

# “Prevalence Of Neck Pain In Office Workers Using Computer”

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## I. Introduction

Neck pain refers to a pain experienced anywhere from the base of the skull at ear level to the upper part of the back or shoulders. Persisting neck pain is common in society. Neck pain may arise from any of the innervated structures in the neck such as intervertebral discs, muscles, ligaments; facet joint and dura or nerve roots. However in the majority of cases, the pathophysiological mechanism underlying neck pain are unclear.

Prolonged use of computer during daily work activities and recreation is often cited as a common cause of neck pain. There is increase in productivity through elimination of inefficiencies related to specific tasks but it has some unfortunate consequences for the worker. Office workers and computer users experience the highest incidence of neck pain of all workers. Frequent computer activities are a noted risk factor for the office workers using computers four to five hours per day. In various studies, it has been reported that the prevalence of neck pain in office workers is much higher than in the general population.

Journal of Canadian chiropractic association. 2008. August volume 2. A literature review of neck pain associated with computer use-it was found that for the neck pain in the general population, prevalence was reported to be greater. Increased prevalence of MS illness for office workers using computer reported 1 yr prevalence of neck pain which was 45.5% of the general population. In the study of Work Related Risk Factor done in 2008 for neck pain among library professionals in academic library at Chennai, -it was found that the prevalence of neck pain among library professionals using computer was 56%.

In the other study -prevalence of self reported musculoskeletal symptoms among office workers using computer done on 1185 population of Bangkok, 63% had the musculoskeletal symptoms in which maximum population had the neck pain i.e.=42%. BMC musculoskeletal disorder A prospective study of risk factors for neck pain in office workers done in Hongkong population by Julia M. Hush and Chris G. Maher, it was found that the prevalence of neck pain=67%. So the consequences of neck pain deserve more attention.

### Need of the study

- There is dearth of literature regarding the prevalence of neck pain in computer users in India.

### Objective

- To investigate the prevalence of neck pain in office workers using computer.

### Study Design

- CROSS SECTIONAL STUDY

### Subjects

#### Inclusion criteria

- Participants employed full time and working on computer for >3hours daily
- Age group 25 to 50 years, any gender.

#### Exclusion criteria

- Any specific medical condition affecting the cervical spine (ankylosing spondylitis, tumor, infection, rheumatoid arthritis, etc.

## II. Methodology

Subjects were selected based on inclusion criteria and verbal informed consent obtained from the participant.

A self prepared questionnaires for which the face validation was done by the staff of physiotherapy department was distributed among the 100 office workers in 10 working places.

- All the banks in Manipal-SBI, Syndicate (all the Manipal branch) ,billing sections of Kasturba hospital, Accounts and finance department of the colleges of MU.

Contents of the Questionnaires(refer appendix 1)

- I. Prevalence of Pain
- II. Duration of pain
- III. Hours of work on computer
- IV. Years of work in the same field
- V. Ergonomic related questions-
  - a. level of the monitor screen
  - b. distance of the monitor screen
  - c. regarding arm rest and back rest of chair.

**Data analysis**

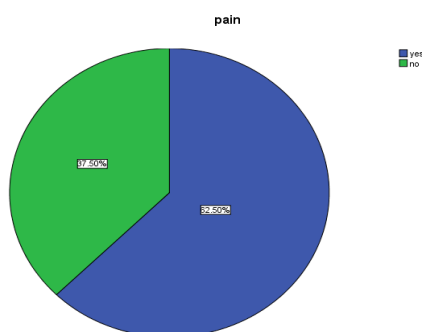
Descriptive statistics using SPSS version 16

**III. Results**

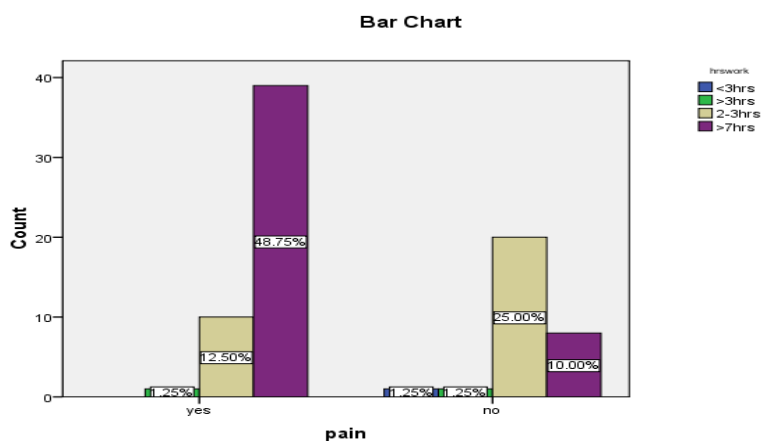
Descriptive statistics of various variables are summarized below.

**Prevalence of neck pain**

Total No. of subject	With pain	Without pain
80	50	30
Percentage(%)	62.5	37.5



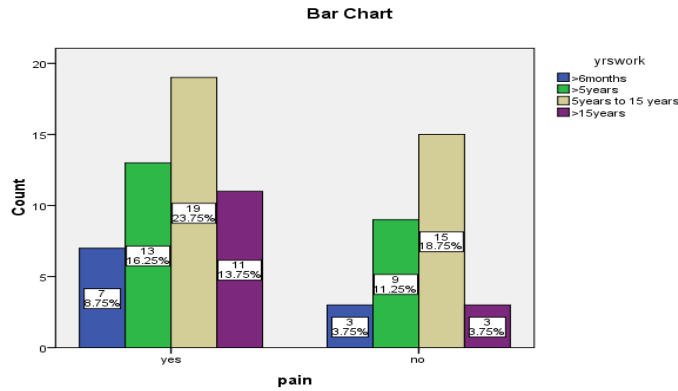
**Association of pain with working hours per day on computer**



Working hours of office workers those who have neck pain.

Work-  
 >7hrs=48.8%  
 2-3hrs=12.5%  
 >3hrs=1.2%

Association of pain with working years in the same field

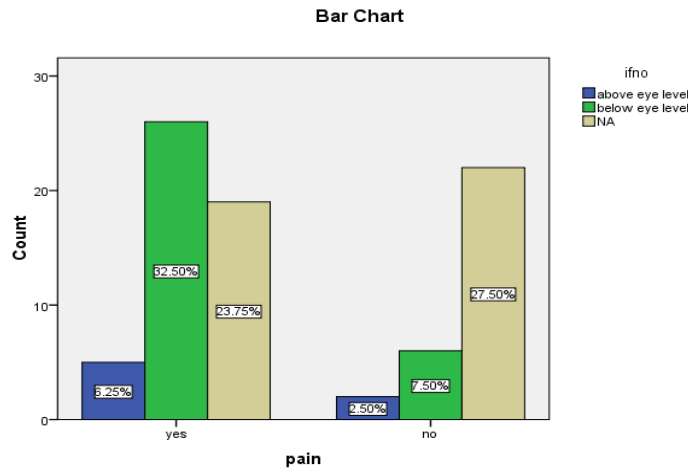


Working years of the office worker those who have neck pain  
 5-15yrs=23.8%  
 >5yrs=16.2%  
 >15yrs=13.8%  
 >6months=8.8%

Level of the top of the monitor screen

Proper Level	Without Proper Level
48.8%	51.2%

Association of pain with level of the monitor screen



Above eye level=6.2%  
 Below eye level=32.5%  
 Proper eye level=23.8%

IV. Discussion

In the previous study of prevalence of neck pain in the office workers using computer in various population of Chennai, Bangkok and hongkong working in different setups, the prevalence of neck pain was found to be 56%, 42.2%and 67% respectively. From this study conducted in the office workers those who are using computer , it was found that there was 62.5%prevalence of neck pain in our Indian population . It was also observed that there was association of pain with increased duration of working hours.i.e.those who is working >7hrs and those who are working in the same field from 5 to 15 yrs had maximum prevalence. It was also observed that there was association of pain with level of the top of the monitor screen .i.e. those whose top of the monitor screen was below eye level had maximum prevalence (32.5% out of 62.5%).

### **V. Limitations Of The Study**

To find out the accurate prevalence of neck pain in office workers, the sample size should be larger. The sample size of this study conducted is not sufficient to get accurate results and the other causes of neck pain couldn't be ruled out through this study. There was lack of proper questions regarding the ergonomic aspects.

### **VI. Conclusion And Recommendation**

From this study conducted, it was found that there is increased prevalence of neck pain in our office workers which was more associated with their duration of

Working hours on the computer. Those who are working on computer more than 7 hrs have maximum prevalence of neck pain so the working hrs on computer for our office workers should be concentrated and taken into consideration. our occupational health professionals should also impart education among the office workers regarding the proper ergonomics at their work place through various ways which can help to reduce the office workers to be at higher risk of neck pain and create ergonomic awareness among the office workers.