THE PREVALENCE OF CHRONIC LOW BACK PAIN IN OFFICE WORKERS OF LAHORE MEDICAL AND DENTAL COLLEGE AND GHURKI TRUST TEACHING HOSPITAL, LAHORE

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Abstract

Objective: To find the prevalence of chronic low back pain among LMDC & GTTH office workers and effect of low back pain on their job performance and satisfaction.

Methodology: Ninety three workers were enrolled in this study with the help of convenience sampling techniques. 59 of them were male and remaining 34 were female. A cross sectional survey was done. Participants of the study are of both genders and of any age having established diagnosis of chronic low back pain. Duration of the study was 3 months.

Results: Out of 93 participants, 63% were males. Pain intensities were found associated with poor habit of sitting during their job hours. 82% of participants were not involved in exercise habit. Only 23.7% of them used adjustable back support. Sleep disturbance was present among candidates. Almost 50% of them had a sleep disturbance episode once or twice a week. 53% of candidates complained of poor job performance.

Conclusion: This survey indicates the prevalence of low back pain in the office workers of Ghurki Trust Teaching Hospital Lahore. The workers need postural reeducation to prevent the low back pain. Reeducation could decrease the cost on treatment but may will increase the functional level, job satisfaction, job quality and other ergonomic characters of patients. LBP does affect the performance during job. By improving the LBP job performance can be increased.

Key words: Chronic back pain, Posture.

Introduction

Chronic low back pain is one of the major causes of patients coming in Hospital & clinical setup. Despite of accessibility to highly sophisticated diagnostic tools, it seems difficult to find out the exact cause of chronic low back pain. Mechanical back pain is broad, most frequently encountered and most widely focus of treatment. Due to low level of literacy and lack of awareness people often exploit their posture during ADL, IADL and sport activities. Some of them do not have awareness of whether their posture was faulty or good, others ignore considering this. Chronic low back pain may be caused by many diverse origins. It may start from diseases, injuries or stresses to many different structures including bones, muscles, ligaments, joints, nerves or the spinal cord. The affected structure will send a signal through nerve endings, up the spinal cord and into the brain where it registers as pain. Several times, the exact source of the pain is not well clear at the end of assessment. (1) Psychological factors are even more imperative in patients with chronic back pain. Disappointment with a work situation, a director, or a blind alley job and tedium contribute greatly to the commencement and persistence of back pain. Disc herniation and spinal canal narrowing are so frequent as to be shown by MRI imaging in a large amount of the people in their later years, and in most cases, such conditions are not responsible for the pain. They are often referred to as reasons for surgery, but only seldom are operations successful in improving the pain definitively. (2)
Literature Review

O’Sullivan PB, Smith AJ, Beales DJ, et al in 2011 found a drop in the association between sitting posture and self-reported back pain. The purpose of this study was to determine whether the degree of fall in the session was associated with sex and physical lifestyle or psychosocial factors. A large epidemiological study on low back pain in the general population in the Netherlands was conducted between 1993 and 1995. The study population consisted of a sample of 13,927 men and women aged 20-59. Almost half of respondents (49.2% including 45.5% of men and women 52.4%) reported back pain in the previous year. Over 40% of respondents indicated that the episode lasted more than 12 weeks (7.1%) or low back pain was continuously present (34.7%). Chronic back pain is more common in women (22.6%) than men (18.3%) and increases with age from 12% to 27.1% in 20-29 years and 50-59 years. The occurrence of back pain was significantly higher among women than men. About 46% of women complained of back pain compared with 34% of men. Back pain is caused by fatigue (39%) or general physical weakness (28%), while 10% concerned were due to the uncomfortable bed and 9% due to wrong posture in daily activities. Posture of patients with postural back pain was assessed by Lauren Womersley, and Stephen May on July 15, 2005. The group with backache sat for longer periods without interruption and had a more relaxed sitting position in flexion than without back pain group. Effects of sitting with adjustable back support on sciatica and low back pain at work were found by Mohsen Maksous, Fang Lin, James Bankard, et al. They argued that reduced load on the spine and the activities of the low back muscles, can help increase the comfort of being and reduce the risk of back pain. Their findings indicate that sitting with an increased lower lumbar support result in a reduction of the load at the lumbar spine and lumbar muscle activity, which may be related to potentially reduce back pain.

An O Sanya and F O Omokhodion studied back pain in office workers in Nigeria. The aim of this study was to determine the prevalence and risk factors for back pain among office workers in Ibadan, Nigeria. The severity of back pain was found associated with sitting for more than 3 hours. Panagiotis Spyropoulos, PhD, George Papathanasiou, MSc, Georgoudis George, PhD, et al found the prevalence of LBP in the Greek civil service workers. The study was a cross sectional survey. They found that a high proportion of Greek office workers suffer from back pain that may affect the Greek economy. The incidence of low back pain condition was significantly associated with some of the anthropometric factors, and ergonomic.

Methodology

A cross sectional study was completed in 3 months from January 1, 2012 to March 28, 2012 conducted at Ghurki Trust Teaching Hospital Lahore Medical and College, Lahore. A sample of 93 workers was taken. The history of posture during job & work and their effect on their performance was taken through a structured questionnaire. VAS (Visual Analog Scale) for pain intensity & pain duration were two dependent variables in study. It constituted as the blue print of collection, viewing observations, analysis of records. Direct personal method was used in this study; the researcher approached the workers and interviewed them. Multiple bar charts were used to present two or more categorical variables.
Results

Ninety three patients were enrolled in this study with the help of convenience sampling technique. There were 59 male and remaining 34 were female. Pain intensities were found associated with poor habit of sitting during their job hours. (Figure I) 82% of participants were not involved in exercise habit. Only 23.7% used an adjustable back support. (Figure II) Sleep disturbance was present among candidates. Almost half of them had it once or twice per week. 55% of candidates complained of poor job performance. (Table I)

Figure I Job Performance

![Graph showing job performance with good and poor categories.]

Figure II Adjustable Back Support

![Graph showing adjustable back support with yes and no categories.]

Discussion

In a country like Pakistan, where 70% of population belong to lower class so high expenses on the treatment of lower back pain are not affordable. A general awareness program on correct postural can cure this problem. This survey emphasizes the need of postural reeducation. Significance of forward bending during sitting could not be evaluated. Further studies are required in this context. Among the individual risk factors, gender is also an important risk factor. Females are showing more intense pain. This may be because of their psychological factor. Only middle and lower class are targeted because of limited sources. But this can be correlated with the fact that 98% population of Pakistan comprise of middle & lower class (28% & 70% respectively). Awareness about exercise habit is very important. Proper awareness program about correct sitting posture and habit should be done using community, office and other job based programs. A Performa about recommendations of correct sitting posture is distributed among patients for their proper education. Most of patients ignore their pain status. Education about proper time management and cure of it should be emphasized.

It could decrease the cost on treatment but also will increase the functional level, job satisfaction, job quality and other ergonomic characters of patients. Back support chairs maintain the stability of pelvis and spine but render spine straightening. People are not properly educated to use correct posture during their job. Some community based education and awareness programs must be run for posture guidance. Adjustable back support maintains the alignment of spine on pelvis. Height of seat is very crucial. It is variable according to the height of candidate. Adjustable seating surface make it possible to adjust according to different structured candidates. Sleep disturbance ultimately increases pain and tension. By decreasing the LBP work performance can be enhanced.
Conclusion
According to the results posture awareness is very poor in office workers of Ghurki Trust Teaching Hospital Lahore. They often use poor posture while they are sitting. And they do not even recognize it. Their ignorance not only leads to some serious problems but also causes increased expenses on their treatment and also affects their job activities. This indirectly affects their job performance and satisfaction.

References

Table I

<table>
<thead>
<tr>
<th>Study sample</th>
<th>The intensity of LBP</th>
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<td></td>
<td>No.</td>
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<td></td>
<td>No.</td>
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<tr>
<td>Gender</td>
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<tr>
<td>Male</td>
<td>59</td>
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<tr>
<td>Female</td>
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<td>≤34</td>
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<tr>
<td>≥35</td>
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