



Disease Pattern of Musculoskeletal Disorders of the Patients Attending Outdoor of the Department of Physical Medicine and Rehabilitation, Sir Salimullah Medical College, Dhaka

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Key words:

Disease pattern, Physical Medicine & Rehabilitation, Low back pain (LBP).

Abstract:

Background: Physical medicine and rehabilitation (PM&R) is a medical speciality focused on prevention, diagnosis, rehabilitation, and therapy for patients who experience functional limitations resulting from injury, disease, or malformation. Department of Physical Medicine and Rehabilitation (PMR) at Sir Salimullah Medical College and Mitford Hospital provides outdoor services for different musculoskeletal and neurological disorders which include counseling, drug management, physical therapy, speech therapy, ADL training etc. In this study, we enrolled only the patients of musculoskeletal disorders.

Objectives: To understand the disease pattern and demographic characteristics of the patients of Musculoskeletal disorders presenting to the department of PMR. This will increase the awareness regarding PMR services among doctors and other health care providers and also to facilitate rehabilitation plan of a musculoskeletal disorder.

Methods: This cross-sectional observational study was done on outdoor patients attending the Department of PMR at Sir Salimullah Medical College from 1st January, 2021 to 31st December, 2021. We have enrolled only the patients of musculoskeletal disorders.

Results: Total number of patients was 13644, most of them were female. Maximum number of patients belong to 20-50 years of range and they mainly come from surrounding urban areas. Regarding the musculoskeletal disease pattern, 34.2% patients presented with mechanical low back pain (LBP) and related diseases, 11.4% patients with neck pain, 13.7% with knee pain, 9.4% with shoulder pain, soft tissue rheumatism (STR) comprises of 8.7%, 4.6% with heel pain and related disorders, 14.3% with rheumatological diseases, other musculoskeletal diseases contribute to 3.7%. Patients with LBP and related diseases were diagnosed as non-specific mechanical LBP (74%), Herniated disc disease(5%), Lumbar spondylosis, Spondylolisthesis (2%), etc.

Conclusion: LBP and related diseases affect most of the people attending outdoor with musculoskeletal diseases.

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Introduction:

Physical medicine and rehabilitation (PM&R) is a medical speciality focused on prevention, diagnosis, rehabilitation, and therapy for patients who experience functional limitations resulting from injury, disease, or malformation. The field of Physical Medicine and Rehabilitation focuses on the restoration of health and function and reintegration of the patient into the community.^{1,2} Sir Salimullah Medical College and Mitford Hospital is one of the oldest government medical college in Bangladesh located in the old part of the capital, Dhaka.

Department of Physical Medicine and Rehabilitation (PMR) at Sir Salimullah Medical College and Mitford Hospital started its journey on 2003 with outdoor service. Everyday around 60 patients are served in this department. The department provides outdoor services for different musculoskeletal and neurological disorders which include counseling, drug management, physical therapy, speech therapy, ADL training etc. In this study, we enrolled only the patients of musculoskeletal disorders. The aim of this study was to measure the disease pattern and demographic characteristics of the patients of Musculoskeletal disorders presenting to the department of PMR. This will increase the awareness regarding PMR services among doctors and other health care providers and also to facilitate rehabilitation plan of a musculoskeletal disorder.

Materials and Methods:

It was a cross-sectional observational study done on outdoor patients in the Department of Physical Medicine and Rehabilitation (PMR) at Sir Salimullah Medical College. The study was done from 1st January, 2021 to 31st December, 2021. We have enrolled only the patients of musculoskeletal disorders. Thus, the objective of this study was to know the frequency and disease pattern of the musculoskeletal disorders of the outdoor patients. Data were collected by trained personal in a preformed questionnaire. Data was analyzed using microsoft excel and statistical package for social software (SPSS). Means and standard deviation were used for continuous variables, and simple proportions were used for categorical data.

Results:

Socio-demographic characteristics of patients

Sex distribution

Total number of patients was 13644. Among them 6427 (47.1%) were male and 7217(52.9%) were female.

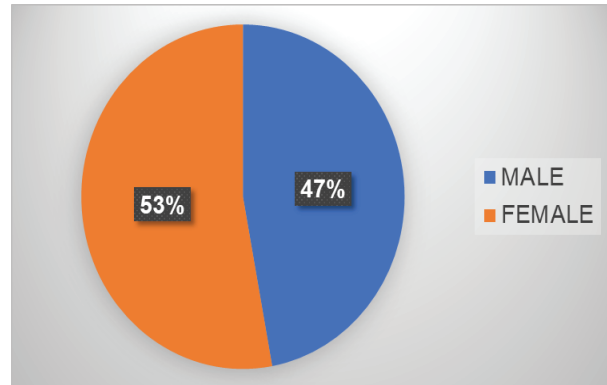


Fig. -1: Sex distribution of the patients

Age distribution:

4.58% of patients were under 20 years of age, about 83.7% of patients belong to 2nd, 3rd, 4th, 5th decades. 11.72% were above 60 years of age.

Table-I

Age distribution of the patients of musculoskeletal disorders attending department of Physical Medicine and Rehabilitation, Sir Salimullah Medical College, Dhaka from 1st January, 2021 to 31st December, 2021

Age of the patients	Number of patients	Percentage
Below 20 years	625	4.58%
21-30 years	1841	13.5%
31-40 years	3834	28.1%
41-50 years	4052	29.7%
51-60 years	1693	12.4%
More than 60 years	1599	11.72%

Profession of the patients:

Among the total number of patients, majority were housewives (36.73%) followed by farmers (15.56%), Service holder (13.35%), Labourer (9.79%), Businessman (9.26%) and Student (6.84%). Pediatric population comprises only 3.93% of the patients.

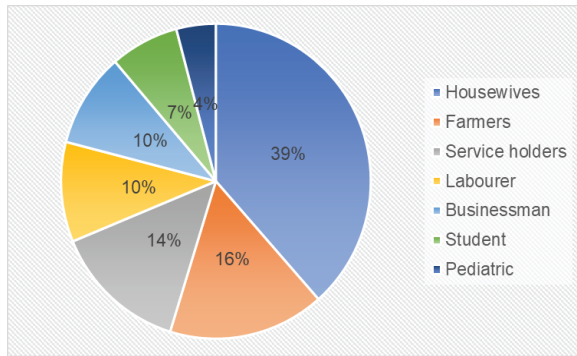


Figure-2: Service of the patients

Most of the patients (84.6%) were from urban areas. Rest of the patients were from rural areas (15.4%).

Residence of the patients

Table II

Showing percentage of residence of the patients.

Residence	Percentage
Urban areas	84.6%
Rural areas	15.4%

Musculoskeletal disease profile of patients

Regarding the disease pattern of musculoskeletal disorders, 34.2% patients presented with mechanical low back pain (LBP) and related diseases, 11.4% patients with neck pain, 13.7% with knee pain, 9.4% with shoulder pain, soft tissue rheumatism (STR) comprises of 8.7%, 4.6% with heel pain and related disorders, 14.3% with rheumatological diseases, other musculoskeletal diseases contribute to 3.7%.

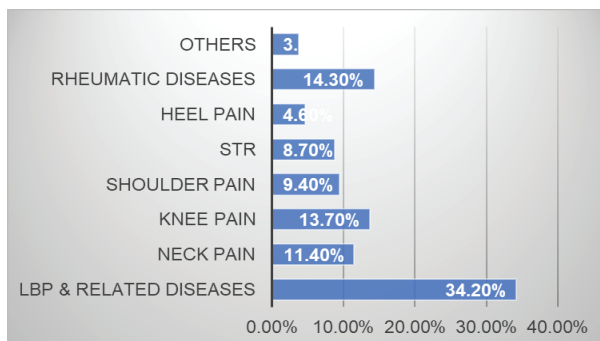


Figure-3: Musculoskeletal disease profile of the patients

Among the LBP related diseases, 74% patients were non specific mechanical LBP, 12% patients have degenerative disease or facet arthropathy, 5% patients have herniated disc disease, Osteoporotic compression fracture (3%), Spinal stenosis (3%), Spondylolisthesis (2%) and 1% Patients present with neoplasia or infection of the spine.

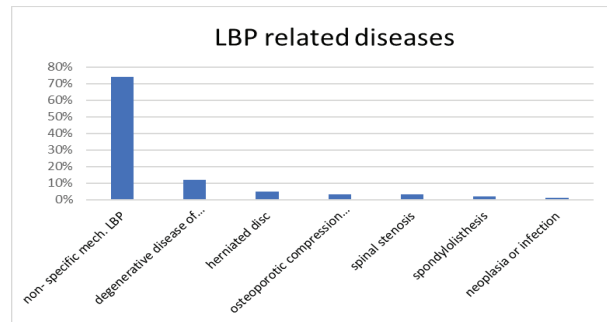


Figure-4:

Discussions:

The study assessed age, sex, occupation, residency and disease pattern of the patients attending the dept. of Physical Medicine & Rehabilitation, Sir Salimullah Medical College and Mitford Hospital. In this study, 47.1% were male and 52.9% were female patients. A cross sectional study at community level for detection of painful musculoskeletal disorders by Moinuddin M, et al. (2012) showed that musculoskeletal complaints are predominant in females.³ Mandal MA, et. al suggest most of the outdoor patients of Dept. of Physical Medicine & Rehabilitation, KYAMCH, Enayetpur, Sirajgonj were females (53.79%).⁴ This may be due to increase social awareness among females about health. According to age distribution, 4.58% of patients were under 20 years of age, about 83.7% of patients belong to 2nd, 3rd, 4th, 5th decades. 11.72% were above 60 years of age. Moniruzzaman M, et al. (2012) at Rangpur Medical College Hospital also found 49.9% were in 41-50 years age.⁵ It indicates that most of the patients were adult as they can easily go to hospital. But low percentage of older patients suggest that their difficulty to go alone to the nearest hospital. Occupation of the patients show (36.73%) were housewives followed by farmers (15.56%), Service holders (13.35%), Labourer (9.79%), Businessman (9.26%) and Students (6.84%). Nessa J et al. (2012) showed 37.3% housewife, 16.3% farmers, 15.1% service holder in their studies.⁶

Regarding the musculoskeletal disease pattern, 34.2% patients presented with mechanical low back pain (LBP) and related diseases, 11.4% patients with neck pain, 13.7% with knee pain, 9.4% with shoulder pain, soft tissue rheumatism (STR) comprises of 8.7%, 4.6% with heel pain and related disorders, 14.3% with rheumatological diseases, other musculoskeletal diseases contribute to 3.7%. Patients with LBP and related diseases were diagnosed as non-specific mechanical LBP, Prolapsed Lumbar Intervertebral Disc (PLID) disease, Lumbar spondylosis, Spondylolisthesis, etc. Among the patients of rheumatological diseases, there were rheumatoid arthritis, spondyloarthropathy, and other inflammatory diseases. Moinuddin M et al. (2012) showed that majority of patients (44.85%) had back pain.³ Study performed by Rahman MM et al. (2012) at CMCH,⁷ Nessa J et al. (2012) at Shaheed Suhrawardy MCH⁶ and Moniruzzaman M⁵ at RpMCH found highest level of back pain in their study respectively. Hasan SA et al. (2009) documented non-specific low back pain (59.95%) is the most common disease in his study.⁸

In Sir Salimullah Medical College and Mitrodd hospital, department of PMR is gaining importance among doctors and allied staffs due to burden of common musculoskeletal diseases and better service. Number of outdoor patients at department of PMR is increasing last 2-3 years. We also get referrals from different departments and also recently we have started 4 beds of indoor service. Most of the referrals are from Neurology department and some others from orthopedic, respiratory, medicine, pediatric, burn & plastic surgery and even from Intensive Care Unit (ICU).

Study limitations:

The study is done in one tertiary level hospital of Bangladesh. So it reflects only a small population but not the total scenario of patients getting treatment from department of PMR. As this is a cross-sectional study, the pattern of all diseases could not have been viewed over time.

Conclusion:

Among the musculoskeletal diseases, LBP and related diseases affect most of the people attending outdoor. Now a days, these non-communicable diseases are common and decrease people's daily activity. A large-scale study should be performed across the country and people should be aware of these diseases.

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