

Overweight and Obesity: A major concern for health in India

Richa Mukhra¹, Tej Kaur¹, Kewal Krishan¹, Tanuj Kanchan²

¹Department of Anthropology (UGC Center of Advanced Study), Panjab University, Chandigarh, India; ²Department of Forensic Medicine and Toxicology, All India Institute of Medical Sciences, Jodhpur, India

Abstract

Obesity has become a public health concern affecting different age groups in India. The presence of 'obesogenic environment' such as easy availability of unhealthy food and few dimensions for recreational activities, might have led to the increase in the development of obesity. Besides, environment, obesity is influenced by several other factors, thus becoming a multifaceted issue leading to other major health disorders. India is reported to be positioned as the third amongst the countries having the highest rates of obesity with a prevalence of 11% amongst adolescents and 20% amongst adults; and if not controlled will provide stimulus to an epidemic. To control this nutritional disorder, a balanced diet with controlled calorie intake and regular physical activity must be practiced from childhood. Apart from personal interventions, involvement of the government in promoting health related programs might give a boost in monitoring and controlling the exponential growth of obesity. *Clin Ter 2018; 169(5):e199-201. doi: 10.7417/CT.2018.2078*

Key words: Obesity, Food habits, Lifestyle disorders, Body Mass Index, Malnutrition, India

Introduction

According to the World Health Organization (WHO), health is a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".¹ Due to the prevailing condition of overweight and obesity, the state of well-being as recommended by WHO may not be triumphed by many individuals giving rise to severe health issues. Thus, overweight and obesity may serve as parameters which may not allow an individual to attain this definition of health as per WHO.

Currently, the health is a major concern in developed as well as developing nations where industrialization and globalization are increasing at a tremendous rate. Children as well as adults are being embattled by various junk food

enterprises for their profits proceeding to various health issues amongst every age group. With the growth of privatization, young adults are lured by large pay-scales and in response; they are enforced by these companies to work for hours sitting at one place. This heavy duty work gives rise to work-related stress which adds more to the deterioration of physical and mental health. The feeling of discontent that arises due to such stress leads to imbalanced eating habits at odd hours.² Since a large number of occupations involve desk-job; the lifestyle of people is at stake directing to a sedentary lifestyle. One such public health concern which is proliferating these days at an alarming rate is being overweight and then drifting towards being obese.

Obesity and its prevalence

Obesity may be defined as the building up of a superfluous fat that has a negative effect on the functioning of the body and may be attributed to the energy imbalance (total energy being consumed less than what the body actually contains); along with an increased amount of calorie content stored in the body.³ For measuring the extent of obesity and central obesity (obesity around the abdomen), different anthropometric measurements and indices are calculated. For obesity, a simple index termed as the Body Mass Index (BMI) or Quetelet Index⁴ is assessed and for central obesity, the waist circumference is measured.⁵ As per the WHO, the normal range of BMI should range between 18.5 kg/m² to 24.9 kg/m² and any increase in the value depicts the extent of being overweight.⁶ Since these values are universally defined regardless of nationality, therefore, additional cut-off points (18.5–23.0 kg/m²) for Asian Indians⁷ has been further advised to have a more closer view of the actual frequency of obesity prevailing in Asian countries like India.

Globally, the prevalence and outbreak of obesity is so boundless that even a new word 'globesity' has been fabricated.⁸ In 2016, around 41 million children (below 5 years) were found to be overweight or obese; and approximately

Correspondence: Dr. Kewal Krishan, PhD, FRAI, Associate Professor and Chairperson, Department of Anthropology, (Centre of Advanced Studies in Anthropology), Panjab University, Chandigarh-160 014, India. Phone: 91-172-2534224 (Office), 91-9876048205 (Mobile)
E-mail: gargkk@yahoo.com, kewalkrishan@pu.ac.in

1.9 billion adults (18 years and above) were reported to be overweight worldwide, out of which 650 million were obese.³ According to National Family Health Survey (NFHS), the prevalence of obesity (BMI \geq 25.0 kg/m²) in the age group of 15-49 years has increased from a total of 14.8% (NFHS-III) to 20.7% (NFHS-IV) amongst women and from 12.1% (NFHS-III) to 18.9% (NFHS-IV) amongst men in India.^{9,10} Studies have reported that India is positioned third amongst the countries having the highest rates of obese and overweight people with a prevalence of 11% amongst adolescents and 20% amongst all adults¹¹; and if not controlled will give impetus to a public health epidemic.

Obesity and Overweight: Multifaceted condition

Overweight and obesity are considered to influence the various bodily functions which in turn result in deadly diseases such as Diabetes mellitus, cardiovascular diseases, polycystic ovary disease amongst young girls, depression, hypertension, etc. For example, a study conducted by Altamura et al. showed high correlation of obesity with disturbed eating manner and psychopathological disorders amongst obese women.¹² Nutrition and diet play a vital role in shaping the body physique of an individual commencing from childhood. The food habits of individuals differ with geographical distribution and are culturally defined. Men and women from Delhi are found to be the most obese in India followed by Punjab and Kerala States with 45.5%, 30.3% and 24.3% of men and 49.8%, 37.5% and 34% of women from respective states.¹³ The high rate of frequency in these states have a direct impact of their lifestyle and food habits, for example, Delhi being a metropolitan city has a surplus of multi-national companies (MNCs) with a majority of entrepreneurs working day and night. As a result, individuals are more glided to consume packed and processed food which further disturbs the balanced diet that one must require for proper functioning of the body. In a similar fashion, populations of Punjab and Kerala have a high-fat and high-sugar diet that significantly affects the body size of the individuals.¹⁴ Therefore, a balanced diet with controlled calorie intake from childhood must be practiced for better health. In addition to this, environment is likely to influence the body size of the individuals (Bergmann's rule).¹⁵ The lifetime exposure of non-degradation nature of some xenobiotic chemicals¹⁶ (artificial substances such as polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and trichloroethylene (TCE) that are not present in nature before their production by humans) have also reported to alter the metabolic rate of the organism, thus, promoting obesity.¹⁷ Since obesity is a multifactorial disorder of the body, therefore, apart from lifestyle and environment, genes in collaboration with other factors also contribute to the susceptibility of a person for obesity.¹⁸ Hence, obesity being a multifaceted condition of the body has to be dealt with stringent preventive measures.

Approaches to tackle the increased rate of Obesity

Dealing with the issue of obesity involves various policies and strategies that can be incorporated at personal and government level to control and manage the increasing rate of excessive fat accumulation in the body. One such strategic treatment for overweight/obese patients conducted by Pancallo et al. showed the efficacy of the treatment resulting in lower levels of BMI after the execution of protocol.¹⁹ A rapid growth of fatness among children is emerging at a high rate due to sedentary lifestyle and affection for sweets, junk and preserved foods amongst them. Therefore, an encouragement of practicing physical activity for at least 30-45 minutes per day and intake of 'good' food along with the knowledge of 'food pyramid'²⁰ must be inculcated at an early stage of growth and development of the individuals. Educational institutes must ban the use of packed foods and soft drinks, rather healthy drinks and food products should be made available in the institute canteens. Not everybody can afford the expenses of gyms for staying fit, hence the concept of 'Open Gyms' must be introduced and initiated by the local government bodies in the public parks and gardens. Promotion of various health benefit schemes must be introduced by the Health Departments in order to educate people about the ill-effects of bad food habits. The working hours for MNC employees must be reduced and divided into three to four shifts per day rather than the usual day and night working shifts. This will result in lowering the stress level at the work place and will increase the productivity of the individual. Heavy taxation should be levied on high-sugar and high-fat containing products to control the consumption of these at higher levels.

Conflict of interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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