MUSCULOSKELETAL DISORDERS AMONG COMPUTER USERS IN SOME SELECTED HOSPITALS OF DHAKA CITY

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Introduction

Musculoskeletal disorders are the most common type of work-related health problem in the World.

Computer related musculoskeletal disorders continue to be a substantial public health problem. These disorders affect millions of computer users in developed countries. [1]

In the last few years the use of computer has increased very sharply in our country as well with the slogan of digitalization and increased demand of modern technology. Actually it is a real requirement of time.

This study on musculoskeletal disorders among the computer users in our country would offer the opportunity for identification of this problem and take adequate preventive measures.

Research Question

What is the pattern of musculo-skeletal disorders among the computer users?

General Objective

To assess the pattern of musculoskeletal disorders among the computer users.

Specific Objectives

- To assess duration of computer use by the respondents.
- To assess the pattern of musculoskeletal disorders of the respondents.
- To find out the association between musculoskeletal disorders and use of computers.

METHODOLOGY

Study design

It was a cross-sectional study.

Sample Population

Computer users having Masculo-skeletal pain who attended Orthopedic and Rehabilitation department of National Institute of Traumatology, Orthopedic Rehabilitation centre of Islami Bank Central Hospital and Metropolitan Medical Centre Limited in Dhaka city.

Sample size

Calculated sample size was 270 (p=80% & e=10%). But a sample of 400 was taken for getting more accurate and better interpretation of statistics.

Sampling technique

A non randomized, purposive sampling technique was followed.

Data collection tools

A pretested, modified and semi-structured questionnaire was used to collect the data.

Data management and analysis

After collection, data were organized and analyzed by using SPSS, 16.0 version (Chicago)

RESULTS

A total of 400 computer users were interviewed to collect the information. Section 1 contained the questions about socio-demographic characteristics, section 2 contained computer related factors, section 3 contained features of musculoskeletal disorders, section 4 contained treatment related factors and section 5 contained Information, Education and communication (IEC) related variables.

❖Among the respondents, 69.2% were male and 30.8% were female.

Distribution of respondents by age (n=400)

Age in years	Frequency	Percentage
16-25	132	33.0
26-35	123	30.8
36-45	80	20.0
46-55	42	10.5
56-65	17	4.2
>66	6	1.5
Total	400	100
Mean ± SD	33.58 ± 12.326	

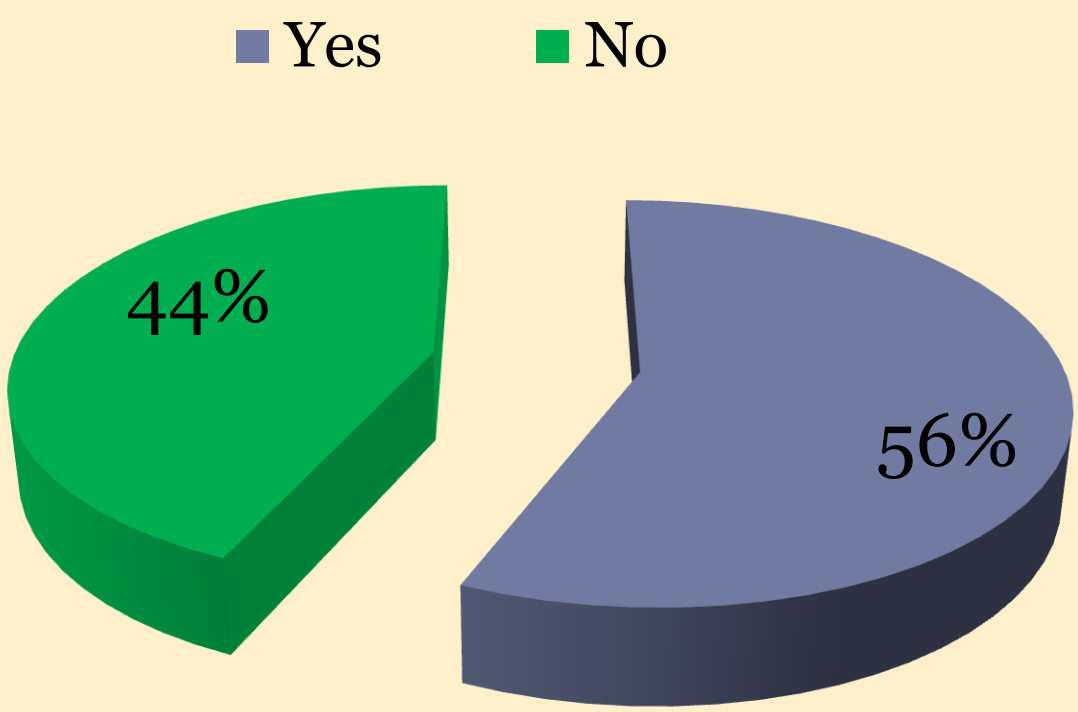
Distribution of respondents by duration of computer use (n=400)

Duration in Years	Frequency	Percentage
5-13	366	91.5
14-23	31	7.8
>24	3	.8
Total	400	100
Mean ± SD	8.42 ± 3.685	

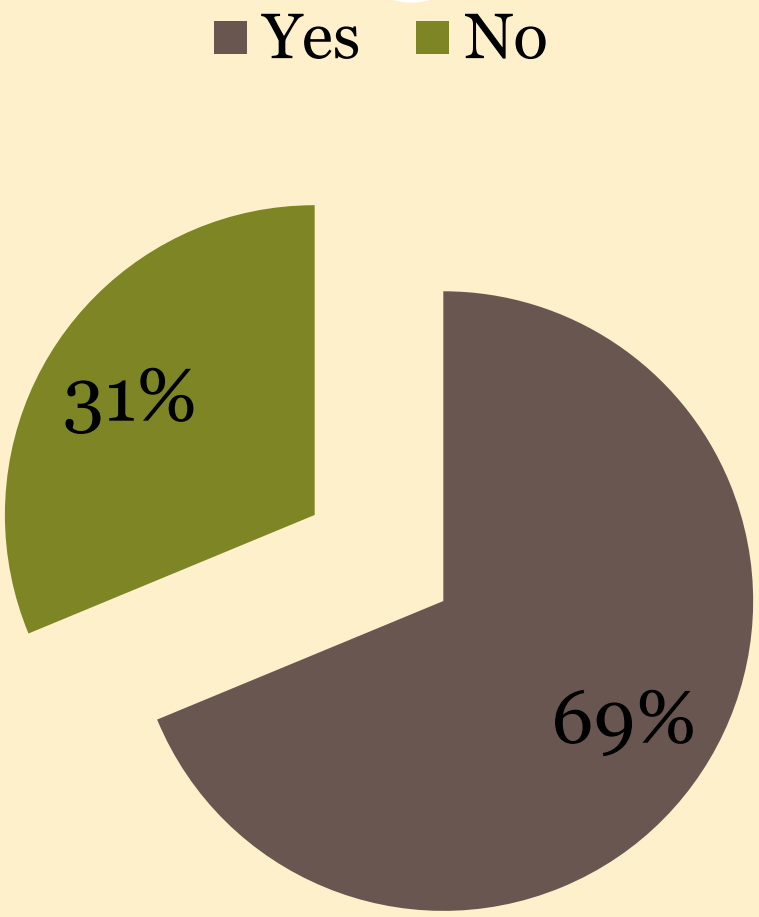
Distribution of respondents by daily use in hours (n=400)

Average day used in hours	Frequency	Percentage
1-5	206	51.5
6-10	167	41.8
>11	26	6.5
Total	400	100
Mean ± SD	5.72 ± 2.667	

Distribution of respondents by use of adjustable height of the chair (n=400)



Distribution of respondents by use of adjustable monitor (n=400)



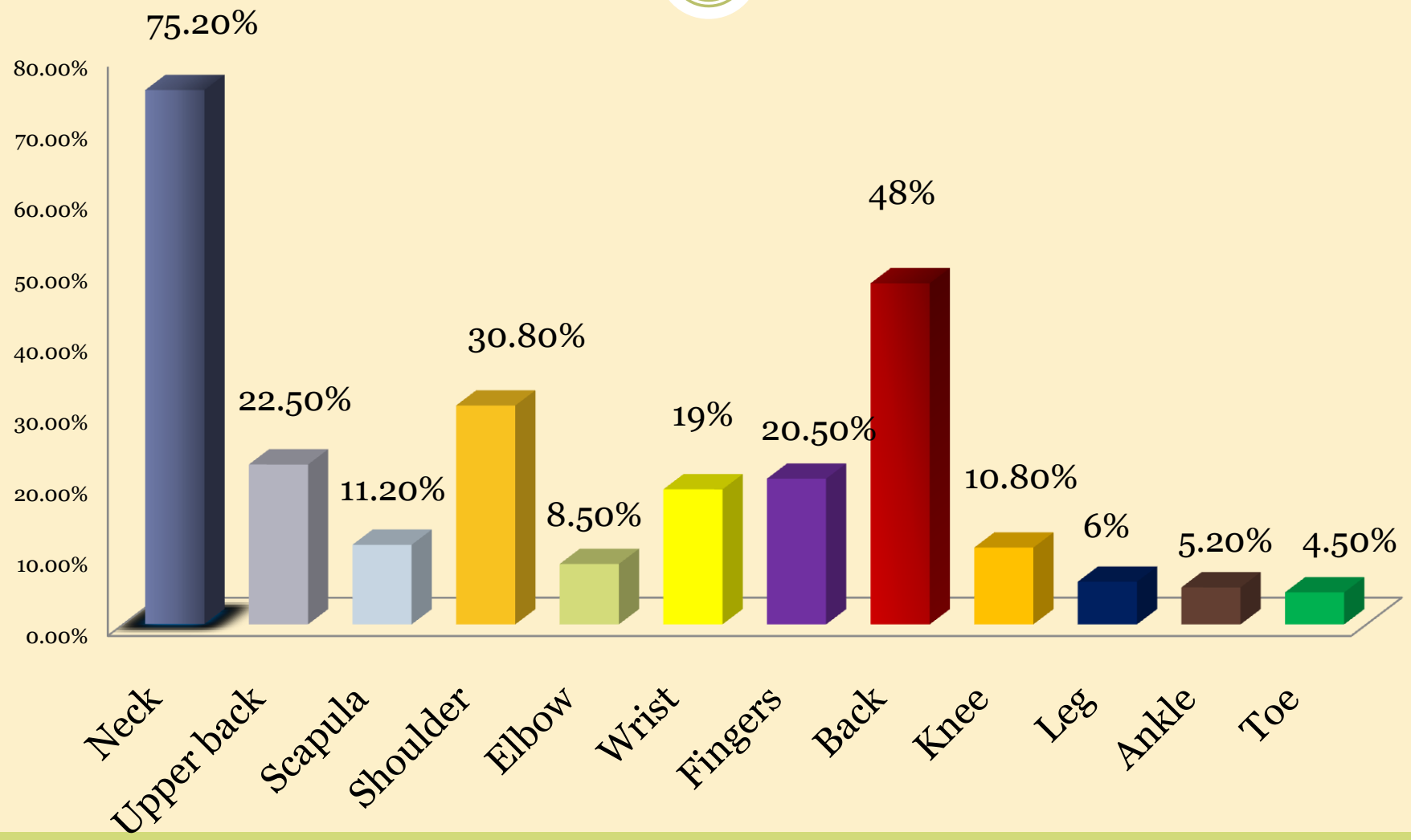
Distribution of respondents by pain on over stress (n=400)

Pain with over stress	Frequency	Percentage
Yes	311	77.8
No	89	22.2
Total	400	100

Distribution of respondents by pain during computer use (n=400)

Pain on over stress	Frequency	Percentage
Yes	395	98.8
No	5	1.2
Total	400	100

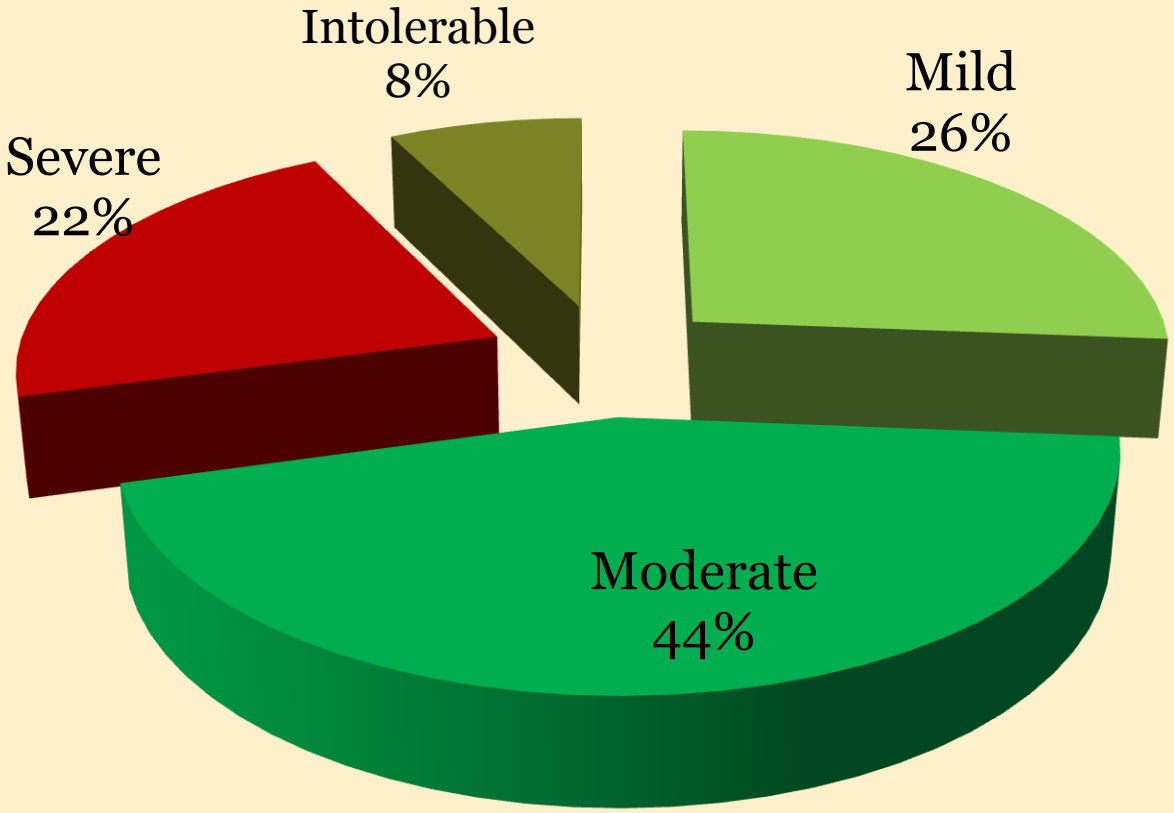
Distribution of respondents by pattern of musculoskeletal disorders (Multiple responses)



Distribution of respondents by characteristics of pain (Multiple responses)

Characteristics of pain	Frequency	Percentage
Intermittent	293	73.2
Continuous	101	25.2
Tingling	34	8.5
Numbness	47	11.8
Burning	36	9
Radiating	116	29

Distribution of respondents by severity of pain (n=400)



Distribution of respondents by association between duration of computer use and severity of pain

Duration in years	Severity of pain				Total	p – value
	Mild	Moder-ate	Severe	Intolera-ble		
5-13	103	159	79	25	366	0.019
14-23	2	18	6	5	31	
>24	0	1	2	0	3	
Total	105	178	87	30	400	

p- value obtained from Exact test

CONCLUSION

It is presumed that computer users suffer from different types of musculoskeletal disorders due to frequent exposure to certain risk factors for long period without breaks or rest, working with poor postures, remaining in the same position for long time with little or no movement, working without back support of chair and job stress.

Resulting consequences are neck, finger, low back and shoulder pain mostly. Leg and upper back are the least affected areas.

In the age of digitalization computer usage will continue to increase with passage of time. So, more and more professionals of different categories might develop disabilities over a period of time. A mass awareness creation and safe use of computers need to be emphasized.

RECOMMENDATIONS

•Creation of awareness among the computer users about the adverse health effects and preventive practices.

•Further study may be conducted to evaluate the risk factors for musculoskeletal disorders among computer users.

•Opportunities to be created to render proper treatment at different appropriate referral levels of the country.

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Thank you