

A study on occupational stress of police women employees in Kerala

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Abstract: Occupational stress is very prevalent in challenging professions such as law enforcement, in particular among female police officers who face unique pressures stemming from both professional and gender-related demands. The objective of this study is to analyze the factors that lead to occupational stress among female police officers in Kerala and to establish an effective selection and support system to mitigate its impact. The study examines the influence of socio-economic, demographic, and job-related factors, such as age, marital status, education, designation, work experience, income, and frequency of transfers and training, on stress levels. Data for the study was gathered from 300 female police officers in various locations using customized questionnaires that utilized well-established methods for detecting stress. An empirical study was conducted to determine the primary stresses and analyze their relationship with demographic variables. According to research, female police officers who are younger, hold lower positions, those who undergo several relocations, and get fewer training opportunities tend to be more stressed out. Furthermore, the study unveiled that the disparity between professional and personal life, together with the socio-economic standing, exerted a significant impact on the degrees of stress encountered. Furthermore, the combination of work-life balance and socio-economic status significantly impacts stress levels. This study emphasizes the need of implementing a customized recruitment and training strategy that considers these factors, offering essential insights for police agencies to enhance their recruitment and support services. The present study utilized various methodological approaches to examine the correlation between stress and well-being. The findings demonstrate a significant negative correlation between work-related stress and well-being ($r = -0.62$, $p < 0.001$), accounting for 55% of the observed variation in job satisfaction that may be attributable to organizational stress. To enhance job performance and reduce turnover among female police officers, it is imperative to regularly carry out stress assessments and apply targeted interventions.

Keywords: Female police officers, Occupational stress, Organizational stress, Work-life balance.

1. Introduction

The experience of stress is an unavoidable aspect of modern lifestyle. Stress is the psychological, emotional, or physiological response of an individual to external pressures and comparable triggering factors. Undoubtedly, in the rapidly evolving contemporary society, stress is an inherent experience for each individual and every profession. Over the past century, the nature of work has undergone significant transformations and continues to evolve rapidly. Women experience substantial stress as they strive to establish themselves in their targeted career paths and defy conventional beliefs, therefore refuting their detractors. Moreover, they also confront the additional responsibility of managing their personal matters and societal obligations. As a result of their increased domestic obligations and acquisition of the requisite skills, women nowadays have outperformed their male counterparts in the workplace. Notwithstanding the extraordinary accomplishments of Indian women in their professional

spheres, they nevertheless encounter obstacles both inside their families and within their companies. Women routinely encounter stress when they do not receive an enough amount of support from their spouses or family members.

The law enforcement profession is characterized by unique attributes that can lead to considerable work-related stress, rendering policing one of the most demanding occupations [1]. Female law enforcement personnel in Kerala encounter many stressors, such as a hostile work environment, long working hours, restricted family time, inconsistent eating habits, the need to make quick and difficult decisions, poor living and working conditions, sleepless nights, conflicts with superiors, insufficient leisure opportunities, and difficulties in their personal domains [2]. Unlike many other occupations, police officers are required to not only face physical hazards and endanger their lives but also handle significant stress in several aspects of their professional and personal lives.

Occupational stress refers to any personal discomfort experienced and perceived as a result of highly intense and frequent occurrences, events, or situations that surpass an individual's coping capacities and resources to effectively manage them. Several researches consistently demonstrate that increased levels of job stress are associated with decreased job satisfaction, therefore establishing a clear relationship between occupational stress and numerous negative organizational outcomes. The observed correlation has noteworthy consequences for organizations, namely within the police force, since a decrease in job satisfaction could end up in less dedication, inferior performance results, and an increased probability of resignations. Police personnel under stress may exhibit symptoms such as fatigue, sadness, poor attention, impatience, and impulsive behavior. Moreover, stress has adverse effects on physical well-being, resulting in both physical and mental diseases that make employees unsuitable for work, therefore diminishing job happiness and work competence.

Female police officers in Kerala face distinctive challenges in their roles that significantly affect their overall well-being and job performance. These challenges include long working hours, frequent exposure to traumatic situations, cultural constraints, gender bias, poor work-life balance, and limited emotional support in a field that is largely male-dominated. The issue of occupational stress has emerged as a substantial and expensive wellness issue [3]. Both authorities and healthcare practitioners in India routinely ignore the mental and physical burden of stress on police personnel. The objective of this research is to examine the major manifestations of occupational stress experienced by female police officers in Kerala. This research concentrated on two distinct categories of stress experienced by the police force, namely operational stress and organizational stress. Operational stress refers to the stress that arises from the performance of a work, whereas organizational stress describes the tension that arises from the organizational culture in which the task is carried out [4].

2. Related Works

An extensive data analysis was carried out by Besagas et al. (2023) [5] to examine the impact of work life quality on occupational stress and work-life balance among police officers. This study utilized a non-experimental quantitative approach, specifically emphasizing descriptive-correlational and mediation methodologies. A statistical analysis was conducted to examine these associations by utilizing data gathered from a sample of 300 police officers. Several statistical techniques, including mean, Pearson correlation coefficient, regression analysis, and Sobel z-test, were used to administer standardized surveys. The results revealed a minimal degree of occupational stress, a moderate assessment of work-life balance, and a satisfactory level of work life quality. Statistical analysis did not reveal any significant correlations among quality of work life, occupational stress, and work-life balance. Moreover, the results of the study revealed that the impact of occupational stress on work-life balance was mediated by the quality of work life.

Bolliger et al. (2022) [6] conducted a qualitative study using a phenomenological technique with the intention of determining the perceived occupational stressors that are experienced by employees working in offices in the countries of Belgium and Slovenia. The study was carried out with the objective of determining the extent to which these stressors are experienced by employees. As part of

their data analysis responsibilities, they employed RQDA software and conducted six focus groups, yielding a total of 39 participants. The operationalization of these focus groups involved the use of the seven job-quality metrics obtained from the European Working Conditions Survey (EWCS). The results indicated that the social context and the perception of time sensitivity linked to one's job were significant factors that contributed to stress throughout the duration of the study. Moreover, these results provided evidence that the EWCS paradigm failed to adequately consider several different forms of organizational pressures and physical health issues that had not been previously recognized. The results highlighted the intricate nature of stress experiences in the workplace and confirmed that existing quantitative approaches, including the Effort-Reward Imbalance and Job Demand-Control models, were inadequate in accurately encapsulating all the pertinent stressors.

Randa M. Said et al. (2021) [7] did a comparative cross-sectional analysis to evaluate work satisfaction, occupational stress, as well as intention to quit amongst nurses who were responsible for caring for patients suspected to have COVID-19. A comparison study was undertaken between 210 nurses working at Zagazig Fever Hospital (ZFH), a hospital specialized in treating COVID-19 cases, and 210 nurses at Zagazig General Hospital (ZGH), which did not have triage or isolation protocols. The statistical analysis was conducted using SPSS following the collection of data using an online questionnaire. The study results indicated that 75.2% of nurses at ZFH reported experiencing increased levels of stress, whereas 60.5% at ZGH reported this similar condition. The primary concerns identified at ZFH were workload, mortality management, and stringent biosecurity measures. Significantly higher levels of work dissatisfaction were seen at ZFH, with 51.0% of employees reporting limited satisfaction and a mere 4.8% expressing no intention of resigning. Two limitations of the study were its scope and level of generalizability.

During the COVID-19 pandemic, KDV Prasad et al. (2020) [8] conducted a study to assess the influence of work-related stress and remote work on the mental well-being of personnel in the Information Technology (IT) industry. In addition to remote working, the researchers used a systematic questionnaire to evaluate seven specific stress indicators, including workload, peer relationships, and job satisfaction, with a sample size of 400 employees. Employee psychological well-being was evaluated in the study using a modified version of Ryff's scale. A comparative statistical analysis revealed negligible impacts resulting from variations in gender and age. Based on these findings, the study indicates that providing flexible remote working choices could be a successful approach to decreasing stress and improving the mental well-being of employees in different sectors.

The primary objective of the study undertaken by Samma Faiz Rasool et al. (2020) [9] was to examine the correlation between workplace violence, occupational stress, and sustainable job performance within the healthcare industry. More precisely, the study examined several manifestations of workplace violence, such as violence, persistent harassment, social exclusion, and persistent surveillance. To collect survey data, a calibrated 5-point Likert scale questionnaire was distributed to 345 individuals affiliated with hospitals in Pakistan. They employed partial least squares structural equation modeling (PLS-SEM) to examine the observed direct and indirect effects. The findings indicated that workplace violence had a significant and adverse impact on long-term job performance, with occupational stress serving as a mediator in this intricate relationship. Aggregate instances of harassment, bullying, ostracism, and stalking had a negative effect on job performance, increased stress levels, and reduced employee engagement.

In their study, Suma Singh et al. (2020) [10] examined the factors contributing to occupational stress among traffic cops in Bengaluru and associated health effects. The study utilized a qualitative, exploratory, and descriptive approach, taking into account primary data collected from a sample of 200 traffic police officers. Methods of data collection included a systematic questionnaire and interviews. 98% of respondents indicated that extended work hours were the main source of stress, impacting both personal life as well as biological rhythms. Furthermore, job demands, an abundance of paperwork, and questions from several departments all played a substantial role. Among the health consequences were

headaches, hypertension, respiratory problems, and substance misuse. A significant incidence of mental health disorders, including anxiety and work dissatisfaction, was observed.

A descriptive cross-sectional review was conducted by Keerthirathne et al. (2020) [11] to evaluate the correlation between occupational stress and blood pressure (BP) between police personnel in Kandy, Sri Lanka. This research included a cohort of 228 law enforcement personnel who were specifically chosen from the police stations situated in Kandy, Peradeniya, and Katugastota. The participants underwent assessment using a self-administered stress questionnaire and BP measurement. 53% of officers reported significant levels of stress, with the incidence being higher among female officers, officers at lower ranks, and officers with less total experience in operations, as per the study. The research revealed a modest, although statistically significant correlation between work-related stress and measurements of both serum blood pressure in the long term ($p=0.001$, $r=0.222$) and in the short term ($p=0.010$, $r=0.18$).

A cross-sectional study was carried out by Lanjewar (2018) [12] on a total of 180 police officers employed in Gadchiroli city, Maharashtra. Fontana's Professional Life Stress Test served as the basis for the structured questionnaire that was distributed to each and every participant. As a result of the fact that the majority of the participants (88.88%) were working for more than 12 hours each day, the police personnel were experiencing stress. This resulted in a decrease in productivity, absenteeism, a decrease in morale, an increase in conflict with other people, as well as improvements in physical and emotional health, and a decrease in overall pleasure with life.

Ragesh et al. (2017) [13] conducted a cross-sectional survey amongst police officers, including both male and female personnel, in the metropolitan police zone of Calicut, Kerala, India. The Operational Police Stress Questionnaire (PSQ-OP) as well as the Organizational Police Stress Questionnaire (PSQ-ORG) were used to conduct an assessment of occupational stress. Empirical evidence indicates that younger officers and officials of lower rank have heightened levels of operational stress. Empirical evidence suggests that female police officers encounter greater levels of operational stress compared to their male coworkers, largely due to the cultural expectations to fulfill many responsibilities in both their personal and professional realms. A significant percentage of police officers also experience substance abuse, bodily ailments, and mental disorders as a result of elevated levels of stress.

2.1. Research Gap

Despite an enormous number of studies on occupational stress, there remain several substantial limitations that remain unresolved. In many studies, the restricted sample sizes or the emphasis on certain stressors restrict the generalizability of findings across different geographical regions and occupational positions. Moreover, the empirical investigation of the long-term efficacy of stress management techniques has been lacking, as most studies have neglected to analyze the fundamental processes of stress mediation. Furthermore, there is a notable lack of research that specifically examines the distinct obstacles encountered by female police officers, especially in regards to socio-economic aspects and organizational support. Addressing these shortcomings is essential for formulating comprehensive, context-specific solutions that more effectively mitigate occupational stress in law enforcement.

2.2. Research Questions

- i. What are the primary manifestations of operational stress among female police officers in Kerala, and how do they impact job performance?
- ii. What are the key sources of organizational stress impacting female police officers in Kerala, and how do these stressors influence their job satisfaction?
- iii. How does occupational stress, including both operational and organizational stress, affect the overall well-being of female police officers?
- iv. How effective are stress management strategies in reducing occupational stress and turnover intention among female police officers?

- v. How do operational and organizational stressors interact to contribute to the overall level of occupational stress experienced by female police officers?

3. Objectives of the Study

- To analyze the demographic profile of female police officers in Kerala in order to understand how these factors influence their experience of occupational stress and job performance.
- To assess the impact of operational stress on job performance among female police officers in Kerala.
- To analyze the influence of organizational stress on job satisfaction among female police officers.
- To investigate the relationship between occupational stress and overall well-being of female police officers.
- To evaluate the effect of stress management strategies on reducing turnover intention among female police officers.
- To assess the impact of combined operational and organizational stress on the burnout levels experienced by female police officers.

4. Proposed Hypotheses

- *H₁: Operational stress has a significant negative impact on the job performance of female police officers in Kerala.*
- *H₂: Organizational stress significantly decreases job satisfaction among female police officers in Kerala.*
- *H₃: Higher levels of occupational stress are negatively correlated with the overall well-being of female police officers in Kerala.*
- *H₄: Effective stress management strategies significantly reduce turnover intention among female police officers.*
- *H₅: The combined effects of operational and organizational stress significantly increase burnout levels among female police officers.*

5. Research Methodology

5.1. Conceptual Framework

The study examines how independent variables, such as operational stress and organizational stress, interact with specific dependent variables. The overall occupational stress experienced by female police officers is influenced by the interaction between operational stressors, such as workload and exposure to trauma, and organizational stressors, such as leadership style and job insecurity. This paradigm enables an analysis of how these stressors impact job-related results and personal welfare, with the goal of identifying specific solutions to enhance the work environment and increase employee retention rates. The conceptual framework of the proposed research is depicted in Figure 1.

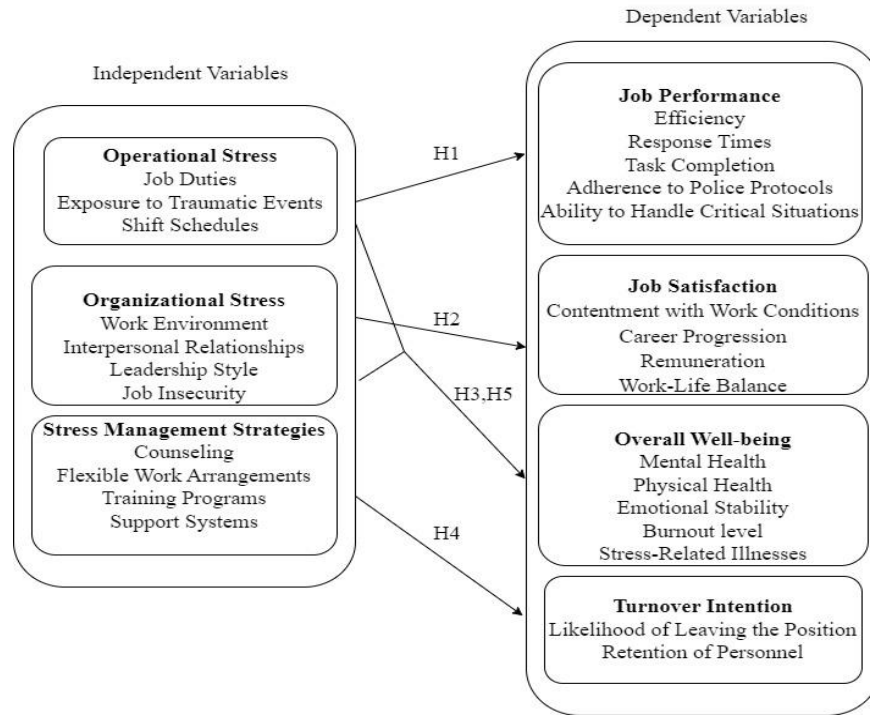


Figure 1.
Conceptual framework of the proposed research.

5.2. Research Design

This study utilizes a mixed-methods research method to examine the phenomenon of occupational stress among female police officers in the state of Kerala. The research seeks to achieve a thorough evaluation of the impact of operational and organizational stress on work satisfaction, general well-being, and turnover intention by combining quantitative and qualitative methodologies. The mixed-methods approach enables a thorough analysis of statistical trends together with a thorough probing of individual experiences.

5.3. Data Collection

This study utilized a structured questionnaire to acquire quantitative data. The questionnaire consisted of Likert-scale items specifically developed to assess several dimensions of occupational stress, work satisfaction, and general well-being. Data collection for statistical goals took place between January and March 2024. To achieve widespread accessibility and increase the response rate, the survey was conducted using both online and in-person approaches. The qualitative data collection process involved the use of semi-structured interviews and focus group discussions. These methodologies yielded a more profound understanding of the psychological encounters of female police officers concerning work-related stress and techniques for managing stress. The gathering of qualitative data occurred between February and April 2024, involving interviews facilitated at police stations and focus groups arranged within police communities.

5.4. Designing of Questionnaire

The questionnaire was meticulously developed to collect both quantitative and qualitative data. To evaluate parameters directly related to work satisfaction, stress factors, and turnover intention, the quantitative component consisted of closed-ended questions that used Likert-scale responses. This format enabled the quantification of the magnitude and occurrence rate of stress-related events among

female police officers. The qualitative aspect of the study featured open-ended questions, which allowed participants to contribute detailed accounts of their own experiences and views on occupational stress and its handling. The objective of this dual strategy was to obtain a comprehensive understanding of the factors that cause stress in female police officers and how these factors might impact their job satisfaction and general well-being.

5.5. Sampling Technique

In order to establish a sample of female police officers that accurately represents the population, the method of stratified random sampling was used. This approach involved categorizing the people into separate strata according to their geographic location and occupational position within the police force. Next, random samples were chosen from each stratum to consider variations in stress incidences and ensure adequate representation of all subgroups. Application of this approach enhances the relevance of the findings to different geographical areas and hierarchical levels within the police force.

Purposive sampling was used to choose participants for in-depth interviews and focus group discussions in the qualitative component. The methodology employed in this study targeted individuals with diverse backgrounds and experiences, therefore including a broad spectrum of perspectives on occupational stress. In order to achieve a thorough and detailed understanding of stress-related issues and their impact on female police officers, the study aimed to include officers from various ranks, geographic regions, and personal backgrounds.

5.6. Sampling Area and Population

The target population consisted of all female police officers employed in the state of Kerala. Specifically, this demographic was intentionally selected to concentrate on occupational stress issues within the law enforcement sector, with a particular emphasis on the distinct challenges encountered by female officers. Within the state of Kerala, a detailed inquiry was carried out in a number of districts, which included both urban and rural police divisions. There was an informed choice to select a large sampling region in order to make sure that the findings would be applicable to female law enforcement officers who work in a variety of diverse environments and operational settings. In order to accurately demonstrate the variation in stress experiences that are influenced by different organizational dynamics and geographical circumstances, the purpose of this study was to incorporate a variety of site locations.

5.7. Sample Size

To determine the sample size, the research utilized the following formula:

$$n = \frac{Z^2 \cdot o(1-p)}{E^2} \quad (1)$$

where n represents the required sample size, Z is the Z-score for a 95% confidence level (1.96), p is the estimated proportion of the population (assumed to be 0.5 for maximum variability), and E is the margin of error (0.05). Applying these values, the calculation yields:

$$n = \frac{1.96^2 \cdot o(1-0.5)}{0.05^2}$$

$$n = 384.16$$

A further 20% was included in the sample size to account for non-responses, resulting in a target sample size of about 460 female police officers. Of the 460 respondents, only 300 completed responses were received, despite the stated objective. The final sample size for the quantitative analysis was adjusted to 300 to confirm the reliability and correctness of the outcomes. Over 30 comprehensive interviews and 4 focus group discussions were carried out as part of the qualitative aspect, providing a deep understanding of the stress encountered by female police officers.

5.8. Statistical Tool for Analysis

In the proposed research, statistical analyses were carried out utilizing the Advanced Statistical Package for the Social Sciences (SPSS) V 25.0. Several tests were developed as part of the analysis to thoroughly assess the objectives as well as hypotheses of the research. Precise calculation of the average and standard deviation yields substantial insights into the central tendency and variability of the dataset through facilitating exact estimation of average and dispersion. The Regression analysis is the evaluation of the relationship between one or more independent variables and a dependent variable in order to evaluate the capacity of the independent variables to forecast variations in the dependent variable. Pearson Correlation Analysis evaluates the size and direction of the linear relation among two continuous variables, therefore indicating the extent of their highly interrelated character. The Paired Sample T-Test is a statistical test employed to ascertain the statistical significance of a difference between the means of two independent groups. It is frequently used to evaluate changes before and after an intervention. The Two-Way ANOVA analyzes the influence of two independent factors on a dependent variable, considering their associated interaction effects. This approach assesses the extent to which changes in the dependent variable are affected by the individual effects of the independent variables and their combined effect, in order to provide a full understanding of the interaction of many influences on results.

6. Analysis and Findings

6.1. Demographic Distribution

Table 1 and Figure 2 present a comprehensive demographic and socio-economic profile of the participants in the study. A substantial percentage of female police officers, namely 76.7%, fall within the age range of 20 to 40 years old. The data indicates that 50.0% of the respondents possess an undergraduate degree as their main educational credential, whereas 33.3% hold postgraduate degrees. The majority of officers, including 50.0%, are married, while a significant proportion, 66.7%, reside in metropolitan areas. Regarding employment classification, 60.0% of the participants are constables, suggesting that a substantial proportion of them hold entry-level positions. The income distribution shows a wide variety, with 33.3% of persons earning wages ranging from ₹30,000 to ₹50,000. A considerable percentage of persons have 6-10 years of professional experience (40.0%) and have had 0-2 transfers (66.7%). Regarding training, half of the officers have successfully finished training programs ranging from 0 to 2, indicating varying levels of ongoing enhancement of competence.

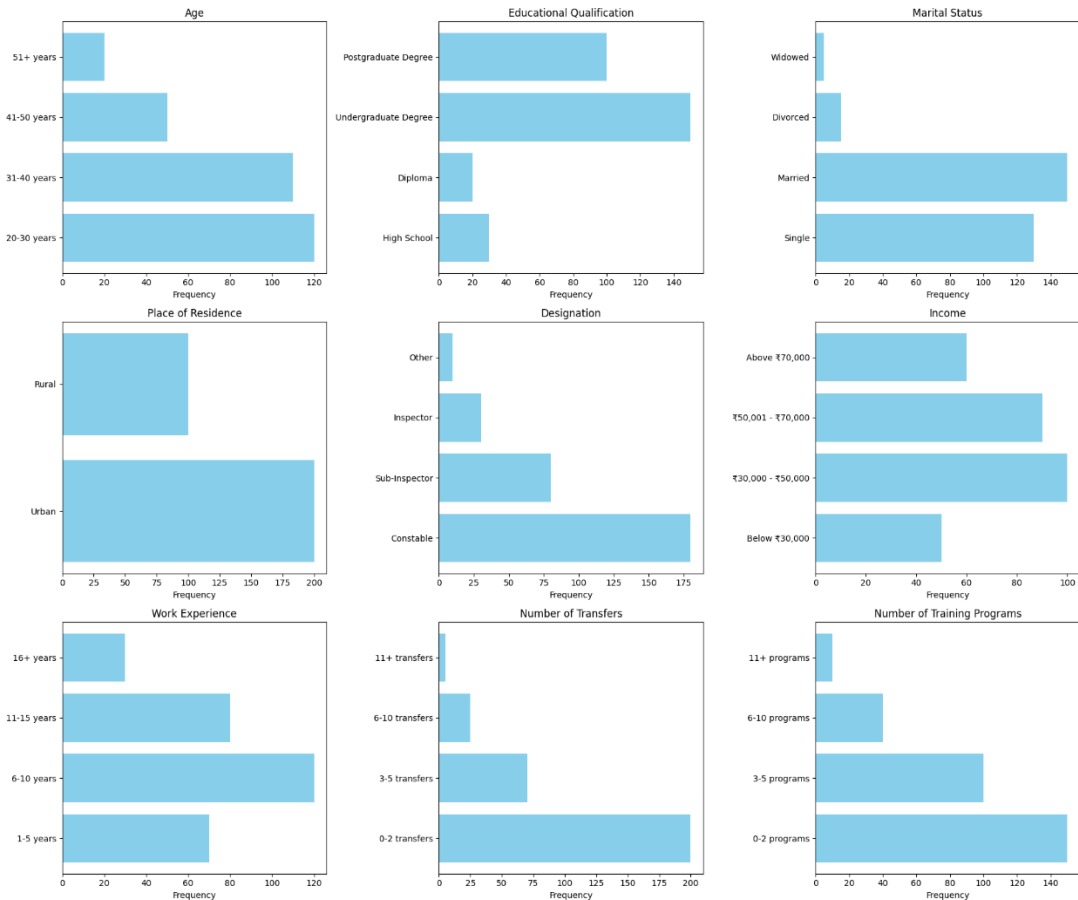


Figure 2.
Demographic distribution of respondents.

Table 1.
Frequency distribution of socio-economic profile of police personnel.

Demography and socio-economic status of respondents	Variable	Frequency	Percent (%)
Age	20-30 years	120	40.0
	31-40 years	110	36.7
	41-50 years	50	16.7
	51+ years	20	6.7
Educational qualification	High school	30	10.0
	Diploma	20	6.7
	Undergraduate degree	150	50.0
	Postgraduate degree	100	33.3
Marital status	Single	130	43.3
	Married	150	50.0
	Divorced	15	5.0
	Widowed	5	1.7
Place of residence	Urban	200	66.7
	Rural	100	33.3
Designation	Constable	180	60.0

	Sub-inspector	80	26.7
	Inspector	30	10.0
	Other	10	3.3
Income	Below ₹30,000	50	16.7
	₹30,000 - ₹50,000	100	33.3
	₹50,001 - ₹70,000	90	30.0
	Above ₹70,000	60	20.0
Work experience	1-5 years	70	23.3
	6-10 years	120	40.0
	11-15 years	80	26.7
	16+ years	30	10.0
Number of transfers	0-2 transfers	200	66.7
	3-5 transfers	70	23.3
	6-10 transfers	25	8.3
	11+ transfers	5	1.7
Number of training programs	0-2 programs	150	50.0
	3-5 programs	100	33.3
	6-10 programs	40	13.3
	11+ programs	10	3.3

6.2. Mean and Standard Deviation Analysis

To assess the influence of operational stress on work performance, a statistical analysis is conducted using Mean and Standard Deviation on variables related to operational stress and job performance, as depicted in Table 2. Through the quantification of the mean level of stress encountered and its variability, this study provides significant insights into the influence of stress on work performance.

Table 2.
Mean and standard deviation analysis.

Variables	Mean	Standard deviation
Operational stress factors		
Shift duty work	3.42	1.210
Overtime demands	3.43	1.328
Working alone at night	3.49	1.277
Risk of being injured on the job	3.64	1.284
Work-related activities on days off	3.18	1.314
Traumatic events	3.43	1.290
Managing social life outside of work	3.24	1.236
Not enough time with family and friends	3.37	1.325
Enormous paperwork	3.49	1.339
Poor coping with work	3.49	1.304
Dealing with co-workers	3.54	1.322
Perceived favoritism	3.47	1.333
Feeling the need to prove oneself	3.53	1.289
Excessive administrative duties	3.57	1.324
Constant policy/legislation changes	3.36	1.287
Bureaucratic red tape	3.62	1.291
Staff shortages	3.59	1.328
Pressure to volunteer free time	3.55	1.306

Lack of training on new equipment	3.79	1.362
Too much computer work	3.56	1.283
Finding time for physical condition	3.66	1.302
Limitations to social life	3.46	1.286
Fatigue due to shift work and overtime	3.64	1.232
Negative comments from the public	3.54	1.278
Job performance		
Efficiency	3.65	1.245
Response times	3.55	1.305
Task completion	3.60	1.289
Adherence to protocols	3.58	1.317
Ability to handle critical situations	3.63	1.298

Table 2, shows that female police officers in Kerala experience elevated levels of operational stress, as shown by average scores for stress variables ranging from 3.18 to 3.79 and standard deviations from 1.210 to 1.362. These findings reveal a significant level of perceived stress, especially emphasised by the highest average score of 3.79 for "Lack of training on new equipment." This implies a major stressor caused by inadequate preparation for new technologies. Conversely, the category of "Work-related activities on days off" yields the lowest average score of 3.18, suggesting that it could have a lesser effect. Regarding job performance, the mean scores lie between 3.55 and 3.65, with standard deviations ranging from 1.245 to 1.317. This indicates that, despite the significant operational stress, officers generally maintain a satisfactory level of job performance. Nevertheless, the variation in job performance indicates the impact of varying degrees of operational stress among individuals. The results indicate an inverse correlation between operational stress and job performance. Also, stresses such as inadequate training and excessive paperwork contributing to slower response times, decreased efficiency, and difficulties in completing tasks and adhering to protocols and adherence to procedures. Implementing targeted interventions to address these stressors has the capacity to enhance job performance as well as overall well-being for female police officers.

6.3. Regression Analysis

The regression data shows a statistically significant negative relationship between organizational stress and job satisfaction, as depicted in Table 3. The R^2 value of 0.55 produced by the model indicates that 55% of the variation in job satisfaction can be explained by factors related to organizational stress, such as work environment, interpersonal interactions, organizational policies, leadership style, and job insecurity. The presence of negative coefficients for each of these variables suggests that there is a decrease in employment satisfaction as stress levels increase. The negative coefficients observed for each of these variables indicate a negative relationship between stress levels and occupational satisfaction. Out of all these factors, job insecurity has the most marked negative impact. These research results are confirmed reliable by the statistical significance of the p-values for all variables ($p < 0.05$). This underscores the need for adopting strategies to mitigate stressors in order to improve the welfare and increase the job satisfaction of female police officers in the area.

Table 3.
Regression analysis of organizational stress on job satisfaction.

Variable	Coefficient (β)	Standard error	t-Value	p-value
Constant	3.85	0.20	19.25	<0.001
Work environment	-0.30	0.08	-3.75	<0.001
Interpersonal relationships	-0.25	0.09	-2.78	0.006
Organizational policies	-0.20	0.10	-2.00	0.047
Leadership style	-0.35	0.11	-3.18	0.002
Job insecurity	-0.40	0.12	-3.33	0.001
Model summary				
R ² (Coefficient of determination): 0.55				
Adjusted R ² : 0.52				
F-statistic: 18.45				
p-value for f-statistic: <0.001				

6.4. Pearson Correlation Analysis

The results in Table 4 reveals a correlation coefficient of -0.62, suggesting a statistically significant inverse relation among work-related stress and the overall well-being. Hence, the results indicate that increased levels of work-related stress are associated with a significant reduction in the overall well-being of the officers. A statistically significant p-value below 0.001 provides substantial evidence to demonstrate the durability and reliability of this negative correlation. The findings support the hypothesis that increased work-related stress has a negative impact on the psychological well-being. Optimising their overall well-being and efficiency requires addressing these causes of stress through the implementation of focused interventions, such as stress management programmes and enhancements in workplace infrastructure.

Table 4.
Pearson correlation analysis between occupational stress and overall well-being.

Variable	Mean	Standard deviation	Pearson correlation (r)	p-value
Occupational stress	3.55	1.27	-0.62	<0.001
Overall well-being	3.40	1.15	-	-

6.5. Paired Sample T-Test

Comparative statistical analysis of the paired sample t-test, as depicted in Table 5, reveals a significant reduction in the probability of female police officers voluntarily leaving their jobs when stress management techniques are put into practice. In addition to the decrease in average turnover intention ratings from 3.75 to 2.50, the statistically significant t-value of 9.64 and p-value < 0.001 provide evidence of the efficiency of the treatments. The findings provide evidence in favor of the hypothesis that effectively executed stress management techniques can greatly reduce the probability of officers contemplating leaving their job. To enhance employee retention, job satisfaction, and workforce stability, this study emphasizes the practical need of implementing strong stress management programs in law enforcement.

Table 5.
Paired sample t-test results for turnover intention before and after implementing stress management strategies.

Measurement	Mean (Before)	Std. deviation (Before)	Mean (After)	Std. deviation (After)	t-value	p-value
Turnover intention score	3.75	1.20	2.50	1.05	9.64	<0.001

6.6. Two-Way ANOVA

The findings of the Two-Way ANOVA, as shown in Table 6, demonstrate that operational stress and organizational stress have significant main impacts on burnout levels encountered by female police officers. Both operational stress ($F = 22.30$, $p < 0.001$) and organizational stress ($F = 19.00$, $p < 0.001$) had statistically significant main impacts on burnout levels among female police officers. The considerable impact of the interaction effect of combined operational and organizational stress ($F = 10.50$, $p = 0.001$) indicates that the combined influence of both stressors worsens burnout.

Table 6.
Two-way ANOVA results.

Source of variation	Sum of squares (SS)	Degrees of freedom (df)	Mean square (MS)	F-value	p-value
Operational stress	320.25	1	320.25	22.30	<0.001
Organizational stress	275.10	1	275.10	19.00	<0.001
Combined operational & organizational stress	150.75	1	150.75	10.50	0.001
Error	1925.85	297	6.48		
Total	2672.95	300			

The findings confirm the hypotheses that the combined impact of operational and organizational stress makes a substantial contribution to higher levels of burnout. The significance of investigating both forms of stress concurrently in the context of burnout and devising focused interventions is emphasized by the interaction effect.

7. Discussions

The results obtained from this study emphasize the significant influence of work-related stress on the operational efficiency and general personal welfare of female police officers. The primary stressor discovered, as indicated by average stress ratings ranging from 3.18 to 3.79, is "the lack of training on new equipment". The research findings indicate a negative relationship between this stressor and job performance. A substantial R^2 value of 0.55 indicates that organizational stress factors explain a considerable amount of the variation in job satisfaction. The significant negative connection ($r = -0.62$, $p < 0.001$) detected between work-related stress and well-being underscores the adverse impact of stress on mental health. The results of the paired sample t-test show that the implementation of stress management approaches notably reduces turnover intention from 3.75 to 2.50 ($t = 9.64$, $p < 0.001$). Therefore, this outcome emphasizes the efficacy of these treatments in improving job satisfaction and employee retention. Furthermore, the Two-Way ANOVA results validate the presence of substantial main effects of operational stress ($F = 22.30$) and organizational stress ($F = 19.00$), together with a noteworthy interaction effect ($F = 10.50$, $p = 0.001$). Thus, it is crucial to implement comprehensive strategies that directly tackle both types of stressors. The results indicate that specific and comprehensive policies are necessary to reduce work-related stress and enhance job performance and well-being among female police officers.

8. Conclusion

Occupational stress, which refers to the psychological and mental strain caused by job requirements and responsibilities, is a prevalent issue in the law enforcement sector, particularly among female police officers. This study employs numerous analytical techniques to thoroughly examine the elements that

contribute to occupational stress among female officers in Kerala. According to research, female police officers who are younger, hold lower positions, undergo several relocations, and get fewer training opportunities tend to be more stressed out. Furthermore, the study unveiled that the disparity between professional and personal life, together with the socio-economic standing, exerted a significant impact on the degrees of stress encountered. Statistical analysis reveals a significant inverse relationship between work-related stress and general well-being ($r = -0.62$, $p < 0.001$). Organizational stress factors account for 55% of the variability in job satisfaction. The deployment of specific stress management measures resulted in significant reductions in turnover intention ($t = 9.64$, $p < 0.001$). The aforementioned results emphasize the need for creating customized staff recruiting and training programs that especially target major stressors and enhance both job performance and satisfaction. The above stated findings underscore the need for developing tailored staff recruitment and training initiatives that specifically address significant stressors and improve both job performance and satisfaction. A potential future study might implement longitudinal designs to assess the long-lasting effectiveness of stress management programs and examine the impact of evolving job demands and organizational conditions on stress levels among female police officers.

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