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A REVIEW ON GLOBAL GENDER DIFFERENCES IN OBESITY

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ABSTRACT

Obesity is a worldwide epidemic. However, the incidence of obesity and overweight among males and females varies considerably within and across nations, with more women than men being obese on average. In underdeveloped nations, especially in the Middle East and North Africa, gender inequalities in overweight and obesity are accentuated. In industrialized nations, however, males are more likely than women to be overweight. According to current research, a variety of societal factors across the globe aggravate gender inequalities in excessive weight gain. Gender variations in food intake are caused by a variety of contextual variables, and women typically report eating healthier meals but may eat more sugar-laden foods than males. Both males and females acquire weight as a result of acculturation, which occurs via complicated sociocultural processes. Excess weight gain has impacted both genders as a result of the dietary shift going to take place in so many developing nations, but it has had an even larger effect on women's physical activity levels. Furthermore, in certain cultures, greater physical size amongst women or men is seen as a signal of fertility, health, or wealth. More study on gender inequalities in obesity and overweight will enhance our knowledge of the worldwide obesity epidemic as it progress.

KEYWORDS: *Disparities, Gender, Obesity, Physical activity, Weight gain.*

INTRODUCTION

What was once a worldwide obesity crisis has now become a pandemic? Excess weight gain is usually caused by an energy imbalance. Excessive calorie consumption, especially of energy-dense foodse.g. sugar-sweetened drinks (SSB), increasing food portions, and sedentary behavior are frequently blamed for the epidemic. Sex “refers to biological and physiological traits that

distinguish men and women,” while gender “refers to the socially created roles, attitudes, activities, and qualities that a particular culture deems acceptable for men and women,” according to the World Health Organization. Obesity has biological and social factors that differ significantly by gender or sexuality[1]. Power and Schulkin examine the sex variations in adipose storage and metabolism in more depth, speculating on the evolutionary roots of these differences. Excess weight gain may have different health consequences depending on gender. Menopause is a biological condition that changes fat distribution in women, which may raise the risk of obesity or aggravate the harmful consequences of obesity on health. Gender inequalities and associated sociocultural variables are generally missing from the population health (obesity) discourse, and hence from possible policies and remedies, despite these physiological factors linked to sex-specific variations in excess weight gain[2].

According to global survey statistics, the incidence of overweight and obesity in both men and women varies by area and has significantly risen between 1980 and 2008. Global trends in women overweight and obesity have been recorded by studies based on a country's economic position (gross domestic income or gdp), not just among men (or both sexes). However, some research suggests that not only do worldwide disparities in obesity incidence vary by gender, but so do the social factors of obesity. This study looks at global changes inside the prevalence of overweight by gender, as well as how these trends are linked to sociocultural gender disparities and, as a result, their impact on overweight and obesity globally[3].

We performed a review of available survey data with a focus on observational studies that contained data on the prevalence of overweight in both male and female adults. We only considered publications published in English, and the normal adult population was defined as community-dwelling people who did not have specific dietary requirements and were not pregnant or nursing. We looked for papers published between 1988 and February 2011 in the MEDLINE (accessible via PubMed) and EMBASE databases. Additional papers were found by scanning references in relevant articles and manually checking the contents page of journal articles (Obesity Reviews), as well as Google Scholar, for articles published between 1988 and February 2011. Attempts were undertaken to locate research on nations that were not included in the original search. A total of 1800 items were received; 287 articles were chosen for possible eligibility based just on specific criteria, and 191 of these were examined. The parameters mentioned in the published paper were utilized to classify overweight and obesity. The CDC BMI cutoffs for overweight (25.0 BMI 30.0) and obesity (BMI 30.0) were utilized in the majority of studies. However, the majority of publications about people in East Asia and the Pacific, as well as a handful about people in Sub-Saharan Africa and Latin America and the Caribbean, employed different definitions for overweight (27.0 BMI 31.0) and obesity (BMI 31.0)[4].

When the 105 nations and territories studied were classified by World Bank income categories, we discovered that all income levels had a higher overall incidence of female obesity than male obesity. However, there was a higher incidence of male overweight relative to female overweight in the elevated [non-Organization for Economic Co-operation and Development (OECD) and OECD) categories. OECD (all high-income) countries and territories included Australia, Belgium, Canada, Denmark, England, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Italy, Japan, Luxemburg, the Netherlands, Norway, Poland, Portugal, Slovenia, Spain,

South Korea, Sweden, Switzerland, and the United States, according to the World Bank classification; and high-income nonOECD countries and territories included Australia, Belgium, Canada, Denmark, England, Estonia, Finland, France, Germany, Greece, Ireland, Israel, Furthermore, when grouped by area, the Middle East and North Africa showed the largest inequalities in woman obesity and overweight (Fig. 1), while both Europe and Asia and the OECD countries had a higher incidence of male overweight relative to female. Gender differences in obesity and overweight were also found between urban and rural regions within each income category and region, with urban areas having larger gender disparities for obesity and overweight than rural one[5].

DISCUSSION

We classified developed nations as elevated countries and countries like all low- and middle-income countries, according to the World Bank. It's tough to quantify socio cultural influences. However, societal and cultural variables seem to affect both food consumption and physical activity at a worldwide level, and may be linked to gender differences in weight gain. We examine established and developing nations separately since socio cultural variables differ between them. Finally, we examine individual Arab nations, which include both poor and high-income countries, but which have comparable but distinct traditional cultures.

1. Developed nations

In the second part of the twentieth century, the bulk of occupational positions for both men and women in industrialized nations were inactive, and recreational time physical exercise for both men and women was scarce. In the U.S, for example, more than half of people follow the public health guideline of 30 minutes of physical exercise each day. The bulk of physical activity in all European Union nations is sedentary, and it does not differ significantly by gender. As a result, gender differences in obesity and overweight in these nations are likely driven by food consumption rather than or in addition to the physical activity and associated sociocultural variables[6].

Despite the fact that sociocultural variables influence food consumption habits, the percentage of energy consumed from animal source meals is greatest in high-income nations. Gerbens-Leenes et al. discovered that high-income nations consume the most kcal per capita per day, as well as the highest percentage of energy consumption from fat, based on a global study. Furthermore, researches based on data from industrialized nations have shown that there are gender-based dietary preferences and that one's sociocultural milieu affects these choices. Despite the fact that women are more likely than males to report eating or desiring to eat "healthier" meals, they seem to prefer and consume more energy-dense packaged foods including such cookies, chocolate, and ice cream. Women consume less dairy foods than males, according to national survey data both from the United States and Europe. Men, on the other hand, drink much more alcohol than women. Men consume a higher proportion of their calories from protein than women, according to studies. This is likely owing to men's predilection for and consumption of meat-based items[7].

Alcohol use is thought to be a cause of or linked to weight gain in males but not in women. Although males drink more alcohol than women, there are significant variations in alcohol

metabolism between the sexes. The amount of alcohol drunk and the kind of alcohol ingested seems to have an impact on whether or not it promotes excessive weight gain. In both men and women, cross-sectional studies in a variety of groups have shown a positive association between alcohol intake and waist circumference (WC). Tolstrup et al. showed that, in males, drinking frequency was not related with changes in WC and was negatively associated with significant WC gain in a large prospective cohort of Danish middle-aged men and women (that the authors defined as 5-y change in WC above the highest quintile of the sex-specific distribution, 6.9 cm for men). Drinking frequency was shown to be negatively related to both WC and significant WC increase in women. Furthermore, there's no significant connection between the quantity or kind of alcoholic beverage consumed and substantial WC increase in either sex in this research[8].

In addition to the impact of sociocultural variables on excess weight increase as a consequence of gender variations in food intake, cultural influences may also have an impact on weight gain via other, more difficult to quantify ways. Christakis et al. conducted a new social network study of the Framingham Heart Study cohort and discovered that men had a 100 percent increased risk of becoming fat if a male friend became obese, while the same impact of friend on fat was not significant among females. Acculturation may also play a role in obesity inequalities between men and women. The majority of studies that have looked at the relationship between acculturation and obesity and related factors (such as dietary intake and physical activity) have focused on acculturation in the United States, particularly among Mexican Americans, who are among the fastest growing segments of the population. Mexican Americans are not just more obese than their non-Hispanic white counterparts, but women are considerably more fatter than males, while non-Hispanic whites have no significant gender difference in obesity incidence. Mexican-American males, like non-Hispanic whites, are more overweight than Mexican-American women. Oza-Frank and Cunningham discovered a substantial positive connection between BMI and the amount of time spent in the United States among migrants, and that this relationship was stronger among females than men, especially Hispanic females[9].

Furthermore, acculturation regarding family attitudes was linked to a less favorable body fat deposits in Mexican-American men, so although structural assimilation (or assimilation to the presenter country's social network and structure) was linked to a more advantageous adiposity and less excessive weight gain in Mexican-American women. The adaption of dietary and physical habits that are typically unhappier (e.g., higher in added fats and sugars) and much more sedentary than an immigrant's home country is thought to be the source of the impact of acculturation on excess weight gain. Physical activity and smoking both substantially increase with cultural assimilation among women but not males among U.S. Latinos, according to a study of the relationship among cultural assimilation and obesity-related health variables among U.S. Latinos[10].

Gorman et al. founds that by increasing acculturative stress exacerbates chronic health conditions (e.g., type 2 diabetes, hypertension, and heart disease) at a higher rate in men than in women, and also that gender discrepancies in the effect of acculturation on wellness are mediated by the significantly lower rate of acculturation in men compared to women. As a result, although acculturation seems to affect excess weight gain in both Mexican-American men and women, as

well as probable immigrants from those other countries, it tends to have a larger impact on women; yet, it appears to be more linked to the development of chronic illnesses in males.

2. Developing nations

In many emerging nations, daily food and lifestyle have altered dramatically as a result of economic development. The line between a traditional diet and an agricultural lifestyle has blurred. Often, they are developing nations in the midst of a dietary shift. The nutrition transition is defined by markets with existing, demographic, ecological, and cultural changes that have a detrimental impact on both energy intake and expenditure. Rapid urbanization, as well as rising domestic output and importation of edible oils, has had a lasting nutritional effect on developing nations. Diets tend to contain more fat, sugar, and processed carbohydrates when dietary changes occur, and lifestyles grow more sedentary[11].

For most of the second part of the twentieth century, occupation remained a major example of physical activity in many developing nations, especially when compared to industrialized ones. Men engage in much more daily physical activity than women in a variety of nations and regions in South Asia, the Middle East, North Africa, Sub-Saharan Africa, Latin America, and the Caribbean. However, in many developing nations around the end of the twentieth century, there was a shift away from agricultural work (both for output and sustenance) to wage labor, which reduced women's physical activity more than men's. In rural regions, the shift in employment that leads to a reduction in daily exercise is more common both between men and women. Physical inactivity linked to unemployment or underemployment in Russia has been linked to weight increase.

Although Westernization has had a significant impact on food and lifestyle patterns throughout East Asia and the Pacific, traditional ideas about body image remain, according to Davis et al. in a literature review. A bigger body type is acceptable in many nations, and it may nevertheless be culturally linked with a higher social position. Cultural attitudes may also affect how overweight and obese people are seen in these nations, according to data from of the Marshall Islands. Thinness, especially among women, has been linked to infertility and disease, while bigger body forms have been linked to good health. Cultural ideas like these may have an impact on dietary choices and lifestyle behaviors in the Islands[12].

3. Arab nations with distinct cultural traditions

Other sociocultural variables that may be linked to physical inactivity and, as a result, influence excess weight growth are also worth considering. Women are frequently overprotected in conservative cultures, especially in the Mideast area and the high-income nonOECD nations of Oman, Kuwait, and Saudi Arabia, and are unable to openly engage in physical exercise owing to cultural or religious restrictions. In Egypt and the West Bank, women have been shown to be more accepting of excessive weight gain than males. Furthermore, Al-Riyami et al. in Oman claim that both (high) fertility and illiteracy are linked to higher central adiposity through impairing a woman's understanding of "the significance of [her] body." As a result, bigger socioeconomic developments, in combination with the pre-existing sociocultural context, have had an even higher effect on women's physical activity levels in some nations.

CONCLUSION

Gender differences in weight gain are influenced by a variety of sociocultural factors throughout the globe. Gender inequalities in obesity, on the other hand, are largely unexplored, much alone addressed. Since the middle of the twentieth century, sociocultural variables linked to eating habits seem to have a larger impact on gender inequalities in obesity and overweight in industrialized nations, where both men and women's jobs have been mainly sedentary. Physical activity habits have altered significantly in many developing nations lately, affecting women in particular. Women, who are typically more sedentary than males, seem to be particularly susceptible to the effects of these meals on excess weight gain when combined with a concurrent dietary shift that has pushed an increased intake of energy-dense foods rich in refined carbs. In developing nations, sociocultural ideas and norms about physical exercise and fatness are more visible, and therefore seem to have a larger impact on gender inequalities in obesity and overweight than in developed countries.

Both qualitative and qualitative techniques should be improved to better evaluate gender-specific features, in addition to additional study that tackles the possible sociocultural reasons of gender inequalities in obesity. This is especially true when it comes to epidemiologic studies that inquire about employment status. Women often claim to be jobless in surveys, despite the fact that they may have a full day of domestic chores and child care, as well as employment in the formal labor market. As a result, we recommend that surveys be better structured to capture the bulk of responsibilities that a woman may have in a normal day. More study on the impact of policies and associated cultural norms on excess weight gain is needed at the national level to understand how macro-level variables may both drive and ameliorate gender inequalities in obesity. Given the worldwide gender inequalities in obesity, gender-specific or gender-tailored remedies may be required to halt or reverse the global obesity epidemic. Obesity prevention measures, from community-level initiatives to national policy, may be the same for men and women in the end. However, if they are delivered in a gender-specific way, they may be more helpful in preventing obesity. If (better) customized to gender, tools and methods intended to assist obese people with weight reduction or the prevention of future weight gain is more successful. However, caution must be used to ensure that weight management policies and initiatives do not unintentionally create or aggravate gender inequalities in excess weight growth or loss.

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