

Research Paper

An Empirical Study of Stress Levels Among Police Officers and Their Preventive Measures: A Focus on Nagpur City, Maharashtra, India

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ABSTRACT

An empirical study was conducted to assess the stress levels of police officers in Nagpur City, Maharashtra. A sample of 320 working male and female police officers was drawn from various police stations in Nagpur City. Their ages ranged from 26 to 57 years. According to the research plan, 132 male and 132 female police officers were finally selected based on the personal information provided by the police officers. Therefore, male and female police officers were divided into eight groups – males into Groups A, B, C, and D, and females into Groups E, F, G, and H – based on age and gender. Thereafter, 33 police officers from each group were administered the Stress Scale. The obtained stress scores were analysed using ANOVA and t-tests to identify significant differences in stress levels among age groups of male and female police officers. In the final analysis, male and female police officers aged 34 to 41 years were more stressed than their counterparts.

Keywords: *Police Officers, Stress Levels, Preventive Measures*

The empirical research was designed to identify the stress levels of police officers in Nagpur City, Maharashtra, and to determine effective preventive measures. Police officers have a consequential role in government and in the public, ensuring justice and social stability. Moreover, a police officer is a public official appointed by the state to enforce laws and regulations, protect the public, prevent crime, maintain public order, and provide essential support during emergencies. Therefore, a police officer protects the community and society, enabling them to lead thriving lives in support of national development. Police serve a pivotal role in protecting life and property, ensuring personal safety, assisting citizens, and building trust between government and society, thereby fostering a peaceful social life. Consequently, their duties include investigating offences and managing traffic during events. City police officers work tirelessly to maintain peace, enforce the law, and serve the people with dedication. Hence, police officers work to maintain peace and ensure that the law is properly followed. They serve as the first line of defence against disorder and violence and play an essential role in identifying and supporting victims.

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Received: April 9, 2026; Revision Received: May 05, 2026; Accepted: May 09, 2026

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However, police deal with dangerous situations, threats to life, the use of weapons, risk of injury or death of self or colleagues. Therefore, they experience emotional trauma, dealing with crime scenes, victims, and regular exposure to suffering. Moreover, disagreements in role, public expectations, hierarchical procedures, a lack of autonomy and freedom, departmental inquiries, orders, suspensions, and transfers may lead to psychological strain and stress. The police may disrupt their family life and social relationships, thereby generating pressure, tension and stress. Further, financial pressures and family expenses, inconsistent leadership, excessive paperwork, court appearances, and the administrative duties of many officers may contribute to anxiety and stress. Meanwhile, negative media coverage, lack of public support, high public expectations, slow legal procedures, and court summons may increase the stress levels. Studies indicate that a high level of occupational stress may be associated with suicide among some police personnel.

The Participative Role of Police Officers

1. The police work as protectors of citizens

The Police officers act as a safeguard for life and property in both the public and private sectors. In emergencies such as accidents, disasters, rescue operations during floods and fires, crimes, conflicts, communal riots, protests, and disturbances, preventing public disorder and ensuring peace within the society are crucial. Therefore, police are the first responders to citizens.

2. The police operate as a symbol of authority and justice

The police represent the authority of the Indian Constitution, enforcing the BNS, which includes offences such as murder, theft, hurt, cheating, etc., and under the BNSS, investigations of crime, arrests, bail, FIRs, and assigned charges against criminals are conducted, and under the BSA, evidence, documents, and digital evidence are produced before the court for justice. Consequently, a society seeks fairness, justice, and protection of rights to prevent damage to public and private property.

3. The police handle the social problems

The police handle disputes related to social and domestic issues, search for missing persons, reduce community conflicts, and provide assistance beyond their legal responsibilities. The police officers are working to build positive relations with citizens and society to address their local problems through cooperative awareness programs, prevent the growing cybercrime and drug addiction, and ensure women's safety.

4. The police provide public service

The police are also public service providers. They ensure public safety and prevent crime through community engagement. They support vulnerable groups, such as children, women, and senior citizens, and coordinate with ambulance services, fire brigades, and rescue teams during emergencies. The police control traffic management to ensure the smooth movement of vehicles. For any violation of traffic rules, the police issue challans and prevent road accidents. They also protect public safety during festivals, provide VIP security, perform escort duties, and give crowd protection and management. They proceed immediately to complaints and social problems.

5. The police act with moral responsibility

A police officer has not only legal duties but also moral responsibilities, honesty, and integrity in national development. They prevent corruption and the misuse of power and maintain a high level of moral character in both their public and private lives. They respect human rights and treat all people with dignity and fairness. They maintain impartiality in their work and refrain from taking sides on caste and creed, religion, status, wealth, or political pressure. They demonstrate integrity, courage, discipline, and compassion in public and private sectors. They protect the public and society even in risky situations. So, their conduct influences public trust.

6. The police are involved as a coordinator

The police are the most visible arm of the popular government. The police ensure that the government's rules and regulations are enforced for the public. An effective police system ensures a balance between representative government and public rights. Therefore, the police encourage people to support the government's plans and policies for improving society. Hence, police coordinate with government departments, district and city administrations, and the judiciary.

7. Contributions of the police in nation-building

The police have an important role in building a strong, safe, and developed nation. Their contribution involves creating an environment that promotes economic, social, and cultural growth. They help to maintain peace, support development, make a peaceful society, and strengthen democracy. They implement the law fairly for everyone to sustain democracy and justice. Preventive policing reduces fear and encourages economic activities. Moreover, the police provide peace and security for investors and industrialists, because a safe environment boosts tourism, business, employment and reduces external threats.

8. The police execute administrative duties

The police perform various administrative functions, including police management, recruitment and posting of police personnel, maintenance of service records, transfers and promotions, disciplinary actions, skill development, and lodging FIRs at police stations. They maintain arms and ammunition, vehicles, property records, case files, and data management through CCTNS and other digital systems. Their records are maintained properly. The police execute government policies and guidelines, correspond with higher authorities, and handle RTI applications.

9. The police investigate the crime

The investigation of a crime is a legal process in which police collect evidence, identify the accused, ensure the truth, and present facts before the court. In the first step, they receive information about a cognizable offence, and an FIR is registered at a police station. The FIR indicate details of the incident, the victim, the accused, time and place, etc. The police immediately respond to the crime scene to prevent tampering with the evidence and collect photographs, videos, and fingerprints. The evidence collected from the crime scene is forwarded to the Forensic Science Laboratory for analysis. The evidence preserved from crime scenes is treated as reliable and valid proof before the court. In addition, oral evidence and statements from witnesses, victims, and suspects are taken and recorded. Thereafter, the police commence the identification of the suspect, interrogation, reconstruction of the crime scene, arrest of the accused and filing a charge sheet before the court.

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Stress is the physical and psychological response to demands, pressures, emotional strain, tension, changes in behaviour, and low performance. The male and female police officers who were asked to take the tests and they expressed their causes of stress include excessive worrying, negative thinking, fear of failure, unrealistic expectations, low self-esteem, perfectionism, emotional conflicts, past traumatic experiences, lack of coping skills, constant overthinking, decision-making pressure, feeling of insecurity, and inability to manage thoughts effectively (Jha D. K., 2025). Parmar and Singh (2024) explained that any intrinsic or extrinsic stimulus that evokes a biological response is stress. Several studies indicate that working women in the public sector have better psychological and mental health than women working in other sectors (Shrimathi, N. L. et al. 2010).

Stress is characterised by feelings of tension, frustration, worry, alienation, sadness, incapacity, withdrawal from reality and insecurity, which may last for a few days or months (Jha and Pashine, 2023). Therefore, stress is a psychological determinant that may affect mental coordination. Stress is the internal reaction that can affect anything, from outright physical danger to mental equilibrium. The human body responds to stressors by activating the nervous system and secreting cortisol, which affects mental and physical functions and creates stress. Moreover, the secretion of noradrenaline is responsible for heightened focus and quicker reactions. In the human brain, the hypothalamus signals the adrenal glands, which produce adrenaline and release it into the bloodstream, and create stress (Margaret R. Paccione-Dyszlewski, 2020). Consequently, excessive secretion of adrenaline hormones increases respiration, pulse rate, blood pressure, vocal expression, and muscular tension; the liver releases stored glucose to increase the body's energy, and the person may feel stressed.

According to the General Adaptation Syndrome theory of Stress, stress has three stages: Alarm Reaction, Resistance and Exhaustion. When people perceive a stimulus as a stressor, they feel threatened, which may have adverse physiological and psychological effects (Selye, H., 1976). Therefore, stress is a state of mind that reflects certain biochemical reactions in the human body, and it is expressed as frustration, anxiety, tension, and depression. The Cognitive Appraisal Theory of Stress focuses on how stress depends on a person's perception and evaluation of a situation and draws on coping resources (Lazarus, R. S., & Folkman, S., 1984). Therefore, stress can be defined as a state of increased activation of the autonomic nervous system, which coordinates and manifests at the affective, cognitive and behavioural levels. Moreover, in daily life, some stressors act as intervening variables, such as limited promotion opportunities, inadequate instructions, and insufficient support from other superiors, which may increase stress levels. Employees frequently experienced stress and high pressure from expectations in a competitive setting, which adversely affected their productivity (House & Madasamy, 2024).

Major Causes of Stress

1. Work-related causes

- Heavy workload and long working hours
- Imbalance between work and personal life
- Lack of control over work.
- Job insecurity and future uncertainty
- Conflicts with colleagues and superiors
- Inadequate resources for working
- Monotonous work and tight deadlines

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2. Financial causes

- Low income and inability to fulfil family needs
- Debt or loans and sudden job loss
- Sudden expenses

3. Familial and relationship causes

- Marital conflicts and domestic violence
- Divorce or separation
- Lack of support from family
- Responsibilities of children
- Caring for elderly parents

4. Health-related causes

- Physical and mental chronic diseases
- Sleep problems
- Physical pain and muscle tension
- Addiction to alcohol, drugs, and smoking
- Poor nutrition and unhealthy lifestyle
- Problem in the respiratory system

5. Emotional and psychological causes

- Tension and anxiety
- Frustration and depression
- Low self-confidence
- Feeling of alienation
- Fear of failure and past trauma

6. Social causes

- Social pressure and lack of social support
- Inferior perception in the family
- Comparison with others within the society and community
- Pressure of peer groups and high expectations from others

7. Environmental causes

- Work in the noise and air pollution
- Work in an overcrowded population and an unsafe place
- Work in extreme heat or cold
- Competition with others

8. Life-changing events

- Death of a loved one
- Lack of personification in marriage
- Death of a child
- Moving to a new place
- Coming retirement and frequent transfer

Specific factors that might be relevant to Nagpur City

- **Rising crime and gang activity:** News reports suggest that Nagpur City cops are dealing with inter-gang violence and their crackdown on multiple gangs. This increases operational risk and pressure to act on operations or intelligence work (The Times of India).
- **Resource constraints and infrastructure issues:** The local resources are limited, such as a lack of proper equipment, vehicles, and some police personnel, which may magnify stress (The Times of India).

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- **Public surveillance:** Given the increasing use and failure of CCTV networks in Nagpur City, some cameras are defunct, and the police may feel under pressure both to maintain public safety and to perform investigations under difficult conditions (The Times of India).
- **High-stakes moral:** In Nagpur City, policing often involves challenges of high-visibility operations and communal tension, which raise stress for police officers who may have to balance law enforcement with political sensitivity.

Sometimes, police officials may feel tension and strain, hindering them from doing their best work in life, leading to frustration, depression, and a sense of stress during their working periods.

The Long-term Consequences of Stress

A high level of stress directly affects the physical, mental, and emotional health of people. High stress levels can create the following symptoms.

1. Physical health problems

- Headache and migraine may be increased
- High blood pressure may be increased
- The risk of heart attack and diseases may be high
- The immune system may be weak, and the chances of a cold and illness may be high
- Shoulder, back, and neck pain may start
- Insomnia, acidity, stomach pain and digestive problems may start

2. Mental and emotional effects

- The level of tension, depression and anxiety may be increased
- Anger and irritability may be increased
- Loss of curiosity, motivation, and emotion may be low
- Frequent mood swings may be possible

3. Effects on behavioural changes

- Overeating or losing appetite may start
- An increase in smoking, alcohol, and other intoxicants may be possible
- Avoiding social interactions and participation may be seen
- Reduced creativity and productivity, and poor decision-making may be possible

4. Work and job performances

- Low job satisfaction may be seen
- Poor concentration and low performance at work, and more mistakes during duty may be possible
- Frequent burnout and absenteeism may start

5. Family and relationship problems

- Feeling of alienation from close friends and family members may be possible
- Lack of interest in intimacy may rise
- Less relational interest and availability may be possible
- Reduced communication and frequent arguments with others may start

6. Long-term serious consequences of stress

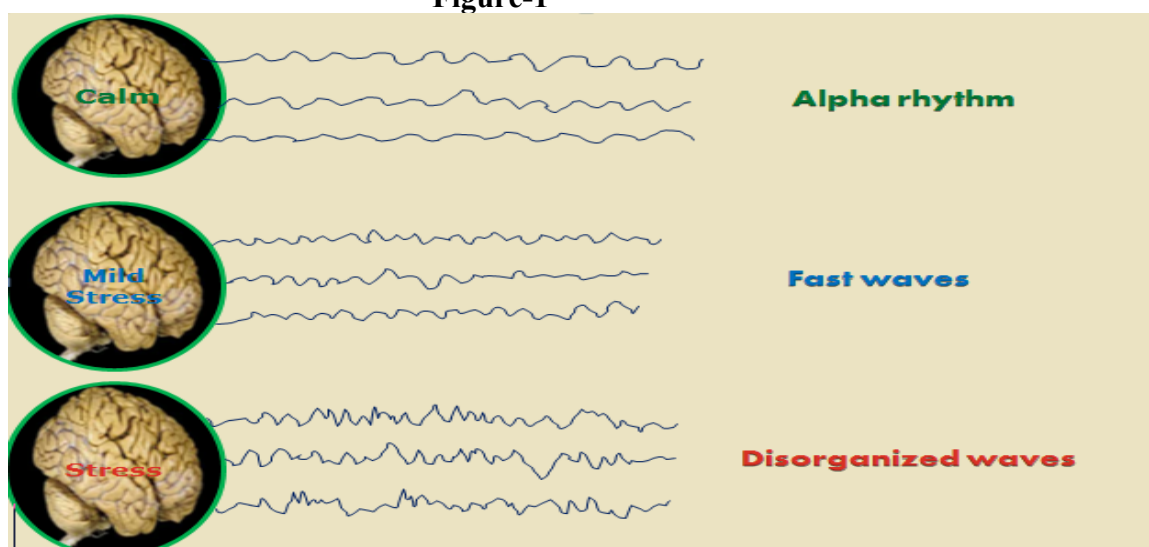
- Diabetes, hypertension and other chronic diseases may develop
- The symptoms of severe depression, anxiety, frustration, delusion, hallucination, and phobia may increase
- Substance addiction and memory impairment may increase
- Low expectations from life may start

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Figure 1 shows that the calm stage produces regular alpha rhythms in the brain, which help coordinate brain functions smoothly and guide a person in the right direction in life. In the second stage, when a person perceives a new stressor, brain waves become irregular. The sympathetic system releases stress hormones in the body. This stage indicates low stress or moderate stress levels. Lastly, under high and severe stress levels, brain waves become disorganised and emotional and physical reactions increase to a great extent. This stage is critical and dangerous for a person. Subsequently, a person is unable to work within society or an organisation and fails to achieve their goals. Hence, it is essential to reduce stress levels to maintain positive mental health.

The stress levels and the different creative structures of brain waves;

Figure-1



The Preventive Strategies for Stress Management

The strategy of stress prevention refers to systematic efforts to identify stressors, reduce stress reactions and improve self-judgment, work efficiency, life satisfaction and confidence.

1. Physical strategies

- Regular exercise for at least 30-40 minutes is helpful to create good physical and mental health.
- Activities like running, swimming, jogging, yoga, or sports reduce cortisol and release endorphins in the body, and a person feels good mental and physical health.
- Regular morning walk reduces stress hormones, cortisol and increases endorphins, improving mood and energy for healthy living.
- Deep breathing should be started regularly to relax the nervous system instantly. Inhale for 4 seconds, hold for 4 seconds, and exhale for 6 seconds.
- Adequate sleep for 7–8 hours of quality sleep to restore energy and emotional balance.
- A balanced diet and proper nutrition should be taken regularly.
- Avoiding excess caffeine, alcohol, and tobacco increases stress symptoms.

2. Psychological and mental strategies

- Cognitive restructuring is more helpful for replacing negative or irrational thoughts.
- Mindfulness and meditation for 10 minutes daily help control thoughts and emotions.
- Relaxation techniques facilitate progressive thoughts, relaxation, and guided imagery.

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- Emotional expression and creative activities are more helpful for self-manifestation, like writing, talking, painting, gardening, playing, or any activity you enjoy.
 - Avoid tension and overthinking, and focus on what you can control.
- 3. Behavioural strategies**
- Time management is more helpful for planning, prioritising tasks, and avoiding procrastination to reduce stress.
 - Goal-setting behaviour is more important for setting realistic, achievable goals and reducing mental pressure.
 - Natural exposure helps to reduce the stress level, and start to spend time in sunlight, under a tree, or in the open air.
- 4. Lifestyle strategies**
- Fruits, vegetables, nuts, whole grains, and other healthy foods should be taken regularly to reduce stress levels.
 - Too much screen time, mobile, and social media increases stress.
 - Replace “I can’t handle this pressure” with “I am capable and I can”.
 - Avoid overthinking and focus on procedures, not outcomes.
- 5. Emotional strategies**
- Express your critical incidents, feelings, and emotions to friends, colleagues, higher officials, family members, reliable persons, and able counsellors.
 - Accept imperfection in life because everything cannot be 100 per cent perfect.
 - Develop interpersonal relationships with others.
 - Support for another person if you are capable.
 - Listen to other people’s problems sympathetically and help them.
 - Emotional detachment after duty and leave job stress at the workplace.
 - Control over anger and impulse, and count 1-10 before reacting.
 - Identify the stress triggers from public misbehaviour and other pressures.
 - Keep your professional and personal life separate.
- 6. Social strategies**
- Social support should be sought and connected with other people in society to reduce stress levels.
 - Teamwork and cooperative work should be increased to reduce individual burden.
 - Community involvement and participation in groups enhance emotional well-being.
 - Early counselling prevents stress from becoming severe.
- 7. Occupational strategies**
- Workload management is more important to reduce stress levels.
 - Job control and decision-making increase life satisfaction and confidence.
 - Supportive leadership is more important in the workplace.
- 8. Coping and adaptation strategies**
- Problem-focused coping helps us to identify stressors and find practical solutions.
 - Spiritual practices are more helpful in reducing stress. Prayer, faith, or values-based reflection provides inner strength.
 - Positive lifestyle choices develop hobbies, recreation, and relaxation time.
- 9. Workplace stress management strategies**
- In the workplace, clear communication is required. Therefore, ask questions about the task or work.
 - A big task should be divided into small parts for smooth functioning.
 - Avoid a multitasking approach; one task at a time creates better focus to complete the task on time.
 - Do not take on an extra workload beyond capacity and set healthy boundaries for work.

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- Micro-breaks of 2-3 minutes should be taken every few hours during the duty period.

10. Professional help

- Participate in stress counselling intermittently for better mental health.
- A certificate of stress assessment and management should be taken for your reference.
- Join trauma therapy with a counsellor if stress levels become severe.

Therefore, police officers may experience varying levels of positive and negative stress in their professional and personal lives. Positive stress is an optimal level of stress that energises and motivates us to develop effective coping strategies easily. On the other hand, negative stress represses our capacity to develop coping mechanisms and face challenges. Therefore, the solution is to adapt and identify a technique to transform that negative stress into positive stress.

Stress level may be conceptualised as the ratio of External Pressure to Internal Strength. The level of stress may be evaluated and reduced using the Calculative-Deductive System of Stress (Jha, D. K., 2026). The level of stress can be perceived as the outcome of external pressures applied to an individual's internal strength and coping capacity. Including $\text{Stress} = \text{External Pressure} (100) \div \text{Internal Strength} (20)$. For example, if the external pressure is 100 and the internal strength is 20, the stress level of a person will be 05. Across many situations, external pressures such as environmental demands, social expectations, and work and familial responsibilities are difficult to control. However, internal strength largely depends on the individual. Therefore, by enhancing internal strengths such as clear understanding, logical thinking, emotional control, coping ability, and proper counselling, the impact of external pressure can be reduced. Consequently, when internal strength increases from 20 to 50 while external pressure remains constant at 100, the stress level decreases to 02 ($\text{Stress} = \text{External Pressure} \div \text{Internal Strength} = 100 \div 50 = 02$). Thus, even under the same external pressure, an increase in internal strength leads to a gradual reduction in stress.

Therefore, preventive measures require a holistic approach encompassing physical health, mental resilience, strengthening inner capacities, positive thinking, social support, a rational approach and organisational reforms. The consistent use of these strategies contributes to lower stress levels, improved performance, and an enhancement in overall quality of life.

Rationale of the study

Some working police officers in Nagpur City may experience mental pressure, anxiety, tension and strain, thereby leading to elevated stress levels in their lives. Due to the demanding nature of police work, stress levels are intensifying, which may adversely affect the efficiency and professional competence of working police officers. Therefore, it is essential to assess stress levels among working police officers in Nagpur City and to identify appropriate preventive measures to reduce them. This empirical research may help to reduce stress levels among police officers not only in India but also globally. Moreover, the study may enhance the professional efficiency of police personnel. The findings of this study will assist the police system and its procedures and may also inspire psychologists, counsellors, and other professionals across their respective fields in research.

Sample

The research sample comprised 320 male and female police officers from various police stations in Nagpur City, Maharashtra. The age of police officers ranged from 26 to 57 years. As per our research plan, male and female police officers were divided into eight groups.

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Therefore, four groups of male police officers – namely A, B, C, and D – and four groups of female police officers – namely E, F, G, and H. They were distributed across age groups 26–33 years, 34–41 years, 42–49 years, and 50–57 years. Therefore, 33 police officers were included in each group, matched in age and gender. Consequently, 132 male and 132 female police officers were selected for the empirical study based on their personal information, in accordance with the required sample size, as per the research (Robert V. Krejcie & Daryle W. Morgan, 1970). Thus, four groups of male and four groups of female police officers were selected across various age groups and matched by working capacity, police station income, familial status, and area of residence for the empirical study.

Hypotheses

Given the preference for research, the lifestyle of police officers, and the increasing crime rate, the following hypotheses were formulated to examine significant differences in stress scores at 0.05 and 0.01 levels.

1. It has been hypothesised that female police officers between 26 and 33 years of age would be more stressed than male police officers between 26 and 33 years of age. Therefore, female police officers will show higher stress levels than male police officers.
2. Secondly, female police officers between 34 and 41 years of age would be more stressed compared to male police officers between 34 and 41 years of age. Hence, female police officers will display higher stress levels than male police officers.
3. Thirdly, female police officers between 42 and 49 years of age would be more stressed than male police officers between 42 and 49 years of age. Consequently, female police officers will experience higher stress levels compared to male police officers.
4. Fourthly, female police officers between 50 and 57 years of age would be less stressed than male police officers between 50 and 57 years of age. Therefore, male police officers will exhibit higher stress levels compared with female police officers.
5. Lastly, male and female police officers between the ages of 34 and 41 will reveal more stress compared with their counterparts. Consequently, male and female police officers aged 34 to 41 years will obtain higher scores than other age groups.

RESEARCH METHODOLOGY

The Procedure of Investigation

Male and female police officers were given the Stress scale (Police Stress Questionnaire, PSQ) to answer the different questions at their respective police stations. The male and female police officers were from Nagpur City, Maharashtra. The investigator administered the stress scale to a single police officer and sometimes, in small groups from 02 to 05 male and female police officers. The allotted time was up to 20 minutes to read and select an appropriate option from the four alternatives on the stress scale. The total number of questions in the stress scale was 30.

Tools Used

- **Personal Information Sheet:** The personal information sheet included questions regarding name, sex, age, posts held, contact numbers, the name of the police station, and area of residence. Therefore, 160 male and 160 female police officers were administered the Stress Scale along with personal information sheets in small groups to assess their responses. Therefore, based on the information, 33 police officers were selected from each group. Therefore, 132 male and 132 female police officers were

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ultimately selected for the empirical research. The total number of police officers was 264.

- **Stress Scale:** The Stress Scale (Shai Marcu, M.D., 2011) comprises 30 items, such as positive and negative items. Each item has four response categories: Rarely, Sometimes, Often, and Usually, revealing that the respondents frequently experience certain stress-related feelings. The high score indicates a high level of stress. The minimum possible score on the scale is 0, and the maximum possible score is 90. The Stress Scale was translated into Marathi by the authors for its use by Nagpur police officers. The tabulated test-retest reliability of the scale was to be 0.84.

RESULTS AND DISCUSSION

The calculated stress scores for male and female police officers were analysed to determine whether any significant difference existed at the 0.05 and 0.01 levels. Therefore, to test the hypotheses, a one-way ANOVA was conducted to examine the variation in stress scores among male police officers. The statistics of ANOVA are given in Table 1.

Table 1. ANOVA of Male Police Officers

| Source of Variance | df | Ss | Ms | F | P |
|--------------------|-----|----------|--------|------|----------|
| Between groups | 3 | 599.60 | 199.87 | 0.72 | P > 0.05 |
| Within groups | 128 | 35720.79 | 279.07 | | |
| Total | 131 | 36320.39 | | | |

The results indicate that no significant variation was identified among groups of male police officers in their stress scores ($F = 0.72$, $P > 0.05$). Therefore, working male police officers have not obtained a significant difference in stress scores. Consequently, to test the hypothesis, a one-way ANOVA was administered to examine variation in stress scores among female police officers of different age groups. The statistics of ANOVA are presented in Table 2.

Table 2. ANOVA of Female Police Officers

| Source of Variance | df | Ss | Ms | F | P |
|--------------------|-----|----------|---------|------|----------|
| Between groups | 3 | 3235.42 | 1078.47 | 5.14 | P < 0.05 |
| Within groups | 128 | 26870.21 | 209.92 | | |
| Total | 131 | 30105.63 | | | |

The findings indicate that female police officers exhibited statistically significant differences in stress scores ($F = 5.14$, $P < 0.05$). Therefore, the tabulated stress scores of female police officers indicated a significant difference at the 0.05 level. Therefore, to examine the significant differences in the obtained stress scores of male police officers, the Mean, SD, and t-test were tabulated. The statistics of group differences are mentioned in Table 3.

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Table 3. t-ratio between Male Police Officers

| No. of Groups | Male Police officers and their age groups | N | Mean | S D | Group Difference | t-ratio | P |
|---------------|---|----|-------|-------|----------------------------------|---------|----------|
| A. | Between 26 and 33 years. | 33 | 35.03 | 16.67 | AB BC CD AC AD BD | 0.77 | P > 0.05 |
| B. | Between 34 and 41 years. | 33 | 38.06 | 15.13 | | 0.39 | |
| C. | Between 42 and 49 years. | 33 | 36.39 | 19.22 | | 1.00 | |
| D. | Between 50 and 57 years. | 33 | 32.24 | 14.22 | | 0.31 | |
| | | | | | | 0.73 | |
| | | | | | | 1.60 | |

Therefore, the Mean and S D were found to be 35.03 ± 16.67 , 38.06 ± 15.13 , 36.39 ± 19.22 , and 32.24 ± 14.22 between 26 and 33 years, 34 and 41 years, 42 and 49 years, and 50 and 57 years, respectively, among male police officers. The tabulated t-ratios were not significant among male police officers at the 0.05 level.

Therefore, to examine significant differences among female police officers, the Mean, S D, and t-test were calculated from the obtained stress scores. The statistics of group differences are mentioned in Table 4.

Table 4. t-ratio between Female Police Officers

| No. of Groups | Female Police officers and their age groups | N | Mean | S D | Group Difference | t-ratio | P | |
|---------------|---|----|-------|-------|----------------------------------|---------|----------|----------|
| E. | Between 26 and 33 years | 33 | 38.06 | 15.34 | EF FG GH EG EH FH | 1.18 | P > 0.05 | |
| F. | Between 34 and 41 years | 33 | 42.55 | 15.70 | | 1.35 | | P > 0.05 |
| G. | Between 42 and 49 years | 33 | 37.64 | 13.79 | | 2.65** | | P < 0.01 |
| H. | Between 50 and 57 years | 33 | 28.88 | 13.03 | | 0.12 | | P > 0.05 |
| | | | | | | 2.62* | P < 0.05 | |
| | | | | | | 3.85** | P < 0.01 | |

* Indicates a significant level at the 0.05 level, and ** indicates a significant level at the 0.01 level.

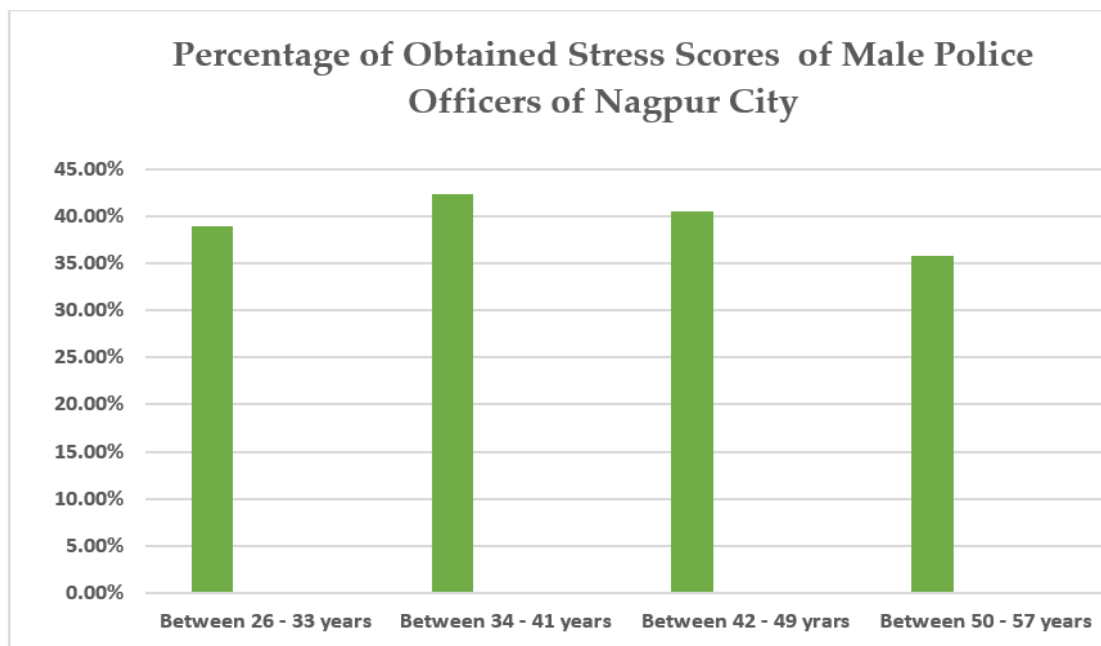
Consequently, the Mean and SD were determined to be 38.06 ± 15.34 , 42.55 ± 15.70 , 37.64 ± 13.79 , and 28.88 ± 13.03 between 26 and 33 years, 34 and 41 years, 42 and 49 years, and 50 and 57 years, respectively, among female police officers. The tabulated t-ratios were significant between groups E and H at the 0.05 level, and between groups G and H and F and H at the 0.01 level.

As a result, male and female police officers have significantly influenced the stress scores. Consequently, female police officers obtained higher stress scores and reflected higher stress levels in comparison to male police officers of Nagpur City. Therefore, our hypotheses are justified by the research.

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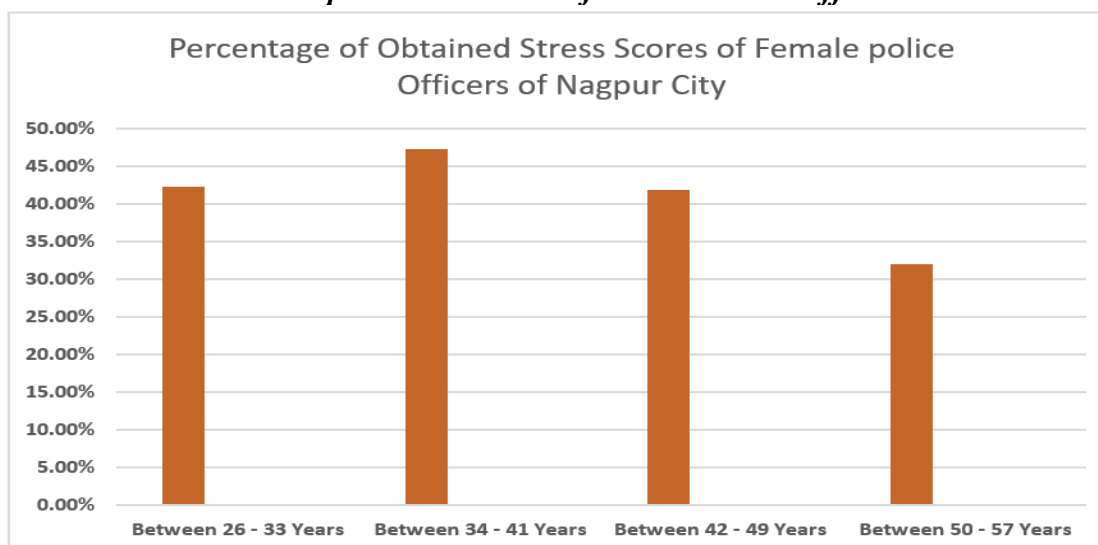
The diagram in Table 5 shows the stress levels among male police officers. The high percentage was found among male police officers aged 34 to 41 on the stress scale. The percentage of stress scores was calculated from their Mean scores and is presented in Graph 1.

Graph 1. Stress Level of Male Police Officers



The graphic representation in Table 6 shows the stress levels of female police officers. The highest percentage of stress levels was also observed among female police officers between 34 and 41 years of age. The percentage was calculated from their Mean scores and is presented in Graph 2.

Graph 2. Stress Level of Female Police Officers



CONCLUSION

In our final analysis, the results indicate a significant difference in stress scores between male and female police officers in Nagpur City. The findings of the study reveal that, within the 34

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– 41 age group, female police officers presented a higher percentage of stress (47.28%) compared to male police officers (42.29%). Therefore, female police officers experienced a higher level of stress relative to male police officers. Consequently, gender influences the stress level of working police officers of Nagpur City. Surprisingly, male and female police officers aged 34 to 41 years were found to be the most stressed compared with their counterparts. The results of the present study are substantiated by recent research on police personnel in Delhi. Jadav, Neha and Geeta (2025) explained that a high prevalence of stress among police personnel, with operational stress at 91% and organisational stress at 54.20%, reflects moderate to high stress levels, and female police personnel reported relatively higher stress levels in groups 31 to 40 years. The research findings on police officials of Kerala (Mini G. K. et al., 2025) revealed that 75.50% of police officials experienced high levels of operational stress, whereas 65.60% experienced high levels of organisational stress.

Police officers experience higher levels of stress owing to the increasing burden of professional and personal responsibilities in the 34 – 41 age group. Moreover, higher expectations of promotions from senior authorities, police officers consistently feel career pressure. Besides, continuous exposure to law-and-order situations and responsibility for subordinates also contribute to mental pressure among police officers in the 34 – 41 years age group. They are also frequently assigned leadership roles, which require greater decision-making and responsibility. Therefore, the combination of professional demands and personal obligations significantly increases stress levels among police officers aged 34 to 41 years. Simultaneously, family responsibilities increase, creating additional pressure and strain. The need to perform efficiently at work while maintaining harmony in personal life often creates psychological strain. Assessing the demand of police duties with personal and family obligations makes this age group more vulnerable to elevated stress levels.

Therefore, in a precarious situation, some police officers may experience tension, pressure and strain, which may create a feeling of anxiety and stress. The study indicates that stress is a psychological manifestation of unrealistic expectations in social situations and that individuals feel an inability to regulate emotions and thoughts in daily life (Jha D. K. & Pashine, P., 2023).

Consequently, stress levels may increase due to the cumulative effects of family problems, job dissatisfaction, economic problems, social inequality, cultural norms, and identity crises, and they may vary in intensity depending on the circumstances.

The level of stress may be reduced more easily among male and female police officers if noticeable reforms are made to the current system and its procedures, and given that government assistance and facilities for proper counselling are provided to police officers. In the emerging scenario of stressed police officers, who have remained impervious to changes in their stress levels, now, albeit slowly, are beginning to slough off the nebulous memories of the past traumatic experiences and respond to the new winds of change to enjoy the fruits of national development.

However, the dilemma of stressed police officers is that they have no separate counsellor to whom they wish to withdraw and seek self-assurance in mental, psychological, and emotional help. Still, the stark fact persists that a majority of police officers of Nagpur City remain out of the charmed circle of good mental health and live in the world of strain, anxiety, stress, and grave predicament.

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Acknowledgment

The author(s) appreciate all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Singal, R.K., Jha, N. & Jha, D.K. (2026). An Empirical Study of Stress Levels Among Police Officers and Their Preventive Measures: A Focus on Nagpur City, Maharashtra, India. *International Journal of Indian Psychology*, 14(2), 941-955. DIP:18.01.089.20261402, DOI:10.25215/1402.089