

Impact of Occupational Health and Safety on Quality of Work Life among Cleanliness Employees in Tamil Nadu – Mediating Role of Employee Well-Being

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ABSTRACT:

The study examines the impact of occupational health and safety on quality of work life among cleanliness employees with mediating effect of employee wellbeing in Tamil Nadu. The study considers 524 cleanliness employees across several places in the study area. Questionnaire is used to collect direct responses. Structural equation modelling, One-Way ANOVA and post-hoc test are used to analyze the data. Effective safety measures improve physical comfort, lower stress levels, and boost employees' sense of security and dignity at work, according to the research. The important way that occupational health and safety contribute to better work-life outcomes is through employee well-being. Results prove that employees' perceptions of safety precautions, well-being, and work-life balance are influenced by their experience. Safety interventions work best when they support employees' well-being, creates more hygienic, courteous, and long-lasting workplace.

Keywords: Protective Equipment, Safety Training, Medical Support, Occupational Health and Safety, Employee Well-Being, Quality of Work Life

1. Introduction and Background

The cleanliness employees perform an indispensable role in maintaining public health, environmental sanitation and cleanliness of dwelling places. The contribution of their work in Tamil Nadu is highly important in urban local bodies,

hospitals, educational institutions, and residential areas. The nature of work of cleanliness employees involves in road sweeping, waste collection and segregation, drainage cleanliness, garbage handling, maintenance of sanitation facilities and management of disposal sites (Salve and Jungari,

2020). The tasks of cleanliness works are mainly involved with manual, repetitive and physically demanding. The cleanliness employees are exposed to harmful chemicals, dust, sharp objects, foul odor, biological wastes, long working hours and extreme weather conditions. The existence of such conditions make occupational health and safety a main concern for cleanliness employees. Occupational health and safety is the right measure adopted to protect employees from-related injuries, illnesses and hazards. The measures include having protective gear including gloves, masks, uniforms, boots, and safety tools readily available and being used on a regular basis by cleanliness employees (Rangamani et al., 2015). Safe handling methods, health examinations, immunizations, waste management training, and prompt medical assistance in the event of an accident are also included. However, weak safety regulations, sporadic supplies of protective gear, low awareness of safety procedures, and inadequate supervision still plague cleanliness employees. Infections, respiratory issues, skin conditions, musculoskeletal disorders, and occupational injuries are all made more likely by these gaps (Guhan et al., 2021).

The entire well-being of employees with regard to their workplace, job security, physical and mental health, financial stability, work-life balance, and dignity at work is referred to as quality of work life. The level of safety and respect that employees receive at work has a direct impact on their quality of work life. Employees suffer from anxiety, tension, exhaustion, and discontent when occupational health and safety regulations are inadequate, which has a detrimental impact on their morale and productivity (Gupta & Anand, 2025). In addition to decreasing workplace dedication, unsafe working conditions also raise absenteeism. On the other hand, cleanliness employees' quality of work life is greatly enhanced by efficient occupational health and safety procedures. Employees feel more secure and valuable when they have access to welfare programs, clear work processes, frequent health monitoring, supportive supervision, and appropriate safety equipment (Gautam et al., 2021). A safe workplace lowers health risks and gives employees the confidence to carry out their

responsibilities. It enhances their job contentment and psychological well-being in addition to their physical health. For this repeatedly disregarded workforce, focused policy implementation, awareness campaigns, and stringent enforcement of safety regulations can lead to healthier employees, better service delivery, and a more respectable workplace (Engg, 2020).

Mediating Role of Employee Well-Being:

Employee wellbeing is associated with the overall psychological, physical, and emotional states of employees as impacted by their workplace. Employee well-being becomes a vital mechanism by which work practices impact quality of work life in jobs that include physical strain and health concerns. The well-being is directly improved by the efficient execution of occupational health and safety measures (Raghavendra & Kumar, 2022). The risk of accidents and diseases related to the workplace is decreased by safe working conditions, protective equipment, medical assistance, and explicit safety regulations. These benefits give employees a sense of mental and physical security, which increases their emotional stability and self-assurance. Employee wellbeing describes the extent of occupational health and safety procedures improve the quality of work life (Bose, 2019). Even in cases where safety regulations are in place, their influence on employees' quality of life at work is minimal unless employees actually feel better. Increased well-being boosts motivation, work engagement, and morale while lowering stress, exhaustion, and anxiety. Better work-life balance, more dedication, and a more favorable assessment of working circumstances are the outcomes of wellbeing. Therefore, employee well-being converts occupational health and safety activities into significant gains in the quality of work life, particularly for cleanliness employees (Kant et al., 2020).

Occupational Health and Safety: The goal of occupational health and safety is to shield sanitation employees from the harmful risks associated with their job. They frequently come into touch with chemicals, sewage, contaminated surfaces, and uneven work locations as part of their jobs, which can lead to infections, falls, and long-term health

issues. Walking, lifting, and bending constantly put strain on joints and muscles (Baskar & Anupiriya, 2018). Planned work schedules, access to sanitary facilities, first-aid assistance, and explicit safety regulations are all necessary for a safe workplace. Regular medical screenings aid in the early detection of health problems related to the workplace. Risk levels are further reduced by instruction on appropriate posture, equipment use, and emergency reaction (Babalola et al., 2023). A sense of care and accountability is developed by supportive supervision and prompt reporting of risks. Employees feel respected and safe when safety is handled seriously. It results in less discomfort, high self-assurance at work, and consistent performance. Maintenance of employee health and service quality in tasks related to sanitation requires strengthening occupational health and safety (Botchwey et al., 2022).

Protective Equipment: Provision of suitable protective equipment is highly important because cleanliness employees have direct contact with waste, germ and harmful substances. The instruments like boot, masks, gloves and uniforms protect their body while involved in daily sanitation activities. These materials are clean, regularly replaced and well-fitted will offer safety to the employees. The proper use of protective equipment decreases health risks and perform their duties with high confidence (Monteiro, 2023).

Safety Training: Safety training teaches cleanliness employees to properly handle garbage and operate equipment. It offers easy strategies to prevent injuries and raises awareness of potential risks at work. Additionally, training augments learning of safe work practices and emergency response. Frequent mentoring sessions increase confidence, decrease accidents, and strengthen caution. Employees with proper training take greater attention in their work and feel more comfortable (Mahendran & Mahendran, 2025).

Medical Support: The health of cleanliness is safeguarded with medical assistance. Frequent health examinations aid in the early detection of work-related issues. The impact of injuries and infections is lessened by having access to first aid, immunization, and prompt treatment. Additionally,

medical care reassures employees that their health is important. Long-term job security, emotional comfort, and physical strength are all enhanced by ongoing medical care (Kumar, 2021).

Quality of Work Life: The quality of work life of cleanliness employees reflects the safety, comfort, and respect at work in their work. Supportive working conditions are essential because their tasks are physically demanding and frequently performed in challenging environments. Their sense of security is substantially enhanced by fair compensation, prompt payment, suitable working hours, and employment stability (Kumar Lenka, 2019). Access to basic amenities like rest rooms, drinking water, and sanitary facilities, as well as courteous treatment from managers and the general public, are all components of a positive work environment. Employee perception of their work is also influenced by emotional support and gratitude for their effort. Employees' drive and self-confidence increase when they feel appreciated (Patil, 2024). Employees who have a good work-life balance are better able to handle work-related stress and personal obligations. It promotes dedication, job satisfaction, and consistent performance. Cleanliness employees have a more balanced, healthy, and respectable work experience when their quality of work life is improved (Ziyauddin, 2022).

2. Problem Statement

The cleanliness employees form the backbone of public health system and carry out sanitation work on daily basis under challenging and risky conditions. The employees are mainly exposed to various health based problems, which affects their work life to large extent. Occupational health and safety mainly related to protection, support and provision of safety. Despite the presence of occupational health and safety activities, the employees continue to face health problems, stress and lower contentment in job. It raises concern about whether safety practices alone are sufficient to improve their quality of work life. In this way, employee wellbeing, reveals physical comfort and mental balance, it measures the influence of safety activities on work life quality. An effort to assess the impact of occupational health and safety measures on quality of work life of employees involved in

sanitation industry is essential. Therefore, examination of prevailing occupation health and safety conditions will assist to assess the quality of work life of cleanliness employees. In addition, the results are helpful to develop safety standards, welfare initiatives and protect life of cleanliness employees.

3. Literature Review

The protective equipment is widely recognized a main component to protect cleanliness employees from occupational hazards. The sanitation employees are highly exposed to infectious waste, chemicals and physical injuries, hence protective equipment are essential for risk reduction (Subramani et al., 2023). The continuous availability, consistent usage of equipment, its quality against perils considerably lower health complications and workplace accidents. Insufficient and irregular provision of protective equipment is linked to higher vulnerability and job dissatisfaction among cleanliness employees (Dev et al., 2021). The safety training will safeguard the physical health of cleanliness employees. A structured training program will increase risk awareness, effective management of waste, and safe handling of equipment (Kumar, 2025). Moreover, training boosts self-assurance and lessens anxiety related to risky tasks. Cleanliness employees that receive regular safety training exhibit lower work-related incidents and better adherence to safety procedures than untrained employees (Shehzad, 2018). Workplace safety measures have been strengthened through the examination of medical support as a supporting mechanism. Early detection of workplace illnesses is aided by routine health examinations, immunization programs, and convenient access to medical care (Yadav et al., 2024). Additionally, medical support reassures employees and nurtures a sense of organizational care, which is vital for sanitation employees who are constantly exposed to health dangers (Debbarma et al., 2021).

The occupational health and safety incorporates safety regulations, medical services, training, and protective tackle. Effective occupational health and safety procedures will decrease workplace stress, absenteeism, and injuries (Tolera et al., 2023). Strong occupational health and safety systems lead to safer and more stable work environments, while lax implementation of safety regulations has been linked to bad working conditions and dwindling employee morale in the context of cleanliness (Ngatia et al., 2024). As a decisive result of workplace safety procedures, employee well-being has drawn more and more attention. A balanced condition of mental comfort, emotional stability, and physical health constitutes well-being of employees (Khosla et al., 2022). Unsafe conditions raise stress, exhaustion, and emotional strain among cleanliness employees, supporting safety measures have a positive impact on well-being (Bauza et al., 2021). A common assessment of employees' job experiences is quality of work life. Safety, health support, respect, and job stability all have a significant impact on cleanliness employees' quality of work life (Saleem et al., 2024). Better occupational health and safety procedures improve employee well-being, which raises dedication, contentment, and perceived quality of work life (Olwe, 2025).

Research Gap: Existing studies have examined the occupational health risks and sanitation work conditions separately. Few studies explored quality of work life, while other have addressed safety practices individually. There is lack of studies examined about the impact of occupational health and safety on quality of work life, especially in Tamil Nadu context. Similarly, the mediating role of employee wellbeing remains underexplored. Therefore, the study aimed to bridge the gap by integrating such dimension and to make single framework to test. The review of literature helped to develop the ensuing conceptual model to test, it is furnished in Figure 1.

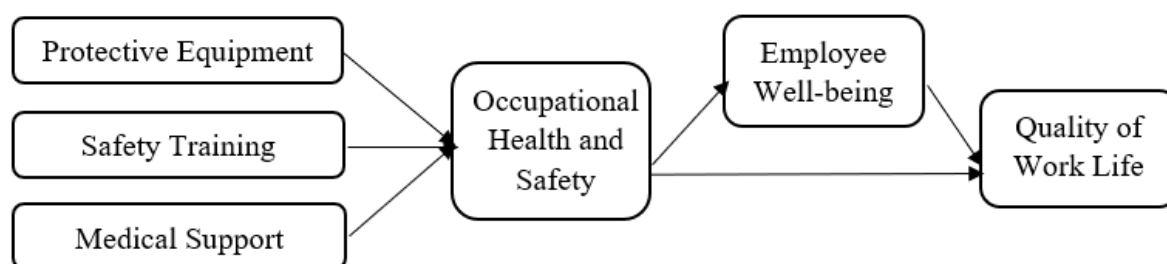


Figure 1: Conceptual Model

4. Research Objectives

The study focused to test the objectives, stated below.

1. To examine demographic status of cleanliness employees in Tamil Nadu.
2. To scrutinize the cause and effect relationship among research constructs.
3. To investigate the mediating role of employee wellbeing between occupational health and safety and quality of work life.
4. To evaluate the impact of experience of cleanliness employees on research constructs.

5. Materials and Methods

The study analyzes the impact of occupational health and safety of cleanliness employees on quality of work life in Tamil Nadu. The causal research design used to explore cause-and-effect relationship among research constructs. The population is large and the study preferred purposive sampling to select sample. The sample is 524, which is more than benchmark limit of 384 as described by Cochran formula. The data will be collected using questionnaire, which consists of seven parts, such as demographic status, protective equipment, safety training, medical support, occupational health and safety, employee well-being, and quality of work life. Structural equation modeling, One-Way ANOVA and post-hoc tests are used to test the data. Moreover, the study proposed the subsequent hypotheses to test.

H_{1.1}: Antecedents have significant impact on protective equipment, safety training, medical support, occupational health and

safety, employee well-being and quality of work life.

H_{1.2}: Protective equipment, safety training and medical support has significant impact on occupational health and safety.

H_{1.3}: Occupational health and safety have significant impact on quality of work life.

H_{1.4}: Employee well-being has mediating role between occupational health and safety and quality of work life.

H_{1.5}: Experience of cleanliness employees has significant effect on protective equipment, safety training, medical support, occupational health and safety, employee well-being and quality of work life.

6. Results and Discussion

6.1. Analysis of Demographic Status

The demographic status of cleanliness employees is tested, which is furnished in Table 1.

Table 1: Analysis of Demographic Status

Demogra phy	Distribution	Frequen cy	Perce nt
Gender	Male	291	55.5%
	Female	233	44.5%
Age	Under 30 years	215	41.0%
	30 – 45 years	234	44.7%
	Above 45 years	75	14.3%
Academic Status	Up to SSLC	250	47.7%
	HSC	127	24.2%

	Diploma/Degree	147	28.1%
Monthly Salary	Under Rs.10,000	370	70.6%
	Rs.10,000 – 20,000	74	14.1%
	Above Rs.20,000	80	15.3%
Experience	Under 5 years	141	26.9%
	5 – 10 years	179	34.2%
	Above 10 years	204	38.9%

Table 1 shows that gender contains 55.5% of male and 44.5% of female employees. Age reveals 41.0% of employees are in under 30 years, 44.7% of employees in 30 – 45 years, and 14.3% of employees are in above 45 years. Academic status shows that 47.7% are educated up to SSLC, 24.2% are educated with HSC and 28.1% of employees are qualified with diploma or degree. Monthly salary indicates that 70.6% are in under Rs.10,000, 14.1% are in Rs.10,000 – 20,000, and 15.3% are in above Rs.20,000. Experience shows that 26.9% of employees are in under 5 years, 34.2% of employees

are in 5 – 10 years, and 38.9% of employees are in above 10 years. It shows that employees belong to diverse demographic background.

6.2. Cause-and-Effect Relationship among Research Constructs

The study aimed to test the causal relationship among Protective Equipment (PTEP), Safety Training (SFTG), Medical Support (MDST), Occupational Health and Safety (OHST), Employee Well-Being (EMWB) and Quality of Work Life (QOWL). The list of observed, endogenous variables is PTEP1 – PTEP3, SFTG1 – SFTG3, MDST1 – MDST3, OHST1 – OHST4, EMWB1 – EMWB5, and QOWL1 – QOWL5. The list of unobserved, endogenous variables is OHST, EMWB and QOWL. The list of unobserved, exogenous variables is e1 – e26, PTEP, SFTG and MDST. The model is tested with 55 variables, it contains 23 observed and 32 unobserved variables, 26 endogenous variables and 29 exogenous variables. Together, these variables are taken into account to measure cause-and-effect association among research constructs. In this way, the structural equation model is furnished in Figure 2 and 3, and path analysis is furnished in Table 2.

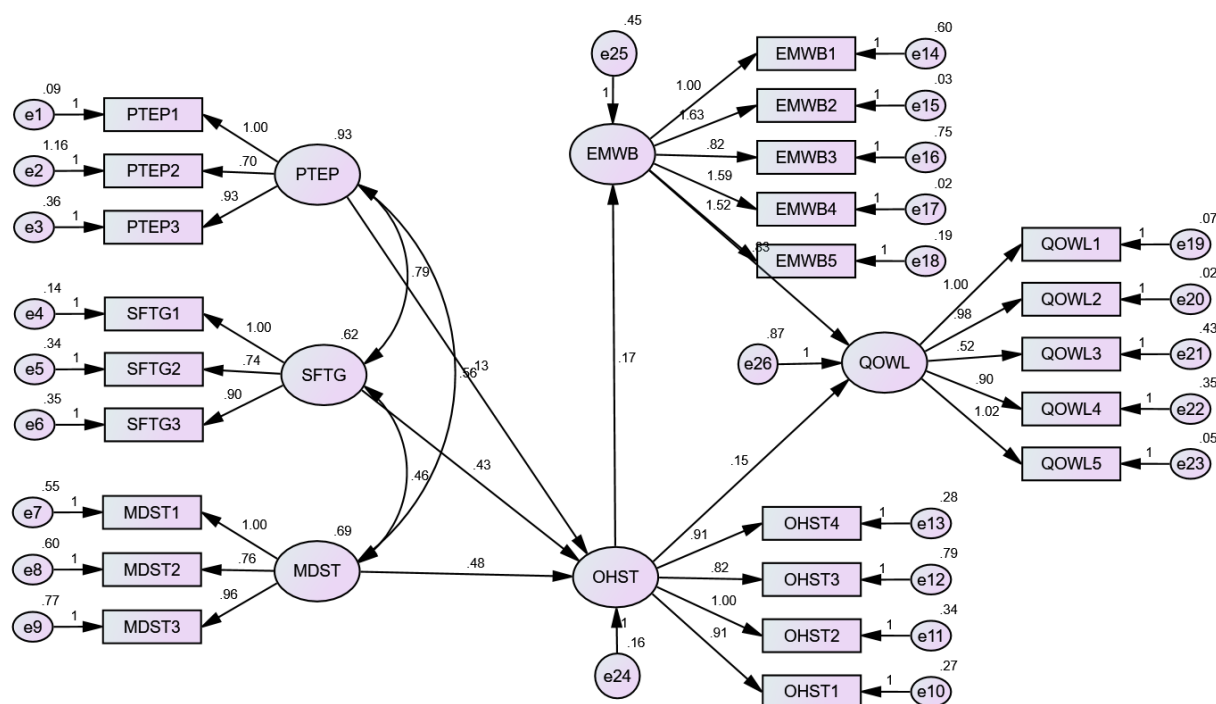


Figure 2: Structural Model – Unstandardized Estimates

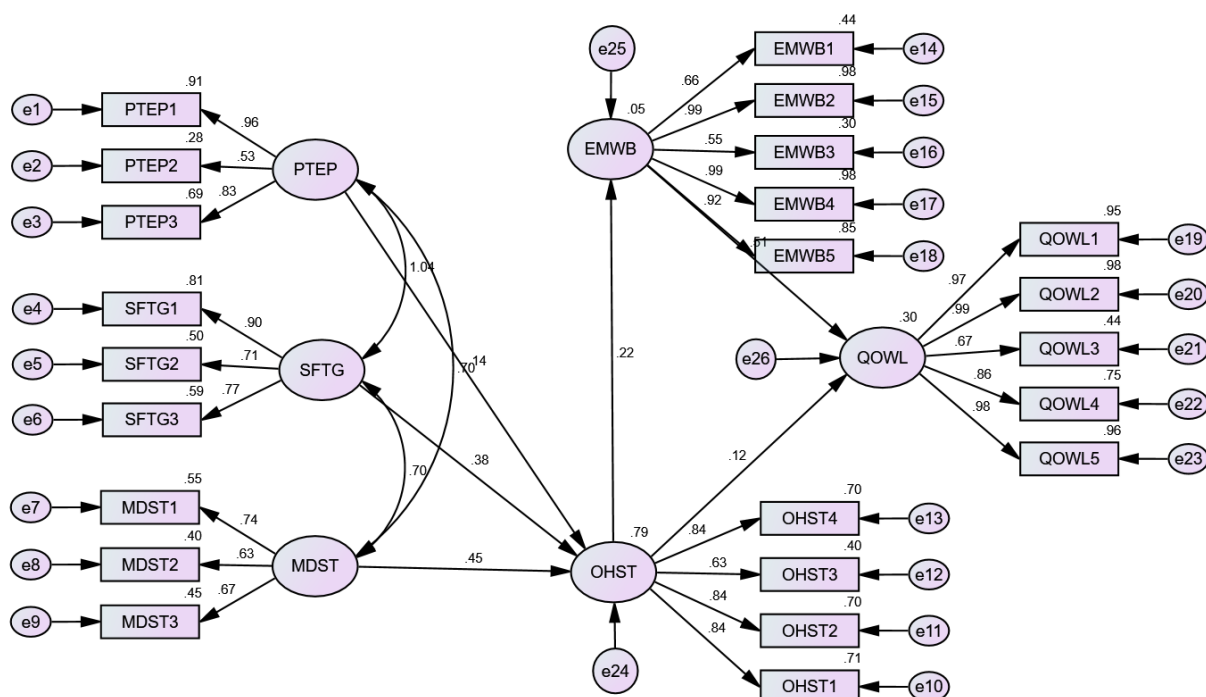


Figure 3: Structural Model – Standardized Estimates

Table 2: Path Analysis

Path			Unstd. Estimate	Std. Estimate	t	p
PTEP1 – Regular availability of gloves, masks, boots and uniforms	<---	PTEP	1.000	.956		
PTEP2 – Protection against chemical cleanliness agents	<---		.697	.530	13.818	***
PTEP3 – Access of rain and heat protection	<---		.926	.831	30.372	***
SFTG1 – Training on safe waste handling and equipment usage	<---	SFTG	1.000	.901		
SFTG2 – Information on infection and accident prevention	<---		.737	.707	20.639	***
SFTG3 – Guidance on emergency response	<---		.897	.769	23.858	***
MDST1 – Access to regular health checkups and vaccination	<---	MDST	1.000	.745		
MDST2 – Medical support and leave for work injury	<---		.762	.634	12.685	***
MDST3 – First-aid facilities and support for chronic health issues	<---		.955	.670	13.318	***
OHST1 – Safe and hygienic work environment	<---	OHST	.905	.840	23.033	***
OHST2 – Lack of exposure to health hazards	<---		1.000	.838		

OHST3 – Focus on removal of unsafe work practices	<---		.817	.634	15.634	***
OHST4 – Adherence of safety rule at worksites	<---		.908	.836	22.875	***
EMWB1 – Physical comfort during work	<---	EMWB	1.000	.665		
EMWB2 – Lack of stress from job demands	<---		1.632	.990	20.086	***
EMWB3 – At par workload to perform duty	<---		.819	.547	11.998	***
EMWB4 – Care on personal health protection	<---		1.591	.992	20.112	***
EMWB5 – High resource accessibility for safety	<---		1.523	.924	19.002	***
QOWL1 – Contentment with working conditions	<---	QOWL	1.000	.975		
QOWL2 – Equilibrium between work and personal life	<---		.983	.990	83.443	***
QOWL3 – Sense of dignity at workplace	<---		.523	.666	19.909	***
QOWL4 – Fair treatment in work allocation	<---		.905	.863	36.217	***
QOWL5 – Job security and support from supervisors	<---		1.024	.981	74.473	***
OHST	<---	PTEP	.131	.142	3.921	***
OHST	<---	SFTG	.426	.376	3.500	***
OHST	<---	MDST	.479	.446	7.417	***
EMWB	<---	OHST	.167	.216	4.637	***
QOWL	<---	OHST	.150	.120	3.305	***
QOWL	<---	EMWB	.830	.512	11.176	***

*** Significant at 1%

The fit indices for the structural equation model are estimated. A satisfactory match is shown by the CMIN/df value of 3.689, which is less than the benchmark level of 5. A strong match is also supported by the RMSEA value of 0.059, which is below the yardstick level of 0.06. The model's adequacy is further supported by a number of goodness of fit metrics and baseline comparisons. The minimum threshold of 0.9 is exceeded by the GFI (0.922), AGFI (0.916), NFI (0.936), CFI (0.952), IFI (0.952), RFI (0.926) and TLI (0.945). The structural model shows a perfect fit with the data.

The factor loadings of observed variables on their respective latent constructs are found to be high and statistically significant, it confirms the adequacy of structural equation model. Protection equipment is strongly indicated by regular availability of gloves, masks, boots and uniforms, followed by protection against harsh weather conditions. Safety training is mainly reflected through training on safe waste handling and guidance on emergency response. Medical support

is mainly explained by access to regular health check-ups, vaccination, and first-aid facilities. The findings prove that protective equipment, safety training, and medical support are actively form occupational health and safety among cleanliness employees.

Similarly, occupational health and safety is well explained by indicators related to hygiene work environment, adherence to safety rules, and reduction of unsafe practices. The wellbeing of employee is strongly influenced by lack of job related stress, care for personal health protection, and accessibility of safety resources. Quality of work life is primarily indicated by work life balance, job security, fair treatment and satisfaction with working conditions. It is proved that all paths are significant at 1% level. The hypothesis (H_{1.1}) is supported. Therefore, antecedents have significant impact on protective equipment, safety training, medical support, occupational health and safety, employee well-being and quality of work life.

The protective equipment shows a positive and significant influence on occupational health and

safety ($\beta = 0.142$). It shows that enhanced availability and use of safety tackle improve perceived safety conditions at the workplace. Safety training also exerts a significant influence on occupational health and safety ($\beta = 0.376$), it divulges the importance of awareness and skill-based guidance in decreasing work related risks. Medical support emerges as the strongest predictor of occupational health and safety ($\beta = 0.446$), it shows that access to health services, medical leave, and first-aid support renders a main role in strengthening workplace safety for cleanliness employees. The results ensure strong support for hypothesis (H_{1.2}). Therefore, protective equipment, safety training and medical support has significant impact on occupational health and safety.

Further, occupational health and safety has a direct and significant impact on quality of work life ($\beta = 0.120$), it strongly favors for hypothesis (H_{1.3}). Therefore, occupational health and safety have significant impact on quality of work life. The safer and healthier working conditions contribute directly better work satisfaction and dignity at work. The findings confirm that protective equipment, safety training, medical support collectively strengthen occupational health and safety, which in turn enhances employee wellbeing and quality of work life among cleanliness employees. The result proves that safety related interventions are most effective when they translate into increased wellbeing, ultimately creates a safer, more dignified, and sustainable work environment for cleanliness employees.

6.3. Mediating Effect of Employee Wellbeing

The mediating effect of employee wellbeing between occupational health and safety and quality of work life is examined. The hypothesis (H_{1.4}) asserts that employee well-being has mediating role between occupational health and safety and quality of work life.

Table 3: Mediating Effect of Employee Wellbeing

Effect	Path			Estimate	p
Mediation – Path A	EMWB	<- --	OHST	.216	***
Direct	QOWL	<- --	OHST	.120	***
Mediation – Path A	QOWL	<- --	EMWB	.512	***

*** Significant at 1%

Table 3 shows the direct effect of occupational health and safety on quality work life is measured at 0.120. The indirect effect of occupational health and safety on employee wellbeing is 0.216 and employee wellbeing on quality of work life is 0.512. Therefore, the mediating effect is 0.110592, and the total effect is 0.230592. The variance determined for this value is 0.4796. The variance value is exceeded 0.2. It proves that the partial mediating effect of employee wellbeing between occupational health and safety and quality work life. The result supports for hypothesis (H_{1.4}) it shows that employee well-being has partial mediating effect between occupational health and safety and quality of work life. The impact of occupational health and safety on employee well-being is positive and statistically significant ($\beta = 0.216$). The results show that improved safety conditions decrease physical discomfort and psychological strain, thereby it boosts overall well-being of employees. The relationship between employee wellbeing and quality of work life is positive and statistically significant ($\beta = 0.512$). It shows that cleanliness employees experience better quality of work life when they feel physically comfortable, mentally relaxed and supported in protection of their health. The results clearly establish employee wellbeing as a main mechanism through which occupational health and safety measures improve quality of work life.

6.4. Effect of Experience on Research Constructs

It is assumed that the work experience of cleanliness employees has considerable effect on research constructs. Accordingly, it examines that

how varying levels of experience influence access to protective equipment, safety training, medical support, occupational health and safety, employee well-being and quality of work life. Therefore, One-Way ANOVA is adopted to test its effect, which is furnished in Table 4.

Table 4: One-Way ANOVA

Experience		Sum of Squares	df	Mean Square	F	Sig.	ETA Squared
Protective Equipment	Between Groups	374.713	2	187.356	24.991	.000	.088
	Within Groups	3905.965	521	7.497			
	Total	4280.677	523				
Safety Training	Between Groups	175.109	2	87.555	17.825	.000	.064
	Within Groups	2559.112	521	4.912			
	Total	2734.221	523				
Medical Support	Between Groups	90.360	2	45.180	6.513	.002	.024
	Within Groups	3614.073	521	6.937			
	Total	3704.433	523				
Occupational Health and Safety	Between Groups	275.848	2	137.924	11.827	.000	.043
	Within Groups	6075.732	521	11.662			
	Total	6351.580	523				
Employee well-Being	Between Groups	539.525	2	269.763	12.514	.000	.046
	Within Groups	11230.801	521	21.556			
	Total	11770.326	523				
Quality of Work Life	Between Groups	827.589	2	413.795	17.127	.000	.062
	Within Groups	12587.317	521	24.160			
	Total	13414.906	523				

The results confirm that experience has a statistically significant impact on all research constructs. It supports hypothesis ($H_{1.5}$), hence, experience of cleanliness employees has significant effect on protective equipment, safety training, medical support, occupational health and safety, employee well-being and quality of work life. Protective equipment shows a high and significant variation ($F = 24.991$, $p < 0.000$), with a comparatively higher effect size ($\eta^2 = 0.088$). It proves that employees with higher experience differ noticeable in their access to safety equipment, possibly due to familiarity with safety practices. Safety training also reveals a significant difference based on experience ($F = 17.825$, $p < 0.000$; $\eta^2 = 0.064$). It proves that experience employees perceive training programs more positively or received more targeted safety guidance compared to less

experienced employees. Medical support reveals a significant but smaller variation ($F = 6.513$, $p < 0.000$; $\eta^2 = 0.024$), it implies limited difference in access to health services, though experience still plays main task. Occupational health and safety demonstrates significant differences ($F = 11.827$, $p < 0.000$; $\eta^2 = 0.043$). It reflects that variation in safety rules, hygienic conditions and hazard control measures are perceived by employees with differing work exposure. Employee wellbeing is also significantly influenced by experience ($F = 12.514$, $p < 0.000$; $\eta^2 = 0.046$), it indicates that physical comfort and stress level differs with experience. Quality of work life shows a strong and significant difference ($F = 17.127$, $p < 0.000$; $\eta^2 = 0.062$), it highlights that job satisfaction, equilibrium between work and life, and perceived support improve or change with experience. The Ryan-Einot-Gabriel-

Welsch F's post hoc test formed two subsets of experience of cleanliness employees with regard to protective equipment, safety training, medical support, occupational health and safety, employee well-being and quality of work life. The two identical subsets are under 5 years in subset *a*, and above 10 years; and 5 – 10 years in subset *b*.

7. Discussion and Conclusion

The present study discloses comprehensive insight into the working conditions of cleanliness employees and describes how safety based activities influence their quality of work life. The need for inclusive and encouraging workplace rules is highlighted by the demographic profile, which shows that cleanliness personnel come from a variety of social, educational, financial, and experience backgrounds. Due to this diversity, occupational health and safety are essential to guaranteeing consistent protection and wellbeing for all employee groups. The structural model demonstrates how medical assistance, safety training, and protective equipment all work together to influence workplace health and safety. These elements are realistic safety measures that have a direct impact on cleanliness employees' day-to-day work experiences. The results show that employees' perceptions of workplace safety increase when they receive proper safety, training, and medical support. It supports the notion that occupational health and safety is a product of concrete operational support systems rather than an abstract policy ideal.

Additionally, it has been found that occupational health and safety have a direct and indirect impact on the quality of work life. Employee satisfaction, dignity, and work-life balance are all improved in safer and healthier workplaces. However, the conversation makes it abundantly evident that when employee well-being is taken into account, the impact of safety measures increases. A fundamental factor in converting safety regulations into favorable work-life outcomes is employee well-being. Employees' overall assessment of their work life is strengthened by increased physical comfort, decreased stress, and faith in health protection. The mediating function

of employee well-being emphasizes that safety measures are most successful when they enhance employees' emotional and physical well-being at work. Improvements in the quality of work life may not be entirely achieved by safety measures that do not increase well-being. As a result, well-being becomes a main link between sustainable job outcomes and occupational health and safety.

The conversation is further deepened by the examination of experience. Employee expectations and awareness may be shaped by extended exposure to work settings, as evidenced by differences in perceptions of safety, well-being, and work-life quality among experience groups. Due to their increased job exposure and adaptability, more seasoned employees typically have different perspectives on safety regulations, training, and assistance. The post-hoc results highlight the necessity of experience-sensitive safety and welfare interventions and show significant clustering among experience levels. To sum up, improvement in employee well-being and quality of work life is mostly dependent on occupational health and safety, which is bolstered by medical care, safety training, and protective equipment. The relationship is somewhat bridged by employee well-being, stresses its significance in vocations related to sanitation. Cleanliness employees can operate in a more secure, respectable, and long-lasting environment if safety procedures are strengthened with an emphasis on wellbeing and experience-based assistance.

8. Research Implications

The study emphasizes the necessity of combining employee well-being programs with occupational health and safety measures rather than treating them as distinct issues. Improving safety procedures can improve wellbeing, which improves the quality of work-life balance. The implications go beyond policy development, indicating that safety frameworks that prioritize well-being can boost morale and retention. Future studies may use holistic health models to look at long-term advantages for employees in the cleanliness industry.

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