

## ORIGINAL ARTICLE

# Disease 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 National Institute of Diseases of the Chest and Hospital (NIDCH), Dhaka for the period of one year from 1st July, 2016 to 30th June, 2017. 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 one thousand three hundreds and five (n=1305) patients were studied, of which 62% were male and 38% were female. Maximum patients (23.90%) belong to above 60 years of age. Maximum patients (69%) were come from outside Dhaka city and most of the studied patients were farmers (29.27%). Largest disease group was COPD (20.30%). Regarding disease pattern, 72.75% of patients pulmonary problem and rest 27.25 were non pulmonary problem. Among leading diseases, 20.30% were COPD, 15.86% bronchiectasis, 15.56% asthma, 13.41% postsurgical, 9.73% adhesive capsulitis, 8.58% cervical spondylosis, 6.90% low back pain 4.90% lung abscess, 4.75% others.*

**Key words:** Diseases pattern, physical medicine, tertiary hospital

[Chest Heart Journal 2017; 41(2) : 109-112]

### 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.<sup>1</sup> The field of Physical Medicine and Rehabilitation

focuses on the restoration of health and function and reintegration of the patient into the community.<sup>2,3</sup> Physical Medicine department was established in NIDCH in 1969. Since establishment, department of Physical Medicine is providing services as outdoor basis and referred indoor cases regularly.

Physical Medicine & Rehabilitation Department, NIDCH provides services to the patients with respiratory and thoracic problems from the beginning. This department tries to correlate with other departments (Respiratory medicine and Thoracic surgery) in providing facilities, faith and satisfaction to the patients. This study was carried out with the intention to provide

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Submission on: 16 May 2017

Accepted for Publication: 29 June 2017

Available at <http://www.chabjournal.org>

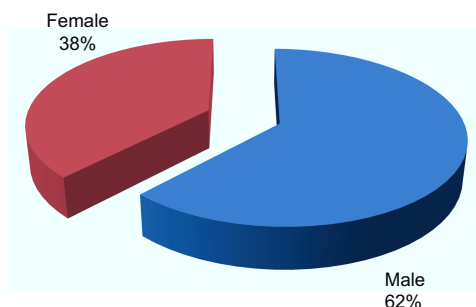
information about demographic data & disease pattern among the patients receiving treatment in the department of Physical Medicine and Rehabilitation, NIDCH, Dhaka.

**Methods:**

This is a retrospective review of the records at National Institute of Diseases of the Chest and Hospital(NIDCH), Dhaka for the period of one year from 1st July, 2016 to 30th June, 2017. 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.

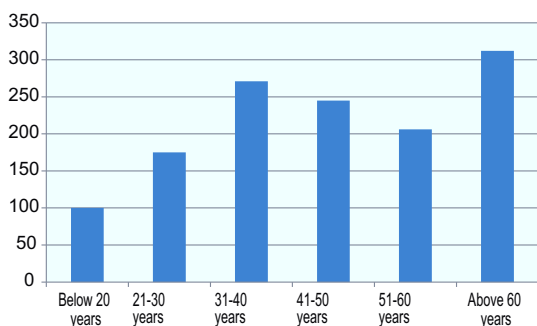
**Results:**

Total number of patients was 1305. Among them 811 (62%) were male and 494(38%) were female. (Figure -1)



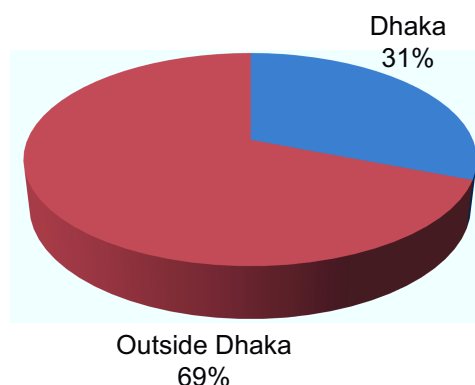
**Fig.-1:** Sex distribution of the patients

7.66% of patients were under 20 years of age, about 69% of patients belong to 2nd, 3rd, 4th, 5th decades. 23.90% were above 60 years of age (Figure -2).



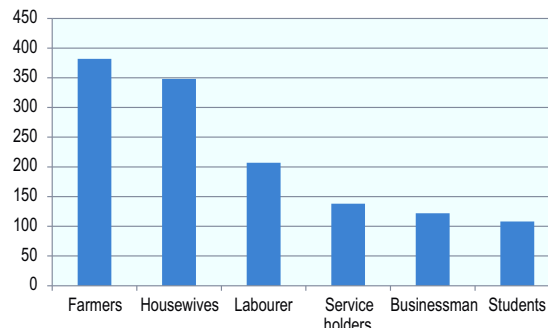
**Fig.-2:** Age distribution of the patients

69%of the patients were from outside the Dhaka city. Rest of the patients (31%) was from within Dhaka. (Figure -3)



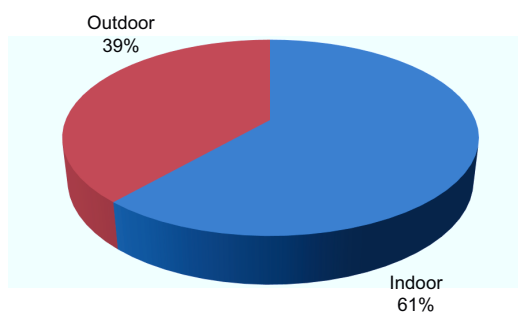
**Fig.-3:** Catchment area of patients

Among the total number of patients, majority(382) were Farmers (29.27%) followed by Housewives(26.67%), Labourer (15.86%), Service holder (10.57%), Businessman (9.35%) and Student(8.28%). (Figure -4)



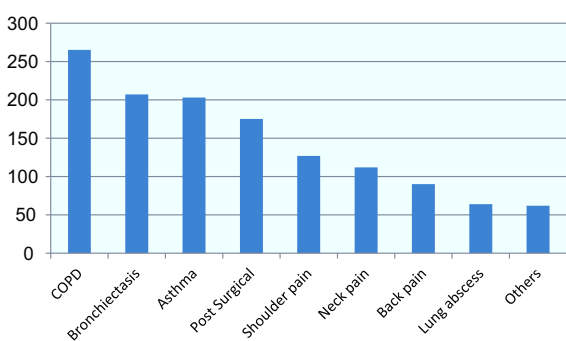
**Fig.-4:** Occupation of the patients

Among 1305 patients, 805 patients (61%)were from indoor and 504 patients (39%) were from outdoor. (Figure -5)



**Fig.-5:** Indoor & outdoor patients

Regarding disease pattern, 72.75% of patients were pulmonary problems and 27.25% were non pulmonary problem. Among leading diseases, 20.30% were COPD, 15.86% bronchiectasis, 15.56% asthma, 13.41% postsurgical, 9.73% adhesive capsulitis, 8.58% cervical spondylosis, 6.90% low back pain 4.90% lung abscess, 4.75% others. (Figure -6&Table-I)



**Fig.-6:** Disease profile of the patients

**Table-I**  
Leading diseases

Disease	Number of patients	Percentage
COPD	265	20.30%
Bronchiectasis	207	15.86%
Asthma	203	15.56%
Post-surgical	175	13.41%
Adhesive capsulitis	127	9.73%
Cervical spondylosis	112	8.58%
Low back pain	90	6.90%
Lung abscess	64	4.90%
Others	62	4.75%

### 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, NIDCH. In this study, 62% of patients were male and 38% were female. A retrospective study at tertiary level hospital for disease pattern in the department of physical medicine and rehabilitation by Hossain MS et al<sup>4</sup> showed that 52% were female and 42% were male. 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.<sup>5</sup> Moniruzzaman M in RpmCH showed 55.1% were female patients.<sup>6</sup> In this study male are more due to more exposure.

Occupation of patients was farmers (29.27%), Houseives (26.67), labourer (16.86%), serviceman (10.57%), businessman (9.35%) & student (8.28%). Hossain MS et al. found housewives (36.73%), farmer (15.56%), service holder (13.35%) in their study. Moinuddin M et al.<sup>5</sup> found housewives were 52.33% and Nessa J et al. were 37.3% housewife, 16.3% farmer, 15.1% service holder in their studies.<sup>7</sup>

7.66% of patients were under 20 years of age, 13.41% were 21-30 years, 20.77% were 31-40 years, 18.77% were 41-50 years, 15.78% were 51-60 years and 23.90% were above 60 years of age. Hossain MS et al. showed most (27.96%) were between 41-50 years. Moinuddin M et al.<sup>5</sup> showed most (23.36%) were between 40-49 years, Moniruzzaman M et al.<sup>6</sup> also found 49.9% were in 41-50 years age.

In this study majority of patients had COPD-20.30%, bronchiectasis -15.86, asthma-15.56%, post surgical-13.41% & shoulder pain-9.73%. Hossain et al. showed that majority of patients (16.77%) had non specific low back pain. Moinuddin M et al. showed that majority of patients (44.85%) had back pain.<sup>5</sup> Study performed by Rahman MM et al. at CMCH, 8 Nessa J et al. at Shaheed Suhrawardy MCH<sup>7</sup> and Moniruzzaman M at RpmCH<sup>6</sup> 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.<sup>9</sup>

In National institute of diseases of the Chest & 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 is pulmonary rehabilitation has great role in increasing the quality of life of the patients suffering from pulmonary problems. From the above discussion, it is clearly demonstrated that the findings of the study performed in Physical Medicine department of NIDCH is consistent with the findings of different institutes of Bangladesh.

**Conclusion:**

The total numbers of patients attending Physical Medicine Department have been increasing day by day. Most of the patients coming to this department from outside the Dhaka city. 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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