

Utilization pattern of health services for major non-communicable diseases in urban slums of Delhi

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How to citation this article: Dr. Ravi Kumar, Dr. Ananta Verma, “Utilization pattern of health services for major non-communicable diseases in urban slums of Delhi”, IJMACR- July- 2024, Volume – 7, Issue - 4, P. No.80 – 85.

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Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Background: The increase burden of non-communicable diseases among the urban poor due to lack of awareness regarding health care services is a major public health challenge in India. Currently India having double burden of disease (i.e communicable and Non- communicable both).

Methods: The study was conducted in five urban slums in Delhi. Sample comprises of adult population of 30-60 years of age. By multi stage random sampling, 56 respondents from each slum of 5 districts were selected from 200 households. Data was collected by structured interview schedule.

Results: 216 out of 280 respondents had knowledge about NCDs and about 260 out of 280 sought medical care from allopathic private health care providers and quack (Bengali doctor). Only half of respondents went for regular monthly follow up and almost 75 percent were found with self-medication through their old prescription provided by health care provider. Poor

follow up and non-regular utilization of health services was mainly due to individual perception of not giving importance to regular treatment and lack of attention due to asymptomatic nature of disease, followed by financial constraints and lack of accessibility in attainment of health services.

Conclusions: Self-awareness about the disease and importance of regular treatment & follow up is found lacking in the community. Health care services were regularly utilized for these silent diseases by those who can afford it. Factors like ability to afford costly treatment, high satisfaction level from the treatment received and proximity of health care provider were found strongly associated with higher utilization.

Keywords: Diabetes mellitus, Hypertension, Non-communicable diseases, Utilisation pattern, Urban slum

Introduction

A rapid health transition is being experienced in India, with a rising burden of Non Communicable Disease (NCDs) surpassing the burden of Communicable

diseases. According to World Health Organization (WHO), “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.¹ Health care seeking behavior is conceptualized as a ‘sequence of remedial actions’ taken to correct ‘perceived ill-health’.² Non communicable diseases (NCDs) kill 41 million people each year, equivalent to 74% of all deaths globally. Each year, 17 million people die from a NCD before age 70; 86% of these premature deaths occur in low- and middle-income countries. Of all NCD deaths, 77% are in low- and middle-income countries. Cardiovascular diseases account for most NCD deaths, or 17.9 million people annually, followed by cancers (9.3 million), chronic respiratory diseases (4.1 million), and diabetes (2.0 million including kidney disease deaths caused by diabetes). These four groups of diseases account for over 80% of all premature NCD deaths. Tobacco use, physical inactivity, the harmful use of alcohol, unhealthy diets and air pollution all increase the risk of dying from an NCD. Detection, screening and treatment of NCDs, as well as palliative care, are key components of the response to NCDs³. NCDs are a major threat to global health, accounting for nearly 72% of all deaths in 2016, of which nearly three quarters occurred in low- and middle-income countries (LMICs).⁴ By 2030, it is predicted that NCDs will account for 80 percent of the global burden of disease, causing seven out of every 10 deaths in developing countries, compared with less than half today.⁵

The majority of NCD deaths occur in low and middle-income countries such as India, which is undergoing an epidemiological health transition owing to rapid urbanization, which in turn has led to an overall economic rise, but with certain associated flip sides.⁶

Urban poor, who were presented with hardships of life and denied access to the most basic facilities like clean water and sanitation, may neglect the benefit of long-term treatments for NCDs that do not immediately endanger their health. Slum is defined as household or group of individuals living under same roof in an urban area but lack one or more of the following: access to improved sanitation, security of tenure, durability of housing, sufficient living area. Slum consists of cluster of such 20-25 household or more.⁷The adults of slum are more prone to NCDs due to expanding urbanization and adaptation to modern life style .The cost of treatment also limits use of health services in near absence of affordable and accessible public health infrastructure in slums.

Recent studies have suggested that community characteristics in addition to individual and household idiosyncrasies and to the overall availability of health services could be important determinants of utilization.^{8,9}

The above paper highlights the emerging disease burden due to NCDs among urban poor and their prevalence in accessing health services to deal with this health issue. This paper attempts to understand the prevalence of health services by the urban poor to deal with major NCDs named hypertension, respiratory disorders, cancer and diabetes and analyze the factors influencing the utilization pattern. In this study an effort was made to explore the type of health services utilized by urban poor of 5 districts of Delhi for management of NCDs and to study the factors affecting the utilization pattern of health services.

Methods

An exploratory, cross sectional descriptive study was carried out in selected 5 urban slum of Delhi. Like any

typical slum, they were a low income area with poor sanitation, hygiene and overcrowding. Health care was provided to these slums through government run urban health posts, mohalla clinics nearby and private health care providers with mix of Homeopath, Ayurveda and some other non-qualified practitioners. Slum dwellers also sought healthcare outside the slum area from nearby tertiary care center. Voluntary organization were also seen working in the few of the studies slums.. Sampling frame was prepared based on highest prevalence therefore, for the study hypertension is considered as the variable sample for sample size calculation which is 21%. Out of 11 District in Delhi, by using the geographical map 5 District were selected .A total of 200 households were enumerated in the slum having at least one male and one female of 30-60years of age. Multi stage random sampling was used to select a sample size of 255. Considering the non response rate of 10 percent 25 additional households were one male and one female identified with same process from the sample. Thus total number of cases interviewed was from each slum was 56. By using lottery method (random selection) 5 slums of minimum 40 HH each will be selected from above mentioned 5 districts. With the help of mapping provided by the electoral roll slums were divided into 4 quadrants and 10 HH were selected from each quadrant by using systematic random sampling (every 3rd HH in the given quadrant will be selected).

A pretested structured interview schedule was administered to the respondents for data collection purpose. All the respondents briefed about the study and verbal informed consent was sought from each respondent. The data was analyzed in SPSS and MS

Excel. Chi Square test was performed to measure the association.

Results

Among the total of 280 respondents, 136 participants were diagnosed with 4 major NCDs (HTN, DM, RESPIRATORY DISORDER and CANCER).25 (8.9%) respondents were suffering from both hypertension and diabetes, thus the analysis includes 53 hypertensive and 32 diabetic respondents in the study. Only 51.5% reported to take regular treatment prescribed by physician.42.6% respondents visited PHC/ Mohalla clinic/ Govt. hospital.

Attendance of health care

Awareness	Screening interval Health Facility near by	Less than 6 month	96
		More than 6 month or no screening	184
Availability and accessibility		Private Practitioner	110
		PHC/ Mohalla Clinic	73
		District Hospital	39
		Tertiary care Hospital	58

In last five years, 81 respondents out of 136 diagnosed with NCDs seek treatment from private practitioner. High satisfaction from the treatment by private health care provider was common factor associated with high utilization of health services. Accessibility and cost of treatment, behavior of health care workers and facilities provided at health center were also contributing factors in attainment of health services.

The reasons for not seeking health services among NCDs diagnosed respondents were influenced by the

individual's perception of lack of importance of regular treatment(knowledge deficit)(5.8%), long waiting lines, unavailability of medicine(3%), loss of daily wages (4%)respectively.

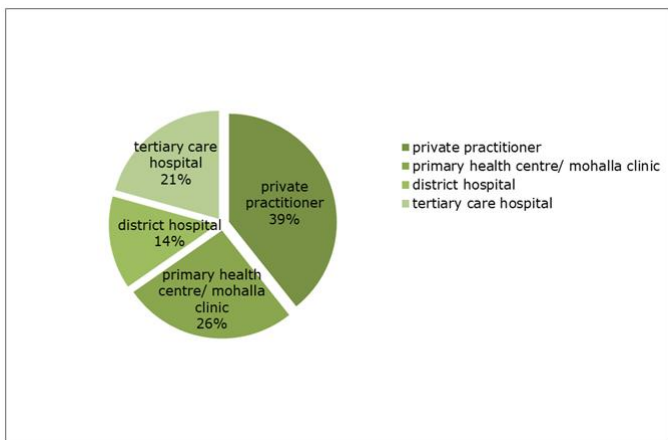
Visits to Doctor in last 3 years

In last 3 years months, 80 respondents screened for NCDs . Among them 27 respondents pay visit in 6 months while the other 15 visited in 3 months. As per the respondents suffering from NCDs , the reasons quoted for not taking any preventive measure or medication was unawareness about health and associated factors (7), social stigma(3), non-availability of medicine in PHC(4).

Regularity in taking treatment

In past five years, 116 respondents stated about their practice of regular treatment after diagnosed NCD. Regular follow up visit was mentioned by 13 individual and 50 respondents only seek treatment when symptom aggravates or health deteriorate.

Type of health service provider



Treatment from private health sector was sought by 110 respondents while primary health Centre or mohalla clinics \ was utilized by 21% respondents. Longer distance of government health care services from slum found to be major factor for use of private health sector among all the surveyed slums. Since majority the

allopathic doctors and specialists practiced in tertiary care center, the respondents seemed to accept the longer distance as a factor influencing them seeking services from private providers. Dissatisfaction from current public sector treatment, language barrier and cost were also affecting the choice of health care provider for the residents of slums

Discussion

Appropriate and regular treatment is one of the major strategies to control NCDs among the patients. Prevalence of self-reported DM, HTN and CAD were 13.5 %, 20.6 % and 3.9 % respectively It is encouraging to find out from the study that more than 85 percent of the respondents suffering from major NCDs were utilizing health services and have initiated their treatment after being diagnosed. Among them more than 60 percent of respondents from the urban slums either visited a private practitioner or PHC/mohalla clinic to manage their diseased condition. In case of NCDs it is essential to regulate treatment as per the current BP and/ BSL level. Along with the factors responsible (infrastructure of government facilities & quality of care) for utilization of private health care facilities, among NCDs respondents satisfaction from the treatment was given by higher and regular utilization of health care services. Proximity (distance) of health care provider ensures better utilization of health services and consultation for treatment which was also found significant factor that affect outpatient health care utilization for NCD patients in urban slums of Delhi. Decrease in expenditure on treatment and no language barrier was associated with choice of private health care provider for treatment.

It can be concluded that prevalence of HTN, DM is very high in urban slums. This makes the people of this area

vulnerable to several chronic diseases and other unbearable health consequences. To ensure higher utilization of health care service for NCDs, it is important to have availability of affordable, good quality of health service located in proximity. This study concludes that readiness of PHCs/ Mohalla clinic for the providing NCDs-related services is suboptimal. Apart from this, health education of individuals about nature of disease and importance of regular check-up and treatment along with life style modifications is essential. In order to improve the awareness and knowledge about the NCDs, study recommends health education in collaboration with the local community based organizations and local leaders. It is also important to make the drugs available and diagnostic test at subsidized price in public health sector. Factors like ability to afford costly treatment, high satisfaction level from the treatment sought and proximity of health care provider were found strongly associated with higher utilization of health services. Quality of services, convenience of approach, lack of personal attention and long waiting time found to be significant barriers for seeking health care in public sector

Limitations

Single researcher, short study period, small sample size, recall bias, reliability of data is purely on the self-reporting mechanism of the study respondents, since no active screening was carried out were the limitations of the study.

Conclusion

It is clearly evident from the study that prevalence of NCD is directly proportional to the age of the individual residing in slum. Self-awareness about the disease and importance of regular treatment & follow up is found lacking in the community. Health care services were

regularly utilized for these silent diseases by those who can afford it. Factors like ability to afford costly treatment, high satisfaction level from the treatment sought and proximity of health care provider were found strongly associated with higher utilization. No knowledge about screening interval of NCDs persists in the slums. The population is also less aware about NCD clinic and NPCDCS programme.

Acknowledgement

I would like to thank National Institute of Health and Family Welfare for encouraging to work in field of Public Health.

Ethical approval: The study was approved by the Institutional Ethics Committee

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