

PATTERN OF NON-COMMUNICABLE DISEASES IN PATIENTS ATTENDING MEDICINE OPD AT A TERTIARY CARE HOSPITAL OF RANCHI, JHARKHANDManisha Kujur¹, Asha Kiran², Mithilesh Kumar³**HOW TO CITE THIS ARTICLE:**

Manisha Kujur, Asha Kiran, Mithilesh Kumar. "Pattern of Non-Communicable Diseases in Patients Attending Medicine OPD at a Tertiary Care Hospital of Ranchi, Jharkhand". Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 27, April 02; Page: 4676-4681, DOI: 10.14260/jemds/2015/676

ABSTRACT: BACKGROUND: Globally, non-communicable diseases (NCDs) are increasingly recognized as a major cause of morbidity and mortality. These diseases have reached epidemic proportions, yet they could be significantly reduced, with millions of lives saved and untold suffering avoided, through reduction of their risk factors, early detection and timely treatments. **Objective:** To study the risk factors responsible for the development of non-communicable diseases in the patients attending Medicine OPD at RIMS, Ranchi. **MATERIALS AND METHODS:** It was a cross-sectional observational study. The sample sizes of 207 patients were selected by Consecutive Sampling Method from OPD of Medicine department of Rajendra Institute of Medical Sciences, Ranchi, Jharkhand. Patients above 30 years of age irrespective of sex were selected in our study and road traffic accident cases & cases of blindness were excluded. Statistical Analysis was done in Proportions. **RESULTS:** Out of 207 cases 56.52% cases were NCDs. The most common age group was 50-59yrs. 39.31% followed by more than 60 yrs 29.05%. The most common disease was cardiovascular 30.76% followed by diabetes 24.78%, respiratory diseases 18.80% and obesity 16.23%. The majorities of the sample belong to urban area 61.54% and have sedentary life style 70.08%, smoking habits 53.84% and non-vegetarian eating habits 78.63%. The disease is prevalent in business class 45.29% followed by service holder 31.62%. **CONCLUSION:** The studies revealed that majority of the subjects were physically inactive, non-vegetarian. They were consuming tobacco & alcohol, which are the risk factors of various non-communicable diseases like obesity, hypertension, diabetes, cardiovascular diseases.

KEYWORDS: Cross-sectional study, Non-communicable diseases, Risk factors, cardiovascular disease.

INTRODUCTION: Non-communicable disease (NCD) deaths, while dropping in developed countries, are still on rapid rise in most developing countries, turning into a global epidemic that threatens the health of the people and of the economy.¹ Globally, non-communicable diseases (NCDs) are increasingly recognized as a major cause of morbidity and mortality. The current epidemic of non-communicable diseases in India is attributed to increased longevity and lifestyle changes resulting from urbanization.^{2,3} However, recent data suggest that non-communicable diseases are already the commonest cause of death in some parts of rural India.^{4,5,6} Increasing consumption of tobacco, an unhealthy diet, physical inactivity and adoption of other unhealthy lifestyles are important risk factors for NCDs.

The World Economic Forum,⁷ surveying the landscape of global risks for 2009, ranked non-communicable diseases (NCDs) as the third most likely risk to come true and the fourth most severe in its impact The World Health Report 2010 had indicated that NCDs account for almost 60% of

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deaths and 46% of the global burden of disease. 80% of these deaths due to NCDs occur in developing countries.⁸ The countries of the South-East Asia Region are thus facing a double burden, with a heavy load of infectious diseases and an increasing burden due to NCDs. Cardiovascular diseases, diabetes mellitus, cancers, chronic obstructive pulmonary disease, and injuries are the major NCDs in this Region, with high morbidity and mortality. By 2020, it is estimated that they would be responsible for 73% of the global deaths and 60% of the global burden of disease.

In low- and middle income countries, about 29% of deaths occur before the age of 60. India is witnessing a rising incidence of non-communicable diseases (NCDs) and old age diseases. These diseases have reached epidemic proportions, yet they could be significantly reduced, with millions of lives saved and untold suffering avoided, through reduction of their risk factors, early detection and timely treatments. In May 2013 the 66th world health assembly adopted a global action plan for the prevention and control of NCDs (2013-20).

Therefore, the aim of this study was to describe the pattern and burden of diseases in a patient attending OPD of medicine department of tertiary hospital. It also highlights emerging issues in medical admissions in the tropics such as the changing demographics, the alarming increase in cardiovascular diseases, stroke, diabetes, cancer and other NCDs. There is need to strengthen the poor secondary health care facilities and enhanced qualitative training of specialists to combat the emerging trend of non-communicable diseases. By this study we have got the risk factors which have the greatest impact on NCDs mortality and morbidity. These risk factors are modifiable through primary prevention.

The objective of this study was to find out the risk factors responsible for the development of non-communicable diseases in the patients attending Medicine OPD at RIMS, Ranchi.

MATERIALS AND METHODS: The study was conducted in OPD of Dept. of Medicine of Rajendra Institute of Medical Sciences, Ranchi. It is a tertiary care hospital which have very wide catchment area. The sample sizes of 207 patients were selected by Consecutive Sampling Method (Every patient visiting medicine OPD of RIMS have been questioned till sample size has been achieved). It was a Cross-sectional study. The period of study was from Nov 2011 - Jan 2012. Inclusion criteria were - Patients above 30 years of age irrespective of sex were selected in our study and road traffic accident cases & cases of blindness were excluded.

RESULTS: A total of 207 cases were analyzed during the period of 3 months. Out of 207 cases 56.52% (Table-1) have NCDs. The most common age group was 50-59yrs (39.31%) followed by more than 60 years (29.05%) (Table 2). It has been observed that 64.37% males were more affected by NCDs than female counterpart. The most common disease was cardiovascular 30.76 % followed by diabetes 24.78%, respiratory diseases 18.80% and obesity 16.23% (Table-5).

The majority of the sample belongs to urban area 61.54% and has sedentary life style 70.08%, smoking habits 53.84% and non-vegetarian eating habits 78.63%. The disease is prevalent in business class 45.29% followed by service holder 31.62%.

DISCUSSION: As a result of industrialization, socio-economic development, urbanization, changing age structure, changing lifestyles, India is facing a growing burden of NCD. In our study 117(56.52%) NCD cases were found. This study agrees with similar study in tertiary care hospital of Chandigarh⁹

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(61.2%) and in Nigeria which have also documented the emergence of NCD.¹⁰ The study shows that it is common among age group of 30 to 60+ years and probability of being affected increases with increase in age. In the non-communicable disease group we found CHD (30.76%) followed by Diabetes Mellitus (24.78%) and Respiratory Disease (18.80%) as compare to other study in tertiary care hospital of Chandigarh (35.27 %), hypertension (29.8%) was the major disease burden followed by Asthma (18.69%) and Diabetes Mellitus (DM) (16.67%).⁹ Cardiovascular disease responsible for 1/3rd of global death and it presently has higher mortality in developing countries than developed ones.¹¹

It has been observed that males (64.37%) are more affected by NCDs than female (35.27%) counterpart. The causes of male preponderance are cigarette use and other forms of smoking, Alcohol abuse. In Indian setup outdoor activities are mostly carried out by male counterpart, hence they are more prone to various occupational hazards, Stress factors, Type-A personality i. e. competitive drive, restlessness. Data collected shows that (70.08%) have sedentary life are more prone to NCD. The causes of NCD 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. The degree of risk of developing NCD is directly related to alcohol intake, cigarette smoking & tobacco chewing. Our study reveals that businessman is more prone to NCD compared to people with other professions due to stress. Patients of CHD, Respiratory & Diabetes have given more positive family history.

Strategy to cope with increasing burden of non-communicable disease includes effective and integrated control of cardiovascular risk factors such as hypertension and diabetes mellitus. This involves the early diagnosis, treatment and control of blood pressure and blood sugar which targeted to reduce the long term complication.

CONCLUSION: Findings of the study revealed that majority of the subjects were physically inactive, non-vegetarian. They were consuming tobacco & alcohol, which are the risk factors of various non-communicable diseases like obesity, hypertension, diabetes, cardiovascular diseases. The prevalence of all NCD risk factors increased with age. The positive family history was the risk factor responsible for the NCD. These observations emphasize the importance of public health education and awareness about risk factors is complementary strategies to combat the increasing burden of NCD.

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Types of diseases	No. of cases	Percentage
Non-communicable diseases	117	56.52%
Others	90	43.48%

Table 1: Proportion of patients suffering from NCD

Age group (in years)	No. of cases	% age of cases
30-39	10	8.54%
40-49	27	23.07%
50-59	46	39.31%
60 +	34	29.05%

Table 2: Age wise distribution of NCD cases (N=117)

Sex	No. of cases	% age of cases
Male	75	64.37%
Female	42	35.27%

Table 3: Sex wise distribution of cases (N=117)

Locality	No. of cases	% age of cases
Urban	72	61.54%
Rural	45	38.46%

Table 4: Locality wise distribution of cases (N=117)

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Types of NCD	No. of cases	% of cases
CHD	36	30.76%
Diabetes Mellitus	29	24.78%
Respiratory diseases	22	18.80%
Obesity	19	16.23%
Renal diseases	6	5.12%
Cancer	2	1.70%
Musculoskeletal diseases	3	2.56%

Table 5: Distribution of different type of NCD cases (N=117)

Life-style	No. of cases	% age of cases
Sedentary life-style	82	70.08%
Regular Physical exercise	35	29.92%

Table 6: Relation between NCD & life-style (N=117)

Behavioral habits	No. of cases	% age of cases
Smoking	63	53.84%
Tobacco chewing	54	46.15%
Alcohol	49	41.88%
Any other	23	19.65%

Table 7: Relationship between NCD & Behavioral habits (N=117)

Dietary habits	No. of cases	% age of cases
Vegetarian	25	21.36%
Non- Vegetarian	92	78.63%

Table 8: Relationship between NCD & dietary habits (N=117)

Occupation	No. of cases	% age of cases
Service	37	31.62%
Business	53	45.29%
Agriculture	12	10.25%
Unemployed	6	5.12%
Others	9	7.69%

Table 9: Relationship between NCD & occupation (N=117)

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Diseases	CHD (n=36)	Diabetes (n=29)	Respiratory Disease (n=22)	Obesity (n=19)	Renal (n=6)	Cancer (n=2)	Musculo skeletal (n=3)
Family history	9(25%)	7(24.7%)	5(22.7%)	0	0	0	0
No family history	27(75%)	22(75.8%)	17(77.3%)	19(100%)	6(100%)	2(100%)	3(100%)

Table 10: Family history of NCD cases (N=117)

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