



MORBIDITY PROFILE OF OPD PATIENTS OF AN URBAN HEALTH AND TRAINING CENTER: A TOOL FOR THE HEALTH PLANNERS

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ABSTRACT

Objectives: The objective of the study is to determine the morbidity profile of patients attending the OPD at urban health and training centre (UHTC) under the Dept. of Community Medicine, AFMC, Pune, as per age, sex and in different season of the year.

Method: Data for 12 months from Jul 12 to Jun 13 was collected from the OPD registers of the consultant medical officer. Patients who visited for medicine collection or review were excluded from the study. The patients were grouped into age groups of <5, 5-11, 11-18, 18-45, 45-60, and >60 yrs.

Results: A total of 1885 were included in the study after exclusion (775 males and 1110 females). The case rate was highest for 18-45yrs age group. Among communicable diseases Upper respiratory tract infections (URTI) (67.06%) and acute gastroenteritis (12.55%) had maximum burden. Musculoskeletal pains (26.55%) and hypertension (15.53%) were the most reported diseases among non-communicable diseases. Females outnumbered males in most of the diseases. Most of the diseases were observed more in winters.

Conclusion: The relatively higher burden of non-communicable diseases hints towards entering of the transition phase in India, an eye opener for the health planners to equip themselves against these diseases and develop appropriate health care policies and practices. Many diseases have seasonal variation and the burden of these diseases can be reduced by steps taken by the health planners and manager beforehand and through implementation of surveillance programs.

Key words: morbidity profile, communicable diseases, non-communicable diseases, seasonal variation

INTRODUCTION

A comprehensive analysis of morbidity pattern and seasonal variation of diseases in a region or a health care setting provides an efficient tool for the health planners for the formulation of poli-

cies. It also helps administrators in efficient use of scarce resources available.

A constant watch on the changing pattern of the diseases provides us an opportunity for timely intervention as well as to monitor the progress of

the ongoing disease control programs and helps in optimizing the allocation of the limited resources.

Non-communicable diseases are increasing worldwide due to rapidly changing life style. Earlier, burden of communicable diseases was much higher than non-communicable diseases. Due to rapid change in lifestyle, the gap has reduced drastically causing double burden of disease in developing countries such as India.

More than 36 million people die annually from NCDs (63% of global deaths), including more than 14 million people who die too young between the ages of 30 and 70. Low- and middle-income countries already bear 86% of the burden of these premature deaths.¹³

Non-communicable Diseases (NCDs) account for nearly half of all deaths in India.¹ Among the NCDs, Cardiovascular Diseases (CVD) account for 52% of mortality followed by Chronic Obstructive Pulmonary Disease (COPD), Cancer, Diabetes and Injuries.¹ Projection estimates have shown that unless interventions are made, burden due to NCDs will increase substantially. NCDs account for 43% of the DALYs.¹

In spite of the declining mortality and changing morbidity pattern, India still has the “unfinished agenda” of combating the traditional infectious diseases that continue to contribute to a heavy disease burden and take a sizeable toll.¹⁴

A constant watch on the changing pattern of the diseases provides us an opportunity for timely intervention as well as monitor the progress of the ongoing disease control programs and helps in optimizing the allocation of the limited resources.⁴

Geographical variation of diseases must be taken as an opportunity to carry out continuous surveillance of different diseases in hospitals so that reliable and updated data are timely available for health administrators to plan, implement and evaluate disease control and prevention programme strategies.²

Keeping this in mind, the present study aims at studying morbidity pattern and seasonal variation of OPD patients of an Urban Health and Training Centre (UHTC) under Dept of Community Medicine, AFMC, Pune. The objectives of the study are to assess the morbidity profile of patients as per age, sex, and season and to determine the seasonal variation of morbidities.

METHODS

This study was carried out retrospectively among the patients attending the OPD of the UHTC at Wanowarie, under the Dept. of Community Medicine, AFMC, Pune.

The data was collected regarding the self-reported health problems during the period of 1 year from Jul 2012 to Jun 2013 for which the patients sought treatment at the UHTC, Wanowarie. The data was collected from the OPD registers of the consultant medical officer of UHTC. It was then classified into communicable and non-communicable diseases. The patients were grouped into age groups of <5 yrs., 5-11 yrs., 11-18 yrs., 18-45yrs, 45-60yrs, 60-80yrs and >80 yrs. All the patients who visited UHTC, Wanowarie during the study period were included in the study. Patients who visited for medicine collection/review were excluded from the study. Incomplete entries were not included in the study. Ethics clearance was taken for the institutional ethical committee.

RESULTS

The majority of patients coming to UHTC belong to the age group 18-45 (721 i.e. 38.2%) (Table 1). Female (58.9%) patients outnumbered males (41.1%) (Table 2). Non-communicable diseases (50.56%) were marginally more common than the communicable diseases (49.44%)

The most common reported communicable disease was URTI (67.06%) followed by acute gastroenteritis (12.55%), viral fever (7.83%) and fungal infection (5.47%).

Among non-communicable diseases the list was topped by musculoskeletal pains (26.55%) followed by Hypertension (15.53%), Trauma (10.18%), Osteoarthritis (8.39%), Low backache (6.93%), Gastritis (5.25%), Anemia (5.04%) and Diabetes mellitus (4.93%).

Table 1: Distribution of patients according to age

Age group (in Years)	Frequency	Percent
<5	174	9.2
5-11	141	7.5
11-18	141	7.5
18-45	721	38.2
45-60	451	23.9
60-80	235	12.5
>80	22	1.2
Total	1885	100.0

Table 2: Distribution of patients according to gender

Sex	Frequency	Percent
Male	775	41.1
Female	1110	58.9
Total	1885	100.0

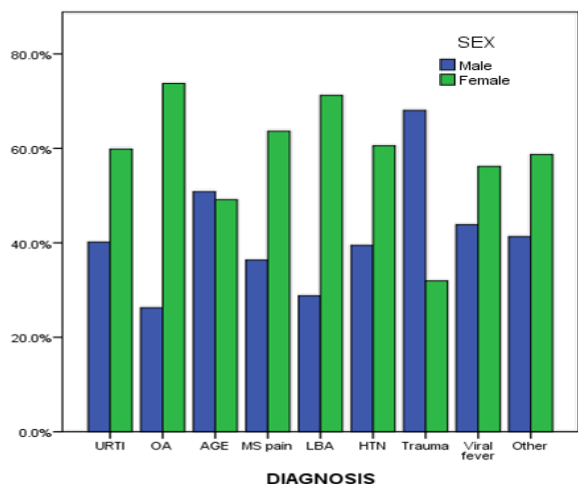


Fig 1: Distribution pattern of diseases amongst patients attending OPD at UHTC

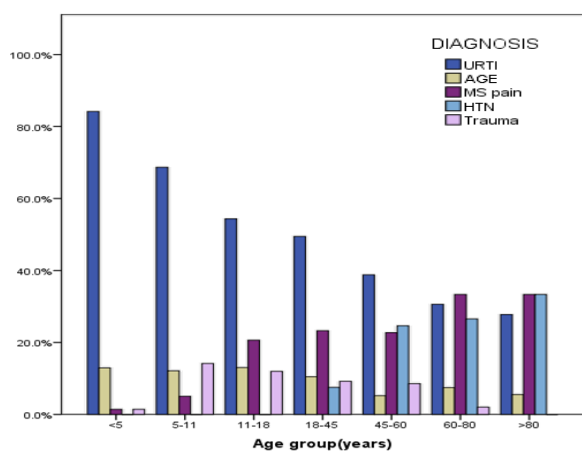


Fig 2: Age wise distribution pattern of diseases

Females outnumbered Males in all the diseases except acute gastroenteritis (AGE) and Trauma (Fig 1).

URTI was the most common morbidity amongst patients of age groups <5, 5-11, 11-18, 18-45 and 45-60 years (Fig 2). In the age group 60-80 years Musculoskeletal pains becomes the most common morbidity whereas among patients >80 years both MS pains and hypertension were the leading morbidity with which patients presented to UHTC OPD. MS pain and hypertension show

a rising trend with the increasing age whereas acute gastroenteritis remains the most common disease amongst children. Patients reporting with trauma were more common in the adolescent age group.

The seasonal trend of 4 most common communicable diseases (Fig 3) revealed an increase in the number of cases suffering from URTI and Viral fever during winters, peaking in the month of Jan. Cases of acute gastroenteritis showed upsurge during rainy seasons from mid of Aug. to Nov., whereas fungal infection cases peaked in Feb and Jul.

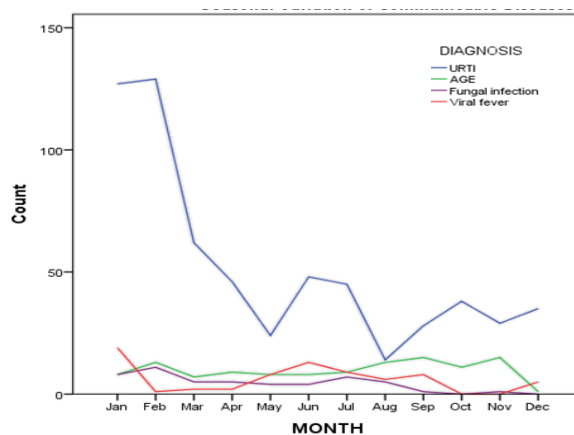


Fig 3: Seasonal variation of communicable diseases

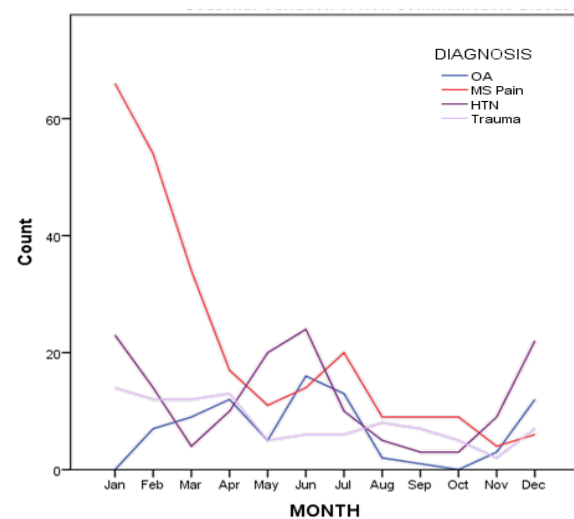


Fig 4: Seasonal variation of non-communicable diseases

Seasonal variation among the non-communicable diseases (Fig 4) was also noted with musculoskeletal pains peaking during winters. Trauma cases reported most commonly during the

months from Jan to Apr whereas osteoarthritis cases up surged during Jun and Jul. Hypertension however showed double peak one during winters and other during late summers and early monsoon.

DISCUSSION

The study confirms that our health systems are stressed with a dual burden of disease with non-communicable diseases (50.56%) contributing slightly more than that of communicable diseases (49.44%). Among communicable diseases URTI (67.06%) contributed the most followed by acute gastroenteritis (12.55%), this corresponds with the findings of other studies^{2, 3, 5, 8} and contradicts the finding in an earlier study (Kumari et al 2012)⁴

Higher proportion of musculoskeletal pain (26.53%) followed by hypertension (15.53%) among non-communicable diseases have been found in similar studies.⁶⁻¹¹ However, a study in Lucknow shows hypertension to be the major non-communicable disease followed by anaemia.³

Seasonal variation shows that maximum burden of OPD patients occurred during winters (37.98%) followed by summers (36.66%). Similar results were shown by a study in Chandigarh.⁸ However the results differ from the study done in PHC Kanpur which revealed higher OPD burden during Mansoons.⁴

As expected maximum cases of URTI and Viral fever were reported during winters and acute gastroenteritis during monsoons. The similar findings were shown by other studies also.^{8, 12} High proportion of acute gastroenteritis, a water borne disease, among children is a matter of concern and necessitates the implementation of specific programs to help to curb down burden. It also raises our doubts regarding availability of safe drinking water and sewage disposal and progress towards MDG number 7 and target 10 of providing sustainable access to an improved water source. However to prove this fact is beyond the scope of this study and requires further research.

A lower burden of vector borne diseases and vaccine preventable diseases is a good sign and gives us an indication of the successful implementation of the preventive programs for these diseases. Further research would be required to access the on ground situation of these diseases.

Attempt to find the seasonal variation of non-communicable diseases showed musculoskeletal pains during winter which is as per expectation as muscle spasms are more during winters. The similar findings were also shown in other studies.³ Osteoarthritis was studied separately from musculoskeletal pains and it showed a different seasonal trend with maximum burden during transition phase of the season from summer to rainy. The reasons for this peculiar finding need to be explored. Hypertension showed double peak during winters and summers. Peaking of hypertension during winters was seen in a study done at Lucknow,³ while peaking during summers had occurred in a study at Kanpur.⁴ Trauma cases peaked during winters, a finding consistent with other findings.⁴

All most all the diseases were more common in females a finding consistent with other studies^{2, 3, 4} except trauma and acute gastroenteritis. The increased occurrence of trauma and acute gastroenteritis in male may be most probably due to greater engagement in outdoor activities as compared to females.

CONCLUSION AND RECOMMENDATIONS

The relatively higher burden of non-communicable diseases hints towards entering of the transition phase in developing country like India, the situation once faced by developed countries long back. This is an eye opener for the health planners to equip themselves against these diseases and develop appropriate health care policies and practices.

Many diseases have seasonal variation and the burden of these diseases can be reduced by steps taken by the health planners and manager beforehand and through implementation of surveillance programs. The reasons for the seasonal variation of most of non-communicable diseases need to be explored further.

Further multi-centric long term studies with wider coverage are desired for better understanding of the disease trend which will also act as a perfect tool for the health planners to plan better strategies.

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