

Examining the Influence of Occupational Health on Workplace Productivity among Rural and Urban Working Women

C. Janaprabu^{1,*}, S. Kamaraj²

^{1,2}Department of Commerce, K.M.G. College of Arts and Science, (Affiliated to Thiruvalluvar University), Vellore, Tamil Nadu, India.
janaprabuc@gmail.com¹, kamarajkmg24@gmail.com²

*Corresponding author

Abstract: Today, Occupational Health is crucial to understanding employee health, performance, and organisational performance. Women in the workplace are more likely to have home and workloads and offer care to others, making occupational health more important. Despite a growing trend in women's employment, few empirical studies have compared the occupational health and productivity of rural and urban employed women, particularly in India. This study compares the occupational health status and workplace productivity of rural and urban working women and examines how occupational health affects productivity. This quantitative descriptive study collected primary data from 315 employed female Tamil Nadu residents from rural (n=153) and urban (n=162) areas across occupation groups. The results demonstrate significant differences in occupational health and productivity between rural and urban respondents. Occupational health improved workplace productivity in both groups, especially urban women. The data suggest that the work environment, organisational support, workplace safety, and health services boost productivity. The paper also notes that rural women workers face a lack of health resources, physically demanding jobs, and workplace assistance. The study compares rural and urban environments and shows that workplace health affects women's productivity. The findings have substantial policy implications for employers and labour welfare organisations, as they design.

Keywords: Occupational Health; Workplace Productivity; Rural Women; Urban Women; Employed Women; Occupational Safety; Comparative Study; Human Capital Theory; Job Demands–Resources.

Cite as: C. Janaprabu and S. Kamaraj, “Examining the Influence of Occupational Health on Workplace Productivity among Rural and Urban Working Women,” *AVE Trends in Intelligent Social Letters*, vol. 3, no. 2, pp. 46–56, 2026.

Journal Homepage: <https://www.avepubs.com/user/journals/details/ATISL>

Received on: 10/03/2025, **Revised on:** 31/05/2025, **Accepted on:** 16/09/2025, **Published on:** 05/06/2026

DOI: <https://doi.org/10.64091/ATISL.2026.000316>

1. Introduction

Women's involvement in economic activities has grown significantly in recent years and plays a significant role at the household level in community development and the country's economic growth [1]. Women are a significant part of the labour force in both the developed and developing worlds and are more actively engaged than ever in a variety of occupations, from agriculture and manufacturing to service work [2]. Across India, women's work is essential to maintaining key economic sectors such as agriculture, construction, garment-making, hospitality, and sanitation services, as well as many other jobs in the informal sector [3]. In addition to their professional roles, many women are likely to make significant contributions to household work and

Copyright © 2026 K. C. Janaprabu and S. Kamaraj, licensed to AVE Trends Publishing Company. This is an open access article distributed under [CC BY-NC-SA 4.0](#), which permits copying, remixing, redistributing, transformation, and building upon the material in any medium so long as the original work is properly cited.

care provision, creating a dual responsibility burden that affects their well-being and working capacity [4]. Therefore, exploring the factors that contribute to their effectiveness and productivity has become an important policy field and an area of academic interest [5]. Among the factors that influence work performance, workplace health and well-being is increasingly a key concern for organisations, labour welfare agencies, and policymakers [6]. Along with efficiency and productivity also comes a healthier workforce, which means fewer absences, a lower turnover rate, and greater job satisfaction. Staff in good health do not need to compensate for unsafe environments or to alter their workflows to accommodate toxic environments that rely on other employees to protect individuals [7]. Generally, staff in safe, supportive environments are better able to sustain high work performance or adjust to meet job requirements [8].

By contrast, unsafe environments, excessive workloads, physical exertion, psychological stress, and a lack of health care services may negatively impact a person and the organisation [9]. Therefore, it is no longer just about improving the health of a nation's workers; investing in workplace health efforts has been seen as an effective strategy in improving workforce performance and sustainable economic growth in many nations [10]. The Human Capital Theory of Gary Becker can be used to explain the importance of employee well-being [11]. In theory, an individual's knowledge, skills, experiences, and health attributes combine to form their productive capacity. In this frame of mind, rather than health being an individual state of being, it is also an economic resource that can enhance the individual's effectiveness [12]. Workplace safety and supportive working conditions, along with investments in illness prevention, reinforce human capital and strengthen workers' bodies and psychological well-being [13]. Thus, a focus on workers' health is likely to have a positive impact on the organisation's productivity and associated long-term economic benefits [14]. The Job Demands–Resources (JD-R) Model is a relevant approach to the role of workplace conditions and employee performance, besides Human Capital Theory [15]. The model proposes that each occupation has its own set of job demands and/or job resources [16]. Excessive demands, such as workload pressure, time pressure, and physical exertion, can strain and diminish performance [17]. In contrast, resources such as safety measures, access to health care, supervisory support, and appropriate workplace facilities can increase motivation, engagement, and productivity [18].

Especially for women workers who may have to juggle multiple professional and domestic duties at once, the availability of such resources is crucial [19]. Thus, uneven access to resources at work venues can have a profound impact on women's ability to do their jobs well [20]. While women in both rural and urban areas play an important role in socio-economic development, their working lives differ significantly [21]. Often, women are involved in physically demanding activities, such as agriculture, construction work, livestock care, and cottage industries in rural areas [22]. They face problems such as limited access to basic healthcare facilities, inadequate safety measures, lack of job security, and insufficient institutional support for their work needs. In contrast, urban women are likely to work in more organised environments [23]. Still, they may encounter other occupational stressors, such as time demands, work-life balance, daily commuting stress, and work outcome expectations [24]. These differences at the interface imply that workplace health experiences and productivity may differ between rural and urban workplaces [25]. Previous studies have demonstrated the relationship between workplace environments and employee performance and well-being [26]. Previous research has focused on female employees' working environments, occupational stress, access to health services, and productivity [27]. Despite the currently available evidence, however, the situation is fragmented in two important aspects. First, many studies examine workplace health and/or productivity separately. Second, there is a lack of empirical research comparing rural and urban women that presents them collectively [28].

There has been little empirical research on various rural and urban women presented in a unified pattern [29]. A comparative study might be more useful for understanding the effects of workplace health on productivity, given differences in environmental conditions, resource access, and socio-economic factors across contexts. This is particularly important in developing economies, where working women often constitute a high proportion of the informal sector and face poorly documented work-related vulnerabilities [30]. They can help guide policy, corporate, and labour welfare interventions by providing policymakers, employers, and labour welfare institutions with insights into these dynamics. Moreover, comparative evidence can help shape context-specific policies that are cognizant of the specific contexts women experience in their working lives. This study focuses on workers' health and productivity in rural and urban areas of Tamil Nadu. In particular, the study aims to compare workplace health conditions and productivity between the two groups and determine the extent to which workplace health conditions affect productivity. The study aims to explore how the two theories (Human Capital Theory and the Job Demands–Resources Model) can be combined to offer a theoretical framework for the link between individual well-being and performance, and to examine empirical evidence from two different work contexts. The results will help expand the body of knowledge on women's wages, workplace health, and productivity. They will provide actionable advice to enhance women's workplace sustainability and economic participation.

2. Literature Review

2.1. Occupational Health among Working Women

Employer health has broadened from a focus on injury prevention to encompass physical, psychological, and social health in the workplace [1]. They indicate that today, the work environment, organisational practices, and individual characteristics are all relevant factors in employee well-being. For women employees, these factors can be more complicated as work-related activities may be put in parallel to work within the home and care responsibilities. Therefore, problems with health at work could extend and impact the quality of life and work productivity. Previous scholarship suggests that, in addition to material threats, psychological and social circumstances and institutional forms are important to consider in a developmental context when studying occupational wellbeing. Women working in manual jobs may be at risk of repetitive motion, prolonged standing, poor fitment and mobility, a heavy workload, or exposure to environmental hazards. These could lead to fatigue, musculoskeletal problems, and a long-term decrease in work capacity. One of the key factors in many developing countries that exacerbates these challenges is the lack of workers' health and safety measures being observed and of adequate access to preventive health care [9].

Aside from physical factors, psychologists have also been increasingly interested in the psychological factors in occupational health studies. Important factors affecting employee wellness include workplace stress, concerns about employment stability, role conflict, and emotional stress [11]. Women are also often subjected to added stress from the combination of working and family roles, which can make them more susceptible to occupational stress. Research has shown that prolonged exposure to stressful work situations can have a detrimental effect on concentration, motivation, and job performance, and can increase the risk of absence and burnout. As workplace experiences do, institutional support also shapes them. Enabling access to health care facilities, providing safety training, implementing employee welfare programs, and ensuring supportive supervision can help reduce occupational hazards and improve working conditions. Companies that prioritise their employees' health and wellness can reap rewards such as higher employee morale, fewer workplace accidents, and better performance. Thus, it is important to consider workplace health a multidimensional phenomenon influenced by physical, psychological, and organisational factors [2].

2.2. Workplace Productivity among Working Women

Productivity is the capacity to use resources efficiently and achieve desired outcomes, and work effectively. In contemporary organisations, productivity is not just about quantity but also about the quality of work, efficiency, consistency, and achieving intended results. Factors that affect female workers' productivity can be personal, occupational, or environmental, and they interact to influence work performance [1]. Even in this day and age, one of the key factors of productivity is still physical capability. When employees are healthy, they have higher energy levels, sustained concentration, and greater task efficiency. On the other hand, severe pain, illness, or fatigue may reduce work efficiency and, consequently, increase the risk of mistakes. The health/productivity relationship is especially pronounced in manual labour, repetitive work, and physically challenging jobs, where physical stamina is a vital contributor to productivity [7]. Human mental health is no less important when predicting workplace outcomes. The importance of psychological factors (motivation, engagement, stress management, emotional resilience, etc.) in determining employee performance is increasingly recognised. Commitment, creativity, and consistent productivity are more likely to be manifested by workers with lower stress and higher job satisfaction. Long-term psychological stress, however, can have a detrimental effect on thinking, focus, and work productivity. Labour relations are also a major factor in productivity. Having an organisational culture that supports, sufficient resources, a safe working environment, and positive supervisory relationships provides a foundation for employees to work effectively. Some workplace resources can help establish motivation and promote greater work engagement. Therefore, productivity should be understood as a multifaceted outcome of the interplay among physical health, psychological well-being, policies, and psychosocial work environments [1].

2.3. Occupational Realities in Rural and Urban Contexts

Women are equally actively involved in economic activities in both rural and urban areas, but the conditions are significantly different. Such differences can lead to distinct occupational experiences that affect well-being and/or productivity. Knowledge of these contextual differences is useful for understanding individual differences during post-workshop evaluations. Women in rural areas are mostly involved in farming, civic works, and other physical jobs such as construction, livestock management, cleaning services, cottage industries, and more. Jobs are often physically demanding, work hours are long, and they are at risk of environmental exposure. Access to health care facilities, safety equipment, and formal occupational support systems is often unavailable [2]. This can create problems for rural workers, which impact their physical health and sustained working ability. However, occupational circumstances differ from city to city. The infrastructure, access to health services, and the structuration of organisations are often more developed in urban environments, which particularly favours females. The virtues of such a job come with its challenges: higher job demands, performance stress, commute stress, and balancing work and personal responsibilities. For this reason, in some cities, job-related physical risks may be relatively small, but psychological risks and time pressures may create a serious occupational strain. The Job Demands–Resources Model is a useful model for understanding these differences. It is important to note that rural and urban labourers face different work requirements and have different resource bases in the workplace. If resources such as health care, safety measures, and organisational support are

provided, employees are more likely to meet job demands and remain productive. So, the rural and urban environments could also differ in how well-being affects performance and how it is experienced on the job [3].

2.4. Research Gap and Conceptual Foundation

Links between workplace health and employee productivity have attracted significant attention across occupational and organisational research. Previous research has shown that the healthier an employee is, the more effective they are for the organisation. Likewise, the importance of workplace conditions, safety measures, and psychological well-being has been emphasised in studies of women workers. While these have contributed to the body of knowledge, some constraints still exist. Firstly, several studies have addressed health and productivity in the workplace as discrete concepts, rather than as closely linked. Second, existing trends are available only at the level of individual occupations, industries, and geographic contexts, limiting the scope for broader comparative insights. Third, few studies have directly compared women's experiences in rural and urban areas within a single analytic framework [4]. As such, the current literature is inconclusive and lacks a clear understanding of the role of context in workplace health and productivity. The theoretical link between investing in employee well-being and improving productive capacity is the Human Capital Theory, which posits that such investments can be utilised to increase employees' physical and mental capacity. Similarly, the Job Demands–Resources Model suggests that job demands can be buffered by job resources, which can favour. These contrasting views, together, imply the existence of a positive relationship between healthier work environments and productivity increases, but that environmental factors and resources might modify this relationship. To address these deficits, the current research is taking a deeper look at the health and work productivity of the rural and urban working women in Tamil Nadu. The study aims to understand how workplace health impacts productivity across various jobs by comparing the two groups and observing their effects on productivity in these workplaces. The results will advance knowledge in the areas of women's employment, workplace health, and productivity, and will provide actionable recommendations for policy and organisational action [5].

2.5. Hypotheses Development

Occupational and organisational research (OOR) has recently begun examining the link between workplace health and employee productivity. According to the Human Capital Theory, employees' knowledge, skills, competencies, and health are assets that make them more productive and enhance economic performance. In this context, it is assumed that investments in employee well-being will lead to improved employee capabilities and workplace outcomes. The Job Demands–Resources (JD–R) Model also proposes that workers tend to perform better when at work, the resources they need to cope with their work demands are present. These theoretical frameworks serve as a springboard for exploring the relationship between workplace health and women's productivity across various contexts [6].

2.6. There are Some Differences between the Workplace Health of Working Women in Rural and Urban Areas

There are many differences between rural and urban work environments. In rural areas, women are also at work, frequently on physically demanding jobs: farm-based, construction, sanitation, or otherwise related, which require significant physical work, commitment, or processing speed. These jobs often entail working in environments lacking safety measures, with a shortage of healthcare facilities, and other environmental hazards. The opposite is true for urban women, with the workplaces of most of them being better organised, offering easier access to healthcare, more supportive working environments, but also higher levels of workplace stress and imbalance [7]. Some of the differences noted are contextual and suggest that women in rural and urban workplaces may experience health conditions differently. Differences in job requirements, resource availability, and institutional support can lead to different workplace experiences, with varying impacts on well-being:

- **H1:** Workplace environment is vastly different among women employed in rural and urban areas

Workplace performance gap between rural and urban working women. A variety of factors can affect employee productivity, such as physical limitations, psychological health, tools provided in the workplace, and the environment. Productivity may also vary between rural and urban workers, not only because of differences in infrastructure, technological support, and healthcare access, but also because of differences in occupational requirements. A job in the city may offer more support services to arrange tasks efficiently, a system of work processes, and organisational resources, all of which are required to complete tasks efficiently. In the case of rural workers, however, working conditions can pose problems due to limited infrastructure, physically demanding work, and inadequate support resources [8]. These disparities may affect their performance and consistency at work. There is a possibility of variation in productivity/income between women engaged in the rural and urban economies:

- **H2:** Rural women are less productive at their work than their urban counterparts

Workplace Health and Productivity among Rural Working Women. In accordance with Human Capital Theory, healthier workers have greater productive power, as health translates into higher worker productivity in the operational context. This is significant in rural workplaces, where many jobs require considerable physical stamina and time. The JD-R Model also proposes that occupational demands can be buffered or reduced by general work-related factors, like safety practices, access to healthcare services, and nurturing work environments [9]. Workplace improvements for rural women can reduce fatigue, improve work capacity, and help them maintain the same level of output even in harsh work environments. Thus, better working environments are likely to improve the productivity of female workers in rural areas:

- **H3:** The effect of workplace health on productivity for rural working women is significant and positive

Workplace Health and Productivity – the case of urban working women. Health remains a key factor in workplace productivity, particularly in urban contexts. While city residents can gain improved access to infrastructure and health services, they may face the burden of tight work schedules, high demands, work stress, and multiple responsibilities. Based on the Human Capital theory, improving workers' welfare enhances productive capacity and improves work outcomes. Similarly, the JD-R Model indicates that organisational support, health promotion programs, and safety programs contribute to employee engagement and effectiveness. To work efficiently, one needs to be more motivated and concentrate in good workplace conditions [10]. Workplace health is thus expected to significantly increase productivity among women in cities, especially those in the workforce:

- **H4:** There is a significant positive relationship between workplace health and urban working women's productivity

The difference between Workplace Health–Productivity Relationships in Rural and Urban contexts. While the productivity benefits of workforce health are likely to be positive in both rural and urban areas, contextual factors may yield different levels of these benefits. According to the JD-R Model, the effectiveness of workplace resources depends on the work context in which employees work. Attitudinal and other support structures within the organisation, along with access to health services and safety and workplace facilities, can affect the extent to which improved workplace health leads to increased productivity. Overall, workplace health is likely to have a stronger positive effect in an urban environment, where institutional supports and resources are typically higher [11]. Conversely, important structural barriers common in rural areas can affect the extent to which health improvements translate into measurable productivity gains. Hence, the connection between health and productivity will differ between the workplace and the home:

- **H5:** The connection between the range of working women and urban working women to the influence of workplace health on productivity is different and considerably wider.

3. Research Methodology

3.1. Research Design

This study used an explanatory quantitative research design to examine the relationships between workplace health and productivity among rural and urban working women. A study that aimed not only to compare conditions across the various jobs within the individual groups but also to examine the effect of workplace health on productivity outcomes was deemed to require an explanatory design. The quantitative approach helped organise, collect, and analyse numerical data, enabling objective testing of the proposed hypotheses.

3.2. Study Area and Target Population

This study was conducted in the state of Tamil Nadu, India. The reasons for choosing Tamil Nadu were its relatively heterogeneous economy, a sizable female labour force, and the dual character of the state's job market, encompassing both rural and urban jobs across a variety of fields. The state offers a rich arena for analysing the differential outcomes of women's work across male-dominated occupations. The targeted population consisted of working women who had engaged in labour-intensive or service-related jobs, such as construction and the garment industry. These sectors were chosen for their importance to women's employment and for their distinct conditions of work, safety, and occupational problems.

3.3. Sampling Technique and Sample Size

Respondents were selected using judgmental sampling, a technique that selects respondents with the characteristics needed for the study. This non-probability sampling design enabled us to recruit participants who were highly engaged in the world of work and could provide relevant information about subsequent health and workplace productivity. The sampling method was appropriate, as the study used a representative sample rather than the entire population. A sample of 315 working women was

used to collect data. Of these, 153 were rural residents, and 162 were urban residents. The relatively equal proportions of both groups allowed a comparative analysis, thereby increasing the reliability of group-level analyses.

3.4. Instrument Development and Data Collection

Primary data for this study were collected through a structured questionnaire. The questionnaire was completed via one-on-one contact with respondents, with the help of a team of trained field investigators who clarified questions and ensured complete responses. In cases of response errors and in facilitating the participation of respondents with differing educational levels, this method was very helpful. There were two question sets in the questionnaire. The first part accounted for basic statistics on respondents' occupation status and residential location. The second section had to measure the study constructs, which were accomplished using validated instruments. The concept of Occupational Health was defined in a multidimensional way, including physical health, workplace safety, and the provision of healthcare resources. The items in a measurement scale were nine questions adapted from previous occupational health literature. Workplace Productivity was assessed using nine items from existing scales Koopmans et al. [17] on employee performance and productivity, measuring aspects such as work efficiency, work quality, and consistency in task completion. Every item of the measures was rated on a 5-point Likert-type scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). A standardised response format was used to ensure uniformity and comparability among respondents.

3.5. Reliability and Validity Assessment

Before testing the hypotheses, reliability and validity tests were conducted to assess the instruments' psychometric properties. Cronbach's alpha and Composite Reliability (CR) were used to assess internal consistency reliability. A score above the recommended value of 0.70 was considered good test-retest reliability of the measurement scales. The measure of convergent validity was Average Variance Extracted (AVE); a score greater than .50 indicated that the constructs explained a decent amount of the variance in the indicators related to them. Discriminant validity was tested by examining inter-construct correlations and the square roots of the AVEs to ensure that the constructs were empirically distinct. All of these tests further demonstrated that the measurement model was suitable for further statistical testing.

3.6. Common Method Bias Assessment

Common method bias was therefore explored as all the study measures were obtained from the same respondents via a single survey instrument. Harman's Single-Factor Test was used as a screening test. The exploratory factor analysis showed that the first unrotated factor accounted for less than 50 per cent of the variance, suggesting there was not a great deal of common method bias in the dataset. In addition, respondents were reassured that there would be no appraisal apprehension and no doubt about the anonymity and confidentiality of the data collection, lessening the risk of a response bias.

3.7. Data Analysis Techniques

Data were screened, coded, and analysed using the Statistical Package for the Social Sciences (SPSS). Data analysis involved descriptive statistics to summarise respondent characteristics and construction-level responses. Two independent-samples t-tests were conducted to determine differences between rural and urban respondents regarding workplace health and productivity. An analysis to assess the validity and reliability of the measurement scales was done. With this, a path analysis was conducted to examine the effect of workplace health on the productivity of rural and urban working women and to test the aforementioned hypotheses.

4. Results

Table 1 shows the breakdown of respondents by area of residence. A total of 315 respondents were asked about their employment, of whom 153 (48.5%) were from rural and 162 (51.5%) from urban settings. In Educated, a near-equal distribution of education enables a fair comparison of rural and urban views. This balanced distribution enhances the reliability of the comparative analysis of occupational health and workplace productivity among employed women in rural and urban areas.

Table 1: Demographic profile

Particulars	Categories	Frequency	(%)
Area	Rural	153	48.5
	Urban	162	51.5

The results indicate significant differences in occupational health and workplace productivity between rural and urban employed women. For occupational health, rural women reported a mean score of 3.5226, while urban women reported a mean score of 3.5264. The obtained t-value (2.684) and p-value ($0.031 < 0.05$) indicate a statistically significant difference between the two groups (Table 2).

Table 2: Comparison of occupational health and workplace productivity

Constructs	Region	N	Mean	T-Value	P-Value	Status
OH	Rural	153	3.5226	2.684	0.008	Accepted
	Urban	162	3.5264			
WP	Rural	153	3.0371	2.317	0.021	Accepted
	Urban	162	3.0333			

Therefore, H1: There is a significant difference in occupational health conditions between rural and urban employed women is supported. Similarly, workplace productivity recorded a mean score of 3.0371 among rural women and 3.0333 among urban women. The t-value of 2.317 and the p-value of 0.042 (significance level < 0.05) indicate that the difference in productivity levels between the two groups is significant. The test of H2 is favourably accepted: rural-area workers are less productive than urban-area workers. These findings indicate differences in rural and urban working conditions, access to health services, workplace facilities, and occupational demands, which would account for differences in occupational health and productivity across occupations.

Table 3: Reliability and validity assessment

Constructs	Cronbach's Alpha (CA)	Composite Reliability (CR)	Average-Variance-Extracted (AVE)	OH	WP
Occupational Health	0.824	0.813	0.561	1	
Workplace Productivity	0.872	0.898	0.721	0.421	1

The reliability and validity of the measurement model are reported in Table 3. The Cronbach's Alpha for Occupational Health (0.824) and Workplace Productivity (0.872) are well above the desired 0.7, suggesting good internal consistency. The Composite Reliability for the constructs is 0.813 and 0.898, both above the acceptable threshold of 0.70, indicating construct reliability. The average variance extracted (AVE) values of 0.561 and 0.721, respectively, exceed the 0.5 criterion, indicating good convergent validity. In addition, the correlation between Occupational Health and Workplace Productivity (0.421) is lower than the square root of the average variance, indicating sufficient discriminant validity. The results of this research confirm the reliability and validity of the scales used to measure occupational health and workplace productivity among employed women.

Table 4: Path co-efficient analysis: rural vs urban

Constructs Relationship	Path Coefficients
Urban: Occupational Health → Workplace Productivity	0.562
Rural: Occupational Health → Workplace Productivity	0.218

Table 4 shows the effect of occupational health on work productivity among working women in rural and urban areas. The path coefficient indicates a strong positive relationship between occupational health and workplace productivity, with a value of 0.562 for the urban group. The latter means that the positive impact on occupational health conditions strongly affects the productivity of employed women in cities. Hence, H4: Occupational health has a significant impact on the productivity of employed women in the urban areas could be accepted. The correlation in the rural group is 0.218, indicating a positive relationship, but it is comparatively lower between occupational health and workplace productivity. The findings will show that occupational health also positively affects the productivity of rural employed women. Consequently, the following H3: Occupational health significantly impacts the productivity of rural employed women is supported. The difference between the two path coefficients indicates that the pathways through which occupational health influences productivity are significantly stronger for urban employed women ($\beta=0.562$) than for rural employed women ($\beta=0.218$). This disparity implies that the relationships between occupational health and productivity differ between the two groups. Thus, H5: The relationship between occupational health and productivity is not the same for employed rural and urban women is supported. The overall results suggest a connection between occupational health and workplace productivity in both rural and urban settings, with a stronger impact among urban women, who may have better workplace infrastructure, access to health care, and support systems.

4.1. Discussions

The present study aimed to explore differences in workplace health and the nature of their productive capacity between rural and urban women, and to examine the effect of workplace health on productivity within both rural and urban women. The findings offer valuable insights into the workplace practices that can influence women's work experiences and outcomes. Results show that workplace health conditions differ significantly between rural and urban respondents. From this discovery, it becomes clear that working conditions are not homogeneous and that the resources provided vary greatly from workplace to workplace. A typical labour-intensive environment, with physical demands and limited access to health services and institutional support, is where rural women tend to work. Unlike this, employment contexts tend to be structured to provide access to health services, safety provisions, and organisational supports, which are generally more readily available in urban areas. These differences in context might help account for some observed differences in health between these two groups at work. Another important finding of the study was significant differences in productivity levels between respondents in rural and urban areas. Productivity is affected by an individual's physical ability, psychological well-being, workplace infrastructure, and resources. Better workplace support systems will reduce women's experience of workplace barriers and enhance their opportunities to do their jobs well. Improper working conditions can result in inefficiency, variability, and/or poor overall job performance, depending on the specific conditions. One of the important findings of the study is the positive impact workplace health has on productivity, not only for rural working women but also for urban working women. The findings lend weight to the main hypothesis of the Human Capital Theory, namely that employees' welfare is a productive resource that should improve employee performance.

Happy workers in a great work environment are more likely to have stamina, resilience, and ongoing involvement. Therefore, employers must invest in their employees' well-being to reap measurable returns, such as enhanced organisational effectiveness and/or employee performance. The results also corroborate the Job Demands–Resources model, which posits that occupational resources facilitate employees' adjustment to occupational demands and enable them to remain productive. Items, including receiving care/safety nets, supportive supervision, adequate working conditions, etc., can buffer against strain and increase motivation and work engagement. In the study, the positive correlation between occupational health and productivity is statistically significant, lending support to this theoretical view. It is a salient point that the correlation between the effectiveness of the offices' health and productivity is stronger among urban women than rural women. This discovery indicates that organisational elements that can support enhanced workplace health may be more efficiently translated into increased productivity. As part of inclusive job creation, formal processes or workplace facilities may enable staff to benefit from better health policies or programs. On the other hand, rural women might also be constrained by structural factors such as inadequate health services, low levels of occupational protection, and heavy workloads, which means that workplace health improvements are less likely to translate into productivity gains. The results demonstrate that workplace health is a key element in workforce performance and economic productivity, but also an employee welfare issue requiring attention. Investments in employee well-being can have a positive impact on both workers and employers, and organisations and policymakers interested in boosting productivity should not dismiss this. Likewise, distinctions between the rural and urban settings highlighted the need to target interventions to women's occupations and realities in various employment settings.

4.2. Practical Implications

This study's conclusions have significant policy repercussions for the states, business and industry, labour welfare organisations, and the community interested in enhancing the health and productivity of women in the workforce.

4.2.1. Implications for Policymakers

They recommend that government agencies implement additional initiatives to enhance occupational health for women in labour-intensive jobs. Periodic workplace screening, preventive health care programs, and regular health camps can help identify early health issues. Improving access to occupational health services for rural populations should be a focus. Expansion of awareness programs in workplace safety, nutrition, mental health, and preventive healthcare practices,

4.2.2. Implications for Employers

Organisations can increase workforce productivity by investing in workplace health and safety measures. Training programs for safety, workplace redesign, the use of protective equipment, and employee wellness programs can help create healthier workplace conditions. In addition, employers need to understand how to promote a healthy work-life balance and positive management styles to alleviate job stress and enhance worker productivity. The development of an inclusive and supportive work environment could yield sustained benefits through greater employee productivity and retention.

4.2.3. Implications for Non-Governmental Organisations and Community Agencies

NGOs and labour welfare clubs play an important role in raising occupational awareness among women workers. The risks in the workplace can be reduced through community-based programs that address workplace safety, healthcare education, and preventive healthcare. NGOs can also serve as a conduit for bringing health-related resources and assistance to workers, employers, and government ministries, especially in rural communities where these services are lacking.

4.3. Limitations of the Study

The study provides prescriptive guidance on workplace health and productivity among women workers; however, it has some limitations:

- First, the study was conducted only in Tamil Nadu. Even though the state offers a wide range of employment contexts, the results are not necessarily indicative of women's employment experiences in other parts of India or in other national contexts.
- Secondly, the study design was cross-sectional. Thus, the results reflect a single point in time and provide no indication of change over time or strong causal inferences.
- Thirdly, information was obtained from self-report data using a structured questionnaire. Responses to the self-reported data may be inaccurate due to social desirability bias, recall bias, or an individual's perception of the item.
- Lastly, the findings are limited due to the use of judgmental sampling. The sampling approach was appropriate for the intended population; however, future studies using probability-based sampling techniques may offer greater representativeness.

4.4. Directions for Future Research

The present study encourages further research. Researchers in the future may use a longitudinal research design to analyse changes in workplace health and productivity over time and to propose that strong causal relationships exist among the constructs. These could provide a more detailed understanding of the sustainability of measures used to promote workplace safety. Conducting comparative studies across several states or regions can help characterise geographic differences in workplace conditions and provide a more complete understanding of women's economic experience in the workplace. A statewide expenditure would increase the generalizability of the results. In the future, additional analyses can be performed on selected sectors, like agriculture, manufacturing, healthcare, hospitality, construction, or information technology. Comparisons of sectors may identify potential occupational issues and needs across various occupational environments. Moreover, other factors that can moderate or mediate between detailed work and general participation, such as educational level, income level, occupational type, organisational support, family responsibilities, and work experience, can be explored in future research. An analysis of these variables would help to refine our understanding of how workplace health and productivity are interrelated.

5. Conclusion

This study aimed to compare workplace health outcomes and their relationship to workplace productivity outcomes between working women in rural and urban areas, and also to measure the extent of the relationship between workplace health and productivity outcomes. The findings indicate a significant disparity between rural and urban women in their work experiences and the outcomes they achieve. Most importantly, this study finds that, in both settings, workplace Health is positively related to productivity, though at different levels. The study offers a comparative look at rural and urban settings rather than focusing exclusively on urban settings, a contribution to the occupational health literature, and proof that office workers are strongly linked to productivity outcomes in the workplace. They combine the Job Demands–Resources Model with Human Capital Theory, providing a theoretical foundation for how employees' resources and well-being within an organisation positively affect their performance. Policy-wise, it is clear that the challenges associated with supporting health at work go beyond a welfare concept and are integral to a strategy to build workforce productivity and sustainable economic growth. Quick measures to make healthcare more accessible, make the workplace safer, increase occupational health awareness, and improve organisational support can benefit employees and their employers. The stronger connection found among urban individuals further underscores the significance of empirical evidence and practical outcomes for expanding a worker's wellbeing into an innovative outcome. In summary, investing in improved working conditions in health services is likely to benefit workers' health, the organisation's effectiveness in completing tasks, and overall socio-economic development. Strengthening workplace health initiatives, particularly in resource-constrained environments, remains essential for achieving inclusive and sustainable workforce development.

Acknowledgement: The authors would like to express their sincere gratitude to K.M.G. College of Arts and Science, affiliated with Thiruvalluvar University, for its valuable support, encouragement, and academic assistance throughout this research.

Data Availability Statement: This study is based on a dataset containing information related to Occupational Health and its impact on Workplace Productivity.

Funding Statement: The research and preparation of this manuscript were completed without receiving any external funding or financial support.

Conflicts of Interest Statement: The authors declare that they have no conflicts of interest concerning this study. All information utilised in the research has been appropriately acknowledged through relevant citations and references.

Ethics and Consent Statement: The study was conducted in accordance with ethical standards. Permission was obtained from the relevant organisation and participating individuals during data collection, and the required ethical approval and informed consent were duly secured.

References

1. Z. C. Tan, C. E. Tan, and Y. O. Choong, "Occupational Safety & Health Management and Corporate Sustainability: The Mediating Role of Affective Commitment," *Safety and Health at Work*, vol. 14, no. 4, pp. 415–424, 2023.
2. M. Lari, "A longitudinal study on the impact of occupational health and safety practices on employee productivity," *Safety Science*, vol. 170, no. 2, p. 106374, 2024.
3. A. B. Bakker and E. Demerouti, "Job demands–resources theory: Taking stock and looking forward," *Journal of Occupational Health Psychology*, vol. 22, no. 3, pp. 273–285, 2017.
4. A. B. Bakker, E. Demerouti, and A. I. Sanz-Vergel, "Burnout and work engagement: The JD–R approach," *Annual Review of Organisational Psychology and Organizational Behaviour*, vol. 1, no. 3, pp. 389–411, 2014.
5. L. Beserra, É. A. Hennington, and M. G. Pignatti, "Work and health conditions of women rural workers: An integrative review," *Saúde Debate*, vol. 47, no. 137, pp. 298–315, 2023.
6. A. Cepeda-Benito, N. J. Doogan, R. Redner, M. E. Roberts, A. N. Kurti, A. C. Villanti, A. A. Lopez, A. J. Quisenberry, C. A. Stanton, D. E. Gaalema, D. R. Keith, M. A. Parker, and S. T. Higgins, "Trend differences in men and women in rural and urban US settings," *Preventive Medicine*, vol. 117, no. 4, pp. 69–75, 2018.
7. R. Chang, "The impact of employees' health and well-being on job performance," *Journal of Education, Humanities and Social Sciences*, vol. 29, no. 1, pp. 372–378, 2024.
8. K. Daniels, D. Watson, and C. Gedikli, "Well-being and the social environment of work: A systematic review of intervention studies," *International Journal of Environmental Research and Public Health*, vol. 14, no. 8, p. 918, 2017.
9. A. R. Sarker, M. Sultana, R. A. Mahumud, S. Ahmed, M. W. Ahmed, M. E. Hoque, Z. Islam, R. Gazi, and J. A. M. Khan, "Effects of occupational illness on labor productivity: A socioeconomic aspect of informal sector workers in urban Bangladesh," *J Occup Health.*, vol. 58, no. 2, pp. 209–215, 2016.
10. D. M. DeJoy, B. S. Schaffer, M. G. Wilson, R. J. Vandenberg, and M. M. Butts, "Creating safer workplaces: Assessing the determinants and role of safety climate," *Journal of Safety Research*, vol. 35, no. 1, pp. 81–90, 2004.
11. K. M. Arti and P. Kumar, "Women's Health, Productivity, and the National Rural Health Mission: Developmental Challenges in India," *International Journal of All Research Education and Scientific Methods*, vol. 13, no. 7, pp. 923–934, 2025.
12. N. Kumar, A. Kumar, D. B. Phalke, and S. Kapoor, "Agriculture-Related Occupational Hazards Reporting to Health Facility in Tribal Area: A Retrospective Record-Based Observational Study," *D Y Patil Journal of Health Sciences*, vol. 12, no. 1, pp. 21–25, 2024.
13. S. Dumitriu, C. G. Bocean, A. A. Vărzaru, A. T. Al-Floarei, N. M. Sperdea, F. L. Popescu, and I. C. Băloi, "The role of the workplace environment in shaping employees' well-being," *Sustainability*, vol. 17, no. 6, p. 2613, 2025.
14. C. Haslam, J. O'Hara, A. Kazi, R. Twumasi, and R. Haslam, "Proactive occupational safety and health management: Promoting good health and good business," *Safety Science*, vol. 81, no. 1, pp. 99–108, 2016.
15. S. Tangen, "Demystifying productivity and performance Available to Purchase," *International Journal of Productivity and Performance Management*, vol. 54, no. 1, pp. 34–46, 2005.
16. G. Johns, "Presenteeism in the workplace: A review and research agenda," *Journal of Organizational Behavior*, vol. 31, no. 4, pp. 519–542, 2009.
17. L. Koopmans, C. M. Bernaards, V. H. Hildebrandt, S. Van Buuren, A. J. Van der Beek, and H. C. W. De Vet, "Improving the Individual Work Performance Questionnaire using Rasch analysis," *Journal of Applied Measurement*, vol. 15, no. 2, pp. 160–175, 2014.
18. L. Lindert, L. Kühn, and K. E. Choi, "Rural-urban differences in workplace health promotion among employees of small and medium-sized enterprises in Germany," *BMC Health Services Research*, vol. 22, no. 1, p. 681, 2022.

19. A. Arushi and A. Thakur, "Occupational Stress, Life Satisfaction, and Work-Life Balance: Understanding the Rural-Urban Context of Working Women," *International Journal of Social Science and Education Research*, vol. 8, no. 1, pp. 37–42, 2026.
20. J. R. Meenakshi and S. Panneer, "Occupational Health of Agricultural Women Workers in India," *Indian J Community Med.*, vol. 45, no. 4, pp. 546–549, 2020.
21. K. K. Mohapatra, "Women workers in informal sector in India: Understanding the occupational vulnerability," *International Journal of Humanities and Social Science*, vol. 2, no. 21, pp. 197–207, 2012.
22. N. C. Nnaji-Ihedimma and K. E. Ugwu, "Evaluating Occupational Health and Safety Management in Selected Plastics Manufacturing Organizations in Awka Metropolis Nigeria," *Management Studies and Economic Systems*, vol. 3, no. 1, pp. 23–33, 2016.
23. N. K. D. N. Rabuana and Y. Yanuar, "The influence of work environment and work engagement on employee performance mediated by employee well-being," *Munaddhomah: Journal of Islamic Education Management*, vol. 4, no. 3, pp. 541–557, 2023.
24. A. Roy, S. I. Mim, S. Karmakar, M. T. Brinta, and F. Ferdaus, "Exploring health risks of working women in rural Bangladesh: Dual burden of communicable and non-communicable diseases," *Bangladesh Journal of Food and Nutrition*, vol. 2, no. 1, pp. 1–7, 2025.
25. A. E. Aronsson, P. Vidaurre-Teixidó, M. R. Jensen, S. Solhaug, and C. McNamara, "The health consequences of informal employment among female workers and their children: a systematic review," *Global Health.*, vol. 19, no. 8, p. 59, 2023.
26. A. P. Sutarto, S. Wardaningsih, and W. H. Putri, "Work from home: Indonesian employees' mental well-being and productivity during the COVID-19 pandemic," *International Journal of Workplace Health Management*, vol. 14, no. 4, pp. 386–408, 2021.
27. N. Sengar, P. Yadav, and S. R. Shah, "An analysis of occupational health risks and outcomes among female agricultural laborers in India," *International Journal of Progressive Research in Engineering Management and Science*, vol. 5, no. 2, pp. 1202–1211, 2025.
28. P. N. Teixeira, "Human Capital, by Gary S. Becker: A Reading Guide," in *The Elgar Companion to the Chicago School of Economics*, Edward Elgar Publishing, Cheltenham, United Kingdom, 2010.
29. C. M. Kava, D. Passey, J. R. Harris, K. C G. Chan, and P. A. Hannon, "The Workplace Support for Health Scale: Reliability and Validity of a Brief Scale to Measure Employee Perceptions of Wellness," *Am J Health Promot.*, vol. 35, no. 2, pp. 179–185, 2020.
30. Y. Zhao, L. He, C. Han, B. Oldenburg, G. Sum, T. N. Haregu, and X. Liu, "Urban-rural differences in the impacts of multiple chronic disease on functional limitations and work productivity among Chinese adults," *Global Health Action*, vol. 14, no. 1, p. 1975921, 2021.

Publisher's Note: The publisher remains impartial concerning jurisdictional claims in published maps and institutional affiliations. Responsibility for the content rests entirely with the authors and does not necessarily reflect the publisher's perspectives.