Epidemiological Features of Chronic Low-Back Pain


Abstract

Introduction: Chronic low back pain (LBP) is a major cause of abstinence from work in the world. Objective: The aim of the present study was to assess the epidemiological features of chronic low back pain patients in tertiary care teaching hospital. Materials and Methods: A descriptive cross sectional study was conducted from January 2018 to June 2018 among 70 patients attending at Physical Medicine and Rehabilitation outpatient department of the Shaheed Suhrawardy Medical College and Hospital after obtaining requisite consent from the patients. Data were collected through interviewing of the patients. The collected data were entered into the computer and analyzed by using SPSS (version 20.1) to assess the epidemiological features of chronic low back pain patients. Results: In a pool of 70 patients, most of the patients (n=34, 48.5%) belong to 31-40 year age group. In a pool of 70 patients, Male patients (52.85%) were more than the female patients (47.14%) at the Shaheed Suhrawardy Medical College and Hospital. In occupational status, most of the patients were Housewife (n=19, 27.14%) followed by service-holder (n=17, 24.28%). In a pool of 70 patients, most of the patients BMI were normal (n=49, 70%). Conclusion: Epidemiological features were characterized by male patients, as from the 31-40 years of life and housewife. Physical functional profile was primarily characterized by patients with normal BMI and overweight.

Keywords: Epidemiological feature, Chronic low back pain.

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Introduction:

Low back pain (LBP) is a frequent cause of disability in population, with up to 80% sufferers describing at least one recurrence1. Nonspecific or mechanical LBP is characterized by the absence of structural change; that is, there is no disc space reduction, nerve root compression, bone or joint injuries, marked scoliosis or lordosis that may lead to back pain. Only 10% of LBP has a specific cause due to a particular disease2. The incidence of nonspecific LBP is higher in workers subjected to heavy physical exertion, such as weight lifting, repetitive movements, and frequent static postures3. Chronic low back pain persists for at least 3-6 months, and it may recur in intervals rather than maintaining a continuous presence and it might interrupt functioning, well-being, and quality of life4. Chronic LBP is an everyday experience for 4% to 7% of the population5. Low back pain usually is a self-limiting and benign disease that tends to improve spontaneously over time6.
Materials and Methods:
A descriptive cross sectional study was conducted from January 2018 to June 2018 among 70 patients attending at Physical Medicine and Rehabilitation outpatient department of the Shaheed Suhrawardy Medical College and Hospital after obtaining requisite consent from the patients. Data were collected through interviewing of the patients. The collected data were entered into the computer and analyzed by using SPSS (version 20.1) to assess the epidemiological features of chronic low back pain patients. The study was approved by the institutional ethical committee. The interviews were held directly in the corridor just outside the Outpatient Department.

Results:
The table shows that the age structures of those patients have been categorized in years into three groups. Overall, 27 (38.5%) patients were in 18-30 years old while 34 (48.5%) patients were in 31-40 years old. 9 (12.8%) patients belong to above 40years age group (Table I).

Table I: Age distribution of the study population (n=70)

<table>
<thead>
<tr>
<th>Age in years</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30 years</td>
<td>27</td>
<td>38.5%</td>
</tr>
<tr>
<td>31-40 years</td>
<td>34</td>
<td>48.5%</td>
</tr>
<tr>
<td>Above 40 years</td>
<td>9</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Total numbers of patients both male and female were 70. Male patients (52.85%) were more than the female patients (47.14%) at the Physical Medicine and Rehabilitation outpatient department (Figure 1).

![Male Female Pie Chart](image)

Figure 1: Pie Chart Showing Sex of the Patients
Out of 70 patients, 19 (27.14%) were housewife, 17 (24.28%) were service-holder followed by 6 (8.57%) were driver (Table II).

Table II: Occupational status of the study population (n=70)

<table>
<thead>
<tr>
<th>Occupational status</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>19</td>
<td>27.14%</td>
</tr>
<tr>
<td>Garment worker</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Teacher</td>
<td>2</td>
<td>2.85%</td>
</tr>
<tr>
<td>Driver</td>
<td>6</td>
<td>8.57%</td>
</tr>
<tr>
<td>Businessman</td>
<td>5</td>
<td>7.14%</td>
</tr>
<tr>
<td>Service holder</td>
<td>17</td>
<td>24.28%</td>
</tr>
<tr>
<td>Laborer</td>
<td>2</td>
<td>2.85%</td>
</tr>
<tr>
<td>Student</td>
<td>4</td>
<td>5.71%</td>
</tr>
<tr>
<td>Rickshaw puller</td>
<td>1</td>
<td>1.42%</td>
</tr>
<tr>
<td>Others</td>
<td>9</td>
<td>12.85%</td>
</tr>
</tbody>
</table>

Out of 70 patients, 6 (8.57%) patients were underweight, 49 (70%) patients were normal BMI, 13 (18.57%) patients were overweight, 2 (2.85%) patients were obese (Table III).

Table III: BMI status of the study population (n=70)

<table>
<thead>
<tr>
<th>BMI status</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight (&lt;18.5)</td>
<td>6</td>
<td>8.57%</td>
</tr>
<tr>
<td>Normal (18.5-24.9)</td>
<td>49</td>
<td>70%</td>
</tr>
<tr>
<td>Overweight (25.0-29.9)</td>
<td>13</td>
<td>18.57%</td>
</tr>
<tr>
<td>Obese (30.0-34.9)</td>
<td>2</td>
<td>2.85%</td>
</tr>
</tbody>
</table>

Discussion:
All together a total of 70 prescriptions were collected during the study period. In our study most of the patients belonged to 31-40 years (48.5%). Near to similar results were obtained in the study conducted by bento et al. 2019 study. In their study they stated most of the patients were 36-59 years (32.7%). This study showed male patients were more than the female patients which were 52.85% and 47.14% respectively. Dissimilar results were obtained in the study conducted by Galukande et al. 2005 study. YiXiang Jet al, demonstrated that females had higher prevalence of LBP across all age groups. In our study most of the patients were housewife (27.14%) followed by service-holder (24.28%). Dissimilar results were obtained in the study conducted by Santos et al. 2015 study. In their study they stated most of the patients were industrial production worker (25.2%). In our study most of the patients were Normal BMI (52.5%) and overweight (28.75%). Dissimilar results were obtained in the study conducted by Santos et al. 2015 study. In their study they stated that most of the patients were overweight (57.1%)10.

Conclusion:
Epidemiological features were characterized by male patients, as from the 31-40 years of life and housewife. Physical functional profile was primarily characterized by patients with normal BMI and overweight. A larger study is needed to explore these hypotheses further.

Acknowledgements:
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Conflict of Interests: None.

References:
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Male patients (52.85%) were more than the female patients (47.14%) at the Physical Medicine and Rehabilitation outpatient department (Figure 1).

Table I: Age distribution of the study population (n=70)

27 (38.5%) patients were in 18-30 years old while 34 (47.14%) belonged to above 40 years age group (Table I).

Discussion:

A descriptive cross sectional study was conducted from January 2018 to June 2018 among 70 patients attending at Physical Medicine and Rehabilitation outpatient department of the Shaheed Suhrawardy Medical College and Hospital for their low back pain. The study was approved by the institutional ethics committee of the medical college.

Materials and Methods:

All together a total of 70 prescriptions were collected during the study period. Data were collected through interviewing of the patients. Functional profile was primarily characterized by patients with chronic low back pain. The study was approved by the institutional ethics committee of the medical college.

Results:

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