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Research Article

ANALYSIS OF SOCIOECONOMIC STATUS AND PREVALENCE OF MODIFIABLE RISK FACTORS OF NON- COMMUNICABLE DISEASES AMONG YOUNG ADULTS

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Abstract:

Introduction: Non-Communicable Diseases are the leading cause of deaths at global, regional and national levels. The changing lifestyles in the country have resulted in a transition in the health profile of the population.

Objective of Study: The objective of the study was to analyse the socioeconomic status and prevalence of modifiable risk factors of non-communicable diseases among young adults.

Study Design: This cross-sectional study was conducted in Allied hospital, Faisalabad during January 2019 to July 2019. The data was collected through a pre-formed questionnaire, which consisted of two parts; section one included the socio-demographic profile of the respondents and section two comprised of questions regarding the well-established modifiable risk factors for NCDs.

Results: The overall prevalence of all the risk factors was found highest in the respondents belonging to the middle socioeconomic class. The prevalence of tobacco smoking turned out to be (23.3%) of the entire study sample. Nearly (37.1%) of all respondents were exposed to the risk of second hand or passive smoking. Prevalence of risk factors of low dietary intake of fruits and vegetables in all the respondents was (60%) and (24.2%) respectively. About (25.8%) of the respondents were reported to possess inadequate physical activity. Regarding BMI, (5.8%) of respondents were underweight, (29.6%) pre-obese and (9.6%) crossed the borderline for obesity.

Conclusion: A high burden of risk factors of NCDs was observed in the study sample, with almost all of them being most prevalent in the middle socioeconomic class and the youngest age group under study i.e. 25-28 years of age. Variations in the distribution of risk factors based on gender and socioeconomic status argues particular focus on and over individual behaviour, personal choices and personal responsibilities to be highlighted in order to assist in targeting improvement actions. Intentional designing of environments to promote healthy behaviours holds promise to reverse the increase of lifestyle diseases.

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INTRODUCTION:

Non-Communicable Diseases (NCDs) refer to the conditions which are slowly evolving, relentlessly progressing and persisting over an extended period of time. NCDs consist of a vast group of non-infectious medical conditions; however, emphasis has been on Cardiovascular Diseases, Cancer, Diabetes and Chronic Non-Specific Respiratory Diseases, representing a leading threat to human health and economic development. Contrary to the popular presumption of NCDs as "Diseases of Affluent", the available data demonstrates that 4 out of 5 (80%) deaths resulting from NCDs are in low- and middle-income countries and in older population [1].

It is, therefore, no exaggeration to describe the situation in developing countries as an impending disaster: a disaster for health, for society and most of all, for national economies [2]. However, the developed countries are equally sharing in the scourge, but while the developing countries are facing a double burden, the developed and high-income countries have experienced a transition in the health term from communicable to non-communicable diseases [3]. Not only the burden of NCDs is unequally distributed among different social classes; but also, the risk factors show tremendous variations among men, women and between different income groups. Children, adults and elderly are all vulnerable to risk factors that contribute to NCDs [4].

The risk factors been broadly classified as "Modifiable" and "Non-Modifiable" factors. Modifiable risk factors could be identified and prevented much earlier in life and include direct tobacco use and second-hand smoke, harmful use of alcohol, physical inactivity, unhealthy diet and obesity [5].

All these in combination comprise of behavioural factors that can lead to metabolic and physiological changes within the body, ultimately increasing the risk of NCDs. Raised blood pressure, overweight and obesity, high blood glucose level and raised cholesterol level have all been identified to cause significant contribution to various non-communicable diseases. Non-modifiable risk factors include gender, age, genetics, ethnicity and family history. Clustering of these risk factors significantly increases the risk of morbidity and mortality from NCDs [6].

OBJECTIVES OF THE STUDY:

The main objective of the study was to analyse the socioeconomic status and prevalence of modifiable risk factors of non-communicable diseases among young adults.

MATERIAL AND METHODS:

This cross-sectional study was conducted in Allied hospital Faisalabad during January 2019 to July 2019. The data was collected through a pre-formed questionnaire, which consisted of two parts; section one included the socio-demographic profile of the respondents and section two comprised of questions regarding the well-established modifiable risk factors for NCDs.

Sample Size: According to the available time and resources, it was decided to take a sample of 240 young adults, both male and female (ages between 25-40 years).

Inclusion Criteria: All young adults, males and females between ages 25-40 years, whether single or married were included in the study; who had no prior history of a well-established non-communicable disease.

Exclusion Criteria: Young adults who were not willing to participate in the study were excluded.

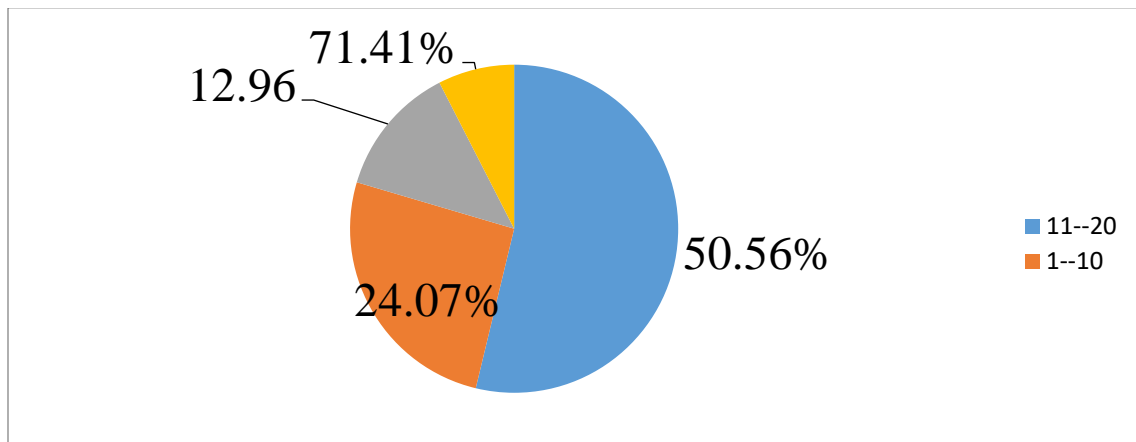
Statistical analysis: The data was encoded and entered into SPSS Version 21. Frequencies were run and percentages were calculated. The results were presented in the form of frequency distribution tables.

RESULTS:

The study analyzed several demographic indicators including socioeconomic status, gender, age, education and occupation of the respondents in relation to the prevalence of risk factors of NCDs. Among the 240 subjects studied by far, 72.5% (N=174) were males and 27.6% (N=66) were females. Age distribution showed that 48.33% (N=116) of the respondents belonged to ages 25-28 years, followed by 10.83% (N=26) falling into the age group 29-32 years, 14.17% (N=36) within 33-36 years and 26.67% (N=64) in 37-40 years of age. The mean age of the respondents was calculated as 31.55. None of the female subjects was found to use smokeless tobacco products while males using these constituted 6.7% (N=16) of all respondents. Regarding BMI, more than half 55% (N=132) of the respondents were categorized to be normal, 5.8% (N=14) underweight, 29.6% (N=71) pre-obese and 9.6% (N=23) obese.

Table 01: Prevalence of Tobacco Use among the Respondents

Tobacco Use	Frequency	Percent %
Smokers	56	23.3
Non-Smokers	184	76.7
Total	240	100.0

**Figure 01: Distribution of Daily Cigarette Consumption among the Smokers****Table 02: Frequency Distribution of BMI among the Respondents.**

BMI	Frequency	Percent %
Underweight	14	5.8
Normal	132	55.0
Pre-Obese	71	29.6
Obese I	19	7.9
Obese II	3	1.3
Obese III	1	0.4
Total	240	100.0

Table 03: Prevalence of Risk Factors of NCDs according to Socioeconomic Status

Risk Factors		Socioeconomic Status			
		Lower Class	Middle Class	Upper Class	Total
BMI	Underweight	7	7	0	14
	Normal	25	84	23	132
	Pre Obese	12	31	28	71
	Obese I	3	14	2	19
	Obese II	0	3	0	3
	Obese III	0	1	0	1
Tobacco Smoking	Yes	11	27	18	56
	No	36	113	35	184
Use of Smokeless Tobacco Products	Users	8	6	2	16
	Non-Users	39	134	51	224
Passive Smoking	Yes	20	47	22	89
	No	27	93	31	151
Fruit Intake	Low	42	80	22	144
	Normal	5	60	31	96
Vegetable Intake	Low	7	30	21	58
	Normal	40	110	32	182

DISCUSSION:

Our study revealed that, out of 60% of the respondents with a low dietary intake of fruits; 50% were males and 10% were females and a majority of them belonged to the middle socio-economic class. Most (32.1%) of the study sample to have a low dietary intake of fruits ranged in ages between 25-28 years. Highest percentage (15%) among all the participants was of Illiterate followed by Graduates (10.8%) in the same order. About 27.9% of the respondents with low fruit consumption were reported to be labours [7-9]. Respondents with a monthly family income of less than Rs. 15000 constituted a vast majority (24.2%) of population with an inadequate dietary intake of fruits. Mass education to increase production and consumption of healthy selections would cause huge benefit to the society.

A high burden of the risk factors of NCDs was observed with almost all of them being most prevalent in the middle socioeconomic class and the youngest age group under study (25-28 years) [10]. Out of the entire study sample, risk of tobacco smoking and use of smokeless tobacco products was exclusively prevalent in males and was found negligible in females, indicating that females continued to follow the socio-cultural norms [11-12].

CONCLUSION:

A very large proportion of study population was exposed to risk factor of low dietary intake of fruits possibly due to illiteracy and poverty. The population was found unaware of the benefits of eating fruits to their health. An overlap between low physical activity and obesity among educated population is suggestive of the sedentary life style and rapid urbanization.

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