

A Range of Factors Contributing Towards Obesity in the UK

Introduction

Obesity is prevalent around the world (Alrajhi et al.,2023). Charity Cancer UK estimates that there will be over 21 million people who are obese in the UK by 2040. That equates to roughly 36% of people within in the UK. (Lacobucci,2022). This is having a disastrous effect on individuals health. Those living with obesity face a higher risk of developing many chronic illnesses. Some examples of these are metabolic syndrome, type 2 diabetes, and coronary artery disease and so forth. (Dupont et al.,2021). It is imperative to isolate the cause of the issue to enable us to rectify it. Some but not all the contributors are as follows:

Not Being Physical Activity or Exercising

It is estimated that between 4 and 5 million deaths worldwide could be prevented if individuals engaged in physical activity (Bayles,2023). Both physical activity and exercise have been proven to have a good impact on preventing and treating obesity. Experts agree that causes of obesity are unique behaviours as well as genetic. An example of a behaviour would be consuming too many calories and not engaging in enough physical activity or exercise (Alrajhi et al.,2023). There are also quite a few studies showing that there is a correlation between obesity and depressive disorders. Physical activity protects against mental health conditions and cognitive decline/functioning (Bayles,2023). Modern day living requires very little physical activity. Technological advances have had a profound impact globally. With the inventions of household items designed to make household work quicker and easier, yet requiring even less physical activity (Woessner et al.,2021). Occupations before these technological advances mainly required manual labour. These labour-intensive roles have been replaced by occupations that require little to no physical activity. An example of this would be office-based roles (Dupont et al.,2021).

It appears that technologies have made modern day living easier in every aspect. It has freed up time for additional activities, yet individuals are choosing not to be active. This is having a negative effect on the health of individuals living with obesity.

Lifestyle factors

Eating habits have changed significantly over time. Fresh foods are not being used in many meals and Individuals are mostly choosing ultra processed foods as they are convenient, low in price and they need little to no preparation. According to Suksatan et al. studies have shown a positive association between higher consumption of ultra processed foods and higher risk of all-cause mortality. When eaten in high quantities they have a detrimental effect on health (2022). The western diet is high in ultra processed foods, it has a high number of calories with very little nutrient value (Clemente et al.,2023). Moreover, the additional calories will cause a positive energy balance and will make individuals increase body fat. It is also important to note that deprived communities appear to have the highest overweight and obesity rates. Individuals within these communities do not have the means to access a healthy diet due to low incomes. Also, there are some foods high in fat that are highly limited to the poorest communities. These high fat foods are inexpensive as they are wastage from foreign countries (Lean, Combet, 2017). In addition to this, these foods have a great impact on our intestinal organisms. Studies have proven that individuals with depression are low or even lacking two types of bacteria (Dialster and Corproccuss) (Clemente et al.,2023). This shows that the foods being consumed are having a great impact on quality of life. Diet has an influence on our neurotransmitters that can affect our quality of sleep. Additionally, insufficient sleep has many negative effects on

health. It effects immune function and metabolism (Miller,2023). People who do not get enough sleep are more inclined to overeat, thus accumulating excess body fat. Sleep and energy metabolism are connected in the fact that the same hormones (orexin, leptin, and insulin) affect both energy metabolism and sleep. A study found that an individual can decrease energy intake by making sleep last longer. (Yoshitake et al.,2023). It has been identified that there are many genes that affect an individual's internal body clock (Miller, 2023). In addition, genes can increase the possibility of an individual becoming obese. In 2007 a study was conducted to investigate the connection between single nucleotide polymorphism (SNP) and the fat mass and obesity-associated gene (FTO). They found that people with these genes were 1.67 times more likely to become obese (Alragi et al.,2023). On the other hand, Lean & Combet note that genes are not the culprits for increases in adipose. They say an increase in adipose is caused by excess dietary needs. However, genes can affect appetite and metabolism (2017).

It appears that the foods being consumed are greatly affecting individuals body mass, sleep and the mental health of individuals. They are connected in the fact that diet affects sleep which in turn affects mental health. It creates an effect where one passes onto the next. Individuals that are not getting adequate sleep are inclined to increase body mass which in turn affects mental health.

Obesity Rates

The current way to measure and categorize obesity is using body mass index (BMI). A person that has a BMI of >25 is defined as overweight and

>30 as obese. Although an individual's body fat index is not calculated in a precise manner. It does not consider a person's bone structure, muscle mass, or waist circumference. For example, a rugby player could be full of muscle and have a BMI of over 30, yet the individual has little adipose. This individual is technically not obese, as BMI does not correlate accurately to total body fat. An effective measure to give a true reflection would be waist circumference. Another key issue is the way data is gathered for obesity rates. Most of the data is from self-reported health surveys, which rely heavily on the participants giving accurate information regarding their weight and height. This is not normally the case with self-reported data. (Lean & Combet, 2017).

Evidently, the current measure to isolate obesity is inaccurate and obesity figures are flawed due to the self-reported data. A better way to measure obesity needs to be implemented. There also needs a better way of collating accurate data.

Conclusion

In conclusion, saying that obesity solely relies on one factor is highly underestimating the issue. It is a mixture of factors such as genetics, lifestyle, environment, and even mental health. Each of the factors affect individuals in different respects, making the issue much more difficult to predict and almost impossible to solve. In addition to this, there is also a problem with how we measure obesity. Right now, we mostly use BMI (Body Mass Index), but it does not give a true reflection on body composition as it only takes your weight and height into consideration. The big issue with the use of BMI is that it cannot tell the difference between muscle and fat. This means that an individual who has a more muscular structure could be categorised as obese, while another individual who has less muscle, but more body fat might not be obese. This kind of measurement can really distort the true picture of obesity rates. In addition to this, we need better resources to gather information regarding BMI in the population as the current health surveys are inaccurate.

To truly understand obesity, we need a more accurate way to measure it. A new method that can consider several factors for example, muscle mass and fat distribution, would give us accurate data and the true obesity figures. This would help health professionals in isolating which individuals are truly at risk. Thus, ensuring that medical resources are used efficiently. It is of paramount importance to have a correct measurement to successfully address the issue. So, it is not just about uncovering one cause of obesity or finding one answer; it is about altering our whole approach to understanding and measuring it. This way, we can address the issue more constructively and help more people lead healthier lives. The current system is inaccurate, and we need to improve it to really understand and counteract obesity.

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