

# Occupational Hazards Vs Morbidity Profile among Police Force in Kerala

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## ABSTRACT

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**Objective:** To assess the work-related problems among police personnel.

**Materials and Methods:** A questionnaire- based study was carried out among 1125 policemen in Kottayam district of Kerala. The questionnaire included demographic details, particulars about physical illness, health compromising habits, mental health problems, social problems and family details. The relevant data was collected and analyzed using SPSS package (13.0 version).

**Results:** Majority of them (567, 50.4%) were in the age group of 40-49 years. 1049 (93.2%) of the study subjects were males. The most common complaints were backache (359, 31.9%) and joint pain (237, 21.1 %). Women showed higher prevalence of mental stress compared to men, 1.3% (15) as against 13.7% (155). Habit of smoking was found in 149 (13.2%) and alcoholism in 102 (9.1%) of them. **Conclusion:** Policemen suffer from many health problems. This calls for increased awareness among the police force and periodic health check ups to ensure their well- being.

**Keywords:** Police, Occupational hazards, Lifestyle, Stress.

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## INTRODUCTION

It is increasingly recognized that a healthy workforce is a prerequisite for the success of economic and social policy. It is also a necessary condition for the achievement of sustainable development. One particular profession which takes care of the very social fabric that holds our nation together in peace is the police force.<sup>1</sup> There is no denying the fact that these uniformed personnel are the ones exposed to maximum work related risks that are common to man. This is because they are constantly in danger of attacks, accidents, suicide, suicide attempts and other lifestyle triggered medical conditions. Living under constant apprehension of physical danger, working long and irregular hours, and exposure to unpleasant sides of life often results in psychological stress, family and personality problems.<sup>2</sup> The health of the policeman thus becomes very important, because of his dangerous job, and because it could also affect the wellbeing of the community he is serving. Several studies have demonstrated that lifestyle and working environment of police is under constant stress with high rate of smoking and alcohol related addiction.<sup>3</sup> This article presents a cross sectional study done on various parameters of health of police in Kottayam district of Kerala.

## MATERIALS AND METHODS

Kottayam district in Kerala was randomly selected for cross sectional study from 1<sup>st</sup> March 2008 to 1<sup>st</sup> April 2008. A preliminary study was conducted on March 2004. The Family Health Survey questionnaire was used which included details of socio-demographic characteristics, physical illness, health compromising habits, mental and social health, and family details. The questionnaires were given to the Superintendent of Police who gave it to the officers in charge of all the police stations in the district. They then distributed the questionnaires to the individual policemen in their respective stations. Completed questionnaires were collected by the officers and sent back to the Superintendent of Police in sealed covers. Each questionnaire was sealed in a cover to maintain confidentiality. Confidentiality was assured and strictly adhered to. After survey, all policemen who had problems were requested to attend medical camps. These cases were examined and verified by a team of doctors and psychological counselors. The sample consisted of 1423 policemen of whom 298 did not provide complete information. So the final analysis included data from 1125 subjects. The data was collected and statistically analyzed using SPSS package (version 13.0)

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For the purpose of simplifying the data and presenting relevant information, the various diseases were categorized as follows:

1. Medical problems- Joint pain, Diabetes, Oedema of body, Gastric peptic ulcer, Breathlessness and other respiratory diseases, Hand tremors, Loss of appetite, Chest pain, Insomnia and other sleeping disorders, Liver disease, Recent weight loss, Haematemesis, Bleeding per rectum, Blood in sputum, Neurological diseases including fits, Heart disease, Chronic headache, Bone disease, Partial deafness, Allergies, Sexual diseases, Skill diseases, Cancer (leukemia).
2. Socioeconomic problems- Poverty, Financial problems, Excessive spending of money.
3. Psychological problems- Mental stress, Feeling of “lost”, revenging mentality, Feelings of isolation, Depression, Suicidal thoughts, Suicidal attempts, Behavioral problems, marital breakup, Family breakup, Mental retardation, Fed up with life, Job absenteeism, Feeling lonely.
4. Ergonomic problems- Hypertension (HTN), Backache, Obesity, Repeated accidents.
5. Lifestyle related habits- Smoking, Alcoholism, Narcotic drug abuse.

## RESULTS

Of the 1125 cases analyzed, 1049 (93.2%) were males and 76 (6.8%) were females. Most, i.e. 311 (27.6%) of the study subjects were in the age group of 40 to 44 years, followed by 256 (22.8%) in the 45-49 years age group.

Symptom	Joint Pain	Hypertension	Diabetes	Backache	Mental Stress
Number (%)	237 (21.1)	201 (17.9)	141 (12.5)	359 (31.9)	170 (15.1)

The most common ailments among the police workers were backache and joint pain, found in 359 (31.9%) and 237 (21.1 %) of the individuals, respectively (Table 1). Hypertension, diabetes and mental stress were also seen among many of them. It was also found that while backache, joint pain and hypertension were more common among men, women showed higher prevalence of mental stress compared to men, 19.7% (15) as against 14.8% (155) (Figure 1).

Figure 2 shows the number of policemen involved in habits like smoking, alcoholism and narcotic drug intake.

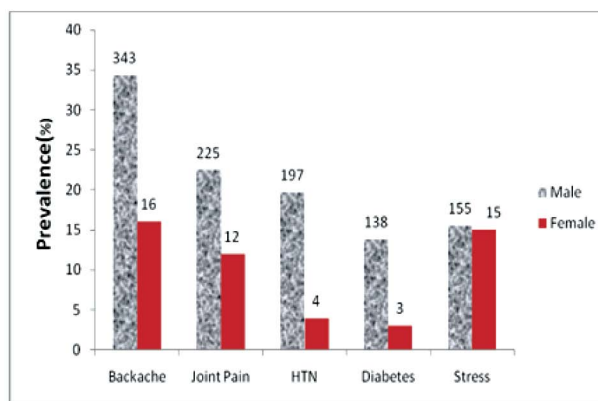


Figure 1. Prevalence of common symptoms in both sexes (n=1125)

Category	Distribution no (%)
Medical problems	651(57.9%)
Socio economic problems	68(6.0)
Psychological problems	233(20.7)
Ergonomic Problems	423(37.6)
Lifestyle related habits	200(17.8)
Others	35(3.1)
Healthy	257(22.8)

Table 2 indicates the prevalence of various morbidities of police. 651(57.9%) had medical problems while 423(37.6%) suffered from ergonomic problems. Of the 1125 subjects, 149 (13.2%) had the habit of smoking and 102 (9.1%) had the habit of drinking alcohol. Of the 233(20.7%) who reported psychological problems, 20 (8.6%) were depressed and 34 (14.6%) were either contemplating on or had attempted suicide. Only 257 (22.8%) of the subjects claimed to be healthy.

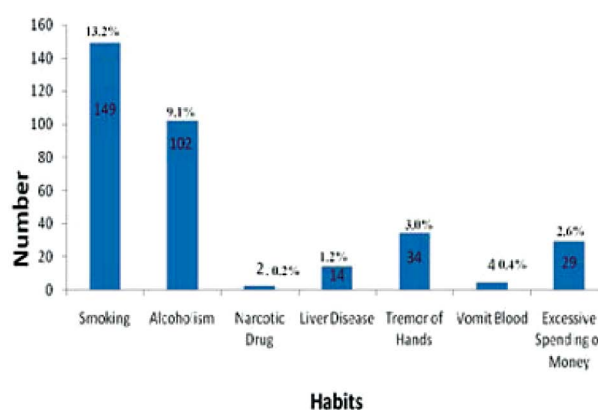


Figure 2. Observation of negative habits among police force

## DISCUSSION

Police profession has been described as one of the most stressful occupations in the world.<sup>4</sup> There are a lot of risks and dangers involved either due to the nature of their work or due to the lifestyle they invariably

adopt, which has a direct bearing on their health and overall job performance. If it is chasing criminals, investigating accidents and assaults or simply patrolling and guarding the station, they are prone to ergonomic risks and chronic diseases.

One major ergonomic risk encountered by police personnel were backache and joint pain. A whopping 31.9% complained of backaches and 21.1% of joint pain. The contributing factors to the above two ailments are regular use of heavy body armour and vehicular vibrations. A study conducted by Burton et al, 1996, among North Ireland police force exposed to vehicular vibration for more than 2 hours, showed 8.2% succumbed to backache.<sup>5</sup>

A study done in Australia reported that police officers suffer from a range of work-related injuries and illnesses. Police chasing criminals frequently get injured while jumping over fences; those involved in arson, bomb and fraud investigations get exposed to poisonous chemicals, and are at risk of being victims of explosions; those handling domestic disputes usually get assaulted as these are particularly unpredictable. They are at risk of contracting infections while investigating crimes, conducting searches, asking samples, or arresting suspects. They also suffer from stress, hypertension and other chronic illnesses due to their work.<sup>6</sup>

In US, a cohort study done on police force showed that this occupational group has high risk for development of non communicable diseases and cardiovascular disease (CVD) events at an earlier age and that they die much earlier compared to other occupational groups.<sup>7-8</sup> Given the fact that policemen lead a physically exhausting life, have irregular diet and limited choice of food while on duty, take overtime and shift work, suffer from disrupted sleep patterns and stress, and have high rates of tobacco and alcohol consumption than the general population, they have been found to have an increased prevalence of CVD risk factors and type 2 diabetes than any other occupational group and among the general population in many countries.<sup>9-16</sup>

Stress is an important factor affecting police health, so much that it manifests itself in a variety of physical and psychological ailments. Some of them are hypertension, diabetes, insomnia, loss of appetite and loss of weight, feelings of revenge, family and marital breakup, a desire to end lives and job absenteeism.

Our analysis that female police are more prone to job stresses than their male counterparts parallels the ongoing findings of a large scale study being done

by John M. Violanti in US on the impact of stress on police officers (Buffalo Cardio-metabolic Occupational Police Stress (BCOPS) study, University at Buffalo).<sup>17</sup>

High levels of stress could be one reason why police professional turn to health compromising behaviors like smoking and alcoholism which often leads to lifestyle related disorders and financial problems, causing further damage like family and marital breakups and feelings of suicide. These finally lead to more stress, making stress and occupation a vicious cycle.

## CONCLUSION

We need a healthy police force for an unhealthy community of Kerala which has the highest recorded crime rate in the country. At present the selection of police is based on physical and written test. We need to do psychological evaluation for selection of police personnel. The selection criteria should be able to exclude candidates who have unhealthy mind, criminal background, addiction and negative attitude. Efficient and effective psychological support should be given to sensitize them from traumatic incidents. Health counseling against habit formation and continuation should be instituted. Periodic medical checkups of police personnel and their family's health improvement programs, and family health insurance ought to be provided. Adequate family health approach and welfare programs should be initiated. Duty time should be regulated in order to prevent undue physical and mental stress. Formation of health clubs and recreation facilities with regular exercise programs will be helpful. Better salary, adequate facilities at the police stations and stress management programs should be included. A comprehensive family health care program should be implemented by the Home Ministry for the entire police force and their families to build up a healthy police force.

## END NOTE

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**Conflict of Interest:** None declared

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