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A STUDY TO DOCUMENT LIFESTYLE ASSOCIATED RISK FACTORS FOR NON COMMUNICABLE DISEASES AMONG ADOLESCENTS

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ABSTRACT The burden of morbidity and mortality from Non-Communicable disease has risen worldwide and is accelerating in low-income and middle-income countries. Lifestyle-associated risk factors among adolescent are rampantly increasing throughout the world. They place a tremendous demand on health care systems and social welfare, cause decreased productivity in the workplace, prolong disability and diminish resources within families. A life course approach to preventive efforts addressing NCDs and their risk factors and behaviors will improve child and adolescent health but also decrease lifetime health care costs. Nevertheless, those risk behaviors are initiated usually in the adolescent's age groups which are continued to adult. Therefore, this group is important target for primordial prevention. This study is a cross-sectional study which aims to determine the prevalence of risk factors among adolescents attending the tertiary care centre in Surat, district of Gujarat, conducted in March 2019 to June 2019. A total of 498 adolescents were screened using a structured questionnaire. The study documented that improper diet is the major risk factor while habits like smoking and alcohol consumption is fairly uncommon. Study recommends creating awareness among adolescents and promoting healthier lifestyle habits.

KEYWORDS : Non Communicable Diseases, Lifestyle, Risk Factors, Adolescents

INTRODUCTION

Most developing countries are faced with a double burden of infectious diseases and the emerging non-communicable disease pandemic. This drastic shift in the leading global cause of death, from infectious diseases and malnutrition to non-communicable diseases, poses a great public health concern. As noted in the global burden of disease survey by Murray and Lopez, most of the non communicable disease cases are detected in the low- and middle-income developing countries where the majority of the world's population lives. The increasing impact of non-communicable diseases in these countries threatens to overwhelm already stretched health care systems. [1]

Determinants of non-communicable diseases:

A "risk factor" refers to any attribute, characteristic or exposure of an individual which increases the likelihood of developing non-communicable disease.

Underlying socioeconomic determinants

Urbanization, globalization, population ageing.

Common modifiable risk factors

Unhealthy diet, physical inactivity, smoking, alcohol consumption.

Intermediate risk factors

Raised blood pressure, raised blood glucose, abnormal blood lipids, overweight/obesity

Main chronic non- communicable diseases

Heart diseases, stroke, cancer,chronic respiratory diseases, type 2 diabetes. [2]

Key priorities for tackling NCDs include: (1) reducing risk factors for NCDs through multisectoral actions; (2) strengthening surveillance systems to map the risk, burden and national response, and (3) integrating NCDs into the primary health care system as a step towards universal coverage. [3]

METHOD

It was a cross sectional study done among 498 adolescents aged between 10-14 years of age attending Pediatric OPD of tertiary care centre in Surat, Gujarat between March 2019 to June 2019. A self-administered questionnaire which has been prepared based on WHO Risk factor Assessment and Screening procedure of Non Communicable Disease, was modified for adolescents, in their vernacular language, to collect data. The demographic details and data regarding Diet, Physical Activity and Habits was entered into MS excel spreadsheets and analyzed with the help of SPSS version 20.0.

RESULT

TABLE 1: DIET

BREAK-FAST	DAILY 181 (36.3%)	>3TIMES/ WEEK 110 (22.1%)	<3TIMES/WEEK 86(17.3%)	OCCASIONALLY 121 (24.3%)
EATING FRUITS	DAILY 113 (22.7%)	>3TIMES/ WEEK 130 (26.1%)	<3TIMES/WEEK 147 (29.5%)	OCCASIONALLY 108 (21.7%)
EATING VEGETABLES	DAILY 148 (29.7%)	>3TIMES/ WEEK 190 (38.2%)	<3TIMES/WEEK 131 (26.3%)	OCCASIONALLY 29 (5.8%)
EATING JUNK FOOD	DAILY 127 (25.5%)	ONCE A WEEK 131 (26.3%)	ONCE A MONTH 157 (31.5%)	NEVER 83(16.7%)

TABLE 2: PHYSICALACTIVITY

DAILY EXERCISE	YES 202 (40.6%)	NO 296 (59.4%)			
WORK/STUDY IN SITTING POISITION	NEVER 88 (17.7%)	ALWAYS 149 (29.9%)	ALMOST 131 (26.3%)	LESS LIKELY 130 (26.1%)	
WATCHING TV/ VIDEO GAMES	NEVER 80 (16.1%)	1-3 HOURS 172 (34.5%)	4-6 HOURS 158 (31.7%)	7-9 HOURS 79 (15.9%)	10-12 HOURS 9(1.8%)
PLAYING SPORTS	CRICKET 118(23.7%)	FOOTBALL 36(7.2%)	VOLLEY BALL 35(7%)	HOCKEY 45 (9%)	STREET (INFORMAL) GAMES 198 (39.8%)

TABLE 3: HABIT

	YES		NO	
	MALE	FEMALE	MALE	FEMALE
SMOKING	27 (10.4%)	3(1.3%)	232 (89.6%)	236 (98.7%)
ALCOHOL	38(14.7%)	3 (1.3%)	221 (85.3%)	236 (98.7%)

DISCUSSION AND CONCLUSION

Demographics:

The male to female ratio was 1.1:1, which was statistically non

significant. Hence suggestive of equal gender distribution over all age groups.

Maximum Participants in the study followed Hinduism, followed by Muslims which was similar to Indian Consensus 2011.

In the studied participants half of them belonged to the Lower middle socioeconomic status and one fourth to upper lower socioeconomic status according to modified Kuppuswamy classification 2019. While no participant belonged to the upper class

Risk Factors:

Diet is the major risk factor documented in the study. Only one third (36.3%) had daily breakfast practice. More than three fourth did not fulfil daily fruits (77.3%) and vegetable (70.3%) consumption criteria. One fourth (25.5%) participants were eating junk food daily and half (51.8%) of them were eating outside atleast once a week. Hence poor eating habits and lack of awareness were noticed.

Physical Inactivity was less common in this group. Most males were involved in high intensity vigorous activities while most females were involved in moderate vigorous activities. 48.3% males and 32.2% females exercised daily and had long working hours. Only 1.8% participants spent time in sedentary activities like watching TV, using mobiles or computers.

Habits in particular alcohol and smoking, were less common in the studied participants. Only 6% had used tobacco or its products and 8.2% had consumed alcohol, in which males were predominant.

LIMITATIONS

The study was done in a tertiary care centre, in government setting thus not representing the demographics and high risk behavior of whole community or district. It's a self reported information, which is not validated in narrow range of age group (10-14 years) with no follow up taken to correlate the risk factors to attributing disease.

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