

Study of Patterns of Non-Communicable Diseases at a Tertiary Care Teaching Hospital

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ABSTRACT

Aims: Present study was conducted to describe the pattern and burden of Non-communicable diseases (NCDs) and to find out the risk factors responsible for the development of NCDs.

Materials and Methods: Present study was conducted in outpatient department of Medicine of Rajshree Medical Research Institute, Bareilly, UP, INDIA. 245 patients were included who visited medicine OPD during July 2015 - Sept 2015. Patients above 30 years of age irrespective of sex were selected in our study.

Results: A total of 245 cases were analyzed during the study period. Out of 245 cases, 53.47% have NCDs. The most common age group was 50-59yrs (35.88%) followed by more than 60 years (32.06%). The most common disease found among NCDs was diabetes 26.72% followed by cardiovascular 25.19% etc.

Conclusion: Findings of the study revealed some interesting patterns of association of socio-demographic and behavioral risk factors in causation of NCDs. These data may serve to propel multisectoral efforts to lower the community burden of NCD risk factors in study population of India in general.

KEYWORDS: Diabetes, Non-communicable diseases, Obesity, Risk factors.

INTRODUCTION

The burden of death and disability attributable to Non-communicable diseases (NCDs) is rising everywhere because of the changing patterns of lifestyle and work environment; millions of people are dying needlessly every year.¹ NCDs are a threat to human, social, and economic development. The 36.1 million deaths per year as a result of NCDs represent almost two of three deaths per year worldwide. 22.4 million of these deaths arise in the poorest countries, and 13.7 million in high-income and upper-middle income countries.² Globally, NCDs are increasingly recognized as a major cause of morbidity and mortality. NCDs deaths are still on rapid rise in most developing countries, turning into a global epidemic.

Heart disease, stroke, cancer and other chronic non-communicable diseases (NCDs) contributed to 35 of the 58 million deaths (60.3%) in the world in 2005.³ Eighty percent of these deaths occurred in low and middle income countries. In India, NCDs were responsible for 53 per cent of deaths and 44 per cent of disability adjusted life years lost.⁴

Key risk factors associated with NCDs are: tobacco use, including exposure to second-hand smoke, diets high in fats, salts, and sugar, environments that prevent physical

activity, and alcohol consumption and the intermediate risk factors like obesity, increased blood pressure and concentrations of glucose and cholesterol, are now common in poorest countries, and are rising rapidly.⁵⁻⁷ Underlying these main risk factors are socioeconomic determinants eg. poverty, inequality, unemployment, social instability, unfair trade, and global imbalances—that are the root causes of the pandemic.⁸ Improved understanding of the origins of several risk factors early in life emphasizes the importance of NCDs prevention during the lifetime of an individual, beginning with the health and nutrition of girls and young women before conception and during pregnancy.⁹ NCDs also account for half of all global disability. The consequences of NCDs are familiar to those who have witnessed a family member suffer from diabetes, cancer, or heart disease. Without treatment, these diseases often lead to a slow and painful death. Policies and programmes focusing on reducing the burden of these common risk factors are likely to make a substantial impact on mitigating the mortality and morbidity due to NCDs.

Therefore, present study was conducted to describe the pattern and burden of Non-communicable diseases in outpatient department of Medicine of Rajshree Medical

Research Institute, Bareilly, UP, INDIA. The objective of this study was to find out the risk factors responsible for the development of non-communicable diseases.

MATERIALS AND METHODS

Present study was conducted in outpatient department of Medicine of Rajshree Medical Research Institute, Bareilly, UP, INDIA. 245 patients were included who visited medicine OPD during July 2015 - Sept 2015. Patients above 30 years of age irrespective of sex were selected in our study. Informed consent to participate in study was obtained prior to study.

RESULTS

A total of 245 cases were analyzed during the study period. Out of 245 cases, 53.47% (Table-1) have NCDs. The most common age group was 50-59yrs (35.88%) followed by more than 60 years (32.06%) (Table 2). The most common disease found among NCDs was diabetes 26.72 % followed by cardiovascular 25.19 % etc. (Table-3).

Table 1: Proportion of patients suffering from NCDs.

Types	cases	Percentage
NCDs	131	53.47 %
Others	114	46.53 %

NCDs: Non-communicable diseases

Table 2: Relation between NCD & Demographic characteristics. (N=117)

		No. of cases	% of cases
Age group (in years)	30-39	11	8.4%
	40-49	31	23.66 %
	50-59	47	35.88%
	60 +	42	32.06 %
Sex	Male	83	63.36 %
	Female	48	36.64 %
Locality	Urban	82	62.6 %
	Rural	49	37.4 %
Life-style	Sedentary life-style	78	59.54 %
	Regular Physical exercise	53	40.46 %
Dietary habits	Vegetarian	49	37.40 %
	Non- Vegetarian	82	62.6 %

Table 3: Distribution of different type of NCD cases & Behavioral habits. (N=117)

		No. of cases	% of cases
Types of NCD	Diabetes Mellitus	35	26.72 %
	CHD	33	25.19 %
	Obesity	27	20.61 %
	Respiratory diseases	17	12.98 %
	Renal diseases	10	7.63 %
	Musculoskeletal diseases	5	3.82 %
	Cancer	4	3.05 %
Behavioral habits	Smoking	73	55.73 %
	Tobacco chewing	54	41.22 %
	Alcohol	51	38.93 %
	Any other	29	22.14 %

DISCUSSION

Out of 245 cases, 53.47% (Table-1) have NCDs during present study. This study agrees with similar study in tertiary care hospital of Chandigarh (India)¹⁰, Jharkhand (India)¹¹ and in Nigeria which have also documented the emergence of NCD.¹² Present study shows that it is common among age group 50-59yrs (35.88%) followed by more than 60 years (32.06%) and probability of being affected increases with increase in age. The most common disease found among NCDs was diabetes 26.72 % followed by cardiovascular 25.19 % etc. as compare to other study in tertiary care hospital of Chandigarh

hypertension (29.8%) was the major disease burden followed by Asthma (18.69%) and Diabetes Mellitus (DM) (16.67%).¹⁰

It has been observed that males (63.36 %) are more affected by NCDs than females (36.64%). The causes that can be attributed for male preponderance could be cigarette use and other forms of smoking, alcohol abuse etc. more commonly practiced by males in Indian society. In Indian setup outdoor activities are mostly carried out by males, hence they are more prone to various occupational hazards, Stress factors, Type-A

personality i. e. competitive drive, restlessness etc. Data collected shows that (59.54 %) have sedentary life are more prone to NCD. The causes of NCDs are reduced physical activity, westernized eating habits, addictions and continuous changing lifestyle behaviors. According to our study prevalence of NCD is more among non-vegetarians. Patients of CHD, Respiratory & Diabetes have given more positive family history.

CONCLUSION

Findings of the study revealed some interesting patterns of association of socio demographic and behavioural risk factors in causation of NCDs. These data may serve to propel multisectoral efforts to lower the community burden of NCD risk factors in study population of India in general. Present study shows that majority of the subjects were physically inactive, were consuming tobacco & alcohol etc. which are the major risk factors of various NCDs like diabetes, CHD, obesity, hypertension etc. The prevalence of all NCDs risk factors increased with age. The positive family history was the risk factor responsible for the NCD.

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CONFLICT OF INTEREST: None Declared.

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