The Relationship between binge eating, appearance anxiety and depression among adulthood during lockdown

Dissertation submitted in partial fulfilment of the requirements for the award of

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By

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CERTIFICATE

This is to certify that the dissertation entitled, "The Relationship between binge eating, appearance anxiety and depression among adulthood during lockdown" is a bonafide record submitted by Ms. Anila K, Reg.no. SM20PSY001, of St. Teresa's College, Ernakulam under my supervision and guidance and that it has not been submitted to any other university or institution for the award of any degree or diploma, fellowship, title or recognition before.

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DECLARATION

I, Anila K, do hereby declare that the work represented in the dissertation embodies the results of

the original research work done by me in St. Teresa's College, Ernakulam under the supervision

and guidance of Ms. Vishnupriya V, Assistant Professor, Department of Psychology, St. Teresa's

College, Ernakulam, it has not been submitted by me to any other university or institution for the

award of any degree, diploma, fellowship, title or recognition before.

Anila K

Place: Ernakulam

Date: 22/05/2021

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Abstract

The below study was conducted on the sole purpose to examine the aftereffects of overeating, depression and appearance anxiety among adulthood during the pandemic. Obesity is one of it that the majority population is facing these days, and this can lead to mood and anxiety disorders. Almost a month and a half into the lockdown, we started to notice different patterns in human lives trying to cope up with the new change. It had a significant impact on our social and personal lives as our lifestyles had completely become disproportionate as there were a lot of unknown factors on how to proceed or not knowing the norms. The majority population of the world consists of adults that are in a period where they have attained a full physical and intellectual maturity. Upon collection of samples through snowball sampling from 200 individuals. It consisted of three questionnaires as follows: Binge Eating Scale; this was brought up by J. Gormally in 1982. Appearance Anxiety Inventory; This was initially brought up by Veale et Al in 2014. Back Depression Inventory: It was initially brought up by Aaron T. Beck back in 1961 and this still remains as one of the most widely used tests. The findings of the study suggest that there is a relationship between binge eating, appearance anxiety and depression among adulthood during lockdown.

CHAPTER I INTRODUCTION

Introduction

Majority of these lifestyle behaviors and changes are mainly caused by COVID-19 pandemic and people who are obese were adversely affected by this. There are a lot of common diseases that come with this such as Diabetes, Lung and heart related diseases which happen to be the major items that aggravate the COVID 19. The correlation between obesity and the pandemic is a widely discussed topic around the world these days. Childhood obesity has also become one of the most talked-about topics given the negative impact of lockdown on physical activity, diet, and sleep among children suffering from obesity. Majority of the people have indicated negative changes in eating and physical activity behavior and around 56% of them have reported mid day snacks which wasn't common during the period before COVID 19 as they were always occupied and engaged in some activity. This, in turn, can lead to weight management issues and would cause them to lose their motivation and higher Body Mass Index levels as their physical activity is limited.

This has also affected the children as they tend to indulge in these mid-day snacks which do not contain any nutrients or proteins. Majority of the items are rich in carbohydrate, sugar and fat which is the major cause for all the diseases that are mentioned above. As a result, there is a huge risk of co-morbidity deaths. Obesity results in heightened inflammation in patients and in severe Covid-19 cases, it worsens the condition of the patient. According to the World Health Organization, more people are dying from being overweight than underweight. This underlying problem of Obesity is becoming a worldwide problem and our view points to this definitely has a big impact on Obesity.

There was a recent study that was conducted relating to Obesity and it was discovered that and anxiety symptoms are three times higher during the lockdown. The research points out concerns around poor mental health well-being for children and their parents, especially mothers. Women with children are more likely to report symptoms of anxiety and/or depressive disorder than men with children (49% vs. 40%). In general, both prior to, and during, the pandemic, women have reported higher rates of anxiety and depression compared to men. During the pandemic, adults in households with job loss or lower incomes reported higher rates of symptoms of mental illness than those without job or income loss (53% vs. 32%)

BINGE EATING: Is the one of the important variables in this study. Binge eating is one of the major causes of obesity. The DSM-5 defines clinically significant binge eating as eating a quantity of food that is larger than average within a specific period of time. During this eating episode, the individual experiences a loss of control overeating and may experience negative emotions in relation to this episode, during or after its occurrence. Individuals with binge eating are at an increased risk for psychological Impairment. Some research supports a linear association between psychological impairment and binge eating. Binge eating is an impairing condition that is associated with psychological distress. Decreased quality of life, medical comorbidities, and psychological dysfunction are common among individuals with binge eating. Binge eating is the most common type of disordered eating. During lockdown binge eating is a habit of our society. When bored they started eating. Its leads to weight gain or obesity.

APPEARANCE ANXIETY: the fear that one will be negatively evaluated because of one's appearance behavior aimed at monitoring changes in one's weight or

shape, such as measuring or pinching certain body parts, repeatedly checking one's shape in the mirror, trying on clothes to gauge fit, feeling for protruding bones, or frequently weighing oneself. Theoretically, body checking may be the behavioral manifestation of a core feature of eating disorders.

DEPRESSION: Depression, otherwise known as major depressive disorder or clinical depression, is a common and serious mood disorder. Those who suffer from depression experience persistent feelings of sadness and hopelessness and lose interest in activities they once enjoyed. Aside from the emotional problems caused by depression, individuals can also present with a physical symptom such as chronic pain or digestive issues. To be diagnosed with depression, symptoms must be present for at least two weeks.

Need and significance of the study

it has become increasingly important to focus on your overall health and wellbeing. This study examines the relationship between binge eating, depression, appearance anxiety among adulthood during lockdown. All of this condition affects our immune system. If there is any relationship between these variables, its helps to give awareness to individuals to stay healthy. Engaging in regular exercise and trying to maintain a healthy and balanced diet is something that should be important to all. Benefits from focusing on eating habits and exercise include building up your immune system and its ability to fight diseases and viruses. Increased energy level is also a major benefit which can allow for more exercise and productivity while spending more time at home. Improvements in your overall mood can also be displayed when engaging in regular exercise and healthy eating which is vital in this tough time to also keep on top of

your mental health. Times are very strange and different from 2020, and we are experiencing things that a lot of us have never experienced before. During these stressful times, putting in a little extra effort to maintain your personal health and wellbeing will do wonders for your physical and mental health and can potentially make this situation a bit more bearable.

CHAPTER II REVIEW OF LITERATURE

Michele D Levine, Marsha D Marcus and Pegmoulton (1994) studied "exercise in the treatment of binge eating disorder" in 77 women. Consistent findings imply that exercise could be an important part of BED treatment and beneficial in establishing binge eating cessation. PEI used for assessing variables. Anxiety disorders should be included in a list of possible antecedents or risk factors for the development of eating disorders.

"Anxiety disorders and eating disorders; a their relationship" conducted by Cynthia M Buik, 1995. Findings that, there is a correlation between anxiety disorder and eating disorder. Women with eating disorder are the samples. Eating disorder scales were used for this study.

Marsha D. Marcus, Cora E. Lewis, Marian Fitzgibhon (1998) conducted a study "prevalence of binge eating disorder, obesity, and depression in a biracial cohort of young adults" In a multiracial population-based cohort of men and women participating in a longitudinal research of cardiovascular risk factor development, the prevalence of binge eating disorder (BED), obesity, and depressive symptomatology was investigated. BED status was determined using the Revised Questionnaire on Eating and Weight Patterns.

Byron R. Cargill, Matthew M. Clark, f Vincent Pera, Raymond S. Niaura, and David B. Abrams (1999) find out the relationship between Binge Eating, Body Image, Depression, and Self-Efficacy in an Obese Clinical Population. When examining different psychological and behavioural aspects hypothesised to promote binge eating, the importance of body image was determined, specifically in relation to negative social consciousness. 159 clinic patients participating in a multidisciplinary weight management program, tool was the Eating Habits Questionnaire

'Body Dissatisfaction and Binge Eating in Obese Women: The Role of Restraint and Depression' Conducted by Jane Wardle, Jo Waller, and Lorna Rapoport (2001). This study looked at the link between body dissatisfaction and binge eating in obese women, as well as the moderating role of constraint and depression. These findings imply that addressing psychological well-being, particularly body image, as part of the therapy of binge-eating behaviour in obesity would be beneficial. Eating Scale (BES), TFEQ-R used for this study.

Todd E Heatherton, Roy F. Baumeister (2001)conducted a study "Binge Eating as Escape From Self-Awarenes". Emotional distress, which commonly includes anxiety and sadness, is often associated with negative self-perceptions. Binge eaters try the cognitive response of confining attention to the immediate stimuli environment and avoiding generally relevant cognition to get out of this uncomfortable state. Normal inhibitions against eating are disengaged by this limiting of attention, which encourages uncritical acceptance of erroneous notions and thoughts. Much of the known evidence about binge eating can be incorporated into the escape model.

According to Alexandra E. Dingemans a,, Carolien Martijn, Eric F. van Furth a, Anita T.M. Jansen(2009) there is a correlation between Expectations, mood, and eating behavior in binge eating disorder. Conducted a study "Expectations, mood, and eating behavior in binge eating disorder. Beware of the bright side" in 73 women with binge disor. BDI, eating disorder inventory used for this study.

According to Rebecca L. Pearl, Marney A. White and Carlos M. Grilo, (2010), Internalizing weight bias is linked to poorer mental and physical health, and depressive symptoms may play a role in explaining this link in overweight individuals with BED

seeking treatment. Binge eating can develop as a maladaptive response to the danger of being negatively judged by others due to one's physical appearance, leading to a highly critical self-relating style characterised by hatred, disdain, and contempt for oneself. As a result, this research contributes to our understanding of the processes that underpin binge eating. Furthermore, these findings have crucial academic and therapeutic implications, indicating the importance of developing eating disorder treatments that particularly target shame and self-criticism by teaching self-compassion.

"Escaping from body image shame and harsh self-criticism: Exploration of underlying mechanisms of binge eating" conducted by Cristiana Duarte, José Pinto-Gouveia Cláudia Ferreira; 2011. These findings show that binge eating may develop as a maladaptive response to the threat of being negatively judged by others due to one's physical appearance, leading to a highly critical self-relating style characterised by hatred, disgust, and disdain for oneself. Participants are 329 women. Binge eating scale, Body Image Shame Scale etc. used.

Ashley N. Gearhardt, Marney A. White, Robin M. Masheb, Peter T. Morgan, MD, Ross D. Crosby, Carlos M. Grilo, (2012) conducted a study that "An Examination of the Food Addiction Construct in Obese Patients with Binge Eating Disorder", The study's outcome was The YFAS "food addiction" subset of BED patients appears to be a more disturbed variety characterised by increased eating disorder psychopathology and related pathology. Food addiction scale was the tool.

"High preoperative depression, phobic anxiety, and binge eating scores and low medium term weight loss in sleeve gastrectomy obese patients: A preliminary cohort study" conducted by Paul Brunault, David Jacobi, Vaïda Miknius, Céline BourbaoTournois, Noël Huten, Philippe Gaillard, Charles Couet, Vincent Camus, and Nicolas Ballon, (2012) find out that in patients receiving sleeve gastrectomy, higher preoperative depression, phobic anxiety, interpersonal sensitivity, and binge eating scores are associated with less postoperative weight reduction. Future research should look into the prevalence of syndromal or subsyndromal atypical depression in bariatric surgery candidates and its link to postoperative weight loss. BDI, binge eating scale etc used for this study.

To improve psychological well-being, both BID and binge eating patterns must be addressed in obesity psychological and medical treatment. (Gianluca Lo Coco, Laura Salerno a, Vincenzo Brunob, Marie Louise Caltabiano c, Lina A. Ricciardelli d; (2013). 87 participants. body assessment inventory, binge eating scale is used.

The importance of positive thoughts and a supportive environment in RA patients' mood, as well as a possible link between depression and appearance concerns in this demographic. Interventions focusing on social support, optimism, social anxiety, and appearance avoidance are crucial in treating depression in this patient population. A total of 89 patients with RA (McBain, H., Shipley, M., Newman, S. et al; 2013).FNE scale was used.

Emily Katherine White conducted a study (2013) The Role of Social Physique Anxiety and Social Appearance Anxiety in the Body Checking Behaviors of Male and Female College Students College Students The findings give a basic model for understanding the factors that influence male and female college students' body checking activities. More research is needed to better understand sex variations and the relationship

between social physique and social appearance anxiety. Social appearance anxiety scale was used for this study.

Deepthi, A., Praveen, K.K., Chandrashekhar-Rao, P., Vincent, K., and Kishore, M.T.(2014)." Relationship among Body Mass, Self-esteem and Depression in Overweight Indian Adolescents: Role of Binge Eating" Binge eating is thought to mediate the link between body mass and psychopathology. This research reveals that binge eating is a significant factor in the development of obesity and psychopathology. 39 overweight adolescents and 39 normal weight cohorts in the age range of 12-17 years were recruited in the study through purposive sampling method. Participants were assessed with standardized tools of binge eating, self-esteem and depression.

Body checking has been recorded in people with bulimia nervosa (BN), b1999; Grilo, Reas, Brody, Burke-Martindale, Rothschild, & Masheb, 2005; Mountford et al., 2007; Reas, Grilo, Masheb, & Wilson, 2005; Reas et al., 2002; Waller, Sines, Meyer, & Mountford, 2008). According to research, anywhere between 50 and 90 percent of women with eating problems participate in regular body monitoring. Over half of the 84 patients diagnosed with AN, BN, BED, or EDNOS in one study by Mountford and colleagues (2006) reported body checking in the previous month. In a qualitative study of 64 women with AN, BN, and EDNOS, 92 percent said they often check their bodies.

The study by Walker and colleagues (2009) was the first to look into the nature of body checking in a group of normal-weight college boys without eating problems. Furthermore, this research was the first to identify the many behavioural and emotional factors that influence men's body checking. The findings of this study are clinically alarming, implying that men who engage in body checking are more likely to have

substantial eating disorder symptoms, report depressive symptoms, and use performanceenhancing medications to alter their look. As a result, more research on the nature and correlates of men's body-checking activities is critical.

Diane L. Rosenbaum (2014) conducted a study The Relation of Anxiety, Depression, and Stress to Binge Eating The Relation of Anxiety, Depression, and Stress to Binge Eating Behavior. The findings of this study imply that studies of binge eating should include more characteristics of negative emotion (such as anxiety and stress). Furthermore, future binge eating research may benefit from a greater focus on the impact of anxiety. I participants were at least 18 years of age and possessed English language fluency in order to be eligible for this study. The Depression (DASS-D) and Anxiety (DASS-A) subscales of the Depression Anxiety Stress Scales (Lovibond & Lovibond, 1995a) were used to measure depression and anxiety, respectively.

Internalizing weight bias is linked to poorer mental and physical health, and depressive symptoms may play a role in explaining this link in overweight individuals with BED seeking treatment. (Rebecca L. Pearl, Marney A. White and Carlos M. Grilo; 2014)According to Selime Celik,, Yusuf Kayar, Rabia Onem, Basak Yusal (2015) there is a correlation between binge eating disorder with level of depression and glycemic control in type 2 diabetes mellites patients.152 samples are used, BDI, eating disored inventory was used. Targeting cognitive avoidance in binge eating treatment could be a successful clinical path, according to the 'flight from awareness' model of binge eating among women. Future research should look into the broader concept of experiential avoidance to see if the gender differences in cognitive avoidance seen in this study are indicative of a larger pattern of avoidance behaviour, and if elements other than cognitive

avoidance are more important for males." (Diane L. Rosenbaum• Kamila S. White; 2016).DASS and anxiety scale was used.

"Binge Eating Disorder: Relationship to Physical and Emotional Factors" study conducted by Taylor M. McMillan (2016). There was not a significant correlation between binge eating behaviors and physical activity, but binge eating was correlated positively with body mass index (BMI). In addition, binge eating was associated with all three subtypes of anxiety (social physique. appearance. And exercise anxiety) along with emotion difficulties. Social Physique Anxiety Scale Social Appearance Anxiety Scale, Social Exercise Anxiety Measure

"Relationship among obesity, depression and emotional eating in young adults".study conducted by Irina Lazerwich, Maria Esther Irigoyen Camacho, Maria Del Conuelo Velazquez, Marco Zepeda(2016). The scale of self efficacy and stress. Binge eating scale used in this study.this findings suggest that emotion management should be taken into consideration in obesity prevention and treatment strategies applied to young adults.

Tacibath Turel, Molly Jameson, Priscilla Gitimu, Zara Rowlands, Jeanine Mincher& Racheal Pohle-Krauza(2018) conducted a study "Disordered eating: Influence of body image, sociocultural attitudes, appearance anxiety and depression - a focus on college males and a gender comparison" The study's findings were The key gender distinction was that among females, Social Appearance Anxiety and Depression were significant predictors of eating disorder risk, but not among males. According to this study, the likelihood of developing an eating disorder is higher in men than previously thought. The risk is high for all college students, therefore it's critical to take preventative

actions before disordered eating behaviours become an eating disorder. Depression inventory, BMI, social appearance anxiety inventory are used.

Buket Belkız Güngör, Almıla økra Akgül, øbrahim Taymur, Hakan Demirci & Ahmet (2019) "evaluation of eating attitudes, anger and impulsivity in atypical and non-atypical depression and assessment of comorbidity of binge eating" As a result, Participants with atypical depression showed more deteriorated eating attitudes, higher rage symptoms, and motor impulsivity than those with non-atypical depression. Binge eating was statistically substantially more common in persons with atypical depression (50 percent) than in non-atypical depression participants (8 percent). A link was discovered between a deteriorating eating attitude, anger, and impulsivity. Anxiety as a reaction to anger was discovered to be a strong predictor of disordered eating attitudes in depressed subjects. In the case of disordered eating attitudes, anxious behaviour accounted for 7% of the variance.

Between over-weight Black and White women, there were no variations in BED rates. BED was thus widespread in the general community, with rates comparable among Black women, White women, and White men, but low rates among Black males. Obesity was linked to a much increased rate of BED. Obese males and minority women with BED should be the focus of treatment trials. (Delia E. Smith, Marsha D. Marcus, Cora E. Lewis, Marian Fitzgibhon, Pamela Schreiner, 2020)

'Obesity, eating behavior and physical activity during COVID-19 lockdown: A study of UK adults' conducted by Eric Robinson, Emma Boyland, Anna Chisholm, Joanne Harrold, Niamh G. Maloney, Lucile Marty, Bethan R. Mead, Rob Noonan, Charlotte A. Hardman, (2021).BMI was linked to lower levels of physical activity and

nutrition quality during lockdown, as well as a higher reported frequency of consuming. In lockdown, reporting a decline in mental health as a result of the COVID-19 crisis was not linked to a higher BMI, but it was linked to more overeating and less physical activity. The COVID-19 outbreak may have had a disproportionately unfavourable impact on weight-related behaviours among persons with a higher BMI.UK adults are the population.BMI, Eating disorder inventory etc. are the tools

'The Relationship Between Body and Appearance-Related Selfconscious Emotions and Disordered Eating: The Mediating Role of Symptoms of Depression and Anxiety' studied by Jara Mendia, Aitziber Pascual, Susana Conejero, Sonia Mayordomo (2021) Body shame and guilt were higher in women at risk, but authentic and hubristic body pride were lower. Depression and anxiety symptoms were identified to be mediating variables in the majority of instances. Body and Appearance Self-Conscious Emotions Scale, General Health Questionnaire et.

COVID-19 limits affected children, adolescents, and young adults' daily routines, including alterations in their food habits and physical activity. To safeguard them, health care providers should emphasise the dangers of obesity and offer prevention techniques, as well as guaranteeing parental involvement. In an ideal world, global policies, norms, and preventative measures would be developed. (Androniki Stavrido, Evangelia Kapsali, Eleni Panagouli, Athanasios Thirios, Konstantinos Polychronis, Flora Bacopoulou, Theodora Psaltopoulou Maria Tsolia, Theodoros N. Sergentanis and Artemis Tsitsika (2021) 'Obesity in Children and Adolescents during COVID-19 Pandemic'. 'Changes in Weight and Nutritional Habits in Adults with Obesity during the "Lockdown" Period Caused by the COVID-19 Virus Emergency' conducted by Marianna Pellegrini,

Valentina Ponzo, Rosalba Rosato, Elena Scumaci, Ilaria Goitre, Andrea Benso, Sara Belcastro, Chiara Crespi, Franco De Michieli Ezio Ghigo Fabio Broglio and Simona Bo (2021) Obese people gained weight significantly one month after the quarantine began. Increased weight gain was strongly connected to the negative mental burden associated with the COVID-19 pandemic.answer to a 12-question multiple-choice questionnaire relative to weight changes, working activity, exercise, dietary habits, and conditions potentially impacting on nutritional choices.

CHAPTER III

METHODOLOGY

Aim

 Aim of the study is to find out is there any relationship between binge eating, appearance anxiety and depression among adulthood during lockdown.

Statement problem

- Whether there will be a significant relationship between binge eating, appearance anxiety and depression among adulthood during lockdown
- Whether there will be a significant difference in the relationship between binge eating, appearance anxiety, depression among males and females during lockdown

Objectives

- To find out the relationship between binge eating and appearance anxiety among adulthood during lockdown.
- To find out there is any relationship between appearance anxiety and depression among adulthood during lockdown
- To find out there is any relationship between binge eating and depression among adulthood during lockdown.
- To find out the difference in binge eating among males and females during lockdown.
- To find out the difference in appearance anxiety among males and females during lockdown
- To find out the difference in depression among males and females during lockdown

Hypothesis

- 1. There is a significant relationship between binge eating and appearance anxiety among adulthood during lockdown
- 2. there is a significant relationship between appearance anxiety and depression among adulthood during lockdown
- 3. there is a significant relationship between binge eating and depression among adulthood during lockdown.
- 4. There is a significant difference in binge eating among males and females during lockdown
- There is a significant difference in appearance anxiety among males and females during lockdown
- 6. There is a significant difference in depression among males and females during lockdown

OPERATIONAL DEFINITION

BINGE EATING: Is the one of the important variable in this study. Binge eating is one of the major cause of obesity. The DSM-5 defines clinically significant binge eating as eating a quantity of food that is definitely larger than average within a specific period of time. During this eating episode, the individual experiences a loss of control over eating and may experience negative emotions in relation to this episode, during or after its occurrence. Individuals with binge eating are at an increased risk for psychological Impairment.

APPEARANCE ANXIETY: Appearance anxiety: the fear that one will be negatively evaluated because of one's appearance. behavior aimed at monitoring changes in one's

weight or shape, such as measuring or pinching certain body parts, repeatedly checking one's shape in the mirror, trying on clothes to gauge fit, feeling for protruding bones, or frequently weighing one's self. Theoretically, body checking may be the behavioral manifestation of a core feature of eating disorders.

DEPRESSION: Depression, otherwise known as major depressive disorder or clinical depression, is a common and serious mood disorder. Those who suffer from depression experience persistent feelings of sadness and hopelessness and lose interest in activities they once enjoyed. Aside from the emotional problems caused by depression, individuals can also present with a physical symptom such as chronic pain or digestive issues. To be diagnosed with depression, symptoms must be present for at least two weeks.

Research design

Correlational research design is used in this study to find out the relationship between binge eating, appearance anxiety and depression among adulthood during lockdown.

Sample

Adulthood is the sample. It is stage where human beings attain complete physical and intellectual maturity. The sample size is 200. both male (n=100) and (female n=100) samples (N=200) Samples were selected through snowball sampling and given the questionnaire through google form.

Population

This study is conducted in Kerala. The population is adulthood peoples from Kerala.

Sampling design

The population is adulthood individuals, Adulthood the period in the human lifespan in which full physical and intellectual maturity have been attained. Age ranging approximately from 20 to 40. snowball sampling was used to collect data. Details such as name, age, gender also collected. Sample size is 200.

Nonprobability sampling method is every member of the target population has not a known chance of being included in the sample. Snowball sampling also known as chain referral sampling – is considered a type of purposive sampling. In this method, participants, or informants with whom contact has already been made use their social networks to refer the researcher to other people who could potentially participate in or contribute to the study. Snowball sampling is often used to find and recruit "hidden populations," that is, groups not easily accessible to researchers through other sampling strategies.

Inclusion criteria.

- samples collected from Kerala, India
- Only adulthood individuals are the participants.

Exclusion criteria.

- not include school children in the study.
- Adulthood individuals from other states not included in this study

Tools used for data collection

Binge eating scale; The BES is a 16-item self-administered questionnaire with eight items describing behavioral symptoms (for example, eating quickly or in large quantities) and eight items describing accompanying thoughts and cognitions (for example, fear of not stopping eating). The response range for each item is 0 to 3 points (0 = no intensity of BES symptoms, 3 = major problems with BES symptoms). Marcus et al. (1988) assigned a 0 to 46 point scale to the BES: a score of fewer than 17 points suggests little BE difficulties, a score of 18 to 26 points shows moderate BE problems, and a score of more than 27 points indicates severe BE problems. It was devised by J. Gormally et al. in 1982 specifically for use with obese individuals.

Appearance anxiety inventory; The Appearance Anxiety Inventory is a tenquestion self-report questionnaire that assesses the cognitive and behavioural elements of body image anxiety in general and body dysmorphic disorder (BDD) in particular. developed by Veale et al (2014). The AAI is a self-report scale for evaluating Body Dysmorphic Disorder symptoms (BDD). It is made up of ten questions that are answered on a 5-point Likert scale. The item scores are added together to produce the final score. The range of possible scores is 0 to 40. The average score for people with BDD is 27.0, while the average score for community members is 13.0. The recommended cutoff score is 19, with values of 19 or higher indicating the possibility of BDD

Beck depression inventory; The Beck Depression Inventory-II (BDI-II) was derived from the BDI in 1996. The 21-item self-administered survey is rated on a scale of 0-3 in a list of four statements concerning a specific depressive symptom, grouped in

increasing severity. The Beck Depression Inventory-II is scored by adding the scores of each of the 21 items that correlate to a depressive symptom (BDI-II). Each item has a four-point scale ranging from 0 to 3. There are seven alternatives for indicating an increase or reduction in appetite and sleep on two items (16 and 18). The BDI-II cut-off score guidelines are provided with the recommendation that thresholds be altered based on the sample characteristics and the BDI-intended II's application. The minimal range is 0–13, the mild range is 14–19, the moderate range is 20–28, and the severe range is 29–63. Test-retest stability is excellent after one week (.93). Internal consistency (alpha) ranges from 92 to 94 depending on the sample. When compared to the BDI, construct validity was good (.93).

Procedure

Select the samples through snowball sampling technique from the population. select the sample and distribute the questionnaires regarding the variables. Using binge eating scale for measuring binge eating, using appearance anxiety inventory for measuring appearance anxiety and beck depression inventory for measuring depression of the individual, the questionnaires also gather some demographic details such as name, age, gender, education. Collect the data from the participant through google form and then scored, the scored data evaluated and then interpreted based on norms providing the questionnaires, finally generalize and make inferences about the study, participant can make an informed decision as to whether they will participate in the evaluation or not. Participants are free to withdraw their participation at any time without negatively impacting on their involvement in future services or the current program and

relationships with any of the researchers or research bodies involved. Only assess those components that are of relevance to the research.

Data analysis

Statistical Package for Social Sciences (SPSS) and an Excel sheet were used to analyses the subject's responses. IBM developed SPSS, a statistical software for data administration, analysis, and research. For data analysis, the following statistical tool was used.

CHAPTER IV RESULT AND DISCUSSION

Table 1

Shows the correlation between appearance anxiety and binge eating using spearman's rank correlation.

variable	N	ρ
Appearance anxiety	200	.808**
Binge eating	200	.808**

^{**.} Correlation is significant at the 0.01 level (2-tailed)

Table 1 shows the spearman's rank correlation coefficient between appearance anxiety and binge eating among adulthood during lockdown. The spearman's rank correlation coefficient was found to be **.808, which is significant at 0.01 level. It shows there is a strong positive correlation between appearance anxiety and binge eating among adulthood during lockdown. That result indicates that the appearance anxiety increases with respect to binge eating and binge eating increases with respect to appearance anxiety. There so many studies support these results.

Table 2

Shows the correlation between appearance anxiety and depression using spearman's rank correlation

VARIABLE	N	ρ
Appearance anxiety	200	.792**
Depression	200	.792**

^{**.}Correlation is significant at the 0.01 level (2-tailed)

Table 2 shows the spearman's rank correlation between appearance anxiety and depression among adulthood during lockdown. The spearman's rank correlation coefficient was found to be .792**, which is significant at 0.01 level. It shows there is a strong positive correlation between appearance anxiety and depression among adulthood during lockdown. That result indicates the appearance anxiety increases with respect to depression and also depression increases with respect to appearance anxiety. So many studies support this result. According to Ahmet Cihan and Esra Cihan there is a positive correlation between appearance anxiety and depression. They reach to this coclusion through their research in women.

Table 3

Shows the correlation between depression and binge eating using spearman's rank correlation.

VARIABLE	N	ρ
Depression	200	.821**
Binge eating	200	.821**

^{**.}Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows the spearman's rank correlation between depression and binge eating among adulthood during lockdown. The spearman's rank correlation coefficient was found to be .821**, which is significant at 0.01 level. It shows there is a strong positive correlation between depression and binge eating among adulthood during lockdown. That

result indicates the depression increases with respect to binge eating and also depression increases with respect to appearance anxiety. Fandiño, J., Moreira and his colleagues support this result. According to their study there is a positive correlation between binge eating and depression among obese patients.

Table 4 shows the result of Mann-whitney U test comparing binge eating among males and females during lockdown.

	GENDER	N	MEAN RANK	Asymp. Sig. (2-
				tailed)
Binge eating	Male	100	107.18	.102
	Female	100	93.82	

Table 4 shows the result of Mann Whitney U test where it says there is no gender difference in binge eating among adulthood during lockdown. Thus, we reject alternative hypothesis; there is a difference in binge eating among females and males during lockdown.

Table 5
Table 5 shows the result of Mann-whitney U test comparing appearance anxiety among males and females during lockdown.

	GENDER	N	MEAN RANK	Asymp.	Sig.
				(2-tailed)	
Appearance	Male	100	108.72	.044	
anxiety	Female	100	92.28		

Table 5 shows the result of Mann Whitney U test where it says there is a gender difference in appearance anxiety during lockdown. Thus, we accept alternative hypothesis; there is a significant difference in appearance anxiety among males and females during lockdown. Mean rank of men is 108.72 and women is 92.28. according to the mean rank men have more appearance anxiety than women during lockdown.

Table 6

Table 6 shows the result of Mann-whitney U test comparing depression among males and females during lockdown

	GENDER	N	MEAN RANK	Asymp.	Sig.
				(2-tailed)	
Depression	Male	100	110.95	.011	
	Female	100	90.05		

Table 6 shows the result of Mann Whitney U test where it says there is a gender difference in depression among adulthood during lockdown. Thus, we accept alternative hypothesis; there is a significant difference in depression among males and females during lockdown. Mean rank of men is 110.95 and women is 90.05. According to the mean rank men have more depression than women.

From the result it is evident that there is a positive relationship between binge eating, appearance anxiety and depression among adulthood during lockdown. Also, the result indicates gender difference in the relationship between binge eating, appearance anxiety and depression among adulthood during lockdown. change in one variable causes changes in other variables. Theories of binge eating suggest negative affect is of primary importance in the development and maintenance of binge eating behavior.

taking evidence from the study by Paul Brunault, David Jacobi, Vaïda Miknius, Céline Bourbao-Tournois, Noël Huten, Philippe Gaillard, Charles Couet, Vincent Camus, Nicolas Ballon. Higher preoperative depression, phobic anxiety, and binge eating scores are associated with low postoperative weight loss in patients undergoing sleeve gastrectomy. Here the 3 variables are correlated. According to the Anxiety and Depression Association of America, people with obesity who have binge eating disorders typically struggle with some sort of mental health illness, including anxiety or depression. Diane L. Rosenbaum, M.A. also support this result. According to his study there is a positive correlation between binge eating appearance anxiety and depression.

There is no significant gender difference in binge eating during lockdown. So the alternative hypothesis: There is significant gender difference in binge eating during lockdown is rejected. Both and women have equal level of binge eating during lockdown.

There is a significant gender difference in appearance anxiety during lockdown. So, the H1; there is a significant difference in appearance anxiety among males and females during lockdown is accepted. According to the mean rank men have more appearance anxiety than women. Given recent evidence indicating males are becoming more concerned about their physical appearance and reporting a higher level of negative body image than prior generations, it was thought necessary to better understand the nature of this trait in men as well. This conclusion is consistent with data indicating male body dissatisfaction is highest in the chest and waist (Davis, C., Brewer, H., & Weinstein, M. (1993). A STUDY OF APPEARANCE ANXIETY IN YOUNG MEN. Social Behavior and Personality). result indicates that there is a difference in depression among male and females during lockdown.so, H1; there is a difference in depression among male and females during lockdown is accepted. According to the mean rank men have more depression than women. Unemployment, lack of income, financial problems ,anxiety, isolation during this pandemic leads to severe depression (WHO). Individuals with lower social resources, lower economic resources, and greater exposure to stressors (eg, job loss) reported a greater burden of depression symptoms (Prevalence of Depression Symptoms in US Adults Before and During the COVID-19 Pandemic

Catherine K. Ettman,)

CHAPTER V

CONCLUSION

Conclusion

Findings of the present study indicate that there is a relationship between binge eating, appearance anxiety and depression among adulthood during lockdown. This study also shows significant gender difference in the relationship between binge eating, appearance anxiety and depression among adulthood during lockdown. According to the mean rank men have more appearance anxiety and depression than women, so the alternative hypothesis is accepted. There is no significant gender difference in binge eating among adulthood during lockdown. So the H1 is rejected. High rate in binge eating causes obesity. Obesity leads to anxiety and mood disorders. In this pandemic it is important to stay healthy. Healthy people can resist corona. Higher immunity is necessary in this situation. If we do not follow proper exercise and diet it will cause to higher corona mortality. So it is important being healthy. Follow good nutrition, daily exercise, adequate sleep, positive thinking etc.

Findings

From the current study we find that there is a positive strong correlation between binge eating, appearance anxiety and depression among during lockdown. Also there is a significant gender difference in appearance anxiety and depression during lockdown. The result also indicates that there is no difference in binge eating among males and females during lockdown.

Limitations

Due to the time constraints and busy schedule the study cannot be conducted in larger population including more participants from wider geographic area and it is recommended for better generalization of the findings. Some of the participants not familiar with the vocabulary. They have difficult to understand the question. That will negatively affects their responses. Some of variables did not control, such as patient's social support, mental and physical health at the time participant attend questionnaire, external factors such as noise, temperature etc.

Suggestions for future research

The study can be administrated on a larger population. It will provide more accurate result. Conduct this study on a wider geographic area. Include participants from different state, district, culture.

Reference

- Anitha, J. (2020). Relationship between Body Mass Index and Self Esteem among
 Early Adolescents in a Selected School, Coimbatore. International Journal of
 Pediatric Nursing, 6(1), 13–17. https://doi.org/10.21088/ijpen.2454.9126.6120.2
- Belkız Güngör, B., Ikra Akgül, A., Taymur, I., Demirci, H., & Inel, A. (2020). Evaluation of eating attitudes, anger and impulsivity in atypical and non-atypical depression and assessment of comorbidity of binge eating. Psychiatria Danubina, 32(1), 105–114. https://doi.org/10.24869/psyd.2020.105
- Blackburn, S., Johnston, L., Blampied, N., Popp, D., & Kallen, R. (2006). An application of escape theory to binge eating. European Eating Disorders Review, 14(1), 23–31. https://doi.org/10.1002/erv.675
- Brechan, I., & Kvalem, I. L. (2015). Relationship between body dissatisfaction and disordered eating: Mediating role of self-esteem and depression. Eating Behaviors, 17, 49–58. https://doi.org/10.1016/j.eatbeh.2014.12.008
- Brunault, P., Jacobi, D., Miknius, V., Bourbao-Tournois, C., Huten, N., Gaillard, P., Couet, C., Camus, V., & Ballon, N. (2012). High Preoperative Depression, Phobic Anxiety, and Binge Eating Scores and Low Medium-Term Weight Loss in Sleeve Gastrectomy Obese Patients: A Preliminary Cohort Study. Psychosomatics, 53(4), 363–370. https://doi.org/10.1016/j.psym.2011.12.008
- Cargill, B. R., Clark, M. M., Pera, V., Niaura, R. S., & Abrams, D. B. (1999). Binge

- Eating, Body Image, Depression, and Self-Efficacy in an Obese Clinical Population. Obesity Research, 7(4), 379–386. https://doi.org/10.1002/j.1550-8528.1999.tb00421.x
- Cihan, A., & Cihan, E. (2019). Interrelation Between Appearance Anxiety and Sexual Functions in Women: The Role of Surgical Scars, Morphologic Features, and Accompanying Depression. The Journal of Sexual Medicine, 16(11), 1769–1778. https://doi.org/10.1016/j.jsxm.2019.08.004
- Dakanalis, A., Carrà, G., Calogero, R., Fida, R., Clerici, M., Zanetti, M. A., & Riva, (2014). The developmental effects of media-ideal internalization and self objectification processes on adolescents' negative body-feelings, dietary restraint, and binge eating. European Child & Adolescent Psychiatry, 24(8), 997–1010. https://doi.org/10.1007/s00787-014-0649-1
- Dakanalis, A., Carrà, G., Calogero, R., Zanetti, M. A., Volpato, C., Riva, G., Clerici, M., & Cipresso, P. (2015). The Social Appearance Anxiety Scale in Italian Adolescent Populations: Construct Validation and Group Discrimination in Community and Clinical Eating Disorders Samples. Child Psychiatry & Human Development, 47(1), 133–150. https://doi.org/10.1007/s10578-015-0551-1
- Davis, C., Brewer, H., & Weinstein, M. (1993). A STUDY OF APPEARANCE
 ANXIETY IN YOUNG MEN. Social Behavior and Personality: An International
 Journal, 21(1), 63–74. https://doi.org/10.2224/sbp.1993.21.1.63
- Dingemans, A. E., Martijn, C., van Furth, E. F., & Jansen, A. T. (2009). Expectations, mood, and eating behavior in binge eating disorder. Beware of the bright side.
 Appetite, 53(2), 166–173. https://doi.org/10.1016/j.appet.2009.06.002

- Duarte, C., Pinto-Gouveia, J., & Ferreira, C. (2014). Escaping from body image shame
 and harsh self-criticism: Exploration of underlying mechanisms of binge eating.
 Eating Behaviors, 15(4), 638–643. https://doi.org/10.1016/j.eatbeh.2014.08.025
- Dunkley, D. M., Masheb, R. M., & Grilo, C. M. (2010). Childhood maltreatment, depressive symptoms, and body dissatisfaction in patients with binge eating disorder: The mediating role of self-criticism. International Journal of Eating
- Fandiño, J., Moreira, R. O., Preissler, C., Gaya, C. W., Papelbaum, M., Coutinho, W. F.,
 & Appolinario, J. C. (2010). Impact of binge eating disorder in the
 psychopathological profile of obese women. Comprehensive Psychiatry, 51(2), 110–114. https://doi.org/10.1016/j.comppsych.2009.03.011
- Fang, A., & Hofmann, S. G. (2010). Relationship between social anxiety disorder and body dysmorphic disorder. Clinical Psychology Review, 30(8), 1040–1048.
 https://doi.org/10.1016/j.cpr.2010.08.001
- Gearhardt, A. N., White, M. A., Masheb, R. M., Morgan, P. T., Crosby, R. D., & Grilo C. M. (2011). An examination of the food addiction construct in obese patients with binge eating disorder. International Journal of Eating Disorders, 45(5), 657–663. https://doi.org/10.1002/eat.20957 Disorders, https://doi.org/10.1002/eat.20796
- lo Coco, G., Salerno, L., Bruno, V., Caltabiano, M. L., & Ricciardelli, L. A. (2014).
 Binge eating partially mediates the relationship between body image dissatisfaction and psychological distress in obese treatment seeking individuals. Eating Behaviors, 15(1), 45–48. https://doi.org/10.1016/j.eatbeh.2013.10.006
- Marcus, M. D., Moulton, M. M., & Greeno, C. G. (1995). Binge eating onset in obese

patients with binge eating disorder. Addictive Behaviors, 20(6), 747–755. https://doi.org/10.1016/0306-4603(95)00104-2

- McBain, H., Shipley, M., & Newman, S. (2012). The Impact of Appearance Concerns on Depression and Anxiety in Rheumatoid Arthritis. Musculoskeletal Care, 11(1), 19– 30. https://doi.org/10.1002/msc.1020
- Meule, A., Allison, K. C., & Platte, P. (2013). Emotional Eating Moderates the Relationship of Night Eating with Binge Eating and Body Mass. European EatingDisorders Review, 22(2), 147–151. https://doi.org/10.1002/erv.2272
- Moneva, J. C., Geñorga, J. G. R., & Solon, E. M. (2020). Physical Appearance Anxiety
 and Social Relations. International Journal of Social Science Research, 8(1), 99.
 https://doi.org/10.5296/ijssr.v8i1.16564
- Pearl, R. L., White, M. A., & Grilo, C. M. (2013). Weight bias internalization, depression, and self-reported health among overweight binge eating disorder patients. Obesity, 22(5), E142–E148. https://doi.org/10.1002/oby.20617
- Pellegrini, M., Ponzo, V., Rosato, R., Scumaci, E., Goitre, I., Benso, A., Belcastro, S., Crespi, C., de Michieli, F., Ghigo, E., Broglio, F., & Bo, S. (2020). Changes in Weight and Nutritional Habits in Adults with Obesity during the "Lockdown" Period Caused by the COVID-19 Virus Emergency. Nutrients, 12(7), 2016.
 https://doi.org/10.3390/nu12072016
- Roberts, R., Repass, R., & El-Mallakh, R. (2009). Effect of dopamine on intracellular

sodium: A common pathway for pharmacological mechanism of action in bipolar illness. World Journal of Biological Psychiatry, 1–7.

https://doi.org/10.1080/15622970902718774

- Robinson, E., Boyland, E., Chisholm, A., Harrold, J., Maloney, N. G., Marty, L., Mead, B R., Noonan, R., & Hardman, C. A. (2021). Obesity, eating behavior and physical activity during COVID-19 lockdown: A study of UK adults.
 Appetite, 156, 104853. https://doi.org/10.1016/j.appet.2020.104853
- Rosenbaum, D. L., & White, K. S. (2015). The relation of anxiety, depression, and stress to binge eating behavior. Journal of Health Psychology, 20(6), 887–898.
- Rosenbaum, D. L., & White, K. S. (2016). Does cognitive avoidance mediate the relation of anxiety and binge eating? Eating and Weight Disorders Studies on Anorexia, Bulimia and Obesity, 21(4), 653–659. https://doi.org/10.1007/s40519-016-0284-6 https://doi.org/10.1177/1359105315580212
- Smolak, L., & Munstertieger, B. F. (2002). The Relationship of Gender and Voice to
 Depression and Eating Disorders. Psychology of Women Quarterly, 26(3), 234–241.

 https://doi.org/10.1111/1471-6402.t01-1-00006
- Stavridou, A., Kapsali, E., Panagouli, E., Thirios, A., Polychronis, K., Bacopoulou, F., Psaltopoulou, T., Tsolia, M., Sergentanis, T. N., & Tsitsika, A. (2021). Obesity in Children and Adolescents during COVID-19 Pandemic. Children, 8(2), 135.
 https://doi.org/10.3390/children8020135
- Turel, T., Jameson, M., Gitimu, P., Rowlands, Z., Mincher, J., & Pohle-Krauza, R.

(2018). Disordered eating: Influence of body image, sociocultural attitudes, appearance anxiety and depression - a focus on college males and a gender comparison. Cogent Psychology, 5(1), 1483062. https://doi.org/10.1080/23311908.2018.1483062

- Vardar, E., Vardar, S. A., & Kurt, C. (2007). Anxiety of young female athletes with disordered eating behaviors. Eating Behaviors, 8(2), 143–147.
 https://doi.org/10.1016/j.eatbeh.2006.03.002
- Wardle, J., Waller, J., & Rapoport, L. (2001). Body Dissatisfaction and Binge Eating in
 Obese Women: The Role of Restraint and Depression. Obesity Research, 9(12),
 778–787. https://doi.org/10.1038/oby.2001.107
- Wilson, G. T. (1993). Relation of Dieting and Voluntary Weight Loss to Psychological Functioning and Binge Eating. Annals of Internal Medicine, 119(7_Part_2), 727. https://doi.org/10.7326/0003-4819-119-7_part_2-199310011-00020

Appendices

Appearance anxiety inventory

Instructions: Please check the box that best describes the way you have felt about your appearance or a specific feature OVER THE PAST WEEK, INCLUDING TODAY

S.L no	questions	Not at all	A little	often	A lot	All the time
1	I compare aspects of my appearance to others	0	1	2	3	4
2	I check my appearance (e.g. in mirrors, by touching with my fingers, or by taking photos of myself)	0	1	2	3	4
3	I avoid situations or people because of my appearance	0	1	2	3	4
4	I brood about past events or reasons to explain why I look the way I do	0	1	2	3	4
5	I THINK about how to camouflage or alter my appearance	0	1	2	3	4
6	I am focussed on how I feel I look, rather than on my surroundings	0	1	2	3	4
7	I avoid reflective surfaces, photos, or videos of myself	0	1	2	3	4
8	I discuss my appearance with others or question them about it	0	1	2	3	4

9	I try to camouflage or alter aspects of my appearance 0 1 2 3 4	0	1	2	3	4
10	I try to prevent people from seeing aspects of my appearance within particular situations (e.g., by changing my posture, avoiding bright lights)	0	1	2	3	4

Binge eating scale

Below are groups of statements about behavior, thoughts, and emotional states. Please indicate which statement in each group best describes how you feel.

1

- I feel concerned about how I look to others, but it normally does not make me feel disappointed with myself.
- 2. I do get self-conscious about my appearance and weight which makes me feel disappointed in myself.
- 3. I feel very self-conscious about my weight and frequently,
- I feel intense shame and disgust for myself. I try to avoid social contacts because of my selfconsciousness.

2

- 1. I don't have any difficulty eating slowly in the proper manner.
- 2. Although I seem to "gobble down" foods, I don't end up feeling stuffed because of eating too much.
- 3. At times, I tend to eat quickly and then, I feel uncomfortably full afterwards.
- 4. I have the habit of bolting down my food, without really chewing it. When this happens I usually feel uncomfortably stuffed because I've eaten too much.

- 1. I feel capable to control my eating urges when I want to.
- 2. I feel like I have failed to control my eating more than the average person.
- 3. I feel utterly helpless when it comes to feeling in control of my eating urges.

4. Because I feel so helpless about controlling my eating I have become very desperate about trying to get in control.

4

- 1. I don't have the habit of eating when I'm bored.
- 2. I sometimes eat when I'm bored, but often I'm able to "get busy" and get my mind off food.
- 3. I have a regular habit of eating when I'm bored, but occasionally, I can use some other activity to get my mind off eating.
- 4. I have a strong habit of eating when I'm bored. Nothing seems to help me break the habit.

5

- 1. I'm usually physically hungry when I eat something.
- 2. Occasionally, I eat something on impulse even though I really am not hungry.
- 3. I have the regular habit of eating foods, that I might not really enjoy, to satisfy a hungry feeling even though physically, I don't need the food.
- 4. Although I'm not physically hungry, I get a hungry feeling in my mouth that only seems to be satisfied when I eat a food, like a sandwich, that fills my mouth. Sometimes, when I eat the food to satisfy my mouth hunger, I then spit the food out so I won't gain weight.

- 1. I don't feel any guilt or self-hate after I overeat.
- 2. After I overeat, occasionally I feel guilt or self-hate.
- 3. Almost all the time I experience strong guilt or self-hate after I overeat.

7

- 1. I don't lose total control of my eating when dieting even after periods when I overeat.
- 2. Sometimes when I eat a "forbidden food" on a diet, I feel like I "blew it" and eat even more.
- 3. Frequently, I have the habit of saying to myself, "I've blown it now, why not go all the way" when I overeat on a diet. When that happens I eat even more.
- 4. I have a regular habit of starting strict diets for myself, but I break the diets by going on an eating binge. My life seems to be either a "feast" or "famine."

8

- 1. I rarely eat so much food that I feel uncomfortably stuffed afterwards.
- 2. Usually about once a month, I eat such a quantity of food, I end up feeling very stuffed.
- 3. I have regular periods during the month when I eat large amounts of food, either at mealtime or at snacks.
- 4. I eat so much food that I regularly feel quite uncomfortable after eating and sometimes a bit nauseous.

- 1. My level of calorie intake does not go up very high or go down very low on a regular basis.
- 2. Sometimes after I overeat, I will try to reduce my caloric intake to almost nothing to compensate for the excess calories I've eaten.
- 3. I have a regular habit of overeating during the night. It seems that my routine is not to be hungry in the morning but overeat in the evening.

4. In my adult years, I have had week-long periods where I practically starve myself. This follows periods when I overeat. It seems I live a life of either "feast or famine."

10

- 1. I usually am able to stop eating when I want to. I know when "enough is enough."
- 2. Every so often, I experience a compulsion to eat which I can't seem to control.
- 3. Frequently, I experience strong urges to eat which I seem unable to control, but at other times I can control my eating urges.
- 4. I feel incapable of controlling urges to eat. I have a fear of not being able to stop eating voluntarily.

11

- 1. I don't have any problem stopping eating when I feel full.
- 2. I usually can stop eating when I feel full but occasionally overeat leaving me feeling uncomfortably stuffed.
- 3. I have a problem stopping eating once I start and usually I feel uncomfortably stuffed after I eat a meal.
- 4. Because I have a problem not being able to stop eating when I want, I sometimes have to induce vomiting to relieve my stuffed feeling.

- 1. I seem to eat just as much when I'm with others (family, social gatherings) as when I'm by myself.
- 2. Sometimes, when I'm with other persons, I don't eat as much as I want to eat because I'm self-conscious about my eating.

- 3. Frequently, I eat only a small amount of food when others are present, because I'm very embarrassed about my eating.
- 4. I feel so ashamed about overeating that I pick times to overeat when I know no one will see me. I feel like a "closet eater."

13

- 1. I eat three meals a day with only an occasional between meal snack.
- 2. I eat 3 meals a day, but I also normally snack between meals.
- 3. When I am snacking heavily, I get in the habit of skipping regular meals.
- 4. There are regular periods when I seem to be continually eating, with no planned meals.

14

- 1. I don't think much about trying to control unwanted eating urges
- 2. At least some of the time, I feel my thoughts are pre-occupied with trying to control my eating urges.
- 3. I feel that frequently I spend much time thinking about how much I ate or about trying not to eat anymore.
- 4. It seems to me that most of my waking hours are pre-occupied by thoughts about eating or not eating. I feel like I'm constantly struggling not to eat.

- 1. I don't think about food a great deal.
- 2. I have strong cravings for food but they last only for brief periods of time.
- 3. I have days when I can't seem to think about anything else but food.

4. Most of my days seem to be pre-occupied with thoughts about food. I feel like I live to eat.

- 1. I usually know whether or not I'm physically hungry. I take the right portion of food to satisfy me.
- 2. Occasionally, I feel uncertain about knowing whether or not I'm physically hungry. At these times it's hard to know how much food I should take to satisfy me.
- 3. Even though I might know how many calories I should eat, I don't have any idea what is a "normal" amount of food for me.

Beck's depression inventory

This depression inventory can be self-scored. The scoring scale is at the end of the questionnaire.

1.

- 0 I do not feel sad.
- 1 I feel sad
- 2 I am sad all the time and I can't snap out of it
- 3 I am so sad and unhappy that I can't stand it.

2

- 0 I am not particularly discouraged about the future.
- 1 1 I feel discouraged about the future.
- 2 I feel I have nothing to look forward to.
- 3 I feel the future is hopeless and that things cannot improve.

3

- 0 I do not feel like a failure.
- 1 I feel I have failed more than the average person.
- 2 As I look back on my life, all I can see is a lot of failures.
- 3 I feel I am a complete failure as a person

4

0 I get as much satisfaction out of things as I used to.

- 1 I don't enjoy things the way I used to.
- 2 I don't get real satisfaction out of anything anymore.
- 3 I am dissatisfied or bored with everything.

5

- 0 I don't feel particularly guilty
- 1 I feel guilty a good part of the time.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

6

- 0 I don't feel I am being punished.
- 1 I feel I may be punished.
- 2 I expect to be punished.
- 3 I feel I am being punished.

7

- 0 I don't feel disappointed in myself.
- 1 I am disappointed in myself.
- 2 I am disgusted with myself.
- 3 I hate myself.

- 0 I don't feel I am any worse than anybody else.
- 1 I am critical of myself for my weaknesses or mistakes.

- 2 I blame myself all the time for my faults.
- 3 I blame myself for everything bad that happens.

9

- 0 I don't have any thoughts of killing myself.
- 1 I have thoughts of killing myself, but I would not carry them out.
- 2 I would like to kill myself.
- 3 I would kill myself if I had the chance.

10

- 0 I don't cry any more than usual.
- 1 I cry more now than I used to.
- 2 I cry all the time now.
- 3 I used to be able to cry, but now I can't cry even though I want to.

11.

- 0 I am no more irritated by things than I ever was.
- 1 I am slightly more irritated now than usual.
- 2 I am quite annoyed or irritated a good deal of the time.
- 3 I feel irritated all the time.

12.

- 0 I have not lost interest in other people.
- 1 I am less interested in other people than I used to be.
- 2 I have lost most of my interest in other people.
- 3 I have lost all of my interest in other people.

13.

- 0 I make decisions about as well as I ever could.
- 1 I put off making decisions more than I used to.
- 2 I have greater difficulty in making decisions more than I used to.
- 3 I can't make decisions at all anymore.

14.

- 1. I don't feel that I look any worse than I used to.
- 2. I am worried that I am looking old or unattractive.
- 3. I feel there are permanent changes in my appearance that make me look unattractive
- 4. I believe that I look ugly.

15.

- 0 I can work about as well as before.
- 1 It takes an extra effort to get started at doing something.
- 2 I have to push myself very hard to do anything.
- 3 I can't do any work at all.

16.

- 0 I can sleep as well as usual.
- 1 I don't sleep as well as I used to.
- I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
- 3 I wake up several hours earlier than I used to and cannot get back to sleep.

- 0 I don't get more tired than usual.
- 1 I get tired more easily than I used to.
- 2 I get tired from doing almost anything.
- 3 I am too tired to do anything.

18.

- 0 My appetite is no worse than usual.
- 1 My appetite is not as good as it used to be
- 2 . My appetite is much worse now.
- 3 I have no appetite at all anymore.

19.

- 0 I haven't lost much weight, if any, lately.
- 1 I have lost more than five pounds.
- 2 I have lost more than ten pounds.
- 3 I have lost more than fifteen pounds.

- 0 I am no more worried about my health than usual.
- 1 I am worried about physical problems like aches, pains, upset stomach, or constipation.
- 2 I am very worried about physical problems and it's hard to think of much else.
- 3 I am so worried about my physical problems that I cannot think of anything else.

- 0 I have not noticed any recent change in my interest in sex.
- 1 I am less interested in sex than I used to be.
- 2 I have almost no interest in sex.
- 3 I have lost interest in sex completely.