

## P R E F A C E

The laboratory of physiology, Department of Zoology, Shivaji University, Kolhapur (Maharashtra), India has been engaged in extensive work on some applied problems in physiology mainly concerned with occupational physiology and toxicology. In the industrial operations, the workers are exposed to a vast majority of occupational health hazards and stress factors. The textile industry is one of the largest employers of labour in Kolhapur district in general and at Ichalkaranji in particular. There being thousands textile operatives throughout the Ichalkaranji. The textile industry at Ichalkaranji includes the spinning, weaving, knitting and finishing of many types of natural fibers. The hazards in textile industry may occur due to chemical, cuts and abrasions, confined spaces, dust, falling objects, falls and slips, flying particles, fumes, heat, humidity and moisture, noise, smoke, sparks etc.

Provision of satisfactory working conditions enable the workers to work efficiently, accurately, safely and with minimum fatigue.

Most of the occupational hazards can be prevented and avoided if adequate awareness is created in the workers directly concerned with shop floor operations.

Dangerous levels of noise are encountered in many industrial situations. Textile industry at Ichalkaranji is one among such industries where very high levels of noise prevail for those who are concerned with the health and safety of textile

workers, it is very essential to understand the phenomenon of noise generation, its ill effects and various measures for the control of this hazard.

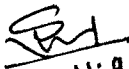
To get a clear insight into the problems of noise in textile industry at Ichalkaranji a detailed investigation of the noise problem in some textile operations and the possible ill effects of prevalence of high noise on textile workers was felt unavoidable and hence desirable. It is thought the present thesis for the first time that a problem of noise in textile operations in Ichalkaranji are being brought to light.

Using standard measuring equipment the prevailing noise levels have been monitored in different apparently noisy working sections. This will serve as the data bank for uncontrolled noise levels prevailing in some textile operation in Ichalkaranji. To find out ill effects of noise, pure tone audiometry for air conduction and bone conduction has been carried out in some randomly selected workers. To find out non-auditory effects of high noise level clinical examination of the workers have been carried out in relation to some important physiological parameters such as pulse rate and systolic and diastolic blood pressure. As first step in the hearing conservation programme simple types of ear plugs have been tried with textile workers to find out the changes in the physiological responses, if any during textile operations.

A study of this nature requires guidance, help and support from many which I received abundantly. This thesis is

culmination of such collective endeavour. However, I assume the responsibility for the opinions expressed and of the omissions and errors, if any, in the body of thesis.

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