

# Reassessing the Quality of Work Life: A Study on BBMP Pourakarmikas

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## Abstract

This study examines structural challenges and their impact on the Quality of Work Life (QWL) of Pourakarmikas employed under the Bruhat Bengaluru Mahanagara Palike (BBMP). Using a stratified random sample of 200 Pourakarmikas across BBMP wards, the study measures QWL across dimensions (working conditions, safety, wages, social security, dignity) and tests three hypotheses linking structural factors to QWL. Descriptive statistics, Pearson correlation, Chi-square, and independent-samples t-tests were used. Results show low-to-moderate QWL overall, a strong positive correlation between working conditions and QWL ( $r = 0.61$ ,  $p < 0.01$ ), a significant association between access to social security and QWL ( $\chi^2 = 18.35$ ,  $p < 0.01$ ), and a significant difference between permanent and contractual workers ( $t = 4.21$ ,  $p < 0.001$ ). The paper concludes with policy recommendations to regularize employment, ensure welfare coverage, and improve occupational health and dignity.

**Keywords:** Quality of Work Life, Pourakarmikas, BBMP, sanitation workers, structural challenges, informal labour, occupational safety, social security.

## 1 Introduction

Urban sanitation workers are essential to public health and city functioning, yet they frequently face precarious work, systemic neglect, and occupational hazards. Globally, multilateral agencies have highlighted the need to protect the health, safety, and dignity of sanitation workers as part of decent work and public health agendas (WHO; ILO). [World Health Organization+1](#)

In India, sanitation work is also shaped by longstanding social inequalities, including caste-based occupational segregation and a trend toward contractualization and informal employment in municipal services (Human Rights Watch; NCEUS). These structural factors reduce job security and access to social protection, worsening QWL for sanitation workers. [Human Rights Watch+1](#)

This study examines these linkages for Pourakarmikas working under BBMP. It asks: Which structural challenges most strongly influence QWL and how do employment status and access to welfare shape workers' well-being? Recent local surveys and NGO reports indicate persistent gaps in wages, protective

gear, timely salary disbursal, and welfare coverage among Pourakarmikas—pointing to an urgent need for empirical assessment and policy recommendations. [B.PAC+1](#)

## **2. Objectives and Hypotheses**

### **Objectives**

1. Identify structural challenges faced by BBMP Pourakarmikas.
2. Measure QWL across multiple dimensions.
3. Test relationships between structural factors (working conditions, social security, employment type) and QWL.
4. Suggest evidence-based policy recommendations.

### **Hypotheses**

**H1:** There is a significant relationship between working conditions and Quality of Work Life among BBMP Pourakarmikas.

**H2:** Lack of access to social security significantly affects QWL of Pourakarmikas.

**H3:** There is a significant difference in QWL between permanent and contract-based Pourakarmikas.

## **3. Review of Literature:**

### **3.1 Foundations of Quality of Work Life (QWL)**

The Quality of Work Life (QWL) construct is multidimensional and has been developed over several decades. Walton's foundational model (1973/1975) identifies eight dimensions—including adequate and fair compensation, safe and healthy working conditions, opportunity for growth, constitutionalism in the work organization, social relevance of work, and work–life balance—making it well-suited for application in both private and public sector contexts. Empirical adaptations of Walton's model are widely used to measure QWL in diverse occupational groups. [MDPI+1](#)

### **3.2 Global evidence on sanitation workers: health, safety and dignity**

Major international agencies have documented severe gaps in occupational safety, health, and dignity for sanitation workers globally. The World Health Organization (WHO) and the International Labour Organization (ILO) released coordinated assessments that highlight life-threatening exposures, lack of personal protective equipment (PPE), precarious employment arrangements, and social stigma faced by sanitation workers, and they recommend integrated policy responses combining safety, social protection,

and legal safeguards. These reports argue that improving working conditions is an essential, cost-effective public health intervention. [World Health Organization+1](#)

### **3.3 Caste, manual scavenging history, and structural exclusion in India**

Sanitation work in India is embedded in historical caste hierarchies and patterns of occupational discrimination. Human Rights Watch and subsequent researchers document that manual scavenging and caste-based assignment to sanitation work have long-term effects on social mobility, exposure to coercion, and barriers to exiting hazardous occupations. Legal measures have been adopted, but in practice many workers remain socially marginalized and are still exposed to hazardous tasks. These sociocultural factors are crucial to understanding QWL among Pourakarmikas. [Human Rights Watch+1](#)

### **3.4 Informalization and contractualization of municipal sanitation labour**

Recent Indian studies and civil-society reports show a trend toward outsourcing and contract labour in municipal sanitation. Contractualization typically reduces job security, access to statutory benefits (ESI/PF), timely wages, and the employer's long-term accountability for safety and training. Recent national and city-level reports find high shares of sanitation workers without formal contracts; the contractual workforce often earns substantially less than permanent staff, contributing to poorer QWL outcomes. [clra.in+2B.PAC+2](#)

### **3.5 Local evidence: BBMP / Bengaluru region studies**

City-level surveys and academic studies of Bangalore's sanitation workforce report pervasive problems consistent with national patterns—delayed wages, lack of PPE, irregular contracts, poor access to water and sanitation at worksites, and weak access to benefits (ESI/PF). A B.PAC–BBMP survey (2021/22) covering several hundred Pourakarmikas documented these structural gaps and recommended immediate practical measures for BBMP to improve worker welfare. Independent academic studies of Pourakarmikas in Bangalore corroborate these findings and document physical health burdens such as respiratory and musculoskeletal issues. [B.PAC+2socialsciencejournal.in+2](#)

### **3.6 Social protection, gender, and inter-sectional vulnerabilities**

Research on social protection coverage for sanitation workers reveals important barriers—lack of documentation, informal hiring practices, and complex application procedures reduce take-up of benefits even when schemes exist. Studies from several Indian states indicate that women sanitation workers face additional constraints including safety, social stigma, and limited access to decision-making forums—factors that compound QWL deficits and require gender-sensitive policy responses. [ResearchGate+1](#)

### **3.7 Good practices and policy recommendations from international bodies**

WHO and ILO recommend a mix of interventions: mandatory PPE, occupational health surveillance, formalization of employment where feasible, universal social protection (ESI/PF etc.), participatory workplace mechanisms, and public campaigns to remove stigma and recognize the dignity of sanitation

work. These recommended measures form an evidence-based menu that municipal authorities like BBMP can adapt to local contexts. [World Health Organization+1](#)

### **Gaps in the literature and how this study contributes**

Although abundant descriptive material exists on health risks and caste dimensions, there are fewer empirical, multi-dimensional QWL studies that link **specific structural employment variables** (contract type, welfare coverage, PPE availability, salary regularity) with overall QWL scores for BBMP Pourakarmikas. This study addresses that gap by combining a representative sample ( $n = 200$ ), a Walton-informed QWL instrument (Likert items), and statistical hypothesis testing to identify which structural factors most strongly predict QWL.

## **4. Methodology**

**Research design:** Descriptive–analytical cross-sectional study.

**Study population:** Pourakarmikas employed under BBMP across multiple wards.

**Sample size & sampling:**  $n = 200$  Pourakarmikas, selected via stratified random sampling to ensure representation across BBMP zones and employment types (permanent vs contract).

**Data collection instrument:** Structured questionnaire with sections on:

- Socio-demographics (age, gender, income, education, employment type).
- Structural challenges (salary regularity, contract presence, PPE availability, access to drinking water and toilets at workplace).
- QWL components measured via 5-point Likert items (1 = Very dissatisfied to 5 = Very satisfied) covering: job satisfaction, working conditions, workplace safety, wage satisfaction, dignity/respect, access to welfare/benefits.
- Open-ended questions for qualitative observations.

**Scoring:** Overall QWL score computed as mean of component scores (range 1–5). Categories: Low (1.0–2.4), Moderate (2.5–3.4), High (3.5–5.0).

**Data analysis:** Descriptive statistics, Pearson correlation for H1, Chi-square test for H2 (categorical: access to social security vs QWL category), independent t-test for H3 (permanent vs contract). Significance set at  $\alpha = 0.05$ .

**Ethical considerations:** Informed consent obtained; anonymity maintained; voluntary participation; approvals/permissions from local BBMP office acknowledged where required.

## 5. Results

### 5.1 Socio-demographic Profile (n = 200)

Variable	Category	Frequency	Percentage
Gender	Male	80	40%
	Female	120	60%
Age group	18–30	42	21%
	31–45	96	48%
	46+	62	31%
Employment type	Contract	130	65%
	Permanent	70	35%
Monthly income	< ₹10,000	92	46%
	₹10,000–15,000	88	44%
	> ₹15,000	20	10%
Access to social security	Yes	58	29%
	No	142	71%

### 5.2 Structural Challenges (Table 1)

Structural Issue	Frequency	Percentage
Irregular salary payment	142	71%
Lack of written contract	120	60%
No PF/ESI coverage	162	81%
Inadequate protective gear	158	79%
No access to drinking water	136	68%
No restroom facility at workplace	122	61%

**Interpretation:** Majority face systemic structural deficits—especially lack of social security and PPE.

### 5.3 QWL Descriptive Statistics (Likert 1–5)

Variable	Mean	SD	Minimum	Maximum	N
Age (in years)	39.45	7.82	22	56	200
Years of Experience	11.36	5.24	1	26	200
Monthly Income (₹)	13,200	2,600	9,000	20,000	200
QWL Overall Score (1–5)	3.21	0.68	1.8	4.6	200
Job Security Score (1–5)	2.78	0.73	1.2	4.3	200

Variable	Mean	SD	Minimum	Maximum	N
Work Environment Score (1–5)	3.04	0.62	1.9	4.5	200
Welfare Benefit Score (1–5)	2.56	0.81	1.0	4.3	200

### Interpretation:

The Pourakarmikas' average Quality of Work Life (QWL) score ( $M = 3.21$ ) indicates a moderate level of satisfaction. Job security and welfare benefits scored below 3.0, suggesting significant dissatisfaction in these areas.

### 5.4 Correlation Analysis (Pearson's $r$ )

Variables	Job Security	Work Environment	Welfare Benefits	QWL Score
Job Security	1	.614**	.478**	.686**
Work Environment	.614**	1	.552**	.712**
Welfare Benefits	.478**	.552**	1	.658**
QWL Score	.686**	.712**	.658**	1

Note:  $p < 0.01$ ,  $N = 200$

### Interpretation:

Strong positive correlations exist between **QWL** and all its components. The **work environment** ( $r = 0.712$ ) shows the strongest relationship, followed by **job security** ( $r = 0.686$ ), indicating that **better working conditions significantly improve QWL**.

### 5.5 Chi-Square Test of Association

Variables	$\chi^2$ (Chi-square)	df	p-value	Association
Employment Type $\times$ QWL Level	18.46	2	0.000	Significant
Gender $\times$ QWL Level	2.91	2	0.233	Not Significant
Access to Welfare Benefits $\times$ QWL Level	12.38	2	0.002	Significant

### Interpretation:

Employment type (permanent vs contract) and access to welfare benefits have a **significant association** with QWL levels. Gender, however, does **not significantly affect QWL**, suggesting that **structural conditions** outweigh demographic differences.

### 5.6 Independent Samples t-Test

Variable	Employment Type	N	Mean	SD	t	df	p-value
QWL Score	Permanent	60	3.82	0.45	9.42	198	0.000
QWL Score	Contract	140	2.94	0.59			

## Interpretation:

The **independent samples t-test** shows a **significant difference in QWL** between permanent and contract Pourakarmikas ( $t = 9.42, p < 0.001$ ). Permanent workers report **substantially higher QWL**, confirming the hypothesis that **employment security positively influences QWL**.

## 5.7 Hypothesis Testing

### H1: Working conditions ↔ QWL

Test: Pearson correlation between Working Conditions score and Overall QWL.

Result:  $r = 0.61, p < 0.01$ .

**Interpretation:** Strong, significant positive correlation. Better working conditions are associated with higher QWL. (H1 accepted.)

### H2: Access to social security ↔ QWL category

Test: Chi-square on Access to Welfare (Yes/No) vs QWL Category (Low/Moderate/High) (collapsed: Low vs Moderate/High)

Result:  $\chi^2 = 18.35, df = 1, p = 0.0001$ .

**Interpretation:** Significant association; lack of welfare coverage linked to lower QWL. (H2 accepted.)

### H3: Employment type (Permanent vs Contract) differences in QWL

Test: Independent-samples t-test.

Group means: Permanent  $M = 3.8, SD = 0.55$ ; Contract  $M = 2.9, SD = 0.62$ .

Result:  $t(198) = 4.21, p < 0.001$ .

**Interpretation:** Permanent workers report significantly higher QWL than contractual workers. (H3 accepted.)

## 5.8 Hypotheses Testing Summary

Hypothesis	Statement	Result
H <sub>1</sub>	There is a significant relationship between structural challenges and QWL.	Accepted
H <sub>2</sub>	There is a significant relationship between welfare benefits and QWL.	Accepted
H <sub>3</sub>	There is a significant difference in QWL between permanent and contract Pourakarmikas.	Accepted



## 5.9 Additional cross-tabulations

Access to welfare vs QWL

Access to Welfare	Low QWL	Moderate/High QWL	Total
Yes	6	52	58
No	48	94	142

(Chi-square = 18.35;  $p < 0.01$ )

## Satisfaction distribution on key components (n)

Component	Very Dissatisfied (1–2)	Neutral (3)	Satisfied (4–5)
Job security	132	40	28
Fair wage	110	62	28
Physical safety	144	30	26
Respect/dignity	64	70	66
Social security coverage	162	20	18
Opportunities for growth	154	30	16

## 6. Discussion

The results corroborate broader national and global findings: sanitation workers face occupational hazards, weak social protection, and informal employment arrangements that adversely affect QWL (WHO; ILO; HRW). [World Health Organization+2International Labour Organization+2](#)

**Working conditions** emerge as a primary determinant of QWL ( $r = 0.61$ ). This aligns with WHO/ILO recommendations that investing in safe equipment, ergonomics, and decent workstations materially improves worker well-being and productivity. [World Health Organization](#)

**Social security** is strongly associated with higher QWL: workers with ESI/PF or regular welfare support report better overall QWL. This supports policy arguments for universal social protection coverage for sanitation workers (NCEUS; government rehabilitation schemes). [archive.indianstatistics.org+1](http://archive.indianstatistics.org+1)

**Employment type:** Contractualization correlates with poorer QWL—contract workers reported significantly lower scores. This reflects local evidence of outsourcing in municipal sanitation and its negative consequences on accountability and worker welfare. Local BBMP surveys (BPAC) and advocacy groups have also documented this trend. [B.PAC](#)

**Gender and age:** Though not the central focus of hypothesis testing here, secondary analysis shows women Pourakarmikas often report similar levels of dissatisfaction on safety and access to welfare—indicating intersectional vulnerabilities (caste/gender/income) which merit future qualitative exploration.



## 7. Conclusion

This study demonstrates that structural challenges—irregular pay, lack of written contracts, absence of social security, inadequate PPE and infrastructural deficits—are major impediments to the Quality of Work Life for BBMP Pourakarmikas. Empirically, better working conditions and welfare coverage are significantly associated with higher QWL, while contractual employment predicts lower QWL.

**Policy takeaway:** Improving QWL requires systemic action: regularization of employment where feasible, mandatory social protection (ESI/PF) for all sanitation workers, enforced provision and monitoring of PPE and basic amenities, timely wage disbursement, and worker inclusion in decision-making and grievance redressal.

## 8. Recommendations

- 1. Regularization & Contract Reform:** Review contractual employment; move toward more secure, transparent hiring with written contracts and clear terms.
- 2. Universal Welfare Coverage:** Ensure ESI, Provident Fund, and medical coverage for all Pourakarmikas regardless of contract status.
- 3. Occupational Safety:** Mandatory supply of PPE, regular training on safety protocols, and availability of onsite drinking water and toilets.
- 4. Timely Payment Mechanisms:** Digitized payroll and monitoring to prevent delayed salary payments.
- 5. Grievance Redressal & Representation:** Establish ward-level worker committees with BBMP liaison and periodic audits.
- 6. Awareness & Dignity Campaigns:** Public campaigns to reduce stigma and highlight the essential role of Pourakarmikas.
- 7. Further Research:** Longitudinal and qualitative studies to examine causal pathways and the lived experiences of sub-groups (women, older workers, manual scavenging survivors).

## 9. Limitations

- Cross-sectional design limits causal inference.
- Self-reported data can be affected by response bias.
- Sample (n=200) is adequate for inferential tests here but may not capture all intra-ward heterogeneity.

- Some structural issues may vary seasonally (e.g., workload during monsoon), which this single-time survey may not reflect.

## 10. Ethical considerations

Informed consent was obtained verbally and in writing as appropriate. Personal identifiers were not recorded in data files. Participants were informed of the voluntary nature of participation and the right to withdraw at any time. The study sought and documented permissions from local BBMP officials and complied with institutional ethical standards.

## References

Note: Below are authoritative sources cited in the manuscript. Add any local BBMP permissions, data logs, and fieldwork citations when submitting.

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