Original Research Paper

Nursing

A STUDY TO ASSESS THE SELECTED HEALTH PROBLEMS AND KNOWLEDGE ON PREVENTION AND CONTROL OF SELECTED HEALTH PROBLEMS RELATED TO AIR POLLUTION , NOISE   POLLUTION AND LONG PERIOD OF STANDING AMONG THE TRAFFIC POLICE OF KOLKATA, W.B. WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET .

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ABSTRACT A descriptive study to assess the selected health problems and knowledge on prevention and control of selected health problems related to air pollution , noise   pollution and long period of standing   among the traffic police of Kolkata, W.B. with a view to develop an information booklet .The objective was to identify the selected health problems and assess the knowledge on health problems related to air pollution, noise pollution and long period of standing among traffic police .The present study based on questionnaire of knowledge on prevention and control and checklist for assessment of selected health problems and it was carried out among hundred (100) traffic police (constable) by using convenience sampling technique from selected traffic guard of Kolkata.. The data analysis was carried out using descriptive statistics and inferential statistics. Findings of the study were 85% complained throat irritation, respiratory tract infection sometimes, 71% had itching and irritation of eyes,72%had feeling of suffocation.72% had sometimes experiencing headache,77% and73% had sometimes feeling cramping pain in leg muscle, having back pain respectively. The mean knowledge score was 10.26 and average knowledge in every area of questionnaire. There were no significant associations at 0.05 level of significance between knowledge levels of traffic police with selected demographic variables. So researcher felt the need to enhance their knowledge through information booklet.

KEYWORDS : Traffic Police, prevention, control, selected health problems, air pollution, noise pollution, long standing, information booklet.

NEED OF THE STUDY
"PREVENTION IS BETTER THAN CURE".
India is a fast growing developing country, primarily it needs the expansion of transportation and traffic facilities. No countries can grow without industries and supporting systems like transportation of resources. The Traffic Police, who are doing their entire duty in highly polluted cities, for long period will definitely catch-up some diseases due to air pollution and heavy traffic noise and their longer periods of standing duty. Traffic related profession wants their accessibility to traffic and there is no other option until the modern machines take over their function, but the most modern computer also can't think and decide. So man power is essential for this job. The stress arising from the job is very intensive that a Traffic Police must stand, walk and run in the midst of heavy vehicle load, its exhausted pollutants, its noise of the horn and all other type of environmental factors such as hot weather, rain and dust.

PROBLEM STATEMENT
"A study to assess the selected health problems and knowledge on prevention and control of selected health problems related to air pollution , noise   pollution and long period of standing among the traffic police of Kolkata, W.B. with a view to develop an information booklet ".

OBJECTIVE OF THE STUDY
i)   To identify the selected health problems related to air pollution, noise pollution   and long period of standing among the traffic police in terms of severity of problems.
ii)   To assess the knowledge on selected health problems related to air pollution, noise pollution, and long period of standing among the traffic police as measured by structured knowledge questionnaire.
iii)   To find association between the level of knowledge on selected health problems related to   air-pollution, noise pollution, long period of standing and selected demographic variables.
iv)   To develop and validate an information booklet on prevention and control of selected health problems.

METHODOLOGY
Research approach – descriptive survey approach
Research design – descriptive research design
Target population - Traffic police
Accessible population – Traffic police (constable)
Sample /sample size-100 sample who fulfilling inclusion criteria
Sampling technique—convenient sampling technique

Tool for data collection-
tool 1 (structure questionnaire to assess demographic data)
Tool II (checklist for assessment of selected health problems)

Tool III(Structured knowledge questionnaire).

RESULT
Section I-Description of demographic data of traffic police (constable) such as age in years, total years of service, , frequency of health check-ups.
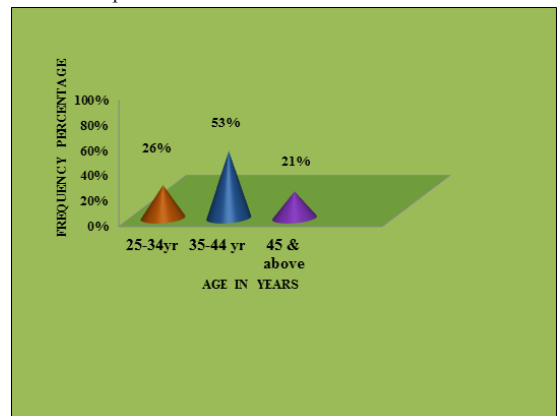

Fig 1 Bar diagram showing percentage distribution of Traffic police according to the age.

All most half of the traffic police i,e 53 (53%) fall under the age group of 35-44years , where as 26% & 2% fall under the age group of 25-34 years and 45years and above respectively.
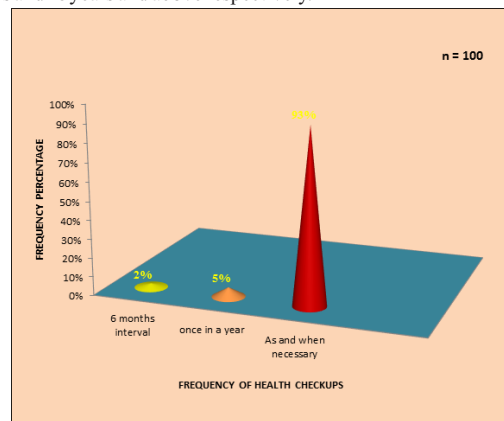

Fig. 2 Bar diagram showing percentage distribution of Traffic police according to frequency of health checkup.

Majority of the Traffic police's i,e. 93(93%) did health check up as and when necessary, where as only 2% and 5% of traffic police did it 6 months interval and once in a year respectively.

Selected health problems of traffic police due to air pollution, noise pollution, long period of standing.
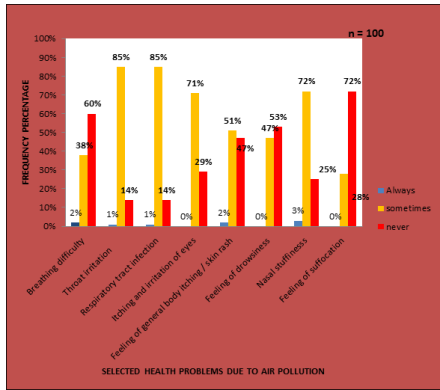

Fig.3 Multiple Bar diagram showing percentage distribution of selected health problems due to air pollution

Only 38% of traffic police complained sometimes breathing difficulty , 85% are complained throat irritation, and respiratory tract infection sometimes, 71% had itching and irritation of eyes sometimes, 51% had complaints of feeling of general body itching/skin rash, 47% had feeling of drowsiness,72% complained nasal stuffiness and feeling of suffocation.

Table -1 Frequency and percentage distribution of knowledge scores of traffic police

n = 100

Obtained knowledge score range	Frequency (f)	Percentage (%)
4 - 7 (Bellow average)	11	11
8 - 11 (Average)	59	59
12- 15 (Above average)	30	30

Table -2 Mean , Median, and standard deviation of knowledge scores among Traffic Police

n = 100

Variable	Maximum Possible score	Range	Mean	Median	S.D
Knowledge	15	5 - 13	10.26	10.1	1.05

MAJOR FINDINGS OF THE STUDY

Almost of the traffic police i.e. 53 (53%) fall under the age group of 35-44years .Most of the Traffic polices i.e. 74(74%) had years of service were more than 10 years. All most half of the Traffic police's educational qualification were Madhyamik i.e. 52 (52%) . Majority of the Traffic polices i.e. 93% (93) did health check up as and when necessary .Only 38% of Traffic police sometimes complained of breathing difficulty. 85% are complained throat irritation, 85% had respiratory tract infection sometimes, 71% had itching and irritation of eyes sometimes, 51% had complaints of feeling of general body itching/skin rash, 47% had feeling of drowsiness,72% complained nasal stuffiness and 72 had feeling of suffocation. Out of hundred traffic police 24%,57%,72%,36%,52%,67%,67% and 69%, had sometimes experiencing hearing impairment, unable to hear after a loud noise, experiencing headache, Feeling of nausea and vomiting , reduced sleep at night, getting angry for simple reasons, presence of fatigue. Numbness of head respectively. Out of the hundred traffic police i.e. 39%, 69%, 77% and73% had sometimes feeling of heaviness of the leg, experiencing severe pain in knee joints, cramping pain sometimes in leg muscle, having back pain respectively. Study showed that 59 (59%) of the Traffic police had average knowledge score. The mean knowledge score was 10.26 , median knowledge score was 10.1 and standard deviation was 1.05. The study findings showed that there was no significant association at 0.05 level of significance between knowledge levels of traffic police with selected demographic variables such as age in years, total years of service, educational status, and frequency of health checkups. Thus, the research hypotheses was rejected and null hypotheses was accepted.

DISCUSSION

The present study findings was supported by the findings of the following studies.

Roy M R[59] conducted a study which indicated that subjects had increased prevalence of respiratory symptoms, asthma, headache and reduced lung function, chronic obstructive pulmonary disease and hypertension among occupationally exposed subjects, which was positively associated with PM10 level in ambient air. Tripathi SR[60] (2010) conducted a study to assess the Knowledge attitude and practice of traffic police men towards the health effects caused by noise pollution. Result of this study showed that 2.3% of the subject felt that their hearing ability is low. D M Satapathy[61] conducted a study which finds that only 2 person had varicose veins of legs among 48 traffic police. The overall pictured showed that most of the traffic police suffering sometimes different selected health problems , and some of the health problems was found always for few traffic police. So prevention and control measures is needed to prevent and control the health problems.

To assess the knowledge on selected health problems related to air pollution, noise pollution, and long period of standing among the traffic police as measured by structured knowledge questionnaire The present study supported by following study Shashidhara[62] GS conducted a study to assess the knowledge of traffic policemen about traffic air pollution and safety measures. The study findings revealed that the mean knowledge scores of subject regarding air pollution was 8.23, median was 8, and standard deviation was 1.49. The mean knowledge score regarding using of mask and goggles was 4.02 and 4.473 respectively, median was 4and 5 respectively, standard deviation was 1.1 and 0.95respectively. The study findings revealed that most of the traffic police i,e. 90% of traffic policeman had average knowledge and 10% of traffic policemen had above average knowledge regarding traffic air pollution and safety measures.

The present study findings showed that at 2 degree of freedom, the table value of chi-square under probability at0.05level of significant is 5.99 and calculated chi-square value of age in years, total years of service, education, frequency of health checkups were .598.722, 1.032 , and 2.21 respectively. So the calculated chi-square value was less than tabulated value at the 0.05 level of significance. Hence , we accept the null hypothesis and reject the research hypothesis and infer that there was no association between knowledge level on prevention and control of selected health problems related to Air Pollution, Noise Pollution, and long period of standing with selected demographic variables.

The findings were supported by the study done by DM Satapathy[62] about assessment of heath status of traffic police men and suggest preventive measures for their health. The study result showed that more exposed subjects are complained about health problems and demographic variables are not influencing the knowledge regarding preventive measures.

CONCLUSION –

From the findings of the present study it can be concluded that traffic police are always complaint eleven health problems (minimum 10% - Maximum 60%) among twenty structured health problems, maximum traffic police complaint sometimes every structured health problems (minimum 24% - maximum 85%). 11% of traffic police had below average and 59% of traffic polices had average knowledge. So there is a need to aware them about health hazards and enhance their knowledge by preparing, developing information booklet regarding prevention and control of selected health problems related to air pollution, noise pollution and long period of standing. The study findings also inferred that there was no significant association between the knowledge level of traffic police with the demographic variables so everybody need to learn the preventive and control measures of selected health problems with the help of information booklet.

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