

NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES APPLIED
(CLINICAL) PSYCHOLOGY MASTER PROGRAM

MASTER THESIS

CORRELATION OF SELF-ESTEEM EATING
ATTITUDES AND OBESITY AMONG ADOLESCENTS

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SUPERVISOR
ASSİST. PROF. DR. İREM ERDEM ATAK

NICOSIA–2013

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Master Thesis

Correlation Of Self-Esteem,Eating Attitudes And Obesity Among Adolescents

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**We certify that the thesis is satisfactory for the award of the Degree of Master of
Science in Applied Psychology**

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ÖZET

Obezite birçok ülkede ciddi bir halk sağlığı problemi olarak görülen metabolik bir hastalıktır. Son yıllarda psikolojik problem ve bozuklukların obeziteye eşlik etmesiyle birlikte obezite birçok araştırmacının dikkatini çekmiştir. Bu çalışmada ergenlerde obezite, yeme tutumu ve benlik saygısı arasındaki ilişkiyi araştırmak amaçlanmaktadır.

Çalışmadaki örneklem 169 kız ve 111 erkek olmak üzere toplam 280 öğrenciden oluşmaktadır. Verilerin toplanması sırasında öncelikle çalışmaya katılan öğrencilerin Beden Kitle İndekslerinin hesaplanması için boy ve kilo ölçümleri yapılmıştır. Ayrıca öğrencilere Kişisel Bilgi Formu, Rosenberg Benlik Saygısı Ölçeği (RBSÖ) ve Yeme Tutum Testi (YTT) kullanılmıştır. Verilerin istatistiksel analizinde ise Ki-kare, One-Way Anova, Pearson Korelasyon ve Independent Sample T-test kullanılmıştır.

Çalışmadan elde edilen bulgular zayıf, normal kilolu, aşırı kilolu ve obez öğrenciler arasında YTT puan ortalamalarına göre istatistiksel olarak anlamlı farklılık olduğunu

göstermektedir ($p=0.019$). Obez öğrenciler YTT'den daha yüksek puan almıştır. Bu bulgular obez öğrencilerin diğer öğrencilere göre daha fazla patolojik yeme tutumuna sahip olduğunu göstermektedir. Bu çalışmada elde edilen diğer bulgulara göre YTT puan ortalaması ve RBSÖ puan ortalaması arasında pozitif yönde ve anlamlı bir ilişki saptanmıştır ($r=0.303$, $p=0.000$) ve zayıf, normal kilolu, aşırı kilolu ve obez öğrenciler arasında RBSÖ puan ortalamalarına göre istatistiksel olarak anlamlı bir fark saptanmamıştır ($p=0.994$). Bu bulgulara ek olarak erkek öğrencilerin benlik saygı düzeyi kız öğrencilerin benlik saygı düzeyinden daha düşük bulunmuştur ($M+SD=1.16 + 0.71$) ve annenin eğitim düzeyi ve mesleği ile BKİ arasında pozitif yönde anlamlı bir ilişki saptanmıştır ($r=0.128$, $p=0.028$), ($r=0.120$, $p=0.041$).

ABSTRACT

Obesity is the metabolic disease that to be seen as the serious public health problem in many countries. Recently obesity attracts attention of the most researchers because of the presence of the psychological problems and the disorders in its occurrence as it is considered as a significant cause.

The aim of this study is to investigate the relationship between obesity, eating attitudes and self-esteem among adolescents. A total of 280 students, 169 girls and 111 boys have been included in the study. Previously, the height and the weight of the adolescents were measured in order to calculate the body mass index (BMI) of them. In addition data were collected by the personal information form, Rosenberg Self-Esteem Scale (RSES) and The Eating Attitudes Test (EAT). Chi-square test, one-way anova, pearson correlation and independent sample t test were used to analyse the data.

The findings of this study indicated that there were significant differences between the thin, standard weight, overweight and obese students according to the mean scores of the EAT Scale ($p= 0.019$). It is seen that the obese students had high scores from the EAT. Indicating that they have more pathological eating attitudes than the other students. Another finding of this study show that there is significant correlation between self-esteem subscale of RSES and the Eating Attitude Scale's mean score ($r=0.303$, $p:0.000$) and there is not significant difference between the thin, standard weight, overweight and obese students according to the mean scores of the RSES ($p= 0.994$).

The male students were found to have lower self-esteem than the female students ($M+SD= 1.16 + 0.71$) and there is significant, positive correlation between the body mass index and Education of Mother ($r= 0.128$, $p: 0.028$) and the Work of Mother ($r: 0.120$, $p:0.041$).

Keywords; obesity, adolescents, self esteem, eating attitude .

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ABBREVIATIONS

AN Anorexia Bulimia

BN Bulimia Nervosa

DSM-VI TR Diagnostic and Statistical Manual of Mental Disorders

BMI	Body Mass Index
BED	Being Eating Disorder
RSES	Rosenberg Self- Esteem Scale
EAT	Eating Attitude Scale
SES	Socio Economic Status
OC	Obsessive Compulsive

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1. INTRODUCTION

Throughout the last century one of the biggest health problems is obesity; in other words, obesity is a rapidly growing health problem all around the world. World Health Organization (WHO) describes obesity as a global epidemic. Obesity is a result of cultural, social, genetic, physiological, behavioral, and psychological factors, and the simplest expression of the term obesity is defined as a result of complex interactions with the body's excess fat stored in the form of triglycerides (Yücel, 2008).

According to one study that contains the definition of obesity, obesity is noted as an increase in body fat tissue. When the amount of energy consumed from foods increases, the storage of excess fat and unwanted weight gain turns into a good way to describe the conclusion of the definition of obesity. One of the most common methods to assess obesity is the calculation of the Body Mass Index (Sağlık ve Sosyal Yardım Vakfı (SSVY), 2007).

Obesity is a health problem in itself, but it causes many problems in adults and adolescents. In an article about obesity, complications and comorbidity of obesity are discussed. Cardiovascular diseases, dyslipidemia, hypertension, congestive heart failure, gastrointestinal problems, menstrual abnormalities, infertility, type 2 diabetes, breast, colon and prostate cancers are some of the complications and comorbidities of obesity. Obesity may be a cause of depression, low self-esteem and psychiatric problems as well (Balcıoğlu & Başer, 2008). There are many definitions in the literature on the concept of self-esteem. According to the one of these, self-esteem projects the self-insight and the person's satisfaction or dissatisfaction of himself (Taysi, 2000). The results of one study show that self-esteem was negatively influenced by increasing levels of BMI ($\beta = -.05$) (Kristjanssan & Sigfusdottir, 2010).

As a result of one study, the problems in eating behaviour can cause depression and the psychosomatic symptoms are related with the low self-esteem (Değirmenci, 2006). In a different study, it is determined that low self-esteem and high anxiety level are the best predictors of the scores of EAT scale (Erol et al., 2002). According to the results of another study, the participants who have eating disorders are found to be more obese than the control group (Vardar & Erzengin, 2011). The low self-esteem was admitted as an important risk factor for the eating pathology. One study shows that low self-esteem is the symptom which is frequently encountered in the eating disorders and also he explained that this symptom can be seen in both AN and BN (Erol et al., 2002). Lots of studies which were made in recent years put forward the relation between the obesity and binge eating. These studies indicate that the obese people who have the binge eating disorder have more weight because of eating more and also they have more psychopathology than the other group (Annagur et al., 2012).

Many studies have been conducted to study the relationship between obesity, self-esteem and eating disorders. Different research methods have been used. Looking at the literature in general, obesity is a factor that has a negative impact on self-esteem of

adolescents and is a predictor of the eating disorders. The self-esteem is also a predictor of the eating disorders. With this research it is aimed to investigate the different levels of self-esteem between the obese and non-obese adolescents and to find out the relationships between the eating attitude and self-esteem and the relationships between eating attitude and obesity.

1.1. Definition of Obesity

Obesity is a disease that gradually increases and causes a variety of health problems in adults, children and adolescents all over the world (Çelebi,2010).World Health Organization defines obesity as “Abnormal or excessive fat accumulation in the body in the extent of health disruption” (Taşdemir,2012).In a study which identifies obesity, defines the obesity as the excess of the amount of the fat tissue which is mainly a metabolic disease (Gülcan & Özkan,2006).

Many studies reviewed in the literature intend to find factors related to the obesity relapse. According to the definitions, obesity is not an eating disorder. However, the presence of psychological factors both in the causes and the consequences of obesity make it a subject to be studied by researchers as an eating disorder as well as a metabolic disease. There are different methods used for the determination of obesity. Body Mass Index (BMI) is one of the most common methods used for the determination of obesity (Sağlık ve Sosyal Yardım Vakfı (SSVY), 2007). BMI is calculated by dividing body weight (kg) by square of height (m²). This value is independent from age and sex. Health authorities divided the BMI values into three groups as normal, overweight and obese. The ones with BMI value under 18.5 kg/m² are classified as weak; BMI value between 18.5-24.9kg/m² as normal; BMI value between 25-29.9 kg/m² as overweight; BMI value between 30-39.9 kg / m² as obese (adipose) and the BMI value over 40 kg/m² as severely obese (Ergün & Ertan,2004).

World Health Organization emphasizes that this number will reach to 300 million in the year of 2025. The prevalence of obesity in the United States increased during the last decades of the 20th century. More than 35% of U.S. men and women were obese in 2009–2010. Almost 41 million women and more than 37 million men aged 20 and over were obese in 2009–2010. Among children and adolescents aged 2–19, more than 5 million girls and approximately 7 million boys were obese (National Center for Health Statistics (NCHS),2012).

1.2. The Relationship Between The Obesity and Adolescence Period

1.2.1. Definition of Adolescence

According to UNESCO's definition of adolescence; it is a development stage where the individual is given formal education; and they have not gained economic independence as they are trying to make a living; and their marital status are single. Many studies on adolescence period mention about the classifications of age in this period. According to UNESCO, adolescence period takes place between the ages of 15-25; where the United Nations identifies that it takes place between the ages of 12-25. In the studies done on this subject, age limits of the period are classified in different ways which shows some minor differences. According to a classification made; ages of 11-14 for girls and 13-15 for boys indicate the beginning of adolescence, ages of 15-17 for girls and 14-16 for boys indicate the middle of the adolescence, and finally ages of 17-21 for boys and 16-21 for girls indicate the end of the adolescence (Koç, 2004).

1.2.2. Physical Changes in Adolescence

Adolescence is a period where the individual gives the utmost importance to his/her physical look and how he/she is evaluated by the others. There are important physical changes during this period with the hormonal changes, rapid growth and development. While these biological changes take place in the body of the adolescents, they also have a desire for their body to be attractive and fit the ideals of the society. For these reasons, interests of the adolescents are focused on their physical appearance; they may examine themselves in the mirror for hours, and they may be more sensitive about the cleaning of their body. Defects related to physical appearance tend to be exaggerated during this period (Arslan et al.,1996). Development in both males and females follows a specific order. Hands and feet are the first growing organs. Secondly, the arms and the legs develop and at the end body develops.

During the physical development, muscle development in girls remains in second place when compared to boys. As a result of this, there is more body fat in a fully developed woman body than a fully developed man. Lipoidosis spreads in different regions in men and women. Lipoidosis in men spreads around neck, chest, abdomen and waist; where in woman body fat decreases in neck and in the front side of the body and increases in the back side of the body. Therefore, if women fall from a high altitude they will fall on their hips, while a man will fall on his head. Weight gain is closely linked to the structure of the body. Biological

signs of the adolescence are greater in females. Lubrication of the skin, pimple emergence and hair growth can be considered as the common changes in both sexes (Şentürk,2011). Males mostly have concerns about their body shape and muscle structure, where the females mostly have concerns about their weight and body hair. As a result of a study done on adolescents, Gökşan found out that %12 of the students with normal BMI, %28.6 of the overweight students and %8 of the thin students have concerns about their weight (Gökşan, 2007). According to a study, body image is associated with one's physical satisfaction. Body image is particularly important in adolescence as there are dramatic changes on the body. Body image satisfaction is one of the factors that affect the self-concept and self-esteem (Arslan et al.,1996).

1.2.3. Psychological Changes in Adolescence

Psychoanalytic view suggests that adolescence, which is seen as a transition from childhood to adulthood, is a more problematic period than the other periods of life. One study highlights that this period is really problematic after their reviews where they questioned whether adolescence is a turmoil period or not. Bio-psychosocial changes that an individual have to deal with increases in adolescence when compared to childhood. Adolescents have to adapt to changes that take place in their bodies and to deal with the sexual urges emerging in parallel to the changes.

Cognitive abilities that arise in parallel with periodical maturation push the adolescents to evaluations and abstractions both on themselves and their social circle (Emül &Güler,2008). Another study draws attention to the identity development in adolescence. Identity development for most adolescents takes place in a relatively comfortable and safe way, where it may turn into a painful, troublesome and sometimes a desperate struggle for some adolescents. When the concept of identity is examined, it can be seen that many studies briefly evaluate the identity as the answer given to the question "who am I?". When the literature is reviewed on the development of the identity, Erikson's Psychosocial Development Theory and Marcia's Identity Status Model, which is created by taking the basic concepts of Erikson's theory, steers the researches done.

According to the Erikson's Theory, primary duty of adolescence is the identity development and the nature of the identity development plays an important role in the development of psychopathology. In a study where identity status was compared with anxiety

level and self-esteem, according to the Marcia, adolescents with dispersed and suspended identities had the highest anxiety level. In terms of self-esteem, it is shown that adolescents with successful and encumbered identities had higher levels of self-esteem than the adolescents with dispersed and suspended identities (Morsünbül Ü.,2010). In a study on adolescence, it is emphasized that adolescence is an inhospitable period for the child who is developing. After a long and stable period of behaviour stage, the child suddenly goes into adolescence which is an uneven and irregular stage. It is also mentioned that the reasons of labile emotional status of adolescent may be; not meeting a basic need of theirs, not satisfying enough and trying to express themselves in a number of ways. Moreover, it is stated that when these requests and needs of the adolescent are met in a positive way they feel happy, otherwise they are worried and they show different emotional reactions (Albayrak & Kutlu, 2009).

In this context, abovementioned emotional instabilities are stated as; falling in love with the opposite sex, embarrassment and shyness, excessive daydreaming, anxiety and restlessness, desire to be alone, unwillingness to work and excitability (Koç, 2004). A study on adolescence emphasizes the importance of the body image in adolescence. Body image in this period has a significant effect on one's development of self-esteem. The distorted perceptions in adolescent's mind result in seeing themselves inadequate and therefore both their social and professional life is negatively affected (Göksan, 2007).According to many researchers, family has a significant effect on the successful completion of this important development process as well as being a significant institution for the development of an individual's personal and behaviour development with its economic, cultural and social dimensions. It is seen that adolescents successfully complete their development processes in the family environments where the autonomy is encouraged, the conflicts are discussed effectively and the family members can show their support and trust for each other. In other words, family functioning has a significant effect in preparing the adolescents for adulthood when the mutual relationships between the family members are considered (Kocayörük &Sümer, 2009).

1.2.4. Findings on the Prevalence of Obesity in Adolescents

According to the studies on obesity, nutrition and health surveys conducted in the United States (NHANES) reliable information on the prevalence of obesity is provided. NHANES III is the screening carried out between the years of 1988-1994 and the results

showed that the ratio of the children with BMI percentile over 95 in the ages 6-11 is 13.7% (14.7% in males, 12.5% in females); and in the ages 12-17 is 11.5% (12.3% in males, 10.7% in females) (Öztora, 2005). There are many studies about the prevalence of obesity in adolescence. Iran has followed this trend with about 13.3%-24.8% overweight and 7.7%-8% obese children and adolescents (Khodaverdi et al., 2011). When the prevalence of obesity in children aged between 6 and 15 is examined in a large sample, it is found out that there is a higher rate of obesity in male children. Another study on obese individuals states that obesity has emerged between the ages of 19-35 in the 58.3% of the participants. It only emerged in 15% of the participants after the age of 35 (Erkol & Khorshid, 2004).

According to this, weight gain in childhood and adolescence is responsible for the obesity to a large extent. 299 students aged between 6 and 15 who are studying in a private primary school were included in a study conducted in order to identify the prevalence and the risk factors of obesity. It is found out that the total obesity rate was 35.1%, where 8.4% was obese and 26.7% overweight (Aksakal, 2008).

1.2.5. Causes of Obesity in Adolescence

Results on factors leading to obesity was found out in a study where obese individual and non-obese children between the ages 6 and 16 were participated. It is found out that there is a significant correlation between obesity and whether or not there is an obese in the family ($p < 0.001$), their degree of relativity ($p < 0.001$), the frequency of physical activity ($p = 0.019$), how they spend their leisure time ($p < 0.001$), their favourite food ($p < 0.001$) and drinking more than 3 glasses of cola per day ($p < 0.001$) (Yılmaz, 2006). In a study on the relationship between the socio-economic level and the blood pressure, obesity and peak flow meter measurements in adolescents, it is found out that weight gain takes place with the increase in SES. The results of the studies done in different countries are also included in this study. In a study examining the children of the families with low income from Paris, it is stated that obesity ratio in the children of poor families is 1.2%, while the ratio is 0.3% for the other families (Aktürk et al., 2003). Some people may tend to eat more in order to cover up their sadness, distress and insecurities. Also, there may be cases vice versa. Psychological disorders sometimes cause overeating, where they sometimes cause under eating. Therefore, some obese children might have a history of a specific psychological trauma (Öztora, 2005).

In the studies carried out, the prevalence of obesity in children whom are breast-fed is lower than the ones whom are not breast-fed. Also, it is stated that the duration of breastfeeding; type, amount and the starting time of complementary food affect the development of obesity (Taşdemir, 2013). In a study which was conducted with adolescents, it is found that obesity may cause anger. In this study, the levels of trait anger and anger introversion of students whose BMI is defined as “weak” is lower than the other students; where the levels of trait anger and anger introversion of students whose BMI is defined as “obese” is higher than the other students (Albayrak & Kutlu, 2009). Obesity increased and health problems such as heart diseases and cancer started to emerge among young people in the United States due to their fast food style eating and drinking habit. The main reason for the rise of obesity in the last 10-20 years is explained as the changeover from the life conditions based on physical power to the life style based on lack of physical activity with the development of the industry; and consumption of large amounts of food high in calorie (Güler et. al, 2009).

1.2.6. Physical Conditions and Diseases caused by Obesity in Adolescence

Obesity is a common health problem seen in all age, racial and ethnic groups, which emerged as a major health problem for children as well as adults in 20th century (Arı & Süzek, 2008). Like in adults, obesity may lead to many health problems in adolescents. In an article defining obesity, it is emphasized that obesity causes diseases such as: Type II DM, acanthosis nigricans, rapid growth, bone age advancement, early puberty, polycystic ovary syndrome, hypertension, hyperlipidemia, atherosclerosis, cholelithiasis, hepatic steatosis, elevated liver enzymes, capital femoral epiphysis, blount disease (tibia vara), pseudotumor cerebri, pulmonary and sleeping problems (sleep apnea, respiratory problems, hypoventilation syndrome) (Tarım, 2006).

Obese children and adolescents have a higher risk of type 2 diabetes mellitus, asthma, and non-alcoholic fatty liver disease, are more likely to have cardiovascular risk factors, such as hypertension and hyperlipidemia. These children and adolescents are also more likely to experience other adverse health-related events, such as preoperative adverse respiratory events when undergoing procedures requiring anesthesia (Whitlock et al., 2008). According the results of one study which is made by the students, BMI and fitness were both independently associated with risk of hypertension (Arazi & Hoseini, 2011).

1.2.7. Mental Disorders caused by Obesity in Adolescence

Many studies reviewed in the literature contain data on obesity and eating disorders. One of these studies focused on the relationship between obesity and eating disorders. There is a strong relationship between the wrong dietary practices and body dissatisfaction and the obesity and eating disorders. This can be explained by three mechanisms. First, body dissatisfaction increases the attempts to achieve the perfect slimmness and as a result of the unsuccessful experiences the risk of eating disorders increases. According to second mechanism, body dissatisfaction leads to negative psychological problems such as depression and anxiety. As a result of these problems, binge eating and purification behaviours (such as self-induced vomiting) are triggered. According to the third mechanism, body dissatisfaction directly affects the development of eating disorders. Many studies reveal the relationship between body dissatisfaction and eating pathology (Aksakal, 2008). In another study, it is found out that there is a statistically significant relationship between the body perception of the adolescents and satisfaction from their body measurements, and BMI (Vural, 2007).

In one study, using a longitudinal design, adolescent girls were initially evaluated then retested after a three-year period for levels of body image disturbance, eating dysfunction, psychological functioning, and multiple developmental variables (maturational status, level of obesity, history of being teased about appearance). Multiple regression analyses revealed that (a) level of obesity predicted teasing, (b) teasing led to overall appearance dissatisfaction, (c) body dissatisfaction predicted restrictive eating practices, and (d) bulimic symptoms predicted global psychological functioning (Cattarin&Thompson, 2004). At the end of one study, obsessive-compulsive symptoms were the best predictors of the total score of eating attitude test, and the second was the BMI scores. So, according to the scores that were obtained from university student sample, it can be concluded that “If the BMI increases, the pathology

in eating attitude increases” or “If the pathology in eating attitude increases, the BMI increases ”(Erol et al.,2002).Child and adolescent obesity is also associated with increased risk of emotional problems. Teens with weight problems tend to have much lower self-esteem and be less popular with their peers. Depression, anxiety, and obsessive compulsive disorder can also occur (American Academy of Child and Adolescent Psychiatry (AACAP),2011). Another

study states that obesity causes psychological problems in adolescents such as: lack of self-confidence, avoiding relationships with peers, autism and constantly feeling excluded (Güler et al.,2009).

1.3. Self-Esteem in Adolescents

Self-esteem is the evaluation of the information which is found in the self -concept. It is defined as an impartial view on the aptitudes, qualifications and abilities which are existent or inexistent (Taysi,2000).Self-esteem concept was defined in many researches. In one of the studies identifying self-esteem, it is stated that identification of self has an emotional part. Also, it is mentioned that one does not necessarily need to be superior qualified in order to approve himself/ herself or respect the concept of own self, as self-esteem is developed emotionally by self-rating. In addition, self-esteem was explained in a study as one loving, accepting and respecting himself as a whole (Körükçü,2004). According to another study, the self-esteem is the positive image of oneself which is based on a proper evaluation of his abilities and powers (Gün E.,2006).On the other hand, according to a different study, all the individuals have an attitude towards themselves, like they have attitudes towards all other objects. Consisting of the sum of the positive and negative attitudes towards one's own self-esteem which consists of sum of the positive and negative attitudes towards one's own, again consists of a combination of social competence, self-worth and of body perception (Koçak,2008). In a different study, it is mentioned that self-precious feeling, capabilities, revealing information, success, to be appreciated in society, to be loved and accepting physical attributes are the leading factors in developing self-esteem (İshak,1994).Study which includes the differences by gender shows that the correlation of self-esteem scores between the males and females between the ages of 4 and 18 is approximately .60, correlation of self-esteem scores between the females aged of 18 and 23 is .65, and the correlation of self-esteem scores between the males aged of 18 and 23 is .36. Same study emphasizes that females tend to have gradually decreasing self-esteem, where males tend to have a moderate or gradually increasing self-esteem (Çevik, 2007).

Another study emphasizes that young females tend to have lower self-esteem than young males. Also, in a research done in Turkey on adolescents, it is found out that the older age group of female students have lower self-esteem than the male students which are in the same age group (Aktuğ,2006). Adolescence is a significant period of time in the development of self-esteem. Receiving social support and family support, achieving their aims/goals and

having a good economic level in this period of time are significant for adolescents as they have a positive effect on the development of self-esteem. These factors for the development of self-esteem are also emphasized in many studies reviewed so far. In the literature reviewed and the many recent studies, besides the abovementioned factors, it is pointed out that the self-esteem of adolescents is affected by their physical appearances. In a study, it is stated that the obesity and being overweight causes depression, decrease in self-esteem and deterioration in school/social functioning in young adolescents (12-14 years) (Swallen et al.,2005).

In a different study the data are from cycles 1, 2 and 3 of the Canadian National Longitudinal Survey of Children and Youth. Logistic regression analysis using weighted data examined whether body weight at baseline predicted self-esteem two and four years later. As a result boys were less likely than girls to have low self-esteem four years from baseline (OR=0.37; 95% CI: 0.25 to 0.55) (Wang et al.,2009). Findings have been detected in researches supporting this assumption: self-esteem of the patients with binge eating disorder was found to be lower when compared to healthy controls and low self-esteem indicates a greater risk for eating disorders (Erol et al.,2000). A study on this subject emphasizes that physical attractiveness has a positive effect on self-esteem of the adolescent (Körükçü,2004).

Another study emphasizes that obesity and being overweight is noted as a factor negatively affecting self-esteem for the ones who care about their physical appearance (Yenidünya,2005). On the other hand, results of a different study have shown that there are a high level, negative and significant relationship between the body image and self-esteem ($r=-0,365$, $p<.01$) of female adolescents. Findings also illustrate that an increase in female adolescents' content with their body image leads to an increase in their self-esteem. Results of the study revealed that female adolescents with positive body image have a high level of self-esteem and so female adolescents with negative body image have a low level of self-esteem. In this respect, in this study, the importance of female adolescents' realistic appreciation concerned with their body image is discussed (Oktan, 2010).

According to the results of another study about this subject, interventions containing strong self-esteem components from around the world are discussed in relation to their impact on the body image and eating behaviours of adolescents. Body image and its relationship to self-esteem was examined among Asian, Pacific Islander, and White women and men from Hawaii and Australia ($n = 172$). Although Pacific Islander and White participants had higher

body mass indices than Asians, Pacific Islanders were more satisfied than Asians with their health and more satisfied than Asians and Whites with their appearance. Thus, higher body weight and greater body satisfaction may co-occur among Pacific Islanders, whereas lower weight and lower body satisfaction may co-occur among Asians. The findings suggest different levels of risk for body image dissatisfaction, and its associated psychological consequences, across ethnic groups (Latner et al.,2011).

Studies particularly on physical appearance between the ages of 13 and 23, show that importance of physical appearance is noteworthy (Çevik, 2007). In an article highlighting the consequences of obesity in children, it is mentioned that obesity causes a decline in the level of self-esteem and school achievement (Evre,2011).It has been found in one study that BMI was positively correlated with bulimic and anorectic symptoms, and predicted anorectic and bulimic pathology. Increased body mass has been reported to predict the beginning of binge eating. As being overweight is not approved socially, increased body mass results in body dissatisfaction. Family demands towards losing weight, when combined with pressure from friends and the media, lead to modelling of various eating disorders and increase in weight control behaviour. In contradiction, it has been found in some studies that BMI did not predict body dissatisfaction (Baylan et al.,2009).Bulimia nervosa and partial bulimia nervosa patterns were similar while the pattern of anorexia nervosa group was different in the measurements of self-esteem and depressive symptoms(McDermott &Jaffa,2005).

Interviews confirmed that those showing abnormal eating behavior in the questionnaires did indeed show greater eating pathology as well as lower self-esteem. Interviews also revealed that those with high levels of eating concerns showed greater levels of global self-dissatisfaction and higher dissatisfaction with their physical appearance and family relationships. The results suggest that preventative interventions targeted at girls with low self-esteem may be appropriate (Button et al.,2007).

1.4. Eating Attitude in Adolescents

Eating behaviour is seen as a complex phenomenon established by the organisation of motor, cognitive, social and emotional developments by central and environmental factors. Eating is not only for ensuring the need for biological development and physiological requirements. It is also related to the formation of all social relations starting from the mother-child relationship. Eating is related to the wide variety of experiences giving pleasure and pain

(Değirmenci, 2006). In a research, the focus is on eating attitudes which assumes as the criteria associated with obesity and self-esteem. The Anorexia Nervosa, Bulimia Nervosa and Binge Eating Disorder are the eating disorders. The individuals who have the eating disorders show the pathological eating attitude. Eating disorders is one of the diseases which take place among the psychiatric disorders that have a high mortality rate. Eating disorders are a disease group which may lead to the emergence of a large number of physical symptoms, with a low recovery rate and with a high risk of recurrence (Siyez & Baf, 2009). Individuals with eating disorders exhibit symptoms such as overestimating the weight and shape of their bodies, consuming a very limited amount of food, vomiting after intake of food or over training (Soysal, 2006).

Obesity (overweight) is the imbalance of energy intake much more than the energy consumption where fat mass increases. Physiological definition is not referred as eating disorder. It is mostly focused on genetic and environmental factors. Emotional eating is eating despite being hungry as a reaction to the psychological conditions such as sadness, happiness, anger or loneliness. Compulsive overeating includes binge eating in a level that will lead to a further weight gain. This situation causes BN or binge eating disorder. Emotional eating and compulsive overeating may arise as an indicator of previous psychological traumas or other psychiatric disorders (Tatar, 2013). Prevalence of binge eating in America and developed Western countries for adolescent males is 7-32% and 17-32% for adolescent females and the ratio for females rise up to 61.6% in some studies. Negative evaluation of obesity, when aesthetic aspects of it are considered, leads to psychological problems especially in adolescent females. Mental problems such as eating disorders and depression are more common in obese individuals than individuals with normal weight (Yücel, 2008).

In a different study on obesity, it is emphasized that results of the researches done in previous years on the relationship between obesity and psychopathology showed that psychopathology is seen often in obese individuals and psychopathology has an important role in the development of obesity. However, different approaches were suggested later on. Pathology detected in obese patients is not the cause of obesity but the result of it. Nowadays, the generally accepted approach is that the cases who apply to the hospital for treatment are a different subgroup between obese individuals. The ratio of psychopathology and binge eating in these individuals is higher than the ones who do not apply for treatment (Değirmenci, 2006). High percentages of adolescents have body image concerns; 46% of

female adolescents and 26% of male adolescents expressed body dissatisfaction in a large population-based study. Body dissatisfaction may lead to the development of obesity due to its correlation with binge eating and lower levels of physical activity. Body dissatisfaction is also a risk factor in the development of eating disorders. In addition, dieting is often associated with body dissatisfaction and can increase the risk for binge eating and weight gain over time (American Psychological Association (APA),2008).Useful results obtained from this uncontrolled study are as follows; average weight loss is 20.6 kg, average reduction in BMI is 8.6 kg/m², improvement in eating disorder psychopathology and reduction in the frequency of binge eating (McDermott &Jaffa,2005).

Interviews confirmed that those showing abnormal eating behaviour in the questionnaires did indeed show greater eating pathology as well as lower self-esteem (Button et al., 1997). The findings of a study done with a sample of university students can be interpreted as “Eating behaviour pathology increases as BMI increases” or “Eating behaviour pathology increases, BMI increases”. According to this study, we can state that BMI is one of the best predictors of eating disorder symptoms in women (Erol et al.,2012).A relationship between BMI and eating disorders was determined in another study on eating disorders (ED).As a result of the comparison of ED and control groups by their age, weight, Beck depression-anxiety scores and EAT scores; it is seen that ED group is fatter and their BMI is higher (Vardar & Erzenin,2011).In a study on obese women, psychopathology associated with emotional mood, eating attitudes, anger level and eating were evaluated. It is shown that the depression levels and psychopathologies associated with eating in obese women with binge eating were more than the obese women without binge eating (Annagür et al.,2012). Low body weight at the beginning of AN, vomiting, presence of bulimia, laxative use, becoming chronic, low self-esteem and adaptive capacity, obsessive-compulsive personality traits, poor response to the initial treatment, conflictual family relationships, the presence of developmental disorders before the disease are reported as bad prognostic factors in many studies (Keçeli,2006). Early suggestions from the 1980s for a self-esteem approach in the prevention of eating problems have been adopted by researchers, and the results of several interventions show support for the efficacy, safety, and suitability of a predominantly self-esteem and self-acceptance approach. Several recent studies utilizing strong self-esteem components as part of their controlled prevention interventions have produced improvements in body dissatisfaction, dietary restraint, internalization of the thin ideal, and attitudes associated with the eating disorders (O’dea, 2004).

1.5. The Importance of the Study

The results of this study can give information about the relationships between obesity and self-esteem in adolescents and also can give the information on pathology in eating attitudes of adolescence, the relationship between the eating attitude and obesity and the relationship between the eating attitude and self-esteem. Also this research can show the variables which affect the self-esteem, obesity and eating attitude in adolescents. With the results of this research ways to prevent obesity in adolescents can be figured out as well as how the self-esteem can be increased. There may arise alternative ways created to prevent the eating attitude pathology in adolescents as a result.

1.5.1. Aim of the Study

This research tried to investigate the different levels of self-esteem and eating attitude between the obese and non-obese adolescents and also find out the relationships between the eating attitude and self-esteem. Also this research aimed to determine the variables that affect the score of the self-esteem and eating attitude.

1.5.2. Limitations of the Study

The data of the research restricted only with the students in Güzelyurt Turkish Maarif College and the information of the students will be given. And the scores of the self-esteem of the students are limited only with the RSES and the score of eating attitude of the students are limited only with the EAT Scale.

2. METHODOLOGY OF THE STUDY

2.1. The Universe and Sample of the Study

The sample of this research formed by the all students of Güzelyurt Turkish Maarif College which is determined by the non-probability sample method. The Güzelyurt Turkish Maarif College takes place in Güzelyurt which is the one of the counties county of T.R.N.C. The total numbers of students were 280. The sample was consisted of 169 girls and 111 boys, aged from 12 to 19 years.

2.2. The Instruments of the Study

2.2.1. Personal Information Form

This is a sociodemographic information form that also includes variables related to obesity. These variables are gender, presence of the obese individuals in family, education of the mother and father, work of the mother and father and the socioeconomic level of family.

2.2.2. Rosenberg Self Esteem Scale (RSES)

RSES is a scale that includes ten items. Items are rated on a 4-point scale, with total scores ranging from 10 (highest self-esteem) to 40 (lowest self-esteem). In other populations of adults with severe mental illness, internal consistencies of .82 and .87, as assessed by coefficient alpha, were reported for the instrument. In populations of college students, reports have indicated a one-week test-retest correlation of .82 and a two-week test-retest correlation of .85. In a population of adults with severe mental illness, a two-week test-retest correlation of .85 has been reported (Torrey et. al, 2000). The study of the validity and reliability of scale was made by the Çuhadaroğlu. The self-esteem scale has a validity coefficient of .71 and consistency coefficient of .75. In this study only self-esteem subscale was used (Balat & Akman, 2004).

2.2.3. The Eating Attitudes Test (EAT)

EAT was developed in 1979 to be used as a screening tool for anorexia nervosa. It is an objective, self-report questionnaire that consists of 40 questions that are answered using a 6-point likert scale ranging from “never” to “always.” Only the three most extreme scores are assigned a point value from 1 to 3, resulting in total scores that can range from 0 to 120. Any subject who has a total score of 30 or above on the EAT is considered to be “at risk” for eating disorder behavior and symptomatology. The EAT has a validity coefficient of .87 and an internal consistency coefficient of .79 for anorexic patients and .94 for control subjects (Kaneko, 2007). The study of the validity and reliability of scale was made by Savaşır ve Erol. Cronbach alpha consistency coefficient of .70 found by them (Siyez & Baf, 2009).

2.3. Application

The Ethical Permission for this study was obtained by receiving approval from The Ministry of National Education. This study was conducted during the 19-23 March 2012 in Turkish Maarif College. The Consent Form which included aim of the study and the information about this study was given to the all students before gathering data. Then measurement of height was made by the tape measure and also the measurement of weight was made by the portable scale for calculation of the BMI (weight(kg)/ height²(m²)). After

these measurements, the data were collected by the researcher using Personal Information Form, RSES and EAT.

2.4. Data Analyses

Body Mass Index (BMI) was calculated using the formula: $(\text{BMI} = \frac{\text{weight}(\text{kg})}{\text{height}^2(\text{m}^2)})$ and was categorized as thin, standard weight and obese. The data were analysed by using the SPSS 17.0 for Windows. Independent Sample t-test was used for determination of the differences between the variables such as gender and presence of obese people in family according to the mean scores of EAT scale and RSES. One Way Anova was used for comparison of more than two variables such as BMI and work of the mother of the students according to the EAT and RSES. Also the Tukey statistical technique was used when differences were significant between groups which were determined according to the BMI. Comparison was made for the categorical variables such as gender, BMI, presence of obese people in students' family, income of family, education of parents and work of the parents by χ^2 -tests. Finally, Pearson Correlation was used for determination of the relationships among each other variable, the relationship between the BMI and the RSES and also the relationship between the mean scores of the RSES and the mean scores of the EAT scale.

2. RESULTS

Table 1. The comparison of BMI between the female and male students

Body Mass Index	Female		Male		X p
	n	(%)	n	(%)	
Thin	45	(26.6)	14	(12.6)	18.56 0.000**
Standard Weight	102	(60.4)	64	(57.7)	
Overweight	19	(11.2)	22	(19.8)	
Obese	3	(1.8)	11	(9.9)	

* $p \leq 0.05$, ** $p < 0.000$

The total number of the students who were included in this study is 280. 169 of them are female and 111 of them are male. The number of girls is more than the number of the boys. According to BMI, 59 of the students were thin (21.1%), 166 of the students were normal (59.3%), 41 of the students were over-weight (14.6%) and 14 (5%) of the students were obese. When BMI distribution of male and female students is compared with chi-square analysis, significant difference was found ($p=0.000$). There are more over weight and obese students among males.

Table 2. The comparison of BMI according to the number of siblings of the participants

Body Mass Index	3 brothers or sisters		4 brothers or sisters		5 brothers or sisters		6 and more brothers or sisters		X p
	n	(%)	n	(%)	n	(%)	n	(%)	
Thin	2	(20)	0	(0)	2	(66.7)	1	(1.5)	

Standard Weight	6 (60)	3 (75)	1 (33.3)	1 (0.6)	22.83 0.353
Overweight	2 (20)	1 (25)	0 (0)	0 (0)	
Obese	0 (0)	0 (0)	0 (0)	0 (0)	

*p≤0.05, **p<0.000

When BMI distribution of the students were compared according to number of siblings with chi-square analysis, no statistically significant difference was found (p=0.353).

Table 3. The comparison of BMI according to the income of family

	Thin	Standard Weight	Over weight	Obese	X p
Income	n (%)	n (%)	n (%)	n (%)	32.83 0.001**
Less than 1000	1 (100)	0 (0)	0 (0)	0 (0)	
1000-1200	2 (40)	3 (60)	0 (0)	0 (0)	
1200-1900	8 (53.3)	7 (46.7)	0 (0)	0 (0)	
2000	7 (77.8)	2 (22.2)	0 (0)	0 (0)	
More than 2000	26 (16.9)	89 (57.8)	31 (20.1)	8 (5.2)	

*p≤0.05, **p<0.000

When BMI distribution of the students were compared according to income level of the students with chi-square analysis, significant difference was found ($p=0.001$). Overweight and obese students were from families with income more than 2000 TL.

	Thin n (%)	Standard Weight n (%)	Overweight n (%)	Obese n (%)	X (p)
Obese people in family	6 (14.3)	20 (47.6)	10 (23.8)	6 (14.3)	13.74 0.003**
No obese people in family	60 (23.7)	149 (58.9)	36 (14.2)	8 (3.2)	

Table 4. The comparison of BMI according to the presence of obese people in family

* $p \leq 0.05$, ** $p < 0.000$

When BMI distribution was compared according to the presence obese people in family with chi-square analysis, significant difference was found ($p=0.003$). There were more overweight and obese students in families with an obese member.

Table 5. The correlation of BMI with age

	Body Mass Index	
	p	r
Age	0.005*	0.162

*p≤0
.05,
**p<
0.00

0

When correlation of BMI with age was investigated with Pearson correlation analysis, having higher age (r=0.162) was found to be related with higher BMI.

Gender	n	RSES (M+SD)	p
Female	167	0.99 +0.56	0.042*
Male	109	1.16 + 0.71	

Table 6. The comparison of the RSES mean scores of the RSES

according to the gender

* $p \leq 0.05$, ** $p < 0.000$

When RSES mean score of male and female students were compared with independent samples t-test analysis, male students were found to have significantly lower self-esteem than female students ($p=0.042$).

Table 7. The comparison of mean scores of RSES according to the presence of the obese people in family

	n	RSES (M+SD)	p
The presence of obese people in family	41	1.05 + 0.62	0.796
No presence of obese people in family	248	1.08 + 0.7	

* $p \leq 0.05$, ** $p < 0.000$

When we compared the mean scores of RSES according to presence of obese person in the family with Student's t-test analysis, no significant difference was found ($p=0.796$).

Table 8. The comparison of the EAT mean scores and RSES mean scores according to the BMI

	Thin	Standard Weight	Overweight	Obese	p
EAT SCALE (M+SD)	16.56+8.23 (n=37)	23.9+14.71 (n=98)	19.53+9.4 (n=26)	26+12.7 (n=5)	0.019*
RSES (M+SD)	1.09+ 0.84 (n=66)	1.07 + 0.64 (n=172)	1.07 + 0.9 (n=43)	1.1 +0.77 (n=14)	0.994

*p≤0.05, **p<0.000

When EAT Scale mean scores of thin, standard, weight, overweight and obese students were compared with One-Way Anova analysis, significant difference was found (p=0.019). The Tukey statistical technique was used when differences were significant between students according to BMI. At the end of this analysis, it was determined that the mean score of the thin students according to the EAT Scale had lower than the mean score of the standard weight students and the obese students (p=0.003, p=0.001). So we can say that obese students had pathological eating attitude. In addition, when RSES mean scores of thin, standard, weight, overweight and obese students were compared with One-Way Anova, no significant difference was found (p=0.994).

Table 9. The comparison of the EAT means scores according to the work of mother of the students

Work of mother	n	EAT SCALE (M+SD)	p
Unemployed	75	21.24+11.79	
Official	32	24.28+11.56	

Retired	2	34 + 39.59	0.148
Others	53	19.39+11.77	

	RSES	
	P	r
BMI	0.932	0.005

* $p \leq 0.05$, ** $p < 0.000$

When we compared the mean scores of EAT Scale according to work of mother with One - Way Anova analysis, no significant difference was found ($p=0.148$).

Table 10.The Relationship between the BMI and the mean scores of the RSES

* $p \leq 0.05$, ** $p < 0.000$

When correlation of BMI with RSES mean score was investigated with Pearson correlation analysis, it was not found to be related with RSES ($r=0.005$, $p=0.932$).

Table 11. The Relationship between the mean score of EAT Scale and the mean score of the RSES

	EAT SCALE	
	p	r
RSES	0.000**	0.303

* $p \leq 0.05$, ** $p < 0.000$

When correlation of EAT Scale mean score with RSES was investigated with Pearson correlation analysis, it was found that having high score from RSES related with high score from EAT Scale ($r=0.303$, $p=0.000$).

DISCUSSION

In this study we aimed to find out the relationships between the obesity, eating attitude and the self-esteem in the adolescent group. This subject was found out to have acquired a considerable amount of interest in the literature since all these concepts have significance on the life of people.

In a different study, obesity was defined as the disease that does not affect only the person but also affects the people around the person as well as affecting the society especially by causing physiological, organic, systemic, hormonal, metabolic, aesthetic, psychological and the social problems. Overall, the obesity was found to increase the risk of emergence of the psychiatric disorders (Değirmenci, 2006).

In some studies the low self-esteem was shown to be the effective variable on the eating attitude. One study showed that the self-esteem of the obese people were closely related with the BMI and with the increasing of the BMI there was an apparent decline in self-esteem (Yücel, 2008). In addition, low self-esteem was found to be a risk factor for the BN.

Also in a different study, increase in self-esteem has been documented in women who have recovered from BN. It has been demonstrated that perfectionist women, who feel themselves as obese, would have bulimic symptoms only if they had low self-esteem (Baylan et al., 2009). For instance, Williams et al. (1993) indicate that according to the healthy controls, the self-esteem is lower in groups who have the eating disorders. Moreover, Button and his friends (1996) stated that low self-esteem established a big risk for the eating disorders (Deveci, et al., 2005).

Negative affect model accepts that depressive individuals have binge eating in order to achieve relaxation and to get rid of negative feelings. On the other hand, compensatory behaviors like vomiting are also used for decreasing the anxiety induced by weight gain (Baylan et al., 2009). Multiple regression analyses revealed that (a) level of obesity predicted teasing, (b) teasing led to overall appearance dissatisfaction, (c) body dissatisfaction predicted restrictive eating practices, and (d) bulimic symptoms predicted global psychological function (Cattarin & Thompson, 2004). It has been stated that the major psychopathology in BN was the extreme importance that the patients attribute to their appearance and weight (Baylan et al., 2009).

In our study, the majority of the thin students were girls (%26.6 of the thin students) and the majority of the obese students were boys (% 9.9 of the obese students). Another study has also found a statistical significance and positive relationship between the BMI and the gender. ($p < 0,05$, $r: 0,290$) This may be the result of the fact that the BMI of the boys were higher than the girls (Tekgül et al., 2012).

In another study with a similar population to this one that was carried out in 2005, in the primary schools from the centre of the Muğla, the %7.6 of the girls and the %9.1 of the boys were overweight and obese (Arı & Süzek, 2008). The findings of this study support our findings. According to the results of a study in line with ours, %41 of the girls were thin, %55 of the girls have the standard weight, %2,8 of the girls were overweight and the % 0,9 of the girls were obese (Göksan, 2007).

Here, no statistically significant differences between the female and male students according to the mean scores of EAT was found in contrast to another study where the mean scores of the girls were higher than the boys. ($t=5.95$, $p < .001$) (Siyez & Baf , 2009). This may

be a result of the fact that the eating attitudes can change according to the places the people live. Because every district has different eating culture. For example, the foods that contain more carbohydrate are mostly consumed in the eastern part of Turkey.

In this study, the obese students had high scores from the other students according to the mean scores of EAT. There are different studies in literature which support this study. In one study the control group was formed from the individuals who have not any disease and also the BMI of this group was between the 18-24,9. EAT scale scores were statistically significantly higher in the obese group than in the control group ($p < 0.05$) (Siyez&Baf,2009). There were no statistically significant differences between the working status of mother of the students according to the mean scores of the EAT. In one study, conclusion that related with this variable supports our results.67.6% of the obese students' mothers and 64.9% of the control group's mothers were unemployed and retired. And 32.4% of the obese students' mothers and 35.1% of the control group's mothers were official, trades and employees (Baylan,et al.,2009).The work of mother may not be an effective variable in eating attitude of the students. It may be thought that working mothers may be more open to present their children some ready food which may be a cause of obesity. But this does not seem to be so effective.

In literature, there is still a controversy on the causative relation of eating disorders and the BMI. In one study, increased body mass has been reported to predict the beginning of binge eating. As being overweight is not approved socially, increased body mass results in body dissatisfaction. Family demands towards losing weight, when combined with pressure from friends and the media, lead to modeling of various eating disorders and increase in weight control behavior. In contradiction, it has been found in some studies that BMI did not predict body dissatisfaction (Baylan et al.,2009.)

The frequency of the obesity is high in the children of families living in the developing countries (Uskun et al.,2005).In our study, there were statistically differences between the body mass indexes of students according to the income of family. It can be concluded that 20.1% of the students and 5.2% of the students with a family income of 2000tl were overweight and obese. Findings show that high socioeconomic level causes increase in weight and obesity.

According to another study in line with the literature, families with high SES were found to be more in obese group (Uskun et al.,2005). On the other hand in the another study, the SES in the white race show the opposite proportion with the obesity. The study related with the students who come from families that have low SES found the obesity were %1.2 in poor family and even if the obesity proportion in the other families was %0.3. (Aktürk et al.,2003). In a different study, it was found that the proportion of the obesity in the individuals who have Low SES was % 82,0. But the individuals who have high SES were not obese (Yücel, 2008). So, according to the different studies, high SES can be effective or not in occurrence of obesity. But according to the result of our study high SES has shown to be effective. The reason of this situation may be that students who have high SES are pleased with eating outside, tend to buy fast food more and consume snacks that open the way for weight gain. In one study results showed that there is significant and positive correlation between the body mass index and presence of Obese People in Family. (P=0.024) (Metinoğlu et al., 2012).

Also according to some of researches in the literature show that there is high risk for the individuals who have obese people in their family (Uskun et al., 2005). In our study 23.7% of the students who said that there aren't obese people in their family were thin than the students who said that there are obese people in their family. In addition, 23.8% of the students who said that there are obese people in their family were more overweight and 14.3% % of the students who said that there are obese people in their family were more obese (p=0.003). So these findings show that the presence obese people in family cause more weight and obesity in students. This may be a result of the fact that the eating habit in the family has already changed with the presence of someone who is obese. It is hard to keep the other family members away from eating in a wrong manner.

The same studies in literature found an improvement in the frequency of the obesity in the students; the ones who have an obese parents was % 80,the students who have one of the parents as obese was %40 and the students who have parents that are not obese were %7 (Yücel,2008).Also the findings of a study show that there is statistically significant, positive correlation between the number of the obese people in the family and the BMI of the children(r=0.197 p<0.001)(Tekgül,2012).

But according to the one study presence obese people in family is not effective factor in the formation of the obesity.86.1% of the students who said that there are not obese people in their family were obese and 87.2% of the students who said that there are not obese people in their family had the normal weight.(Uskun et al.,2005)So we can say that results of our study show the students who have obese people in their family know about the difficulties of the obesity and they are afraid of becoming obese and because of this they try to control their weight. Here, there appeared a significant, negative correlation between the body mass index and the age ($r=0.162, p=0.005$).As physiologically the fat tissue increases at some periods and in these periods obesity is seen frequently. The researchers found out that these periods are first 5 years of life, at the 5-6 years and the adolescence period. (Güler et al.,2009)

The results about self-esteem of students were important in our study. According to the comparison of the RSES mean scores with gender, the results show that there are statistically differences between the female and male students ($p=0.042$). So we can say that the male students have low self -esteem than the female students. On the other hand in a study with college student subjects ($n=342$) completed RSES, we see that there isn't significant correlation between the gender according to the self-esteem subscale of RSES($F(1/340):0.065; p=0.798$) (Erol et al.,2000). In addition, some results of studies support results of our study. The data are from cycles 1, 2 and 3 of the Canadian National Longitudinal Survey of Children and Youth. Logistic regression analysis using weighted data examined whether body weight at baseline predicted self-esteem two and four years later. As a result, boys were less likely than girls to have low self-esteem four years from baseline ($OR=0.37; 95\% CI: 0.25$ to 0.55) (Wang et al., 2009).

Results about the correlation between the BMI and the mean scores of the RSES show that there isn't significant correlation between the BMI and the mean scores of the RSES. But in some studies, the correlation between the BMI and the mean scores of the RSES was evaluated and found out the significant correlation between the BMI and the mean scores of the RSES. According to the cross-sectional results of this study, body weight and self-esteem are inversely related among children and the excess body weight precedes the development of low self-esteem (Wang et al., 2009).

In one study, findings show that there is significant correlation between self-esteem subscale of RSES and the EAT scale mean score. ($r=0.131$)(Erol et al.,2002). On the other

hand, significant correlation has been found between the between self-esteem subscale of RSES and the EAT scale mean score ($r=0.286$) (Baylan et al.,2009).This findings support our study. According to our findings there is significant, positive correlation between the self-esteem subscale of RSES and the EAT scale mean score ($r=0.303$, $p:0.000$).As a result, in our study we have found that the girls were thinner and the boys were more obese. In a different research, it was found that boys' body image satisfaction levels are higher than girls' body image satisfaction levels (Kalafat, 2006). So, these findings can be connected to the extreme concern of the girls about their body image. Additionally, other effective variables on the BMI were presence obese people in family and the high socioeconomic level. The mother's education level and the mother's work showed significant positive correlation with the BMI.

The foremost findings of this study was the determination of a relationship between the self-esteem subscale of the RSES and the EAT Scale. In the current study, it was also observed that the obese students get higher scores from the EAT. This finding shows that obese students have the pathologic eating attitudes. Also, at the end of statistical analyses of the self-esteem subscale of the RSES, the male students' self-esteem has been found to be lower than the female students'.

In last periods, after the short time from the treatment of the obesity the relapse occurs. This situation attracts the attention of lots of researchers. This situation is the evidence that the treatment programs may not be enough. To date, obesity has been shown as the metabolic disease, but the presence of the psychological problems and disorders in its emergence and recurrence lead to the fact that psychological treatment approaches have to be found and included in the treatment programs of the obesity in order to understand and follow the psychopathology of the obese people. In this way, with the determination of the psychological problems of the people that may cause obesity, the people can able to be cope better, the relapse can be prevented and above all the risk of the of serious psychological problems and disorders may be removed.

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APPENDIX 1: Personal Information Form

Okul Adı:

Sınıf:

Olcumun Yapıldığı Tarih:

İlçe Adı:

Boy: cm Kilo:..... kg

1- Cinsiyetiniz: K E

2- Doğum Tarihiniz:/...../.....

3- Kac kardesiniz var?:

4- Evinizde kac kisi yasiyor?:

5- Ailenizin ortalama aylık geliri ne kadar?:

6- Annenizin eğitim düzeyini belirtiniz:

Okur-yazar değil Okur-yazar ilkokul Ortaokul Lise Yüksek okul Diğer.....

7- Anneniz herhangi bir işte çalışıyor mu?:

İşsiz Memur Emekli Diğer.....

8- Babanızın eğitim düzeyini belirtiniz:

Okur-yazar değil Okur-yazar ilkokul Ortaokul Lise Yüksek okul Diğer.....

9- Babanız herhangi bir işte çalışıyor mu?:

İssiz Memur Emekli Diğer.....

10- Ailenizde aşırı kilolu (obez) kimse var mı? Varsa yakınlık derecesini belirtiniz.

Evet Hayır.....

APPENDIX 2: RSES

Lütfen her soruyu dikkatli bir şekilde okuyup, kendinize en uygun seçeneği (X) ile işaretleyiniz.

Lütfen tüm soruları cevaplayınız.

1. Kendimi en az diğer insanlar kadar değerli buluyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
2. Bazı olumlu özelliklerim olduğunu düşünüyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
3. Genelde kendimi başarısız bir kişiolumsuz bir kişilik olarak görme eğilimindeyim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
4. Ben de diğer insanların bir çoğunun yapabildiği kadar bir şeyler yapabilirim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
5. Kendimle gurur duyacak fazla bir şey bulamıyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
6. Kendime karşı olumlu bir tutum içindeyim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
7. Genel olarak kendimden memnunum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
8. Kendime karşı daha fazla saygı duyabilmeyi isterdim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
9. Bazen kesinlikle kendimin işe yaramadığını düşünüyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
10. Bazen kendimin hiç de yeterli bir insan olmadığımı düşünüyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış

9. Yediğim yiyeceğin kalorisini bilirim.

10.Ekmek, patates, pirinç gibi yüksek kalorili yiyeceklerden kaçınırım.

11.Yemeklerden sonra şişkinlik hissederim.

12.Ailem fazla yememi bekler.

13.Yemek yedikten sonra kusarım.

14.Yemek yedikten sonra aşırı suçluluk duyarım.

15.Tek düşüncem daha zayıf olmaktır.

16.Aldığım kalorileri yakmak için yorulana dek egzersiz yaparım.

17.Günde birkaç kere tartılırım.

18.Vücudumu saran dar elbiselerden hoşlanırım.

19.Et yemekten hoşlanırım.

20.Sabahları erken uyanırım.

21.Günlerce aynı yemeği yerim.

22.Egzersiz yaptığımda harcadığım kalorileri hesaplarım.

23.Adetlerim düzenlidir.

24.Başkaları çok zayıf olduğumu düşünür.

25.Şımanlama (vücudumun yağ toplayacağı) düşüncesi zihnimi meşgul eder.

26.Yemeklerimi yemek başkalarınıninkinden daha uzun sürer.

27.Lokantada yemek yemeyi severim.

28.Müşhil kullanırım.

29.Şekerli yiyeceklerden kaçınırım.

30.Diyet (perhiz) yemekleri yerim.

31.Yaşamımı yiyeceğin kontrol ettiğini düşünürüm.

32.Yiyecek konusunda kendimi denetleyebilirim.

33.Yemek konusunda başkalarının bana baskı yaptığını hissederim.

34.Yiyeceklerle ilgili düşünceler çok zamanımı alır.

35.Kabızlıktan yakınıyorum.

36.Tatlı yedikten sonra rahatsız olurum.

37.Perhiz yaparım.

38.Midemin boş olmasından hoşlanırım.

39.Şekerli, yağlı yiyecekleri denemekten hoşlanırım.

40.Yemeklerden sonra içimden kusmak gelir.

