INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH AND INNOVATIVE STUDIES
ISSN: 2820-7157
www.ijsrisjournal.com

December 2022 **Volume 1** **Number 3** **Pages 46-50**

Obesity and Associated Risk Factors in the Saudi Population: Mini Review

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ABSTRACT

Obesity is a growing public health concern worldwide, including in our country Saudi Arabia. This review aimed to provide a comprehensive overview of obesity prevalence, its associated risk factors, and potential interventions in the Saudi population. We discussed here epidemiological data, health complications, socio-cultural influences, and genetic factors contributing to obesity. Additionally, we explore preventive strategies and public health initiatives targeting obesity in Saudi Arabia.

Key words : Obesity, BMI, epidemiology

INTRODUCTION

Obesity is a multifactorial condition characterized by excessive body fat accumulation, posing significant health risks. In Saudi Arabia, obesity rates have risen dramatically in recent years, leading to increased morbidity and mortality. The obesity is defined as excess fat accumulation it defined in the adult by WHO as overweight if body mass index greater or equal 25 and obesity BMI greater or equal 30 (1), in under 5 years overweight it defined as weight for high greater than 2 standard deviation above WHO growth standard median, and obesity defined as weight for high greater than 3 standard deviation above WHO growth standard median (1).In addition overweight is it defined in adholesent(5-19years) as BMI for age greater than 1 standard deviation above WHO reference median while obesity greater than 2 standard deviation

Epidemiology

Prevalence of Obesity have been raised dramatically over the past few years , reaching epidemic proportions worldwide. In the World Health Organization (WHO) statistics, obesity has been nearly thrice since 1975, with over 1.9 billion adults categorized as overweight and 650 million as obese in 2016. These high trends are seen across all age groups, genders, and socioeconomic statuses(1).

The prevalence of obesity different between regions and countries, the higher rates is observed in developed countries. In developed countries, obesity affects over 20% of the adult population, while in low- and middle-income (MLIC) countries, the prevalence is rapidly increasing, particularly in urban sites(2). Urbanization, lifestyles, and changes in dietary habits contribute to the rising obesity epidemic globally.

Obesity rates differ significantly between regions, with the highest prevalence observed in the Americas (36.2%) and the lowest in Africa (7.7%). Within countries, disparities exist based on socioeconomic factors, ethnicity, and geographic location, e.g in the United States, obesity rates are higher among African American and Hispanic populations compared to Caucasians(3)

In Saudi Arabia studies reveal a high prevalence of obesity in Saudi Arabia, affecting both adults and children. Data from national surveys indicate a rising trend in obesity rates, with urban areas experiencing higher prevalence compared to rural regions(4). Recent study revealed that prevalence overweight is 32.8% of the population with higher in males while obesity is 23% with higher prevalence in the female

24.2%(5).Furthermore, in another study the prevalence is 24.7% they concluded that obesity is associated with T2DM hypercholesterolaemia, hypertension, lung diseases, rehmatoid arthritis, sleep apnea, and colon disease(6).

Complication and consequences of Obesity

Obesity is associated with many health issues , including cardiovascular disease CVD(7) , type 2 diabetes , hypertension, and many certain cancers(8)(9). The burden of obesity-related diseases is substantial in the Saudi population, contributing to increased healthcare costs and decreased quality of life.

Risk factors

Multiple factors contribute to the high prevalence of obesity in Saudi Arabia, including dietary habits, sedentary lifestyles, urbanization, and socio-economic factors. Traditional diets rich in carbohydrates and fats, coupled with a lack of physical activity, contribute to excess weight gain among Saudi . Moreover, cultural norms, such as the preference for larger body sizes, may perpetuate obesity in the population.

Socio-Cultural and Environmental Influences

Socio-cultural factors play a significant role in shaping dietary habits, physical activity levels, and perceptions of body image in Saudi society. Traditional diets rich in high-calorie foods, coupled with sedentary lifestyles and rapid urbanization, contribute to the obesity epidemic(10).

Dietary Patterns and Lifestyle Choices

The Westernization of dietary habits, characterized by increased consumption of fast food, sugary beverages, and processed foods, has contributed to obesity prevalence in Saudi Arabia. Additionally, cultural practices such as sedentary leisure activities and limited participation in physical exercise exacerbate the problem especially in Saudi population(11).

Genetic and Environmental Influences

Genetic predisposition to obesity has been identified in certain Saudi populations, with studies highlighting the role of genetic variants in susceptibility to obesity (12). Additionally, environmental factors, such as food availability, marketing practices, and urbanization, play a significant role in shaping dietary habits and lifestyle choices among Saudis.

Interventions and Public Health Initiatives: Addressing the obesity epidemic in Saudi Arabia requires a multi-sectoral approach, involving government policies, healthcare interventions, community programs, and public awareness campaigns. Initiatives aimed at promoting healthy eating habits, encouraging physical activity, and reducing sedentary behaviors are essential in combating obesity in the Saudi population (13)

Conclusion

Obesity is a significant public health challenge in Saudi Arabia, with far-reaching implications for individual health and healthcare systems. Efforts to address obesity must consider socio-cultural, environmental, and genetic factors, while implementing comprehensive strategies for prevention and intervention.

Author's contribution

All authors contribute equally in conceptualization, review of previous works, and writing of final draft. All authors approved final draft of the manuscript

Funding

None

Conflicts of interests

None

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