

A Quantitative Analysis of Psychological and Economic Factors Affecting Sanitation Workers

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ABSTRACT

The study examines the psychological and economic well-being of sewage workers in Gurugram through a quantitative approach with special emphasis on the health vulnerabilities they are exposed to. The paper aims to shed light on the problems faced by workers and their impact on workers' well-being. The study utilises a mixed methods approach including quantitative surveys and personal interviews. A total of 100 sewage workers were surveyed. The study used the following scales: Hamilton Anxiety scale, Occupational Stress scale, WHOQOL BREF, Financial Well-being scale, and Knowledge about Health Risks scale. The data collected through the survey was used to conduct statistical tests like ANOVA, correlation, and regression. In addition to the surveys, 12 respondents were also interviewed, and their responses were thematically analysed. The study found that expenditure had a significant positive correlation with anxiety and a significant negative correlation with quality of life and financial well-being. Meanwhile, anxiety had a significant negative correlation with quality of life and financial well-being, and vice versa. Furthermore, it was found that most of the workers interviewed believed that schemes or savings accounts provide no help or benefit to unorganised workers, attempted to get a loan but had been denied one, and experienced significant stress and suffered from physical injuries while refusing to seek professional help due to the increased cost. Using quantitative and qualitative analysis tools, the study was able to better determine and understand the state of the workers while increasing awareness about the obstacles faced by them.

1. Introduction

1.1. Historical Overview

Manual scavenging, the term used mainly for manually cleaning, disposing of, or handling human waste, has had a long and concerning history in India. Several individuals have been forced to perform this task due to their standing in a social hierarchy referred to as the caste system. This is a social structure determined by birth and limits the choices of individuals in terms of occupation, while discriminating amongst them in terms of status (Tam, 2013). As per this system, those belonging to the lowest caste, the Shudras or labouring class, were forced to perform strenuous occupations such as manual scavenging and sewage cleaning, against their will. Later, with rapid urbanisation and industrialisation, particularly during

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British rule, the need for effective sewage disposal increased. At the time, there was also a lack of development and modernisation in the disposal system. Hence, more so-called 'lower caste' Indians were forced to perform acts such as manual scavenging. Unfortunately, this practice continued till long after British rule and the eradication of the caste system. Due to several legal prohibition acts passed by the government, such as the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, manual scavenging is now illegal. However, sewage workers continue to perform acts related to sewage cleaning, putting their mental, social, and physical health at risk, while only being paid minimum wage in return.

1.2. Current Scenario

It must still be acknowledged that there have been several improvements in recent times. In India, as well as in other countries, the introduction of mechanised equipment such as suction-cum-jetting machines, robotic scavengers like Bandicoot, and protective gear has contributed to a decline in manual entry into sewers and septic tanks, which was once the norm (Ministry of Housing and Urban Affairs, 2022). Initiatives like the 'Safaimitra Suraksha Challenge,' launched in 2020, have aimed to eliminate manual scavenging by mandating the use of mechanised cleaning tools in urban local bodies (Press Information Bureau, 2020). Moreover, municipal corporations in cities like Hyderabad, Indore, and Chennai have integrated geo-tagging and mobile-based monitoring systems to improve accountability and efficiency in sanitation operations (Das & Singh, 2021).

All workers also go through rigorous safety training and receive proper protective equipment. This includes respirators, gloves, and protection suits. This reduces their exposure to harmful pathogens and helps prevent injuries (Ministry of Housing and Urban Affairs, 2022). Several NGOs and local authorities have also partnered to conduct periodic training sessions focused on health, hygiene, and first-aid, enabling workers to recognize early signs of toxic exposure and seek timely medical intervention (Sharma & Kumar, 2020). Furthermore, several state and municipal governments have introduced reforms to streamline payroll systems and ensure direct bank transfers through platforms like Direct Benefit Transfer (DBT), reducing the role of middlemen and minimizing payment delays (Ministry of Social Justice and Empowerment, 2021). Moreover, guidelines under the Manual Scavenging Act and Minimum Wages Act mandate fair remuneration, with some states offering risk allowances and hazard pay to reflect the dangerous nature of the work (Kumar & Singh, 2020).

While there are still injuries and complaints that the workers have, at least this exhibits that the decision makers have acknowledged the existence of the issues and have begun working towards improvement (LeChevallier et al., 2019). However, there are still multiple problems that go unaddressed or have not yet been adequately dealt with. The working conditions of the sewage workers continue to be extremely unhygienic, the social stigma continues to exist, the workers continue to overwork themselves despite facing health problems for the economic well being of their families, they also continue to turn to self-medication rather than going to hospitals due to lack of knowledge and funds, they still do not receive remuneration adequate for them to be able to comfortably support their families etc. (Raghavendra & Kumar, 2022). All of these problems are exceptionally harmful to their physical, mental, and social health and exist as obstacles in the path of their well-being. All these health vulnerabilities and problems not only affect them, but also have a major detrimental effect on their families. Both the physical (if harmful pathogens enter the household) as well as the psychological well-being (looking at the condition and adversities faced by the working members) of the family could be affected.

1.3. Psychological Impact on Sewage Workers and Their Family Members

Unfortunately, the essential and challenging work of sewage cleaning has come to be considered degrading in our turbulent society. Due to the nature of the work and the historical compulsion of lower classes being made to perform these duties, there is undeniably an excessive social stigma revolving around this occupation. This stigma affects not just the sewage workers, but also equally affects their family members. Adding on, the wages of the sewage workers prove to be inadequate to comfortably support their families, considering their monthly salary is 16,000 INR, from which they have to take care of their family's regular food expenditure, children's tuition, clothes, etc. These economic constraints and lack of financial resources further produce stress and anxiety in the minds of the family workers, affecting their mental health. They also face a variety of risks to their physical health on a day-to-day basis. These include, but are not limited to, harmful pathogens, the possibility of fractures and sprains, and weakness.

Even if there is a scope of infection, sewage and sanitation workers are forced to perform the same duties with limited protective equipment. Even during the COVID-19 pandemic, women sanitation workers in Pune were forced to perform the same duties with limited or no protective equipment, exposing them to the harmful virus. When they attempted to complain, neither the contractor nor the residents were willing to listen or pay any attention to their complaints. Despite these harsh terms, they had no choice but to continue working so that they were able to support their families financially (Kisana & Shah, 2021).

The lack of social response to their problems, lack of opportunities, and compulsion to continue working despite several problems so that they can support their families mainly impacts their psychological health. The results of the SALVEO study conducted in Canada found that the mental health status of the workers depends upon the nature of work, social relations with colleagues and managers, consideration of family and social network outside the workplace, and lifestyle habits of the workers (Marchand et al., 2014). In terms of all of the above determinants, the average sewage worker suffers tremendously. All of these factors individually, as well as collectively, impact the mental health of the workers and their families detrimentally, leading to disruption of their mental health status.

1.4. Economic Impact on Sewage Workers and Their Family Members

In modern-day society, despite performing an essential task, sewage workers are continuously underappreciated. This very clearly reflects in the wages they are paid. In Delhi NCR, only 4.4% earn more than Rs.15,000 per month, while a significant proportion (44.4%) earn between Rs.5,001 and Rs.10,000. A notable 40.0% of workers fall into the income bracket of Rs. 10,001-15,000, reflecting a slightly better financial standing. However, a concerning 11.1% of the workforce earns less than Rs. 5,000 per month, highlighting the vulnerability of this group to economic hardship (Kumar, 2025).

As per a household labour economics paper (Lundberg, 2005), the income of the working member of the family should depend on the tastes and preferences of the individual and their family, the marital status of the individual and the number of dependent children, as all these variables directly relate to the expenditure of the family. Hence, with this salary per month, a sewage worker needs to support their spouse and dependent children: paying for their tuition, food, clothes, etc. Meeting this expenditure with such limited income would mean that they have truly very little savings per month. Hence, in case of an injury or infection, which they are exposed to very regularly, they do not have sufficient funds for effective treatment. There are, however, certain schemes, such as National Action for Mechanised Sanitation Ecosystem (NAMASTE), Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), and

Social Security and Welfare Schemes, which assist the workers financially (Kumar & Lal, 2024). However, many workers are not aware of the existence of these beneficial schemes, which only cover a few diseases and injuries as compared to the vast number the workers who are exposed. Hence, the workers are not able to afford proper treatment without impacting the financial condition of their family as a whole, and so, they opt not to receive proper care. Furthermore, at times, the injuries can be severe enough to cause permanent disability. In such a case, they can no longer perform their regular duties, Hence, the family loses the income that it was receiving from its only earning member.

This possibility would immensely worsen the economic conditions of the family, considering neither the worker nor the family members are trained to take up any other occupation and do not have much saved. Due to the family being entirely dependent on the very limited income of the sewage worker, the worker cannot afford healthcare and chooses to continue overworking himself, knowing the importance of the regular income to be able to support his family. So, their only two options are to worsen the financial conditions of their already economically suffering family, by opting to purchase proper healthcare, or ignoring their physical and mental health problems, in an occupation with major exposure to health risks, with the latter being chosen significantly more than the former due to economic constraints (Bhoi et al., 2022).

1.5. Significance of the Study

The work of sewage cleaning is essential for society, yet the workers involved in this occupation are not appreciated, and their problems are not publicly discussed or given any attention by those in power. Hence, the primary purpose of this paper is to shed light on an ignored and relatively less discussed issue. This paper will discuss the financial stability of the workers and their families on a regular day-to-day basis, as well as when they face adversities due to health vulnerabilities. The sewage workers do not receive enough remuneration to be able to afford proper treatment of the very diseases and injuries they are exposed to while performing their duties. The paper further depicts the economic and psychological condition of the sewage workers and how these problems further extend to impact their families as well. While social evils, such as untouchability, have been largely eradicated, in some ways they continue to exist and discriminate against the less fortunate groups of society, including sewage workers. These social, economic, and psychological problems are discussed further in this paper, as well as the various ways in which existing schemes and acts created by the government impact the sewage workers.

In theory, these schemes and acts appear as if they have solved all the problems being faced by the workers; however, in practice, these schemes are not properly implemented or do not solve the problem completely. Many are not even aware of the existence of these schemes. Hence, the paper also aims to test the efficacy of the existing schemes and acts and ascertain if they benefit the workers as much as the public is led to believe. The effect of these schemes is considered to be subjective. This is often used as an excuse so that no one can truly understand how limited their real impact is. Due to this, certain variables such as the financial stability of the workers' families and the mental health of the workers are depicted quantitatively on standardized scales so that we can adequately measure the real impact of the changes. Finally, this paper aims to recommend changes to decision makers who could help bring about real change. The issue can only be solved if those in power take notice of it, and that can only truly happen if notice of the same is taken and timely assistance is provided to the workers. Only then can the physical, mental, and social well-being of the workers be ensured.

2. Methodology

2.1. Aim

This study aims to investigate the psychological and economic impact of health vulnerabilities among sanitation workers and their family members in Gurugram, Haryana. Specifically, the research seeks to ascertain the relationship between psychological variables such as anxiety, occupational stress, and quality of life, and economic variables like financial well-being.

2.2. Research Questions

The present research aims to answer the following research questions through a mixed methods approach:

1. What are the main health-related problems faced by sewage workers?
2. Despite the schemes and support offered by the government and other organisations, what is the true financial condition of the sewage workers?
3. Do the workers experience any kind of anxiety, occupational stress, and/or strain on their mental health?
4. How much knowledge do the workers have regarding their well-being and possible health risks they face due to their occupation?
5. How do psychological variables, such as anxiety, occupational stress, and strain on mental health, relate to economic variables, such as financial well-being, to define the overall well-being of the sewage workers?

2.3. Hypothesis

H1: There is a statistically significant difference among the three levels of education with respect to:

- a)Occupational stress
- b)Financial well-being
- c)Knowledge about health risks

H2: There are statistically significant correlations among the following variables:

- a)Occupational stress
- b)Financial well-being
- c)Knowledge about health risks
- d)Hamilton Anxiety scores
- e)WHOQOL-BREF scores
- f)Monthly expenditure

H3: Hamilton Anxiety, occupational stress, financial well-being, and knowledge about health risks are significant predictors of quality of life (WHOQOL-BREF scores).

2.4. Sample and Sampling Techniques

For the purpose of this research, purposive sampling has been selected as the sampling technique, intentionally selecting participants based on their characteristics, knowledge, and experiences. Hence, sewage workers employed by the Municipal Corporation of Gurgaon have been selected to be part of the sample for this study. The survey provided has been attempted by 100 workers in Gurgaon, and their answers have been recorded for statistical analysis. Furthermore, to understand their problems and situation better, an in-person interview was conducted involving 12 sewage workers.

2.5. Data Collection Procedure

In order to collect quantitative primary data, a survey has been carefully engineered involving questions related to mental health and financial stability. The hard copy of the survey was provided to each worker individually. During this interview, the workers answered questions regarding their financial status, family members, and social stigma. The interviews were recorded for later transcription for thematic analysis of the information. The survey and the interview collectively form the primary data approach for this paper, using a mixed-methods design to properly analyse each aspect.

2.6. Instrumentation

To obtain a clear understanding of the psychological and economic factors at play, multiple specialised scales have been utilised.

Hamilton Anxiety Rating Scale (Hamilton, 1959)

There are a total of 14 questions on this scale. However, for the study, 12 out of these 14 questions are being utilized. These represent a series of symptoms, and the workers can respond by letting us know which of them they experience and to what degree. Each could be answered using 5 possible options: 0 (not present), 1 (Mild), 2 (Moderate), 3 (Severe), and 4 (Very Severe). This scale has a Cronbach's alpha of 0.86 and inter-rater reliability of 0.87.

Occupational stress scale (House, McMichael, Wells, Kaplan & Landerman, 1979)

This scale consists of 5 subparts, out of which only one, Job vs non-job conflict items, is being utilized. This part consists of 3 questions. These 3 questions in the survey represent a particular problem, and through this scale, the workers could convey the extent to which the particular problem stated disturbs them. Each could be responded to in 5 ways: 0 (not at all), 1 (rarely), 2 (sometimes), 3 (rather often), and 4 (nearly all the time). Through this, we can represent their stress levels, particularly due to their occupation, in a variable in the equation. Coefficient alpha values ranged from .56 to .76 for job vs. non-job conflict is part of this scale.

WHOQOL-BREF (WORLD HEALTH ORGANIZATION, 1998)

This scale consists of 26 questions. However, out of these, 13 have been utilised for the purpose of the study. These 13 questions in the provided questionnaire present a different problem, and the workers could then communicate if they face them and the extent to which they face them. This can be done by selecting any of the 5 options: 1 (Very poor), 2 (Poor), 3 (Neither poor nor good), 4 (Good), 5 (Very good). The last psychological variable can be quantified using this scale. Cronbach's alpha coefficient for the whole WHOQOL-BREF scale was 0.896.

CFPB Financial Well-Being Scale (Measuring Financial Well-being: A Guide to Using the CFPB Financial Well-Being Scale | Consumer Financial Protection Bureau, 2024)

This financial well-being scale, which includes 10 questions, has been utilised. Each of these questions provides a statement, and the workers need to pick the option that best describes the extent to which that statement applies to them. There are 5 options that could be picked for any of the first 6 statements: 4 (completely), 3 (very well), 2 (somewhat), 1 (very little), and 0 (not at all). For the remaining 4, 5 options could be picked- 0 (always), 1 (often), 2 (sometimes), 3 (rarely), and 4 (never). These different responses, and further consideration on the age of the individual taking the survey, will ultimately allow us to assign a value to the financial security variable.

Knowledge in preventing occupational health risks (Degavi et al., 2021)

The last variable being taken into consideration while forming an equation relating to the psychological and financial impact of health vulnerabilities on sewage workers is their knowledge regarding the aforementioned health vulnerabilities. This variable can be defined using a 10-question scale. Each question brings forward a statement, and the workers can mention if they agree or disagree with it. Each statement provides 5 possible responses- 5 (strongly agree), 4 (agree), 3 (not decided), 2 (disagree), and 1 (strongly disagree). Hence, here, for optimum interpretation, we utilize a 5-point Likert scale. The final variable, knowledge regarding health risks, can now also be quantified and used.

The survey contains a total of 48 questions. For the convenience of the workers, the survey questions and the instructions were translated into basic Hindi.

2.7. Ethical Considerations

The provision of the survey as well as the interview was conducted with the approval of the Municipal Corporation of Gurgaon. Furthermore, each individual who answered the survey and/or participated in the interview was informed of the study and the purpose for recording their responses. Only after the informed consent of the participants were their contributions to the research utilised. All of them were also assured of the absolute confidentiality of their answers before conducting the survey and the commencement of the interview.

3. Results

Table 1. Shows the descriptive statistics for Occupational stress scores by education level

Education Level	n	Mean	Std. Deviation
illiterate	36	9.06	2.03
till 5th	35	8.69	1.64
greater than 5th	29	8.41	2.4

Table 2. shows the ANOVA for Occupational stress scores by education level

	Sum of Squares	df	MS	F	p	η^2
Education	6.77	2	3.39	0.83	.44	0.02
Residual	396.47	97	4.09			
Total	403.24	99				

**MS = Mean Square*

According to Table 1, descriptive statistics reveal the mean and standard deviation for occupational stress by education level. Education levels were divided into- Illiterate (M=9.06, SD=2.03), till 5th (M= 8.69 , SD= 1.64) and greater than 5th (M= 8.41, SD= 2.4). The illiterate education level reported the highest mean score.

Table 2 depicts ANOVA for Occupational stress by education level. Findings revealed that there was no significant difference across the three educational levels on the dependent variable of occupational stress, $F=0.83$, $p=0.44$ ($p>0.05$). The η^2 value of 0.02 indicates a small effect size. Thus H1 (a) which stated that there will be a statistically significant difference among the three levels of education with respect to occupational stress has been *rejected*.

Table 3. Shows the descriptive statistics for Financial Well-being scores by education level

	n	Mean	Std. Deviation
illiterate	36	1.92	1.38
till 5th	35	2.29	1.54
greater than 5th	29	2.14	1.36

Table 4. Shows the ANOVA for Financial Well-being scores by education level

	Sum of Squares	df	Mean Square	F	p	η^2
Education	2.45	2	1.22	0.6	.553	0.01
Residual	199.34	97	2.06			

According to Table 3, descriptive statistics reveal the mean and standard deviation for Financial well-being by education level. Education levels were divided into- Illiterate ($M=1.92$, $SD=1.38$), till 5th ($M=2.29$, $SD=1.54$), and greater than 5th ($M=2.14$, $SD=1.36$). Respondents who had studied till the 5th standard reported the highest mean score

Table 4 depicts ANOVA for Financial well-being by education level. Findings revealed that there was no significant difference across the 3 educational levels on the dependent variable of financial well-being, $F=0.6$, $p=0.553$ ($p>0.05$). The η^2 value of 0.01 indicates a small effect size. Thus, H1 (b), which stated that there will be a statistically significant difference among the three levels of education with respect to financial well-being, has been *rejected*.

Table 5. Shows the descriptive statistics for Knowledge about health risks scores by education level

	n	Mean	Std. Deviation
illiterate	36	46.25	2.42
till 5th	35	45.66	2.42
greater than 5th	29	45.03	2.49

Table 6. Shows the ANOVA for Knowledge about health risks scores by education level

	Sum of Squares	df	Mean Square	F	p	η^2
Education	23.79	2	11.89	2	.141	0.04
Residual	577.6	97	5.95			
Total	601.39	99				

According to Table 5, descriptive statistics reveal the mean and standard deviation for Knowledge about health risks by education level. Education levels were divided into- Illiterate ($M=46.25$, $SD=2.42$), till 5th ($M=45.66$, $SD=2.42$), and greater than 5th ($M=45.03$, $SD=2.49$). The illiterate education level reported the highest mean score.

Table 6 depicts ANOVA for Knowledge about health risks by education level. Findings revealed that there was no significant difference across the 3 educational levels on the dependent variable of knowledge about health risks, $F=2$, $p=0.14$ ($p>0.05$). The η^2 value of 0.04 indicates a small to medium effect size. Thus, H1 (c), which stated that there will be a

statistically significant difference among the three levels of education with respect to knowledge about health risks, has been *rejected*.

Table 7. Shows the Correlation between monthly expenditure, Hamilton Anxiety Scale, Occupational Stress Scale, WHOQOL BREF, Financial Well-being Scale, and Knowledge About Health Risks Scale

		ME	HA	OSS	QOL	FWBS	KHR
ME	Correlation	1	0.29	-0.13	-0.2	-0.26	0.01
	p		.004	.19	.05	.01	.919
HA	Correlation	0.29	1	0.19	-0.5	-0.47	0.08
	p	.004		.061	<.001	<.001	.416
OSS	Correlation	-0.13	0.19	1	-0.13	-0.18	0.1
	p	.19	.061		.199	.08	.325
QOL	Correlation	-0.2	-0.5	-0.13	1	0.18	0.07
	p	.05	<.001	.199		.078	.499
FWBS	Correlation	-0.26	-0.47	-0.18	0.18	1	-0.03
	p	.01	<.001	.08	.078		.764
KHR	Correlation	0.01	0.08	0.1	0.07	-0.03	1
	p	.919	.416	.325	.499	.764	

*ME = Monthly Expenditure, HA= Hamilton Anxiety, OSS= Occupational Stress Scale, QOL= WHOQOL BREF (Quality of Life), FWBS= Financial Well-being Scale, KHR= Knowledge About Health Risks

Table 7 shows the correlation between monthly expenditure (ME), Hamilton Anxiety (HA), Occupational Stress Scale (OSS), WHOQOL BREF (QOL), Financial Well-being Scale (FWBS), and Knowledge About Health Risks (KHR)

Findings reveal that ME has a significant positive correlation with HA ($r = 0.29$, $p < 0.05$), and has a significant negative correlation with QOL ($r = -0.2$, $p < 0.05$) and FWBS ($r = -0.26$, $p < 0.05$). HA has a significant positive correlation with ME ($r = 0.29$, $p < 0.05$) and has a significant negative correlation with QOL ($r = -0.5$, $p < 0.05$) and FWBS ($r = -0.47$, $p < 0.05$). OSS does not have a significant correlation with any other variable. QOL has a significant negative correlation with ME ($r = -0.2$, $p < 0.05$) and HA ($r = -0.5$, $p < 0.05$). FWBS has a significant negative correlation with ME ($r = -0.26$, $p < 0.05$) and HA ($r = -0.47$, $p < 0.05$). KHR does not have a significant correlation with any other variable.

Table 8. Shows the multiple regression analysis taking QOL as the dependent variable and HA, OSS, FWBS, and KHR as the independent variables

Model	B	S.E.	t	p
Constant	43.63	4.58	9.53	<.001
HA	-0.78	0.15	-5.31	<.001
OSS	-0.07	0.12	-0.61	.547
FWBS	-0.15	0.19	-0.79	.429
KHR	0.13	0.1	1.3	.196

*HA= Hamilton Anxiety; OSS= Occupational Stress Scale; QOL= WHOQOL BREF (Quality of Life); FWBS= Financial Well-being Scale; KHR= Knowledge About Health Risks

Table 8 shows the multiple regression analysis taking QOL as the dependent variable and HA, OSS, FWBS, and KHR as the independent variables. HA was a significant negative predictor of QOL ($B = -0.78$, $SE = 0.15$, $t = -5.31$, $p < 0.001$). This indicates that higher anxiety levels are associated with lower quality of life. OSS ($B = -0.07$, $SE = 0.12$, $t = -0.61$, $p = 0.547$), FWBS ($B = -0.15$, $SE = 0.19$, $t = -0.79$, $p = 0.429$), and KHR ($B = 0.13$, $SE = 0.1$, $t = 1.3$, $p = 0.196$) were not significant predictors of quality of life. Thus, H3, which held that Hamilton Anxiety, occupational stress, financial well-being, and knowledge about health

risks are significant predictors of quality of life, is *partially rejected* as only Hamilton anxiety significantly predicted quality of life.

Table 9. Shows the thematic analysis of interview responses

Themes	Codes	Description
	Long duration of work	Those respondents who have been working with MCG for over 5 years
Duration of work	Worked as a Sewage Worker Before	Those respondents who performed the task of sewage cleaning even before they were employed by MCG
	Performed Other Work Earlier	Those respondents who did not perform the task of sewage cleaning before they were employed by MCG
	Studied till high school	Respondents who attended school till high school
Education level	Illiterate	Respondents who never attended school
	Completed school	Respondents who attended school till 12th grade
	Quit School Due to personal reasons.	Respondents who were forced to quit formal education due to personal problems
Aspirations while growing up	Wanted to perform a job that made them feel respected and important	Respondents who only wanted to perform a job that made them feel respected by themselves and others when they were children
	Wanted to serve in the army	Respondents who wanted to serve in the army when they were children
	Never thought about what they wanted to do.	Respondents who never considered what they wanted to do when they were children
	Started working to make ends meet	Respondents who started working only to make ends meet and help their families
	Competent Students	Respondents who were smart and curious students but were forced to quit school
	Wanted to be a cricketer	Respondents who wanted to be cricketers when they were children
	Wanted to pursue business	Respondents who wanted to pursue business when they were children
	Wanted to pursue science	Respondents who wanted to pursue science when they were children
Aspirations for their children	Aspirations beyond their profession	Respondents who want their children to have an occupation that is beyond their profession
	Wants them to be whatever they want to be	Respondents who want their children to be whatever they want to be when they grow up
	Face anxiety about their children's future due to financial constraints	Respondents who face anxiety due to financial constraints and expenses due to their children's tuition
	Wants them to have the opportunities they never had	Respondents who want their children to have the opportunities that they never had
	Just want them to finish their studies.	Respondents who just want their children to complete their studies for now, and not start working immediately
	Will do anything to ensure their children are able to accomplish their dreams	Respondents who have stated that they are willing to do anything to ensure that their children accomplish their dreams
Schemes and savings A/c	No information provided	Respondents who stated that no officials or any other individual had informed them of these schemes or how to use them
	They provide no help or benefit.	Respondents who believe that these schemes do not provide any actual help to them
	Lack of Education Prevents them from using it.	Respondents who believe that their lack of education prevents them from benefiting from these schemes
	Believe it exists only for good publicity for the government	Respondents who believe that these schemes only exist for the sake of good publicity for the government
	Not aware of the existence of	Respondents who were not aware of the existence of

Themes	Codes	Description
	these schemes	these schemes at all
	Aware of the existence of these schemes	Respondents who were aware of the existence of these schemes
	Do not have a Savings A/c.	Respondents who do not have a Savings A/c
	Have a Savings A/c	Respondents who have a Savings A/c
Loan and Insurance	Never considered it	Respondents who have never considered getting a loan or insurance
	Have considered it, but have never tried	Respondents who have considered getting a loan or insurance but have never tried to get one
	Willing to do it for their children	Respondents who stated that they are willing to take a loan for their children's welfare
	Attempted to get a loan but were not able to, or have been denied a loan	Respondents who tried to get a loan but were not able to or have been denied a loan
	Have taken a loan before	Respondents who have taken a loan before
	No help was provided by officials or others.	Respondents who stated that they received no help from officials while trying to obtain a loan or insurance
	No long-term problems	Respondents who stated that they do not face any long-term problems
Health concerns due to the profession	Stress	Respondents who mentioned that they feel stressed or worry excessively
	Physical Injuries	Respondents who stated that they have been physically injured multiple times due to their work
	Health problems in family members	Respondents who stated that their family members face health problems
	Chest pains	Respondents who mentioned that they feel chest pains
Treatment of health concerns	Do not visit the hospital very often	Respondents who mentioned that they do not visit the hospital very often
	Unnecessarily expensive	Respondents who believe that hospitals offer treatment that is unnecessarily expensive
	Self treatment	Respondents who stated that they often treat themselves by consuming unprescribed medicines at home
	Affordability of treatment: 2-10k	Respondents who expect the cost of a major treatment to be around 2,000-10,000
	Previous negative experience	Respondents who claimed that they had previously had a negative experience related to professional medical care expenditure.
Awareness regarding schemes like NAMASTE	No knowledge about the schemes	Respondents who had no knowledge of the existence of these schemes
	No information provided	Respondents who stated that no official or any other individual informed them of the scheme
	No help or Benefit Received	Respondents who stated that they receive no help or benefit from these schemes
	No Concern Shown	Respondents who believed that sewage workers are not treated properly or that the officials show no concern for their well-being
	Knows about the schemes	Respondents who were aware of the existence of the schemes
	Schemes Exist Only on Paper	Respondents who firmly believed that the schemes only exist on paper and are not made to actually help individuals
Discrimination due to occupation	Never happened with them.	Respondents who said that they had never been discriminated against due to their occupation
	Heard of it happening to someone else	Respondents who claimed that they had heard of another sewage worker being discriminated against

Themes	Codes	Description
	Happens sometimes	Respondents who said that they had been discriminated against due to their occupation occasionally
	Happens very often	Respondents who said that they had been discriminated against due to their occupation very often
	Happened to a family member	Respondents who said that one of their family members had been discriminated against due to their occupation
	Government officers treat them badly.	Respondents who said that government officers had treated them badly due to their occupation

The theme of duration of work was generated, which produced three codes, namely, long duration of work, worked as a sewage worker before, and performed other work before. Out of the total of 12 respondents interviewed, 10 stated that they had worked under MCG for over 5 years, 5 mentioned that they performed the task of sewage cleaning even before they were employed by MCG, and 5 performed other work before they were employed as sewage workers by MCG. A respondent who had worked under MCG for a very long duration, when asked about how long he had performed this occupation, spoke about the financial situation of the sewage workers.

“ A few years- 9ish or so. But does it matter? Still, we just barely get enough salary to feed our children and take care of their school. Other than that, we have nothing. Absolutely nothing.”

The theme of education level was generated, which produced four codes, namely, studied till high school, illiterate, completed school, and quit school due to personal reasons. Out of the total 12 respondents interviewed, 7 had studied only till high school, while 8 had to quit school due to personal reasons. Only one respondent had successfully completed schooling. A respondent who had never attended school shared his experience, which revealed the financial turmoil he faced.

“Never went to school. How could I? My family had no money. It wasn't as easy then as it is now for children to go to school. If we were poor, they didn't care. “

Another respondent who had to quit school due to personal constraints shared the experience that led to the decision:

“I studied till 10th grade. I gave the 10th grade board exams, but I did not pass. Then I did not want to have to do 10th grade all over again, and even my father thought that it would be a waste of time. So, I stopped going to school and started working cleaning houses with my dad.”

The theme of aspirations while growing up generated 8 codes namely, Wanted to perform a job that made them feel respected and important, Wanted to serve in the army, Never thought about what they wanted to do, Started working to make ends meet, Competent Students, Wanted to be a cricketer, Wanted to pursue business and Wanted to pursue science.

A respondent who was forced by circumstances to start working to make ends meet said:

“I never actually thought about it. I was born in poverty. My entire family was. So, we never thought about school or future jobs or anything. We just did anything we could to get by. Without education, what can we do?”

Another respondent mentioned:

“Everybody dreams, sir. But what can we do? Poverty did not let us get there. So, I couldn't do it. Never thought of exactly what I wanted to do. Not many children actually

know what they want to do exactly when they are in 8th grade, and after that, I could not actually think of what I wanted to do. ”

The theme of aspirations for their children generated 6 codes, namely, aspirations beyond their profession, want them to be whatever they want to be, face anxiety about their children's future due to financial constraints, want them to have the opportunities they never had, just want them to finish their studies and will do anything to ensure their children are able to accomplish their dreams. Out of 12 respondents, 7 said that they want their children to have an occupation that is beyond their profession, 9 want them to be whatever they want to be, 2 face anxiety about their children's future due to financial constraints, 5 want them to have the opportunities they never had, 7 just want them to finish their studies and 4 will do anything to ensure their children are able to accomplish their dreams.

Respondents held that:

“ I just want them to be successful. I am perfectly fine skipping meals if it means I can pay my children's tuition. I may not have been able to, but they will be whatever they want to be. They will get all the opportunities I never had.”

“I just want them to be able to study like I wanted to. My father never gave me the opportunity to study. That is not what I want from them.”

The theme of schemes and savings accounts generated 8 codes, namely, no information provided, they provide no help or benefit, lack of education prevents them from using it, believe it exists only for good publicity for the government, not aware of the existence of these schemes, aware of the existence of these schemes, do not have a Savings A/c and have a Savings A/c. Out of the 12 respondents, 6 stated that no officials or any other individual had informed them of these schemes or how to use them, 10 believed that these schemes do not provide any actual help to them, 4 believed that their lack of education prevents them from benefiting from these schemes, 5 believed that their lack of education prevents them from benefiting from these schemes, 4 were not aware of the existence of these schemes at all, 2 were aware of the existence of these schemes, 3 did not have a Savings A/c and 1 did have a savings account.

One of the respondents who believed that the schemes only exist for government publicity mentioned that when asked if he had heard of any schemes:

“No, I have never heard of any schemes or any account that can help us. We know that they exist because the government keeps bragging about them, but no one ever talks to us about them or tries to help us. They don't care. ”

Another respondent who was unhappy with the schemes mentioned-

“No! Nothing! Absolutely no help. These schemes do nothing for us. The only person who can help my children study and work is me. These schemes and the government do nothing for us. There is no point! If they say the scheme is made for us, then who gets the benefit? Shouldn't it be us?”

The theme of loans and insurance generated 6 codes, namely, never considered it, have considered it but have never tried, willing to do it for their children, attempted to get a loan but were not able to or have been denied a loan, have taken a loan before and no help provided from officials or others. Out of the 12 respondents, 1 never considered getting a loan or insurance, 5 considered getting a loan or insurance but have never tried to get one, 6 stated that they are willing to take a loan for their children's welfare, 4 tried to get a loan but were not able to or have been denied a loan, 1 had taken a loan before and 3 stated that they received no help from officials while trying to obtain a loan or insurance.

A respondent who had previously been denied a loan mentioned:

"I have tried so many times to get a loan. I want a loan. It can help me. But no matter how many times I try, they will never give a loan to someone like me who earns 17,000 INR in a city like Gurgaon. They say that they can't help us because our salary is too low. They always say no to us."

The theme of health concerns due to profession generated 5 codes, namely, no long-term problems, stress, physical injuries, health problems in family members, and chest pains. Out of 12 respondents, 10 stated that they do not face any long term problems, 5 mentioned that they feel stressed or worry excessively, 6 stated that they have been physically injured multiple times due to their work, 1 stated that their family members face health problems and 2 mentioned that they feel chest pains.

One of the respondents stated:

"Not other than my eye (he had only one eye and covered the other with a cloth). Just once, some gas hit the eye, and I haven't been able to see from that eye since then. The same thing happened to Jatin, whom you surveyed before me. But that kind of thing keeps happening. Risks are there in every job."

The theme of treatment of health concerns generated 5 codes, namely, do not visit the hospital very often, unnecessarily expensive, self-treatment, affordability of treatment: 2-10k, and previous negative experience. Out of 12 respondents, 11 mentioned that they do not visit the hospital very often, 6 believed that hospitals offer treatment that is too unnecessarily expensive, 6 stated that they often treat themselves by consuming unprescribed medicines at home, 9 expect the cost of a major treatment to be around 2,000-10,000 and 1 claimed that he had previously had a negative experience related to professional medical care expenditure.

One of the respondents mentioned-

"They try to get as much money from us as possible. I don't go to the hospital very often, but whenever I have to, they just tell me to get treatments for something or the other that take more and more money."

The respondent who had a negative experience related to professional medical care expenditure stated-

"Some time back, my wife had to go to the hospital for a blood problem. We needed four bottles of some medicine. The hospital refused to provide them to us, saying they were finished. We then had to go somewhere very far to get the medicine. They didn't help us at all. That cost us about 30,000 INR."

The theme of Awareness regarding schemes like NAMASTE generated 6 codes, namely, no knowledge about the schemes, no information provided, no help or benefit received, no concern shown, knows about the schemes, and schemes Exist Only on Paper. Out of the 12 respondents, 5 had no knowledge regarding the existence of these schemes, 4 stated that no official or any other individual informed them of the scheme, 8 stated that they receive no help or benefit from these schemes, 3 believed that sewage workers are not treated properly or that the officials show no concern for their well-being, 1 was aware of the existence of the schemes and 5 believed that the schemes only exist on paper and are not made to actually help individuals.

One of the respondents who believed that the schemes provided no help stated:

“No, no, not at all. We get no help at all from any of these schemes. They might as well not exist. There is no point of having them. Why say you are doing something for us when you don’t care even a little bit? Why do you pretend?”

While another respondent mentioned:

“Only you have heard of these specific schemes. No one here has. There is no help and no concern for us. If I was to die working tomorrow all they would do is find someone to replace me. No schemes, no support, just us working to provide whatever little we can for our loved ones. ”

The theme of discrimination due to occupation generated 6 codes, namely, never happened with them, heard of it happening to someone else, happens sometimes, happens very often, happens to family members and government officers treat them badly. Out of the 12 respondents, 7 said that they had never been discriminated against due to their occupation, 3 claimed that they had heard of another sewage workers being discriminated against, 2 said that they had been discriminated against due to their occupation occasionally, 2 said that they had been discriminated against due to their occupation very often, 1 said that one of his family members had been discriminated against due to his occupation and 2 said that government officers had treated them badly due to their occupation.

One of the respondents who claimed that he was treated poorly by government officials stated:

“Not at home or any public place, but here government officers talk to us badly. They yell at us if we complain and they don’t even pretend to care about our problems. I don’t know if it is because of our work or if they talk to everyone this way but this is no way to talk to a person.”

Another respondent stated:

“ It did happen to my son once. One of his friends only, while joking, said something about him being the son of a sewage worker. He talked to me about it later. He did not even know that the other child said it as an insult so at least he did not feel bad. But imagine what it feels like for me. I worked the whole day only to hear that.”

4. Discussion

As per the findings of the study, there was no significant difference across the 3 educational levels on the dependent variable of occupational stress. However, other research has found significant differences in occupational stress among individuals with different educational backgrounds (Yang et al., 2006). These works, though, have been more specific to organised sector workers, including bankers, whose education levels affect their ability to cope with workplace challenges (Michailidis & Georgiou, 2005), and nurses, whose educational backgrounds affected their work ability and their response to workplace hazards (Golubic et al., 2009). On the other hand, similar studies relating to the unorganised sectors more specifically report similar findings, and state that stress levels of unorganised sector workers were high regardless of the educational background (Bhatt et al., 2015).

The research did not indicate a significant difference across the 3 educational levels on the dependent variable of Financial well-being. Other studies also agree with these findings and have not been able to find a relationship between financial well-being and education level (Hahn, 2023). Some research, additionally, discovered that while the individual’s education level rarely impacts their financial well-being, parental education levels influence young adults’ financial behaviour differently based on gender (Browning & Finke, 2015). As per the

study, fathers who were university graduates positively impacted the male offspring's financial behaviour. On the other hand, mothers with a high education level negatively influenced their daughters' financial decisions. Studies specific to India indicate that while education may have an impact on financial literacy and awareness (Venkitachalam, 2023), it does not necessarily determine occupational choices or have a major impact on the financial well-being of the individual. However, it is important to note that most studies do agree that financial stress can negatively affect work performance and must be treated as a serious problem (Ozyuksel, 2022).

Furthermore, as per the research, there was no significant difference across the 3 educational levels on the dependent variable of knowledge about health risks. However, other studies have found that lower education levels are associated with high prevalence of smoking, alcoholism, physical inactivity, and even obesity, hence relating educational background with physical health (Millar & Stephens, 1993; Schnohr et al., 2004; Roohafza et al., 2005). This pattern has been observed across different populations, including Spanish, Canadian, Danish, and Iranian adults. Additionally, studies more specific to India reveal that lower educational levels are associated with higher cancer incidence and greater cardiovascular risk (Swaminathan et al., 2009; Gupta et al., 2010).

However, some cancers, like breast cancer, show higher incidence with increased education (Swaminathan et al., 2009). Smoking awareness and quit intentions are also lower among the less educated class (Sansone et al., 2012). Other studies also reveal that cardiovascular risk factors like hypertension and tobacco use are more prevalent among individuals with lower levels of education, while some problems like dyslipidemia are more common in higher education groups (Reddy et al., 2007). Studies revolving around sanitation workers, which though do not claim that there is a relation between knowledge about health risks and education level, further state that musculoskeletal problems, respiratory and skin problems are the most common problems faced by the workers, and that despite having adequate knowledge about preventive measures, their implementation is often lacking (Shaikh, 2024).

According to the findings of the study, monthly expenditure has a positive correlation with anxiety. Similarly, alternative studies have also found a significant correlation between financial hardship and mental health issues among workers, particularly in the unorganised sector. A study in Bangladesh revealed that wage earners with lower incomes and financial problems during the COVID-19 pandemic were more likely to experience anxiety and depressive symptoms (Sultana et al., 2021b). Research on construction workers in India also revealed high levels of anxiety and mental health issues, often stemming from financial problems, with a strong correlation between the two (Bhadgaonkar, 2023). It was also concluded that monthly expenditure has a negative correlation with financial well-being. However, while research from other papers acknowledged the existence of some negative correlation between expenditure and financial well-being, they focus more on financial literacy, income, and financial discipline as key factors affecting financial well-being (Nandru et al., 2021).

The research also states that there is a significant negative correlation between anxiety and quality of life. Other studies agree with these findings and report that workers with high anxiety levels report lower QOL scores, particularly in psychological and environmental domains (Kuster et al., 2015). They further state that factors like gender, age, and family circumstances can influence anxiety levels and even tend to have a comparable effect on quality of life (Sobhani et al., 2022). Furthermore, the research pointed out a significant correlation between anxiety and financial well-being. Other studies also agree with the findings and state that financial problems have been linked to increased anxiety and suicidal

ideation, particularly during crises like the COVID-19 pandemic (Khan et al., 2023). They also state that financial literacy and self-control play crucial roles in determining financial well-being. As financial well-being improves and financial stress decreases, anxiety levels also tend to increase while resilience and job performance tend to improve (Rafik & Rahayu, 2020).

The research indicates that anxiety was a significant negative predictor of quality of life. Other papers agree with the findings and have come to show that workers exposed to occupational hazards report high levels of anxiety, which negatively affects their quality of life (Kuster et al., 2015). Furthermore, in the unorganised sector, particularly among construction workers, moderate to high levels of anxiety have been observed, with a strong correlation between anxiety and mental health, both of which have been proven to be negative predictors of quality of life (Bhadgaonkar, 2023). The research has also showcased that occupational stress and knowledge about health risks are not significant predictors of quality of life. Other studies, however, disagree with these findings. Studies show that higher levels of job stress are associated with lower quality of life scores in both physical and mental health domains among public sector employees and professionals (Phadnis et al., 2015).

Studies more specific to unorganised sector workers and labourers also show that workers, particularly those who are semi-skilled or unskilled, experience high levels of occupational stress and musculoskeletal disorders, leading to poor quality of life scores across all domains (Chakraborty et al., 2017). However, some studies have also found that occasionally individuals accept higher stress in the hope of an increased quality of life. For example, IT professionals may perceive higher stress as acceptable for improved quality of life, which can be applied to other fields with varying pay as well, possibly due to mediating factors like aspirations and values (Babu et al., 2016).

Furthermore, some studies state that lack of exercise, asthma, smoking and disregard of health risks are associated with poor health related quality of life (HRQOL)(Jiang & Hesser, 2006), while perceived health status, self esteem and health promotion lifestyle, encouraged by more extensive knowledge of the subject matter, positively correlate with HRQOL (Eom & Lee, 2009). Other research also indicates that knowledge about health risks has a significant correlation with education level, which has been identified as the main predictor for all domains of HRQOL among industrial workers (Malak, 2017).

As per the study's findings, most of the workers interviewed quit school due to personal reasons. Different studies agree with the findings of the research and state that poverty and family income force children to become additional wage earners, leading to higher school dropout rates (Malik, 2013) and, parents' inability to afford school related expenses like books and uniforms significantly contributes to low enrollment and high dropout rates in urban slums (Chugh, 2005b).

As per the research, most of the workers interviewed believed that schemes or savings accounts provide no help or benefit to unorganised workers. Other papers agree with the findings of the study and state that the coverage and benefits of schemes and measures are frequently insufficient or fail to reach beneficiaries (Mishra, 2017), and these schemes often fail to adequately address the needs of low income workers due to flaws that don't account for their specific characteristics (Rajasekhar et al., 2016).

The research also indicated that most of the workers who had attempted to get a loan had been denied one. Other research agrees with this finding, stating that only 6% of unorganised sector workers receive social security support, and their real wage growth has been slow (Pandey & Gupta, 2022).

As per the study, workers interviewed experienced significant stress and suffered from physical injuries while refusing to seek professional help due to increased cost and turning to self-treatment. While acknowledging the factor of stress levels, most studies have identified other problems to be more prevalent among sewage workers, including airway symptoms, chronic bronchitis, and toxic pneumonitis, as well as musculoskeletal problems (Thorn et al., 2002b). Studies also state that among unorganised sector workers in India, only 10% have health insurance, leading to financial strain and inadequate treatment for work-related injuries, causing them to turn to self-medication (Kusuma et al., 2018).

5. Conclusion

The primary aim of the study was to further be able to understand the economic and psychological well-being of the sewage workers from a statistical and analytical perspective, with special emphasis on the health vulnerabilities faced by them. It aimed to be able to check for and quantify the relationship that exists amongst various psychological and economic variables, including- anxiety, quality of life, financial well-being, knowledge about health risks, and occupational stress. It further showed the impact that each one of these variables has, and the extent of the impact, on the overall well-being of the workers.

The study was able to find and define the correlation between monthly expenditure, anxiety, quality of life and financial well-being while showing the descriptive statistics and ANOVA for various scales like- Hamilton Anxiety, Occupational Stress, Financial Well-being, Knowledge About Health Risks, and WHOQOL-BREF. Specifically, Monthly Expenditure (M.E.) demonstrates a small but significant positive association with Hamilton Anxiety (HA), suggesting that individuals with higher monthly expenditures tend to experience greater anxiety levels. Conversely, ME displays small but significant negative correlations with both WHOQOL BREF and Financial Well-being Scale, indicating that higher monthly expenditures are associated with slightly lower reported quality of life and financial well-being in this sample. Mirroring this pattern, Hamilton Anxiety (H.A.) also shows a significant positive correlation with ME and significant negative correlations with both QOL and FWBS, with the negative relationships being moderate in strength.

It investigated if there was a significant difference across the three educational levels on the dependent variables of knowledge about health risks, financial well-being or occupational stress. It also showed the multiple regression analysis taking QOL as the dependent variable and revealed whether the chosen variables are significant predictors of each other or not. It indicated that HA was a significant negative predictor of QOL while other variables were not considered significant predictors. Through interviews, the study also concluded that most sewage workers were not aware of any schemes that have been created to benefit them, could not obtain a loan from a bank or financial institution, often cannot afford professional treatment and started working as sewage workers to make ends meet or due to personal problems. The findings of the studies were also compared with the findings of other studies with most findings being agreed upon.

Despite being a group suffering from various problems including stress, lack of earning members in the family, limited opportunities etc. sewage workers continue to be an overlooked group with their social disabilities not being recognised. Their psychological and economic state is normally subjectively agreed upon and there is a lack of quantitative analysis about their present state leading to a lack of related information. There also seems to be a knowledge gap for the general population regarding the real state of the workers and their assumed position as, while there have been many steps taken to assist them, their lack of knowledge regarding the same leads to limited reach of schemes and programmes.

Limitations of the study:

1. The respondents in the study were all sewage workers in one city- Gurgaon. Hence, their perspective and condition may not fairly represent the perspectives and state of sewage workers in general due to lack of diversity in the sample. Their answers and problems may also be limited to those faced in the city in particular and not all across the country due to their occupation.
2. The study also suffers from a lack of gender representation. This is mainly due to the majority of the workers being male in Gurgaon. All of the workers interviewed and surveyed were male and there were only a few female sewage workers employed in the city who were not available to be part of the survey. Due to this, the study only covers the aspect and perspective of one gender.
3. While the study was able to survey 100 workers and interview 12 of them, information could also have been collected from their family members to better understand the economic and psychological well-being of the workers from another perspective.
4. The study could have looked at how different workers in the unorganised sector perform on the economic and psychological scales and compared their scores with the scores of sewage workers.
5. Due to the lack of previous research related to this specific target group, sewage workers, there are few studies which this study can be compared to and there are limited resources through which additional information related to the subject matter could be acquired.

Future Recommendations:

1. Include workers from all across the country in order to gauge a broader perspective through a more representative sample.
2. Attempt to involve more female workers to better understand their views and if the perspectives of sewage workers differ due to gender.
3. Survey more respondents to better understand the quantitative aspect and link it with the qualitative side to better comprehend the problem as a whole.
4. To be able to generalise the results of the study to more workers in the unorganised sector, involve workers other than just sewage or sanitation workers to understand the difference in well-being based on the nature of work performed.

Policy Implications:

1. Develop and test mobile apps or SMS-based systems to directly disseminate information about government schemes, health risks, and financial literacy in regional languages to overcome literacy barriers.
2. Partner with local hospitals/NGOs to organize regular health camps at sewage work sites for free screenings, vaccinations, and basic treatment to address immediate healthcare gaps.
3. The government and NGOs must aim to provide sufficient mental health services to the workers in order to help them cope with high stress and anxiety levels which they

face on a regular basis due to their inability to meet their family expenditure due to low wages.

4. Train selected sewage workers as "health ambassadors" to educate colleagues about occupational hazards, preventive measures, and scheme enrollment in an accessible, trust-based manner.
5. Providing the workers with proper health facilities and providing them insurance to be able to bear the cost of treatment must be treated as a priority in order to treat the long term problems that they are normally not even aware that they face and tend to their physical injuries which occur fairly often in their occupation.
6. Collaborate with banks/self-help groups to create tailored microfinance products (e.g., low-interest emergency loans) and simplify account-opening procedures for workers lacking documentation.
7. Conduct participatory trials of low-cost, culturally appropriate protective gear (e.g., ergonomic tools, odor-masking respirators) with worker feedback to improve adoption rates.
8. There should be a strict check over all government officials who interact with the workers in order to ensure that the workers are being treated properly and any act of discrimination against the workers should be strictly punished.
9. Pilot workplace crèches or education stipends for workers' children to reduce financial anxiety and break intergenerational poverty cycles.

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