

Diabetes & its Complications

Assessment for Eating Disorders and Trauma Is Essential In the Treatment of Diabetes and Obesity

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Introduction

In recent decades, obesity has become a major health crisis in the United States. Nearly two-thirds of adults are overweight, and one-third are considered obese, according to the Center for Disease Control and Prevention [1]. Obesity is associated with several comorbidities such as diabetes, cardiovascular disease, high blood pressure and mental health concerns [2]. Further, obesity increases the risk of chronic health problems. With annual medical costs skyrocketing well above \$147 billion annually [2] and with obesity related complications such as diabetes and heart disease being the leading cause of death, especially in poorer communities', obesity has become a leading public health crisis [3]. To address the underlying issues of diabetes, it is essential that we understand the root causes of obesity from not only a medical perspective but also a social justice perspective and a mental health perspective.

Food Accessibility

In the United States, higher rates of obesity are more often associated with individuals in lower socioeconomic classes with lower educational levels [4]. It has been suggested that the higher rates of obesity in poorer communities are directly correlated to the lack of access to nutritional food and may only have access to higher calorie foods [4]. Studies have indicated that poverty, high rates of unemployment, and financial strain increase the risk of weight gain [5]. There is a positive correlation between neighborhood food environments and higher BMI in neighborhoods with lower economic status [6]. The most consistent findings in the relationship between food environments and obesity was access to the 24-hour corner store in urban environments [6]. Corner stores

provide access to food such as a bag of chips, a sandwich, or a can of soda to individuals working the second or third shifts, which are more typical in lower income communities [7].

Physical Activity as a Barrier to Weight Management

Several studies have suggested that an urban environment may be positively associated with higher rates of obesity and diabetes [8,9]. Impoverished communities have higher rates of crime and community violence [6]. Higher rates of obesity have been linked to lower levels of physical activity with increased exposure to crime [10].

There have been several studies that have explored the effectiveness of different lifestyle changes such as increased physical activity and nutritional eating, in reducing binge-eating behavior that leads to higher rates of obesity [11,12]. Findings suggest that individuals that participated in a group physical activity had better outcomes than the group that just made changes to their diet [11,12]. It can be argued that physical activity was a more effective intervention because it creates a more emotionally supportive community and healthier ways to regulate affect [7].

Incentive Programs

There have been several attempts at addressing high rates of obesity in these communities. New York City has implemented a nutritional incentive program called Health Bucks, which is designed to improve access to fresh fruits and vegetables. In 2020, this program distributed over \$1,200,000 of fruits and vegetables in incentive coupons in [13]. This program obviously has been very beneficial in opening up access to healthier foods in poorer neighborhoods. However, has this program been successful at addressing the rates of obesity or binge-eating behavior? Unfortunately, there aren't any studies to explore that assumption.

Some research has found the opposite to be true, that adding fruits and vegetables to one's daily diet does not decrease binge-eating behavior [11,12]. The assumption that by addressing healthier eating and increased physical activity, the rates of obesity will decrease not only oversimplifies the issue but also completely disregards the emotional aspects around food consumption [7].

Eating Disorder Pathology

Around 70 million people globally are suffering from eating disorders of some form, and of that 70 million, 30 million are in the United States [14]. The most prevalent eating disorder in the United States is binge-eating disorder (BED) with 3% of the adult population struggling. Binge-eating disorder was added into the most recent Diagnostic and Statistical Manual of Mental Disorders (DSM-V) in 2013. BED is three times more prevalent as bulimia and anorexia [14]. However, only 43% of those struggling will get the appropriate treatment [14].

It has been argued that food insecurity may play a role in the binge eating paradox [15]. Research suggests that fluctuations in food availability can lead to pathological eating patterns of severe restriction when food and resources are scarce and binging when food is available [16]. It is important to note that severe food restriction, whether intentional or not, leads to a preoccupation with food and increases the risk for binge-eating [17].

Binge-eating Disorder

Research has more recently focused on how earlier childhood trauma is associated with binge-eating disorder and obesity in adulthood [18-20]. Quilliot et al. [19] found 80% of the participants who were obese reported at least one form of a traumatic event in childhood, with another 35% of the participants with BED reported significantly higher rates of childhood trauma than of the participants without BED.

Affect Regulation

All forms of childhood trauma are positively correlated to affect dysregulation and development of an eating disorder [21,22]. Neglected and abused children have very little experience being soothed by their caregiver or parent earlier in life putting them at a distinct disadvantage with the inability to regulate intense emotional experiences and impulsivity [23]. It has been argued that pathological eating patterns such as binging, binge-purging and starvation are maladaptive ways in which to regulate overwhelming affective states [23].

The Need for More Appropriate Treatment Interventions

It is important that we further explore the implications of being poor in this country. Ultimately, it appears that not having enough food may be directly related to the obesity epidemic, which directly results in astronomical health care costs related to diabetes, especially in marginalized communities. We need to rethink the approach to public health and finally address the issues around food insecurity and food insufficiency. This ultimately will lower health care costs and support healthier living.

More importantly, we need to understand obesity from a mental health perspective. Obesity can very much be related to struggles with an eating disorder, specifically, binge-eating disorder, which is a mental health issue. Extensive research shows that eating disorders have a direct connection to earlier childhood trauma and maltreatment and the inability to cope with big feelings. Eating disorders can cause significant internal damage and can be deadly. This article supports these concerns and highlights the problem of both under assessment of eating disorders and lack of mental health treatment and interventions for eating disorders in communities of color and in the treatment of diabetes and obesity.

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