

Education-Family Physician Corner**Globalization and Obesity**

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Due to globalization, epidemiological trends of non-communicable public health concerns continued to rise; obesity is an example. In spite of some positive contribution of globalization to the concepts of public health, through globalization-related trade liberalization and urbanization, the negative outcomes remain more apparent. WHO “Global Strategy on Diet, Physical Activity and Health” showed some gaps in its initiatives. The paper stresses the importance of adding well established educational, fiscal and legislative policy to change the global food consumption in order to halt the obesity epidemic.

During the twentieth century, many indicators on food and health have improved dramatically. Globally, life expectancy has risen, people have grown taller, and malnutrition rates have dropped¹. Simultaneously, against these gains, other indicators have dramatically worsened, for instance, obesity, physical activity levels and inequalities in health both within and between countries¹. Similarly, a change of disease pattern has emerged from communicable disease predominance to non-communicable disease burden notably cardiovascular disease, diabetes and cancer¹.

Globalization has increased interconnectedness of the world through intensifying the flow of people, trade and ideas across the national borders¹. Some argue that the burden of obesity acts as an obstacle to public health initiatives because of the obesity-related premature mortality, morbidity and poor quality of life.

In fact, 1.46 billion adults were estimated to be overweight in 2008 and of these 502 million were obese². Moreover, it has also been estimated that more than 40 million children under the age of five were overweight in 2010². Increased prevalence of overweight and obesity is a worldwide health concern based on the concept that obesity is a lifestyle consequence and it is prevalent both within the affluent and poor countries.

Health is defined as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity³. Subsequently, obesity could represent an unhealthy status. Additionally, most of the traditional ways of preventing and treating obesity have almost focused on changing the behaviour of individuals which eventually have proven to be inadequate as evidenced by the continuing rising global obesity rates.

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Obesity and Public Health

Public health aspires to prolong and improve the quality of life through the prevention and treatment of diseases⁴. Obesity is a new emerging health crisis. Obesity is an excess of body fat leading to ill-health⁵. To assess fatness and adiposity, BMI is used. Adults with BMI >30 are obese, BMI of 25-30 are classified as overweight⁵. However, in the last two decades, obesity has also become a serious national health problem among children and adolescents. Childhood measures are based on growth charts where obesity indicates BMI of more than or equal to the 95th percentile according to age and gender specific cutoff points⁵. Furthermore, childhood obesity is accompanied by significant morbidity and is acknowledged as a precursor to several risk factors for adulthood chronic disease.

The social determinants of health (SDH) are important when dealing with obesity; it refers to where the people live and work that eventually determine their opportunities to lead healthy lives⁶. It was argued that globalization has been implicated as an important contributor to the emergence of both adult and childhood obesity, somehow, by its effect on the social determinants of health.

The Role of Globalization in the Emergence of Obesity Epidemic

Lee defined globalization as spatial, temporal and cognitive changes occurring at novel rates over the past decades¹. Associated social, cultural, political and economic changes have emerged due to globalization.

One positive outcome is that globalization has lifted millions of people out of poverty, reduced hunger and improved the quality of life. Many developing countries have improved their economy since liberalizing their trades, which resulted in an increased in their gross national product per capita and their overall level of health.

However, it has been argued that the same social and economic shifts that have increased people's wealth have also increased their waistlines and accelerated the obesity epidemic in China, India and other developing countries.

Another negative outcome from globalization is the emergence of debt crises in many developing countries. Generally, debt crises have limited countries' abilities to meet their basic needs in areas of public health, education and nutrition⁶. Globalization may act as a determinant of inequality in relation to its effects on the social determinants of health.

Globalization-Related Epidemiologic Transition and Obesity

The issue of globalization has been a controversial and much disputed subject within the field of public health through its role in promoting the emergence of obesity and non-communicable diseases. The epidemiologic transition not only had a complex effect on the patterns of health and disease, but also has shifted the main causes of death from infectious diseases to degenerative diseases, non-communicable diseases and cancer⁷.

Nutrition transition (globalization-related) is characterized by a fall in total cereal and fiber intake to consumption of fat, added sugar and marked increase in consumption of animal food products⁸. Moreover, water has been replaced by high energy, carbonated, sweetened

soft drinks. Noteworthy, the large shift in the food structure was predisposed by the underlying socioeconomic and demographic changes.

Trade Liberalization and Its Role in the Emergence of Obesity

Obviously, trade liberalization has acted on the global food chain in different ways. One way is by lowering the tariffs and other barriers to imports and exports⁶. Another way is by commercial promotion of food where there has been widening of food choices and shifting from basic seasonal commodities to persistently available processed food with relative low prices.

Urbanization and Obesity

In urban cities, the access to the essential resources is determined by individual household ability. Cheaper food is usually high in fat and affordable; healthy food is expensive and unaffordable⁶. Therefore, ethically unjustified, most of the obesity and its related consequences are seen in low economic class.

Moreover, the urban diet itself shows trends towards consumption of superior grains like rice and wheat, food higher in fat, animal product, sugar and processed food⁹.

Additionally, some argue that the urban neighborhoods may also be less safe than traditional village settings, which make people less likely to walk or to do other activities outdoors. Urbanization, lifestyles have changed into low levels of physical activities and into a sedentary behaviour.

Additionally, in many low-income countries, there has been a shift from the highly active jobs like farming and mining into physically less active industrial and office work.

Until recently, obesity has been a public health problem only in the western countries. However, over the past two decades it has started to be considered a global problem affecting both the rich and the poor countries. In low-income countries, obesity affects the wealthy, urban adults and in high-income countries, it affects the disadvantaged. Consequently, obesity has been categorized as pandemic with adverse metabolic changes.

Adverse Outcome of Obesity on Public Health

Obesity increases the risk of type 2 diabetes, cardiovascular diseases and various types of cancers. Additional 5kg/m in BMI increases a man's risk for colon cancer by 52%, and in women, endometrial cancer risk is increased by 59% and postmenopausal breast cancer by 12%¹⁰. Moreover, excess body weight has also generated non-fatal but disabling disorders, such as osteoarthritis¹¹. Furthermore, maternal obesity has been linked to the increased risks of congenital malformations. Additionally, it has been proven that obesity in middle age is associated with future risk of dementia¹¹.

Similarly, obese children and adolescents have been estimated to develop greater risks of bone problems, sleep apnea, social and psychological problems, stigmatization and poor self-esteem. It has been found that children who were obese as early as two years of age were more likely to be obese in adulthood¹¹. Some argue that the economic burden of rising

obesity has been incurred by excess use of ambulatory care, hospitalization, drugs and long-term care¹².

Public Health and Halting Obesity Epidemic

Ottawa Charter, the first global health promotion conference had a significant influence on the public health debate of globalization and its role in many health concerns like obesity¹³. The charter had further reorganized the health promotion approaches from individualistic understanding of lifestyles and risk behaviors into a globalized orientation. This approach highlighted the influence of the social environment on policy establishment and overall health outcome.

Eventually, health promotion approaches for tackling obesity have been constructed towards increasing knowledge, awareness and education about obesity, nutrition and exercise. The public health message advised people to balance their intake and output. It has also called to reset the caloric imbalance and promote healthy lifestyles, including healthy eating and physical activity. As a result, population awareness of the epidemiology of obesity was apparent in 2008 nationwide US poll which listed obesity as the number one health problem facing children¹⁴.

However, the lifestyle approach of health promotion has been debated for its effectiveness in preventing and tackling the global obesity epidemic¹⁵.

Another debate has criticized the dilemma of the conflict of interest between the upstream strategies of health promotion advocating for legislative reforms and the downstream health promotion activities shaping people's health and welfare¹⁶.

The Missing Role of Governance in Tackling Obesity

Why the national governments have not placed pressure on food companies marketing unhealthy products? Food advertisers promote their products extensively in venues where young people spend more time such as schools and internets.

Food industry shapes what is acceptable and desirable to eat and it affects consumer's choice and behaviour¹⁶. Television food advertising increases children's preferences for the foods advertised and subsequently request the parents for those foods. In many countries, self-regulatory policies were established to control food advertising aimed at children.

WHO Initiatives and Obesity Epidemic: What Else Is Needed?

WHO has indicated that obesity is a fundamental risk for global mortality and has urged for effective interventions by governments, corporates and individuals. Ultimately, the success of global public health initiatives will depend on the successful involvement of stakeholders (like corporate and governments), interest groups and citizens¹⁶.

WHO has adopted in 2004 the "Global Strategy on Diet, Physical Activity and Health" aiming at reducing the burden of non-communicable diseases, where obesity acts as a major contributor¹⁷. The strategy has aimed at increasing awareness of the influence of diet and the physical activities on health and to implement global and regional policies for them.

It has been argued that policies do not ensure that the global food marketing and advertisement do not target vulnerable societies and population including children and adolescents. However, some European countries have implemented a strategy to limit the television advertising effect on children.

Taxing less healthy food should create a financial incentive for consumers to avoid them is debatable and difficult to implement due to the powerful food industries⁶. Banning the use of trans-fatty acids in food production in Denmark is an example of a powerful government food policy.

In the USA federal nutrition program has been established, which is responsible for implementing the WHO global strategy in a multidisciplinary approach⁹. The program has emphasized the participatory role of the parents, schools and government agencies in tackling the national and global rise of childhood obesity.

CONCLUSION

Globalization has driven the non-communicable disease risks in many ways. Obesity has a major influence on non-communicable diseases. Tackling obesity epidemic has been a major concern of all health related personnel, policies and stake holders.

A good representative of the global public health initiatives for tackling obesity problem is the WHO global strategy on diet, physical activity and health.

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