

# Occupational Health Hazards in Traffic Force

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## I. PROBLEM STATEMENT

Police officers play an important role in the society by ensuring security. A physically and mentally fit police force is necessary to tackle the increasing law and order problems in our society.

Unfortunately, available studies indicate that police officers have an increased risk of certain diseases related to their occupation and lifestyle. The prevalence of occupational health hazards was reported to be high among police officers. There are various studies been conducted on Indian Police which shows that occupational stress is very high among the police personnel in India. Following are some of the occupational Health hazards observed in Police Departments,



- **Stress:** Usually they live under constant apprehension of physical danger, work long and irregular hours and are exposed to unpleasant sides of life. This often results in psychological stress, family and personality problems.
- **Lifestyle Diseases:** Hypertension, diabetes, acute coronary syndromes, obesity and even cancer are some of the major chronic health diseases commonly observed due to their hectic and stressful lifestyle, irregular diet, consumption of fast foods while on duty, distorted sleep
- **Skin & Eye Problems:** Develop various skin and eye problems as a result of spending most of their

time outdoors, including under the sun or in bad weather and over exposure to bright and sunlight

- **Sleep Disorder:** Since police force has to work in overnight shifts for long days, there is a high prevalence of sleep disorders with symptoms of insomnia and excessive sleepiness among them
- **Physical Problems:** Exposure to ambient environmental factors (low or high air temperatures, rain, wind, snow, sun) resulting in acute (common cold, heat stroke, dehydration, etc.) or chronic (rheumatism, etc.) disease
- **Auditory Problems:** Exposure to high noise levels from the emergency horn or on the firing range
- **Musculoskeletal Disorders:** Long periods of time spent inside vehicles may in the course of time result in musculoskeletal disorders (esp. low-back pains)

## II. THE STUDY

Traffic law enforcement is an occupation with some peculiar characteristics that can cause work stressors, and policing job is one of the most stressful. The reasons for stress are many, long duration of working hours, unlawful activities, lack or lesser time for family, irregular or improper eating habits, need to take tough decisions very quickly, sleepless nights, inadequate time for leisure activities, difficulties in personal life etc. The police personnel are one of the few professionals where people are expected to face physical dangers and, if necessary, to risk their lives as well as face significant stress in many other aspects. Apart from this they have constant exposure to loud noise, Bright light, Sun exposure.

We captured all aspects of their occupational health hazards, family health, lifestyle and other factor. Calculated the risk and suggested the mitigation plans.

### 2.1 Objective of the study

Occupational stress has become a common and costly health problem. Stress and its impact on mental health and physical health of police personnel are not addressed adequately by the concerned authorities and health professionals in India. The current study focused on two different types of risks in police personnel, i.e. Physical Health Risk and Emotional Health Risk.

### 2.2 Methods

The objective of the study was to understand the various risks experienced by police personnel, and to look for associations

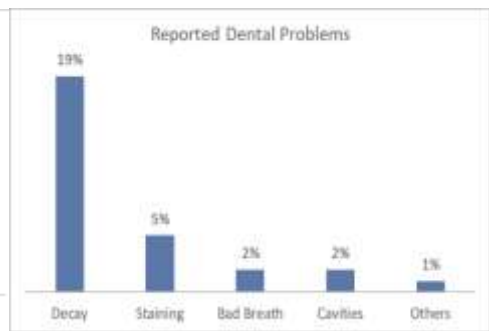
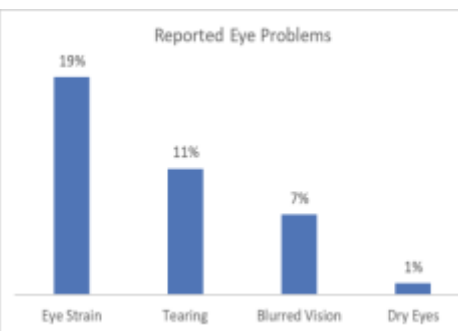
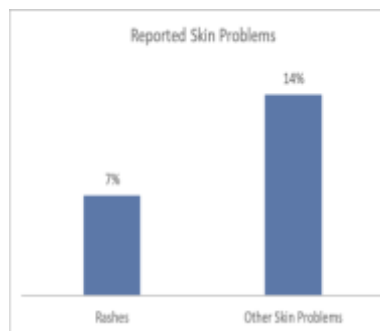
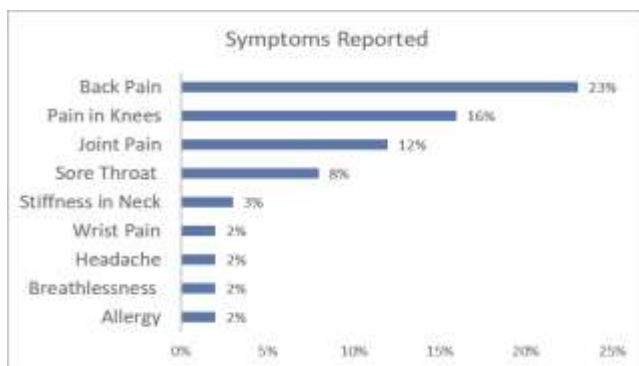
among various socio-demographic variables and the levels of stress and other occupational Health hazards. The current study has adopted a cross-sectional survey design.

The study was conducted among traffic police personnel in one major city in India. Nearly 289 traffic police personnel participated in this. Police personnel (both male and female) working under the Traffic Police Commissioner were called for the study in. They were given a brief orientation class on physical and mental health related issues. Those who consented to participate in the study were given questionnaires. This was continued for 4 weeks.

Police personnel from all designations (ranks), except from the very senior officers, were included in the study. Informed consent was taken from all the respondents.

### 2.3 Observations

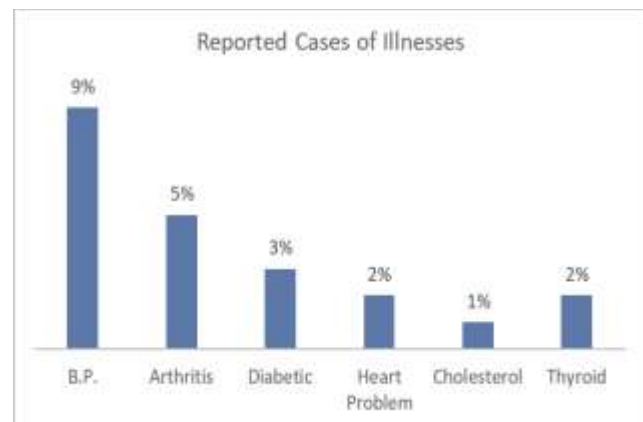
Following are the outcome of the study conducted on Traffic Police.



There were ~21% Policemen complaint about the Skin problems which might be due to the long exposure to pollution, standing directly under the sun for long hours and might be due to the exposure to fume.

Nearly 38% Policemen complaint having various EYE problems which might be due to exposure to bright light of the vehicles, exposure to sun light and lack of sleep.

- Different Kinds of Pain – Back, Knee, wrist and joint pains are most commonly reported health issues. This can be attributed to the physical nature of the work. There are a total of 70% cases of pains.
- Sore Throat is also an issue with 8% reported cases. This could be due to police personnel being in traffic and pollution for long hours
- Cases of Allergy should be looked into to see if that allergy will get aggravated



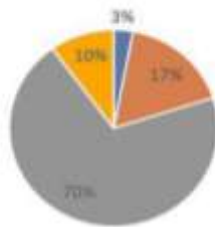
In the current study, among the respondents, 22% of them reported having physical illness such as hypertension, diabetes, renal problems, allergy, etc. The physical health issues may be related to their lifestyle and stressful jobs. It has been observed that cardiac and metabolic disorders are higher among police personnel.

29% Policemen complaint having various dental problems.

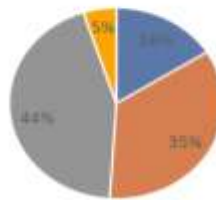
### III. WORK LIFE BALANCE

20% of the personnel have reported that they are not entirely satisfied with their lives. We should have counselling session for them

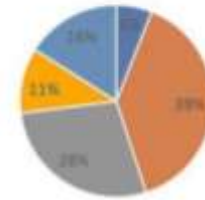
How Satisfied Are You With Your Life



Are You Getting Enough Sleep?



How Often Do You Have To Work Extra Hours?



■ Never ■ Sometimes ■ Always ■ No Answer ■ Often

Getting enough sleep is essential for attentive and effective policing. An alarming **51%** of personnel have indicated that they **do not get enough sleep**. **44%** of Personnel have to **work extra hours**.

With regard to the mental health issues, 29% of the police personnel had substance abuse. Alcohol and tobacco consumption are considered as the key unhealthy behaviours that have wide implications for fitness and work performances. A study conducted in India has showed that alcohol and smokeless tobacco chewing habits are higher among the policemen, and smokeless tobacco consumption was one of the risk factors for hypertension.

Police personnel undergo significant occupational stress.

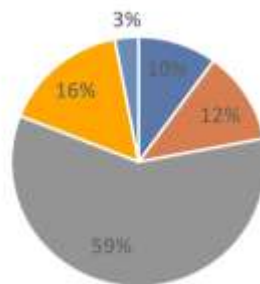
- Stress Levels are High in the Police Force. 78% of personnel have reported to have more than Medium levels of stress.
- 19% of people have High or Very High Stress Levels. This is alarming
- Work-Life balance is also not good. 50% of personnel do not have work-life balance

Stress is more among younger age groups, lower level rank police personnel, and in females. Physical and mental health issues are higher among them, which needs immediate attention from the concerned authorities. Structural changes are essential and gender specific stress reduction programmes are also recommended.

### 3.1 Occupational Health Hazards

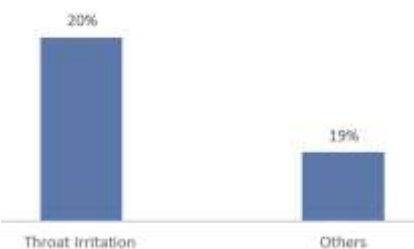
Traffic Policemen are exposed to the elements along with Pollution and Loud Noises. We see it is having an effect on their health

How Are Stress Levels At Work?

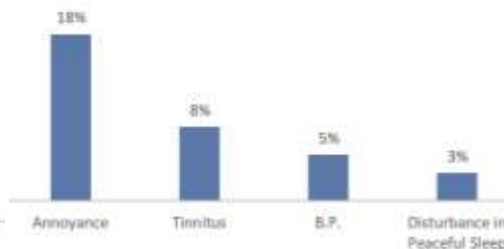


■ Not Answered ■ Low ■ Medium ■ High ■ Very High

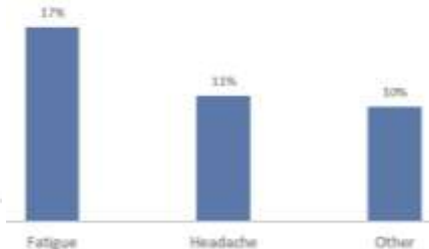
Is Exposure to Pollution Leading to Any Health Issues?



Has Exposure to Loud Noises Lead to Any Hearing Issues?



Do You Face Any Problems in Whistling for Long Hours?

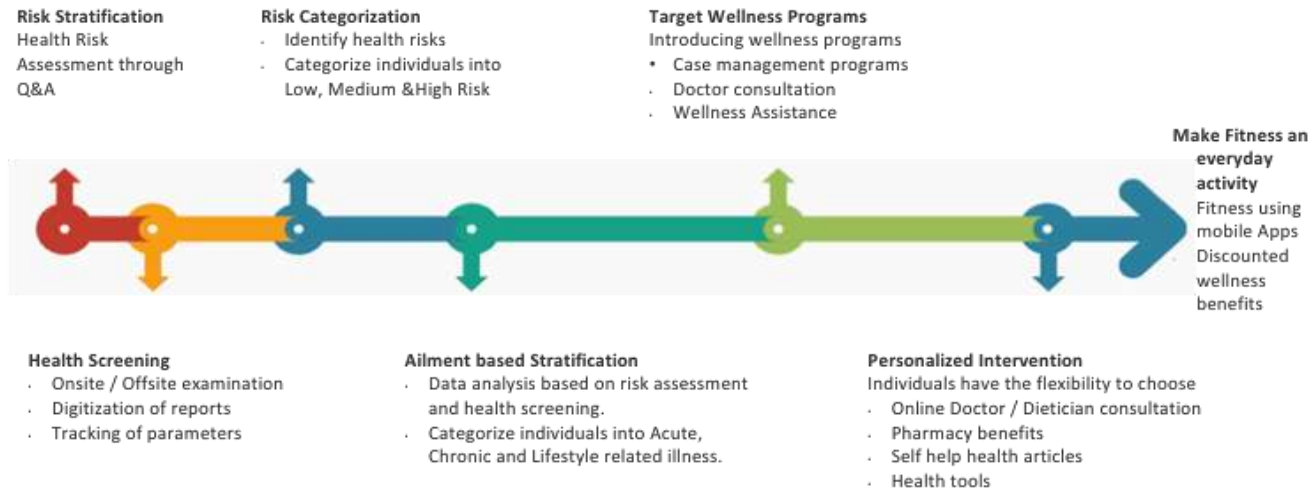


- 34% Personnel have issues related to loud noises.
- Exposure to Pollution has led to 39% personnel reporting Either Throat irritation or other issues related to pollution.
- Constant Whistling to manage traffic is leading to Fatigue and Headache with 38% personnel having reported issues due to Whistling.

Study was limited to police community and measures were taken to create awareness regarding reducing stress, dietary advice and proper preventive measures.

#### IV. PROPOSED SOLUTION

To combat the occupational health hazards mentioned above and to have a mentally and physically fit workforce, police force can extend to its employees additional value in the form of Mental Health and Health Risk Assessment for assessing their health needs and supporting them with various health services to address areas of risks and concerns and different health Services at a discounted price.



At present, there are limited options to record, assess and monitor the health status of employees. On its part, the traffic Police department would like to have a better view of the overall health trends and derive meaningful health insights. This would help Police to keep its workforce healthy and Increase productivity.

In order to meet the above health and wellness objective, we suggest **Mental Health and Health Risk Assessment on regular intervals.**

A web based and Mobile APP solution will help the traffic Police Staff. The mobile APP and the web solution can be integrated to the existing APP so that the Police staff don't have to download multiple APPs.

- **Mental Health Assessment**—This solution can facilitate the employee mental Health assessment. It would comprise **Depression, Stress and Anxiety** assessment using **DASS21** tool. Post assessment a plan of action would be submitted to the Police department.
- **Health Risk Assessment**- Based on a series of questions related to personal and family health, social support, lifestyle and dependencies, the HRA tool helps figure individual employees health risks and concerns. Post HRA, every employee receives a

customized report on their health status along with recommendations to mitigate any risk.



- **Traffic Police dashboard**—Traffic Police Department on its end should have access to a real time dashboard, which can be used to track various health

initiatives. This dashboard should provide a real time view on existing health conditions, trends, and risk levels for various conditions. There should be option to filter the same based on location, gender, age group, risk levels etc.



- **Employee Annual Health Check-ups**- There should be regular Health checkups for the police personals. Audiometry test, Pulmonary function test, Eye & ENT tests should be mandatory in the health check-up plan.
- **Employee Engagement** - There should be regular engagement with the police personal on various

Health content, health TIPS and health checkups through email, SMS and mobile notification, which are personalised as per the health needs of the person. There should be some rewards and incentive programs for the police personals. Which would keep them motivated.

## V. CONCLUSION

Presence of high occupational health issues is an alarming situation which needs to be addressed immediately and has to be considered as a public health issue. This impacts directly affect their physical and mental health which may result in absenteeism and poor functioning. This, in turn, may affect the crime prevention and correctional services as well as their personal and familial life. Stress management programmes, periodic health check-up at the workplace, administrative solutions to reduce stress in job, special considerations for females as well as young officers are few recommendations to address this serious issue.

Recreational activity should be promoted not only to relieve stress but also physical activity which will help reduce obesity, hypertension and diabetes. Reasons for high level of stress must be found out by proper individual counselling and prompt measures should be taken against it. Increase the manpower and reduce the work load is one of the measure to reduce work related stress.

## REFERENCE

- [1]. Ragesh G, Tharayil HM, Raj TPM, Philip M, Hamza A. Occupational stress among police personnel in India. Open J Psychiatry Allied Sci. 2017 Jun 2