

Musculoskeletal Pain of Computer Users among Selected Professionals

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Abstract

A descriptive type of cross sectional study was conducted to assess the pattern of spinal and musculoskeletal disorders among the selected computer users with a sample size of 183. The bankers, NGO officials, teachers and computer trainers were participated belonged to age between 18 to 40 years (121 male, 62 female). Study found that the majority 68.5% of the respondents complained back pain due to computer use, followed by 65.7% reported neck pain, 28.8% shoulder pain, 18.5% upper back and fingers pain. Among them 17.5% of the respondents suffered from wrist pain, 9.2% scapular pain, 8.8% knee joint pain, 7.5% elbow joint pain, 6.8% leg pain, 5.6% ankle joint and 4.5% complained in toe pain. Study also explored that the severity of pain were found significantly associated ($p < .05$) with highest duration of computer use. It is concluded that gradually increasing the number of skilled to semi-skilled professionals are occupied in computer use at this time of digitalization and should be sorted effective preventive measures to prevent spinal pain and musculoskeletal disorders.

Key words: Spinal pain, Musculoskeletal, Computer Users

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Introduction: Spinal pain has been described as one of the main occupational problems among bank employees. Varying prevalence of spinal pain specially LBP has been reported in different occupational groups with a prevalence of 73%-76% in nurses.¹ Study from Alperovitch-Najenson D, and Alrowayeh HN, et al. 2010 has been found the different findings in highest prevalence of spinal pain 45% urban bus drivers and 70% physical therapist in Kuwait.^{2, 3} The study identified the point, 12 month and lifetime prevalence of low back pain among the bank employees of Punjab to be 37.6%, 34% and 21.2% respectively with greater prevalence in males and in age group of 50-60 years. Cigarette smoking, regular exercise, prolonged sitting, weakness of abdominal and back extensor muscles, hamstring and quadriceps tightness emerged as the risk factors associated with low back pain.⁴ The occupational health personnel are slowly awakening to this group of modern diseases, which are slowly taking its roots among the software professionals also. These problems if ignored can prove debilitating and can cause crippling injury forcing one to change one's profession.

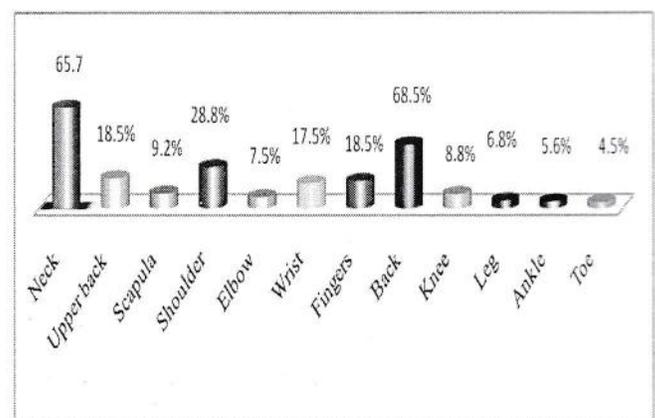
Methodology

It was a descriptive type of cross-sectional study carried out from May to August 2017 with sample size of 183 residing at Sonargaon Upazila in Narayanganj district. Participants were drawn from selected bank staffs, NGO officials, teachers and computer trainers who used computer at least four days in a week

regularly. Non-randomized convenience and purposive sampling method was applied, using a semi-structured questionnaire and face to face interview was performed for data collection. The respondents belonged to age between 18 to 40 years (121 male, 62 female). Researchers explained the study to the respondents of each individual was then invited to participate in the study. Written consent was obtained from each of those replying in the affirmative. The collected data was edited by checking, cleaning and analyzing by using the software SPSS (20.0 version). Descriptive statistics were used for interpretation of the findings.

Results

Figure 1 Distribution of the respondents by pattern of musculoskeletal pain (n=183)



* Multiple Responses

Duration in years	Severity of pain				Total	PV
	Mild	Moderate	Severe	Intolerable		
5-10	11	13	10	8	42	.003
11-15	9	28	18	10	65	
16-20	12	21	38	5	76	
Total	32	62	66	23	183	

Table 1: Distribution by association between duration of computer use and severity of pain

Discussion

This descriptive type of cross sectional study was found that highest 68.5% of the respondents complained back pain due to computer use, followed by 65.7% reported neck pain, 28.8% shoulder pain, 18.5% upper back and fingers pain, 17.5% wrist pain, 9.2% scapular pain, 8.8% knee joint pain, 7.5% elbow joint pain, 6.8% leg pain, 5.6% ankle joint and 4.5% complained in toe pain. These findings are almost similar to the findings of the study carried out by Srikantha BV, 2013.5 Study also explored the pain status classified in mild, moderate severe and intolerable which found that the severity of pain were found significantly associated ($p < .05$) with highest duration (16-20 years) of computer use.

Conclusion

It is assumed that computer user suffer from different types of spinal 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. As a result the consequences of musculoskeletal pain like neck, finger, low back and shoulder pain. Leg and upper back are the least affected areas. So, professionals of different categories strength develop disabilities over a period of time. For preventive measures mass awareness should be creation and safe use of computer have to emphasize.

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