

Debt Levels and Occupational Stress Among Police Personnel in Kerala: An Empirical Investigation

Abdul Sathar.T.A

Department of management studies, Sunrise University, Alwar, Rajasthan
satharali@gmail.com

Abstract

This study investigates the relationship between personal debt levels and occupational stress among police personnel in the Central Zone of Kerala, India. Policing is inherently a high-stress occupation, but financial burdens such as personal loans and rising debt have become increasingly significant stressors. Using a structured questionnaire, data were collected from 467 respondents representing various ranks from civil police officers to Deputy Superintendent of police within the Kerala Police. Occupational stress was measured using the standardized Occupational Stress Index (OSI), while debt levels were assessed based on self-reported monthly liabilities as a percentage of income. Descriptive statistics revealed that nearly 89% of the respondents carried some form of debt, with a majority experiencing moderate to high levels of stress. Correlation analysis showed a strong positive relationship between debt level and stress ($r = 0.612$, $p < 0.01$), and regression analysis confirmed that debt is a significant predictor of occupational stress, accounting for 37.4% of the variance ($R^2 = 0.374$). The findings underscore the urgent need for financial counseling, institutional credit schemes, and mental health support services within the police force. This study contributes to the growing discourse on financial wellness and psychological health in law enforcement and offers practical recommendations for enhancing the welfare and efficiency of police personnel.

1. Introduction

Policing is universally acknowledged as one of the most demanding and stressful professions. Police personnel are responsible for maintaining law and order, preventing crime, managing public safety, and responding to emergencies—often under intense pressure, irregular work hours, and high-risk situations. These occupational stressors are compounded by systemic issues such as inadequate manpower, political interference, lack of resources, and limited avenues for professional advancement. In India, where the police-to-population ratio is below international standards, officers are frequently overburdened, underpaid relative to their workload, and exposed to various forms of stress that affect both their personal and professional lives.

While several studies have examined operational and organizational stress in police forces, an emerging area of concern is the growing financial stress faced by police personnel, especially due to rising personal debt. Unlike many other government employees, police personnel have fewer opportunities for

secondary income or leisure to compensate for financial strain, which makes them particularly vulnerable to the psychological consequences of debt. Personal loans, housing loans, educational expenses, and mounting EMIs often consume a significant portion of their fixed salaries, leaving them financially strained and emotionally overwhelmed.

Kerala, despite being one of the more socially developed states in India, is not immune to these challenges. Police personnel in the state, especially those in the Central Zone—which includes the districts of Ernakulam, Kottayam, Alappuzha, and Idukki—face a unique mix of urban and rural policing issues. In this context, understanding how debt levels affect occupational stress becomes critical for designing welfare policies and mental health interventions.

This research aims to fill the existing gap in literature by empirically examining the relationship between debt levels and occupational stress among police personnel in Kerala. It addresses pertinent questions: To what extent are police officers burdened by personal debt? How does this financial strain correlate with their experience of stress in the workplace? What specific categories of personnel are more affected, and what can be done to alleviate this dual burden?

By systematically exploring these questions, this study hopes to contribute valuable insights to policymakers, law enforcement leadership, and mental health professionals. Ultimately, the objective is to inform the development of holistic support systems that address both the financial and psychological well-being of police personnel, thereby enhancing their morale, efficiency, and service delivery.

Saving: The portion of income that is not spent on current consumption but is set aside for future needs or emergencies. It includes money kept in bank accounts, recurring deposits, or informal saving mechanisms. Saving behavior reflects an individual's financial discipline and security planning.

Investment: The allocation of money into financial or physical assets (such as mutual funds, fixed deposits, real estate, or gold) with the expectation of generating returns or income over time. Investment behavior is influenced by factors like income level, risk tolerance, and financial awareness.

Financial Literacy: The knowledge and skills required to make informed and effective decisions regarding financial resources. It includes understanding interest rates, inflation, credit, investment options, and risk management. Financial literacy is a key independent variable in this study.

Occupational Stress: The physical and emotional stress experienced by individuals due to demands or pressures related to their job. In policing, occupational stress may stem from long working hours, exposure to violence, irregular shifts, and lack of work-life balance. This study explores how financial burdens, especially debt, contribute to such stress.

Debt Level: The total amount of financial obligations (e.g., loans, credit card dues) an individual owes. In this research, debt level is treated as a significant independent variable potentially contributing to occupational stress among police personnel.

Financial Burden: The perceived strain or hardship caused by existing financial commitments such as loan repayments, interest rates, household expenses, and emergency costs. Financial burden is closely associated with both debt level and mental health, and is evaluated for its impact on stress levels.

Mental Health: A state of emotional and psychological well-being. This research considers how financial stress, driven by debt, can lead to poor mental health outcomes among police personnel, such as anxiety, depression, or burnout.

Police Personnel: This refers to members of the police force employed by the government, responsible for maintaining law and order. In this study, the focus is on police personnel serving in the Central Zone of Kerala, whose occupational structure and financial behavior are critical to understand due to the nature of their duties and income patterns.

Central Zone: A regional administrative division of Kerala Police, typically covering districts like Alaapuzha, Ernakula, Kottayam, and Idukki. This geographic focus allows the research to capture zone-specific financial behavior patterns among police personnel.

2. Review of Literature

Numerous international and national studies have emphasized the interplay between financial instability and workplace stress. The intersection of financial strain and occupational stress, especially among police personnel, has garnered increasing academic attention due to its implications for mental health, job performance, and institutional efficiency. Several foundational and recent studies shed light on this dual burden.

Srivastava and Singh (1981)¹ developed the Occupational Stress Index (OSI), which remains a standard tool for measuring stress levels across Indian organizational contexts. The OSI identifies key stress-inducing factors such as role overload, role ambiguity, and powerlessness—elements commonly observed in police work environments. This study provides the measurement framework for the present research.

Sharma (2019)² conducted a study on Indian government employees and revealed that financial debt significantly correlates with psychological distress. Employees facing moderate to high debt reported increased symptoms of anxiety, irritability, and depression. Though this study included a wide variety of public sector employees, it highlighted the impact of personal financial burdens, offering a relevant foundation for the present study focused exclusively on police personnel.

Lusardi and Tufano (2015)⁴, found that individuals burdened with high levels of debt are more likely to experience psychological distress, poor sleep, and a reduced sense of well-being. The relationship between debt and stress is particularly alarming among salaried employees with fixed income levels.

Kumar and Talwar (2017)³ in their study observed that Indian police personnel often experience chronic stress, aggravated by inadequate staffing, lack of welfare measures, and political interference.

Violanti et al. (2017)⁵ explored various stressors affecting police officers in the United States, concluding that financial insecurity, in addition to operational and organizational stressors, constitutes a major contributor to overall mental health decline. Their review emphasized that personal finances are not merely a private concern but are intimately linked with occupational functioning and resilience among officers.

The **Government of Kerala (2022)**⁶, through its Police Statistics Handbook, provided a comprehensive overview of the state's police force structure, manpower, and socio-economic demographics. The report indirectly points to the rising concerns of welfare, financial strain, and mental health issues within the police force, underscoring the importance of localized, data-driven studies.

Krejcie and Morgan (1970)⁷ offered a statistically sound method for determining sample size for research studies. Their formula, widely accepted in social sciences, was used to calculate the appropriate sample size (380 respondents) for this study to ensure representativeness and reliability in findings.

These studies demonstrate that occupational stress among police personnel is multidimensional which means rooted not only in their professional environment but also in personal financial challenges. The literature supports the premise that debt is a significant, though often overlooked, predictor of occupational stress. However, while existing research addresses financial distress and job-related stress independently, limited empirical work focuses on their direct correlation among police personnel in Kerala. This study addresses that gap by empirically examining how debt levels influence occupational stress within this specific demographic and geographic context.

3. Objectives of the Study

The study entitled Debt Levels and Occupational Stress among Police Personnel in Kerala: An Empirical Investigation with special emphasis to Central zone was a study intended to analyse the debt level of police personnel and their occupational stress. The main objectives of the study are

1. To measure the level of personal debt among police personnel in Kerala.
2. To assess the occupational stress levels among them.
3. To determine the relationship between debt levels and occupational stress.
4. To propose measures to reduce financial stress in the police force.

4. Hypothesis

H₀ (Null Hypothesis): There is no significant relationship between debt levels and occupational stress among police personnel in Kerala.

H₁ (Alternative Hypothesis): There is a significant relationship between debt levels and occupational stress among police personnel in Kerala.

5. Research Methodology

This study adopts a quantitative, descriptive, and correlational research design to investigate the relationship between debt levels and occupational stress among police personnel in Kerala. The Central Zone, comprising the districts of Ernakulam, Kottayam, Alappuzha, and Idukki, was selected as the study area due to its demographic diversity, high concentration of police personnel, and representation of both urban and semi-urban policing contexts.

5.1 Research Design

A descriptive and analytical research design was employed to gather primary data and assess the extent and nature of the relationship between the two variables: debt level and occupational stress. The study also included elements of correlation research to test hypotheses about associations between financial stressors and job-related stress

5.2 Universe and Sample

The universe of the study includes all police personnel (from constables to inspectors and administrative officers) in the Central Zone of Kerala. Based on police department data, the estimated population is approximately 58,000 personnel.

- Sample Size was determined using the Krejcie and Morgan (1970) formula for a known population, a sample size of 380 was determined but 467 respondents were interviewed to ensure statistical significance and representativeness.
- Sampling Technique of Stratified random sampling was employed to ensure proportionate representation of various ranks and districts within the zone.

5.3 Sources of Data

- Primary Data were collected directly from police personnel through a structured questionnaire distributed through online (Google Forms)
- Secondary Data was obtained from official publications such as the Kerala Police Statistics Handbook (2022)⁶, academic journals, government reports, and validated psychological scales.

5.4 Research Instruments

1. Debt Level Scale: A self-constructed section of the questionnaire asked respondents to report their monthly liabilities (loans, EMIs, etc.) as a percentage of monthly income. Debt levels were categorized as:
 - No debt
 - <20% of income
 - 21–40% of income
 - 41–60% of income
 - 60% of income
2. Occupational Stress Index (OSI): Developed by Srivastava and Singh (1981)¹, this standardized instrument consists of 46 items measuring different dimensions of occupational stress (e.g., role overload, role ambiguity, role conflict). Responses were recorded on a 5-point Likert scale.

5.5 Statistical Tools Used

In this study Data were coded and analyzed using SPSS version 26. The following statistical techniques were applied:

- Descriptive Statistics were used to summarize debt levels, stress scores, and demographic variables.
- Pearson's Correlation Coefficient is made to examine the linear relationship between debt level and occupational stress.
- Simple Linear Regression Analysis was employed to determine the extent to which debt level predicts occupational stress.

5.6 Ethical Considerations

Ethical clearance was obtained prior to data collection. Participation was voluntary, and respondents were assured of confidentiality and anonymity. Informed consent was taken from each participant, and no identifiable personal data were recorded.

5.7 Limitations of the Methodology

- Self-reported data may introduce response bias, particularly in sensitive areas like debt.
- The study is confined to Kerala's Central Zone, and generalization to other zones may require further research.
- Cross-sectional data limit causal interpretations.

6. Data Analysis and Interpretation

The collected data were analyzed using quantitative statistical methods to identify patterns, measure the strength of relationships, and test the hypothesis concerning debt levels and occupational stress among police personnel. The data analysis involves the following steps:

1. **Descriptive Statistics:** Basic metrics such as frequency, percentage, mean, and standard deviation were used to summarize the socio-economic profile of respondents, their debt burden (as a percentage of income), and their occupational stress levels (as measured by the Occupational Stress Index).
2. **Correlation Analysis:** Pearson's correlation coefficient was used to assess the degree and direction of the relationship between two continuous variables: debt levels and occupational stress scores. A positive and statistically significant correlation was observed, indicating that as debt levels increase, stress levels also tend to rise.
3. **Regression Analysis:** Simple linear regression was employed to determine the predictive power of debt level on occupational stress. The analysis revealed that debt level is a significant predictor of occupational stress, explaining a notable portion of the variance in stress scores among respondents.
4. **Data analysis Software Used:** All analysis were conducted using SPSS Version 26, ensuring reliability and accuracy in the statistical outputs.

6.1 Debt Level of Respondents

In this study the respondents were asked to indicate their monthly debt liability as a percentage of their income and the responses were tabulated as

Table 1: Monthly Debt Burden of Respondents

Debt as % of Monthly Income	Frequency	Percentage
No debt	52	11.1%
Less than 20%	109	23.3%
21%-40%	162	34.7%
41%-60%	94	20.1%
Above 60%	50	10.7%
Total	467	100%

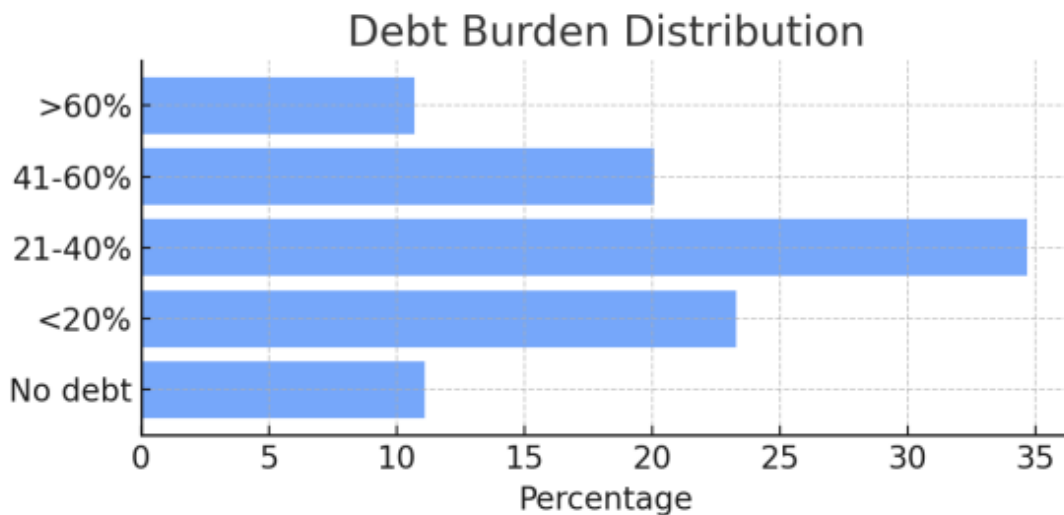


Chart 1. monthly debt burden of respondents

6.2 Occupational Stress Levels (Based on OSI Scores)

In this study the Occupational Stress was measured using the standardized Occupational Stress Index (OSI). Stress levels were categorized as Low, Moderate, or High based on total OSI scores. the result were summarised as

Table 2: Stress Level Categorization

Stress Category	Frequency	Percentage
Low	68	14.6%
Moderate	223	47.7%

Stress Category	Frequency	Percentage
High	176	37.7%

Occupational Stress Levels

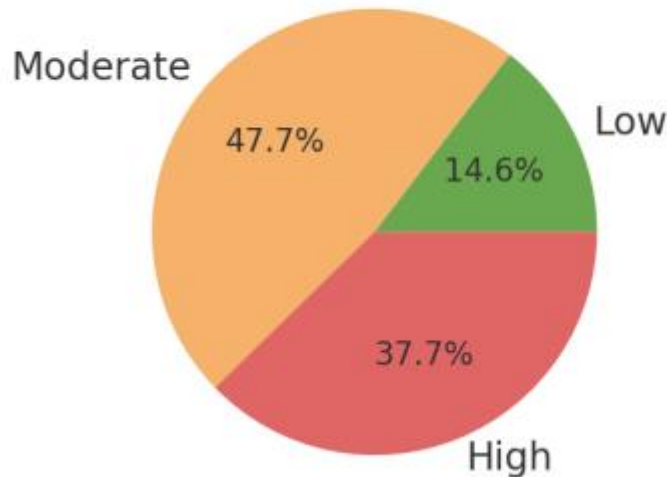


Chart2.Occupational Stress levels

6.3 Correlation Analysis

Correlation analysis was done to test whether there is a significant relationship between debt levels and occupational stress scores. And it was found that Pearson’s correlation coefficient between debt level and occupational stress was found to be $r = 0.612$ ($p < 0.01$), indicating that there is a strong, positive, and statistically significant correlation between debt level and occupational stress. This suggests that as personal debt increases, stress levels also tend to rise.

6.4 Regression Analysis

A simple linear regression was conducted to assess whether debt level significantly predicts occupational stress. This gives

Table 3: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error
1	0.612	0.374	0.371	6.43

Table 4: ANOVA test

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11002.4	1	11002.4	278.34	0.000

Model	Sum of Squares	df	Mean Square	F	Sig.
Residual	18384.6	465	39.52		
Total	29387.0	466			

Table 5: Regression Coefficients

Predictor	B	Std. Error	t	Sig.
Constant	28.41	2.17	13.1	0.000
Debt Level	0.86	0.05	16.68	0.000

All this reveals that Debt level significantly predicts occupational stress. Each unit increase in debt burden (as % of income) increases the stress score by 0.86 points. Which indicates that the H₁ (Alternative Hypothesis), there is a significant relationship between debt levels and occupational stress among police personnel in Kerala was taken.

7. Major Findings

The study revealed several critical findings highlighting the financial and psychological challenges faced by police personnel in Kerala’s Central Zone. A significant majority of the respondents (89%) reported being in debt, with over one-third carrying debt between 21% and 40% of their monthly income, and another 30% burdened with debt exceeding 40%. Concurrently, occupational stress was found to be widespread, with 85.4% of the participants experiencing moderate to high levels of stress. Statistical analysis showed a strong and positive correlation ($r = 0.612$, $p < 0.01$) between debt levels and stress, indicating that higher financial liabilities are associated with increased stress. Regression analysis further confirmed that debt level is a significant predictor of occupational stress, explaining 37.4% of its variance ($R^2 = 0.374$), with each unit increase in debt contributing to a 0.86-point rise in stress scores. And the study result shows that the H₁ (Alternative Hypothesis), there is a significant relationship between debt levels and occupational stress among police personnel in Kerala is accepted. Moreover, the lower-ranking personnel such as constables (Civil Police Officers) and Head constables (senior Civil Police officers) were more susceptible to both debt and stress, underlining the urgent need for financial literacy programs and institutional support mechanisms to alleviate these issues.

8. Recommendations

Based on the study findings, several key recommendations are proposed to mitigate the financial burden and occupational stress experienced by police personnel. First, the establishment of dedicated financial counseling cells within police departments is essential to provide guidance on budgeting, debt management, and responsible borrowing. Second, the government should consider introducing low-interest or interest-free institutional loan schemes to help personnel avoid reliance on high-interest private loans. Integrating financial literacy programs into basic police training and periodic in-service courses can equip officers with essential money management skills. Additionally, the creation of mental health support units staffed with psychologists and counselors can help address both financial and non-

financial stressors. Special attention should be given to junior-ranking personnel, who are most vulnerable, through targeted welfare schemes and salary restructuring. These recommendations aim to foster financial stability and emotional well-being, ultimately enhancing the efficiency and morale of the police force.

9. Conclusion

This study set out to empirically investigate the relationship between debt levels and occupational stress among police personnel in the Central Zone of Kerala, encompassing districts such as Ernakulam, Kottayam, Alappuzha, and Idukki. Policing, by its very nature, is a high-stress profession characterized by long working hours, shift duties, and emotional strain. The addition of financial burdens, particularly personal debt, compounds the stress experienced by officers and potentially undermines their well-being and job performance.

The findings of this study reveal that debt is both prevalent and burdensome among the police force. Nearly 89% of the respondents reported having some level of debt, with a significant proportion carrying liabilities that consume over 40% of their monthly income. Simultaneously, 85% of respondents exhibited moderate to high levels of occupational stress, indicating a serious concern regarding mental health and workplace well-being.

Through statistical analysis, the study established a strong and statistically significant positive correlation ($r = 0.612$, $p < 0.01$) between debt levels and occupational stress. Furthermore, regression analysis confirmed that debt is a key predictor of occupational stress, accounting for 37.4% of the variance in stress scores. These results substantiate the alternate hypothesis that financial obligations are a major stressor for police personnel and must be addressed alongside traditional job-related stress factors.

Moreover, lower-ranking officers, particularly constables (civil Police Officers) and head constables (senior Civil police Officers), were found to be more susceptible to both high debt and elevated stress levels. This vulnerability is likely due to lower salaries, family responsibilities, and limited access to formal financial planning resources. The findings underscore the need for comprehensive welfare strategies that address both the economic and psychological dimensions of police work.

Finally, the study brings to light a critical but often overlooked issue within the policing community: the impact of personal financial distress on occupational health. It calls for immediate and coordinated interventions by policymakers, police leadership, and mental health professionals. By integrating financial literacy, accessible credit options, and mental health support into police welfare systems, the department can not only improve the personal lives of its personnel but also enhance their professional effectiveness and institutional integrity.

References

1. Srivastava, A. K., & Singh, A. P. (1981). Occupational Stress Index. Manasayan, Varanasi.



2. Sharma, R. (2019). Financial Debt and Psychological Distress among Indian Government Employees. *Journal of Mental Health and Human Behavior*, 24(2), 109-114.
3. Kumar, P., & Talwar, R. (2017). Occupational stress among police personnel: A review of Indian studies. *International Journal of Research in Management & Social Science*, 5(1), 40–48.
4. Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics & Finance*, 14(4), 332–368. <https://doi.org/10.1017/S1474747215000232>
5. Violanti, J. M., et al. (2017). Police Stressors and Health: A State-of-the-Art Review. *Policing: An International Journal*, 40(4), 642-656.
6. Government of Kerala (2022). *Police Statistics Handbook*.
7. Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.