

A study of the various factors associated with non-communicable diseases at field practice area of UHTC of a tertiary health care centre

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Abstract

Background: Industrialization, socio-economic development, urbanization, changing age structure, changing lifestyles has placed India at a position where it is facing a growing burden of non-communicable diseases. **Aims and Objectives:** To Study of the various factors associated with Non Communicable diseases at field practice area of UHTC of a tertiary health care centre. **Methodology:** This was a cross-sectional study carried out in the field practice area of UHTC supposed to serve for the population of 10000, attached to the department of Community Medicine of a tertiary health care centre during the one year period i.e. January 2017 to January 2018, all the persons in field practice area surveyed by House to house visits and personal interviews and anthropometric measurements. The statistical analysis done by Chi-square test and analyzed by SPSS 19 version software. **Result:** In our study we have seen that the majority of the patients were in the age group of >60 were 39.08%, followed by 50-60 were 26.21%, 40-50 were 19.91%, 30-40 were 13.27%, 20-30 were 1.54%. Majority of the patients were Male i.e. 55.97% followed by Female 44.03%. The most common non-communicable diseases prevalent were Cardiovascular diseases were 52.55%, followed by Diabetes in 28.35%, Chronic lung diseases in 15.48%, Stroke in 8.31%, Cancer in 3.15%, Others in 2.35%. The most common associated risk factors were Obesity (Overweight and Obese BMI >25 and >30) were 53.62% , followed by Sedentary life style in 46.38%, Tobacco chewing in 31.70%, Tobacco smoking in 25.80%, Unhealthy eating habits in 23.73%, Alcohol addiction in 19.57% , Family history in 9.05%. **Conclusion:** It can be concluded from our study that the most common non-communicable diseases prevalent were Cardiovascular diseases Diabetes, Chronic lung diseases , Stroke and Cancer the most common associated factors were Obesity (Overweight and Obese BMI >25 and >30) , followed by Sedentary life style , Tobacco chewing, Tobacco smoking in Unhealthy eating habits etc.

Key Word: NCD (Non Communicable diseases), Risk factors of NCD, Obesity (BMI)

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INTRODUCTION

Industrialization, socio-economic development, urbanization, changing age structure, changing lifestyles has placed India at a position where it is facing a growing burden of non-communicable diseases. In India, non-communicable diseases (NCDs) accounted for 40% of all hospital stays and 35% of all outpatient visits in 2004¹. Also, chronic diseases are estimated to account for 53% of all deaths and 44% of disability-adjusted life-years (DALYs) lost in 2005². As of 2005, India experienced the “highest loss in potentially productive years of life” worldwide³. The four leading chronic diseases in India, as measured by their prevalence, are in descending order:

cardiovascular diseases (CVDs), diabetes mellitus, chronic obstructive pulmonary disease (COPD) and cancer. All four of these diseases are projected to continue to increase in prevalence in the near future⁴. The projected cumulative loss of national income for India due to non-communicable disease mortality for 2006–2015 is expected to be USD237 billion. By 2030, this productivity loss is expected to double to 17.9 million years lost⁵. So we have studied the various common Non Communicable diseases in our field practice area.

METHODOLOGY

This was a cross-sectional study carried out in the field practice area of UHTC supposed to serve for the population of 10000, attached to the department of Community Medicine of a tertiary health care centre during the one year period i.e. January 2017 to January 2018, all the persons in field practice area surveyed by House to house visits and personal interviews and anthropometric measurements. The persons with Non communicable diseases like Cardiovascular diseases (Hypertension, Ischemic heart Disease etc.), Diabetes, Chronic lung diseases (COPD, Asthama etc. Stroke, Cancer (Mouth cancer, Breast cancer, other if any), Others diseases includes diseases other than this like Renal disease, Joint disorders, or any other chronic illness. Unhealthy eating habits of the patients defined like eating fried foods frequently, eating outside ready to foods like chips, packed food and taking less vegetables and fruits.

RESULT

Table 1: Distribution of the patients as per the age

Age	No.	Percentage (%)
20-30	23	1.54
30-40	198	13.27
40-50	297	19.91
50-60	391	26.21
>60	583	39.08
Total	1492	100.00

The majority of the patients were in the age group of >60 were 39.08%, followed by 50-60 were 26.21%, 40-50 were 19.91%, 30-40 were 13.27%, 20-30 were 1.54%.

Table 2: Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	835	55.97
Female	657	44.03
Total	1492	100.00

The majority of the patients were Male i.e. 55.97% followed by Female 44.03%.

Table 3: Distribution of the patients as per the common Non communicable diseases

Non communicable diseases	No. (n=1492)*	Percentage (%)
Cardiovascular diseases	784	52.55
Diabetes	423	28.35
Chronic lung diseases	231	15.48
Stroke	124	8.31
Cancer	47	3.15
Others	35	2.35

*(More than one NCD present in the patients so total may be more than 1492)The most common non-communicable diseases prevalent were Cardiovascular diseases were 52.55%, followed by Diabetes in 28.35%, Chronic lung diseases in 15.48%, Stroke in 8.31%, Cancer in 3.15%, Others in 2.35%.

Table 4: Distribution of the patients as per the associated factors

Associated factors	No.	Percentage (%)
Obesity (Overweight and Obese BMI >25 and >30)	800	53.62
Sedentary life style	692	46.38
Tobacco chewing	473	31.70
Tobacco smoking	385	25.80
Unhealthy eating habits	354	23.73
Alcohol addiction	292	19.57
Family history	135	9.05

The most common associated risk factors were Obesity (Overweight and Obese BMI >25 and >30) were 53.62%, followed by Sedentary life style in 46.38%, Tobacco chewing in 31.70%, Tobacco smoking in 25.80%, Unhealthy eating habits in 23.73%, Alcohol addiction in 19.57%, Family history in 9.05%.

DISCUSSION

Chronic non-communicable diseases have emerged as leading causes of mortality and morbidity only at the turn of the present century in India. Registrar General of India first reported this transition while enumerating causes of deaths in the country for years 2001–2003. Non-communicable diseases (NCD's), also known as chronic diseases and better as socially transmitted diseases, caused more than 50% of deaths in these years and cardiovascular diseases (CVDs) emerged as the most important cause. Increasing proportion of NCD's as cause of deaths has been reported in the latest Registrar General of India report also.

Serial data from the Census of India have also reported increasing proportionate mortality from CVD in India. In the summary trends in major CVD's (ischemic heart disease-IHD and stroke) in terms of absolute numbers and age-adjusted rates in India using the World Health Organization (WHO) and Global Burden of Diseases

(GBD) Study data In the previous studies to identify CVD risk factors of importance in Indians.^{7,8} As per the trends in CVD risk factors in India using previous reviews.⁶⁻¹⁵ Using GBD study data along with risk factor prevalence trends have highlighted the observation that hypertension is the most important risk factor for CVD, non-communicable diseases as well as overall diseases in India. Public health, health systems based as well as clinic-based interventions are needed to increase awareness, treatment and control of hypertension.

It is well known that up to a third of cardiovascular deaths can be avoided by proper treatment and control of hypertension and by addressing this risk factor we can significantly prevent premature CVD mortality in India¹⁶ The huge burden of cardiovascular diseases in the Indian Subcontinent is the consequence of the large population and the high prevalence of CVD risk factors¹⁷. NCDs have common risk factors, such as tobacco-use, unhealthy diet, physical inactivity, and excess adiposity. 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 NCDs¹⁸. In our study we have seen that the majority of the patients were in the age group of >60 were 39.08%, followed by 50-60 were 26.21%, 40-50 were 19.91%, 30-40 were 13.27%, 20-30 were 1.54%.

Majority of the patients were Male i.e. 55.97% followed by Female 44.03%. The most common non-communicable diseases prevalent were Cardiovascular diseases were 52.55%, followed by Diabetes in 28.35%, Chronic lung diseases in 15.48%, Stroke in 8.31%, Cancer in 3.15%, Others in 2.35%. The most common associated risk factors were Obesity (Overweight and Obese BMI >25 and >30) were 53.62% , followed by Sedentary life style in 46.38%, Tobacco chewing in 31.70%, Tobacco smoking in 25.80%, Unhealthy eating habits in 23.73%, Alcohol addiction in 19.57% , Family history in 9.05%.

CONCLUSION

It can be concluded from our study that the most common non communicable diseases prevalent were Cardiovascular diseases Diabetes, Chronic lung diseases, Stroke and Cancer the most common associated factors were Obesity (Overweight and Obese BMI >25 and >30), followed by Sedentary life style, Tobacco chewing, Tobacco smoking in Unhealthy eating habits etc.

REFERENCES

1. Mahal A, Karan A, Engelgau M. The Economic Implications of Non-Communicable Disease for India. Washington DC: The International Bank for Reconstruction and Development/The World Bank; 2009. p. xiv.
2. ICMR-MRC Workshop. Building Indo-Uk collaboration in chronic diseases. 2009. p. 16
3. Reddy KS, Shah B, Varghese C, Ramadoss A. Responding to the threat of chronic diseases in India. *The Lancet*. 2005;366:1746-51
4. Taylor DW. The Burden of Non-Communicable Diseases in India. Hamilton ON: The Cameron Institute; 2010. p. 13.
5. World Health Organization, Chronic Disease Report, 2005
6. R. Gupta, I. Mohan, J. Narula Trends in coronary heart disease epidemiology in India *Ann Glob Health*, 82 (2016), pp. 307-315
7. P. Joshi, S. Islam, P. Pais, *et al.* Risk factors for early myocardial infarction in South Asians compared with individuals in other countries *JAMA*, 297 (2007), pp. 286-294
8. M. O'Donnell, S.L. Chin, S. Rangarajan, *et al.* Global and regional effects of potentially modifiable risk factors associated with acute stroke in 32 countries (INTERSTROKE): a case-control study *Lancet*, 388 (2016), pp. 761-775
9. R. Gupta, P.P. Joshi, V. Mohan, K.S. Reddy, S. Yusuf Epidemiology and causation of coronary heart disease and stroke in India *Heart*, 94 (2008), pp. 16-26
10. R. Gupta, S. Gupta, K.K. Sharma, A. Gupta, P.C. Deedwania Regional variations in cardiovascular risk factors in India: India Heart Watch *World J Cardiol*, 4 (2012), pp. 112-120
11. R. Anchala, N.K. Kannuri, H. Pant, *et al.* Hypertension in India: a systematic review and meta-analysis of prevalence, awareness, and control of hypertension *J Hypertens*, 32 (2014), pp. 1170-1177
12. U. Shrivastava, A. Misra, V. Mohan, R. Unnikrishnan, D. Bachani Obesity, diabetes and cardiovascular disease in India: public health challenges *Diabetes Res*, 13 (2017), pp. 65-80
13. R. Unnikrishnan, R.M. Anjana, V. Mohan Diabetes mellitus and its complications in India *Nat Rev Endocrinol*, 12 (2016), pp. 357-370
14. R. Gupta, R.S. Rao, A. Misra, S.K. Sharma Recent trends in epidemiology of dyslipidemias in India *Indian Heart J*, 69 (2017), pp. 382-392
15. M.H. Olsen, S.Y. Angell, S. Asma, *et al.* A call to action and a life course strategy to address the global burden of raised blood pressure on current and future generations: the Lancet Commission on Hypertension *Lancet*, 388 (2016), pp. 2665-2712

16. R.L. Sacco, G.A. Roth, K.S. Reddy, *et al.* The heart of 25 by 25: achieving the goal of reducing global and regional premature deaths from cardiovascular diseases and stroke: a modeling study from the American Heart Association and World Heart Federation *Circulation*, 133 (2016), pp. e674-690
17. Goyal A, Yusuf S. The burden of cardiovascular disease in the Indian subcontinent. *Indian J Med Res.* 2006; 124: 235–44.
18. Epping-Jordan JE, Galea G, Tukuitonga C, Beaglehole R. Preventing chronic diseases: taking stepwise action. *Lancet.* 2005; 366:1667–71.

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