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Impact of Early Behavioral Modification in Food Addiction is Effective Method of Treating Obesity?

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Introduction

Over a third of the global population is now overweight, and the percentages are increasing day by day. The recent studies suggested that hyper palatable foods may partially explain the unprecedented rates of obesity. These foods are deliberately surpassing the reward properties of traditional foods, such as vegetables, fruits, and nuts. The highly processed foods may be capable of triggering addictive-like eating behavior.

Food Addiction Behavior

Conditioned hyper eating reflex behavior suspiciously similar to food addiction. This activated more neurons in the accumbens a region of the brain associated with pleasure. Food cues and consumption activates neurocircuitry, such as the meso-cortico-limbic pathways, implicated in drug addiction. Importantly, a relationship has been found to exist between binge eating-related disorders and addiction-like eating habits facilitated by the consumption of hyperpalatable foods. In recent years, neuroendocrine pathways have been identified that are involved in both drug- and food-seeking behaviors.

Compulsive Overeating Behavior

Compulsive overeating is defined as an addiction marked by the compulsion to consume food, a preoccupation with eating behaviour, often leads to considerable impairment of a patient's quality of life [1].

Patients might achieve this result by overeating at meals, grazing throughout the day, or bingeing eating [2]. These disordered patterns of eating may be associated with mood-altering effects [3]. The parallel between compulsive eating and substance use has been supported by emerging evidence in neurobiology showing that both palatable foods and drugs of abuse activate the same brain reward circuitry, most notably dopamine receptors [4-6]. Repeated stimulation of these areas may lead to further adaptations in brain chemistry that promote the compulsive nature of overeating.

Role of Cognitive-Behavioral Approach for Early Modification of Food Addiction

The cognitive-behavioral approach to eating disorders, which is scientifically validated for many people. However, this treatment entails trying to moderately eat trigger foods. Food addicts first admit they are once powerless over food and then making a decision to change. The concern is that they have to abstain from trigger foods, which increases dietary restraint.

Recommendations for Future Research in Food Addiction

Researchers noted that the first step to identifying specific foods and properties of foods which can trigger an addictive response. This could help change the way we approach obesity treatment. Many researchers have proposed that hyper palatable foods be taxed like cigarettes and alcohol, so their accessibility will be reduced and that manufacturers be limited in terms of marketing and sales.

In conclusion, by recognizing and appreciating the neurological underpinnings of overeating, researchers will be encouraged to find new ways of improving treatments. The policy makers will have added support for implementing broader and more impactful health policies which include early behavioral modification also helps to prevent food addiction and their related complication.

References

1. Lee L, Shapiro CM (2003) Psychological manifestations of obesity. J Psychosom Res 55: 477-479.
2. Tanofsky-Kraff M, Yanovski SZ (2004) Eating disorder or disordered eating? Non-normative eating patterns in obese individuals. Obes Res 12: 1361-1366.
3. Kampov-Polevoy AB, Alterman A, Khalitov E, Garbutt JC (2006) Sweet preference predicts mood altering effect of and impaired control over eating sweet foods. Eat Behav 7: 181-187.
4. Wang GJ, Volkow ND, Thanos PK, Fowler JS (2004) Similarity between obesity and drug addiction as assessed by neurofunctional imaging: a concept review. J Addict Dis 23: 39-53.
5. Del Parigi A, Chen K, Salbe AD, Reiman EM, Tataranni PA (2003) Are we addicted to food? Obes Res 11: 493-495.
6. Pelchat ML (2002) Of human bondage: food craving, obsession, compulsion, and addiction. Physiol Behav 76: 347-352.