Volume : 4 | Issue : 11 | November 2015 • ISSN No 2277 - 8179

Research Paper

Medical Science

KEYWORDS : Traffic police personnel, Morbidity, Health Problems, Metropolitan City

Morbidities Among Male Traffic Police Personnel In A Metropolitan City

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ABSTRACT

This observational study was conducted to find out the morbidity pattern among male traffic police personnel. All the 67 male traffic police personnel working at a randomly selected traffic control unit took part in the study. 54(82.09%) participants were in the age group of 18 to 40 yrs. 65 (97.01%) subjects were married. The mean weight, height, body mass index, systolic and diastolic blood pressure of the subjects was 73.32 kg, 172.06cms, 24.77 Kg/m2, 128.48 mmHg and 81.49 mmHg respectively. 34(50.74%) subjects were overweight (BMI ≥ 25Kg/m2). 37(55.22%) were addicted to either tobacco, alcohol or both. According to WHO recommendations (i.e. systolic blood pressure ≥ to160 mmHg and or diastolic blood pressure ≥ to 95 mmHg), 06(08.95%) subjects were hypertensive. The mean BMI of normotensive and hypertensive subjects was 24.20 and 26.07 Kg/m2 with standard deviation of 3.86 and 1.71 respectively. The difference is statistically significant (p<0.05). Almost half of the participants were having one or more health problems. 34 (50.75%) and 25 (37.31%) subjects were having symptoms related to gastro-intestinal tract and musculo-skeletal system respectively. Also, symptoms related to respiratory, skin and other systems were seen. Strict pre-placement and periodic examination, health education and joint responsibility towards health will definitely help to reduce morbidity among this group.

INTODUCTION

The work environment constitutes an important part of man's total environment, so the health to a large extent is affected by work conditions. [1, 2, 10] Though several types of environment exist, it is the physical environment, which affects the health largely. Air, noise, heat, radiation, etc., are the main sites of environment pollution and this is more so in urban areas. Occupational environment affects the health of the exposed. The health hazards get more severe when the duration of exposure increases. This fact is more important in case of personnel engaged in road traffic duty. Traffic policemen are the key persons in maintaining day to day road traffic in the cities. These personnel have to undergo physical strain in an environment polluted by fumes, exhaust of vehicles, use of blowing horns, blow of dust in the air by a speeding vehicles, etc. The personnel also pursue a near-sedentary type of work as they only stand at one place for long hours or just walk a few meters, only when necessity arises. The aforementioned factors pose as a health hazard. [1, 2] That is why, there is a need of time to assess their health status and suggest measures for its promotion.

MATERIALS AND METHODS

This cross – sectional study was conducted among male traffic police personnel belonging to a randomly selected traffic control unit in a Metropolitan City. All the 67 personnel took part in the study. Age, marital status, addictions and past history of illness of the subjects was recorded in the structured, predesigned and pretested proforma. Weight, height, blood pressure was recorded. The clinical examination of the participants was conducted. The findings were recorded in the proforma. The data was analyzed using Microsoft Excel. Z test was applied and the result was interpretated at 5% level of significance.

RESULTS AND DISCUSSION

54(82.09%) subjects were in the age group of 18 to ≤ 40 years. 02(02.99%) participants were unmarried. The mean weight and height of the participants was 73.32 kg and 172.06 cm with standard deviation of 9.37 and 3.74 respectively. The mean BMI of the study group was 24.77 with standard deviation of 2.66. 34(50.74%) subjects were overweight (BMI ≥ 25Kg/m^2). [3] Nobody was obese (BMI ≥ 30 Kg/m^2) [3]. The mean systolic and diastolic blood pressure of the participants was 128.48 and 81.49 mmHg with standard deviation of 11.82 and 8.31 respectively. 10 (14.93%) subjects were having systolic blood pressure in the range of ≥140 to <160 mmHg, while 01(01.49%) subject was having ≥160 mmHg. 06(08.96%) and 05(07.46%) participants were having diastolic blood pressure in the range of ≥ 90 to < 95 mmHg and ≥ 95 mmHg respectively. According to WHO recommendations [4] (i.e. systolic blood pressure ≥ to160mmHg and or diastolic blood pressure ≥ to 95mmHg), 06(8.95%) subjects were hypertensive. The mean BMI of normotensive and hypertensive subjects was 24.20 and 26.07 Kg/m^2 with standard deviation of 3.86 and 1.71 respectively. The difference is statistically significant ($p < 0.05$). 37(55.22%) participants were addicted to either tobacco or alcohol or both. (Table – 1)

34(50.75%) participants were having symptoms related to gastro-intestinal tract like pain in abdomen, decreased appetite, flatulence, acidity, nausea, irregular bowel habits, indigestion, constipation, loose motions, distention of abdomen etc. 25(37.31%) subjects were having problems related to musculo - skeletal system i.e. joints pain, backache, neck pain, cramps in calves, pain in heals, pain in lumbar region, headache etc. 10 (14.92%) subjects were complaining of chest pain. 09(13.43%) participants were having problems of skin like rash, pigmentation on face, pyoderma, mosquito bites, fungal infection, itching, eczema etc. 08(11.94%) were having complaints related to respiratory system like dry cough, cold, running nose, sneezing, cough with expectoration, breathlessness, dyspnoea etc. 06 (08.95%) personnel were having dental problems like bleeding gums, caries, toothache, staining of teeth etc. As per the WHO criteria [3], 06(08.95%) subjects were hypertensive at the time of examination. Of these, one was a known case and was not on anti-hypertensive drugs. One subject was a known case of hepatitis B. Ophthalmic problems like redness and watering of eyes, pterygium etc. was present in 05(07.46%) subjects. Sleep disturbances, Hemorrhoids, edema feet and urinary tract symptoms like burning and painful micturation was also seen among the subjects. Stomatitis, ulcers on buccal mucosa, patches on tongue was seen among 02(02.98%) subjects. Decreased hearing, tinnitus etc was present in 02(02.98%) subjects. (Table -2)

Similar results were also observed by various Authors. Satapathy DM et al [1] observed, tobacco chewing was the most common (48.00 %) form of addiction, followed by alcohol 20.80% of the study subjects. 38.3% of subjects were overweight and 8.5% were obese (according to BMI).[1] They observed, 13(27.08%),12(25.00%),08(16.66%),07(14.58%),03(06.25%) and 03 (06.25%) study subjects were suffering from musculoskeletal disorders, hypertension, respiratory disorders, gastro-intestinal disorders, dermatoses and ophthalmic disorders respectively, in their study. Srinivasa Rao [5] reports, 32% of Hyderabad traffic cops are suffering from lung disorders like pneumonia and bronchitis because of severe air pollution. The Hindu, [6] also reports, Traf-

Volume : 4 | Issue : 11 | November 2015 • ISSN No 2277 - 8179

fic Police are increasingly becoming victims of diabetes and allergies at younger age. Sanjogita Soodan[7] mentions, Traffic Police are prone to chest and heart diseases due to their constant work. Krishnachand K. [8] reports, Traffic Police suffer from asthma, COPD, varicose veins and skin problems. Express News Service [9] reports, Quarter of traffic police officers have poor lung function. Most of them complained of symptoms like shortness of breath, wheezing, pain in chest, chronic cough, disturbed sleep and respiratory allergies. Prajapati P. et al[10], in their study in Ahmadabad city, observed, 3% traffic police personnel had varicose veins, 5% had color blindness, 12% had ear problems, 45% had eye problems, 32% had respiratory problems, 62% had joint problems, 41% had gastric problems, and 16% had disturbed sleep due to various reasons.

Hence, to protect, promote and maintain the health and to expect better work output from these personnel, pre-placement and periodic examination, implementation of health insurance scheme [11] as well as health education and counseling sessions should be organized regularly to them.

Table -1 Distribution of Age, Marital Status, Addictions, Systolic and Diastolic Blood Pressure

Factors		N (%)
Age groups	18 to ≤ 40 years	54 (82.09)
	>40 to ≤ 58 years	13 (17.91)
Marital status	Married	65 (97.01)
	Unmarried	02 (02.99)
Addictions	Tobacco	18 (26.87)
	Alcohol	06 (08.95)
	Tobacco and Alcohol	13 (19.40)
	No Addictions	30 (44.78)
Systolic Blood Pressure	100 to < 140	56 (83.58)
	≥140 to < 160	10 (14.93)
	≥ 160	01 (01.49)
Diastolic Blood Pressure	< 90	56 (83.58)
	≥ 90 to < 95	06 (08.96)
	≥ 95	05 (07.46)

Table -2 Distribution of different Morbidities

Type of Morbidity	N (%)
Gastro-intestinal Tract	34 (50.75)
Musculo-skeletal system	25 (37.31)
Chest Pain	10 (14.92)
Skin	09 (13.43)
Respiratory system	08 (11.94)
Dental	06 (08.95)
New and old cases of hypertension	06 (08.95)
Ophthalmic	05 (07.46)
Sleep disturbances	04 (05.97)
Urinary tract	04 (05.97)
Hemorrhoids	03 (04.48)
Edema feet	03 (04.48)
Past history of surgical interventions	02 (02.98)
Ear, Nose and Throat	02 (02.98)
Oral cavity	02 (02.98)
Known cases of diabetes mellitus	01 (01.49)
Known cases of hepatitis-B	01 (01.49)
Past history of T.B. spine	01 (01.49)
No complaints/problems	33 (49.25)

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