

Original Article**Life-style practices related to health promotion among adult males in urban areas of Jamnagar city, Gujarat**

Sudip Bhavsar*, Amrita Sarkar*, Rohit Ram**, Pradeep Pithadia**, J.P. Mehta***, Dipesh Parmar****

*Resident, **Assistant Professor, ***Associate Professor, ****Professor & Head
Department of Community Medicine, Shri M P Shah Government Medical College, Jamnagar, Gujarat, India**ABSTRACT**

Background: Many countries have adopted health policies that are targeted at reducing the risk factors for chronic non-communicable disease. These policies promote a healthy population by encouraging people to adopt healthy life style behaviour. This paper examines the life style practices related to health promotion among adult males in Jamnagar city.

Material & Methods: It was a community based cross-sectional study, carried out between June to December 2012. Total 400 subjects were interviewed from all the 17 urban wards of Jamnagar city by using pre tested, semi structured questionnaires.

Results: Highest numbers (39%) were in the age group of 20-30 years, 66% were graduates and 50.5% were doing service. Majority of the subjects were consuming green leafy vegetables more than 3 times in a week. High intake of oil and salt was observed in majority of the subjects. 63% of the subjects were physically inactive, 15.3% were taking smokeless tobacco products while 3.8% were smokers.

Conclusion: Majority of the subjects were physically inactive, having unhealthy dietary pattern.

Key words: Cross sectional study, health promotion, life style

INTRODUCTION

Non communicable diseases (NCDs) kill more than 36 million people each year, nearly 80% of these deaths occurs in developing countries. Cardiovascular diseases accounts for most of NCD deaths followed by cancer & diabetes [1]. The rapidly increasing epidemic of non-communicable diseases in our society is one of the major public health problems of 21st century, which worrying health care planners. This clearly visible epidemiological transition affects quality of life as well as life expectancy of the people [2].

The main contributing factor for this epidemiological transition is the shift in the life style towards the unhealthy continuum e.g. tobacco use, alcohol consumption, unhealthy dietary habits, physical inactivity. Developing countries like India where health promotion is relatively unexplored are facing double burden of diseases i.e. the combination of long-established, unconquered infectious diseases and rapidly growing diseases related with undesirable life style e.g. (NCDs). So, studies about health promotion and its related factors certainly need to be conducted. Change in the life style is the becoming major strategy for both prevention of non-

communicable diseases and for promotion of health [3].

Prevalence of various risk factors of non communicable diseases such as smoking, smokeless tobacco consumption, drinking of alcohol, hypertension and stress are more among males as compared to females [4]. Man is the only earning member in most of the Indian families and clinical care of various non-communicable diseases is costly and prolonged, these direct costs divert the scare family and societal resources to medical care. Taking into consideration of all these factors present study was designed to access the life style practices related to health promotion among adult male population.

MATERIAL AND METHODS

Through present study, an attempt was made to assess life-style practices related to health promotion among adult male population of Jamnagar city. It was a community-based cross-sectional study, carried out between June-2012 and December-2012 for a period of six months, in urban areas of Jamnagar city.

As the prevalence of healthy life-style practices among population was unknown, we assumed that 50% of people follow healthy life-style practices and remaining doesn't. Thus, by applying WHO formula for sample size calculation, total 384 people would have to be studied. Thus, making it round figure, total 400 study subjects were part of our study [5].

Total population of Jamnagar city is 4, 45,397 and it consists of 19 urban wards. [6] Thus, to make it representative of all urban wards, we included 21 healthy adult males per urban ward, through purposive sampling method. We included only male persons as our study subjects as prevalence of non-communicable diseases are higher among males than female.

Data were collected through house-to-house visits of all urban wards of the city, by trained resident doctors of Community Medicine department, M.P. Shah Medical College, Jamnagar. A pre-tested semi-structured Performa was used for data collection. Data were entered in Microsoft office excel sheet for 2007, and analyzed in the same. Suitable statistical tests were applied.

We included all healthy adult males between 20 and 50 years of age. Females were excluded from our study. Similarly, all patients who were known case of hypertension, diabetes, cardiovascular diseases or cerebro-vascular diseases or any other non-communicable disease or any serious illness were excluded.

RESULTS

Study of socio-demographic characteristics revealed that all the subjects were Hindu; highest number of subjects were in the age group of 20-30 years (39%), followed by 31-40 years (31%). Among total 400 subjects 264 (66%) were graduate, while only 2 (0.5%) were illiterate. Majority of subjects (50.5%) were doing service.

Among total 400 subjects, majority of subjects (95.20%, 93.70% and 95% respectively) were consume green leafy vegetables, fruits and salad, out of these majority of subjects (65.62%, 62.67% and 86.58% respectively) were consume them more than 3 days in a week. Out of total 400 majority of subjects (96.25%) were consume > 20gm. of oil per day, while 76.0% were consume more than 5 gm of salt per day, and only 27% were drinking more than 2 litres of water per day.

Out of total 400 subjects 15 (3.8%) subjects were smokers, 61 (15.3%) were taking smokeless

tobacco, and 4 (1%) were taking alcohol. Among total 400 subjects, majority of them 252 (63%) were physically inactive.

DISCUSSION

The present study was community based cross-sectional study, carried out in urban areas of Jamnagar city. Study of socio demographic characteristics revealed that majority of the subjects were in the age group of 20-30 years (39%), out of total 400 subjects, 66% were graduates and majority of them (50.5%) were doing service. According to various studies green leafy vegetables & fruits intake is found to be protective against various cardiovascular diseases [7,8]. In various studies, it is found that low salt intake is associated with a reduction of risk of atherosclerotic cardiovascular events [9,10,11]. WHO stated that salt intake should be reduced to an average of not more than 5 grams per day [12]. In present study 76% of the subjects were consume more than 5 grams of oil per day. WHO stated that high fat intake (dietary fat representing 20% or over of the energy supply and containing a higher proportion of saturated fats) is a major risk factor for cardiovascular diseases.¹² In present study majority of the subjects (96.25%) were consume > 20 grams of oil per day.

Basic physiological requirement for drinking water have been estimated at about 2 litres per day [13]. In this study we found that only 27% of subjects were drinking \geq 2 litres of drinking water per day. There is incontrovertible evidence that tobacco, in any form (smoked or chewed) is a major risk factor for cardiovascular diseases and cancers [14,15]. High alcohol intake defined as a 75 ml or more per day is an independent risk factor for CHD, hypertension and all cardiovascular diseases [16]. Alcohol may cause cancer of liver, oesophagus, stomach, vitamins deficiency, hypoglycaemia, hyperlipidaemia, cirrhosis of liver, myopathy, traumatic injury, etc [17]. In present study 3.8% subjects were smokers, 15.3% were consume smokeless tobacco while 1% were taking alcohol. Lower prevalence of alcohol drinking is observed in the present study could be due to, Gujarat is a "dry state" and drinking is legally not allowed in the state.

Industrialization, urbanization and mechanized transport have reduced physical activity, even in developing countries, so that currently more than 60% of the global population is not sufficiently active. Physical exercise is linked to longevity, independently of genetic factors. Physical activity,

Table 1: Socio demographic characteristics of the subjects

Variable	Number	Percentage
Religion		
Hindu	400	100
Age		
20-30	156	39.0
31-40	124	31.0
41-50	120	30.0
Education		
Illiterate	2	0.5
Primary	0	0.0
Secondary	10	2.5
Higher Secondary	77	19.2
Graduate	264	66.0
Post graduate	47	11.8
Occupation		
Service	202	50.5
Business	116	29.0
Student	71	17.7
Farmer	2	0.5
Unemployed	2	0.5
Others	7	1.8

even at an older age, can significantly reduce the risk of coronary heart disease, diabetes, high blood pressure, and obesity, help to reduce stress, anxiety and depression, and improve lipid profile. WHO stated that an even moderately intense physical activity such as brisk walking is beneficial when done regularly for a total of 30 minutes or longer on most or all the days [18]. According to this criteria in this study we found that 63% of subjects were physically inactive.

CONCLUSION

Findings of the study revealed that majority of the subjects were consuming oil and salt higher than the recommended daily allowance, majority of them were physically inactive and about 1/5 of the study subjects were consuming tobacco, which are the risk factors of various non-communicable diseases like obesity, hypertension, diabetes, cardiovascular diseases.

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Table 2: Distribution of subjects according to their life style practices

Life style related practices	Number (N=400)	Percentage
Practices regarding diet		
Intake of green leafy vegetables		
Frequency of intake of GLV in a week (N=381)		
≤ 3 days/week	131	34.38
> 3 days/week	250	65.62
Intake of fruits		
Frequency of intake of fruits in a week (N=375)		
≤ 3 days/week	140	37.33
> 3 days/week	235	62.67
Intake of salad		
Frequency of intake of salad in a week (N=380)		
≤ 3 days/week	51	13.42
> 3 days/week	329	86.58
Oil consumption		
≤ 20gm/day	15	3.75
> 20gm/day	385	96.25
Salt intake		
≤ 5 gm/day	96	24.0
> 5 gm/day	304	76.0
Drinking water intake		
> 2 liters/day	292	73.0
≥ 2 liters/day	108	27.0
Practices related to habits		
Smoking		
Yes	15	3.8
No	385	96.2
Smokeless tobacco consumption		
Yes	61	15.3
No	339	84.7
Alcohol consumption		
Yes	4	1.0
No	396	99.0
Practices related to physical fitness		
Physical activity		
≥ 30 minutes/day	148	37.0
< 30 minutes/day	252	63.0

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Corresponding Author:

Dr Sudip Bhavsar
Resident
Department of Community Medicine
Shri M P Shah Govt. Medical College
Jamnagar, Gujarat, India
E-mail: sudipvbhavsar@gmail.com

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