**NEAR EAST UNIVERSITY**

**INSTITUTE OF GRADUATE STUDIES**

**DEPARTMENT OF PSYCHOLOGY**

# THE RELATIONSHIP BETWEEN DEPRESSION, AND SELF-ESTEEM RESULTING IN EATING DISORDER

**MSc. THESIS**

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**Nicosia**

**JUNE, 2022**

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**JUNE, 2022**

## Approval

We certify that we read the thesis submitted by Oluwatobiloba Ibrahim Ashiyanbi titled **"The Relationship between Depression and Self-Esteem Resulting in Eating Disorder among Youths"** and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Educational Sciences.

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## Declaration

I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

**Oluwatobiloba Ibrahim Ashiyanbi**

--/ 5/2022

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May God shower the above cited personalities with success and honor in their lives.

**Abstract**

# The Relationship between Depression, And Self-Esteem Resulting In Eating Disorder

**Oluwatobiloba Ibrahim Ashiyanbi**

**M.Sc., Department of General Psychology**

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The objective of this study was to examine the relationships between depressions, self-esteem and eating disorders especially anorexia nervosa, bulimia nervosa and binge eating. The study also investigated how sociodemographic variables such as age, gender, educational level and marital status have influence depression, self-esteem and eating disorders. With the use of snowball and convenience sampling techniques, this study collected the data of 200 youths from Nigeria and the following scales were used in the study: the depression anxiety stress scale, the Rosenberg self-esteem scale, the eating disorders diagnostic scale. The results showed that there is a positive correlation between depression and anxiety-stress as well as self-esteem and anxiety-stress. There was no age difference in depression, self-esteem, and eating disorders (anorexia, bulimia and binge eating). There was also no significant difference in depression, self-esteem, and eating disorders according to gender. Furthermore, there were no significant difference in depression, and eating disorders according to educational level except with self-esteem level of the participants. In this study also, the researcher found that there was no significant difference in depression and eating disorders according to marital status except with participants' self-esteem level. This study revealed that there is a correlation between depression and self-esteem which means that individuals who are depressed are more likely to have low self-esteem and vice versa. However, the implication of this study is to explain how low self-esteem could affect one's mood and eating behaviour and factors boarding them. Therefore, this study suggests that future studies look into other facets that could further help in determining the nature of the relationship between depression and esteem level of individuals.

***Keywords***: Depression, self-esteem, eating disorder, bulimia nervosa, anorexia nervosa.

# Öz

**Yeme Bozukluğu ile Sonuçlanan Depresyon ve Benlik Saygısı Arasındaki İlişki**

**Oluwatobiloba İbrahim Ashiyanbi**

**Yüksek Lisans, Genel Psikoloji Bölümü**

**Haziran, 2022, 60 sayfa**

Bu çalışmanın amacı depresyon, benlik saygısı ve yeme bozuklukları, özellikle anoreksiya nervoza, bulimia nervoza ve tıkınırcasına yeme arasındaki ilişkileri incelemektir. Çalışma ayrıca yaş, cinsiyet, eğitim düzeyi ve medeni durum gibi sosyodemografik değişkenlerin depresyon, benlik saygısı ve yeme bozukluklarını nasıl etkilediğini de araştırdı. Kartopu ve kolayda örnekleme tekniklerinin kullanıldığı bu çalışmada Nijerya'dan 200 gencin verileri toplanmıştır ve çalışmada şu ölçekler kullanılmıştır: depresyon kaygı stres ölçeği, Rosenberg benlik saygısı ölçeği, yeme bozuklukları tanı ölçeği. Sonuçlar, depresyon ile anksiyete-stres arasında olduğu kadar benlik saygısı ve anksiyete-stres arasında da pozitif bir ilişki olduğunu göstermiştir. Depresyon, benlik saygısı ve yeme bozukluklarında (anoreksiya, bulimia ve tıkınırcasına yeme) yaş farkı yoktu. Cinsiyete göre depresyon, benlik saygısı ve yeme bozukluklarında da anlamlı bir fark yoktu. Ayrıca, katılımcıların benlik saygısı düzeyleri dışında, eğitim düzeylerine göre depresyon ve yeme bozuklukları açısından anlamlı bir fark yoktu. Bu çalışmada da araştırmacı, katılımcıların benlik saygısı düzeyi dışında medeni duruma göre depresyon ve yeme bozukluklarında anlamlı bir fark olmadığını bulmuştur. Bu çalışma, depresyon ve benlik saygısı arasında bir ilişki olduğunu ortaya koydu; bu, depresyondaki bireylerin düşük benlik saygısına sahip olma ihtimalinin daha yüksek olduğu anlamına gelir ve bunun tersi de geçerlidir. Bununla birlikte, bu çalışmanın amacı, düşük benlik saygısının kişinin ruh halini ve yeme davranışını nasıl etkileyebileceğini ve bunlara

neden olan faktörleri açıklamaktır. Bu nedenle, bu çalışma, gelecekteki çalışmaların, depresyon ve bireylerin saygı düzeyi arasındaki ilişkinin doğasını belirlemede daha fazla yardımcı olabilecek diğer yönleri araştırdığını öne sürmektedir.

***Anahtar Kelimeler:*** Depresyon, benlik saygısı, yeme bozukluğu, bulimia nervoza, anoreksiya nervoza.

## Table of Contents

**Pages**

CHAPTER III



CHAPTER IV



CHAPTER V



CHAPTER VI

**List of Tables**

**Pages**

## List of Abbreviations

**ED:** Eating Disorder

**AN:** Anorexia Nervosa

**BN:** Bulimia Nervosa

**BED:** Binge Eating Disorder

**NU:** Negative Urgency

**TTC:** Trying to Conceive

**EPDS:** Edinburgh Postnatal Depression Scale

**SA:** Suicidal Attempts

**NSSI:** Non-Suicidal Self-Injury

**OCD:** Obsessive Compulsive Disorders

**MDD:** Major Depression Disorders

**FBTBN:** Family Based Treatment for Bulimia Nervosa

# CHAPTER I

## Introduction

Depression has fumed many impacts in the society as a result of day to day sociological relationship between people which effect is mostly seen amongst teenagers and young adults cannot be overlooked and undermined. According to Beck and Alford (2009), depression is defined as an illness which alters the mood of a person and lead to a feeling of sadness, loneliness, apathy etc. same has a negative impact on the self-concept of suffers, resulting in self-doubt, perverted self-image and strong self-reproach. WHO (2019), also explained that most global mental health illness at over 16% on young adults is as a result of depression and other mood problems. On the same note, National Institute of Mental Health (2011) stated that depressive and mood conditions mostly affect one's daily functioning resulting in reduction in attention and interest attributed to previously enjoyed activities and other day to day hassles. They likewise mentioned that it has the capability to reduce one's cortisol level leading to conditions like low libido, low agitation and social withdrawal.

Self-esteem is equally defined as the level of confidence and trust being accord to oneself (WHO, 2019). Also, Morales-Rodríguez and Pérez-Mármol (2019) mentioned that lack of self-esteem at some point becomes a stressor which increases the level of anxiousness in a person as a result of such psychological unrest. It is classified as a non-specific symptomatic illness whose effect has a great impact on one's daily functioning.

A mental illness which is characterised by abnormal eating behaviour that could negatively be detrimental to one's physical and mental health is known as Eating disorder (Miller et al., 2005). There are three main eating disorders which would be discussed in this study and they include; Anorexia Nervosa: elevated fear of weight gain which could lead to starvation caused by unrealistic views about the body (Miller et al., 2005). They explained that women more than men are sufferers of this mental illness at the average age of 17years which its mortality rate is about 5-6 percent of adolescents and young adults. According to Stice et al. (2000), Anorexia causes lots of psychological and behavioural changes amongst women such as unreal concern about the body, mood swing, irregular menstrual flow, obsession about sexuality etc.

Bulimia Nervosa is a life-threatening illness that is characterized by uncontrollable consumption of food considered to be larger quantity and which could lead to intense dieting, vomiting, fasting and other vigorous exercising means in order to compensate for the presume larger calories taken into the body (Wilson & Sysko, 2009). Also, Binge eating is

the act of consuming larger quantities of food in a short time frame even after the feeling of fullness is attained; that is like having little control over the amount of food one consumes at a go (Wilson & Sysko, 2009).

**Statement of the Problem**

There is a steady increase of depressive illness around the world especially amongst young adults due to some varieties of psychologically stressful situations. On this note, few studies have really explored young adults' eating disorders with depression and self-esteem. According to WHO (2019), 16% of young adults depression all over the world as a result of lack of self-esteem experience depression and in most cases, end up with suicide attempts and ideations both female and male. However, 6-7% mostly females end up taking their own lives due to this fatal illness called depression (Stice et al., 2000). This study will explore if there is a relationship between depression, self-esteem and eating disorders. Also, it will examine the role in self-esteem and depression in eating disorders as well as how the drastic influence of depression on eating disorders could be identified and remedied?

**Purpose of the Study**

The purpose of this study is to see if there is a correlation between depression, and self-esteem resulting in eating disorders in teenagers and adults, specifically bulimia, anorexia, and binge eating. The following research question would be answered in this study:

1. Is there a relationship between depression, self-esteem and eating disorders?
2. Is there any difference in depression, and eating disorders according to participants' age?
3. Is there any gender difference in depression, self-esteem and eating disorders?
4. Is there any difference in depression, self-esteem, and eating disorders based on the educational levels of the participants?
5. Is there any difference in depression, self-esteem and eating disorders according to participants' marital status?

**Significance of the Study**

In numerous cross-sectional studies, eating disorders have been positively linked with self-esteem and body shaming, concerns about weights/body shapes, anxiety about social physique, avoidance of body image, and binge eating are positively associated with what is

called intuitive eating, appreciation of the body, and flexibility of the body (for review, see Braun, et al., 2016). Self-esteem has also been shown to help people who have body image and eating disorder problems, like Tylka, Russell, and Neal (2015), who have both internalisation of thin-ideal and abnormal eating habits. BMI (Body Mass Index), dissatisfactions with the body, and stigmatization memories have also been associated with ED symptoms (Ferreira, et al., 2014; Kelly, et al., 2014; Stutts & Blomquist, 2018).

This study, on the other hand, will be useful to researchers and policymakers in making decisions in the field of psychology and related issues. The research will help them become more informed and understand the topic better, as well as solve some of the problems that depression, self-esteem, and eating disorders cause in the lives of children and adults. Finally, there is scanty evidence to back up the claim that there is a link between depression, self-esteem, and eating disorders. The purpose of this study is to see if there are any links or effects on the lives of young adults and teenagers who suffer from depression, self-esteem, or eating disorders.

**Limitations**

1. As regards the sample size of this study, 200 participants were used and were chosen from Nigerian population which might not be a good representative of the general population.
2. Also reaching out to the majority of the participants back in Nigeria is difficult, considering also the short time frame given for this research.
3. The scales used have been long developed and may not be that suitable for this contemporary days.

**Definition of Terms**

**Depression:** According to Aunola et al. (2000), Depression is a serious illness that affects one's mood, alter the responsiveness of the person's functionality and daily life and leave the person with a feeling of sadness, regrets, self-doubts and irritability.

**Eating disorder:** This is a mental illness which is accompanied by abnormal eating behaviour that could negatively be detrimental to one's physical and mental health (Miller et al., 2005).

**Self-esteem:** otherwise called self-worth which means a subjective self-evaluation regarding own abilities based on own belief and emotional states like shame, despair, pride etc. (Pullmann & Allik, 2008).

**Bulimia Nervosa:** Bulimia Nervosa is a life-threatening illness that is characterised by uncontrollable consumption of large amount of food which lead to intense dieting, vomiting, fasting and other vigorous exercising means in order to compensate the presume larger calories taken into the body (Wilson & Sysko, 2009).

**Anorexia Nervosa:** Anorexia Nervosa: an intense fear of weight gain which could lead to starvation caused by unrealistic views about the body (Miller, et al., 2005).

**Binge Eating:** This is the act of consuming a larger quantity of food in a little period of time even after the feeling of fullness is attained; that is like having little control over the amount of food one consumes at a go (Wilson & Sysko, 2009).

**Anxiety:** Anxiety is any uneasy feeling like fear or worry or anxiousness which could lead to health challenges. It could be mild, moderate or severe. Examples include; worry about job interviews, exams or medical tests (Morgan-Lowes et al., 2019).

# CHAPTER TWO

## Literature Review

### Depression

Depression is a common form of psychopathology (Kessler et al., 2005). In an epidemiological studies carried out previously, over 16.6 percent has been estimated as the lifetime prevalence of major depression disorder while about 21.3 percent of women has also been estimated to be living with this disorder (Kessler, et al., 2005; Kessler & Bromet, 2013). Over 30 million adults in the United States have met with the set criteria for MDD in their lifetime (Haro, et al., 2006). According to Solomon et al. (2000), MDD characterized as a disorder which is highly recurring which its episodes increase the likelihood of developing other comorbid disorders like anxiety disorder, bipolar 1 etc. subsequently.

Based on World Health Organization study in 2017, depression posits some drastic individual and societal costs which could affect the life expectancy of the sufferer. As stated also, depression is a worldwide leading disability which is rampaging mostly youths and especially women. World health organization has issued some statement which showed that depression accounts for nearly half of disability-adjusted years of life (World Health Organization, 2012).

Finally, coupled with the documented negative effects that depression has on individuals' interpersonal lives, academic achievements and financial security (Kessler & Wang, 2009), major depression disorders has also been associated with low physical health, cardiovascular diseases, and cancerous growths both the concurrent and progressively ones (Knol, et al., 2006; Luppino, et al., 2010).

### Cognitive Theories of Depression

According to clinicians and most researchers, cognition is seen as an important variable in both the onset as well as the maintenance stage of depressive disorders. Fifty year back, it was proposed that acquisition of information as well as information processing which are considered to be biased all have influence on both depressive aetiology and its courseBeck (1967).Beck also mentioned that inner mental representations, otherwise seen as schemas also affect depressed individuals perceive, understand, and think both about

themselves and their environments (Wilde & Dozois, 2018). People with depression have be characterized as those whose schemas are mood-incongruent and this mood-incongruence is associated with feeling of loss, failure, hopelessness, worthless ideations, and rejection mostly by significant others including family and friends. These feelings mostly result to negative perception of self, world and future (known as the triads of cognition), it also lead to biases in terms of information processing (Wilde & Dozois, 2018).

According to Bower's (1981) work on mood, and memory, he explained that individuals' cognition is a network of connection of nodes containing meaningful (semantic) representations that external stimuli often activate. In other words, activation of one node, automatically leads to activation of another nearby node which eventually result in what he termed automatic spread of activation. However, if this activations is biased continuously, it affect cognition and recurring cognitive bias leads to negative feeling which most depressed people are faced with as depressive episodes (Ingram, 1984; Teasdale, 1988).

**Depression Theories**

Recently, depressed mood has been seen as a reflection of adaptive, socially risk-averse, and also a psychobiological strategy that maintains social relationships amongst people (i.e., inclusion)(Badcock et al., 2017). According to evolutionary systems theory (EST) of human bio-behaviour, it comprises of ideas from psychological study in computational resources of active inference neurobiological theory (Badcock, Friston, & Ramstead, 2019). There are two fundamental claims about this model; first posits that human brains possess some neurocognitive mechanism whichcreates a cycle that is action-perceptual in nature and could help in minimizing unexpected interactions with the world. The second claim posits that in order to fathom a human phenotypical trait, be able to explain that human phenotypical traits is adaptive and how it emanates from across different timescales, there must be involvement of the simulations of active inference to be able to provide proof for depression.

**Depression and Eating Disorders**

Binge eating was first noticed in 1950s by Albert Stunkard but was adopted into Diagnostic and Statistical Manual of Mental Disorder (DSM) in 1980 with the inclusion of bulimia which was later regarded as bulimia nervosa. According to Bruzas and Allison (2022), binge eating is the act of consuming large quantity of food in same situation and short

period of time. It was said that most people wouldn't consume such amount of food at a go. This disorder is linked with LOC (locus of control) mostly as well as eating distress, secrecy in eating, or consuming food in the absence of hunger (Bruzas & Allison, 2022).

Subsequently, binge eating as an eating disorder became widely known in DSM publications until it was officially included in DSM-5 in 2013 as a formal diagnosis of eating disorder. BED (binge eating disorder) is often linked with obesity though it lacks the compensatory behaviours of eliminating already consumed calories which is specific to bulimia nervosa. As a result, recent studies of BED in adults have used samples of overweight or obese individuals (Bruzas & Allison, 2022).

**The Concept of Eating Disorders**

Food addiction is referred to as the act (food-related behaviours) of consuming high calorific foods excessively (Yu, Miller, & Groth, 2022). However, in recent years, most attention has been given to this concept and preliminary findings suggest that there is a relationship between overweight/obesity, food, and addiction (Reference Brownell and Gold1, Reference Gearhardt, Corbin, & Brownell 2017).

In order to measure the potential of food addiction, there are concepts to be considered as follow; Firstly, biological studies have shown that the salt, sugars, and fats contained in delectable foods may be highly addictive as these food sweeteners have capacity to activate in the brain, the dopamine reward systems though there are currently few evidences to either support or refute the claim.

Additionally, there is need to clinically study the relevance in the understanding how dysregulated and irregular eating patterns could contribute to negative health outcomes, which entails reasoning out how all the interpretations of these phenomena could help account for the preliminary nature of studies on the aetiology of food addiction (Hagendorff, et al., 2022).

**Eating Cognitions in Food Addiction**

Most eating cognitions which are common in food addiction may manifest in form of impulsive eating which is also related to addictive-like eating (Collins, Lapp, & Helder 2018). Since binge eating is likened to overweight or obese, the frequency of its symptoms could be investigated using food addiction measures. Binge eating is characterized with continuing to consume large amount of food in a short period of time and uncontrollably even

when already full, fast eating, eating alone as well as eating even when not feeling hungry and then feeling disgusted and guilty afterwards(Collins, Lapp, & Helder 2018).

However, other research need to be conducted to further ascertain how orthogonal food addiction is to other disorders and to find out if it involves binges and if its binges if objectively and subjectively related to binge episodes of binge eating disorder or a part of bulimia nervosa which is another form of eating disorders (Kolotkin, Meter & Williams 2013).

**Eating Disorders and Body Image**

According to Lydecker et al. (2017). Concerns about an individual's own body image is mostly linked to eating disorders. There are many evidences that are distinctive to components of body image (e.g., shape and weight hyper-evaluation, preoccupation, dissatisfaction with body, and fears associated with weight gain). These components all function differently as regards their association with eating disorder and its behavioural symptoms (Lydecker, White, & Grilo, 2017).

Early meta-analytic studies, for example, found that body dissatisfaction is a good predictor of pathological eating especially in non-clinical samples (Stice, 2002), and in another cross-sectional studies which used clinical samples (binge-eating disorder and bulimia nervosa) discovered robust association between shape, weight and the level with which individuals over evaluate themselves on these concepts, disordered eating, and psychological distress (Linardon, 2016). There is also another contemporary study which explained that individuals who are preoccupied with their weight and shape often develop some problematic eating patterns, even when other aspects of body image like dissatisfaction and over-evaluation of the body are controlled (Linardon, et al., 2018; Lydecker, et al., 2017; Mitchison, et al., 2017).

The vitality of these distinct body image components led many clinicians to screen, assess, and target these various facets/factors during prevention and intervention programs (Lydecker, et al., 2017) "Feeling fat" is another distinctive behavioural component of body image which is included in most theoretical models of eating disorders (Fairburn, Cooper, & Shafran, 2003). The trans-diagnostic model of eating disorders, states that feeling fat is equated with "being fat," and such experience is the direct expression of an over-evaluation of weight and shape, and feeling fat as well interact with or increase to occurrence of other behavioural features of eating disorders (Fairburn, 2008).

**Gender Sensitive with Eating Disorders**

Eating disorders (ED) such as anorexia nervosa (AN) and bulimia nervosa (BN) are common in females than males on a ratio of 10:1 in clinical samples and for community samples, it has a ratio of 4:1 (American Psychiatric Association, 2013; Hudson, et al., 2007). For the community samples, mostly men did not seek for treatment for their eating disorders whereas women (Griffiths et al., 2015). Howbeit, the criteria for diagnosis in men is questionable and one of the criticisms is that diagnosis/diagnoses which is/are criterion-based often focused on symptoms of drives for thinness which is highly displayed amongst women, perhaps, it excludes the dimension of body dissatisfaction, which is the desire for muscularity, that is more common in men (Murray, et al., 2017; Murray, Griffiths, & Mond, 2016).

Furthermore, empirical research evidence has suggested that drives like thinness and muscularity are important for males. On the same note, Silberstein, et al. (1988) found a similar level of body dissatisfaction in male and female undergraduate students, but explained that males were evenly shared based on those who want to be thin and those who just want to be heavier, whereas for females, they want to be thinner and not heavier. In other words, there is need to incorporate the drive for muscularity into ED diagnostic criteria so as to decrease the disparity in prevalence between males and females.

**Bulimia Concept**

According to Swanson et al. (2011), bulimia nervosa (BN) is an eating disorder known with the recurring of binge eating episodes as well as the compensatory behaviours which accompanied it like purging, misuse of diuretic or laxative, too much exercise, or fasting. Among adults, there is an estimated 88.0 percent who are with BN which also have one or more comorbid psychiatric disorders such as mood and anxiety disorders, while major depressive disorder becomes the most common comorbid diagnosis (Swanson, et al., 2011).

Recently, two randomized clinical trials, family based treatment for adults with bulimia nervosa (FBTBN) recorded higher abstinence rates than in adults' cognitive behavioural therapy (CBTA; Le Grange, et al., 2015) or even the supportive psychotherapy (Le Grange, et al., 2007). A third trial revealed that there is no difference in abstinence from purging between family therapy and CBT, though family therapy takes longer period to decrease in term of binge eating (Schmidt, et al., 2007). Clinically, it has been revealed that

parents are worried that FBTBN will not successfully effectively resolve comorbid depression symptoms or self-esteem.

**Classification of Bulimia in Human Body**

Presence of preoccupation with weight, food, and body shape is the hallmark of a disorder called eating disorder, which is divided into three main types: anorexia nervosa, bulimia nervosa, and binge eating (Field, 2022). In all the disorders, the goal of the patients is to become extremely thin as way to exhibit thee act of body dissatisfaction. Although anorexia develops after some proportionate food restriction, researches have shown that overeating and purging reflects in bulimia and in most cases also seen in binge eating.

This syndrome of eating disorders is distinguished by some self-imposed dieting, unusual food tolerance patterns, weight loss, and a severe fear of being overweight or obese. During adulthood of early twenties, and thirties, about 0.3 percent of women suffer from bulimia nervosa whereas it affects approximately one-tenth of young men (Field, 2022). Anorexia nervosa on the other hand has a mortality rate of 10 to 15%, and people with anorexia are more likely to also suffer from anxiety and obsessive-compulsive disorders (Field, 2022).

In bulimia nervosa cases, issues of physical discomfort, like abdominal pain or nausea, come also with the feelings of guilt, depression, or self-loathing at the end of an overeating period. The findings of Risley (2022) validates the fact that people with eating disorders can suffer from a lot of other varieties of psychological issues, mostly depression and anxiety and one of the types of anxiety is social anxiety, which frequently coexists with an eating disorder (Risley, 2022).

**Vomiting Caused by Bulimia**

Though the mortality rate linked to bulimia nervosa is low compared to anorexia nervosa, however, due to the severity of the acid-base electrolyte which comes with purging behaviours in bulimia cases, make the mortality rate a bit higher. Also, about Ninety percent of purging behaviours in bulimia is usually either self-induced nausea or the use of stimulating laxatives (Lemly et al., 2022). The complications that comes with self-induced nausea can be divided into two categories: the local adverse effects of vomiting and the acid-base electrolyticabnormalities that can occur when the self-induced purging behaviour becomes extreme.

Vomiting excessively is capable of causing chronic gastric acid reflux, which could result in a drastic effect called dysphagia and dyspepsia. The effective treatment for this adverse effect entails developing a stoppage behaviour as well as taking proton pump inhibitors. However, it is unclear if bulimia nervosa patients should be screened for Barrett's oesophagus as there have been few reports of oesophageal cancer in bulimia patients. So there is a need to screen bulimia patients Barrett's oesophagus within general population who are assumed to have gastric acid reflux is questionable as a result of lack of evidence of efficacy and hematemesis is usually caused by a lack of Mallory-Weiss tears (Lemly et al., 2022).

Also, among bulimia patients, is an illness known as perimolysis which is washing away of the dentin and enamel of the lingual teeth surface that is caused by repeated exposure to stomach acid. Similarly, recurring vomiting could cause also oral mucositis and cheilitis in these patients, however, therapy like keeping good oral hygiene, such as gentle brushing and the use of fluoride mouthwash (McKenna, Hayes & DaMata, 2022).

The swelling that comes with bulimia is bilateral with little tenderness as a result of elevated level of the serum level of the salivary isoamylase enzyme. In order to remedy this, preventive measure should be adopted with the use ofsialagogueslike tart candies, and an anti-inflammatory medication including a regular application of hot packs. However, for late treatment, oral pilocarpine is required as it would tackle the issue within 1-2 weeks to destroy the impact sialadenosis has on the patient.

**Depression and Anorexia Nervosa**

There has been noticeable cases that entail anorexia nervosa has family basis. It was justify with a twin study which was conducted using unsystematic ascertainment methods and it was found that there is a high concordance rate of anorexia nervosa among monozygotic twin pairs compared to dizygotic twin pairs (Sravanti, et al., 2022).

A clinical and population-based research on women have consistently indicated a stronger link between depression and anorexia nervosa. Approximately half of women with anorexia nervosa in a population-based research have also shown a lifetime major depression (Sravanti et al., 2022). More so,for women with anorexia nervosa, major depression rates are higher among first-degree relatives though the foundation of anorexia nervosa and major depression comorbidity have been debated in the literature. Some authors maintain that anorexia nervosa and major depression possess common aetiology, while others maintain that

for anorexia nervosa, there is a distinct liability that operates in the transmission of most affective disorders (Sravanti et al., 2022).

**Depression and Binge Eating**

According DSM-5, one is considered to have binge eating disorder (BED) if there is a report of consuming unusually large quantity of food in a short period of time (compared to what others could consume in a similar situation), and an act of experiencing lack of self-control over own eating behaviour (Alwan, et al., 2022). More so, there must at least be the presence of three or more of the following characteristics; eating faster than usual, eating until uncomfortably full, consuming bigger quantity of food when hungry and when not hungry, eating alone to avoid being embarrassed, or feelings like being disgustful, depressed, or guilty after eating.

The diagnosis of binge eating also requires the presence of a significant amount of distress during binging episodes, which must take place at least once in a week for about three months (on average) (Alwan et al., 2022). Finally, binge eating is not usually accompanied regular compensatory behaviour, and should not happen during an episode of bulimia nervosa or anorexia nervosa.

**The Binge Eating Concept**

Based on past studies, about 7.2 to 13% of the general publicare currently in one way or the other involved in regular binge eating episodes, which contributes to the increasing prevalence of binge eating in many communities over time (Yu, Miller & Groth, 2022). Obesity as a variety of chronic conditions affecting both physical and mental health, entail low quality and life satisfaction, and presence of an impaired social functioning are all associated to binge eating (Yu, Miller & Groth, 2022).

**Self-Esteem Definitions and Concepts**

According to Coopersmith (2000), the term Self-esteem means consciousness of self as well as self-evaluation which could either be positive or negative.It also means act of displaying self-confidence and respect which result from self-judgements about one's capabilities and the capacity to manage difficult times(Branden, 2010).

Additionally, some studies have investigated the effective role of self-esteem on depression, and eating patterns. Brown (2014), explained that high self-esteem is often associated with better mood while low self-esteem is mostly linked with a drop in eating

patterns, sleep patterns and depressive feelings irrespective of gender, age, nature of job, academic qualifications etc.

**Low Self-Esteem and Binge Eating**

Binge eating predicts low self-esteem which is also referred to as negative schemas of self that is found in the schema framework as well as self-beliefs which are negative within the framework of cognitive-behavioural factor (Verdi, 2022). Individuals who are living with BED or BN have a higher level of negative self-schemas which lowers their self-esteem and according to previous studies, there is a strong correlation between the presence and strength of negative self-schemas and behaviours of eating disorders (Verdi, 2022).

**Human Eating**

Expectancies are learned predictions of futuristic behavioural effects based on a variety of both direct and indirect learning experiences in individuals (Hohlstein, et al., 1998). In other words, expectancies as regards eating disorders could be seen as the outcome of numerous eating-related learning experiences. For instance, through negative reinforcements, one could learn that it is appropriate to eat whenever one's emotional responsivity is threatened and also believe that eating at this time could alleviate those negative emotions (Fischer, et al., 2012; Hohlstein, et al., 1998).

In cross-sectional studies, clinical perspectives and longitudinal researches, expectancies from negative reinforcements about eating could be associated with the rate of binge eating itself (Bruce, Mansour, & Steiger, 2009; Fischer & Smith, 2008; Pearson et al., 2012). In conclusion, women most times believe that eating would help them deal with their anger issues, psychological distress, feeling of sadness, and anxiousness are likely to engage in food binging (Pearson et al., 2012).

**Binge Eating Symptoms and Risk**

According to APA (2013), to some theorists and experimentalists, binge eating is a defining symptom of bulimia nervosa (BN), and is said to be the act of consumingfood considered to be larger amount within a given space of timewhich is usuallyfollowed by a uncontrollable eating habits (American Psychiatric Association, 2013). According to Lavender et al. (2015), elevated negative emotions could make people more vulnerable susceptible to engage in binge eating (Lavender et al., 2015; Pearson, Wonderlich, & Smith,

2015). Some eating disorder related issues are as a result of these negative impacts. Example; body dissatisfaction vs. other acute stressors.

Both binge eating and purging couldreduce negative emotions within a short time frame. Consequently, such behaviours are reinforced negatively with the influence of many factors which could increase the risk of emotional binge eating in bulimia nervosa (Pearson et al., 2015). There is a study which focuses on two specific risk factors. Negative urgency and eating expectancies; the term negative urgency is the proclivity to behave rashly under a negative emotional influence (Whiteside & Lynam, 2001) whereas eating expectancies are beliefs about eating behavioural outcomes which are formed through modelling, conditioning, and previous learning experiences (Hohlstein, Smith, & Atlas, 1998).

### Binge Eating

According to Escape theory, it posits and states that binge eating is triggered by urges to prevent aversive negative affect (Heatherton &Baumeister, 1991; Williamson et al., 2004). Alternatively, it use the AB models which mean; Affect and Behaviour: for the behavioural model, it emphasizes the role of appetitive motivation and incentive salient mechanisms as regard binging. Affect-Model on the other hand is the negative mood of the individual which spur from lack of satisfaction in response to those appetitive motivation (Berridge, 2009). This compulsive motivating behaviour leads to binge eating episodes as individuals seek the anticipated food reward and relief from the cravings.

Stroop task, which has previously been analysed using meta-analytic reviews (Dobson & Dozois, 2004), the findings from the review has been used in a relatively small number of researches with significant differences.

## RELATED RESEARCH

### Relationship between Depression and Self-Esteem

A research done in Italy by Manna et al. (2016), looked at the interaction between depression, self-esteem and anxiety with age and gender as covariates. 454 students took part in the study and they found that low self-esteem positively predicted depression and anxiety especially amongst females and in older age than males. They also mentioned that females

reported more anxiety level than males and that negative emotions are often linked with women than men which also explains why they are more vulnerable to stressors compared to men.

Choi et al. (2019) investigated the relationship between self-esteem and depression in young adults. They used a total of 114 participants who consists of 69 females and 45 males ranging from age 19 to 35. They found that a strong correlation exist between low self-esteem and depression development. They further mentioned that in order to improve their self-esteem, social support and resilience, early intervention is highly necessary as low self-esteem is highly a risk factor for developing depressive symptoms which however, could be remedied by encouraging positive self-evaluation.

A study done by Kim and Moore (2019) looked at the symptoms of depression and the discrepancy between implicit and explicit self-esteem. They used 87 university students from North-eastern USA. They found a negative correlation between explicit self-esteem and depressive symptoms. They also found that implicit self-esteem, explicit self-esteem, depression all have positive associations in term of the degree of discrepancies between them. They therefore, concluded that depressive symptoms are great contributors to damaged individuals' damaged self-esteem both implicit and explicit.

Another longitudinal study done in 2019 by Wenting and colleagues, investigated the relationship between self-esteem and depression when controlling for neuroticism using a scar model with a sample size of 2,318. They tested whether neuroticism is a confounding variable between depression and self-esteem as well as to see whether depression causes low self-esteem (vice versa). The result found that there was a covariance between self-esteem and depression and that neuroticism is mediator as well as a viable cause of both low self-esteem and depression.

**Association between Eating Disorders and Depression**

Kenny et al. (2021) carried out a research using an approach called network analysis in order to investigate depression and eating disorders using 4,421 participants. They found that loneliness, fatigue, and depressed feeling are linked with dissatisfaction with shape and weight as well as preoccupations with body weight and body structure. They further

explained that irritability and ideologies about social eating are core nodes which mitigate depression and eating disorders.

Another study done in Italy by Cella et al. (2021), investigated the relationship of self-esteem and eating disorders especially binge eating among men and women on the role of body disinvestment. They used a total of 1046 participants which comprises of 472 women and 574 men. They found that body feelings seen to be negative as well as reduced body protection both mediate the relationship between self-esteem and binge eating irrespective of gender. They also mentioned that the genetic changes like menstruation that occurs in women pulls them towards trying to make up their body ideal shape as a result of lack of self-confidence, thereby resulting is food denial and critical exercise. As for men, they explained that the quest to have macho body shape are major contributor of their lack of trust to their self-image which results to binge eating and other form of eating disorders.

**Relationship between Self-Esteem and Eating Disorders**

Santarossa and Woodruff (2017), explored in their study the relationship of social networking sites on body image, self-esteem and eating disorders. A total of 147 young adults completed their online survey (male and female). They found that problematic use of social media reduced individuals' self-esteem and increase their susceptibility to eating disorders and body dissatisfaction.

Mora et al. (2020) carried out a research to investigate the impact of self-esteem on eating disorders using a total of 500 patients. They found that for every 1 point decrease in self-esteem scale used, there is a 9% increase in the eating disorders scale used. However, they stated that the likelihood of getting a higher score on eating disorders (ED), is increased significantly by low self-esteem score.

# CHAPTER THREE

## Methodology

This chapter describes the methods with which the research is conducted, the first part contains the research design. Second part describes the participants' characteristics. Third part contains the data collection tools, fourth section describes the data collection procedures while the last part describes the data analysis procedures.

## Research Design

This study is in line with quantitative research which means taking a deductive route to measure variables during the process of analysing data (Alan, 2012). This study used a correlational models, which means finding out if a relationship exist between two or more variables (Groat & Wang, 2002).

## Population and Sample

As the case may be, this study's population was taken from Nigeria which has about 216.7million citizens with over 80 million youths (Akinyemi & Abanihe, 2014).

However, since the sample were selected from the South-Western part of Nigeria, a total of 200 participants was used through an online based method via Google Forms using both Snowball and Convenience sampling methods which allow the participants to complete the questionnaire at their free time as well as refer their friends and acquaintances to also fill-in the questionnaire. The recruitment of participants through the existing ones is called Snowball sampling technique while the recruitment of participants based on how reachable they are to the researcher is called convenience sampling technique (Priyadarshini, 2020).

Table 1.

*Descriptive statistics for Demographic variables*

| | Demographic information | *N* | % |
|---|---|---|---|
| Gender | Male | 126 | 63.0% |
| | Female | 74 | 37.0% |
| Education Level | Bachelor | 150 | 75.0% |
| | Masters | 40 | 20.0% |
| | PhD | 10 | 5.0% |
| Grouped Age | 18-25 | 94 | 47.0% |

| | | | |
|---|---|---|---|
| | 26-35 | 106 | 53.0% |
| Marital Status | Single | 36 | 18.0% |
| | Married | 164 | 82.0% |

Table 1 above showed the descriptive statistics of the respondents' demographic details. For the variable gender, there are a total of 126 males (63%) and 74 females (37%). For educational level, there were 150 bachelors (75%), 40 Master's students (20%), and 10 PhD students (5%). Also, for marital status of the participants, there were 36 singles (18%) and 164 married (82%). Finally, for the participants' age group, there were 94 people who fall between 18-25 years of age (47%) and 106 people who fall between 26-35 years of age (53%).

**Data collection tools**

**Socio-demographic questionnaire**: The demographic questionnaire was prepared by the research and it contained 4 questions about the participants' demography such as; gender, age, marital status and educational level.

**Depression Anxiety Stress Scale-10 (DASS-10)**: In this research, the researcher investigated the depression level of the participants using this 10-items questionnaire which was developed by Halford and Frost (2021). This questionnaire is a 4-points Likert scale ranging from 0-Never to 3- Almost Always and it contains questions like; I felt I was close to panic, I found it difficult to work up the initiative to do things, I felt downhearted and blue etc. The scale contains 10 questions and it has a high internal consistency for the two subscales; anxiety-stress and depression (Cronbach alphas of .83 and .85) respectively. It also has a high discriminant validity between those who are depressed and who have anxiety-stress feelings (Halford & Frost, 2021).

**Rosenberg Self-Esteem Scale (RSES):** This scale was developed by Rosenberg (1965) and it contains 10 items whose scale format is 4-point Likert ranging from 1-Strongly Agree to 4-Strongly Disagree. This scale contains questions like 'at times I think am not good at all', I certainly feel useless at times' etc. Two factors are contained in this scale and they are self-liking and self-competence with the test-retest reliability values of .85 and .88 respectively on a period of 2 weeks. The total reliability of the scale was evaluated using the Guttman scale

coefficient and its value gave .92 which indicates a higher stability of the scale. It also has good predictive validity (Schmitt & Allik, 2005).

**Eating Disorder Diagnostic Scale (EDDS):** This questionnaire was found to be used as a screening measure to investigate individuals' eating habits and patterns. The scale was developed by Stice et al. (2000) and it contains 22 questions that are designed in a 4-points Likert format ranging from 0-Not at all to 4-Extremely and also dichotomous scaling ranging from 0-No to 1-Yes. It has a test-retest reliability of .86 and a construct and predictive validity values were tested to be high.

## Data Collection Procedures

After obtaining ethics approval from the research/ethic committee of Near East University, permissions were obtained from the authors of the proposed scales. The designing of the questionnaire and distributions commenced using online google forms in May 2022.

For both methods, the participants were given the informed consent form to get their voluntary participation consent and instruction was also contained in the questionnaires as to how they will fill in their response. There was no time limit for the completion of the questionnaires, however, participants were told via the instruction that they should carefully read each question before indicating the answer that best fit their response. Data collection lasted for a period of two months.

## Data Analysis Procedures

The analysis of data was carried out using the 20 software of SPSS. The characteristics of the respondents were analysed using descriptive statistics. Skewness and Kurtosis indicators were also used to check the normality of the data distribution. The normality check and how the data is distributed are contained in the table below:

Table 2.

*Data Properties.*

| Variables | *N* | Minimum | Maximum | Mean | Std. Dev | Skewness | | Kurtosis | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Statistic | Std. Error | Statistic | Std. Error |
| Depression | 200 | 1.00 | 4.00 | 2.9975 | 0.67436 | -0.404 | 0.172 | -0.559 | 0.342 |
| Anxiety-Stress | 200 | 1.00 | 4.00 | 2.9975 | 0.67436 | -0.404 | 0.172 | -0.559 | 0.342 |
| Self-Esteem | 200 | 1.10 | 3.50 | 2.1285 | 0.59177 | 0.304 | 0.172 | -0.793 | 0.342 |
| Eating Disorder(ED) | 200 | 1.56 | 2.78 | 2.0806 | 0.24561 | 0.298 | 0.172 | -0.181 | 0.342 |
| Anorexia Nervosa(ED subscale) | 200 | 1.00 | 4.00 | 2.5150 | 0.80108 | -0.200 | 0.172 | -0.168 | 0.342 |
| Bulimia Nervosa(ED subscale) | 200 | 1.25 | 2.63 | 1.9844 | 0.26044 | -0.054 | 0.172 | -0.132 | 0.342 |
| Binge Eating(ED subscale) | 200 | 1.25 | 2.63 | 1.9844 | 0.26044 | -0.054 | 0.172 | -0.132 | 0.342 |

From the table above, the data distribution based on skewness and kurtosis showed that the data is not normally distributed. According to Stevens (2001) the data distribution is regarded to be normal only when it has met the criteria of falling between -2 and +2. According to the distribution, non-parametric tests would be used for data analyses.

Firstly, the Spearman correlation test was used to determine the correlation between participants' depression level, self-esteem level and eating disorder. The Mann-Whitney U Test was used to test the difference in depression and eating disorders based on age. The Mann-Whitney U test was also used to examine the gender difference in depression, self-

esteem and eating disorder. The Kruskal Wallis H test was used to find out the differences in depression, self-esteem and eating disorders according to education. Finally, the Mann-Whitney U test was again used to examine the differences in depression, self-esteem, and eating disorders according to participants' marital status.

**Research Plan and Process**

| | |
|---|---|
| The first step of the research involved obtaining permissions from the authors of the proposed scales, Depression Anxiety Stress Scale-10 (DASS-10), Rosenberg Self-Esteem Scale (RSES), and the Eating Disorder Diagnostic Scale (EDDS) | Jan 2022 – Feb 2022 |
| Stage two was about the submission of an ethics application to Near East University Ethics Committee Ethics Committee for the permission to carry out the study included in Annex-8. | March 2022 |
| Stage three involved ascertaining the sample size and for this study, the sample includes adults from 18 to 35 years. The questionnaire was designed and distributed online using Google Forms. It also included Personal information forms and participant consent forms. | April 2022 |
| Literature Review and Related research | April 2022 |
| The current study used a snowball and convenience sampling method simultaneously, following the distribution of the survey online using Google Forms. | May 2022 |
| Statistical analyses were done after data collection from the study sample group in order to obtain the study's results. The result was discussed alongside previous studies, and conclusions and recommendations were given. | May 2022- June 2022 |

# CHAPTER IV

## Results

This chapter summarizes the study's findings by first, looking at the correlation between depressions, self-esteem and eating disorders. It also looked at the differences in depression, self-esteem and eating disorder according to the demographic variables (age, gender, educational level, and marital status).

Table 3.

*Correlations between Depression, Self-Esteem, and Eating disorder (ED subscales; Anorexia Nervosa, Bulimia Nervosa and Binge Eating).*

| Variables | | Self-Esteem | Eating Disorder | Anorexia Nervosa (ED Subscale) | Bulimia Nervosa (ED Subscale) | Binge Eating (ED Subscale) |
|---|---|---|---|---|---|---|
| Depression | r | -0.291 | 0.049 | 0.069 | 0.030 | 0.031 |
| | p | **0.000**** | 0.492 | 0.332 | 0.670 | 0.669 |
| Self-Esteem | r | | 0.014 | 0.053 | -0.029 | -0.030 |
| | p | | 0.847 | 0.460 | 0.683 | 0.682 |
| Eating | r | | | 0.707 | 0.594 | 0.595 |
| Disorder(ED) | p | | | **0.000**** | **0.000**** | **0.000**** |
| Anorexia Nervosa | r | | | | -0.007 | -0.008 |
| (ED subscale) | p | | | | 0.919 | 0.920 |
| Bulimia Nervosa | r | | | | | 0.665 |
| (ED Subscale) | p | | | | | 0.000 |

p≤ 0.05* p≤0.001**

The Spearman correlation test displayed in table 3 above revealed that there is a very strong positive significant correlation depression and self-esteem (p=0.000). However, there is no significant correlation between depression and eating disorders (0.492) as well as its subscales (Anorexia nervosa (0.332), Bulimia nervosa (0.670) and Binge eating (0.669)). There is another significant correlation between anxiety-stress subscale and self-esteem (p=0.000).

Table 4.

*Age differences in Depression and Eating Disorder (Eating Disorder subscales; Anorexia Nervosa, Bulimia Nervosa and Binge Eating).*

| Variables | Grouped Age | N | Mean rank | Sum of ranks | U | p |
|---|---|---|---|---|---|---|
| Depression | 18-25 | 94 | 99.87 | 9387.50 | 4922.500 | 0.884 |
| | 26-35 | 106 | 101.06 | 10712.50 | | |
| Eating Disorder (ED) | 18-25 | 94 | 95.87 | 9012.00 | 4547.000 | 0.286 |
| | 26-35 | 106 | 104.60 | 11088.00 | | |
| Anorexia Nervosa (ED subscale) | 18-26 | 94 | 95.09 | 8938.00 | 4473.000 | 0.209 |
| | 26-35 | 106 | 105.30 | 11162.00 | | |
| Bulimia Nervosa (ED subscale) | 18-26 | 94 | 96.07 | 9030.50 | 4565.500 | 0.302 |
| | 26-35 | 106 | 104.43 | 11069.50 | | |
| Binge Eating (ED subscale) | 18-26 | 94 | 96.07 | 9030.50 | 4565.500 | 0.302 |
| | 26-35 | 106 | 104.43 | 11069.50 | | |

Table 4 above contains the result of the Mann-Whitney U test which revealed that there is no significant difference in depression according to age (0.884). Also, there was no significant difference in eating disorder based on age (0.286).

Table 5.

*Gender differences in Depression, Self-Esteem, and Eating Disorder (Eating Disorder subscales; Anorexia Nervosa, Bulimia Nervosa and Binge Eating).*

| Variables | Gender | N | Mean | Sum of ranks | U | p |
|---|---|---|---|---|---|---|

| | | | rank | | | |
|---|---|---|---|---|---|---|
| Depression | male | 126 | 98.60 | 12423.50 | 4422.500 | 0.544 |
| | female | 74 | 103.74 | 7676.50 | | |
| Self-Esteem | male | 126 | 95.59 | 12044.00 | 4043.000 | 0.117 |
| | female | 74 | 108.86 | 8056.00 | | |
| Eating Disorder (ED) | male | 126 | 97.26 | 12254.50 | 4253.500 | 0.300 |
| | female | 74 | 106.02 | 7845.50 | | |
| Anorexia Nervosa (ED subscale) | male | 126 | 95.83 | 12074.00 | 4073.000 | 0.133 |
| | female | 74 | 108.46 | 8026.00 | | |
| Bulimia Nervosa (ED subscale) | Male | 126 | 98.77 | 12444.50 | 4443.500 | 0.576 |
| | female | 74 | 103.45 | 7655.50 | | |
| Binge Eating (ED subscale) | male | 126 | 98.77 | 12444.50 | 4443.500 | 0.576 |
| | female | 74 | 103.45 | 7655.5 | | |

The Mann-Whitney U test result in table 5 above showed that there are no significant differences in depression based on gender (0.544), between gender and self-esteem (0.117), as well as between gender and eating disorders (0.300) (ED subscales; anorexia nervosa, bulimia nervosa and binge eating) based on the gender of the participants.

Table 6

*Differences in Depression, Self-Esteem and Eating Disorder (Eating Disorder subscales; Anorexia Nervosa, Bulimia Nervosa and Binge Eating) according to Educational Level.*

| Variables | Education level | N | Mean rank | $\chi 2$ | *df* | *p* |
|---|---|---|---|---|---|---|
| Depression | Bachelor | 150 | 102.28 | 1.218 | 2 | 0.544 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Masters | 40 | 91.88 | | | |
| | PhD | 10 | 108.35 | | | |
| Self-Esteem | Bachelor | 150 | 94.91 | 10.828 | 2 | **0.004*** |
| | Masters | 40 | 107.94 | | | |
| | PhD | 10 | 154.60 | | | |
| Eating Disorder(ED) | Bachelor | 150 | 101.76 | 0.387 | 2 | 0.824 |
| | Masters | 40 | 95.43 | | | |
| | PhD | 10 | 101.85 | | | |
| Anorexia Nervosa | Bachelor | 150 | 101.28 | 0.665 | 2 | 0.717 |
| | Masters | 40 | 95.14 | | | |
| | PhD | 10 | 110.25 | | | |
| Bulimia Nervosa | Bachelor | 150 | 101.55 | 0.271 | 2 | 0.873 |
| | Masters | 40 | 96.29 | | | |
| | PhD | 10 | 101.65 | | | |
| Binge Eating | Bachelor | 150 | 101.55 | 0.271 | 2 | 0.873 |
| | Masters | 40 | 96.29 | | | |
| | PhD | 10 | 101.65 | | | |

$p \leq 0.05$* $p \leq 0.001$**

The Kruskal Wallis H test result above revealed that there are no significant differences in depression according to educational levels (0.544). There was also, no significant difference in Eating disorder based on educational levels of the participants (0.824) as well as its subscales based on educational level. However, there is a significant

difference in the self-esteem level of the participants based on their educational levels (0.004).

Table 7.

*Differences in Depression, Self-Esteem, and Eating Disorder (Eating Disorder subscales; Anorexia Nervosa, Bulimia Nervosa and Binge Eating) based on Marital Status.*

| Variables | Marital Status | N | Mean rank | Sum of ranks | U | p |
|---|---|---|---|---|---|---|
| Depression | Single | 36 | 93.89 | 3380.00 | 2714.000 | 0.448 |
| | Married | 164 | 101.95 | 16720.00 | | |
| Self-Esteem | Single | 36 | 121.67 | 4380.00 | 2190.000 | **0.015*** |
| | Married | 164 | 95.85 | 15720.00 | | |
| Eating Disorder | Single | 36 | 103.08 | 3711.00 | 2859.000 | 0.767 |
| | Married | 164 | 99.93 | 16389.00 | | |
| Anorexia Nervosa | Single | 36 | 110.00 | 3960.00 | 2610.000 | 0.273 |
| | Married | 164 | 98.41 | 16140.00 | | |
| Bulimia Nervosa | Single | 36 | 100.01 | 3600.50 | 2934.500 | 0.955 |
| | Married | 164 | 100.61 | 16499.50 | | |
| Binge Eating | Single | 36 | 100.01 | 3600.50 | 2934.500 | 0.955 |
| | Married | 164 | 100.61 | 16499.50 | | |

$p \leq 0.05$* $p \leq 0.001$**

The Mann-Whitney U test result in table 7 above showed that there are no significant differences in depression based on marital status of the participants (0.448). There was again, no significant difference between eating disorder and marital status of the participants (0.767). However, there is a significant difference in self-esteem according to the marital status of the participants (0.015).

# CHAPTER V

## Discussion

This study examined the relationships between depressions, self-esteem and eating disorder especially anorexia nervosa, bulimia nervosa and binge eating. This relationship was examined by investigating the correlations between the variable and also by finding out the differences in depression, self-esteem and eating disorder based on age, gender, educational levels as well as marital status of the participants.

The result of the correlation test revealed that there were negative significant relationships between depression and self-esteem, which means that individuals who have depressive symptoms are prone to having low esteem level consequently and simultaneously. The study of Maslach and Leiter (2016) supports this idea that most burnout among adults emanate from workload, academic routines and other factors like learned helplessness which is as a result of inability to use effective coping mechanism to manage low feeling of self and self-concept. They further mentioned that most depressed people experience symptoms such as anxious feeling, anhedonia, loss of interest, feeling of worthlessness, sleep irregularities (hypersomnia or insomnia) etc. which are mostly said to grow worse and disastrous if the individual esteem level is poor/low.

Additionally, Ding et al. (2014), also found depression is negatively correlated with self-esteem. They explained that, most emotional exhaustions like, mania, depression, burnout etc. bring about uninteresting feeling in previously enjoyed events/activities, and that it also affect peoples' personality which likely lead one to withdraw from friends and colleagues. More so, they stated that all these exhaustions contribute to lowering one's esteem level and in most severe cases may lead to starvation and suicidal ideations (Ding et al., 2014).

According to the study's finding, depression did not correlate with eating disorder, which is to say that an individual with depressive symptomatology must not necessarily develop any eating disorder. This finding is contrary to Singleton et al. (2019) study which found that depression mediates between eating disorders (especially binge eating disorder and bulimia) and health-related life satisfaction. Also, they explained that most co-occurring depressive episodes contributes to binge eating disorder which often occur as a result of reduction in life quality, energy level and social functioning (Mack et al., 2016). The study of

Kenny et al. (2021) also found that depression is associated with anorexia nervosa and could be the proper reason while most anorexic patients feel irritable, lonely, are preoccupied with their shape and weight, exhibit low energy and then desire to lose weight as a matter of urgency.

This study found also that self-esteem is not significantly correlated with eating disorders. That is to say that the esteem level of people with eating disorders are not somewhat affected except in the case of high intensity and severity of the disorders. Puttevils et al. (2019) found that self-esteem is highly correlated with eating disorders, however, their findings is opposite of the current study's result. They mentioned that most people living with eating disorders are preoccupied with their body shape and weight which directly explained why they are classified as perfectionist in term of body structures and postures, and that these perfectionistic tendencies and preoccupations contribute to having low level of self-image and concepts.

According to the findings of this study, there were no age difference in depression, , self-esteem and eating disorders especially anorexia and bulimia nervosa as well as binge eating. This findings imply that age is not a mediating and an associating factor to depression, anxiety, self-esteem, anorexia nervosa, bulimia nervosa and binge eating. Previous researches done under this topic also found that demographic variables like age is not directly linked with most eating disorders like bulimia, anorexia and binge eating as well as depression and self-esteem (Martins et al., 2019; McRae & Gross, 2020). Rather they explained that other factors like peer pressure is highly associated with low or high self-esteem as well as depression. For the eating disorders, they stated further that mood is linked mostly with eating habit and that individuals who often experience mood swing and mood heightening like mania are prone to having an irregular eating pattern which could even affect their health negatively as well as their rate of participating in activities taking place around them (Martins et al., 2019; McRae & Gross, 2020).

Another finding of this study is that depression, self-esteem and eating disorders does not differ according to gender. This entails that all participants experience one or more occasions when they have felt depressed. It also means that both genders did not differ in terms of esteem level and eating styles. This finding is contrary to the study of Garcia et al. (2020) who found that mostly women are more susceptible to depression as they are more

vulnerable to mental problems like anxiety, personality disorders, bipolar etc. with results in lowering their esteem level as well as cause a drastic change in their eating pattern. They further mentioned that female are also linked with having often feeling of body dissatisfactions especially those who engage in impression management and peer evaluation which leads to abstaining from food (anorexia), vomiting after thinking they ate too much (bulimia) and consuming heaving quantity of food at a particular time (binge eating) in order to moderate their body size (Garcia et al., 2020; Galmiche et al., 2019).

Furthermore, this study found that there were no significant difference in depression, and eating disorders according to educational levels. The study of McRae and Gross (2020), who also found that educational level does not have a role to play in depression, and eating pattern as these feelings are respective to different levels of education. Another study of Zeiler et al. (2016), agrees with this finding that variables like societal influence, family background contribute greatly to depressive episodes, and eating styles whereas educational level has little or no effect on these variables. However, they stated that self-esteem vary in respect to educational level, mentioning that those who are higher in education have high and well-defined self-concepts and self-image and are not wavered by what people say about them rather act in accordance with how they perceive the world, maintain their moral standard as well as societal conducts.

Finally, this study found that there were no differences in depression, and eating disorders based on marital status. This entails that both married and single individuals perceive depression in the same manner, and they also feel same way about themselves which could results in negative eating habits. This findings does not agree with the study of Santarossa and Woodruff's (2017) study, which found that married individual are often associated with major depressive feeling as a result of heavy family responsibilities which sometimes is overwhelming especially when the couple are not cooperative in their marital affairs. More so, they explained that single people on the other hand are linked with inconsistent self-image which mostly lead to body dissatisfaction, cosmetic surgery ideations and other route of trying to make themselves feel more relaxed and better about their selves (Santarossa & Woodruff, 2017). Santarossa and Woodruff (2017) also found that self-esteem vary across individuals' marital status as they explained that more married people have better self-worth and self-image than most single ones due to personality development and behavioural modification amongst couples.

# CHAPTER VI

## Conclusion and Recommendations

### Conclusion

This study investigated the relationships between depression, and self-esteem resulting in eating disorders especially anorexia, bulimia, and binge eating. This study revealed that depression, stress and self-esteem are related and is also in line with past studies that also found that depression is accompanied by anxiousness, stressors and lowered esteem which is often seen amongst youths.

From this study also, there was no age difference as regards depression, self-esteem, and eating disorders mostly anorexia and binge eating.

This study also showed that gender is not a predicting factor for depression, self-esteem and eating disorders. However, it contradicts findings of past researches which have shown that females are more prone and susceptible to eating disorders, confused self-image and developing depressive feelings.

That educational level and marital status does not significantly differ in depression, and eating disorder, shows that higher academic attainment and marriage are not contributing factors to depression and eating disorders instead other factors such as peer pressure, economic status etc. could be factors leading to these mental ill-health.

### Recommendations

**Recommendations for further studies**

- This study found a link between depression and self-esteem. It is recommended that more studies should be carried out in fields like the neuro-psychological and experimental in order to further investigate the contributing factors for depression, low self-esteem in respect to eating disorders amongst youths.
- Also, this study discovered that body dissatisfaction is the main concept emanating from depression and self-esteem and thereby leading to development of one or two kinds of eating disorder. Future researches should look into other overwhelming factors of eating disorders like obsession, body dissatisfaction etc.
- A total of 200 participants took part in this study. The researcher recommends that future studies use more sample size so as to investigate the variables on a macro level

in order to obtain a more desirable outcome and also look into other eating disorders like pica, orthorexia etc.

**Recommendations for Practice**

- ✓ According to this study, depression decreases the esteem level of any individual. It is recommended that school counsellors even at lower educational levels such as primary and secondary should be installed in order to encourage help-seeking behaviours of teenagers and adults on such disorder.
- ✓ Since esteem level of a depressed person is easily and always affected according to study's finding, it is necessary for social workers, social psychologists and likes, to institute social and academic programs that would encourage and as well boost individuals' self-esteem.
- ✓ According to findings of this study, depression and self-esteem contribute to development of one or more eating disorders. It is highly recommended that clinicians and health psychologists create intervention and prevention programs which would target, screen and ascertain factors that cause body dissatisfaction in order to increase body confidence, self-efficacy, and trust, thereby combating the effect of these disorders.

**References**

Akinyemi, A. I., & Isiugo-Abanihe, U. C. (2014). "Demographic dynamics and development in Nigeria". *African Population Studies. 27* (2): 239–248. Https://doi:10.11564/27-2-471.

Alwan, N., Moss, S. L., Davies, I. G., Elliott-Sale, K. J., & Enright, K. (2022). Weight loss practices and eating behaviours among female physique athletes: Acquiring the optimal body composition for competition. *Plos One*, *17*(1), 262-514.

Andrews, G., & Slade, T. (2001). Interpreting scores on the Kessler psychological distress scale (K10). *Australian and New Zealand Journal of Public Health*, *25*(6), 494-497.

Aunola, K., Sattin, H., & Nurmi, J. (2000). Adolescents' achievement strategies, school adjustment and externalizing and internalizing problem behaviours. *Journal of Youth and Adolescence*, 29(*3*), 289-306.

Beck, A. T., & Alford, B. A. (2009). Depression: Causes and treatment (2nd edition). Philadelphia: University of Pennsylvania Press.

Brown, J. D. (2014). Self-esteem and self-evaluation: Feeling is believing. *Psychological Perspectives on the Self, 4*(8), 27-58.

Bruzas, M. B., & Allison, K. C. (2022). Eating Disorders: Disorders of Under-and Overnutrition. In *Nutrition Guide for Physicians and Related Healthcare Professions* (pp. 245-255). Humana, Cham.

Constant, A., Hesp, C., Davey, C. G., Friston, K. J., & Badcock, P. B. (2021). Why depressed mood is adaptive: a numerical proof of principle for an evolutionary systems theory of depression. *Computational psychiatry (Cambridge, Mass.)*, *5*(1), 60.

Cuijpers, P., Quero, S., Dowrick, C., & Arroll, B. (2019). Psychological treatment of depression in primary care: Recent developments. *Current psychiatry reports*, *21*(12), 1-10.

Cyr, M., Yang, X., Horga, G., & Marsh, R. (2018). Abnormal fronto-striatal activation as a marker of threshold and subthreshold Bulimia Nervosa. *Human brain mapping*, *39*(4), 1796-1804.

Ding, Y., Qu, J., Yu, X., & Wang, S. (2014). The mediating effects of burnout on the relationship between anxiety symptoms and occupational stress among community healthcare workers in China: a cross-sectional study. *PLoS ONE* 9:e107130. Https://doi: 10.1371/journal.pone.0107130.

Field, A. E. (2022). Is set-shifting a risk factor for anorexia nervosa or a broader range of disordered eating?. *International Journal of Eating Disorders*.

Fischer, S., Wonderlich, J., Breithaupt, L., Byrne, C., & Engel, S. (2018). Negative urgency and expectancies increase vulnerability to binge eating in bulimia nervosa. *Eating disorders*, *26*(1), 39-51.

Galmiche, M., Dechelotte, P., Lambert, G., Tavolacci, M. P. (2019). Prevalence of eating disorders over the 2000–2018 period: A systematic literature review. *American Journal of Clinical Nutrition*, **109**, 1402–1413.

Garcia, S. C., Mikhail, M. E., Keel, P. K., Burt, S.A., Neale, M. C., Boker, S., & Klump, K.L. (2020). Increased rates of eating disorders and their symptoms in women with major depressive disorder and anxiety disorders. *International Journal of Eating Disorders*,**53**, 1844–1854.

Hagendorff, T., Bossert, L., Fai, T. Y., & Singer, P. (2022). Speciesist bias in AI--How AI applications perpetuate discrimination and unfair outcomes against animals. *arXiv preprint arXiv:2202.10848*.

Halford, W. K., & Frost, A. D. J. (2021). Depression Anxiety Stress Scale-10: A Brief Measure for Routine Psychotherapy Outcome and Progress Assessment. *Behaviour Change: Journal of the Australian Behaviour Modification Association*, 1–14. https://doi.org/10.1017/bec.2021.12.

Hauck, C., Cook, B., & Ellrott, T. (2020). Food addiction, eating addiction and eating disorders. *Proceedings of the Nutrition Society*, *79*(1), 103-112.

Kessler, R., Andrews, G., Colpe, L., Hiripi, E., Mroczek, D., Normand, S., & Zaslavasky, A. (2002). Short screening scales to monitor population prevalence and trends in non-specific psychological distress. *Psychological Medicine, 32*(6), (59-976. https://doi:10.1017/S0033291702006074.

Lemly, D. C., Dreier, M. J., Birnbaum, S., Eddy, K. T., & Thomas, J. J. (2022). Caring for Adults With Eating Disorders in Primary Care. *The primary care companion for CNS disorders*, *24*(1), 39060.

LeMoult, J., & Gotlib, I. H. (2019). Depression: A cognitive perspective. *Clinical Psychology Review*, *69*, 51-66.

Linardon, J., Phillipou, A., Castle, D., Newton, R., Harrison, P., Cistullo, L. L., & Brennan, L. (2018). Feeling fat in eating disorders: Testing the unique relationships between feeling fat and measures of disordered eating in anorexia nervosa and bulimia nervosa. *Body image*, *25*, 163-167.

Linardon, J., Susanto, L., Tepper, H., & Fuller-Tyszkiewicz, M. (2020). Self-compassion as a moderator of the relationships between shape and weight overvaluation and eating disorder psychopathology, psychosocial impairment, and psychological distress. *Body Image*, *33*, 183-189.

McRae, K.; Gross, J.J. (2020). Emotion regulation. *Emotion*, **20**, 1–9.

Martin, J., Arostegui, I., Lorono, A., Padierna, A., Najera-Zuloaga, J., Quintana, J.M. (2019). Anxiety and depressive symptoms are related to core symptoms, general health outcome, and medical comorbidities in eating disorders. *European Eating Disorders Review*, **27**, 603–613.

Mashalpourfard, M. (2018). Relationship of social anxiety, body image perception and depression with bulimia nervosa and anorexia nervosa in youth. *Journal of Fundamentals of Mental Health*, *20*(2).

Maslach, C., & Leiter, M. P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, **15**, 103–111. Https://doi: 10.1002/wps.20311.

Maxfield, M. G., & Babbie, E. R. (2018). *Research methods for criminal justice and criminology*.

McCuen-Wurst, C., Ruggieri, M., & Allison, K. C. (2018). Disordered eating and obesity: associations between binge-eating disorder, night-eating syndrome, and

weight-related comorbidities. *Annals of the New York Academy of Sciences*, *1411*(1), 96-105.

McKenna, G., Hayes, M., & DaMata, C. (2022). Management of Caries in Older Adults. In *Oral Health and Aging* (pp. 131-144). Springer, Cham.

Mitchell, J. E., & Crow, S. (2006). Medical complications of anorexia nervosa and bulimia nervosa. *Current Opinion in Psychiatry*, *19*(4), 438-443.

Morales-Rodríguez, F. M., & Pérez-Mármol, J. M. (2019). The role of anxiety, coping strategies, and emotional intelligence on general perceived self-efficacy in university students. Frontiers in Psychology 10: 1–9.

Morgan-Lowes K. L., Clarke P. J. F., Hoiles K. J., Shu C.Y., Watson H. J., Dunlop P. D., Egan S. J. (2019). The relationships between perfectionism, anxiety and depression across time in paediatric eating disorders. *Eating Behaviour*, *34*, 101-305. doi: 10.1016/j.eatbeh.2019.101305.

National Institutes of Mental Health (2011). Depression. Bethesda, MD: Science Writing, Press & Dissemination Branch.

Nworgu, B. G. (1991). Educational research, basic issues and methodology. Wisdom Publishers Limited: Ibadan.

Persons, J. B. (2012). *The case formulation approach to cognitive-behaviour therapy*. Guilford Press.

Priyadarshini, S. (2020). Re: Should Online Survey via Google docs be considered as Convenience sampling?. Retrieved from: https://www.researchgate.net/post/Should_Online_Survey_via_Google_docs_be_considered_as_Convenience_sampling/5f06e645e117c042a84dde72/citation/download.

Risley, S. M. (2022). *Longitudinal Relations Between Child Evaluative Concerns and Social Anxiety: Does Seeking Perfectionism Predict Increases in Social Anxiety?* (Doctoral dissertation, Miami University).

Roberts, L. B. (2018). Bisexuality and motherhood: An investigation of psychological distress, parenting efficacy, and self-esteem through identity theory.

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Sagiv, E., & Gvion, Y. (2020). A multi factorial model of self-harm behaviors in Anorexia-nervosa and Bulimia-nervosa. *Comprehensive psychiatry*, *96*, 152142.

Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg Self-Esteem Scale in 53 nations: exploring the universal and culture-specific features of global self-esteem. *Journal of personality and social psychology*, *89*(4), 623.

Santarossa, S., & Woodruff, S. J. (2016). Exploring the relationship of social networking sites on body image, self-esteem, and eating Disorders. *Social Media Society*, **3** (2).

Stevens, J. P. (2001). Applied Multivariate Statistics for the Social Sciences (Applied Multivariate STATS) Psychology Press: London.

Shank, L. M., Tanofsky-Kraff, M., Kelly, N. R., Jaramillo, M., Rubin, S. G., Altman, D. R., & Yanovski, J. A. (2019). The association between alexithymia and eating behavior in children and adolescents. *Appetite*, *142*, 104381.

Sravanti, L., Pradeep, A. J., Karki, U., Kommu, J. V. S., & Girimaji, S. C. (2022). Clinical profile of children and adolescents diagnosed with Anorexia Nervosa in Indian Context. *Asian Journal of Psychiatry*, 10, 30-77.

Stice, E., Telch, C. F., & Rizvi, S. L. (2000). Development and validation of the eating disorder diagnostic scale: A brief self-report measure of anorexia, bulimia, and binge-eating disorder. *Psychological Assessment*, *12*(2), 123-131. https://doi.org/10.1037//1040-3590.12.2.123.

Stojek, M., Shank, L. M., Vannucci, A., Bongiorno, D. M., Nelson, E. E., Waters, A. J., & Tanofsky-Kraff, M. (2018). A systematic review of attentional biases in disorders involving binge eating. *Appetite*, *123*, 367-389.

Strobel, C., Quadflieg, N., Naab, S., Voderholzer, U., & Fichter, M. M. (2019). Long-term outcomes in treated males with anorexia nervosa and bulimia nervosa—A

prospective, gender-matched study. *International Journal of Eating Disorders*, *52*(12), 1353-1364.

Valenzuela, F., Lock, J., Le Grange, D., & Bohon, C. (2018). Comorbid depressive symptoms and self-esteem improve after either cognitive-behavioural therapy or family-based treatment for adolescent bulimia nervosa. *European Eating Disorders Review*, *26*(3), 253-258.

Verdi, E. (2022). *An Examination of the Role of Interpersonal Stressors and Attachment Style in Dissociative Experiences* (Doctoral dissertation, Seattle Pacific University).

Wade, T. D., Bulik, C. M., Neale, M., & Kendler, K. S. (2000). Anorexia nervosa and major depression: shared genetic and environmental risk factors. *American Journal of psychiatry*, *157*(3), 469-471.

Wilde, J. L., & Dozois, D. J. (2018). It's not me, it's you: Self-and partner-schemas, depressive symptoms, and relationship quality. *Journal of Social and Clinical Psychology*, *37*(5), 356-380.

Yaseen, S., & Fatima, S. (2022). Associations among Body Attitude, Body Satisfaction, Stress, Depression, and Anxiety in University Students: A Multilevel Moderating Model. *Nature-Nurture Journal of Psychology*, *2*(1), 22-29.

Yu, Y., Miller, R., & Groth, S. W. (2022). A literature review of dopamine in binge eating. *Journal of Eating Disorders*, *10*(1), 1-26.

Zeiler, M., Waldherr, K., Philipp, J., Nitsch, M., Dur, W., Karwautz, A., Wagner, G. (2016). Prevalence of eating disorder risk and associations with health-related quality of life: Results from a large school-based population screening. *European Eating Disorders Review*, **24**, 9–18.

# APPENDICES

## Appendix A

**DEPRESSION ANXIETY STRESS SCALE-10 (DASS-10):**

Is 10 items 4-points Likert scale ranging from 1-Never to 4-Almost Always.

Age:……

Gender: M/F

Level of education:……..

Marital status…….

**Instructions:** Please press the response that is most true for you.

| **ITEMS** | Never | Sometimes | Often | Almost Always |
|---|---|---|---|---|
| 1. I felt I was close to panic | | | | |
| 2. I found it difficult to work up the initiative to do things | | | | |
| 3. I felt down hearted and blue | | | | |

# Appendix B

**ROSENBERG SELF-ESTEEM SCALE (RSES)**: Is 10 item 4-points Likert scale ranging from 1-strongly agree to 4-strongly disagree

Age _____

Gender (Circle): M/ F

Level of education:----------

Marital status…….

| **ITEMS** | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| 1. On the whole, I am satisfied with myself. | | | | |
| 2. At times I think am not good at all. | | | | |
| 3. I think I have a number of good qualities. | | | | |

## Appendix C

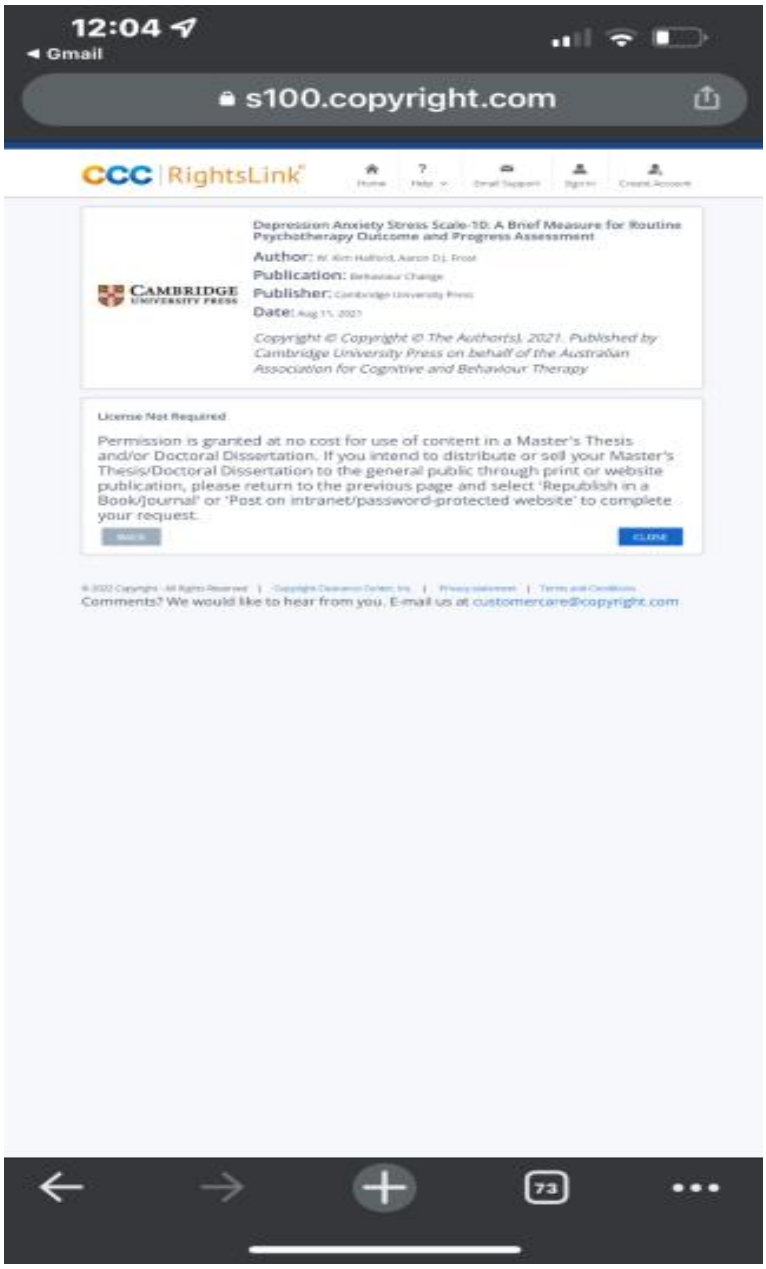
**EATING DISORDERS DIAGNOSTIC SCALE (EDDS):** This scale consists of 22 items which are measure using both 4-points Likert format ranging from 1-Not at All to 4-Extremely, and dichotomous format of YES/NO

- Age: …..
- Gender: M/F
- Level of education: ……
- Marital Status……..

| **ITEMS**<br><br>**Over the past 3 months** | Not at All | Slightly | Moderately | Extremely |
|---|---|---|---|---|
| 1. Have you felt fat? | | | | |
| 2. Have you had a definite fear that you might gain weight or become fat? | | | | |
| 3. Have your weight influenced how you judge yourself as a person? | | | | |

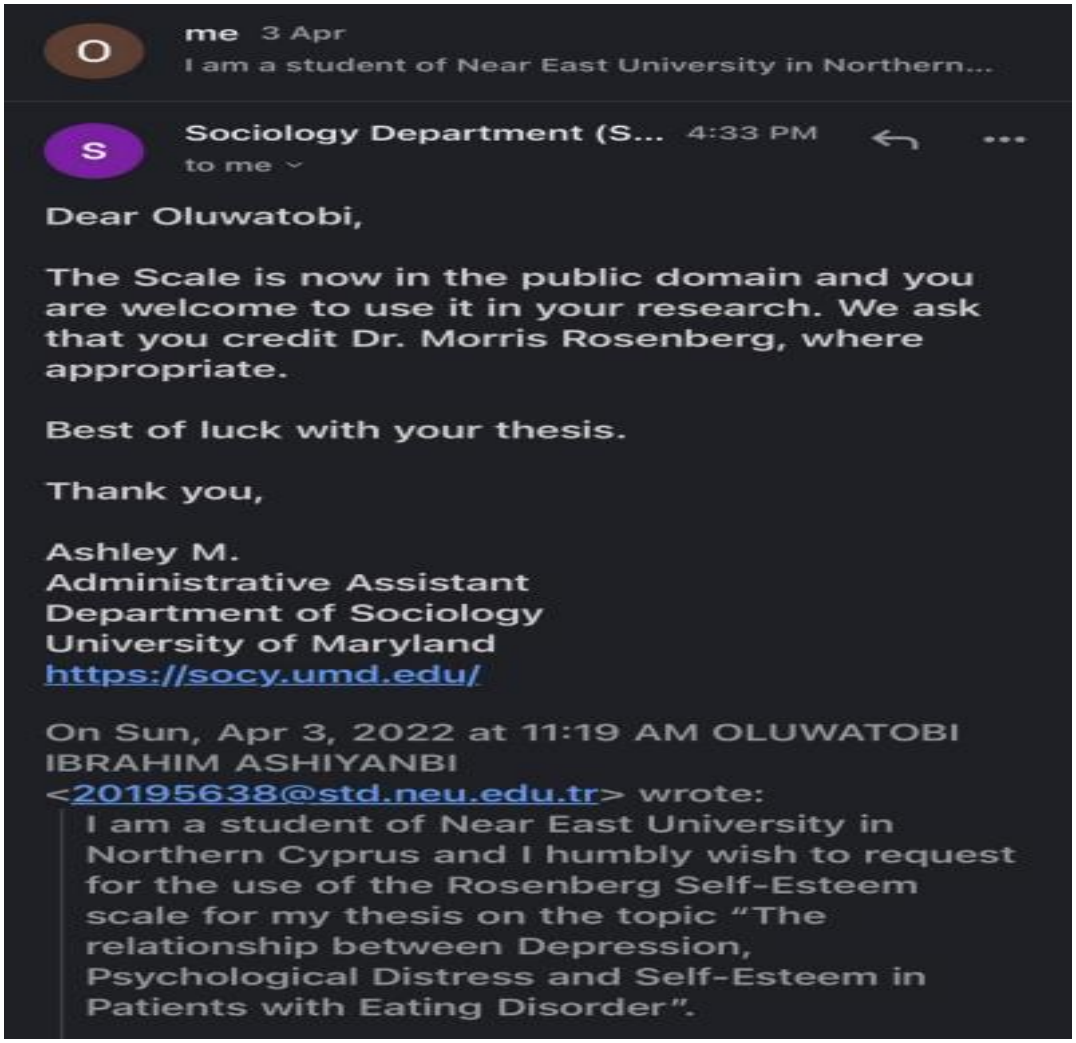
# Appendix D

## PERMISSION FOR DEPRESSION ANXIETY STRESS SCALE



# Appendix E

## PERMISSION FOR ROSENBERG SELF-ESTEEM SCALE



me 3 Apr
I am a student of Near East University in Northern...

Sociology Department (S... 4:33 PM
to me

Dear Oluwatobi,

The Scale is now in the public domain and you are welcome to use it in your research. We ask that you credit Dr. Morris Rosenberg, where appropriate.

Best of luck with your thesis.

Thank you,

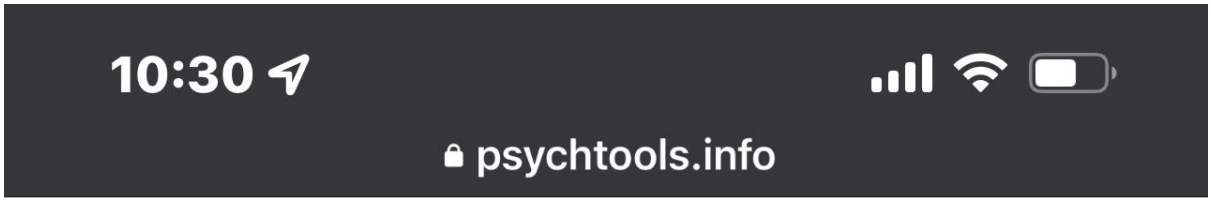
Ashley M.
Administrative Assistant
Department of Sociology
University of Maryland
https://socy.umd.edu/

On Sun, Apr 3, 2022 at 11:19 AM OLUWATOBI IBRAHIM ASHIYANBI <20195638@std.neu.edu.tr> wrote:

> I am a student of Near East University in Northern Cyprus and I humbly wish to request for the use of the Rosenberg Self-Esteem scale for my thesis on the topic "The relationship between Depression, Psychological Distress and Self-Esteem in Patients with Eating Disorder".

**Appendix F**

**PERMISSION FOR EATING DISORDERS DIAGNOSTIC SCALE**




## Access

The EDDS is freely available following this link: http://www.ori.org/files/Static%20Page%20-Files/EDDS.pdf. Information regarding scoring and interpretation may be found here: http://www.ori.org/files/Static%20Page%20-Files/SticeTelch00.pdf.

**Ref**

**Appendix G**


**BİLİMSEL ARAŞTIRMALAR ETİK KURULU**

Dear Oluwatobiloba Ibrahim Ashiyanbi

Your application titled **"The Relationship Between Depression and Self-Esteem Resulting in Eating Disorder Among Youths"** with the application number NEU/SS/2022/1289 has been evaluated by the Scientific Research Ethics Committee and granted approval. You can start your research on the condition that you will abide by the information provided in your application form.

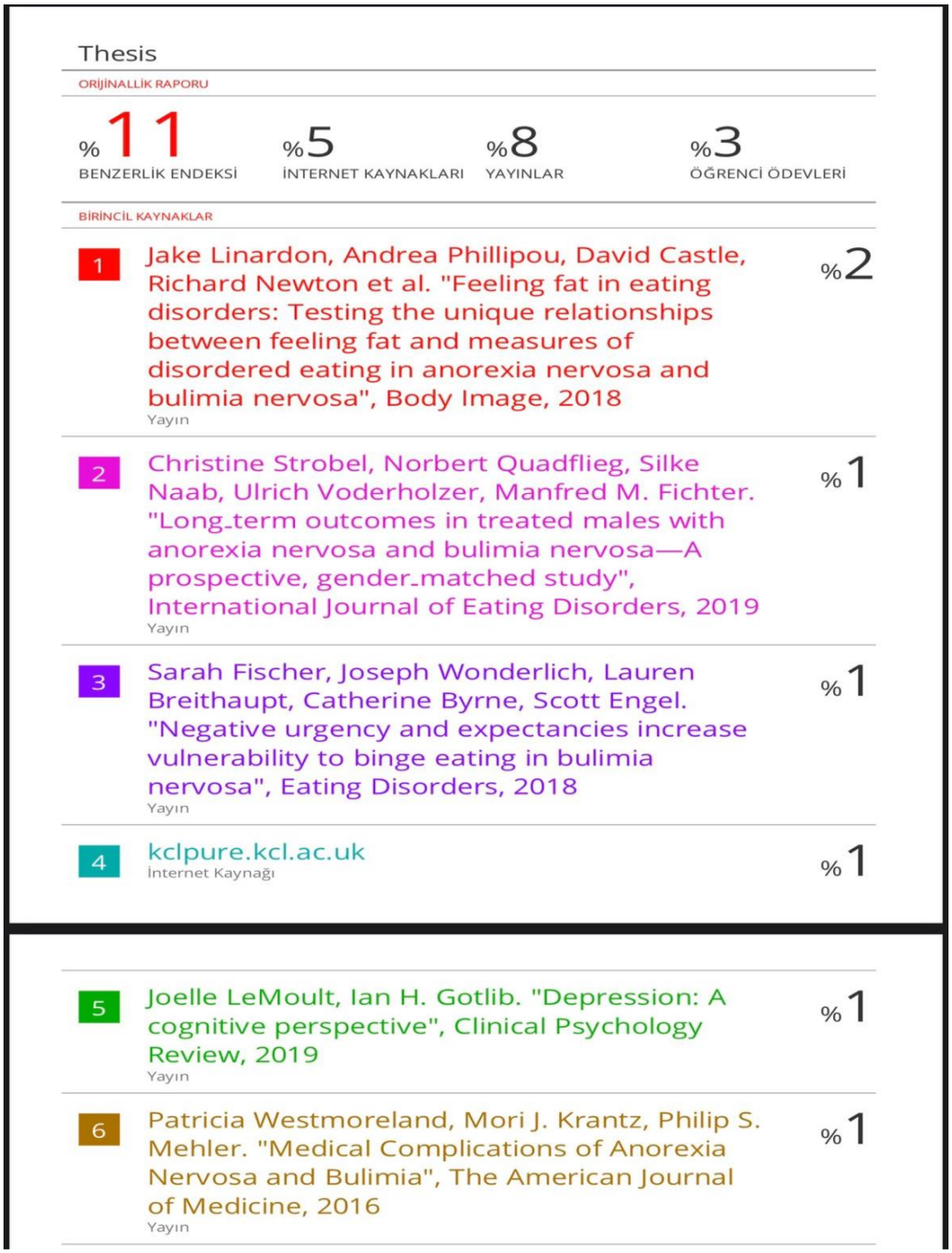
Signature

Assoc. Prof. Dr. Direnç Kanol

Rapporteur of the Scientific Research Ethics Committee

Direnc Kanol

# Appendix H



Thesis

ORİJİNALLİK RAPORU

| %11 | %5 | %8 | %3 |
|---|---|---|---|
| BENZERLİK ENDEKSİ | İNTERNET KAYNAKLARI | YAYINLAR | ÖĞRENCİ ÖDEVLERİ |

BİRİNCİL KAYNAKLAR

| | | |
|---|---|---|
| 1 | Jake Linardon, Andrea Phillipou, David Castle, Richard Newton et al. "Feeling fat in eating disorders: Testing the unique relationships between feeling fat and measures of disordered eating in anorexia nervosa and bulimia nervosa", Body Image, 2018<br>Yayın | %2 |
| 2 | Christine Strobel, Norbert Quadflieg, Silke Naab, Ulrich Voderholzer, Manfred M. Fichter. "Long_term outcomes in treated males with anorexia nervosa and bulimia nervosa—A prospective, gender_matched study", International Journal of Eating Disorders, 2019<br>Yayın | %1 |
| 3 | Sarah Fischer, Joseph Wonderlich, Lauren Breithaupt, Catherine Byrne, Scott Engel. "Negative urgency and expectancies increase vulnerability to binge eating in bulimia nervosa", Eating Disorders, 2018<br>Yayın | %1 |
| 4 | kclpure.kcl.ac.uk<br>İnternet Kaynağı | %1 |
| 5 | Joelle LeMoult, Ian H. Gotlib. "Depression: A cognitive perspective", Clinical Psychology Review, 2019<br>Yayın | %1 |
| 6 | Patricia Westmoreland, Mori J. Krantz, Philip S. Mehler. "Medical Complications of Anorexia Nervosa and Bulimia", The American Journal of Medicine, 2016<br>Yayın | %1 |

**CURRICULUM VITAE**

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## EDUCATION

M.A General Psychology

Near East University, Lefkosia, Cyprus (2019-2022)

B. Tech Agricultural & Environmental Engineering

Federal University of Technology, Akure (2012-2018)

WAEC (West African Certificate Exam)

Damiland High School, Ifako-Ijaye, Lagos State Nigeria (2009-2011)

JSSCE (Junior Secondary School Certificate Exam)

Prince &Princess Royal College, Ifo, 0gun state Nigeria (2006-2009)

## PERSONAL COMPETENCIES

- Diligent Worker
- Team builder
- Aggressive problem diagnosis
- Strong organizational skills
- Goal oriented
- Ambitious
- Time management skills

 Self-motivated

 Highly Innovative

 Resourceful

 Excellent Communication Skills

**WORK EXPERIENCE**

**Hydrologist:**Lagos State Water Corporation, 2016-2019

**Duties**

 Study of water movement across Lagos

 Maintenance of Boreholes in Lagos

 Supervision of Water Treatment in Sub Districts in Lagos

 Project Management in Sub Districts in Lagos

**Sales Manager:**Great Olufunmike Ventures, Iju-Ishaga, Lagos 2011-2012

**Duties**

 Managing Sales Movement

 Sales Marketing

 Sales Supervision

 Bookkeeping

 Documentation, Filing of All Sales Receipts

 Performing Routine Administrative Functions

**REFERENCES**

Excellent references available upon request