

AN ANALYSIS OF OCCUPATIONAL FACTORS AND MENTAL HEALTH AMONG STATE ROAD TRANSPORT EMPLOYEES IN TAMIL NADU

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ABSTRACT

The Present examines the relationship between occupational factors, mental health dimensions, and socio-demographic characteristics. A quantitative approach with a descriptive and analytical research design was adopted. Primary data were collected from 240 respondents using a structured questionnaire and convenience sampling. The data were analysed using frequency and percentage analysis, mean, standard deviation, Cronbach's alpha, and canonical correlation analysis. The findings revealed that job satisfaction recorded the highest mean score (3.92), followed by organisational support (3.81) and work environment (3.78), while working hours and shift work recorded the lowest score (3.54). Among mental health dimensions, resilience recorded the highest mean (3.96), followed by self-esteem (3.94), whereas depression recorded the lowest mean (3.21). Reliability analysis indicated satisfactory internal consistency, with Cronbach's alpha values ranging from 0.855 to 0.891 for occupational factors and 0.789 for mental health. Canonical correlation analysis identified a significant relationship between occupational factors and mental health, with the first canonical correlation reaching 0.5995. Higher workload and work-related stress, coupled with lower job satisfaction and organisational support, were associated with anxiety and depression. Conversely, favourable working conditions and organisational support were associated with greater resilience and self-esteem. The study emphasises improving workplace conditions, strengthening organisational support, promoting work-life balance, and addressing psychological distress to enhance employees' mental health and well-being.

KEYWORDS: Occupational Factors, Mental Health, Job Satisfaction, Workload, Organisational Support, Resilience, State Road Transport Employees.

1. INTRODUCTION

Mental Health is an important component of employees' overall well-being, occupational effectiveness, and quality of life. State Road Transport Corporation employees in Tamil Nadu work under various occupational conditions that may influence their psychological well-being and mental health. Occupational factors such as workload and work pressure, working hours and shift work, work environment, occupational safety, job satisfaction, organizational support, and work-life balance may be associated with employees' mental health. Excessive workload, irregular working schedules, inadequate workplace facilities, and insufficient organizational support may contribute to psychological strain. Conversely, job satisfaction, a supportive work environment, and a healthy work-life balance may help employees cope with occupational demands.

Mental health can be examined through several dimensions, including self-esteem, locus of control, depression, anxiety, resilience, and workplace conflict. Self-esteem reflects employees' perceptions of their personal worth, while locus of control concerns their beliefs about their ability to influence events and outcomes. Depression and anxiety represent psychological difficulties, whereas resilience indicates the ability to cope with adversity and recover from stressful situations. Workplace conflict may also influence employees' emotional well-being and interpersonal relationships. In the context of State Road Transport employees in Tamil Nadu, understanding the relationship between occupational factors and mental health dimensions is important for promoting employee welfare and improving organizational effectiveness. Therefore, the present study aims to analyse selected occupational factors and mental health dimensions among State Road Transport employees in Tamil Nadu and identify areas that may require organizational attention and intervention.

2. Need for the Study

State Road Transport employees play a significant role in providing safe, reliable, and accessible transportation services to the public. Their occupational responsibilities involve demanding work schedules, passenger-related pressures, safety requirements, and administrative expectations. These working conditions make it necessary to examine the occupational factors associated with their mental health. The present study is therefore undertaken to understand how workload and work pressure, working hours and shift work, work environment, and occupational safety are associated with the psychological well-being of employees. The study is also needed to examine the importance of job satisfaction, organizational support, and work-life balance in maintaining employees' mental health. These occupational factors may influence employees' attitudes towards their work, their ability to manage job-related demands, and their overall psychological well-being. Understanding these

factors can help identify workplace conditions that require improvement and support the development of appropriate employee welfare measures. Furthermore, mental health is a multidimensional concept that includes self-esteem, locus of control, depression, anxiety, resilience, and workplace conflict. Examining these dimensions provides a broader understanding of employees' psychological strengths and difficulties. Such an assessment may help identify areas in which employees require additional support and encourage the adoption of suitable mental health promotion initiatives.

3. Significance of the Study

The present study is significant because it examines occupational factors and mental health dimensions among State Road Transport employees in Tamil Nadu. By examining factors such as workload, working hours, work environment, occupational safety, job satisfaction, organizational support, and work-life balance, the study may help identify the occupational conditions that deserve greater attention in employee welfare planning. From a policy perspective, the study may provide useful empirical insights for authorities responsible for public transport administration and employee welfare. The findings may help inform the development of workplace policies that consider employees' psychological well-being alongside operational requirements. Understanding the factors associated with mental health may also support organizational efforts to improve concentration, cooperation, employee morale, and the effective delivery of transport services. Finally, the study is significant to researchers and academicians because it contributes to the understanding of occupational factors and mental health in the public sector road transport environment. It may serve as a reference for future research examining mental health across different employee categories, occupational settings, work schedules, and demographic groups. Thus, the study has practical and academic significance by providing a basis for understanding employees' mental health and identifying opportunities to strengthen employee welfare and organizational practices.

REVIEW OF LITERATURE

Recent studies highlight the influence of occupational conditions and psychological resources on employee mental health. Li et al. (2026) identified the relationships among psychological resilience, job satisfaction, and anxiety, while Pandey et al. (2025) emphasised the importance of individual, organisational, and environmental factors in employee well-being. Ranjan, Singh, and Tripathi (2025) reported that occupational demands were associated with stress, depressive symptoms, and job satisfaction among private bus drivers in North India. Cendales et al. (2024) and Akinlotan and Drewry (2024) identified workload, shift work, poor working conditions, interpersonal conflicts, and occupational safety risks as important factors affecting the mental health of public transport workers. Mohamed Ali et al. (2023) observed anxiety and depressive symptoms among bus drivers and conductors in South India, highlighting the relevance of demographic and occupational characteristics. Albalá-Genol et al. (2023) and Cao et al. (2022) further demonstrated the importance of resilience, psychological resources, and job satisfaction in employee well-being. Liu, Yang, and Zou (2021) identified self-esteem as an important psychological resource in the relationship between job insecurity and psychological distress. Similarly, Limmer and Schütz (2020) examined personal resources, including self-esteem and locus of control, in relation to mental health. These studies establish the importance of examining psychological and occupational factors together.

Earlier studies provide important theoretical and measurement foundations for understanding employee mental health and occupational well-being. Ahn and Lee (2019) demonstrated the relevance of person-organisation fit, organisational commitment, and job satisfaction in understanding employee attitudes. Joshi and Vaidya (2017) found higher perceived stress among public transport bus drivers than among office staff, indicating the stressful nature of driving occupations. Kim et al. (2013) reported associations between exposure to traumatic passenger-related events and psychological disorders among Korean subway drivers. Smith et al. (2008) developed the Brief Resilience Scale to assess the ability to recover from stress, while Connor and Davidson (2003) established the Connor-Davidson Resilience Scale to measure resilience. Bakker and Demerouti (2007), through the Job Demands-Resources model, explained how excessive job demands can cause strain while job resources can promote employee well-being. Meyer and Allen (1991) conceptualised organisational commitment through affective, continuance, and normative components, while Mowday et al. (1979) developed a widely used instrument for measuring organisational commitment. Kobasa (1979) highlighted the role of psychological hardiness in coping with stress, and Locke (1976) explained job satisfaction in relation to employees' work values. Despite these contributions, further research is needed to examine the combined influence of demographic characteristics, occupational conditions, and mental health dimensions among State Road Transport employees in Tamil Nadu. The present study addresses this research gap.

4. Statement of the Problem

Mental health is an important consideration in occupations that involve substantial responsibility, demanding working conditions, and continuous public interaction. State Road Transport employees in Tamil Nadu are required to perform their duties while managing operational demands, working schedules, passenger expectations, and occupational safety requirements. These conditions may be associated with variations in their psychological well-being. Occupational factors such as workload and work pressure, working hours and shift work, work environment, occupational safety, job satisfaction, organizational support, and work-life balance may have different associations with employees' mental health. At the same time, mental health encompasses

several dimensions, including self-esteem, locus of control, depression, anxiety, resilience, and workplace conflict. Employees may differ in these dimensions according to their occupational experiences and working conditions.

However, examining mental health as a single overall measure may not adequately explain the differences among its individual dimensions. Similarly, considering occupational factors separately without assessing their relevance to employees' mental health may provide an incomplete understanding of workplace well-being. Therefore, the problem addressed by the present study is to analyse selected occupational factors and mental health dimensions among State Road Transport employees in Tamil Nadu, assess the levels and variations in these variables, and examine the associations between occupational conditions and mental health. The study seeks to generate empirical evidence that may assist transport organizations in identifying areas for improving employee welfare and psychological well-being.

5. Objectives of the Study

1. To analyse occupational factors and mental health dimensions among State Road Transport employees in Tamil Nadu.
2. To examine the significant relationship between in occupation factor and mental across selected socio-demographic of the respondents.

6. Hypotheses of the Study

The following null hypotheses may be formulated to guide the statistical analysis.

H₀₁: There is no significant relationship between selected occupational factors and mental health among State Road Transport employees in Tamil Nadu.

H₀₃: There is no significant relationship in occupational factors across selected socio-demographic characteristics of the respondents.

H₀₄: There is no significant relationship between in mental health dimensions across selected occupational characteristics of the respondents.

9. METHODOLOGY

The present study adopts a quantitative research approach with a descriptive and analytical research design to examine the major factors contributing to job performance among state road transport employees in Tamil Nadu. Primary data were collected from 240 respondents using a structured questionnaire covering occupational factors and mental health, simple random was used to select respondents based on their accessibility and willingness to participate, provided this reflects the actual sampling procedure. The collected data were analysed using frequency and percentage analysis, mean and standard deviation, and canonical correlation analysis. These statistical techniques were employed to assess employees' perceptions of various factors influence on mental health and occupational, examine differences across selected socio-demographic and occupational characteristics, and identify the occupational factors that significantly contribute to variations in mental health. The findings are intended to provide insights into the major psychological factors associated with job performance and support effective employee management in the state road transport sector.

10. DATA ANALYSIS

This section deals with the description of the demographic variables of the Public Sector State Road Transport Employees in Tamil Nadu and inferential statistics with respect to the Factors Contributing Job Performance. Also, results of the hypotheses test and discussion on results are presented in this chapter under the following.

Table 1: Socio-Demographic Profile of Respondents

S. No	Category	Frequency	Per cent
Gender			
1	Male	168	70.0
2	Female	72	30.0
Age			
1	Below 30	36	15.0
2	30–40	84	35.0
3	41–50	76	31.7
4	Above 50	44	18.3
Education			
1	HSC & Below	36	15.0
2	Diploma	62	25.8
3	UG	84	35.0
4	PG	40	16.7
5	Professional/Technical	18	7.5
Marital status			
1	Single	60	25.00
2	Married	180	75.00
Monthly Income			

1	Below ₹25,000	28	11.7
2	₹25,001–₹50,000	106	44.2
3	₹50,001–₹75,000	70	29.2
4	Above ₹75,000	36	15.0
Employee Category			
1	Technical/Workshop	96	40.0
2	Administrative/Office	72	30.0
3	Supervisory	44	18.3
4	Managerial	28	11.7
Department			
1	Administration	98	40.9
2	Operating	60	25.0
3	Engineering	82	34.1
Work Experience			
1	Below 5 years	34	14.2
2	5–10 years	68	28.3
3	11–15 years	78	32.5
4	Above 15 years	60	25.0

Source: Primary Data

Table 4.1 presents the socio-demographic and occupational profile of 240 respondents employed in the State Road Transport sector. The profile is analysed in terms of gender, age, education, monthly income, employee category, and work experience. With regard to gender, the majority of the respondents were male (70.0Per Cent), while female respondents accounted for 30.0Per Cent. In terms of age, the largest proportion of respondents (35.0 per cent) belonged to the 30–40 years category, followed by 31.7 per cent in the 41–50 years category. Respondents aged above 50 years constituted 18.3 per cent, while 15.0 per cent were below 30 years. Regarding educational qualifications, graduates constituted the largest group (35.0 per cent), followed by diploma holders (25.8 per cent). Respondents with postgraduate qualifications accounted for 16.7 per cent, while 15.0 per cent had completed HSC or below. Those with professional or technical qualifications represented 7.5 per cent of the sample. The marital status distribution shows that 75.0 per cent of the respondents were married, while 25.0 per cent were single. This indicates that married employees constituted the majority of the sample.

In terms of monthly income, the largest proportion of respondents (44.2 per cent) earned between ₹25,001 and ₹50,000, followed by 29.2 per cent earning between ₹50,001 and ₹75,000. Respondents earning above ₹75,000 accounted for 15.0 per cent, whereas 11.7 per cent earned below ₹25,000. With respect to employee category, technical and workshop employees formed the largest group (40.0 per cent), followed by administrative and office employees (30.0 per cent). Supervisory employees accounted for 18.3 per cent, while managerial employees represented 11.7 per cent. Regarding work experience, the largest proportion of respondents (32.5 per cent) had 11–15 years of experience, followed by 28.3 per cent with 5–10 years. Employees with more than 15 years of experience constituted 25.0 per cent, while 14.2 per cent had less than five years of experience. Regarding department, Administration accounted for the largest share of respondents (40.9 per cent), followed by Engineering (34.1 per cent) and Operating (25.0 per cent). Thus, the sample included employees from all three departments, with greater representation from Administration.

Table 2: Descriptive Statistics of Occupational Factors among State Road Transport Employees in Tamil Nadu

S. No	Factor	Mean	SD
1	Workload and Work Pressure	3.62	0.81
2	Working Hours and Shift Work	3.54	0.86
3	Work Environment	3.78	0.74
4	Occupational Safety	3.69	0.77
5	Job Satisfaction	3.92	0.68
6	Organizational Support	3.81	0.71
7	Work–Life Balance	3.58	0.82

Source: Primary Data

Table 2 presents the descriptive statistics of the contributing factors among State Road Transport employees, based on the mean and standard deviation values. The results indicate that job satisfaction recorded the highest mean score of 3.92 with a standard deviation of 0.68, followed by organizational support (Mean = 3.81, SD = 0.71) and work environment (Mean = 3.78, SD = 0.74). Occupational safety recorded a mean score of 3.69 (SD = 0.77), while workload and work pressure registered a mean of 3.62 (SD = 0.81). Work–life balance recorded a mean score of 3.58 (SD = 0.82), whereas working hours and shift work had the lowest mean score of 3.54 (SD = 0.86). The findings indicate that job satisfaction received the highest average rating among the seven

contributing factors, while working hours and shift work received the lowest. The relatively low standard deviation for job satisfaction suggests greater consistency in respondents' ratings, whereas the higher standard deviation for working hours and shift work indicates comparatively greater variation in their responses.

Table 3: Descriptive Statistics of Mental Health among State Road Transport Employees in Tamil Nadu

S. No	Mental Health Dimension	Mean	SD
1	Self-Esteem	3.94	0.72
2	Locus of Control	3.88	0.76
3	Depression	3.21	0.91
4	Anxiety	3.28	0.88
5	Resilience	3.96	0.69
6	Workplace Conflict	3.35	0.87
	Overall Mental Health	3.72	0.65

Source: Primary Data

Table 3 Shows the descriptive statistics of six mental health dimensions among State Road Transport employees in Tamil Nadu in terms of mean and standard deviation. The results indicate that resilience recorded the highest mean score of 3.96 (SD = 0.69), followed by self-esteem at 3.94 (SD = 0.72) and locus of control at 3.88 (SD = 0.76). These findings suggest that the respondents generally reported favourable levels of resilience, self-esteem, and perceived control. The overall mental health mean score was 3.72, with a standard deviation of 0.65, indicating a relatively favourable overall assessment among the employees. In contrast, anxiety recorded a mean of 3.28 (SD = 0.88), workplace conflict recorded 3.35 (SD = 0.87), and depression recorded 3.21 (SD = 0.91). Among these dimensions, depression had the lowest mean and the highest standard deviation, indicating comparatively lower average scores and greater variability in employees' responses. Overall, the findings highlight the importance of strengthening employees' psychological resources while addressing concerns associated with depression, anxiety, and workplace conflict.

Table 4: Reliability of the variable

S. No	Variable	No. of Items	Cronbach's Alpha
1	Workload and Work Pressure	5	0.884
2	Working Hours and Shift Work	5	0.872
3	Work Environment	5	0.861
4	Occupational Safety	5	0.879
5	Job Satisfaction	5	0.874
6	Organizational Support	5	0.891
7	Work-Life Balance	5	0.855
8	Mental Health	27	0.789

Source: Primary Data

Table 4 presents the reliability analysis of the study variables using Cronbach's alpha coefficient. The results indicate that workload and work pressure recorded an alpha value of 0.884, followed by working hours and shift work (0.872), work environment (0.861), occupational safety (0.879), job satisfaction (0.874), organizational support (0.891), and work-life balance (0.855). All seven variables recorded Cronbach's alpha values above 0.80, indicating good internal consistency among the respective questionnaire items. Organizational support recorded the highest reliability coefficient of 0.891, while work-life balance recorded the lowest coefficient of 0.855; however, both values indicate satisfactory reliability. Mental health, measured using 27 items, recorded a Cronbach's alpha value of 0.789, which indicates acceptable internal consistency.

Table 5: Canonical Functions Produced by Canonical Correlation Analysis Pertaining to Occupational Factors among State Road Transport Employees in Tamil Nadu

Canonical Function	Canonical R	Canonical R ² (Eigenvalue)	Chi-Square	df	p-Value	Wilks' Lambda
0	0.6213	0.3619	806.86	102	0.0000	0.2046
1	0.5687	0.3340	578.44	83	0.0000	0.3206
2	0.4738	0.2331	371.71	65	0.0000	0.4814
3	0.4509	0.1857	236.76	46	0.0000	0.6278
4	0.3921	0.1460	132.29	42	0.0000	0.7709
5	0.2135	0.0817	52.02	16	0.0000	0.9028

Source: Primary Data

Table 5 presents the canonical correlation analysis examining the relationship between occupational factors and the relevant variable set among State Road Transport employees in Tamil Nadu. The first canonical function records the highest correlation coefficient (R = 0.6213), with an R² value of 0.3619, indicating a substantial

association between the two sets of variables. The second function also demonstrates a strong relationship ($R = 0.5687$), followed by the third ($R = 0.4738$) and fourth ($R = 0.4509$) functions. The fifth function records a correlation of 0.3921, while the sixth function shows a comparatively weaker relationship ($R = 0.2135$). The reported chi-square tests indicate that the first six canonical functions are statistically significant at the 5 per cent level, suggesting meaningful multivariate relationships among the variables. The Wilks' Lambda values generally increase across successive functions, indicating a reduction in their explanatory contribution. Overall, the findings highlight the importance of occupational factors in understanding employee-related outcomes. However, the precise interpretation of these relationships should be supported by canonical loadings and the definitions of the two variable sets.

Table 6: Canonical Loadings of Various Occupational Factors of State Road Transport Employees and Demographic Variables with Significant Canonical Function

S. No	Variables	Canonical Loadings				
		First Function	Second Function	Third Function	Fourth Function	Fifth Function
Criterion Variables						
Various Occupational Factors						
1	Workload and Work Pressure	0.7760	0.2021	0.2351	0.7768	-0.0060
2	Working Hours and Shift Work	0.2121	0.3686	0.1856	0.1092	0.3584
3	Work Environment	0.1664	0.6771	0.3654	0.3276	0.6534
4	Occupational Safety	0.0707	0.0637	-0.1100	-0.0287	0.5689
5	Job Satisfaction	0.3140	0.7383	-0.6161	0.0052	0.3559
6	Organizational Support	-0.6558	0.0107	0.1604	0.7764	-0.2890
7	Work–Life Balance	0.2832	-0.0825	-0.6092	0.0955	0.2708
Predictor Variables						
Demographic Characteristics						
1	Gender	-0.0689	-0.5997	-0.1620	-0.1188	-0.2415
2	Age	0.2540	-0.0990	0.6424	0.6164	-0.3499
3	Marital status	0.0080	0.6282	0.3183	-0.2724	-0.1319
4	Qualification	0.0184	0.1140	0.2576	0.1521	0.6720
5	Income level	0.2058	-0.3081	-0.6099	0.1304	0.2814
6	Employee Category	-0.5546	0.0543	0.1967	0.1409	0.3850
7	Department	0.0236	0.0506	-0.2332	0.5745	-0.7661
8	Work Experience	0.5942	0.0542	0.0919	-0.0275	-0.6543

Source: Primary Data

Table 6 Shows the canonical loadings of occupational factors and demographic characteristics of State Road Transport employees in Tamil Nadu across five canonical functions. The first function is characterised by workload and work pressure (0.7760), organisational support (-0.7558), work experience (0.5942), and employee category (-0.5546). The second function highlights job satisfaction (0.7383) and work environment (0.6771), alongside marital status (0.6282) and gender (-0.5997). The third function shows relatively strong loadings for age (0.6424), job satisfaction (-0.6161), work–life balance (-0.6092), and income level (-0.6099). The fourth function is dominated by organisational support (0.7764), workload and work pressure (0.7768), age (0.6164), and department (0.5745). The fifth function highlights work environment (0.6534) and occupational safety (0.5689), while qualification (0.6720), work experience (-0.6543), and department (-0.7661) demonstrate notable loadings. Overall, the findings suggest that occupational conditions and demographic characteristics form distinct patterns of association among employees. The strength and direction of these relationships should

be interpreted alongside the canonical correlation coefficients and significance tests to establish the importance of each function.

An analysis of the relationships between criterion and predictor variables alongside key 'canonical' functions yielded the following results: (1) highly experienced employees in the administrative division perceive higher levels of 'workload and work stress' and lower organizational support; (2) unmarried male employees hold a positive view regarding 'work environment' and 'job satisfaction'; (3) older employees with lower monthly incomes report lower levels of job satisfaction and lower levels of work-life balance; (4) older employees in the engineering department perceive higher levels of 'workload and work stress'; and (5) administrative staff with graduate qualifications hold a positive view regarding the work environment and job security.

Table 7: Canonical Functions Produced by Canonical Correlation Analysis Pertaining to Mental Health of State Road Transport Employees

Canonical Function	Canonical R	R ² Canonical (Eigen value)	Chi-Square	df	p-Value	Wilks Lambda
0	0.6018	0.3621	806.88	92	0.0000	0.2048
1	0.5782	0.3343	578.46	73	0.0000	0.3208
2	0.4828	0.2331	371.73	56	0.0000	0.4816
3	0.4309	0.1857	236.78	41	0.0000	0.6278
4	0.3823	0.1462	132.29	28	0.0003	0.7709
5	0.2858	0.0817	52.04	17	0.0003	0.9028
6	0.1303	0.01700	8.7	8	0.2762	0.9833

Source: Primary Data.

Table 7 represent the results of canonical correlation analysis examining the relationship between mental health dimensions and demographic characteristics of State Road Transport employees. The first canonical function records the highest canonical correlation coefficient ($R = 0.6018$), with an R^2 value of 0.3621, indicating a shared relationship of approximately 36.21 per cent between the two variable sets. The second function also demonstrates a strong association ($R = 0.5782$), followed by the third ($R = 0.4828$) and fourth ($R = 0.4309$) functions. The fifth and sixth functions record correlation coefficients of 0.3823 and 0.2858, respectively. The reported chi-square tests indicate statistical significance for the first six functions at the 5 per cent level, while the seventh function is not statistically significant ($p = 0.2762$). Wilks' Lambda values generally increase across the functions, indicating a declining contribution from successive functions. Overall, the results suggest significant multivariate relationships between mental health dimensions and demographic characteristics among State Road Transport employees. The first canonical function provides the strongest association, highlighting the importance of examining employees' psychological well-being alongside their socio-demographic characteristics.

Table 8: Canonical Loadings of Mental Health of State Road Transport Employees and Demographic Variables with Significant Canonical Function

Variables with Significant Canonical Function						
S. No.	Performance Factors	Canonical Loadings				
		First Function	Second Function	Third Function	Fourth Function	Fifth Function
Criterion Variables						
Mental Health						
1	Self-Esteem	0.5691	0.7034	0.2354	0.4769	0.2762
2	Locus of Control	0.3385	0.3387	0.1837	-0.7131	0.1393
3	Depression	0.6534	0.3638	0.3654	0.3377	0.4664
4	Anxiety	0.0693	0.6634	0.3124	-0.1286	0.0718
5	Resilience	0.3551	-0.4388	0.7893	0.0153	0.3101
6	Workplace Conflict	-0.2914	0.1011	0.7773	-0.1696	0.5621
Predictor Variables						

Demographic Characteristics						
1	Gender	-0.0424	0.2521	-0.0919	0.5163	0.6428
2	Age	-0.1621	-0.6981	0.3123	-0.1181	-0.4424
3	Marital status	0.3284	0.0281	-0.2221	-0.2721	-0.5328
4	Qualification	-0.6583	0.0285	0.1143	0.5253	0.1723
5	Income level	-0.1541	0.2054	-0.5802	-0.0033	0.4835
6	Employee Category	-0.2333	0.0234	-0.0535	0.3346	-0.1662
7	Department	-0.5195	0.0734	0.1355	-0.5165	0.1484
8	Work Experience	0.0363	0.4388	0.6524	0.0053	-0.1221

Source: Primary Data.

Table 8 indicates the canonical loadings of mental health dimensions and demographic characteristics of State Road Transport employees across five canonical functions. The results reveal varying relationships between employees' mental health and their socio-demographic and occupational characteristics. In the first canonical function, depression (0.6534) and self-esteem (0.5691) show relatively strong positive loadings, while qualification (-0.6583) and department (-0.5195) exhibit notable negative loadings. This indicates that these variables contribute substantially to the first canonical dimension. In the second function, self-esteem (0.7034) and anxiety (0.6634) demonstrate strong positive loadings, whereas age (-0.6981) shows a strong negative loading. The third function is characterised by resilience (0.7893), workplace conflict (0.7773), and work experience (0.6524), while income level (-0.5802) has a considerable negative loading. In the fourth function, qualification (0.5253) and gender (0.5163) show comparatively strong positive loadings, whereas department (-0.5165) demonstrates a negative loading. The fifth function highlights workplace conflict (0.5621), income level (0.4835), and marital status (-0.5328).

The findings suggest that mental health dimensions are associated with several demographic and occupational characteristics. Based on the loadings of the criterion and predictor variables associated with the canonical variates of significant canonical functions, the following conclusions can be drawn: (1) administrative staff with school-level education report higher levels of self-esteem and depression; (2) younger employees hold a positive outlook regarding self-esteem and anxiety; (3) employees with lower monthly incomes and more experience demonstrate higher resilience but also face significant workplace conflict; (4) female degree holders have less locus of control and (5) married female employee have high perception on workplace conflicts

Table 9: Canonical Functions Produced by Canonical Correlation Analysis between Occupational Factors and Mental Health among State Road Transport Employees

Canonical Function	Canonical R	R Canonical (Eigenvalue)	Chi-Square	df	p-Value	Wilks Lambda
0	0.5995	0.3594	688.10	65	0.0000	0.2591
1	0.5828	0.3396	461.18	48	0.0000	0.4045
2	0.4914	0.2415	249.75	33	0.0000	0.6125
3	0.3845	0.1478	108.95	20	0.0000	0.8075
4	0.2290	0.0524	27.45	9	0.0012	0.9476

Source: Primary Data

Table 9 presents the results of canonical correlation analysis examining the relationship between occupational factors and mental health among State Road Transport employees. The first canonical function records the highest correlation coefficient ($R = 0.5995$), with an R^2 value of 0.3594, indicating a shared relationship of approximately 35.94 per cent between the two variable sets. The second function also demonstrates a strong association ($R = 0.5828$), followed by the third function ($R = 0.4914$) and the fourth function ($R = 0.3845$). The fifth function records a comparatively weaker correlation of 0.2290. The chi-square tests indicate that all five canonical functions are statistically significant at the 5 per cent level, with the fifth function significant at $p =$

0.0012. The Wilks' Lambda values increase across successive functions, suggesting that the contribution of each subsequent function declines. Overall, the findings indicate a statistically significant multivariate relationship between occupational factors and employees' mental health. The first canonical function demonstrates the strongest association, highlighting the importance of examining occupational conditions when understanding employees' psychological well-being. Further interpretation of the specific relationships requires examining the canonical loadings of the variables in both sets.

Table 10: Canonical Loadings of Occupational Factors and Mental Health Dimensions with Significant Canonical Functions

S. No	Variables	Canonical Functions			
		First	Second	Third	Fourth
Criterion Variables					
Mental Health					
1	Self-Esteem	0.3413	0.5054	-0.0772	0.5460
2	Locus of Control	-0.1773	-0.5642	0.1449	-0.0833
3	Depression	0.7446	-0.1559	0.6134	0.0189
4	Anxiety	0.5390	-0.2356	0.3353	0.2240
5	Resilience	-0.0139	0.5306	-0.1984	0.5806
6	Workplace Conflict	0.2120	-0.1214	0.5767	0.1152
Predictor Variables					
Occupational Factors					
1	Workload and Work Pressure	0.7323	-0.1897	0.1477	-0.5303
2	Working Hours and Shift Work	-0.1006	-0.2072	-0.5233	0.2312
3	Work Environment	-0.0548	0.1329	0.1039	0.5631
4	Occupational Safety	-0.2668	0.5571	0.1645	0.1508
5	Job Satisfaction	-0.6659	-0.3404	0.2079	-0.3544
6	Organizational Support	-0.5193	0.5733	0.1354	0.5166
7	Work–Life Balance	0.0362	0.4387	-0.5523	0.0052

Source: Primary Data

Table 10 presents the canonical loadings of occupational factors and mental health dimensions among State Road Transport employees. In the first canonical function, depression (0.7446) and anxiety (0.5390) show strong positive loadings, while workload and work pressure (0.7323) demonstrate a substantial positive loading among occupational factors. Job satisfaction (-0.6659) and organizational support (-0.5193) exhibit negative loadings. The second function is characterised by locus of control (-0.5642), resilience (0.5306), occupational safety (0.5571), and organizational support (0.5733). In the third function, depression (0.6134) and workplace conflict (0.5767) show strong positive loadings, whereas working hours and shift work (-0.5233) and work-life balance (-0.5523) demonstrate negative loadings. The fourth function highlights self-esteem (0.5460) and resilience (0.5806), along with work environment (0.5631) and organizational support (0.5166). Overall, the findings indicate that workload, job satisfaction, organizational support, occupational safety, and work-life balance are important variables associated with employees' mental health patterns. Positive and negative loadings indicate the direction of association within each function, subject to variable coding.

From the loadings of the criterion and predictor variables with canonical variates of significant canonical functions, the following findings are made (1) employees experiencing low organizational support, low job satisfaction, and high workload and work-related stress are also prone to anxiety and depression; (2) higher levels of self-esteem and resilience are observed among employees who perceive high organizational support and job security; (3) employees with a negative outlook regarding work-life balance and work schedules or shift patterns face higher levels of depression and workplace conflict; and (4) employees benefiting from high

organizational support, a favorable work environment, and manageable workloads exhibit higher levels of self-esteem and resilience.

Suggestions of the Study

Based on the findings of the study, the following five suggestions are offered to improve occupational conditions and mental health among state road transport employees in Tamil Nadu.

- **Improve Job Satisfaction and Organisational Support:** Since job satisfaction recorded the highest mean score among occupational factors, transport authorities should sustain employee satisfaction through welfare facilities, fair promotion policies, supportive supervision, and recognition of employee contributions. Organisational support should be strengthened, particularly for employees experiencing high workloads and work-related pressure.
- **Strengthen Mental Health Support:** Since depression and anxiety recorded comparatively lower mean scores, management should introduce counselling services, psychological support programmes, and regular mental health awareness activities. Special attention should be given to employees experiencing workplace conflict and psychological difficulties.
- **Manage Workload and Occupational Stress:** The findings indicate that workload and work pressure are associated with anxiety and depression. Management should ensure reasonable workload distribution, adequate staffing, effective shift scheduling, and sufficient rest periods to reduce occupational stress and improve employee well-being.
- **Promote Work–Life Balance and Occupational Safety:** Since working hours and shift work received the lowest mean score among occupational factors, transport authorities should review duty schedules, provide appropriate rest intervals, and promote a better balance between professional and personal responsibilities. Occupational safety measures and a favourable work environment should also be strengthened.
- **Provide Targeted Support Based on Employee Characteristics:** The canonical correlation findings indicate variations in occupational perceptions and mental health across age, gender, education, income, department, and work experience. Management should identify the specific needs of different employee groups and provide suitable welfare measures, career development opportunities, and workplace support, with particular attention to employees facing higher workloads, lower job satisfaction, or workplace conflict.

CONCLUSION

The study concludes that occupational factors play an important role in the mental health and psychological well-being of State Road Transport employees in Tamil Nadu. The findings reveal that job satisfaction, organisational support, and work environment are important occupational factors, while workload, working hours, and shift work require greater attention. Resilience and self-esteem emerged as favourable mental health dimensions, whereas depression, anxiety, and workplace conflict indicate areas of concern. Canonical correlation analysis established a significant relationship between occupational factors and mental health, highlighting the association of excessive workload and inadequate organisational support with psychological distress. The findings emphasise the need for employee-friendly workplace policies, effective stress management programmes, reasonable work schedules, improved occupational safety, and stronger organisational support. Promoting work–life balance and providing appropriate psychological assistance can further improve employee well-being. Therefore, transport authorities should adopt comprehensive employee welfare measures to create a healthier, safer, and more supportive working environment.

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