

# **Are Egyptian women to be blamed for their obesity? Exploring the gender dimension to understand the world's biggest obesity crisis**

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## **Abstract**

Noncommunicable diseases (NCDs) such as cardiovascular diseases, most cancers, chronic lung diseases, and diabetes are the leading causes of death in Egypt. NCDs make up around 82% of all deaths in Egypt and around 67% of premature deaths[1]. Demographic changes, changes in the lifestyle along with increased rates of urbanization are the major reasons responsible for the tilt towards NCDs.

Although several risk factors have been identified among the Egyptian population, such as widespread hypertension, and tobacco consumption, the most striking risk factor is the widespread obesity, especially among female Egyptians. In fact, Egyptian women are among the highest ranking worldwide when it comes to obesity with 66% of women being overweight and 44% obese [1].

A substantial body of research has been conducted on the topic since the early 1990s, and while several explanations have been proposed for the endemic obesity among Egyptian women irrespective of their socio-economic status (SES) or their educational level, the number of obese women in Egypt continues to rise and little attention is going towards this problem [2-4].

Interestingly, recent studies conducted among North African (NA) immigrants in European countries suggest that the prevalence of overweight and obesity is higher among the children of NA immigrants compared to the native children of both sexes [5]. This finding suggests a possible socio-cultural effect among women from these countries.

This paper investigates the role of underlying cultural and socio-economic determinants with a focus on gender and equity to understand the causes of the problem and propose interventions that will address the need for increased health literacy and access to health promotion and disease prevention services at the Primary health care (PHC) level.

## **Background**

Overweight and obesity among women in Egypt have recently become a great public health concern reaching an alarmingly high prevalence. In fact, Egyptian women are among the highest ranking worldwide when it comes to obesity with 66% of women being overweight and 44% obese [1].

According to the World Health Organization (WHO), Egypt ranks fifth among obese women over the age of fifteen worldwide [6].

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Estimates suggest that 2.8 million people worldwide die every year from overweight and obesity. 35.8 million of the global disability-adjusted life years (DALYs) are caused by overweight and obesity [7].

It is long known that overweight and obesity are important risk factors for the development of noncommunicable diseases (NCDs), such as heart diseases and, more concretely, coronary heart disease, ischemic stroke, diabetes mellitus type 2 and several cancers [8]. As such, NCDs have now surpassed the disease burden posed by infectious diseases in Egypt and are the leading cause of Egypt's Disability Adjusted Life Years and Years of Life Lost [9].

Apart from the health argument, there is also an important economic argument to consider on a national and individual level: In 2010, the USA spent \$2646 on a male obese person compared to \$4879 on a female person with obesity [10]. On an individual level, obesity often leads to lower performance at work resulting in lower wages, lower probability of employment, and large external costs related to increased healthcare needs [11].

Despite these striking arguments and the knowledge coupled with increased awareness of the potential rise in chronic diseases in Africa, little effort has been invested in addressing these public health concerns [12].

The purpose of this paper therefore is to highlight the role of underlying cultural and socio-economic determinants with a focus on gender and equity to understand the causes of the problem and propose interventions that will address the need for increased health literacy and access to health promotion and disease prevention services at the Primary health care (PHC) level.

### **All SES have their own obesity risk factors**

The most commonly understood contributing factor is the association between a population's socioeconomic status (SES) and the prevalence of obesity: People of a high SES can afford to buy more food and thus are more likely to be obese compared to people from a lower SES. While this might be true for most developing country settings, the situation is more complex in Egypt: With a growing urbanization in Egypt, people adopt a more sedentary lifestyle with less physical activity and more high caloric food intake.

Furthermore, food insecurity has been decreasing over the years, with Cairo having the lowest rate of food insecurity of all Egyptian governorates (4% in Cairo compared to 22% in Dakhalia, the highest rate) [4]. Individuals from a higher SES may be able to access a higher quantity and quality of food. At the same time, fast food restaurants are expensive in Egypt and thus are considered a luxury only accessible by people from higher SES. These restaurants offer 24/7 delivery and are open until late into the night, where most of the Egyptian people still consume high quantities of high caloric foods [4].

### **Government policies**

The Egyptian government has contributed to the obesity epidemic among its population through its national food subsidy program: For more than 25 years the

government has been heavily subsidizing high caloric foods such as bread, wheat flour, sugar and cooking oil. More than 80% of the country's population have access to food subsidy cards which are highly used by people of the lower SES groups [9]. With rising prices in Egypt, more and more people are now dependent on these affordable goods, mainly low in nutritional value, and have only limited access to highly nutritious fruits and vegetables, which are not subsidized by the government [4].

### **Cultural determinants**

Physical education used to play a minor role in school's education programs with a general absence of women's participation in sports in general. Given the conservative culture in some parts of Egypt, physical exercise for women is not supported in facilities accessible for both genders. Only recently has there been an increasing demand for female exercise sites [13].

This can be explained by a growing awareness of healthy lifestyles. More girls are now challenging long-existing beauty perceptions, which mainly favor plumpness in women and are now adapting western beauty standards [14].

Young boys under the influence of their mothers' feeding practices are more likely to be overweight compared to girls between the ages of 5-14. This tendency is reversed in the age group of 15-19 years, where females are more obese or overweight compared to their male counterparts [15].

Egyptian men often prefer high calorie, fatty foods and women invest substantial effort and time in meal preparation, which leaves no time to cook healthier food for the female family members.

Women are responsible for other household chores as well, irrespective of their job status, leaving little time for physical exercise in addition to their work [13].

Another important aspect is the traditional dressing that implies full-body covering for women in public. The often loose clothing hides body image concerns and thus might prohibit women from actively tackling these [16].

### **Media influence**

An interesting phenomenon that has emerged in Egyptian media is the prevalence of cooking shows that are aired 24 hours a day on various TV and social media channels. Evidence suggests that individuals who watch cooking shows for inspiration are more likely to become obese compared to others [17].

It is also worth noting that there are no restrictions on food and beverage advertisements, which are omnipresent and are contributing significantly to the food intake pattern of snacks, processed foods and sugar-sweetened beverages commonly sold at small kiosks which are widely accessible.

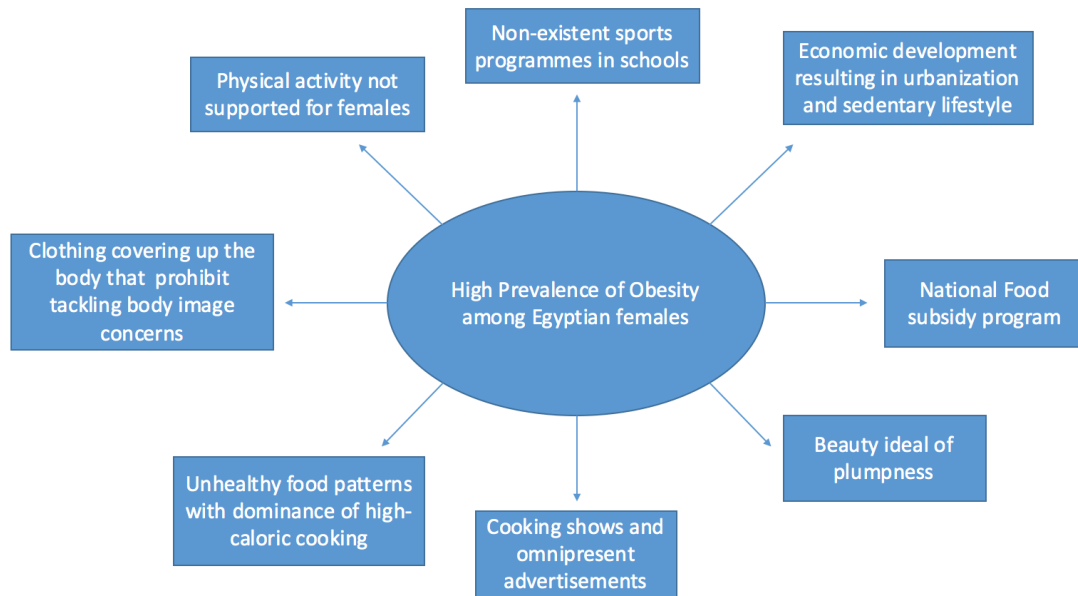


Figure 1. Factors contributing to the high prevalence of obesity among Egyptian females

### Identifying the gaps

There is a need for regulated food advertisement and marketing policies coupled with investments in education programs.

While the food subsidy program might have been a reasonable approach to address the widespread food insecurity and malnutrition 50 years ago, the effects on the population's health were not sufficiently foreseen.

In order to address the social determinants of health more adequately, the government needs to shift the focus of the food subsidy program from high calorie goods towards more nutritious foods.

Moreover, the government needs to consider the recommended policy interventions suggested by the WHO on child and adolescent obesity [6].

The government has already implemented several interventions aimed at addressing physical inactivity [18] [19]. Given the already established success and the growing awareness of young women to tackle their obesity, there is a need for gender-specific policies to address the sociocultural barriers through effective health literacy interventions.

1. Mediterranean, W.H.O.R.O.f.t.E., *Egypt health profile 2015 / World Health Organization*. Regional Office for the Eastern Mediterranean p.WHO-EM/HST/225/E, 2015.
2. Michaelson, R., *Egypt's obesity battle: no one cares about calories here*. The Guardian, 2016.
3. Galal, O.M., *The nutrition transition in Egypt: obesity, undernutrition and the food consumption context*. Public Health Nutr, 2002. **5**(1a): p. 141-8.
4. Mowafi, M., et al., *Socioeconomic status and obesity in Cairo, Egypt: A heavy burden for all*. Journal of Epidemiology and Global Health, 2014. **4**(1): p. 13-21.
5. Gualdi-Russo, E., et al., *Obesity and physical activity in children of immigrants*. European Journal of Public Health, 2014. **24**(suppl\_1): p. 40-46.
6. Organization, W.H., *World health statistics 2018: monitoring health for the SDGs, sustainable development goals*. . World Health Organization, 2018.
7. Organization, W.H., *Obesity. Situation and trends: Global Health Observatory (GHO) data*. Global Health Observatory, 2016.
8. Mokdad, A.H., et al., *Prevalence of obesity, diabetes, and obesity-related health risk factors, 2001*. Jama, 2003. **289**(1): p. 76-9.
9. Alebshehy, R., et al., *Determinant Analysis of Obesity among Adult Females in Egypt*. Vol. 65. 2016. 662-669.
10. Chu, D.T., et al., *An update on physical health and economic consequences of overweight and obesity*. Diabetes Metab Syndr, 2018. **12**(6): p. 1095-1100.
11. Duncan, R. and P. Toledo, *Do Prevalence Rates of Overweight and Obesity Converge in Europe?* 2018.
12. Adeboye, B., G. Bermano, and C. Rolland, *Obesity and its health impact in Africa: a systematic review*. Cardiovascular journal of Africa, 2012. **23**(9): p. 512-521.
13. Musaiger, A.O., *Overweight and obesity in eastern mediterranean region: prevalence and possible causes*. Journal of obesity, 2011. **2011**: p. 407237-407237.
14. Aitsi-Selmi, A., et al., *Interaction between Education and Household Wealth on the Risk of Obesity in Women in Egypt*. PLOS ONE, 2012. **7**(6): p. e39507.
15. Abdel Wahed, W.Y., S.K. Hassan, and R. Eldessouki, *Malnutrition and Its Associated Factors among Rural School Children in Fayoum Governorate, Egypt*. Journal of Environmental and Public Health, 2017. **2017**: p. 9.
16. Abdollahi, P. and T. Mann, *Eating disorder symptoms and body image concerns in Iran: comparisons between Iranian women in Iran and in America*. Int J Eat Disord, 2001. **30**(3): p. 259-68.
17. Howard, S., J. Adams, and M. White, *Nutritional content of supermarket ready meals and recipes by television chefs in the United Kingdom: cross sectional study*. Bmj, 2012. **345**: p. e7607.
18. Nassar, U., *Urban Space Design to Enhance Physical Activities and Motivate Healthy Social Behavior in Cairo, Egypt*. 2015.
19. Alebshehy, R., *A Critique of Proposed Strategies for Tackling Female Obesity in Egypt*. Vol. 66. 2017. 18-27.