Food Addiction and Social Stress in Psychiatric Patients with Overweight

Thesis

Submitted for Partial Fulfillment ofMaster Degree In Neuropsychiatry

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List of Abbreviations

Abb.	Meaning
5-HT	Serotonin
ACC	Anterior cingulate cortex
AUDs	Alcohol use disorders
BDNF	Brain derived Neurotropic Factor
BED	Binge-eating disorder
BID	Body image dissatisfaction
BMI	Body mass index
BN	Bulimia nervosa
BPD	Borderline personality disorder
BWL	Behavioral Weight Loss Treatment
CBT	Cognitive behavioral Therapy
CG	Anterior cingulate gyrus
DA	Dopamine
DBT	Dialectical Behavioural Therapy
DSM	The Diagnostic and Statistical Manual of Mental Disorders
ED	Eating disorders
FA	"Food Addiction"
FDA	*Food and Drug Administration*
FTO	The fat mass and obesity-associated gene
gsh-CBT	Guided self-help versions of cognitive behavioral Therapy
HAPIFED	Healthy Approach to weight management and Food in Eating Disorders
HP	Highly palatable foods

List of Abbreviations

Abb.	Meaning
ICD	International Classification of Diseases for Mortality and Morbidity Statistics
ICDs	Impulse control disorders
IPT	Interpersonal therapy
LSE	Low self-esteem
MD	Mood disorders
MDD	Major depressive disorder
MRI	Magnetic resonance imaging
NAc	Nucleus accumbens
NIH	*National Institutes of Health*
OA	Overeaters Anonymous
OCD	Obsessive-compulsive disorder
OFC	Orbitofrontal cortex
OSA	Obstructive sleep apnea
PDs	Personality disorders
PFC	Prefrontal cortex
PTSD	Post traumatic stress disorder
RLS	Restless legs syndrome
SCID-I	Structured Clinical Interview for DSM-IV Axis I Disorders
SCID-II	Structured Clinical Interview for DSM-IV-TR Axis II Personality Disorders
SSRIs	Selective serotonin reuptake inhibitors
SST	Social skills training
SUDs	Substance use disorders
VTA	Ventral tegmental area
WHO	World Health Organization
YFAS	Yale Food Addiction Scale

ABSTRACT

Background: obesity is one of the most challenging health issues facing society today because of its increasing prevalence, its health and economic impact, and the lack of sustainable solutions.

Aim of the Work: to identify the occurrence of food addiction in patients with overweight and obesity who are diagnosed with Axis I or Axis II psychiatric disorders. To highlight the occurrence of social stress in patients with overweight and obesity seeking mental health clinics

Patients and Methods: this is a comparative observational cross sectional (case control) study during the academic year 2017-2018. The sample will be selected from the outpatient psychiatric clinics at the Institute of psychiatry, Faculty of medicine, Ain shams University Hospitals. These outpatient clinics work on Sunday, Monday, Wednesday, Thursday from 9am-12pm, they clinics are located in Eastern Cairo and serve a catchments area for about the third of the Capital Cairo. They serve both urban and rural areas, including areas around Great Cairo as well.

Results: The majority of the case group were females representing 72.7% while males representing 27.3%. These results was conducted a Brazilian study and found that 71.3% of his study population were females. The results of the present study revealed that the age of case group ranges between 18 – 68 with mean and standard deviation 39.64 ± 12.47.

Conclusion: this study highlight the occurrence of food addiction and social stress in patients with overweight and obesity who are diagnosed with Axis I or Axis II psychiatric disorders; The study revealed that there is a significant and positive association of high uncontrollable stressful events and chronic stress states with BMI, and weight gain.

Keywords: Food Addiction, Social Stress, Psychiatric, Overweight.

INTRODUCTION

Overweight and obesity defined as a body mass index (BMI) of 25–29.9 and 30.0 and above, respectively, have both become a significant problem for many countries around the world ***(Amber et al., 2009)*** associated with substantial morbidity and mortality ***(Stephan et al., 2006)*** as they significantly increase the risk of chronic diseases such as cardiovascular diseases, coronary-heart diseases, type-2 diabetes, osteoarthritis and some types of cancer ***(Mythily et al., 2013)***.

A high BMI has been found to be associated with undesirable health consequences, functional impairment, and increased mortality ***(Nadine et al., 2016).*** Rates of obesity have reached epidemic levels, and both developed and developing countries are currently affected ***(Amber et al., 2009).***

The prevalence of overweight, obesity and morbid obesity is high; with lifetime percentages of around 39% for overweight (body mass index; BMI ≥ 25) and 13% for obesity (BMI ≥ 30) ***(Nadine et al., 2016).***

Additionally there are significant social consequences associated with being overweight. It is well documented that obese people face discrimination in their professional and social lives, even from health care professionals ***(Stephan et al., 2006)***, thus, at a societal level, obesity has considerable direct and indirect cost that puts a strain on healthcare and social resources ***(Mythily et al., 2013)***.

Also substantial evidence from population-based and clinical studies indicates a significant and positive association of high uncontrollable stressful events and chronic stress states with both substance addiction and adiposity. Stressful events such as job pressure, unemployment, family care giving, marital clashes and chronic adversity including poverty are associated with weight gain and obesity ***(Rajita, 2018)***.

Additionally, a new terminology called "food addiction" has been introduced, it simulates drug addiction but craving for food instead. It is measured by the Yale Food Addiction Scale (YFAS). It was speculated that Food addiction is incriminated in the current obesity epidemic. Egypt is one of the highest African countries in the prevalence of obesity ***(Ahmed and Sayed, 2016).***

A recent cross-sectional study (N = 7639; 71.3% females) revealed that the frequency of food addiction was 4.32% (95% CI: 3.89–4.80%); the occurrence rates of mild, moderate, and severe food addiction, respectively, were 1.02% (95%CI: 0.82–1.27%), 1.20% (95%CI: 0.98–1.48%), and 2.09% (95%CI: 1.80–2.44%), and the frequency of food addiction was significantly higher among females. Furthermore, cases with food addiction had a significantly greater probability of having having a Caucasian ethnicity and a positive family history of mental disorder, in addition to having a positive association with major depressive episode, bipolar

spectrum disorder and suicidal ideation. Cases with food addiction did not significantly differ from those without food addiction regarding the prevalence of co-occurring positive screens for nicotine dependence, alcohol use disorder, and trichotillomania ***(Paulo et al., 2017)***.

Obesity and psychiatric disorders are both serious public health problems that strongly overlap ***(Stephan et al., 2006).*** In recent decades, the association between obesity and psychiatric disorders has increasingly gained attention ***(Hsiao et al., 2012)***. Emerging evidence into the correlates of this prevalent problem declares various physical health consequences of obesity with an existing relationship between obesity and various facets of mental health problems ***(Amber et al., 2009).***

Overweight, obesity and morbid obesity have shown positive associations with depression, anxiety and substance use disorders, as well as to suicidal behavior ***(Amber et al., 2009).***

The stigmatization of obese people can, actually, cause them to have low self-esteem and psychological distress. There are studies that identified an increased risk of mood disorders, or more than one mental disorder, among obese people; due to bio- physiological mechanisms, such as common underlying genetic, hormonal, or neurotransmitter factors ***(Hsiao et al., 2012).***

Correspondingly, previous articles have reported the association of increased BMI with higher risk of anxiety disorders through various pathways. The opposing effects of obesity on health and quality of life might result in considerable stress on the patient. Weight-related discrimination and stigma can also be deeply distressing to obese people. The association between obesity and mental health may vary according to sociodemographic, behavioral, hormonal factors, and biological characteristics ***(Hsiao et al., 2012).***

RATIONALE OF THE STUDY

The current increasing rate of socioeconomic stress especially in psychiatric patients can lead to unhealthy coping strategies with stress like emotional overeating especially with anxiety, depression and personality disorders due to emotion dysregulation and high level of tension and functional distress.

This study can add to the literature the probing for the association between social stress, food addiction and certain demographic factors in psychiatric patients with obesity and overweight after excluding having psychiatric disorders or any medication that can affect the body weight or eating attitudes and comparing such factors with a healthy control group sharing the same body index, in order to help establish consistent management guidelines and preventive measures.