ABSTRACT

Work related musculoskeletal disorders (WMSDs) are a group of painful disorders of muscles, tendons and nerves. Carpal tunnel syndrome, tendonitis, thoracic outlet syndrome and tension neck syndrome are examples. Work activities which are frequent and repetitive or activities with awkward postures cause these disorders which may be painful during work or at rest.

Workers performing tasks that have elements of high repetition, forceful motions or awkward postures are prone to muscular injuries especially ones that affect to the back, hands, wrists and arms. The data available are limited and does not represent the magnitude of the problem because there is a great deal of under-reporting of these types of injuries. Hence the present study was undertaken.

The Study was undertaken in view of the following objectives

- To find out the general health status of library professionals
- To identify the symptoms associated with work related musculoskeletal disorders among Library professionals
- To find out the severity of the work related musculoskeletal disorders among library professionals
- To analyze the risk factors such as work station, work environment, body posture, job control, job demand, break time and other work related individual psycho social factors leading to musculoskeletal disorders among library professionals
To suggest measures to overcome the musculoskeletal disorders among library professionals.

The design adopted for the present study was ex-post facto research. This type of research design is used to investigate possible cause-and-effect relationships by observing some existing consequences and searching back through the data for plausible causal factors.

The survey was conducted among 675 library professionals working in the affiliated colleges of Anna University, Chennai to assess the symptoms associated with musculoskeletal disorders. Out of which, 540 questionnaires were received. This resulted in the response rate of 80 %. 40 questionnaires were incomplete hence they were not taken into consideration for analysis. Hence, the present study was undertaken using the purposive sampling method by selecting 500 samples working in the engineering college libraries affiliated to Anna University, Chennai.

In the first section, general information such as gender, age, section were work, current position, number of years worked, number of days in a week worked, number of hours worked in a day, break time, were collected from the subjects. These information were used to relate it with other variables for a critical evaluation.

The second part of the questionnaire details were obtained from the respondents with the help of SF-36, a standardized questionnaire, available in the source pub med internet.

Prevalence of work related musculoskeletal disorders symptoms were obtained from the third section of the questionnaire. The
longest period of complaint (in the past one year) upper and lower extremity complaints (during the past one year), were collected from the respondents.

- The next section of the tool dealt with the symptoms associated with work related musculoskeletal disorders were collected from the selected respondents.
- Occupational risk factors such as work station, body posture, job control, job demand, brake time, work environment and social support were collected from the respondents and work related individual psycho social factors were also collected.
- In the last section of the questionnaire dealt with the different methods followed by the respondents to reduce the health complaints due to work, were collected.

The study was carried out by survey method which was done with the help of questionnaire. Samples constituted the library professionals of the affiliated colleges of Anna University, Chennai. The purpose of the study was explained to the subjects and a good rapport was created which helped in easy collection of data.

The data obtained from the questionnaire was coded and subjected to statistical analysis. The following statistical analyses are carried out.

- Arithmetic mean
- Standard deviation
- ‘t’ test
- One-way analysis of variance
- Factor analysis
The instrument used for the study was a questionnaire. SF 36 v2 health survey tool (short form – GHQ) was refined for the present study and used to find out the general health status of the selected respondents. Nordic musculoskeletal questionnaire was also adopted for the present study. The questionnaire framed for the purpose was validated before put into use. The questionnaire contained the closed-end questions.

From the observation and analysis of the results, it can be concluded that the library professionals are working in awkward postures, with the potential risks of musculoskeletal disorders primarily affecting the low-back and neck region. This can be attributed to the improper design of the workstation. Twisting, bending and over-reaching are the resultant of poorly designed workstation. These actions force the spine into a non-neutral position that increases the overall discomfort and pain particularly at the lower back, neck and shoulders, which indicate that the library professionals are/may be affected by work-related upper body musculoskeletal disorders. Moreover, they have to work for a prolong period of time remaining in such constrained and awkward postures, which further amplifies their discomfort feeling. The working environment also affects them to a great extent. Lack of proper illumination at work site exerts an additional adverse effect on the eyes. Thus this study indicates the appalling condition of the library professionals.