

Original Article

Diseases pattern in the department of physical medicine & rehabilitation in a tertiary level hospital

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Abstract

This is a retrospective study carried out at the department of Physical Medicine and Rehabilitation in Dhaka Medical College Hospital (DMCH), Dhaka for the period of one year from 1st January, 2012 to 31st December, 2012. The purpose of the study was to observe the disease pattern and demographic characteristics of patients attending the department of Physical Medicine and Rehabilitation in a tertiary care hospital. Total sixteen thousand two hundred ninety seven (n=16297) patients were studied, of which 48% were male and 52% were female. The mean age was 43.64 ± 5.12 years, maximum patients (27.96%) belong to 41-50 years of age. Maximum patients (51%) were come from Dhaka city and most of the studied patients were housewife (36.73%). Largest disease group was non-specific low back

pain (16.42%). Regarding disease pattern, 44.07% of patients rheumatological, 17.25% neurological, 25.11% orthopaedic condition. Among leading diseases, 16.77% were non-specific low back pain, 10.13% osteoarthritis of knee joints, 8.15% stroke, 7.56% lumbar spondylosis, 7.05% cervical spondylosis, 6.43% adhesive Capsulitis, 3.84% neck sprain/strain 3.57% Facial palsy, 3.18% fibromyalgia and 3.12% tennis elbow.

Key words: Diseases pattern, physical medicine, tertiary hospital

Introduction

Unlike some medical specialties, rehabilitation medicine is not limited to a single organ system. Attention to the whole person is rehabilitation absolute. The goal of the rehabilitation physician is to restore handicapped people to the fullest possible physical, mental, social, and economic independence. This requires analysis of a diverse aggregate of information. Consequently, the person must be evaluated in relation not only to the disease but also to the way the disease affects and is affected by the person's family and social environment, vocational responsibilities, economic state, interests, hopes and dreams.¹ The field of Physical Medicine and Rehabilitation focuses on the restoration of health and function and reintegration of the patient into the community.^{2,3} Physical Medicine department was established in DMCH in 1969. Since establishment, department of Physical Medicine is providing services as outdoor basis regularly. In the year 2010, the indoor service has been established.

Physical Medicine & Rehabilitation Department, DMCH provides services to the patients with musculoskeletal disorders and neurological problems from the beginning. This department tries to correlate with other departments in providing facilities, faith and satisfaction to the patients. Eventually more people will gain access to this specialty as the problems of disability are increasing day by day due to road traffic accidents, spinal cord injury, stroke, musculoskeletal condition like arthritis, low back pain, neck pain, ICU & burn rehabilitation etc. This study was carried out with the intention to provide information about demographic data & disease pattern among the patients receiving treatment in the outpatient department of Physical Medicine and Rehabilitation, DMCH, Dhaka.

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Methods

This is a retrospective review of the records at Physical Medicine and Rehabilitation of Dhaka Medical College Hospital over a period of one year from January 2012 to December 2012. The subjects were enrolled on an individual basis, despite the varying number of visits by a given patient during the period of study. 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

Total number of patients was 16297. Among them 7776 (48%) were male and 8521 (52%) were female. (Figure -1)

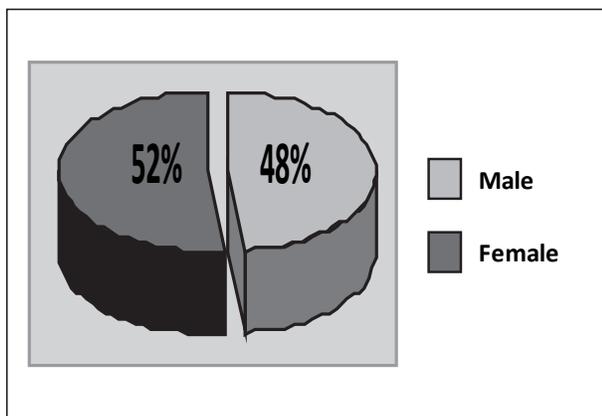


Figure-1: Sex distribution of the patients

3.98% of patients were under 20 years of age, about 88% of patients belong to 2nd, 3rd, 4th, 5th decades. 7.19% were above 60 years of age (Figure -2).

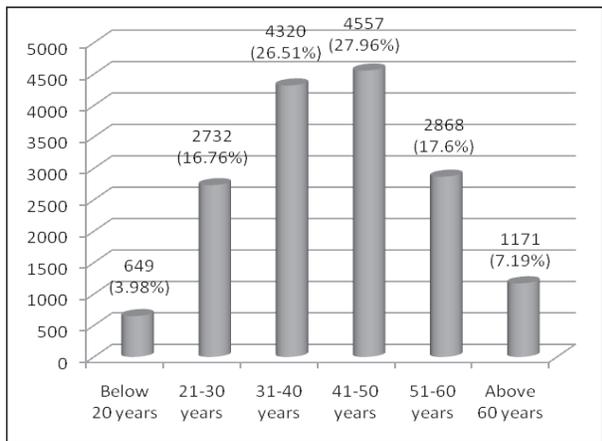


Figure-2: Age distribution of the patients

Nearly half of the patients (49%) were from outside the Dhaka city. Rest of the were from within Dhaka. (Figure -3)

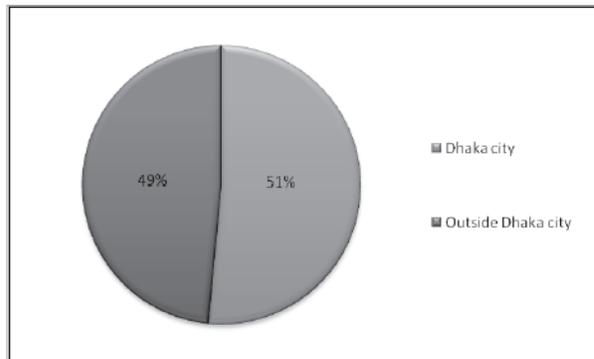


Figure-3: Catchment area of patients

Among the total number of patients (2175), majority were housewives (36.73%) followed by Farmer (15.56%), Service holder (13.35%), Labourer (9.79%), Businessman (9.26%) and Student (6.84%). Paediatric population comprises only 3.93% of the patients. (Figure -4)

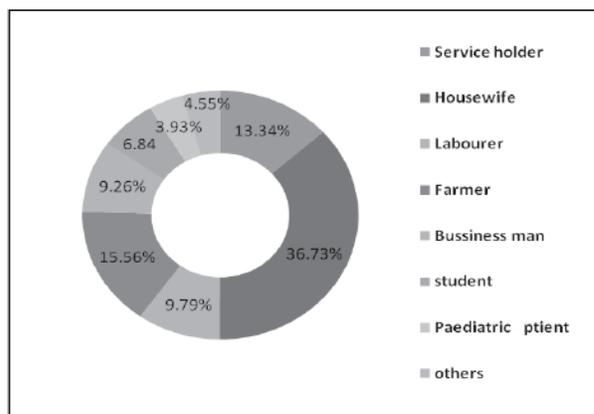


Figure-4: Catchment area of the patients

Regarding disease pattern, 44.07% of patients presented with rheumatological diseases, 17.25% with neurological diseases & 25.11% with orthopedic conditions. Among top ten diseases, 16.77% were non-specific low back pain, 10.13% osteoarthritis of knee joints, 8.15% stroke, 7.56% Lumber Spondylosis, 7.05% Cervical Spondylosis, 6.43% Adhesive Capsulitis, 3.84% Neck sprain/strain, 3.57% Facial Palsy, 3.18% Fibromyalgia, 3.12% Tennis Elbow.

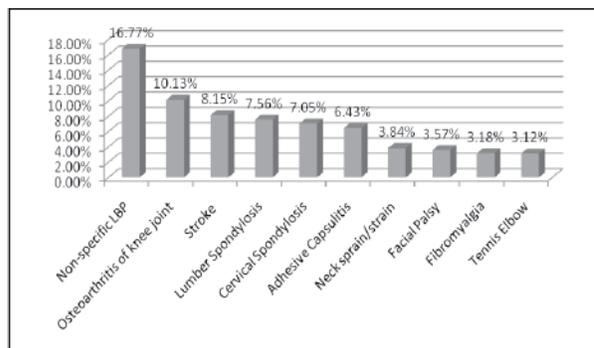


Figure-4: Disease profile of the patients

7.56% lumbar spondylosis, 7.05% cervical spondylois, 6.43% adhesive Capsulitis, 3.84% neck sprain/strain, 3.57% Facial palsy, 3.18% fibromyalgia and 3.12% tennis elbow. (Figure -4 & Table-I)

Table-I: Top ten diseases

Disease	Number of patients	Percentage
Non-specific LBP	2733	16.77%
Osteoarthritis of knee joint	1651	10.13%
Stroke	1328	8.15%
Lumber Spondylosis	1232	7.56%
Cervical Spondylosis	1149	7.05%
Adhesive Capsulitis	1048	6.43%
Neck sprain/strain	626	3.84%
Facial Palsy	582	3.57%
Fibromyalgia	519	3.18%
Tennis Elbow	509	3.12%

Stroke patients admitted for physiotherapy in to the Department of Physical Medicine and Rehabilitation, DMCH accounted for the majority (30.63%) among the indoor patients followed by prolapsed lumber intervertebral disc (24.51%), Transverse Myelitis (4.74%), Ankylosing spondylitis (4.15%), Guillain–Barré syndrome(3.95%) and others. (Table-II)

Table-II: Indoor patients profile

Disease	DMCH 2012
Stroke	30.63%
PLID	24.51%
Transverse Myelitis	4.74%
Ankylosing spondylitis	4.15%
GBS	3.95%
Neck sprain/strain	3.95%
Rheumatoid arthritis	3.95%
Pott's disease	2.96%
Facial Palsy	2.37%
Cervical Myelopathy	2.17%

Discussion

In this study it has been tried to find out the age, sex, occupation, residency and disease pattern of the patients attending the dept. of Physical Medicine & Rehabilitation, DMCH. In this study, 48% of patients were male and 52% were female. A cross sectional study at community level for detection of painful musculoskeletal disorders by Moinuddin M et al showed that musculoskeletal complaints are predominant in females.⁵ Moniruzzaman M in RpMCH showed 55.1% were

female patients.⁶ This may be due to increased literacy rate and awareness among female patient. On the other side, government is taking strong initiative for the improvement of female health awareness.

Occupation of patients were housewife (36.73%), labourer (9.79%), serviceman (13.35%), farmer (15.56%), businessman (9.26%), student (6.84%) & paediatric patient (3.93%). Moinuddin M et al⁵ found housewives were 52.33% and Nessa J et al were 37.3% housewife, 16.3% farmer,15.1% service holder in their studies.⁷

3.98% of patients were under 20 years of age, 16.76% were 21-30 years, 26.51% were 31-40 years, 27.96% were 41-50 years, 17.6% were 51-60 years and 7.19% were above 60 years of age. Moinuddin M et al⁵ showed most (23.36%) were between 40-49 years, Moniruzzaman M et al⁶ also found 49.9% were in 41-50 years age. In this study majority of patients had low back pain (non-specific LBP-16.77%, lumbar spondylosis -7.56%). Moinuddin M et al showed that majority of patients (44.85%) had back pain.⁵ Study performed by Rahman MM et al at CMCH,⁸ Nessa J et al at Shaheed Suhrawardy MCH⁷ and Moniruzzaman M at RpMCH⁶ found highest level of back pain in their study respectively. Hasan SA et al documented non-specific low back pain (59.95%) as most common disease in his study.⁹

This study also shows 44.07% of patients rheumatological, 17.25% neurological & 25.11% orthopaedic condition. Moniruzzaman M et al showed 24.86% in rheumatological, 7.34% in mechanical/ rheumatological, 12.99% neurological, 8.47% were paediatric patients.¹⁰ In Dhaka medical college hospital the referral system & interaction among different departments is improving gradually and importance of Physical medicine & rehabilitation department is being appreciated This may be one of the reason for increasing majority of Rheumatologic patients seeking Physical medicine & Rehabilitation consultation. From the above discussion, it is clearly demonstrated that the findings of the study performed in Physical Medicine department of DMCH is consistent with the findings of different institutes of Bangladesh.

The total numbers of patients attending Physical Medicine Department have been increasing day by day. Most of the patients coming to this department from different areas of Dhaka city. Moreover, referred patients are also seen from departments of DMCH especially Medicine, Neurology, Orthopaedics, Burn & Plastic Surgery, Pediatrics and Gynaecology department. In 2012

a total of 16297 new patients were given outdoor & indoor services. Subsequently, these patients came and had follow up treatment & Physical therapy management. This study is done in one tertiary level hospital of Bangladesh in a small population and it may not reflect the total scenario of patients getting treatment from Physical Medicine & Rehabilitation department.

A uniform data system (UDS) for Medical Rehabilitation is maintained in USA and published annually. No such system exists in Bangladesh. A large scale multi-centered study should be performed in the country. A uniform data system should be constructed for Medical rehabilitation in Bangladesh.

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