has 28,821 Safai Karamcharis listed as regular employees. Their work involves manually cleaning public places including roads, footpaths, collecting waste from community dustbins, and disposing of waste in garbage compactors or dumping it on landfill sites. The aim of the two-phase, sequential mixed methods study was to explore the socioeconomic conditions, intergenerational caste-based slavery, and health vulnerability of municipal workers associated with the collection, transportation, and landfilling of municipal solid waste in Mumbai.

The first phase of the study involved in-depth interviews with workers who had more than 5 years of service to share work-related issues/problems and their expectation from the municipal corporation. In-depth interviews were conducted with 10 waste loaders and street sweepers to capture their personal insights on the subject. Participants were asked about household and parental information, migration history, reasons for migration, work history, and expectations from the municipal corporation. In-depth interviews were also conducted with 12 key informants, Assistant Head Supervisor, Supervisor, and Mukadam of municipal solid waste management department. Qualitative narratives are significant in reaching out to participants to document their experiential struggles as encouraged under CRT, more specific here in this context the CasteCRT.

The second phase of data collection involved a cross-sectional survey of 360 Safai Karamcharis who were interviewed in 6 of the 24 municipal wards of the MCGM between March and September 2015. In addition, to identify the diagnosed causes of death, 100 households were interviewed who had lost their earning member in the previous 3 years. The survey employed a standardized structured questionnaire that included items about socioeconomic and working conditions of workers, self-reported morbidity, treatment-seeking behavior, and mental health. The survey schedule was divided into three sections, namely, household schedule, individual schedule, and deceased person's schedule to identify the causes of death among workers who died during the service. The household questionnaire asked about housing conditions and household characteristics of the Safai Karamcharis. The individual questionnaire included demographic characteristics – age and gender, educational level, working hours, caste, religion,

income, place of residence, place of work, and substance use. The questionnaire also had specific items about substances used by Safai Karamcharis including chewing tobacco, smoking tobacco, and alcohol consumption along with their frequency (occupationally, frequently, and daily) of consumption. Past studies on municipal workers showed excess use of tobacco smoking and smokeless tobacco causes respiratory diseases, hypertension, stroke, cardiovascular disease, cancer, and tuberculosis. This further resulted in deterioration of health and degrading the socioeconomic condition over a period of time (Kahn & Cooper, 1990; Mäkelä, Raitasaol, & Wahlbeck, 2015; Rout & Rout, 1997).

The informed consent of participants was obtained in oral and written form in the local language, Marathi. Ethical clearance prior to the primary data collection was approved by MCGM and Student Research Ethics Committee of the International Institute for Population Sciences, Mumbai. Participants were assured of confidentiality and informed that survey data would be used for research purposes only.

Limitations of the Study

This study used a cross-sectional study design where data were collected at one-time point and therefore it gives no indication of the sequence of events. There may also be seasonal variations in the prevalence rate of major morbidities among waste loaders and street sweepers. For instance, the prevalence of musculoskeletal disorders may increase during the rainy season because of the waste getting wet and therefore requiring extra energy for sweeping than in other seasons. A study by Ivens, Ebbehøj, Poulsen, and Skov (1997) revealed a significant relationship between seasonal variations in the work environment and the health risk posed to the workers associated with waste collection and street sweeping. Since the survey was carried out at a specific point in time, seasonal variations in the prevalence of morbidities were not covered.

Results

The results section elaborates the themes that emerged in the qualitative study and relate them to quantitative survey results. The themes that are discussed in this section are: (1) Reinforcing the age-old caste system (subthemes of spatial analysis, spatial institutionalization of caste-based occupations, cumulative risk of ghettoization); (2) determinants of health (subthemes – substance abuse, morbidity, causes of deaths); (3) critique of liberal state welfare policies – state policies, Clean India Campaign, indebtedness; and (4) voices for freedom.

Reinforcing Age-Old Caste System – Spatial Analysis

CasteCRT begins with the understanding that the “practice of untouchability” is an inherent part of Indian society. Historically, untouchability has become idealized

and normalized in the cultural ethos. Scavenging occupations are linked with the practice of untouchability. Historical resistance by the “ex-untouchable” to forego their forced occupations instill rage among caste Hindus and forces them to react violently, and on many occasions to kill, rape, and humiliate to punish them and create terror among other members of the community. Dr. Ambedkar articulated that the society was essentially based on the class system such as the priestly class (Brahmins), the military class (Kshatriya), the merchant class (Vaishya), and the artisan and menial class (Shudra) (Ambedkar, 1979). Ambedkar (1979) further argued that caste system is a division of labor and divides laborers based on their castes. The assignment of one’s location in one caste is determined by birth and they are forced to remain in their caste as watertight compartments. The hierarchy of gradation of laborers acts in a manner which allows contempt toward one who is lower, and reverence to one who is above you. The Indian Constitution has abolished every practice of discrimination and an individual is free to choose the occupation of one’s choice. However, caste-based untouchability violated the principle freedom to choose one’s occupation and forced certain communities to continue menial jobs irrespective of their capability and skills. However, many States failed to implement the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013- M.S. Act 2013 (Government of India, 2013). The stratification of occupation-based caste system existed for a long period of time. In addition, history offers evidences of caste-Hindu pushing “ex-untouchable” castes into the serving occupation through the menial work of sweeping, cleaning, and managing sanitation work at village levels (Enthoven, 1920; Shyamlal, 1997). In contemporary time throughout India, this work is performed by “ex-untouchable” castes. For instance, the Bhangi, Mehtar, and Chohra/Chura castes in Gujarat, Maharashtra, Madhya Pradesh, Himachal Pradesh, Jammu and Kashmir and Rajasthan; the Chachati and Paky castes in Andhra Pradesh and Puducherry; and the Halal Khor, Lalbegi, and Mehtar castes in Assam, Bihar, Uttar Pradesh, Orissa, West Bengal, and Nagaland (Sarkar, 1984). The names of castes may sound different in different states but all of them are at the bottom of the caste hierarchy.

Castes-specific migration pattern into scavenging occupations

The findings of our study reinstate the existence of the caste-based occupation phenomena in India and show that almost 82% of Safai Karamcharis belonged to the SCs as compared to the 18% other castes (Table 1). Castes like the Mahar,

Table 1 Caste composition of Safai Karamcharis

Caste	Safai Karamcharis (%)	N
Scheduled caste	81.94	295
Others	18.06	65
Total	100	360

Matang, Meghwal, Harijan, Valmiki, and Chambhar dominate in this occupation; others caste like Kathewadi, Kunbhi, Vadar, and Devendrakilathan are found in smaller numbers.

Safai Karamcharis in Mumbai mainly migrated from Rajasthan, Uttar Pradesh, Madhya Pradesh, Gujarat, Andhra Pradesh, and Maharashtra. At the beginning of the 19th century during the famine of 1803, these workers mainly migrated to Mumbai from the Konkan and Deccan seeking employment (Darokar, 2009). Migration during this period was exclusively based on caste and religion. People who migrated to Mumbai were available as cheap laborers to carry on dehumanizing and precarious conservancy work. Previous studies found that the British government forced SC people to migrate to clean urban areas (Darokar, 2009; Morris, 1960). Our findings confirm this migration trend; around 42% of Safai Karamcharis in Mumbai are migrants. A large number of Safai Karamcharis came from Marathwada and the Western Region of Maharashtra, followed by Vidarbha. Districts like Ahmednagar, Ratnagiri, Jalna, Beed, Nanded, and Sangli in Maharashtra represent the highest number of Safai Karamcharis in the Mumbai Municipal Corporation.

Spatial institutionalization of caste-based occupations

The conservancy work in many municipal corporations has become a hereditary occupation, continued from one generation to another through the municipal policy (Tripathi, 2012), for instance, the Warsa Hakka (a phrase that means “hereditary right” in Marathi language) system in the case of Mumbai Municipal Corporation. The Lad-Page Committee recommended in 1972 that Mumbai Municipal Corporations should adopt preferential treatment (PT case) in the recruitment of municipal workers in order to empower Safai Karamcharis. This system allows a worker to nominate his wife, son/brother, unmarried or widowed daughter/sister, or any other dependent to the post of Safai Karamchari after his retirement, death, or permanent disability. Another policy decision of the Social Justice Department of the Government of Maharashtra was sent to all of its municipal corporations for recruiting only Mehtar, Bhangi, Valmiki, and other Scheduled Caste community members as Safai Karamcharis under the Warsa Hakka policy (Government of Maharashtra, 2015). To secure housing facility under the scheme, one should serve for at least 25 years. Such policies have been fiercely debated on public forums. The proponents of Warsa Hakka endorse that this system secures Safai Karamchari’s social and economic welfare but social activists strongly condemn it as an age-old casteist and regressive move that perpetuates the caste system. The Warsa Hakka policy has been in place since 1975, resulting in generations of workers doing this stigmatized and hazardous work throughout Maharashtra and India. Our study highlighted that more than three-fourths (77.2%) of Safai Karamcharis are second or third-generation workers. Nine out of 10 workers (90%) have adopted this occupation after their father’s retirement or death and only 5% took their mother’s place (Table 2). This inter-generational policy has institutionalized caste-based occupations, and it will

Table 2 Reasons for working as the Safai Karamcharis

Reasons	Percent	N
Family members involved	77.2	278
Through recruitment	5.3	19
Through labor union	15.8	57
Others*	1.7	6
Total	100	360

*Others include low education and friend's involvement.

continue for many more generations due to the insecurity of housing in cities like Mumbai.

Cumulative risk of ghettoization

Cumulative risk is increased risk of harm when a group of individuals is forced into an environmentally toxic and unhygienic situation. These vulnerabilities further get complicated and result in increased morbidity as they become generational victims of caste oppressive structures, everyday discrimination, occupational segregation, and caste-specific ghettoization. The Ghetto may be defined as a spatially concentrated area which separates people involuntarily and limits some particular communities, for example, ethnically or religious population groups, to be held and treated as inferior by the dominant society. The separation may be based on race/caste or ethnicity with combined spatially concentrated areas whose residents are excluded from the surrounding society (Darokar, 2009). As workers migrated to urban areas during British period, their housing settlement was largely based on caste. Our study also evidences and reinstates the argument that Safai Karamcharis are systematically isolated when considering their housing facility. There are Labor Residential Colonies in Mumbai exclusively for workers who forcefully settled in the unhygienic and vulnerable places. For instance, Labor Colonies such as Ramabai Colony aside of Chembur station are exposed to the railway track as well as one of the biggest fish market in Chembur. Similarly, a Bapiti Labor Colony at Grand Road is close to the red-light area of Kamathipura, the Transit Camp which is near the Deonar dumping ground, and a Labor Colony near Deonar abattoir, etc. Many workers live in slum areas in Mumbai. The qualitative interviews substantiate our argument that colonies of Safai Karamcharis are deliberately settled in the less important areas of the city. For instance, one participant shared.

Basically, the Bapiti Colony was constructed as the residential apartment for municipal officials but due to the closed red-light area of Kamathipura, officials rejected that housing societies and then that were allocated to our Safai Karamcharis. Now more than 70 percent of workers living there are from second to third generation of Safai Karamcharis, I don't know how many more years this will continue [38 years old; 3rd generation Safai Karamchari]

Respondents/Safai Karamcharis are unknowingly trapped under ghettoization in the urban areas. In this proximity, workers are relegated to live here together for generations with no opportunity for socioeconomic mobility.

Determinants of Health

CasteCRT examines how Caste and Savarna privileges are reproduced by the geography of segregated work allocations and geography of spatial distinctive roles in perpetuating caste-based apartheid. The “social welfare policies” on housing, hereditary rights of jobs, and other similar policy features directly impact on negative health determinants of Safai Karmacharis, leading to their premature deaths, and physical and mental violence. In others words, as Gilmore (2002, p. 261) eloquently puts the context for racism in relation to the issue of caste, “racism is the state-sanctioned or extra-legal production and exploitation of group-differentiated vulnerability to premature death.” This section examines the impact of substance abuse, morbidity, and causes of death among Safai Karmacharis.

Substance use

The nature and places of work have negatively affected the physical and psychological well-being of Safai Karamcharis and they have resorted to multiple substances to cope with their work environment. The consumption of tobacco (smoking and chewing) and alcohol was found to be common among Safai Karamcharis. The study found the prevalence of substance use among Safai Karamcharis to be around 46% consuming tobacco and 45% consuming alcohol. Consumption of tobacco and alcohol is very high among Safai Karamcharis and the majority begin their day by consumption of alcohol. They reported that two-thirds (61%) of Safai Karamcharis consume alcohol daily, followed by chewing tobacco (85%) (Table 3). The Karamcharis who participated in in-depth interviews proposed that alcohol consumption work as an anesthetic during the working hours. For instance:

The alcohol consumption is necessary for us before engaging in our work; otherwise it is not possible to work continuously in the filthy environment [45 years old; Karamchari]

Participants also reported that Karamcharis tend to become alcoholic after joining this occupation; for instance, a Safai Karmachari narrates that:

My husband died due to excessive alcoholism, he was never used to have alcohol before engaging in cleaning work but over the period of years he become addicted to the alcohol as continue the work of waste collection. I use to confront him daily but it resulted in violence on me. He died due to the liver failure at the age of 47 years; doctor said that he died due to the excessive use of alcohol which causes liver failure. After three years of his

death I continued his job as a Safai Karamchhari in municipal corporation [40 years old; widow of Safai Karamchhari]

Substance use not only influences the health outcome of Safai Karamchharis but at the same time determined workers treatment-seeking behavior for fatal illnesses. Workers addicted to substances frequently dropout from the course of medication to treat chronic diseases, which subsequently resulted in the fatal events. For instance, one respondent shared:

My husband worked for 18 years as a Safai Karamchhari in Mumbai. He was diagnosed with Tuberculosis when he worked more than 40 years as a Safai Karamchhari. He was severely alcoholic. The treatment of Tuberculosis required continuous follow-up for the medication. Due to his drinking habit he used to ward off the follow-up and medicine which increases the ineffectiveness of medicine during the treatment seeking. He died because of Total Drug Resistance-Tuberculosis (TDR-TB) before getting retirement of his service. I started working as a Safai Karamchhari after his death [40 years old; widow of Safai Karamchhari]

Subsequently over the generations, the substance use including alcohol consumption decreases among the Safai Karamchharis. For instance, another respondent said:

Earlier it was like if you want to work you have to drink the alcohol but now this has been changing over the time period. This new generation of workers are not much alcoholic, there are changes in alcohol brands also. Previously, workers used to consume the local alcohol including “country liquor” but now drinking beer and other brands which are less alcoholic are common [38 years old; supervisor of Safai Karamchhari]

Morbidity

The substance use and nature of work leave Safai Karamchharis vulnerable to communicable and noncommunicable diseases. Previous studies highlighted that workers associated with solid waste management have higher prevalence of morbidity compared to the general population (An et al., 1999; Athanasiou, Makrynos, & Dounias, 2010; Gellin & Za on, 1970; Issever, Gul, Erelel, Erkan, & Gungor, 2002; Thorn, 2002). Safai Karamchharis are exposed to bacterial infections

Table 3 The prevalence and frequency of substance use among Safai Karamchharis

Substance use	Yes	Occasional	Frequently	Daily	N (360)
Alcohol	45.6	12.7	26.6	61.2	164
Tobacco	46.1	2.4	12.6	85.0	166
Smoking	14.7	27.8	20.4	51.8	53

that lead to the skin, eyes, limbs, respiratory, and gastrointestinal illness. At the same time, long hours of repetitive working posture resulted in musculoskeletal disorders among workers. The present study reported that the Safai Karamcharis frequently suffered from pain in the lower back, shoulders, wrists/hands, and hips/thighs. Subsequently, our study revealed that the Safai Karamcharis also suffer from tuberculosis, heart disease, cancer, and liver diseases. The study found the nature of work, irregular food habits, and alcoholism enhance the risk of tuberculosis and life style-related diseases. The Safai Karamchari begin work early in the morning. They hardly get time for breakfast and start working with just a glass of water or tea. Without having adequate breakfast, Safai Karamcharis continuously work until afternoon. Supervisors explain below that such uncertain working conditions affect them in the long run over the years:

In early morning around 6.00 AM all Safai Karamcharis have to report at office, wherefrom they resume their assigned work without having breakfast. Our work begins at early morning around 6.30 AM to 01.30 PM because we have to finish it as early as possible because of the low density on road at early morning. We start at early when people are in their sleep and finished it before they leave for their work, so they cannot face problem due to our cleaning work. I think our Safai Karamcharis do hard work then the others workers, they do dirty job for others, so they can live in healthy and clean environment [43 years old; supervisor of Safai Karamchari]

The work nature and insufficient food intake has adverse effects on the health and nutrition of workers deteriorating their health further.

Causes of death

The occupation of municipal waste collection is placed in the world's most hazardous employment, and it is one of the top five hazardous types of work in America (Lam, 2016; Tibbetts, 2013). In developing countries, where over 90% of municipal solid waste is dumped in open space, it affects the workers associated with its management (World Bank, 2018). The nature of work and the health behaviors of workers in low-income countries make them vulnerable to fatal diseases. In order to assess the causes of death of Safai Karamcharis in Mumbai, we obtained the official data of deaths during service from the Municipal Corporation of Mumbai. The official mortality data show that 2039 Safai Karamcharis died during service in 14 out of 24 municipal wards between 1996 and 2006 (Nair, 2006). And, Table 4 shows 1940 deaths of Karmacharis from 2007 to 2014. Thus, over 18 years, 3,979 Safai Karamcharis died before their retirement from service in Mumbai. The mean age of workers at the time of death was recorded as 58 years. In the past decade, the absolute number of deaths of Safai Karamcharis has been decreasing over the years but it is still higher than for other occupations. For instance, the death rate of Safai Karamcharis is 9 per 1,000 compared to the 6.7 death per 1,000 of the general population in Mumbai (Table 4) (Registrar General, 2016).

Table 4 Number of deaths of Safai Karamcharis in BrihanMumbai Municipal Corporation over a 10-year period

Year	Deaths
2004	288
2005	246
2006	247
2007	246
2008	294
2009	299
2010	322
2011	264
2012	222
2013	186
2014	107
Total	2721

Source: Compiled by authors from official data of the Municipal Corporation of Greater Mumbai. The data from 1996 to 2003 are not available with authors.

This study found out that among 100 respondents, 51% of Safai Karamcharis died due to noncommunicable diseases, whereas 42% died due to communicable disease. Seven percent of deaths occurred due to road accidents while working and because of intentional self-harm (Suicide). In particular, more than one-third (34%) of Safai Karamcharis died because of tuberculosis (TB) followed by cardiovascular disease (21%), liver disease (10%), cancer (10%), and stroke (7%) in the past 3 years (Table 5). Tuberculosis was found to be the leading cause of death of Safai Karamcharis which could be because of many contextual factors (sweeping the dust, food habits, alcoholism, and lack of treatment seeking).

There are free health services for Safai Karamcharis in a condition that they have to access only civil health facilities for the health treatment. In this case, municipal hospitals are supposed to give priority attention to Safai Karamcharis, but this does not happen on the ground. The lack of proper health facilities and overcrowding at these hospitals resulted in delayed provision of healthcare. The in-depth interviews revealed the actual profile of these facilities, for instance:

We go to the municipal hospital for treatment, but the doctors don't pay attention to us as they think we don't have any other option. Anyhow there is no use of going to these facilities because we often have to buy all the medicines from external pharmacies and get the diagnostic tests done from an external lab. Why should we go there? Only to save the doctor's fee? [42 years old; Safai Karamchari, recovered from tuberculosis]

Even when Karamcharis seek medical treatment for illness in these facilities, they have to produce the medical fitness certificate when resuming the job. If they

Table 5 Communicable, noncommunicable, and injury certified causes of death of Safai Karamcharis in the past 3 years

Causes of death	Safai Karamcharis – N/Percentage
Communicable	
Tuberculosis	34
HIV- AIDS	5
Hepatitis B	3
Noncommunicable	
Kidney disease	3
Stroke	7
Liver disease	10
Cancer	10
Cardiovascular disease	21
Injury	
Road accidents	5
Suicide	2
Total deaths	100

Table 6 Previous medical checkup

Medical checkup last time	Percent	N
No medical	11.7	42
Three months	3.9	14
Sixth months	6.4	23
One year	4.2	15
More than 1 year	19.7	71
More than 5 years	54.2	195
Total	100	360

fail to produce it, then the municipal corporation will ask them to take unpaid leave until they provide the certified document indicating they are fit for work. Due to this condition, many workers do not seek treatment in a civil facility and go to private hospitals where the services are costlier. The Brihan Mumbai Municipal Corporation used to organize annual medical check-ups for Safai Karamcharis, but more than half (54%) of karamcharis we surveyed reported not having gone for any medical check-up organized by the corporation over the previous 5 years (Table 6).

We also observed that the Warsa Hakka scheme was primarily used by Safai Karamcharis, and other medical aid, scholarship, has hardly reached this population (See Table 7).

Critique of Liberal State Welfare Policies

CasteCRT looks critically at liberalism and progressive policies for the upliftment of Dalits. The notion of reforms on annihilation of castes were superficial and

Table 7 Welfare schemes

	Yes	No
Scholarship	10.4	89.6
Medical	12.1	87.9
Housing	11.3	88.7
Warsa Hakka (PT case)	61.3	38.7

were restricted toward providing better working conditions like protective gear to continue the age-old occupations. The reforms never addressed the intergenerational transfer of these menial jobs from certain caste groups. This section looks at progression in state policies on Safai Karamcharis, indebtedness, and the Clean India Campaign.

State policies

Including the public policies of the municipal corporation, the state and union government looks unfavorable to Safai Karamcharis. In 1952, a committee was appointed under the chairmanship of V. N. Barve for enquiry of the scavenger's living condition. In the year 1953, the first backward class commission recommended that states should raise funds to improve the standard of the quarters for municipal workers and quarters should be in different regions rather than placing them in restricted areas. In addition, they suggested the need for mechanization for cleaning purposes which would prevent the manual handling of municipal waste. The Central Board of Harijan Welfare studied the living and working conditions of Safai Karamcharis and recommended the need for center-sponsored schemes for the welfare of Safai Karamcharis in 1956. Subsequently, the inquiry committee under the chairmanship of Prof. N.R. Malkani suggested for improving the working and living conditions of municipal workers and argued for discouraging the use of dry latrines in India. Government reports show that there are around 2.6 million dry latrines in India which requires Safai Karmacharis to clean them (Office of the Registrar General & Census Commissioner, 2011). The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act was constituted in 1993 for abolishing the practice of manual scavenging and banning the construction of dry latrines. However, this law does not consider one's job manual as scavenging if protective gear is used. The National Safai Karamchari Finance and Development Corporation under the Ministry of Social Justice and Empowerment provided financial loans at concessional rates to the target group of Safai Karamcharis in 2004–05. Over 336 million Rupees were disbursed for implementation of a national scheme for liberation and rehabilitation of scavengers up to 2002–03 (Lok Sabha Secretariat, 2013). The budgetary allocation under, "Self-Employment for the Rehabilitation of Manual scavengers," was 4.48 billion Rupees in 2014–15, and was reduced to a mere 50 million Rupees in 2017–18. Despite the early efforts to improving the condition of Safai Karamcharis, the majority of schemes actually increased

bureaucratic hurdles rather than uplifting the Safai Karamcharis who were deprived from accessing socioeconomic and public resources.

Clean India campaign

In 2014, the prime minister of India, Narendra Modi said, “My identity is of a Hindutvawadi [one who promotes the Hindu religion], but I say build toilets before you build temples.” His government emphasized the importance of modernizing India’s sanitation system. The Swachh Bharat Mission (SBM) is one of the most well-known programs of government since 2014 which aims to end open defecation in the country. The government substantially increased the allocation of the financial budget for SBM from 42.6 billion (INR) in 2014 to 162.48 billion (INR) in 2018. While billions of rupees have been spent on improving the cleaning and sanitation status in the country, little has been done to ensure the health and safety of those who continuously work to clean throughout the country. SBM has missed the point that cleanliness has more to do with the cultural notions of purity and impurity than with the other aspects, including spreading awareness. As long as these cultural notions prevail, the stigma attached to Safai Karamcharis will continue. The field responses reflect that the SBM have contributed to increasing the consciousness of cleanliness in society, but it has not changed the government’s indifference to the Safai Karamcharis. For instance, one respondent shared that:

Nothing has changed after Swachh Bharat Mission and media highlighted it just because of the involvement of prime minister with broom in hand. We have been working in this filthy occupation for decades in this country. Have you ever seen us on the media? Our occupation is stigmatized and this stigma needs to be cleaned first. Safai Karamcharis are barred from entering in hotels and not allowed to drink water. People taunt and abuse us, you will find many cases of Karamcharis being beaten up by people. We expected that our occupation might be recognized and respected after SBM [43 years old; second generation Safai Karamchari]

Indebtedness

Financial literacy is a major component of socioeconomic development of an individual in a society. Although Safai Karamcharis receive a regular salary from the municipal corporation, they often fail to manage their expenditure. Substance use and episodes of morbidity resulted in high rates of absenteeism at work, which means less salary to workers. To meet their family and social commitments, workers often take loans from formal (banks) or informal (moneylenders) sources. In addition, to maintain their basic living status in the community, Safai Karamcharis have to spend more than their income. Hence, they borrow from the Makadwallas or any local moneylender. These financial loans from nonregistered sources push workers into debt. For instance, almost 39% of Safai Karamcharis reported to have borrowed money for marriage from the nonregistered sources

Table 8 Reasons for financial loan taken by Safai Karamcharis

Reasons of financial loan	Yes	N (360)
Personal loan	55.0	198
Housing loan	32.8	118
Loan for medical treatment	6.7	24
Loan for education of children	11.1	40
Loan for marriage (self/siblings)	38.6	139

popularly known as the *Makadwallas* (see Table 8). Makadwalla is a community of moneylenders which provide financial loans to Safai Karamcharis. Neither the Makadwallas nor the workers maintain any written records of these transactions. In-depth interviews revealed that workers were frequently harassed (verbal/physical) by moneylenders due to the delays in repayment and sometimes the situation turns life-threatening. One respondent said:

After the accidental death of my husband at the workplace, my 22-year-old son assumed his place as Safai Karamcharis. My son was continuously threatened and harassed by the Makadwallas as he was failing to repay the loans taken by his father. My husband had multiple loans from Makadwalla. I told two Makadwallas that only if this give us time will we be able to repay it. My son worked hard for more than six months, but he was troubled by them every day. One day my son had dispute at the workplace with these Makadwallas, I am sure that because of this trouble only he committed suicide [40 years old; widow of a Safai Karamchari]

The workers were not only harassed but many times these Makadwallas create hostile situations for Safai Karamcharis by abducting their official documents if they fail to repay loans on the due date.

This Makadwallas harasses Safai Karamcharis, I have frequently observed that Makadwallas take off the official documents such as ATM, PAN card, Bank Pass Book, salary slip from workers if they could not make loan repayment on due date [Leader of Labor Union of Safai Karamcharis]

The economic instability and financial burden due to multiple factors including frequent health problems and continued indebtedness affect the overall socio-economic development of Safai Karamcharis.

Voices for Freedom

Mumbai has witness countless people's struggles and movements against the subjugation of profit-oriented firms. The standpoint theory in conjunction with

CRT argues for raising collective voices and demands by the marginalized who are impacted oppressors (Colins, 2009). Similarly, CasteCRT specifically syncs with Dr. Ambedkar's call to laborers who are victims of caste based division oppressive practice to organize, educate, and agitate for their rights. Labor movements of dock workers, postal workers, railway workers, taxi drivers, bus drivers, bank workers, and municipal workers (including Safai Karamcharis) were well known to the people of Mumbai; all of these workers marched for one another in the city which undoubtedly revealed the solidarity of the working class in the city (Mathias, 2019). But over the period throughout the world the solidarity and voices of labor unions are curtailed with the emergence of the liberal and global economy. Presently, the labor unions play a secondary role in representing the welfare issues of workers. Since the establishment of BrihanMumbai Municipal Corporation in 1888, Safai Karamchari workers are employed by the corporation to maintain the hygiene in the city. Presently, there are more than 50 labor unions in municipal corporation majority belonging to different political parties of Maharashtra state. The finding of this study shows that Safai Karamcharis are not optimistic about the functioning of labor unions in Mumbai. The following quote highlights how municipal labor unions are working as the mouthpiece of the government. For instance:

Union and government are two sides of same coin. Union leaders are not our true representative; hence, every time we failed to communicate corporation authority about our problems and issues. Majority of our employees are nonliterate therefore they are particularly neglected by the union when negotiating with municipal corporation. Only office clerks are asked to participate in meetings. We strongly feel that union manipulate our issues while communicating to municipal corporations [36 years old, 3rd generation Safai Karamchari]

As unions belong to the political parties, their objectives are influenced by political gains. Safai Karamcharis are being collectively asked for political mobilization. Overall, workers admitted that the involvements of workers in party politics influence the power of the union; therefore, unions should not be associated with any political party. In recent times, workers rely on the judiciary to address their issues and they do not trust bargaining mechanisms with the corporation. For instance, unions failed to convince the municipal corporation on the problem of house ownership in the last strike; therefore, they sought court intervention. Safai Karamcharis were deliberately ignored in the decision-making procedure by the corporation. Involvement of workers in the tender process may improve the quality of the protective gear. In the past few years, Safai Karamcharis are not satisfied with the type of protective measures they received from the municipal corporation.

The younger generation of Safai Karamcharis has critically remonstrated union's work and argued that the benefits of having the union have not reached the beneficiaries. For instance:

My father used to tell me that earlier, union leaders were like us. They stayed with us and travelled by cycle from one municipal ward to other. Now the leaders have four-wheeler vehicles and air-conditioned offices. Union leaders' children get higher education and become doctors, engineers or advocates. Our generation is where our parents were and we are working as Safai Karamcharis just as our parents did." It is, therefore, important to increase the accountability of the labor unions [47 years old, 3rd generation Safai Karamchari]

In recent years, the work of social activists has been recognized by Human Rights Watch, Amnesty International, United Nation, and other agencies. Bezwada Wilson who founded Safai Karmachari Andolan was honoured with Magasasy Award. Martin Macwan's has received Robert F. Kennedy Human Rights Award. Sudharak Olwe received Padma Shri, a national award in recognition of his work to highlight the pain and sufferings of the castes engaged in scavenging.

Discussion

Grounded in the CasteCRT context, this study examined the epistemological roots of the issues of caste-based oppressive practices and enlisted how the practice of untouchability (caste-based Scavenging work) has been a norm in the society. This also critically looked into existing laws and their limitations, and how the voices of people and their unions have been curtailed. Furthermore, based on the experiential and survey findings, this paper highlighted the social determinants of health, cumulative risk factors, and early morbidity amongst Safai-Karamacharis. The overarching theme of the paper is exposition of intergenerational and migrant patterns that reinforce age-old caste-based occupations to the same caste groups. The biggest challenge in modern India is how to break these institutionalized forms of casteism that systematically harms people and contributes to their morbidity and mortality.

In conclusion, this paper identified eight key factors (See Figure 1) that continue the vicious cycle of age-old caste-based occupations in India. First, the caste is found to be the major component of this vicious cycle of this occupation. Second, almost all municipal workers are addicted to tobacco chewing, smoking, alcohol, or other substances in order to cope with their work. Third, health hazards, deterioration of health results in absenteeism at the workplace, and it further results in indebtedness, the fourth factor. And the fifth, Warsa Hakka policy, a government scheme/policy for workers; these government policies encourage new generations of Safai Karamacharis to take up this occupation of their father, and the vicious cycle continues. In addition, three other subcomponents that significantly contribute to the continuum of the vicious cycle are false illusion occupation based on their birth caste, the ghettoization process, and curtailing their freedom and liberties.

Some of the interventions to address this menace are discussed below. First and foremost is addressing the poor working conditions of Safai Karamacharis.

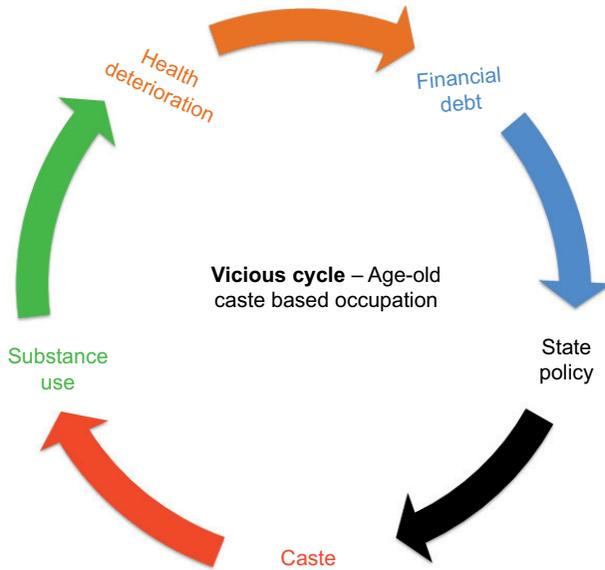


Figure 1 Vicious cycle – age-old caste-based occupation.

The government has prohibited manual scavenging under the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 and amended uniform guidelines to protect the workers from doing such dirty, dangerous, and dehumanizing work (Government of India, 2013). Workers engaged in manual scavenging with protective gear should also come under the prohibitory employment, as the form of work is extremely inhumane. They should have freedom of expression to address their working condition through unions, introduce more advanced mechanization to address waste disposal. In addition, there should be serious policy efforts to implement social welfare schemes for Safai Karamcharis including comprehensive medical healthcare and life insurance policy (including post-retirement) for themselves and family, delink housing facility from job, financial support, financial literacy, and educational scholarships for children. Another challenge that needs to be addressed as a community is how to address the internalized forms of oppression, and what ways to liberate from this age-old occupation-based slavery.

References

- Ambedkar, B. R. (1979). *Dr. Babasaheb Ambedkar, writings and speeches, Vol 3*. Govt. of Maharashtra: Education Dept., Govt. of Maharashtra.
- An, H., Englehardt, E., Fleming, L., & Bean, J. (1999). Occupational health and safety amongst municipal solid waste workers in Florida. *Waste*

- Management & Research*, 17(5), 369–377. <https://doi.org/10.1177/0734242X9901700505>
- Athanasίου, M., Makrynos, G., & Dounias, G. (2010). Respiratory health of municipal solid waste workers. *Occupational Medicine*, 60(8), 618–623. <https://doi.org/10.1093/occmed/kqq127>
- Collins, Patricia Hill (2009). *Black feminist thought: knowledge, consciousness, and the politics of empowerment* (1st ed.). New York: Routledge.
- Darokar, S. (2009). Social exclusion, ghettoisation and identity. *Critical Enquiry*, 2(1), 98–113.
- Delgado, R. (Ed.). (1995). *Critical race theory: The cutting edge*. Philadelphia, PA: Temple University Press.
- Enthoven, R. (1920). *The tribes and castes of Bombay*. Bombay: Government of Central Press.
- Gellin, G.A., & Zavon, M.R. (1970). Occupational dermatoses of solid waste workers. *Archives of Environmental Health: An International Journal*, 20(4), 510–515. <https://doi.org/10.1080/00039896.1970.10665631>
- Gilmore, R. W. (2002). Race and globalization. In R. J. Johnston, P.J. Taylor, & M.J. Watts (Eds.), *Geographies of global change: Remapping the world* (2nd ed.). Malden, MA: Blackwell.
- Government of India. (2013). *The prohibition of employment as manual scavengers and their rehabilitation act*. New Delhi: Ministry of Law and Justice.
- Government of Maharashtra. (2015). *Sanitation workers in Maharashtra can nominate kin for job*. Retrieved from <https://jsa.maharashtra.gov.in/en/sanitation-workers-maharashtra-can-nominate-kin-job>
- International Institute for Population Sciences (IIPS). (2016). *National family health survey-4, 2015–16: India*. Mumbai.
- Issever, H., Gul, H., Erelel, M., Erkan, F., & Gungor, G. Y. (2002). Health problems of garbage collectors in Istanbul. *Indoor and Built Environment*, 11(5), 293–301. <https://doi.org/10.1159/000066524>
- Ivens, U. I., Ebbenhøj, N., Poulsen, O. M., & Skov, T. (1997). Season, equipment, and job function related to gastrointestinal problems in waste collectors. *Occupational and Environmental Medicine*, 54(12), 861–867. <https://doi.org/10.1136/oem.54.12.861>
- Kahn, H., & Cooper, C. L. (1990). Mental health, job satisfaction, alcohol intake and occupational stress among dealers in financial markets. *Stress Medicine*, 6(4), 285–298. <https://doi.org/10.1002/smi.2460060407>
- Lam, B. (2016). *The dangerous life of a trash collector*. Retrieved from <https://www.theatlantic.com/business/archive/2016/09/trash-collector/498233/>
- Lok Sabha Secretariat. (2013). *Manual scavengers: Welfare and rehabilitation*. New Delhi: Parliament Library and Reference, Research, Documentation and Information Services (LARRDIS).
- Mäkelä, P., Raitasalo, K., & Wahlbeck, K. (2015). Mental health and alcohol use: A cross-sectional study of the Finnish general population. *European Journal of Public Health*, 25(2), 225–231. <https://doi.org/10.1093/eurpub/cku133>

