HEALTH PROFILE OF MUMBAI POLICE PERSONNEL: A CROSS SECTIONAL STUDY

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ABSTRACT:
Introduction:*The police as one of the visible important component governance and control have always been under intense scrutiny and hence vulnerable to wide spread criticism. Growing unemployment, increasing violence and rising expectations of the people have caused serious challenges before police. They work routinely for 12 hours or more often goes a couple of days nonstop at police station with a catnap in between. The truth is that many policemen live lives of fatigue and despair so the objective of present study was to find health status of Mumbai police.*
Aim and Objective: *To study health profile of Mumbai Police*
Material Methods: *The present study was conducted in Mumbai district selected police stations. A multistage and systematic random sampling technique was used to represent a total of 276 policemen out of 40,000 police population.*
Results: *We found 40-50 age groups predominant among policemen. Maximum policemen were married (91%). Educational qualification in policemen were secondary (36.2%), higher secondary (48.6%), graduation and above (15.2%). In our study 55% were addicted to nicotine alcohol abuse in 26% policemen. Most of the policemen were complaining of musculoskeletal problems (62.7%), gastrointestinal problem (51.8%), and dental problems (41%). Prevalence of hypertension was 42.4%. Forty eight percentage policemen were pre obese while 20% obese in this study.*
Conclusion:*policemen require periodic medical examination to remain healthy. Government machinery require to look into the health problems of Mumbai policemen to form a comphrsnvice health insurance policy. Periodic counselling is required on health issue as well as job stressor from team consisting of specialist in medicine, psycharity, dieticians and psychologist.*

Keyword: *Policemen, Health profile, Hypertension and Obesity.*

INTRODUCTION

The Police as one of the visible important component governance and control have always been under intense scrutiny and hence been vulnerable to wide spread criticism.Indian police not only includes state police but also various central police organization such as CRPF, BSF, ITBP,CBI, RPF, intelligence Bureau, CISF and other law enforcing agencies.[1]The most noticeable feature of Indian police after 60 years of independence can briefly enumerated as under.

Due to democratic system, political interference in policing has increased over the years. Frequent transfer at district and station house level became order of the day in various states. An undesirable nexus between police and politicians in power has developed over the years[2,3].India's population has grown more than 100 crores; the ratio of growth of police to growth of population has always gone against the former and thus disrupted population police ratio in various states.

Modernization of transport and communication system has out stepped police activities, making the policemen run the race with handicap. Growingunemployment, increasing

violence and rising expectation of the people have caused serious challenges before police. Growing sophistication and newer modus of operand in the commission of crime, accompanied by nexus between criminals and politicians, have thrown most serious challenges to Indian police.The emergence of new economy has caught Indian police unprepared for the task.

Increase in drug addiction, smuggling, economic crimes, insurgency and terrorist activity have thrown new challenges for Indian police and the police not able to keep pace with these newer forms of organised crime by mafia gangs and arrested militants. This has caused numerous deaths and injuries to police personnel.Although India embarked on planned economic growth immediately after independence, police has not been included in national planning process and remained "non planned item". Induction of women in policing after independence has been a welcome trend. During last 60 years post of director general, Additional director general, Inspector general police and additional Inspector general police have increased much more in proportion to the real needs, thereby creating role

erosion, role conflict, lack of job satisfaction among senior police officer[4,5].

Over the years educational and academic qualification of police personnel have gone up but it has also resulted in trade unionism, growing indiscipline and lack commitment to the work. The increase in armed police forces over the years has upset the balance between civil police and armed police and the Indian police are accused of being trigger happy. They work in poor conditions at police stations without basic amenities. Unlike many, they cannot afford to take leave on the hop – our bosses don't usually put us on a parade or suspend on casual leave not applied for.

They work routinely for 12 hours or more, often goes to a couple of days nonstop at police station with a catnap in between,. The truth is that many policemen live lives of fatigue and despair, knowing that they nothing but their wits to live by, that the concerned voice by superiors usually to the media, is more often than not spurious. The truth is that most policemen are aware that public views then with mixture of contempt and fear add to this simmering hell's brew the politician's constant interference making a complication of every simple arrest 'these policemen have the perfect recipe for the disaster [6].

MATERIAL AND METHODS

The present study has conducted in Mumbai district in selected police stations. Mumbai, for administrative purpose has been divided into three parts viz, City, Eastern suburb and western suburb, which has been further divided into 12 zones which are as follows:

Administrative Area	Zones
City	I, II, III, IV, V
Eastern suburb	VI, VII
Western suburb	VIII, IX, X, XI, XII

Each zone has been further divided into 3-4 division depending upon area and population. The in charge of each zone is the deputy commissioner of police. Each division comprises of 2-3 police stations with assistant commissioner of police as the in charge (4). Prior permission from commissioner of Mumbai was taken. Participants were also given informed consent before enrolling in study. To adequately represent study population multistage sampling technique was used. This was done as follows

Stage I: Selection of zones from each administrative area viz. (Random simple technique)
City area- zone IV (Matunga zone)
Eastern suburb – zone VI (Chembur zone)
Western suburb – zone XI (Kandivilizone)

Stage II: selection of divisions from each zone (Random simple technique)
Zone IV (Matunga zone) – Kalachowki division
Zone VI (Chembur zone) – Chembur division
Zone XI (Kandivili zone) – Malad division
Each division consists of 2-3 police station from selected division every police station was included in the study.

Stage III: selection of study subjectfrom the selected policestations

As per the available data from the respected police station the staffing of policemen was as follows:

Police station	Bhoiwada	Kalachowki	Chembur	TilakNagar	Malad	Malvani	Total
Policemen	294	222	282	232	212	164	1406

Systemic random sampling was done. Thus a total of 1406 police personnel were present in the selected police station, 20 % sample was included in the study for which every 5th individual was included in the study. Thus total sample size was 276.

All study participants were screened using pre- tested semi structured questionnaire for socio-demographic profile and morbidity pattern. Complete general as well as systemic examination was carried out in all study participants. After a prior dialogue with the responsible personnel in the police station, most of the respondents were contacted in the morning and evening at time of roll call i.e. 8.30 a.m. to 9.30 a.m. and at night 7.30 p.m. to 8.30 p.m. collected data was analysed using SPSS -16 statistical software.

RESULTS

Table 1 shows socio demographic profile of Mumbai Police personnel.

Table 1: Distribution of Socio demographic factors of Mumbai police personnel

Sr. No.	Socio-demographic factor	Category	Frequency N = 276(100%)
1	Age (Yrs)	≤ 30	17 (6.1%)
		31 – 40	66 (23.9%)
		41 – 50	136 (49%)
		50 – 58	57 (21%)
2	Gender	Male	262(96%)
		Female	12(4%)
3	Religion	Hindu	203 (74%)
		Muslim	9 (3%)
		Buddha	51 (19%)
		Others	13 (5%)
4	Educational	Secondary	100 (36%)

	status	Higher Secondary	134 (49%)
		Graduate & above	42 (15%)
5	Marital Status	Unmarried	22 (8%)
		Married	252 (91%)
		Divorced	2 (1%)
6	Type of Family	Nuclear	209 (76%)
		Joint/ Extended	67 (24%)
7	Socio Economic Status	Upper Class	39 (14%)
		Upper Middle	91 (33%)
		Lower Middle	146 (53%)
8	Duration of Service in Years	5 – 15	43 (16%)
		15 – 25	130 (47%)
		25 – 35	92(33%)
		>35	11 (4%)
9	Hours of duty	8 – 12 hrs	76 (28%)
		12 – 16 hrs	155 (56%)
		> 16 hrs	45 (16%)
10	Addiction Habit	Present	195 (71%)
		Absent	81 (29%)

Table 2 & 3 depicts Morbidity profile and BMI among Mumbai Police personnel respectively.

Table 2: Distribution of Morbidity among Mumbai police personnel.

Sr. No	Morbidity	Frequency (%)
1	Musculoskeletal	173 (62.3%)
2	Respiratory System	42 (15.2 %)
3	Gastrointestinal	143 (51.8%)
4	Ophthalmic	23 (8.3%)
5	Dental	113 (41 %)
6	Psychiatric disorder	94 (34.1 %)
7	Hypertension	117 (42.4%)
8	Diabetes Mellitus	35 (12.7%)
9	Coronary Heart Disease	13 (4.7%)
10	Skin & Hair	49 (17.8%)

Table 3: Distribution of Police personnel as per Body Mass Index

BMI	Frequency N= 276(100%)
20 – 24.9	87 (31.5%)
25 – 29.9	133 (48.2%)
30 – 39.9	56 (20.3 %)

DISCUSSION

We found 40-50 yrs age group predominant among policemen (49%) compared to other studies by Channabasvanna [7](28%) and shriprakesh et al [8](39%). Maximum policemen were married(91%), similar finding were noted by shriprakesh et al [8]. Educational qualification in policemen we noted was secondary (36.2%), higher secondary (48.6%), and graduation and above (15.2%), similar findings were reported by Channabasvanna [7]i.e. up to secondary (52.4%), higher secondary (22%) and graduation and above (20%).Most policemen live in nuclear family (76%) this is in accordance with Channabasvanna[7](60%). Majority (53%) were belongs to lower middle class as per Kuppuswamy

classification, similar findings were noted in other studies(Table – 1) .

Almost 84% policemen were working in department from more than 15 years, such high experience was also noted by Channabasvanna et al. We found duty hours more than 12 hrs in 44% of policemen as well as more than 16 hrs in 41% this shows high burden of work and similarly Channabasvanna et al abd Cecila Davis[9]agrees with the same.

In our study 55%, were addicted to nicotine alcohol abuse in 26% policemen which is quiet higher compared to study done by Jahnavi et al [10]smokers (22%) while alcohol abuse same as 24%. Ramkrishan J et al[11] and R. Sohi et al[12] reported prevalence of smoking in police personnel 23% and 34.7% respectively and alcohol consumption 45.7% and 35.7% respectively.

In our study most of policemen were complaining of musculoskeletal problems (62.7%) (Table 2) this was more compared to Saha A et al[13] who reported body ache in 24.8% police personnel. Standing while prolonged working hours, unusual duty hours, bad posture, frequent travel while patrolling prone them for such condition. Fifteen percent were suffering from respiratory problem; most of police officer has to work outside the police station in dusty and hot environment which is reported by Saha A. et al[13]

Next major complain we found in our study was gastrointestinal problem (51.8%) this is similar to Saha A.et al [13] who reported it as 45.8%. Due to their occupational constraint and need police personnel could not follow fix schedule for having their lunch or dinner also most of them were not provided with canteen facilities in major police stations neither there were separate room for lunch dinner. Additionally their frequent field duties many police personnel have to eat their food in the mostly in vehicle they travel.

In this study 8.3% policemen were complaining of eye problem similar findings were noted by Saha A. et al [13](10%). Cataract was detected in 2 (0.6%) of the police, refraction errors in 57(9.4%) of police.Forty one percent of policemen were complaining of dental problems in our study this was in accordance with study done by R. Sohi et al[12]in which 54.4 % policemen needs one or other form of dental treatment. 21.3% decayed tooth, 12.4% dental pain, this is mostly due to tobacco chewing as well as bad oral hygiene in policemen.

Prevalence of hypertension was found to be 42.4% in police personnel in this study this was comparatively more in studies done by Ramkrishan J et al[11](30.5%) , Sohi R et al[12](9.97%) and Jahanvi G.et al[10](33%). High fatty food consumption, irregular dietary habits, obesity, stressful environment, lack of physical exercise might be

precipitating the high prevalence in them.History of ischemic heart disease was positive among 11.6% policemen this was comparatively lower than reported by Saha A et al[13](38.3%) as earlier said presence of hypertension , diabetes mellitus , obesity as well as lack of physical exercise are major risk factors in them.

Twelve percent police personnel has history of diabetes mellitus in our study this was less compared to study by Ramkishnan J et al[11]who reported diabetes mellitus prevalence of 33.6% while Sohi R et al[12] reported 4.45% prevalence diabetes mellitus in Haryana police. Tharkar S. et al[14] also sated higher prevalence of individual cardio metabolic abnormalities and   diabetes mellitus in comparison with general population .Nearly 48% policemen were pre obese while 20% were obese in our study (Table – 3) which is in accordance with Ramkishnan J et al[11]who reported 51.6% obesity (BMI>25), Sohi R et al[12]reported obesity in 43.4% of policemen. Lack of regular physical exercise, fatty fried food consumption makes them vulnerable to most of non-communicable diseases, obesity is one of them.

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