Outcome of treatment of work related musculoskeletal disorders in on-site clinics in information technology companies

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1. Introduction

Work related musculoskeletal disorders (WRMSD’s) are a constellation of disorders common in computer users which involves muscle, fascia, tendon and/or neurovascular structures of neck and upper limb; also affects other body parts. Long working hours, Static postures, poor office ergonomics, and repetitive nature of work were identified as some of the risk factors leading to pain and discomfort. Studies have also shown that the IT professionals were exposed to such different risk factors and therefore, it is expected that they are prone to develop work related musculoskeletal discomfort. In India, several epidemiological studies have reported prevalence of musculoskeletal discomfort in 75% of Information Technology (IT) workers. The purpose of this study was to analyze risk factors, clinical features and outcome of treatment of WRMSD among IT professionals in onsite clinics.

2. Materials and Methods

It is a retrospective report analysis study. Medical records of 8160 IT professionals who complained of musculoskeletal pain and discomfort were analyzed. All the subjects reported their symptoms to a single orthopedic and rehabilitation physician at the onsite clinic present in their respective office premises. The report consist of demographic data including duration of computer work, job category, work station and ergonomic data, region of pain and discomfort and physicians diagnosis. The physician performed the clinical assessment and diagnosis. After diagnosis all the subjects received a sequenced, multidisciplinary treatment protocol. Visual Analog Scale (VAS) for pain and employee’s subjective feedback on functional recovery was collected. Reports from 2006 to 2013 were analyzed statistically.

3. Results

Age of the participants varied from 20 to 60 years (Mean – 30 years). 85.9% of the participants were aged 25 to 45 years. The participants were predominantly males (72.6%). The commonest body parts involved were neck and upper back (58.5%), lower back (47.5%), followed by shoulder (30%) and wrist (19%). Pain was reported by all categories of participants which included Managers, Software Engineers, Application Engineers, Analysts, HR, Receptionists and other office workers. Various ergonomic risk factors reported were listed in table 1.

Table 1. Ergonomic risk factors reported.

<table>
<thead>
<tr>
<th>Ergonomic risk factors</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor office ergonomics</td>
<td>54</td>
</tr>
<tr>
<td>lack of keyboard tray</td>
<td>25</td>
</tr>
<tr>
<td>lack of mouse tray</td>
<td>35</td>
</tr>
<tr>
<td>lack of foot rest</td>
<td>60</td>
</tr>
<tr>
<td>Improper monitor height</td>
<td>80</td>
</tr>
</tbody>
</table>

Common diagnosis made were Myofascial Pain Syndrome (49.20%), Fibromyalgia (8.5%), Thoracic Outlet Syndrome (25.02%), Cubital Tunnel Syndrome (0.16%), Chronic Regional Pain Syndrome (0.20%), and Wrist Tendinities (3.70%).

96% of the subjects felt reduction in pain and improved function and productivity following the sequenced rehabilitation protocol.
4. Conclusion

The on-site clinic discussed in this study is unique because of the comprehensive methodology of assessment, diagnosis, treatment, and follow-up that it provides to the employees at their workplace. On-site employee health clinics are recommended for the effective prevention and management of WRMSD in view of the high prevalence of successful outcomes seen in this study.

References


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