

BODY SATISFACTION AND DEPRESSION SYMPTOMS RELATIONSHIP
AMONG UNIVERSITY STUDENTS: THE MEDIATING ROLE OF SELF
ESTEEM

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ABSTRACT

BODY SATISFACTION AND DEPRESSION SYMPTOMS RELATIONSHIP AMONG UNIVERSITY STUDENTS: THE MEDIATING ROLE OF SELF ESTEEM

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This thesis aimed at revealing the mediator role of self esteem between body satisfaction and depression symptoms relationship in a Turkish University sample. The participants were 232 young adults from different departments of Middle East Technical University. Hierarchical Regression Analyses were conducted to examine the mediator role of self esteem between body satisfaction and depression symptoms relationship. During these analyses gender, age, height, weight of the subjects and education level of the subjects' parents were entered in the first step via stepwise method, and in the second step social support and attachment styles were entered by

using stepwise method, in order to control for the potential variance accounted for by these variables. Results of the regression analyses revealed that after controlling for the above mentioned variables, body satisfaction and self esteem were significantly associated with depression symptoms, however after controlling for the effect of self esteem, body satisfaction and depression symptoms relationship disappeared. Moreover, body satisfaction was found to be significantly associated with self esteem, which further supported the mediation hypothesis. Hence, self esteem was found to mediate the body satisfaction and depression symptoms relationship. Results were discussed by referring to the relevant literature.

Keywords: Body Image, Depression Symptoms, Self Esteem, Attachment Styles, Social Support.

ÖZ

BEDEN İMGESİ VE DEPRESYON SEMPTOMLARI İLİŞKİSİ: ÖZGÜVENİN, BU İLİŞKİDE OYNADIĞI ARACI ROL

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Bu tez, Türk Üniversite öğrencileri örnekleminde, beden imgesi ve depresyon semptomları ilişkisini ve özgüvenin bu ilişkide oynadığı aracı rolü araştırmayı amaçlamaktadır. Katılımcılar, Orta Doğu Teknik Üniversitesi'nin çeşitli bölümlerinde öğrenim görmekte olan 232 öğrencidir. Hiyerarşik Regresyon Analizleri kullanılarak özgüvenin, beden imgesi ve depresyon semptomları ilişkisindeki aracı rolü test edilmiştir. Bu analizler sırasında, katılımcıların cinsiyeti, yaşı, boyu, kilosu, ve ebeveynlerinin eğitim durumu ilk basamakta, sosyal destek ve bağlanma biçimleri ise ikinci basamakta aşamalı yöntemle regresyon analizine girmiştir. Böylece bu faktörlerin açıkladıkları varyans kontrol edilmiştir. Analiz sonuçlarına göre beden imgesi ve özgüven ile depresyon semptomları arasında anlamlı bir ilişki bulunmuştur, fakat özgüvenin etkileri kontrol edildikten sonra

beden imgesi ile depresyon semptomları arasındaki ilişki anlamlılığını yitirmiştir. Ayrıca beden imgesi, özgüven ile anlamlı olarak ilişkili bulunmuştur. Bu sonuçlar, özgüvenin, beden imgesi ve depresyon semptomları arasındaki ilişkide oynadığı aracı rolü destekler niteliktedir. Araştırmanın sonuçları literatür bilgisi ışığında tartışılmıştır.

Anahtar Kelimeler: Beden İmgesi, Depresyon Semptomları, Özgüven, Bağlanma Biçimleri, Sosyal Destek.

To my family...

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Date:

Signature:

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CHAPTER 1

INTRODUCTION

1.1.The Body Image

The body is one of the most important human features, through which people present themselves to the external world. Thoughts, feelings, behaviors and all other situations that human beings experience are expressed through the body. In other words; people receive and give information through their bodies. The body is the public display board of a person's inner world, through which s/he can present his/her special individual characteristics that s/he wants others to recognize (Fox, 1997, p.vii). Fox (1997, p.122) claims that "The availability of the body for the display of valued characteristics makes it particularly central in many people's lives."

The meaning of the term "body" changes from culture to culture and from time to time. For instance, some personal features such as physical appearance, manner, bodily behaviour, flavour, style of hair cut or dressing etc. which are seemingly governed by individual preferences are actually highly affected by cultural norms (Fox, 1997, p. 88).

A person's mental representation of his body is called the body image. It is mainly composed of two components, a perceptual component and an attitudinal component. How the person perceives his/her body size and bodily experiences

makes the base of the perceptual aspect, and the attitudinal aspect consists of the person's feelings about his/her perceptions, satisfaction or dissatisfaction about the appearance and functions of the body (Pesa, Syre & Jones, 2000; Slade, 1994; Sondhaus, Kurtz & Strube, 2001).

While it seems like a simple perceptual event, in reality it consists of complicated judgemental evaluations of the perceptions; which are highly affected by a number of cultural, social, historical, personal and biological factors.

1.2. The Development of Body Image

Body image is a multidimensional and complex phenomenon which is formed by the effect of various psychological and biological factors as well as social and cultural factors. Figure 1 demonstrates the variables that take part in the development of the body image.

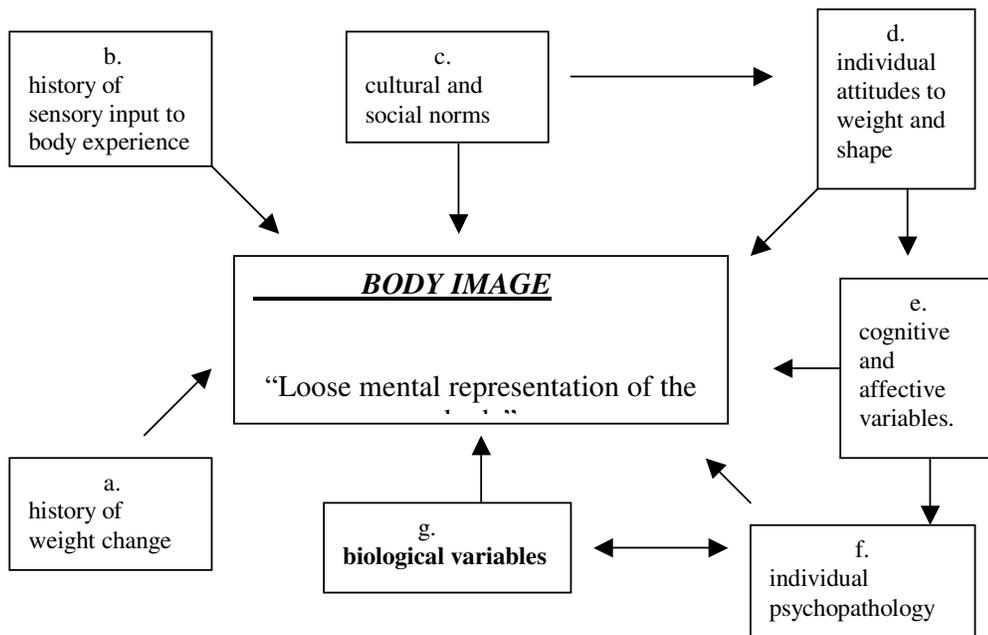


Figure 1. The model of the factors that effects the development of the body image (Slade, 1994).

1.2.1. Psychological and Biological Factors:

The individual's received sensory input about the form, size, shape and appearance of his/her body throughout his life span is seemingly one of the most important factors that affects the formation of the body image. This sensory input history is not stable over time, but changes. Anorectics and obese people, who seem to have the most variable body image, are the ones who experience the greatest "weight fluctuations" over a life span. This change in their weight lead them to have a negative body image (Slade, 1994).

The mood is also an important factor that affects the individual's body image. Taylor and Cooper (1992) conducted a study to see the effect of mood on body size perception. They induced either negative or positive mood to the subjects who had no eating disorders. Results indicated that negative mood induced subjects showed greater disturbances in their body size perceptions, overestimated their body size and became more dissatisfied with their bodies than positive mood induced subjects. Therefore, this study can be a good illustrator to see the influence of people's psychological condition on their perception of their body images.

Conversely, the body image is said to be affecting the mood. In the study conducted by Polce-Lynch, Myers, Kilmartin, Forssmann-Falck and Kliewer (1998), it was found out that children's and adolescent's current body image determined their mood. The subjects reported that there was a significant relationship between how they feel about their physical appearance and their level of mood by the following words: "When I look good, I feel good" and "When I look bad, I feel bad".

1.2.2. Social and Cultural Factors:

Body image is also highly affected by cultural norms which impose upon us the valued standards of the human body for both men and women. From this point of view, it is not difficult to claim that the level of body satisfaction that people experience is strongly related with the extent to which their existing body image matches the cultural standards (Fox, 1997, p.165; Usmiani & Daniluk, 1997). In different cultures there are different beauty standards which are still obeyed by the society even when they seem to be highly illogical or painful. For example, the women of the Karenni people in upper Burma slip metal rings on their necks which makes their neck so elongated that, removing the ring causes them to die. Another example is the women of China, who wore very tight shoes to show their feet smaller but this caused physical disability and handicaps. More examples of socially imposed body improvement phenomena of this kind could be added to the examples above and it is possible to see such examples in western societies as well. The number of women getting breast augmentation surgery is increasing everyday despite the well known detrimental effects this kind of surgery may have on women's health. The latter example does not seem to be much different than the Burmanian women who stretch their necks with rings. Consequently, the impact of cultural standards on appearance seem to be very important and people's effort to meet these standards can be seen all over the world.

These standards are also imposed and endorsed by the printed and visual media which is an important tool to make social comparison, which in its turn significantly influences the body image. Social comparison is the individual's cognitive evaluation of his own physical qualities when comparing himself with

other people. In media, excessively thin and tall female models and muscular male models act as physical role models and ideals for men and women respectively (Jones, 2001). Research shows that appearance related social comparison is frequently made with models and famous characters presented in the media (Botta, 1999; Taylor, Sharpe, Shisslak, Bryson, Estes, Gray, McKnight, Crago, Kraemer, & Killen 1998) which tempts people to evaluate themselves more negatively (Jones, 2001). Among teenagers, appearance related social comparison with peers is as common as with models. Jones (2001) conducted a study in which she found out that adolescent girls and boys who frequently compared themselves with their peers and models, were more dissatisfied with their body image. In her study, Jones (2001) also obtained results implying that for both adolescent boys and girls there were consensus based and rigid attractiveness standards. The research mentioned above shows that, in addition to models and celebrities, same-sex peers at school are also necessary sources of information about the valued physical characteristics and are equally important when making an evaluation of discrepancy between the self and the idealized figures.

Another study that indicated the negative effects of media on women's body image, was conducted by Heinberg and Thompson (1995). They showed a 10 min. videotape of advertisements either composed of appearance related or nonappearance related images to the female participants. Results indicated that women who watched appearance related advertisements reported less body satisfaction than women who watched nonappearance related advertisements. The same result was indicated by Durkin and Paxton (2002) in a similar study done with adolescent girls. In addition to the decreased body image satisfaction, their findings also suggested that looking at

the idealized female images caused an increment in depression and anxiety scores of the adolescent girls.

Some researchers suggest that women who already have poor body images are usually more adversely affected by idealized female media images and become more dissatisfied with their bodies (Heinberg & Thompson, 1995; Posovac, Posovac & Posovac, 1998). In congruity with this, Durkin and Paxton (2002) revealed that the stable body dissatisfaction of the adolescent female subjects predicts their body satisfaction best, after they are exposed to idealized female images. Confronting with the idealized images could make those who had poorer body image more aware and feel unsuccessful about meeting idealized standards of attractiveness whereas for those with positive stable body images, exposure to the idealized images could lead them to feel resemblance with the idealized females and feel reassured about their physical attractiveness. As a result, for girls with positive stable body image, exposure to media images of idealized females caused an increment in their body satisfaction.

Idealized body image figures are different for men and women so that men's and women's direction of body dissatisfaction is different. Furnham and Calnan (1998) claimed that 80% of both men and women were generally dissatisfied with their bodies and chose different ideal figures.

On a recent study done by Furnham, Badmin, and Sneade (2002), it was found that 37% of the adolescent boys wanted to be heavier as compared to only 8% of the girls. Furthermore 43% of the adolescent boys wanted to be thinner as compared to 75% of the girls. Brodie, Slade and Riley (1991) and Baranowski, Jorga, Djorjevic, Marinkovic and Hetherington (2003) also found similar results indicating

that men wish to be heavier, whereas women wish to be thinner. Abell and Richards (1996) also indicated that, although the direction of dissatisfaction is different between the genders, the general level of displeasure with one's physical appearance is similar for both genders. However, males have greater dissatisfaction with their weight.

The reason for the males' wish to gain weight is presumably related to the masculine ideal to look muscular and physically strong but not indeed to look heavier (Abell & Richards, 1996) whereas the females' wish to lose weight might be associated with the desire to achieve the extremely thin female ideal. Accordingly, both genders seem to be affected by the social pressure to achieve idealized figures and seem to have misperceptions about their weight (perceiving themselves as heavier or lighter than they really are) in comparison with others of their own gender (Brodie et.al, 1991; Furnham et.al, 2002).

While both adolescent boys and girls appear to be influenced by cultural norms of physical attractiveness; girls reported more negative and positive influences of body image on their self esteem than did boys (Polce-Lynch et.al, 1998).

Cultural norms and standards concerning beauty and people's attitudes about their physical appearance are changeable even in the same society by time. Sondhaus and her friends (2001) conducted a study to find out the impact of changes in American society on body satisfaction of college aged men and women in 30 year time. Their findings suggested that women in 1996 were more dissatisfied with their bodies than women in 1966 were whereas the same consequence was not true for men; between 1966 and 1996 men's attitudes about their bodies seemed to indicate no significant change. Sondhaus and her colleagues (2001) explanation of the

stability of men's attitudes towards their body and the significant change in women's attitudes agrees with Harter's findings (1990, 1993). Harter (1990, 1993) suggested that the emphasis on importance of physical appearance exists for men as well as for women, however; the standards of physical attractiveness are multifarious for men whereas it is not so variant for women. Moreover, men are valued by a different set of standards - such as wealth, career, intelligence, athletic ability or affluence - and have broader range of opportunities, by which they can possess a positive attitude toward themselves and reach acceptance in society. Women, on the other hand, are still in need of physical attractiveness as a main tool to sustain self esteem and gain status in society (cited in Sondhaus et.al., 2001).

Ethnic difference is also an important factor contributing to the body satisfaction of the individual. Henriques and Calhoun (1999) conducted a study to see the impact of ethnic differences and gender on body satisfaction. They found white women as having the lowest body satisfaction and black men as having the highest body satisfaction. Men and blacks reported higher levels of body esteem. In addition to this it was found out that differences in body esteem correlated with self esteem more for white women than for black women, black men and white men. As a result of this finding Henriques and his colleagues (1999) suggested that white women are more prone to modify their physical appearance to promote their self esteem. This effort might be the answer to the question why white women are more affected by eating disorders than black women (Abrams, Allen & Gray, 1993; Molloy & Herzberger, 1998; Rucker & Cash, 1992). Consistent with this, Perez and Joiner (2003) obtained results indicating that body dissatisfaction was a significant predictor of bulimic symptoms for both black and white women who perceive

themselves overweight. However, black women tended to report being underweight and white women tended to report being overweight when asked to compare themselves with their ideals. White women are also found to have more bulimic symptoms than black women. Regarding males, Russell (2002) found out that despite the equity of their body mass index means, African-American men were less anxious about their physical appearance than Caucasian men.

One of the reasons why black women are more protected than white women against eating disorders and having poor body image might be the black women's belief about the expectations black men have on the ideal female body. African-American women believe that men of their race desire larger women which makes them comfortable about their appearance and make them feel more attractive. Whereas white women believe that white men prefer very thin women and find that kind of women attractive so white women become more anxious about their weight and physical appearance. This difference in perception can also be seen as a difference in self esteem and body satisfaction scores of black and white women. Black women report higher self and body esteem scores than white women (Molloy et.al., 1998).

Gender attitudes are also seen as a significant factor contributing to body satisfaction. Research shows that in terms of sex stereotypes, feminine or undifferentiated sex role oriented women were less satisfied with their physical appearances than masculine or androgynous women (Braitman & Ramanaiah, 1999; Cash, Ancis, & Strachan, 1997; Forbes, Adams-Curtis, Rade, & Jaberg, 2001; Kimlicka, Cross, & Tarnai, 1983). The reason why women with traditional attitudes about gender roles were more dissatisfied with their bodies might be due to their

internalization of the society's norms concerning beauty, and having dysfunctional assumptions about the importance of their physical outlooks (Cash et.al, 1997).

1.3. Body Image and Eating Disorders

Dissatisfaction with the body weight and shape is the central feature of eating disorders - anorexia and bulimia nervosa - (Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM- IV; American Psychiatric Association (APA), 1994)).

Diagnostic criteria of bulimia and anorexia nervosa is as follows (APA, 1994):

Bulimia Nervosa

A- Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

a- eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances

b- a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating)

B- Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.

C- The binge eating and inappropriate compensatory behaviors both occur, on average, at least twice a week for 3 months.

D- Self-evaluation is unduly influenced by body shape and weight.

E- The disturbance does not occur exclusively during episodes of Anorexia Nervosa.

Anorexia Nervosa

Early signs may include withdrawal from family and friends, increased sensitivity to criticism, sudden increased interest in physical activity, anxiety or depressive symptoms.

A- Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected).

B- Intense fear of gaining weight or becoming fat, even though underweight.

C- Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

D- In postmenarcheal females, amenorrhea, i.e., the absence of at least three consecutive menstrual cycles. (A woman is considered to have amenorrhea if her periods occur only following hormone, e.g., estrogen, administration.)

As can be understood from the diagnostic criteria above, eating disorders are associated with depression, anxiety and body dissatisfaction.

Eating disorders are thought to be caused by factors like genetic predisposition, family environment, interpersonal relationships, personality traits, sociocultural pressures (e.g. the influence of peers, the influence of media's ideals, such as extreme thinness), and low self esteem.

Brookings and Wilson (1994) claimed that hostility, self consciousness, anxiety, depression, impulsiveness and vulnerability were associated with eating disorders

In addition to the mentioned findings, Vohs, Bardone, Joiner, Abramson and Heatherton (1999), found out that perfectionism combined with body dissatisfaction and low self esteem predicted bulimic symptoms in women. Moreover, it was also found out that drive for thinness, bulimia and negative affect were significantly associated with body dissatisfaction (Wiederman & Pryor, 2000).

In a longitudinal study conducted by Cooley and Toray (2001), first year female college students were followed for three years and possible risk factors for developing eating disorders were investigated. "Self esteem, self consciousness, emotional distress and vigor" were found to be partially playing a role in the development of eating disorders, however body dissatisfaction was the most

consistent predictor of eating problems. Additionally, it was found out that eating and dieting problems seemed to be stable over the three year period.

Ghaderi (2003) assessed the prospective risk factors in the development of eating disorders. The results revealed “low self esteem, high body concern, low perceived social support from the family, and more relative use of escape avoidance coping” as the risk factors for eating disorder development.

McCabe and Vincent (2003) investigated the possible effects of “biodevelopmental (body mass index (BMI), age and puberty) and psychological factors (self-esteem, depression, anxiety, ineffectiveness, perfectionism)” in the progress of eating pathology. Results revealed that biodevelopmental factors were not effective in the development of eating disorders among boys and girls whereas among the psychological factors, self esteem, anxiety and depression significantly predicted eating disorder symptoms for adolescent girls, and self esteem, ineffectiveness, perfectionism and anxiety significantly predicted eating disorder symptoms for adolescent boys. Moreover, girls and boys did not differ in terms of binge eating and bulimic symptoms, however, girls were found to be engaging in more extreme weight loss behaviours than boys did.

McCabe, McFarlane, Polivy and Olmsted (2001) conducted a study to find out the accuracy of self reported weight of the eating disorder patients. They found out that eventhough both of the eating disorder groups accurately reported their weight, bulimic patients slightly underestimated, and anorexia patients slightly overestimated their weight. Consistent with these findings, the results of Fernandez-Aranda, Dahme and Meermann’s (1999) research showed that even though dissatisfaction with the body image was characteristic of the eating disorder patients,

their perception of their body size or of another object was not distorted. The subjects with eating disorders perceived their body weight and size as it was but their feelings about what they saw were negative.

In another study conducted by Mangweth, Walch, Hotter, Rupp, Biebl, Hudson and Pope (2004), conflicting results were gathered regarding the body size perception of eating disorder patients. They examined whether body size perception was distorted in eating disordered men. Results revealed that although their ideal body image was realistic, their perception of themselves were almost twice of their actual body weight.

Body dissatisfaction could be observable in the prepubertal children, as young as six years old (Flannery-Schroeder & Chrisler, 1996). Moreover, during these young ages it was possible to see the significant relationship between body dissatisfaction and eating disorder symptoms. Other than low body satisfaction, also height and weight of the children, depression, and children's perceptions of their family's ideas about their body size were significant predictors of eating disorder symptoms (Gardner, Stark, Friedman, & Jackson, 2000).

When family functioning, peer and media influences on bulimic behaviors of the females were examined, not the family functioning but both the perceived peer pressures to adopt an idealized thin female body and media pressures interacted with body dissatisfaction, predicted the heightened levels of bulimic behaviors (Young, McFatter & Clopton, 2001).

In the longitudinal study, Masheb and Grilo (2003) investigated the relations between self esteem, body dissatisfaction, self evaluation and depression of patients with binge eating disorder. Results indicated that change in depressive symptoms and

self esteem, was significantly associated with change in body dissatisfaction and weight concern, however change in self evaluation was significantly associated with change in self esteem only and change in self esteem was correlated with change in shape concern but not weight concern. Thus researchers suggested that for binge eating disorder patients, self evaluation was unduly influenced and based on body shape but not the weight.

1.4. Body Image And Self Esteem

Self esteem is the evaluative aspect of the self concept in which, people's evaluations and attitudes about the self is considered. Shavelson, Hubner and Stanton (1976) defined self concept as a person's self perceptions of his experiences with his environment. Kernis (2003) viewed self esteem as the central component of the individual's daily life because of its effect on the person's relations with his environment. Self esteem is widely thought as a multidimensional concept in which personal judgement and global evaluations about one's own worth is considered (Fleming & Watts, 1980; Fleming & Courtney, 1984; Marsh, 1993; Shavelson et.al., 1976). These dimensions included academic, emotional, physical and social components (Shavelson et.al., 1976).

Robins, Trzesniewski, Tracy, Gosling and Potter (2002) conducted a study to find out changes in self esteem levels for different age groups. Results revealed that self esteem were high in childhood, decreased during adolescence, increased in adulthood and diminished evidently in old age. Self esteem is considered a critical indicator of psychological functioning, and body image seems to be a specifically important source of self esteem.

Polce-Lynch and her colleagues (1998) asked adolescents to name things that made them “feel good” about themselves, the responses can be gathered under 4 major life areas:

- 1- Relational experiences with family, friends and other persons in one’s life
- 2- Self generated behaviors such as grades, sports and talents
- 3-Body image issues such as looks, weight, and clothes
- 4- Personality or trait characteristics such as likeable, smart, kind etc.

Among these areas relational experiences and self generated behaviors were reported as the most influential themes in enhancing adolescent boys’ and girls’ self esteem. Body image was also reported as a source of self esteem by both girls’ and boys’ of as young as 5th grade.

Research shows that for both genders, body satisfaction is significantly related to self esteem (Abell et al., 1996; Sondhaus et al., 2001; Tomori & Rus-Mokovec, 2000). Harter and Jackson (1993) revealed that, satisfaction with the body image was the most important predictor of self worth, particularly during the adolescent years, and during the entire life. Kenealy, Gleeson, Frude and Shaw (1991), reported a positive relationship between body satisfaction and self esteem for 11 and 12 year old girls and boys, but could not propose a causal relationship, between self esteem and body image. McCaulay, Mintz and Glenn (1988), obtained results implying that for both genders, dissatisfaction with the physical appearance was associated with low self esteem.

Wade and Cooper (1999) had conducted a study to determine if the associations between body, self perceived attractiveness and self esteem for women and men indicated any changes. Results revealed that only women’s self perceived attractiveness was linked to their bodies but men’s self esteem and attractiveness

were not found to be related to their bodies. Women's self perceived attractiveness was predicted by feelings about appearance and beliefs about health, and self esteem was predicted by feelings about health; hence women's self esteem is strongly related to the body image. In another study done by Abell and Richards (1996), the relationship between body image satisfaction and self esteem was found to be positive and significant regardless of gender. They also found out a stronger correlation between body image and self esteem scores for females from higher SES than for those from lower SES.

Low self esteem was found to be a reliable predictor of a higher risk of developing eating disorders in adolescent girls (Cervera, Lahortiga, Martinez-Gonzales, Gual, De Irala-Estevez and Alonso, 2003; Gual, Perez-Gaspar, Martinez-Gonzales, Lahortiga, De Irala-Estevez and Cervera, 2002). Joiner, Schmidt and Wonderlich (1997) found out that bulimic subjects' global self esteem was more contingent on their body satisfaction than non-psychiatric subjects. However the correlation between body dissatisfaction and self esteem was highest among non-bulimic depressed subjects, which may lead us to draw the conclusion that correlation between body contingent self esteem could be an indicator of bulimia nervosa but this does not mean that it is specific to bulimia nervosa. Parallel to this in another study it was found out that higher self esteem was correlated with less depression and more satisfaction with overall body image for both males and females (Davis& Katzman, 1997).

1.5. Body Image, Depression And Anxiety

Depression is characterised by low mood, low energy level, lack of motivation, pessimism, hopelessness, negative thoughts and feelings about oneself, disturbances in sleeping and eating patterns, significant weight fluctuations, irritability, poor concentration and recurrent thinking about death. Reasons underlying the onset of depression is multifarious. Some of those may be summarized as “disturbances in neurotransmitter functioning, a family history of depression or alcoholism, early parental loss or neglect, recent negative life events, a critical or hostile spouse, lack of close confiding relationship, lack of adequate social support, and lack of self esteem.” (Fennell, 1989, p. 169). In recent research body image dissatisfaction has been investigated as a possible reason underlying depression (Stice & Bearman, 2001; Stice, Cameron, Hayward, Killen, and ,Taylor, 2000).

Body image, and satisfaction/dissatisfaction with this image, is particularly important in many people’s lives. Research shows that dissatisfaction with the body image is associated with a variety of psychological problems including depression, anxiety, low self esteem and eating disorders.

McCabe, Ricciardelli and Banfield (2001) conducted a study to investigate the effects of body image, puberty and techniques to change muscles and weight on positive and negative emotions of adolescent girls and boys. Results revealed that, body image satisfaction was a significant predictor of depression and anxiety levels of both adolescent girls and boys, moreover positive affect was also significantly predicted by body image satisfaction.

Body weight perception, which is an important aspect of the body image also interferes with the psychological wellbeing. In the study done by Xie and his friends (2003), it was found out that body image dissatisfaction which was displayed by the misperception of the weight, was significantly associated with depression, anxiety and perceived peer isolation. In the same study they also found out that while females misperceived themselves as overweight, males' misperception was on being underweight.

Stice and Bearman (2001), investigated the effects of body image and eating disturbances in the increase of depression symptoms observed in the adolescent girls. The results revealed that "pressure to be thin, thin-ideal internalization, body dissatisfaction, dieting, and bulimic symptoms" significantly predicted the elevation of depressive symptoms in adolescent girls. Furthermore, the initial body dissatisfaction significantly predicted the increases in dieting behavior, bulimic symptoms and depressive symptoms.

To investigate the relation between body dissatisfaction and depression free from eating disorders, Keel, Mitchell, Davis and Crow (2001) conducted a longitudinal study and analyzed body dissatisfaction, depression and bulimic symptom scores of the bulimic subjects for 10 years. Results revealed that both depression and bulimic symptoms predicted body dissatisfaction, however in the follow up analyses eventhough baseline depression and baseline body dissatisfaction significantly predicted the prospective body dissatisfaction, baseline bulimic symptoms did not. Hence they concluded that there was a significant relationship between body dissatisfaction and depression, independent of eating disorders for

bulimic patients. Moreover depression was a better predictor of body dissatisfaction than the bulimic symptom severity in the long term.

Furthermore, dissatisfaction with the body weight was associated not only with higher depression symptoms but also with more frequent suicidal ideation (Tomori & Rus-Makovec, 2000).

1.6. Attachment Theory

Attachment theory implies that early interaction patterns with the caregiver, leads the child to form general mental representations about the self and the others, that will become permanent and lasting over life time. Caregiver's responsiveness and availability in the relationship is a critical determinant in making up the child's beliefs and expectations about the caregiver as trustworthy and dependable or untrustworthy, and about the self as worthy of love or unworthy (Bowlby, 1973; Bylsma, Cozzarelli & Sumer, 1997). These beliefs and expectations internalized by the person, about the self and the other, - called working models by Bowlby (1973) - become a future model for the relationships in adulthood. Working models are thought to designate emotions, cognitions and behaviors in interpersonal relations (Bowlby, 1973), and are also used to predict and interpret others' behaviors and respond in a somewhat automatic way to new conditions (Collins, 1996).

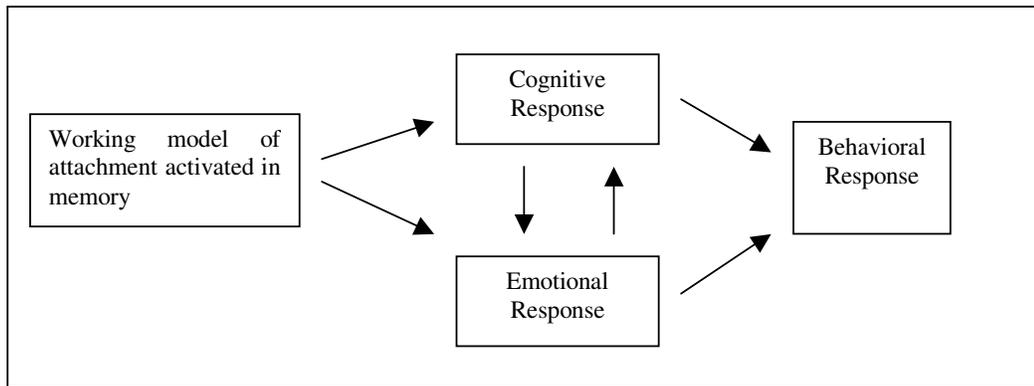


Figure2. *Hypothetical model of relationship between working models of attachment to cognitive, emotional, and behavioral response patterns (Collins, 1996).*

Based on the theory of Bowlby (1973), Bartholomew and Horowitz (1991) proposed a 4-group model of attachment styles in adulthood. Bowlby (1973) claimed that the internal working model were two faceted. One was the individuals' *model of the self* (whether the person perceives himself/herself as worthy of love, support and affection or not); and the other was the individuals' *model of the others* (whether, others are perceived as supportive, responsive and available or not). As can be seen, the two models have both positive and negative views in themselves. By crossing up these, four prototypes of adult attachment styles can be conceptualized; these are Secure, Preoccupied, Dismissing and Fearful Attachment Styles.

- 1) **Secure** attachment style is characterised by positive self and positive others image; in which the self is perceived as worthy and others are perceived as supporting, accepting, available and responsive.

- 2) **Preoccupied** attachment style is characterised by negative self and positive others image; in which the self is perceived as unworthy and dependent on acceptance of others to achieve positive self regard.
- 3) **Dismissing** attachment style is characterised by positive self and negative others image; in which the self is perceived as worthy, however others are perceived as rejecting, unsupportive and untrustworthy. They avoid getting involved in close relationships to protect themselves against disappointment and deny the importance of intimate relationships. They give value to independence.
- 4) **Fearful** attachment style is characterised by negative self and negative others image; in which the self is perceived as unworthy and the others are perceived as unavailable, rejecting and untrustworthy. So they also avoid intimate relationships to protect themselves from rejection by others. They are also dependent on others for the validation of their self worth.

MODEL OF SELF (Dependence)

		Positive	Negative
MODEL OF OTHER (Avoidance)	Positive	<p>SECURE</p> <p>Comfortable with intimacy and autonomy</p>	<p>PREOCCUPIED</p> <p>Preoccupied with Relationships</p>
	Negative	<p>DISMISSING</p> <p>Dismissing of intimacy, counter dependent</p>	<p>FEARFUL</p> <p>Fearful of intimacy socially avoidant</p>

Figure3. Model of adult attachment (Bartholomew & Horowitz, 1991)

Self concept measures and sociability measures can be used to distinguish between attachment styles. Regarding the model of the self, self concept measures can be used, whereas with respect to the model of the other, sociability measures can be used to differentiate between attachment styles.

The individuals who were securely or dismissingly attached were found to have higher self esteem scores than those who were preoccupiedly or fearfully attached. Moreover sociability scores of secure and preoccupiedly attached individuals were higher than dismissingly and fearfully attached individuals. As can be seen, the self concept measure differentiated between secure/dismissing style from preoccupied/fearful style (positive self image from negative self image) and the sociability measure differentiated between secure/preoccupied style from dismissing/fearful style (positive other image from negative other image) (Bartholomew & Horowitz, 1991).

As the attachment styles and personal characteristics and interpersonal relationship styles are closely related to each other, it can be argued that different attachment styles lead to differences in personal and interpersonal problem areas. Concerning this; in a study done by Van Buren and Cooley (2002) it was found out that subjects who were fearfully and preoccupiedly attached (negative self view) had more depressive symptoms, were more prone to depression and had more social anxiety during interpersonal relationships than securely and dismissingly attached counterparts (positive self view). Moreover, Meyers (1998) claimed that securely attached individuals had higher personal competence and lower psychological distress scores than insecurely attached individuals. In addition to this Sharpe, Killen, Bryson, Shisslak, Estes, Gray, Crago and Taylor (1998) claimed that subjects with an insecure attachment style (avoidant and anxious/ambivalent) were more prone to eating disorders and had lower self esteem scores than securely attached subjects.

Concerning interpersonal relationships Stackert and Bursik (2003) stated that insecurely attached subjects had more dysfunctional beliefs about the relationship and lower relationship satisfaction scores than securely attached subjects; and in another study, when asked to the friends of securely attached individuals, they had reported having significantly higher relationship satisfaction than the friends of insecurely attached individuals (Bippus & Rollin, 2003). Furthermore, it was found out that, conflict resolution styles were significantly different between secure and insecure subjects; while secure subjects used integrating and compromising styles, insecure ones used nonmutual conflict resolution strategies. This result seems to be in line with the finding that secure individuals had better perspective taking abilities than insecure individuals (Corcoran & Mallinckrodt, 2000).

Perceiving support from the people around and searching for support of significant others when needed also shows significant differences between attachment styles. In a study done by Florian and Mikulincer (1995), it was found out that individuals with secure attachment style perceived greater social support from significant others than insecure individuals did. Also, secure individuals are found to be more willing to require support. This reason might be associated with the experiences that secure and insecure individuals had during their childhood. While secure individuals are assured of their value and trust on their parents, insecure ones were uncertain about their parents and the love, affection and concern that their parents give to them. So when secure ones were courageous enough to search and ask for the support, insecure ones did not attempt to ask it for, maybe because of the fear to be rejected. So attachment styles seemed to be very effective in the perception of experiences as well as the reactions individuals gave.

1.7. Social Support

Social support has well known effects on people's physical health and psychological wellbeing, and it protects them from the negative impacts of stressful life events. The individuals who reported higher levels of perceived social support were less depressed, less lonely, had greater life satisfaction and were physically healthier than those who reported lower levels of perceived social support (Kahn, Hessling & Russell, 2003).

Lynch and his colleagues (1999) investigated the correlates of perceived social support among depressed elderly, middle-aged and young individuals. Results implicated that perceived social support was associated with "pessimistic thinking, being divorced, having strange ideas, the degree of social interaction and

instrumental support” for the elderly; “dysthymia, divorce, pessimistic thought, social interaction and instrumental support” for the middle-aged; and only with instrumental support for the young adults. So being depressed and having those mentioned characteristics, reduced perceived social support of the patients, which in turn caused a worse recovery process and more severe level of depression. Social support was found to be a significant contributing factor to the social adjustment of the hospitalized depression patients (Dorz, Borgherini, Cognolato, Conforti, Fiorellini, Scarso & Magni, 2002).

Social support is also related with the risk of developing eating disorders. In a recent study done by Ghaderi (2003), he found out that lower perceived support from the family increased the risk of developing eating disorders in later life.

1.8. The Aim of the Present Study

Depression is one of the most often seen psychological illnesses and is called “the common cold of psychiatry” by several researchers. Moreover, the number of people affected by the depression is increasing every year. So it is important to reveal the factors that are effective in the development of depressive symptomatology. There are a number of reasons underlying the onset of depression which has been summarized in the literature review. In the present study, one of those reasons, which was not sufficiently emphasized in the development of depression in past research - The Body Image- will be investigated.

The body image is a significant factor which contributes to a wide range of psychological problems (e.g. eating disorders, low self esteem, depression, anxiety) that individuals experience. Accordingly, the agents that contribute to the formation

of body image, were investigated throughout the literature review. Moreover, the effects of body satisfaction on the aforementioned psychological problems were examined.

In this investigation, possible confounding factors that may contribute to the changes in the dependent variable, namely social support and attachment styles, were controlled.

The general aim of the present study is to investigate the association between Body Satisfaction and Depression symptoms. Furthermore, the mediator role of Self Esteem in the relationship between Body Satisfaction and Depression symptoms will be studied, and this assumption will constitute the main hypothesis. The following is a summary of the basic hypotheses and describes the relationship between the three:

- 1) Body Satisfaction will be significantly associated with depression symptoms.
- 2) Self esteem will be significantly associated with depression symptoms.
- 3) Body satisfaction will be significantly associated with self esteem.
- 4) The association between body satisfaction and depression symptoms will deteriorate or disappear after controlling for the effect of self esteem.

CHAPTER 2

METHOD

2.1. Participants

Subjects were undergraduate university students who were selected from different departments and courses of Middle East Technical University. The sample was consisted of 232 young adults, 111 females and 121 males. Participants' ages ranged between 17 and 31. Mean age was 20.70 (SD =1.96). Demographic characteristics of the sample can be seen in Table 1.

Table 1. The Socio-Demographic Charateristics of the Sample

	Range	Mean	SD
Age of Subjects	17-31	20.70	1.96
		N	%
Gender of the subjects	Female	111	47.8
	Male	121	52.2
Departments of the subjects	Faculty of Arts and Sciences	61	26
	Faculty of Engineering	63	27
	Faculty of Architecture	28	12
	Faculty of Education	80	35

Table 1. (continued)

Education level of mother	Literate	10	4.3
	Primary school	78	33.6
	Secondary school	15	6.5
	High school	57	24.6
	University	67	28.9
	Post Graduate	4	1.7
Education level of father	Literate	1	.4
	Primary school	43	18.5
	Secondary school	14	6
	High school	60	25.9
	University	105	45.3
	Post Graduate	8	3.4
Income of the family	Low	18	7.8
	Middle	189	81.5
	High	24	10.3
	Very High	1	.4
Number of siblings	Single	20	8.6
	Two	116	50
	Three or above	95	35
Place the subject lived during university education	With his/her family	54	23.3
	In a housewithfriends	38	16.4
	Dormitory	129	55.6
	With relatives	4	1.7
	Home alone	2	.9
	Other	4	1.7
Place the subject lived in the majority of his/her life	Village	4	1.7
	Town	25	10.8
	City	106	45.7
	Metropolis	97	41.8

2.2.Instruments**2.2.1.Demographic Information**

Participants completed a group of questionnaires. Initially they answered the demographic information questions, which included their age, gender, department, mothers' and fathers' educational levels, family's income level, number of siblings, the place where s/he accomodates during university education and the place where s/he spends most of his/her life (See Appendix A).

Subsequent to the completion of the demographic information questions on the cover page, the participants responded to the questionnaires that were randomly ordered. Questionnaires were Rosenberg Self Esteem Scale (See Appendix B), Appearance Esteem Scale (See Appendix B), Beck Depression Inventory (See Appendix C), Multidimensional Scale of Perceived Social Support (MSPSS) (See Appendix D) and Relationships Questionnaire (See Appendix E).

2.2.2. Rosenberg Self Esteem Scale

Participants completed the Rosenberg Self- Esteem Scale (1965). The Rosenberg consists of 10 attitudinal statements about self to which participants respond on a 4 point Likert type scale; ranging from 1: completely agree, to 4: completely disagree. Five of the self esteem scale items are worded negatively and five of them are worded positively; when scoring negatively worded items are reversed which allows us to calculate all items in similar direction of scoring. The 10 item scale ranges from 10 to 40, where the higher scores obtained from the scale indicate lower self esteem.

Rosenberg Self Esteem scale is a frequently used test (Cramer, 2003; De Man, Gutierrez & Sterk, 2001; Dooley & Prause, 1995; Flett & Blankstein 1994; Wade, 2000) which had well established reliability and validity coefficients.

Various researchers found reliability coefficients of the Rosenberg scale between .83 (Utsey, Ponterotto, Reynolds, & Cancelli, 2000) and .91 (Brems & Lloyd, 1995).

The Turkish translation and reliability studies of the scale was conducted by Çuhadaroğlu (1986). The test-retest reliability of the Turkish version of the scale was found to be .75 by Çuhadaroğlu (1986), .82 by Kartal (1996) and the Cronbach alpha

reliability of the scale was found .76 by Tuğrul (1994), .85 by both Kartal (1996) and Sümer and Güngör (1999).

As for the validity, the correlation between Symptom Check List Revised (SCL-90-R) was computed. The correlations of Rosenberg Self Esteem Scale with the three subscales of SCL-90-R were .45, .66 and .70. (for threat perception during interpersonal relationships, depression and psychotic symptoms subscales respectively (Çuhadaroglu, 1986).

2.2.3. Appearance Esteem Scale

Appearance Esteem Scale consists of 10 attitudinal statements about self which are specific to one's opinions of his/her physical appearance and the responses are given on a 4- point Likert type scale on which; 1 implies completely agree and 4 implies completely disagree. The negatively worded items are reversed to calculate all items in the same direction. The 10 item scale ranges from 10 to 40, where the lower scores obtained from the scale indicate higher body satisfaction.

The Appearance Esteem Scale was developed by Kartal (1996), from the six items of Appearance Self- Esteem Scale (Pliner, Chaiken, & Flett, 1990) and five items of the Self Rating Scale (Fleming & Courtney, 1984). The modeled Appearance Esteem Scale's translation into Turkish, reliability and validity studies were all done by Kartal (1996) and she found the Turkish version of the scale as reliable and valid. The test-retest reliability of the scale was .77, and the Cronbach Alpha reliability coefficient was .86. As the criterion validity, the correlation between Semantic Differential Self Esteem Scale and Appearance Esteem Scale was .44.

2.2.4. Beck Depression Inventory

Beck Depression Inventory was originally developed by Beck, Ward, Mendelson, Mock and Erbaugh (1961) which was updated in 1978 (Beck, Rush, Shaw & Emery, 1979), consists of 21 items to measure the somatic, emotional, motivational and cognitive symptoms of depression. Every item has 4 options, and the subject chooses the one which fits best with his/her feelings during the past week including the day of testing. Higher scores indicate having more depression symptoms.

The Beck Depression Inventory is a highly reliable and valid instrument. The test-retest reliability of the scale was found to be ranging between .48 and .86 (Groth- Marnat, 1990), the correlation of BDI with Hamilton Psychiatric Rating Scale for Depression was .73 and with Minnesota Multiphasic Personality Inventory (MMPI)-Depression scale was .76 (Groth- Marnat, 1990), and the split half reliability of the scale was found to be .86 by Beck, Steer and Garbin(1988).

The Turkish adaptation of the 1978 version scale was done by Hisli (1988). The split half reliability of the scale was found to be .74 (Hisli, 1989) and .78 (Tegin, 1980). The test-retest reliability was found to be .80 (Tegin, 1980). For the criterion validity , MMPI-D Scale was used and the correlation of MMPI-D with the Beck Depression Inventory was found to be .63 for the psychiatric population (Hisli, 1988) and .50 for the normal population (Hisli, 1989).

2.2.5. Multidimensional Scale of Perceived Social Support (MSPSS)

MSPSS was improved by Zimet, Dahlen, Zimet and Farley (1988) to measure the perceived social support from family, friends and significant person. The scale consists of 12 items to which participants will respond on a 7-point Likert type scale;

1: completely true, 7: completely false. Each of the source of perceived social support- family, friends and significant person- is measured by 4 items. The significant person is measured by the items 1, 2, 5 and 10; the family is measured by 3, 4, 8, and 11; and the friends with 6, 7, 9, and 12. The test- retest reliabilities of the scale ranged from .72 to .85 and the internal consistency reliabilities for the subscales and scale ranged from .85 and .91 (Zimet, Dahlem, Zimet & Farley, 1988).

The translation of the scale into Turkish and standardization was done by Eker and Arkar (1995). The reliability and validity coefficients of the scale appears sufficient to use it as a reliable and valid measure to assess perceived social support in Turkish society. The sample was composed of University students and a student patient group which composed of the students applied to the school hospital for psychological problems, the kidney patients, psychiatry patients and visitors to the hospital. The Cronbach alpha reliability ranged from .77 to .92 across the groups. For the concurrent validity of the MSPSS and its subscales, the correlations with the Beck Depression Inventory and State Trait Anxiety Inventory was examined. As expected, all the correlations of the MSPSS total with BDI and STAI was in the negative direction and almost all of the correlations were significant.

2.2.6. Relationships Questionnaire (RQ)

The RQ is a self report instrument which is developed by Bartholomew and Horowitz (1991) to assess adult attachment styles within four-category framework. It is an adaptation of the attachment scale which was created by Hazan and Shaver (1987). The RQ consists of four short paragraphs and each of them describes one of the four attachment prototypes (i.e., secure, fearful, preoccupied, and dismissing).

Response are given on a 7 point Likert type scale indicating how much they are suiting to the paragraphs and choses one of the paragraphs that describes them best.

Sümer and Güngör (1999) translated the questionnaire into Turkish. Test-retest reliabilty of the scale was obtained for each subgroup, for the *secure* group it was .58, for the *fearful* group .60, for the *preoccupied* group .72 and for the *dismissing* group it was .64. For the validity coefficient, the correlation between the same attachment styles measured by Relationships Scales Questionnaire and Relationships Questtionnaire was employed. The correlations ranged between .49 and .61 between the same attachment groups.

2.3. Procedure

The instruments were administered within the lecture time. Participation was voluntary. It took about half an hour to fill out the questionnaires. Except for the first page of the questionnaire which was demographic information form, other inventories were randomly ordered to prevent the errors due to the ordering of the instruments.

2.4. Data Analysis

Prior to the main analysis, seperate analyses of variance and t-tests were performed to examine the possible gender and attachment style differences of the participants on the measures of self esteem, body satisfaction, social support and depression symptoms.

Following the correlational analyses, for the main analysis, hierarchical regression were performed. All analyses were conducted by using the Statistical Package for Social Sciences.

CHAPTER 3

RESULTS

3.1. Descriptive Analysis

Means, standard deviations and ranges of the measures that were used in the study and number and percentage of the subjects in each attachment group were presented in Table 2.

Table 2. Means, Standard Deviations and Ranges of the Variables

	N		Percent	
GENDER	230			
Female	111		47.8	
Male	121		52.2	
SECURE ATTACH.	111 (60 female) (51 male)		47.8	
FEARFUL ATTACH.	45 (28 female) (17 male)		19.4	
DISMISSING ATT.	32 (9 female) (23 male)		19.0	
PREOCCUPIED ATT.	44 (14 female) (30 male)		19.0	
	Mean	Std.dev	Min.	Max.
DEPRESSION	9.90	7.98	0	50
SELF ESTEEM	17.80	5.27	10	35
BODY SATISFAC.	19.65	5.05	10	35
SOCIAL SUPPORT	64.74	13.16	12	84

Prior to the main analysis, separate t-tests and Analyses of Variance were performed to reveal the possible gender and attachment style (i.e., secure, fearful, preoccupied, dismissing) differences among the subjects on the self esteem, body satisfaction, social support and depression symptoms measures. Following these analyses, correlational associations between the variables of the study were investigated.

For the main analysis, hierarchical regression analyses was performed to examine the possible mediation of self esteem between body satisfaction and depression symptoms relationship.

3.2. Gender Differences on Measures of the Study

In order to reveal the gender differences on self esteem, body satisfaction, depression, attachment styles and social support measures, separate analyses were conducted.

3.2.1. Gender Differences for Self Esteem Scores

In order to examine gender differences on self esteem scores as measured by Rosenberg Self Esteem Scale, independent samples t-test was performed. Results of this analysis yielded no significant differences between females and males in terms of their self esteem levels, $t(228) = -.71$, n.s.

3.2.2. Gender Differences for Body Satisfaction Scores

In order to examine gender differences on appearance esteem scores as measured by Appearance Esteem Scale, independent samples t-test was performed. Results of this analysis yielded no significant differences between females and males in terms of their appearance esteem levels, $t(226) = .76$, n.s.

3.2.3. Gender Differences for Depression Symptoms

In order to examine gender differences on depression symptoms as measured by Beck Depression Inventory, independent samples t-test was performed. Results of this analysis yielded no significant differences between females and males in terms of their depression symptoms, $t(229) = -.35$, n.s.

3.2.4. Gender Differences for Attachment Styles

In order to examine gender differences on attachment styles of the participants, separate t-test comparisons were conducted for four different types of attachment styles. Results revealed that for secure, fearful and preoccupied attachment styles there were no gender differences. However males (3, 76) reported themselves as having stronger dismissing attachment style than females (3, 02), $t(230) = -3.05$, $p < .05$

3.2.5. Gender Differences for Different Dimensions of Perceived Social Support

In order to examine gender differences on the dimensions of Perceived Social Support a 2 (Female, Male) X 3 (Family support, Friends support, Significant person support) ANOVA with repeated measure on the last factor was performed. This analysis yielded significant main effects for Perceived Social Support, $F(2, 458) = 12.24$, $p < .001$, and for Gender $F(1, 229) = 4.76$, $p < .05$, and a Social Support x Gender interaction, $F(2, 458) = 6.80$, $p < .001$

Table 3. Analysis of Variance for the Perceived Social Support and Gender

Source	df	SS	MS	F
GENDER	1	270.49	270.49	4.76*
ERROR	229	13013.81	56.83	
PERCEIVED SUPPORT	2	664.60	332.30	12.24**
SUPPORT x GENDER	2	368.92	184.46	6.80**
ERROR	458	12431.75	27.14	

* $p < .05$, ** $p < .001$

According to the post-hoc analysis conducted with LSD at .05 alpha level, for Perceived Social Support main effect, people tend to perceive less social support from the significant person ($\underline{M} = 20.22$) than from the friends ($\underline{M} = 22.28$) and the family ($\underline{M} = 22.32$). Whereas there was no significant difference between perceived social support from friends and family (See Table 4). Gender main effect yielded that females tend to perceive more social support ($\underline{M} = 22.23$) than males ($\underline{M} = 20.98$). In respect to the significant interaction effect between Support and Gender (See Table 5), LSD comparisons at .05 alpha level revealed that females tend to perceive more social support from the significant person ($\underline{M} = 21.79$) than males did ($\underline{M} = 18.64$). For females there was no significant difference between the social support taken from three different sources, however for males, perceived social support from the significant person ($\underline{M} = 18.64$) was significantly lower than perceived social support from friends ($\underline{M} = 21.78$) and the family ($\underline{M} = 22.52$). For both genders there was no significant difference between perceived family and friend support.

Table 4. Mean Scores for the Factors of Perceived Social Support

P.S.Support Factors	Signif. Person Support	Friends Support	Family Support
Means (S.D)	20.22 _a (0.47)	22.28 _b (0.36)	22.32 _b (0.36)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (LSD at .05 alpha level).

Table 5. Mean Scores for Gender by Perceived Social Support

		GENDER	
		FEMALE	MALE
Perceived Social Support	Family	22.12 _a (0.52)	22.52 _a (0.50)
	Friends	22.78 _a (0.52)	21.78 _a (0.50)
	Significant Person	21.79 _a (0.68)	18.64 _b (0.65)

Note: The mean scores that do not share the same subscript on the same row or on the same column are significantly different from each other according to the Post-hoc comparison (LSD at .05 alpha level).

3.3. Attachment Style Differences on Measures of The Study

One way Analysis of Variance was employed to test the effects of four groups of attachment styles (i.e., secure, dismissing, fearful and preoccupied) on Self Esteem, Body Satisfaction, Depression and Social Support measures.

3.3.1. The Effects of Attachment Styles on Self Esteem

In order to test the effects of four groups of attachment styles on Self Esteem, One way Analysis of Variance was employed. As can be seen from Table 6, this analysis revealed that there is a significant attachment style main effect on the self esteem scores, $F(3,226) = 10.50$, $p < .001$.

Table 6. Analysis of Variance for Self Esteem

Source	SS	df	MS	F
BETWEEN GROUPS	777.930	3	259.31	
10.50* WITHIN GROUPS	5583.466	226	24.71	

* $p < .001$

According to the post-hoc analysis conducted with Tukey's HSD at .05 alpha level, for Attachment Styles main effect, secure subjects had higher self esteem scores ($\underline{M} = 15.91$) than fearful ($\underline{M} = 19.09$), preoccupied ($\underline{M} = 19.81$) and dismissing subjects ($\underline{M} = 19.84$). However there was no significant difference between fearful, preoccupied, and dismissing subjects, in terms of their self esteem scores (See Table 7).

Table 7. Mean Scores for the Self Esteem

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	15.91 _a (4.35)	19.09 _b (5.38)	19.81 _b (5.94)	19.84 _b (4.99)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

3.3.2. The Effects of Attachment Styles on Body Satisfaction

In order to test the effects of four groups of attachment styles on Body Satisfaction, One way Analysis of Variance was employed. As can be seen from Table 8, this analysis revealed that there is a significant attachment style main effect on body satisfaction, $F(3,224) = 6.36$, $p < .001$.

Table 8. Analysis of Variance for Body Satisfaction

Source	SS	df	MS	F
BETWEEN GROUPS	454.20	3	151.40	6.36*
WITHIN GROUPS	5333.43	224	23.81	

* $p < .001$

According to the post-hoc analysis conducted with Tukey's HSD at .05 alpha level, Attachment Styles main effect revealed that, secure subjects had higher body satisfaction ($\underline{M} = 18.28$) than the fearful ($\underline{M} = 20.58$) and preoccupied subjects ($\underline{M} = 21.81$), however dismissing subjects ($\underline{M} = 20.16$) did not significantly differ from the other groups of attachment in terms of body satisfaction scores (See Table 9).

Table 9. Mean Scores for Body Satisfaction

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	18.28 _a (4.51)	20.58 _b (4.55)	21.81 _b (5.98)	20.16 _{ab} (4.92)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

3.3.3. The Effects of Attachment Styles on Depression Symptoms

In order to test the effects of four groups of attachment styles on Depression Symptoms, One way Analysis of Variance was employed. As can be seen from Table 10, this analysis revealed that there is a significant attachment style main effect on the depression symptoms, $F(3,227) = 8.21$, $p < .001$.

Table 10. Analysis of Variance for Depression Symptoms

Source	SS	df	MS	F
BETWEEN GROUPS	1432.72	3	477.58	8.21*
WITHIN GROUPS	13200.78	227	58.15	

* $p < .001$

According to the post-hoc analysis conducted with Tukey's HSD at .05 alpha level, Attachment Styles main effect revealed that, secure subjects had lower depression symptoms ($\underline{M} = 7.31$) than the fearful ($\underline{M} = 12.09$), preoccupied ($\underline{M} = 12.14$) an dismissing subjects ($\underline{M} = 12.75$). However there was no significant difference between fearful, preoccupied and dismissing subjects, in terms of their depression symptoms (See Table 11).

Table 11. Mean Scores for the Depression Symptoms

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean	7.31 _a	12.09 _b	12.14 _b	12.75 _b
(S.D)	(5.74)	(8.11)	(8.68)	(10.62)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

3.3.4. The Effects of Attachment Styles on Social Support

In order to test the effects of four groups of attachment styles on Social Support, One way Analysis of Variance was employed. As can be seen from Table 12, this analysis revealed that there is a significant attachment style main effect on perceived social support , $F(3,227) = 9.63$, $p < .001$.

Table 12. Analysis of Variance for Social Support

Source	SS	df	MS	F
BETWEEN GROUPS	4500.87	3	1500.29	9.63*
WITHIN GROUPS	35352.03	227	155.74	

* $p < .001$

According to the post-hoc analysis conducted with Tukey's HSD at .05 alpha level, Attachment Styles main effect revealed that, secure subjects had higher perceived social support scores ($\underline{M} = 69.26$) than the fearful ($\underline{M} = 61.50$), preoccupied ($\underline{M} = 59.23$) and dismissing subjects ($\underline{M} = 61.06$). However there was no significant difference between fearful, preoccupied and dismissing subjects, in terms of their social support scores (See Table13).

Table 13. Mean Scores for Social Support

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	69.26 _a (11.83)	61.50 _b (12.68)	59.23 _b (13.84)	61.06 _b (12.46)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

3.4. Correlations Among the Variables

As can be seen from Table 14, correlations among the measures of the current study indicated that there was a significant correlation between Self Esteem and Body Satisfaction ($r = .49, p < .001$), Social Support ($r = -.46, p < .001$), Depression Symptoms ($r = .62, p < .001$), Secure Attachment Style ($r = -.35, p < .001$),

Preoccupied Attachment Style ($r = .18, p < .01$), and Dismissing Attachment Style ($r = .16, p < .05$). However Self Esteem did not significantly correlate with Fearful Attachment Style.

There were also significant positive correlations between Body Satisfaction and depression symptoms ($r = .41, p < .001$), and preoccupied attachment style ($r = .21, p < .01$). Body satisfaction was negatively correlated with Social Support ($r = -.36, p < .001$) and secure attachment style ($r = -.26, p < .001$).

Social Support was positively correlated with secure attachment style ($r = .33, p < .001$), and negatively correlated with depression symptoms ($r = -.24, p < .001$),

Depression symptoms as expected was negatively correlated with secure attachment style ($r = -.31, p < .001$), and positively correlated with the other types of attachment ($r_s = .13, .14, \text{ and } .14, p_s < .05$, for fearful, preoccupied and dismissing attachment styles respectively) (See Table 14).

Table 14. Correlation Matrix of the Variables Used in the Study

Correlations	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1)GENDER		0,059	0,757***	0,713***	-0,209***	-0,163*	0,047	-0,051	-0,143*	.023	-0,119	-,141*	,155*	0,158*
2)AGE			0,012	0,095	-0,233***	-0,137*	-0,089	-0,09	0,034	-.025	,003	.004	-.045	.043
3)HEIGHT				0,747***	-0,132**	-0,091	-0,013	-0,109	-0,076	-.009	-.030	-,074	0,069	,049
4)WEIGHT					-0,158*	-0,132*	0,046	0,121	-0,131*	.011	-0,001	-0,163*	0,094	0,079
5)MOM.EDU						0,677***	-0,038	-0,035	-0,014	.026	0,143*	0,016	-0,121	-0,088
6)DAD.EDU							-0,052	0,001	0,014	.008	0,176**	-0,022	-0,115	-0,099
7)SE. TOT								0,489***	-0,462***	,624***	-0,346***	0,120	0,184**	0,157*
8)APP.TOT									-0,358***	,411***	-0,262***	0,091	0,207**	0,040
9)SS.TOT										-.424***	0,331***	-0,120	-,203**	-0,112
10)DEPRES.											-0,312***	-.134*	.137*	.144*
11)SECURE												-0,470***	-0,463***	-0,383***
12)FEARFULL													-,237***	-0,196**
13)PREOCC.														-0,194**
14)DISMISSING														
	* p<.05		Correlation is significant at the .05 level											
	** p<.01		Correlation is significant at the .01 level											
	*** p<.001		Correlation is significant at the .001 level											
NOTE:	MOM. EDU: Education level of respondents' mothers; DAD EDU: Education level of respondents' fathers; SE.TOT: Self esteem score; APP.TOT: Appearance esteem Score; SS.TOT: Social support score; DEPRES: Depression score; SECURE: Secure attachment style score; FEARFULL: Fearfull attachment style score; PREOCC: Preoccupied attachment style score; DISMISSING: Dismissing attachment style score.													

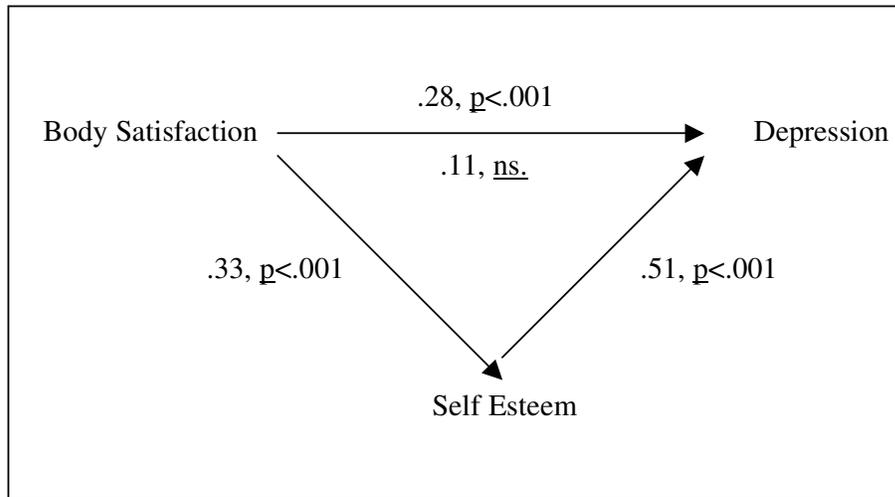
3.5. The Mediator Role of Self Esteem Between Body Satisfaction and Depression Symptoms Relationship

A hierarchical regression analysis was performed to see whether self esteem variable mediates body satisfaction and depression symptoms relationship or there is a main effect of body satisfaction on depression symptoms. For the initial regression analysis run to test the mediation effect, depression symptoms served as the dependent variable. In the first step, gender, age, height and weight of the subjects and education level of the subjects' parents were entered by using the stepwise method. In the second step social support and attachment styles were entered by using the stepwise method. The first two steps were entered in order to control for the potential variance accounted for by these variables. Body Satisfaction was entered in the third step, and in the fourth and the last step self esteem was entered.

According to the Reduced Model, that is before the mediator (i.e., self esteem) entered into the equation, among the control measures lack of social support ($\beta = -.30, p < .001$) and not having a secure attachment style ($\beta = -.15, p < .001$) were significantly associated with the depression symptoms. After the variance accounted for by these variables were controlled, Body Satisfaction revealed a significant association with Depression symptoms ($\beta = .28, p < .001$). However, after the inclusion of Self Esteem (Full Model) the association between Body Satisfaction and Depression Symptoms lost its significance ($\beta = .11, ns$) indicating that the association between Body Satisfaction and Depression Symptoms is maintained by Self Esteem of the subjects. Supporting this argument, on the final step the association between Self Esteem and Depression Symptoms ($\beta = .51, p < .001$) was

significant. In order to further support this mediator hypothesis, it is also required to reveal that Body Satisfaction is associated with the Self Esteem scores. For this aim the second regression analysis was performed where the dependent variable was the Self Esteem scores. The first and the second step of this analysis was the same as the previous one, so that the same control procedure was utilized. Following these controls, on the third step Body Satisfaction scores were entered into the equation. Results revealed that on the reduced model, among the control measures Social Support ($\beta = -.38, p < .001$.) and secure attachment style ($\beta = -.24, p < .001$.) were significantly associated with the Self Esteem scores. After excluding the variance explained by these variables, Body Satisfaction was still significantly associated with the Self Esteem scores ($\beta = .33, p < .001$).

These two regression analyses revealed that, there was a strong relationship between Body Satisfaction and Depression Symptoms; however this relationship diminished when Self Esteem scores were controlled for. Furthermore, even after controlling for some possible confounding factors (i.e., social support and secure attachment style), Self Esteem revealed significant association with the Depression Symptoms and similarly Body Satisfaction revealed significant association with Self Esteem. Consequently, as depicted on Figure 1, these findings support that increased Body Satisfaction strengthened Self Esteem, which in turn decreased Depressive Symptoms, or vice-versa: decreased Body Satisfaction lowered Self Esteem, which then caused increased Depressive symptoms.



Reduced Model
 $F(3,220) = 31.27, p < .001$
 $R^2 = .30$

Full Model
 $F(4,219) = 48.37, p < .001$
 $R^2 = .47$

Figure 4. Mediator Role of Self Esteem Between Body Satisfaction and Depression Symptoms Relationship

Note: Summary of mediating regression analysis for the Depression including beta-weights, F values, and R^2 s for the model before Self Esteem is included (Reduced Model) and after the inclusion of the Self Esteem, which is the mediator (Full Model). The initial path between Body Satisfaction and Depression is indicated by beta-weight (and p value) on top of the line connecting these variables, while the beta-weight (and p value) after the Self Esteem is included as the mediator is indicated by the value directly under the path.

CHAPTER 4

DISCUSSION

The aim of the present study was to investigate the relationship between body satisfaction and depression symptoms, and to examine the mediator role of self esteem between them. The findings and statistical values of the study were presented in the Results section. In the present section, these results will be discussed by referring to the related literature.

4.1. Gender Differences for the Variables of the Study

Separate analyses of variance and t-tests were conducted to examine the gender differences on the measures of self esteem, body satisfaction, social support and depression symptoms.

For the self esteem measure, there were no significant gender differences. The literature on this issue seems to be inconsistent. Some researchers (Brage & Meredith, 1994; Furnham & Greaves, 1994; Furnham et.al., 2002) indicated that males had significantly higher self esteem scores than females. On the other hand, consistent with the present findings some other researchers (Davis & Katzman, 1997; Kamath & Kanekar, 1993; Yelsma & Yelsma, 1998) found no significant differences between males and females on the self esteem measure. This insignificant finding

might be related to the sampling of the current study, which had chosen the subjects from one of the most prestigious universities of the country, in which students have equal chances on every step of the education system and campus life, thus being a women or a men did not make a difference on their self esteem scores.

Contrary to the expectations there were no gender differences for body satisfaction scores. The related literature demonstrated a significant difference between males and females in terms of their body satisfaction scores (Forbes et al., 2001; Furnham & Calnan, 1998; Furnham & Greaves, 1994; Mendelson, Mendelson & White, 2001; Schwartz, Phares, Tantleff-Dunn & Thompson, 1999) in which females were more dissatisfied with their body images than males were. Feingold and Mazzella (1998) indicated that eventhough independent judges rated the female participants as more good looking than male participants, females' body satisfaction was still lower than males' body satisfaction. This finding suggests that, females' body dissatisfaction was not related to the fact that, they were actually not good looking, but still they perceived themselves as not being so. However, for the current study, the gender difference on the body satisfaction scores was not significant. This result might be due to the norms of the Turkish society that instead of being thin, being somehow overweight is valued for both males and females and, physical appearance is not given so much importance for the females to gain status and so forth in the society, as it is in the western societies. Also social pressures on females to have a slender body figure was lesser in Turkish society.

Gender difference for depression symptoms was also not significant in the present study. Correspondingly, Helm, Boward, McBride and Del Rio (2002) found out that in a university population, depression scores between females and males

were not significant. Brage and Meredith (1994) indicated gender effect on depression through self esteem scores of the participants. Though boys had higher self esteem and lower depression levels, girls had lower self esteem scores, associated with more depressive symptomatology. However, generally depression symptoms were observed in females significantly more than males. Leon, Klerman and Wickramaratne (1993) found out that at the age of 35, the risk of females to be depressed was almost as twice as the males. Similar in a number of studies, females were found to have more depression symptoms or more depressed than males (Cheng & Furnham, 2003; Furnham & Greaves, 1994; Galambos, Leadbeater & Barker, 2004). In the present study, the result was not consistent with the majority of the studies which emphasized the female disadvantage in terms of depression scores. This result might be associated with the fact that life standards significantly affect the association between gender and depression. In the study conducted by Maffeo, Ford, and Lavin (1990), when “social conditions” such as age, educational and occupational level, and salary were controlled, the relationship between gender and depression did not remain significant. Similar in the present study, the sample was a homogeneous sample, which consisted of students having similar age, living in similar conditions, engaging in similar activities and struggling with similar stressors. Thus, lack of gender difference on the measures of depressive symptoms may be due to the similar life conditions of the participants.

Gender difference for attachment styles revealed that between secure, fearful and preoccupied attachment styles there were no significant gender differences, however for dismissing attachment style, male participants reported themselves as having a stronger dismissing attachment style than female participants.

When different dimensions of perceived social support were examined, it was found out that females perceived more social support from significant other than males did. Consistently, Zimer and his colleagues (1988) found the similar finding indicating females' advantage in terms of perceived support from the significant others. In a recent study done by Cheng and Chan (2004), it was found out that females perceived more social support from the friends but less from the family than did the boys. Cheng and Chan discusses what "significant other" questions are measuring. The meaning of the "significant other" may change from person to person and the questions regarding friends and family support-which are actually significant others- measure the significant other or significant other items measure combined friends and family support. Therefore, they assumed the significant other subscale, as measuring a "general sense of support". When people were asked, to whom they are referring to when responding to the "significant other" subscale, spouses, kids, parents, brothers/sisters and their friends were found as the agencies of the significant others (Prezza & Pacilli, 2002). To sum up, present result, seems to be consistent with the related literature.

4.2. Attachment Style Differences for the Variables of the Study

Separate analyses of variance were conducted to examine the effects of four groups of attachment styles (i.e., secure, fearful, preoccupied, and dismissing) on the variables of self esteem, body satisfaction, social support and depression symptoms.

For the Self Esteem scale, there was a significant main effect of attachment styles. Accordingly; the subjects with a secure attachment style had significantly higher self esteem scores than the other groups of attachment. Consistently, Sümer and Güngör (1999) found the similar results in the study that was conducted in

Turkey. These findings are partially supported by the related literature, in which subjects with secure and also dismissing attachment styles had significantly higher self esteem scores than the fearful and preoccupied groups (Bartholomew & Horowitz, 1991; Bylsma et al., 1997; Pietromonaco & Barrett, 1997). Thus, we may conclude that the difference between the current study and the related literature is caused by cultural discrepancies and norms. Turkish society is much more a community based society, in which individualism is not valued and supported but to take part in the groups in reciprocal relationships, sharing the life with the relatives and the significant others are much more valued and supported. Hence, the subjects with dismissing attachment styles in Turkey may not have higher self esteem scores as their counterparts have in the western societies, in which individualism is highly supported and given importance. They may feel themselves different from the society and not conforming to the society's rules, which in turn may affect their self concepts.

Regarding body satisfaction scores, attachment styles yielded significant main effect. Individuals with a secure attachment style had higher body satisfaction scores than the individuals with fearful and preoccupied attachment styles. However, there was no difference between secure and dismissing subjects in terms of their body satisfaction scores. This finding is consistent with the theoretical framework of the attachment styles, in which dismissing and secure attachment styles have a positive view of self (Bartholomew & Horowitz, 1991). Sharpe and her colleagues (1998) revealed that individuals with insecure attachment styles reported significantly more weight concerns than the individuals with secure attachment style. In addition, more

subjects in the insecure group obtained scores that indicated eating disorder risk on weight concerns scale, than in the secure group did.

Significant attachment styles effect was found for the depression symptoms as well. Secure subjects had significantly less depression symptoms than fearful, preoccupied, and dismissing subjects. Similarly Roberts, Gotlib and Kassel (1996), ended with the same conclusion that, secure group of attachment had significantly lower depressive symptomatology. In another study conducted by Muris, Meesters, Melick and Zwambag (2001), they found out that for young adolescents being securely attached was correlated with lower depression scores.

Murphy and Bates (1997), claimed that attachment styles made a difference on depression symptoms through the model of the self and others discrepancy. Thus, those subjects who had positive view of self (secure and dismissing) were significantly less depressed than those subjects who had negative view of self (fearful and preoccupied). When the sample was divided into two groups as depressed and nondepressed, 47% of fearfals, 35% of preoccupieds, 13% of dismissings and 7% of secures were in the depressed group. As evident fearful and preoccupied subjects were significantly more represented in the depressed group than the secure subjects. Furthermore, they found out that the participants in the depressed group got higher scores on the fearful and preoccupied scales but lower on the secure scale. Muller and Lemieux (2000) claimed that negative view of self (fearful and preoccupied) was the primary predictor of psychopathology and strongly correlated with psychopathology measures than negative view of others (dismissing and fearful).

Similarly, the results related to social support revealed that secure subjects had significantly higher perceived social support than the fearful, preoccupied and dismissing subjects. Consistently, Davis, Morris and Kraus (1998) found out that secure individuals had higher global support perceptions and more perceived support from family, friends and romantic partners than the insecure individuals. Moreover, Priel and Shamai (1995) claimed that secure individuals perceived more social support from their environments and were more satisfied with the support they had received. Additionally, it was found out that different attachment groups were different from each other not only in perceiving but also in seeking social support. Florian and Mikulincer (1995) indicated that secure individuals perceived more emotional and instrumental support from the family, friends and romantic partner than insecure individuals did, and also secure ones had greater tendency to search for the support in times of need.

4.3. The Mediation Hypothesis

Considering the main mediation hypothesis which suggested that body satisfaction and depression symptoms relationship would be mediated by the self esteem scores; there were four sub-hypotheses to be investigated. Those were:

- 1) Body satisfaction would be significantly associated with depression symptoms.
- 2) Self esteem would be significantly associated with depression symptoms.
- 3) Body satisfaction would be significantly associated with self esteem.
- 4) The association between body satisfaction and depression symptoms would deteriorate or disappear after controlling for the effect of self esteem.

Following the hierarchical regression analyses, consistent with the first hypothesis it was found out that body satisfaction was significantly associated with depression symptoms. This result is consistent with the related literature, which claimed the significant correlation between body dissatisfaction and depressive symptomatology (Friedman, Reichmann, Costanzo, & Musante, 2002; Noles, Cash, & Winstead, 1985; Ohring, Graber, & Brooks-Gunn, 2002). Furthermore, Kim and Kim (2001) stresses the importance of the self perceptions of individuals' body weights when predicting depression symptoms. They claimed that not the actual body mass index, but the perception of the subject is the significant predictor of depression. Individuals who were not satisfied with their weight had more depressive symptoms.

Similarly, Pesa and her colleagues (2000) conducted a study to find out the psychosocial differences between overweight and normal subjects. Eventhough in the initial analysis, depression can significantly differentiate between two groups, after controlling the effects of body image, significance of depression disappeared. Thus depression by itself, without the effect of body image can not differentiate between overweight females and the normal ones. This finding demonstrated the importance of body image on depressive symptomatology.

Moreover body satisfaction was found to mediate the relationship between degree of obesity and depression. Thus; obesity was significantly related to depression and body image, and body image was significantly associated with depression; however, when the effects of body image was controlled, the relationship between obesity and depression decreased, which indicated the mediator effect of body image (Friedman, et.al., 2002). In a 4 year longitudinal study, conducted by

Stice, Cameron, Hayward, Killen, and Taylor (2000) the predictors of the onset of depression among female adolescents were investigated. Results revealed that body dissatisfaction, dieting and bulimic symptoms significantly predicted the onset of depression among the adolescents who were initially nondepressed. This study, different from the previously mentioned studies, displayed the role of body dissatisfaction in the development of depressive symptomatology.

Therefore, consistent with the literature, the first hypothesis was supported; body satisfaction was significantly associated with the depression symptoms. This is not a surprising result, for it is a well known fact that, negative self view is one of the important components of depression, and body dissatisfaction is the negative view of physical self.

The second hypothesis assumed that self esteem and depression symptoms would be significantly associated with each other. De Man and his colleagues (2001) indicated that individuals with lower levels of self esteem, had higher levels of depression symptoms. Cheng and Furnham (2003) claimed that self esteem was not only a sound predictor of depression but also a powerful predictor of happiness. Negative self concept is a frequent accompaniment of depression. However the causal relationship between low self esteem and depression is not well documented. Additionally, Johnson, Meyer, Winett and Small (2000) investigated the role of self esteem and social support in the course of depression and mania. Self esteem and social support was found to be significantly associated with the follow up depressive symptoms in 6 months but not with the mania symptoms. The present study, consistent with the past research demonstrated the significant association between self esteem and depression. Thus, the second hypothesis was confirmed.

The third hypothesis suggested that body satisfaction would be significantly associated with self esteem. Following the hierarchical regression analysis, the results revealed a consistent finding with the third hypothesis. The past research on body satisfaction and self esteem also pointed to the significant association between them (Abell & Richards, 1996; Furnham & Greaves, 1994; Polce-Lynch et.al., 1998; Sondhaus et.al., 2001).

Abell and Richards (1996), indicated that for both genders, subjects' body satisfaction was significantly related to the self esteem levels. However there was a significant difference between low and high SES females in terms of the association between self esteem and body satisfaction. For high SES group the association between body satisfaction and self esteem was stronger than for the low SES group of females. Thus, they argued that "Perhaps females of lower economic status have, out of necessity, engaged in a wider array of self-esteem enhancing activities and were thus less dependent on their appearance for feeling positively about themselves". Therefore it is apparent that the relationship between body satisfaction and self esteem may be affected by some factors. In addition to SES, the menstruation status, parents' self esteem and body satisfaction levels are also significant factors. Usmiani and Daniluk (1997) investigated the effects of self esteem on body satisfaction scores of adolescent daughters and mothers. They found out that self esteem was the most powerful predictor of body satisfaction both for the mothers and their menstrual daughters. Higher self esteem scores were significantly related to higher body satisfaction scores. Moreover, there was a significant correlation between self esteem and body satisfaction scores of mothers and their

menstrual daughters. However, for premenstrual daughters, the relationship between self esteem and body satisfaction, and the correlation between mothers' and daughters' body image scores were not significant. This finding may indicate that the onset of the menstruation is a significant period for the impact of body images on self concepts.

Most of the studies which investigated the relationship between body satisfaction and self esteem were conducted with females, nevertheless, Forbes and his colleagues (2001) showed that body image dissatisfaction was not just females' problem but also males' problem as well. They concluded that instead of being male or female, having lower self esteem especially in childhood caused a weaker body image.

Thus, consistent with the related literature the third hypothesis was supported. Body satisfaction was found to be significantly associated with the self esteem. This finding further supported the mediator hypothesis of self esteem between body satisfaction and depression symptoms.

Finally the fourth hypothesis claimed that the association between body satisfaction and depression symptoms would deteriorate or disappear after controlling for the effect of self esteem. Consistent with the fourth hypothesis the relationship between body satisfaction and depression symptoms disappeared when the effect of self esteem was controlled. Therefore, the main hypothesis which stressed the mediator role of self esteem between body satisfaction and depression symptoms relationship was supported.

Accordingly, several studies indicated that dissatisfaction with the body image was associated with lower self esteem scores and higher depression symptoms

(Furnham & Greaves, 1994; Tomori & Rus-Makovec, 2000). Body satisfaction which can be called appearance esteem is an important component of self esteem. Thus, when body satisfaction was low, then this might decrease the individual's self esteem as well, which then may cause an increment in depression symptoms.

Similarly, Allgood- Merten, Lewinsohn and Hops (1990), investigated the psychosocial factors that contribute to adolescent depression. Consistent with the related research (Furnham & Greaves, 1994; Tomori & Rus-Makovec, 2000) they found out that body image satisfaction was strongly linked to the adolescent's overall self esteem, and this connection was stronger for females. Furthermore, body dissatisfaction was significantly correlated with adolescents' depression symptoms. However, this relationship disappeared when the effects of self esteem was controlled. Thus, they argued that "...body image as it relates to depression is not a separate construct. Rather, it is a critically important aspect of self-esteem in this age group that functions as an antecedent as well as a strong correlate of depressive symptoms in adolescents."

Furthermore in Davis and Katzman's (1997) study which investigated the relationships among body satisfaction, weight satisfaction, self esteem and depression among Chinese people the similar results were gathered. They found that lower depression was associated with higher self esteem and higher body satisfaction. In addition, for both males and females, self esteem was the most powerful predictor of body satisfaction and for women only depression was the significant predictor of body satisfaction. Moreover, higher self esteem was associated with lower depression symptoms and higher body satisfaction. As seen from this study, the causality may be twofolded as mentioned before. They studied

the effects of depression on body satisfaction, however the former studies investigated the effects of body image on depression.

Consequently, in the present study the mediation hypothesis was supported. The significant relationship between body satisfaction and depression, lost its significance when self esteem effect was controlled for. Therefore, we may argue that the relationship between body satisfaction and depression was maintained by self esteem.

4.4. Limitations and Strengths of the Present Study

The sampling of the current study is the main limitation. The sample consisted of university students who were recruited from the Middle East Technical University, which is one of the most prestigious universities in Turkey, consisting of mostly middle or higher socio-economic status individuals. However, individuals from the lower socio-economical status who are less educated, and living in different conditions are not represented in the current sample. Moreover, mean age of the participants was 20.7, which is another limitation. Older age groups are not represented, so it was not possible to compare different age groups. Also, the lack of psychiatric groups -mainly depressive and eating disordered- is an important limitation. To compare the normals with psychiatric population might have been useful for clinical applications. Thus, the results cannot be generalized to everyone in Turkey, but only for university population.

Another limitation of the study is the lack of inventory to assess eating disorders. Sampling may have consisted of patients having eating disorder, but we were unable to detect them.

The sample consisted of almost the same number of females and males which is the strength of the study. Most of the studies that conducted with body satisfaction and self esteem were conducted just by females, however the current study included males, who are less represented in the past research. Also, gender differences in body image, self esteem and the depression symptoms were observed.

4.5. Clinical Application

The self esteem was found to be significantly associated with depressive symptoms. Hence, activities which may enhance self esteem are also expected to decrease depressive symptoms in the society. Moreover, depressed patients may benefit from self esteem enhancing activities in the therapeutic process. Additionally, social support and attachment styles which were also found to be correlated with depression symptoms should be investigated by the clinician and used as important information in the course of the illness or in the prevention program.

Moreover body image, which appeared as an important factor in predicting the self esteem, may be used to increase self esteem. Precautions may be taken for the risk factors that decrease body satisfaction of the individuals in the society. The detrimental effects of media on people's body image is known, therefore the image related advertisements may be decreased in media. Additionally, thin and tall females and muscular male portraits, which are unattainable for most of the individuals should not be imposed as idealized female and male figures and should not be valued so much. Other than body image, various agents should be pointed to improve self esteem such as intelligence, academic success, sports or artistic talents for both males and females. Increasing body satisfaction may lead to an increase in self esteem, which is expected to lower the depressive symptomatology.

4.6. Suggestions for Future Research

Future studies about the body satisfaction, self esteem and depression should also include eating disorders in order to comprehend the effects of body image and self esteem on eating disorders.

Moreover, a longitudinal design which will assess the self esteem and body image of the participants initially before the adolescence, then 5-10 years later or so, will give us information about the causal relationship between body image, self esteem and depression. However, current study just yielded correlational information.

Additionally, future studies should be conducted with different samples, which may consist of different age groups with different economical and educational conditions. Moreover, depressed patients and patients with eating disorder should be included in the sample.

In addition, the present study demonstrated the importance of body image and self esteem on depression symptoms. Future studies are recommended to clarify the factors which underline the body image and self esteem and the effects of self esteem enhancing activities on depressive symptomatology and eating disorders.

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APPENDICES

APPENDIX A

DEMOGRAPHIC INFORMATION SHEET (DEMOGRAFİK BİLGİ FORMU)

Bu araştırma kişilerin kendileriyle ilgili duygu ve düşüncelerini anlamaya yöneliktir. Bu amaçla çeşitli gruplarda toplanan soruları yanıtlamanız istenmektedir. Her sayfanın başındaki yönergeyi dikkatlice okumanız ve yanıtlarken samimi düşüncelerinizi açıklıkla belirtmeniz önemlidir. Soruların belirli doğru ya da yanlış cevapları yoktur. Size en uygun gelen seçeneği işaretleyiniz ve cevapsız soru bırakmayınız.

Katkılarınız için şimdiden teşekkürler.

Bengü Yanarca
ODTÜ Psikoloji Bölümü

Cinsiyetiniz: Kadın () Erkek ()
Yaşınız: Bölümünüz: Sınıfınız:
Genel Not Ortalamanız: İdealinizdeki Genel Not Ortalaması:
Boyunuz: Kilonuz: İdealinizdeki Kilo:
Annenizin Eğitim Durumu:
Babanızın Eğitim Durumu:
Ailenizin sahip olduğu çocuk sayısı: Siz kaçınıcı çocuksunuz:
Üniversite eğitimi sürdürürken kaldığınız yer?
Ailele.... Arkadaşlarla evde..... Yurtta.....
Akraba yanında..... Tek başına evde..... Diğer.....(belirtiniz)
Ailenizin Gelir Durumu: Düşük () Orta () Yüksek () Çok Yüksek ()
Yaşamınızın çoğunu geçirdiğiniz yer:
Köy () Kasaba () Şehir () Metropol (Ankara, İstanbul, İzmir gibi) ()
Medeni Durumunuz:

Ŗu anda herhangi bir romantik (duygusal) iliŖkiniz var mı?

Evet () Hayır ()

a) Cevabınız “Evet” ise;

Ne kadar s¼redir:Yıl Ay

Bu kaıncı romantik iliŖkiniz?

T¼m y¼nleriyle d¼Ŗ¼nd¼g¼n¼zde Ŗu anda yaŖadıg¼nız bu iliŖkiden ne kadar memnunsunuz?

ok memnunum 1 2 3 4 5 Hi memnun deęilim

b) Cevabınız “Hayır” ise;

Bu durumdan ne kadar memnunsunuz?

ok memnunum 1 2 3 4 5 Hi memnun deęilim

APPENDIX B

ROSENBERG SELF ESTEEM AND APPEARANCE ESTEEM SCALE (ROSENBERG ÖZGÜVEN ÖLÇEĞİ) VE (GÖRÜNÜŞE İLİŞKİN ÖZDEĞER ÖLÇEĞİ)

Aşağıda kişilerin kendileriyle ilgili duygu ve düşüncelerini anlatan bazı cümleler verilmiştir. Lütfen her cümleyi dikkatle okuyunuz ve her cümlenin başına, o cümleye ne kadar katıldığınızı belirten numarayı yazınız.

Tamamen katılmıyorum	Katılıyorum	Katılmıyorum	Hiç Katılmıyorum
1	2	3	4

- 1- Kendimi değerli biri olarak görüyorum; en az diğer insanlar kadar.
- 2- Bazı iyi niteliklerim olduğumu sanıyorum.
- 3- Genelde kendimi başarısız bir kişi olarak görme eğilimindeyim.
- 4- Bende birtakım şeyleri çoğu insan kadar iyi yapabilirim.
- 5- Gurur duyacak fazla birşeyim olmadığını hissediyorum.
- 6- Kendime karşı olumlu bir tutum içindeyim.
- 7- Genel olarak kendimden memnunum.
- 8- Kendime karşı daha fazla saygı duyabilmeyi isterdim.
- 9- Bazen hiçbir işe yaramadığımı hissine kapılıyorum.
- 10- Zaman zaman hiç de hayırlı bir insan olmadığımı düşünüyorum.
- 11- Dış görünüşümden memnunum.
- 12- Kendimi fizik yönden çekici buluyorum.
- 13- Kilomdan şikayetçiyim.
- 14- Görünüşümün daha iyi olmasını isterim.
- 15- Çevremdeki insanların pek çoğu kadar çekici olduğumu düşünüyorum.
- 16- Çevremdeki insanların pek çoğundan daha kilolu olduğumu düşünüyorum.
- 17- Fizik görünüşümden dolayı utanıyorum.
- 18- Karşı cinsten kişilerin beni fizik yönden çekici bulduğunu sanıyorum.
- 19- Giysisiz görünüşüm beni kaygılandırıyor.
- 20- Arkadaşlarım kadar çekici olmadığımı düşünüyorum.

APPENDIX C

BECK DEPRESSION INVENTORY

(BECK DEPRESYON ENVANTERİ)

Aşağıda kişilerin ruh durumlarını ifade ederken kullandıkları bazı cümleler verilmiştir. Her madde, bir çeşit ruh durumunu anlatmaktadır. Her maddeye o ruh durumunun derecesini belirleyen 4 seçenek vardır. Lütfen bu seçenekleri dikkatle okuyunuz. Son iki hafta içindeki (şu an dahil) kendi ruh durumunuzu göz önünde bulundurarak, size en uygun olan ifadeyi bulunuz. Daha sonra, o maddeyi daire içine alınız.

1. (a) Kendimi üzgün hissetmiyorum.
(b) Kendimi üzgün hissediyorum.
(c) Her zaman için üzgünüm ve kendimi bu duygudan kurtaramıyorum.
(d) Öylesine üzgün ve mutsuzum ki dayanamıyorum.
2. (a) Gelecekte umutsuz değilim.
(b) Geleceğe biraz umutsuz bakıyorum.
(c) Gelecekte beklediğim hiçbirşey yok.
(d) Benim için bir gelecek yok ve bu durum düzelmeyecek.
3. (a) Kendimi başarısız görmüyorum.
(b) Çevremdeki birçok kişiden daha fazla başarısızlıklarım oldu sayılır.
(c) Geriye dönüp baktığımda, çok fazla başarısızlığım olduğunu görüyorum.
(d) Kendimi tümüyle başarısız bir insan olarak görüyorum.
4. (a) Herşeyden eskisi kadar zevk alabiliyorum.
(b) Herşeyden eskisi kadar zevk alamıyorum.
(c) Artık hiçbirşeyden gerçek bir zevk alamıyorum.
(d) Bana zevk veren hiçbirşey yok. Herşey çok sıkıcı.
5. (a) Kendimi suçlu hissetmiyorum.
(b) Arada bir kendimi suçlu hissettiğim oluyor.
(c) Kendimi çoğunlukla suçlu hissediyorum.
(d) Kendimi her an için suçlu hissediyorum.

6. (a) Cezalandırıldığımı düşünmüyorum.
(b) Bazı şeyler için cezalandırılabilceğimi hissediyorum.
(c) Cezalandırılmayı bekliyorum.
(d) Cezalandırıldığımı hissediyorum.
7. (a) Kendimden hoşnutum.
(b) Kendimden pek hoşnut değilim.
(c) Kendimden hiç hoşlanmıyorum.
(d) Kendimden nefret ediyorum.
8. (a) Kendimi diğer insanlardan daha kötü görmüyorum.
(b) Kendimi zayıflıklarım ve hatalarım için eleştiriyorum.
(c) Kendimi hatalarım için çoğu zaman suçluyorum.
(d) Her kötü olayda kendimi suçluyorum.
9. (a) Kendimi öldürmek gibi düşüncelerim yok.
(b) Bazen kendimi öldürmeyi düşünüyorum, fakat bunu yapamam.
(c) Kendimi öldürebilmeyi isterdim.
(d) Bir fırsatını bulsam kendimi öldürürdüm.
10. (a) Her zamankinden daha fazla ağladığımı sanmıyorum.
(b) Eskisine göre şu sıralarda daha fazla ağlıyorum.
(c) Şu sıralarda her an ağlıyorum.
(d) Eskiden ağlayabilirdim, ama şu sıralarda istesem de ağlayamıyorum.
11. (a) Her zamankinden daha sinirli değilim.
(b) Her zamankinden daha kolayca sinirleniyor ve kızıyorum.
(c) Çoğu zaman sinirliyim.
(d) Eskiden sinirlendiğim şeylere bile artık sinirlenemiyorum.
12. (a) Diğer insanlara karşı ilgimi kaybetmedim.
(b) Eskisine göre insanlarla daha az ilgiliyim.
(c) Diğer insanlara karşı ilgimin çoğunu kaybettim.
(d) Diğer insanlara karşı hiç ilgim kalmadı.
13. (a) Kararlarımı eskisi kadar kolay ve rahat verebiliyorum.
(b) Şu sıralarda kararlarımı vermeyi erteliyorum.
(c) Kararlarımı vermekte oldukça güçlük çekiyorum.
(d) Artık hiç karar veremiyorum.
14. (a) Dış görünüşümün eskisinden daha kötü olduğunu sanmıyorum.
(b) Yaşlandığımı ve çekiciliğimi kaybettiğimi düşünüyorum ve üzülüyorum.
(c) Dış görünüşümde artık değiştirilmesi mümkün olmayan olumsuz değişiklikler olduğunu hissediyorum.
(d) Çok çirkin olduğumu düşünüyorum.

15. (a) Eskisi kadar iyi çalışabiliyorum.
(b) Bir işe başlayabilmek için eskisine göre kendimi daha fazla zorlamam gerekiyor.
(c) Hangi iş olursa olsun, yapabilmek için kendimi çok zorluyorum.
(d) Hiçbir iş yapamıyorum.
16. (a) Eskisi kadar rahat uyuyabiliyorum.
(b) Şu sıralarda eskisi kadar rahat uyuyamıyorum.
(c) Eskisine göre 1 veya 2 saat erken uyanıyor ve tekrar uyumakta zorluk çekiyorum.
(d) Eskisine göre çok erken uyanıyor ve tekrar uyuyamıyorum.
17. (a) Eskisine kıyasla daha çabuk yorulduğumu sanmıyorum.
(b) Eskisinden daha çabuk yoruluyorum.
(c) Şu sıralarda neredeyse herşey beni yoruyor.
(d) Öyle yorgunum ki hiçbirşey yapamıyorum.
18. (a) İştahım eskisinden pek farklı değil.
(b) İştahım eskisi kadar iyi değil.
(c) Şu sıralarda iştahım epey kötü.
(d) Artık hiç iştahım yok.
19. Daha az yemeye çalışarak kilo kaybetmeye çalışıyor musunuz?
_____ Evet = 1
_____ Hayır = 2
Bu soruya cevabınız HAYIR ise 20. soru ile devam ediniz, EVET ise 21. soruya geçiniz
20. (a) Son zamanlarda pek fazla kilo kaybettiğimi sanmıyorum.
(b) Son zamanlarda istemediğim halde üç kilodan fazla kaybettim.
(c) Son zamanlarda istemediğim halde beş kilodan fazla kaybettim.
(d) Son zamanlarda istemediğim halde yedi kilodan fazla kaybettim.
21. (a) Sağlığım beni pek endişelendirmiyor.
(b) Son zamanlarda ağrı, sızı, mide bozukluğu, kabızlık gibi sorunlarım var.
(c) Ağrı, sızı gibi bu sıkıntılarım beni epey endişelendirdiği için başka şeyleri düşünmek zor geliyor.
(d) Bu tür sıkıntılar beni öylesine endişelendiriyor ki, artık başka hiçbirşey düşünemiyorum.
22. (a) Son zamanlarda cinsel yaşantımda dikkatimi çeken birşey yok.
(b) Eskisine oranla cinsel konularda daha az ilgiliyim.
(c) Şu sıralarda cinsellikle pek ilgili değilim.
(d) Artık, cinsellikle hiçbir ilgim kalmadı.

APPENDIX D

MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS) (ÇOK BOYUTLU ALGILANAN SOSYAL DESTEK ÖLÇEĞİ)

Aşağıda on iki cümle ve her birinde de cevaplarınızı işaretlemeniz için 1 den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar çok doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini daire içine alarak işaretleyiniz. Bu şekilde on iki cümlenin her birine bir işaret koyarak cevaplarınızı veriniz.

- 1- İhtiyacım olduğunda yanımda olan özel bir insan var.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 2- Sevinç ve kederlerimi paylaşabileceğim özel bir insan var.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 3- Ailem bana gerçekten yardımcı olmaya çalışır.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 4- İhtiyacım olan duygusal yardımı ve desteği ailemden alırım.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 5- Beni gerçekten rahatlatan özel bir insan var.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 6- Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 7- İşler kötü gittiğinde arkadaşlarıma güvenebilirim.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 8- Sorunlarımı ailemle konuşabilirim.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet
- 9- Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var.
Kesinlikle Hayır 1 2 3 4 5 6 7 Kesinlikle Evet

- 1 2 3 4 5 6 7
10- Yaşamımda duygularıma önem veren özel bir insan var.
Kesinlikle Hayır Kesinlikle Evet
1 2 3 4 5 6 7
- 11- Kararlarımı vermede ailem bana yardımcı olmaya isteklidir.
Kesinlikle Hayır Kesinlikle Evet
1 2 3 4 5 6 7
- 12- Sorunlarımı arkadaşlarımla konuşabilirim.
Kesinlikle Hayır Kesinlikle Evet
1 2 3 4 5 6 7

APPENDIX E

RELATIONSHIPS QUESTIONNAIRE (İLİŞKİ ANKETİ)

Aşağıdaki paragraflar yakın duygusal ilişkilerde yaşanan farklı duygu ve düşünceleri yansıtmaktadır. Yakın duygusal ilişkilerden kastedilen arkadaşlık, dostluk, romantik ilişkiler ve benzerleridir. Lütfen aşağıdaki 7 noktalı ölçeği kullanarak, herbir paragrafın kendi yakın ilişkilerinizde yaşadığınız duygu ve düşünceleri ne ölçüde tanımladığınızı belirtiniz.

----- 1- Başkaları ile kolaylıkla duygusal yakınlık kurarım. Başkalarına güvenmek, onlara bağlanmak ve başkalarının bana güvenip bağlanması konusunda kendimi oldukça rahat hissederim. Birilerinin beni kabul etmemesi ya da yalnız kalmak beni pek kaygılandırmaz.

Hiç Katılmıyorum

Tamamen Katılıyorum

1 2 3 4 5 6 7

----- 2- Başkaları ile yakınlaşmak konusunda rahat değilim. Duygusal olarak yakın ilişkiler kurmak isterim, ancak başkalarına tamamen güvenmek ya da inanmak benim için çok zor. Başkaları ile çok yakınlaşırsam incinip kırılacağımdan korkarım.

Hiç Katılmıyorum

Tamamen Katılıyorum

1 2 3 4 5 6 7

----- 3- Başkaları ile duygusal yönden tamamıyla yakınlaşmak, hatta bütünleşmek isterim. Fakat genellikle başkalarının benimle benim arzu ettiğim kadar yakınlık kurmakta isteksiz olduklarını görüyorum. Yakın ilişki(ler) içinde olmazsam huzursuzluk duyarım, ancak bazen başkalarının bana, benim onlara verdiğim kadar değer vermediklerini düşünür endişelenirim.

Hiç Katılmıyorum

Tamamen Katılıyorum

1 2 3 4 5 6 7

----- 4- Yakın duygusal ilişkiler içinde olmaksızın çok rahatım. Benim için önemli olan kendi kendine yetmek ve tamamen bağımsız olmaktır. Ne başkalarına güvenmeyi ne de başkalarının bana güvenmesini tercih ederim.

Hiç Katılmıyorum

Tamamen Katılıyorum

1 2 3 4 5 6 7

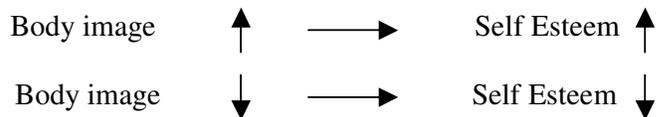
**ŞİMDİ LÜTFEN YUKARIDAKİ DÖRT PARAGRAFI GÖZ ÖNÜNE
ALARAK SİZİ EN İYİ TANIMLADIĞINI DÜŞÜNDÜĞÜNÜZ PARAGRAFIN
ÖNÜNDE BOŞ BIRAKILMIŞ OLAN YERİ İŞARETLEYİNİZ.**

- Not only the body image dissatisfaction but also low self esteem, depression, sociocultural pressures, anxiety, perfectionism, low social support, emotional distress, hostility, impulsiveness and vulnerability are associated with eating disorders.

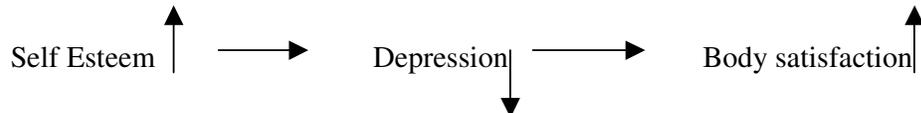
SELF ESTEEM

Self esteem is the evaluative aspect of the self concept in which, people's evaluations and attitudes about the self is considered. Self esteem is a critical indicator of psychological functioning, and body image seems to be a specifically important source of self esteem.

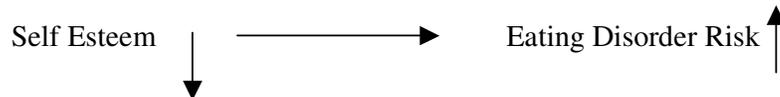
- The relationship between body image satisfaction and self esteem was found to be positive and significant regardless of gender (Abell & Richards, 1996; Sondhaus et al., 2001; Tomori & Rus-Mokovec, 2000).



- Research shows that dissatisfaction with the physical appearance was associated with low self esteem (McCaulay, Mintz & Glenn, 1988), on the other hand higher self esteem was correlated with less depression and more satisfaction with overall body image for both males and females (Davis & Katzman, 1997).



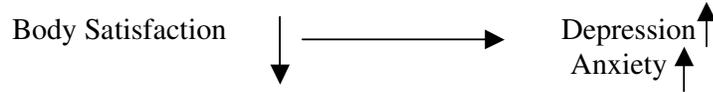
- Moreover low self esteem was found to be a reliable predictor of a higher risk of developing eating disorders in adolescent girls (Cervera, Lahortiga, Martinez-Gonzales, Gual, De Irala-Estevez and Alonso, 2003; Gual, Perez-Gaspar, Martinez-Gonzales, Lahortiga, De Irala-Estevez and Cervera, 2002).



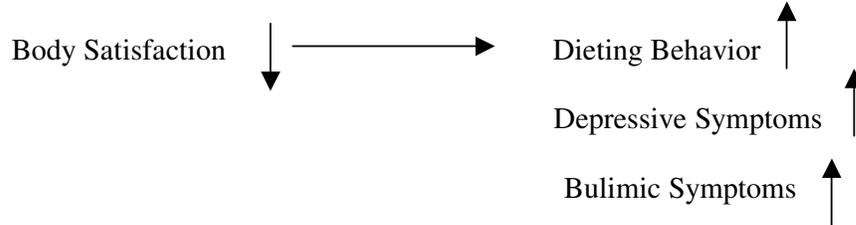
Body Image, Depression And Anxiety

Body image, and satisfaction/dissatisfaction with this image, is particularly important in many people's lives. Research shows that dissatisfaction with the body image is

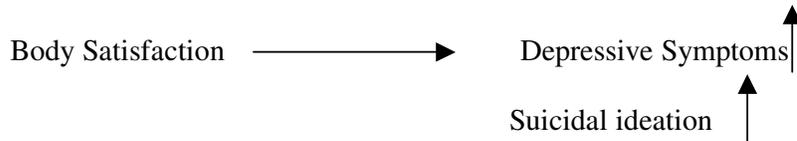
associated with a variety of psychological problems including depression. Body image dissatisfaction is a significant predictor of depression and anxiety levels of both adolescent girls and boys (McCabe, Ricciardelli & Banfield, 2001).



Moreover the initial body dissatisfaction significantly predicted the increases in dieting behavior, bulimic symptoms and depressive symptoms (Stice & Bearman, 2001).



Furthermore, dissatisfaction with the body image is associated not only with higher depression symptoms but also with more frequent suicidal ideation (Tomori & Rus-Makovec, 2000).



Attachment Theory

Attachment theory implies that early interaction patterns with the caregiver, leads the child to form general mental representations about the self and the others, that will become permanent and lasting over life time. Caregiver's responsiveness and availability in the relationship is a critical determinant in making up the child's beliefs and expectations about the caregiver as trustworthy and dependable or untrustworthy, and about the self as worthy of love or unworthy (Bowlby, 1973; Bylsma, Cozzarelli & Sumer, 1997).

The internal working model were two faceted. One was the individuals' *model of the self* (whether the person perceives himself/herself as worthy of love, support and affection or not); and the other was the individuals' *model of the others* (whether, others are perceived as supportive, responsive and available or not).

MODEL OF SELF (Dependence)

		Positive	Negative
MODEL OF OTHER (Avoidance)	Positive	<p>SECURE</p> <p>Comfortable with intimacy and autonomy</p>	<p>PREOCCUPIED</p> <p>Preoccupied with Relationships</p>
	Negative	<p>DISMISSING</p> <p>Dismissing of intimacy, counter dependent</p>	<p>FEARFUL</p> <p>Fearful of intimacy socially avoidant</p>

Model of adult attachment (Bartholomew & Horowitz, 1991)

Attachment styles affect the individual's personality, behaviors and thinking style pretty much. Their view of world differentiated as well. The individuals who were securely or dismissingly attached were found to have higher self esteem scores than those who were preoccupiedly or fearfully attached. Moreover it was found out that subjects who were fearfully and preoccupiedly attached (negative self view) had more depressive symptoms, were more prone to depression, and eating disorders and had more social anxiety during interpersonal relationships than securely and dismissingly attached counterparts (positive self view) (Van Buren & Cooley, 2002).

SELF ESTEEM

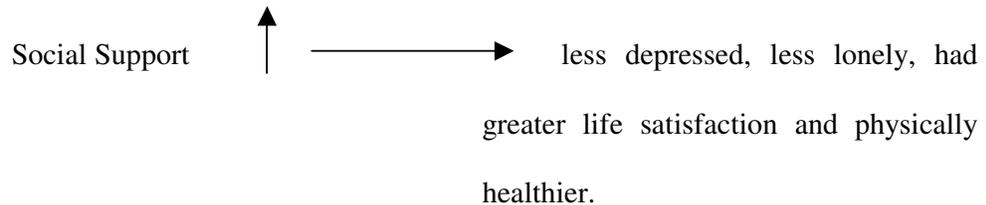
<ul style="list-style-type: none"> Secure and Dismissing 	>	Fearful and Preoccupied
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DEPRESSIVE SYMPTOMS, EATING DISORDERS, SOCIAL ANXIETY

<ul style="list-style-type: none"> Fearful and Preoccupied 	>	Secure and Dismissing
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SOCIAL SUPPORT

Social support has well known effects on people's physical health and psychological wellbeing. The individuals who reported higher levels of perceived social support were less depressed, less lonely, had greater life satisfaction and were physically healthier than those who reported lower levels of perceived social support (Kahn, Hessling & Russell, 2003).



So it is clear that both social support and attachment styles may contribute to the changes in depression symptoms. Therefore they were controlled during the investigation in order to obtain more realistic and pure results.

The Aim of the Present Study

The general aim of the present study is to investigate the association between Body Satisfaction and Depression symptoms. Furthermore, the mediator role of Self Esteem in the relationship between Body Satisfaction and Depression symptoms will be studied.

Therefore basic hypotheses are;

- 1) Body Satisfaction will be significantly associated with depression symptoms.
- 2) Self esteem will be significantly associated with depression symptoms.
- 3) Body satisfaction will be significantly associated with self esteem.
- 4) The association between body satisfaction and depression symptoms will deteriorate or disappear after controlling for the effect of self esteem.

METHOD

Participants

Subjects were undergraduate university students who were selected from different departments and courses of Middle East Technical University. The sample was consisted of 232 young adults, 111 females and 121 males. Participants' ages ranged between 17 and 31. Mean age was 20.70 ($SD = 1.96$).

The Socio-Demographic Characteristics of the Sample

	Range	Mean	SD
Age of Subjects	17-31	20.70	1.96
		N	%
Gender of the subjects	Female	111	47.8
	Male	121	52.2
Education level of mother	Literate	10	4.3
	Primary school	78	33.6
	Secondary school	15	6.5
	High school	57	24.6
	University	67	28.9
	Post Graduate	4	1.7
Education level of father	Literate	1	.4
	Primary school	43	18.5
	Secondary school	14	6
	High school	60	25.9
	University	105	45.3
	Post Graduate	8	3.4
Income of the family	Low	18	7.8
	Middle	189	81.5
	High	24	10.3
	Very High	1	.4
Number of siblings	Single	20	8.6
	Two	116	50
	Three or above	95	35
Place the subject lived during university education	With his/her family	54	23.3
	In a housewithfriends	38	16.4
	Dormitory	129	55.6
	With relatives	4	1.7
	Home alone	2	.9
	Other	4	1.7
Place the subject lived in the majority of his/her life	Village	4	1.7
	Town	25	10.8
	City	106	45.7
	Metropolis	97	41.8

Instruments

Instruments that were used in the study were; Appearance Esteem Scale, Rosenberg Self Esteem Scale, Beck Depression Inventory, Multidimensional Scale of Perceived Social Support (MSPSS), Relationships Questionnaire (RQ). All of the inventories that were used in the research are standardized and had well established reliability and validities to use in the Turkish Society.

Procedure

The instruments were administered within the lecture time and participation was voluntary.

RESULTS and DISCUSSION

Prior to the main analysis, separate t-tests and Analyses of Variance were performed to reveal the possible gender and attachment style (i.e., secure, fearful, preoccupied, dismissing) differences among the subjects on the self esteem, body satisfaction, social support and depression symptoms measures. Following these analyses, correlational associations between the variables of the study were investigated.

For the main analyses, hierarchical regression analyses was performed to examine the possible mediation of self esteem between body satisfaction and depression symptoms relationship.

GENDER DIFFERENCES ON MEASURES OF THE STUDY

Females		Males
Self Esteem	=	Self Esteem
Body Satisfaction	=	Body Satisfaction
Depression Sympt.	=	Depression Sympt.
Social Support	>	Social Support

Gender Differences on Self Esteem

For the self esteem measure, there were no significant gender differences. The literature on this issue seems to be inconsistent. While some researchers found no difference between males and females, some others found significant difference indicating males advantage in terms of self esteem levels. The current finding might

be related with the sampling of the study. Participants were students of the same university who are living in similar conditions and equal chances are present for both the males and females. Thus being a women or a men did not make a difference on their self esteem scores.

Gender Differences on Body Satisfaction

There were no gender differences for body satisfaction scores. However the related literature demonstrated a significant gender difference in which females have lower body satisfaction scores. This result might be due to the norms of the Turkish society that instead of being thin, being somehow overweight is valued for both males and females and, physical appearance is not given so much importance for the females to gain status and so forth in the society, as it is in the western societies. Also social pressures on females to have a slender body figure was lesser in Turkish society.

Gender Differences on Depression Symptoms

Gender difference for depression symptoms was also not significant in the present study. The result was not consistent with the majority of the studies which emphasized the female disadvantage in terms of depression scores This result might be associated with the fact that life standards significantly affect the association between gender and depression. Similarly in the present study, the sample was a homogeneous sample, which consisted of students having similar age, living in similar conditions, engaging in similar activities and struggling with similar stressors. Thus, lack of gender difference on the measures of depressive symptoms may be due to the similar life conditions of the participants.

Gender Differences on Social Support

In order to examine the gender differences on the dimensions of Perceived Social Support a 2 (Female, Male) X 3 (Family support, Friends support, Significant person support) ANOVA with repeated measure on the last factor was performed. This analysis yielded significant main effects for Perceived Social Support, $F(2, 458) = 12.24, p < .001$, and for Gender $F(1, 229) = 4.76, p < .05$, and a Social Support x Gender interaction, $F(2, 458) = 6.80, p < .001$

Mean Scores for the Factors of Perceived Social Support

P.S.Support Factors	Signif. Person Support	Friends Support	Family Support
Means (S.D)	20.22 _a (.47)	22.28 _b (.36)	22.32 _b (.36)

For Perceived Social Support main effect, people tend to perceive less social support from the significant person than from the friends and the family. Whereas there was no significant difference between perceived social support from friends and family.

Mean Scores for Gender by Perceived Social Support

		GENDER	
		FEMALE	MALE
Perceived Social Support	Family	22.12 _a (0.52)	22.52 _a (0.50)
	Friends	22.78 _a (0.52)	21.78 _a (0.50)
	Significant Person	21.79 _a (0.68)	18.64 _b (0.65)

Gender main effect yielded that females tend to perceive more social support than males. This result is consistent with the literature. In respect to the significant interaction effect between Support and Gender, LSD comparisons revealed that females tend to perceive more social support from the significant person than males did. For females there was no significant difference between the social support taken from three different sources, however for males, perceived social support from the significant person was significantly lower than perceived social support from friends and the family. For both gender there was no significant difference between perceived family and friend support.

Attachment Style Differences on Measures of The Study

One way Analysis of Variance was employed to test the effects of four groups of attachment styles (i.e., secure, dismissing, fearful and preoccupied) on Self Esteem, Body Satisfaction, Depression symptoms and Social Support measures.

Mean Scores for the Self Esteem

One way Analysis of Variance revealed that there is a significant attachment style main effect on the self esteem scores. According to the post-hoc analysis for Attachment Styles main effect, secure subjects had higher self esteem scores than fearful, preoccupied and dismissing subjects. However there was no significant difference between fearful, preoccupied, and dismissing subjects, in terms of their self esteem scores.

This result is partially supported by the related literature. in which subjects with secure and also dismissing attachment styles had significantly higher self

esteem scores than the fearful and preoccupied groups (Bartholomew & Horowitz, 1991; Bylsma et al., 1997; Pietromonaco & Barrett, 1997). The current finding might be caused by cultural discrepancies and norms. The individualism is not valued and supported in Turkish society, however people with dismissing attachment style like individualism and dislike to be close with other people and intimate relationships. Thus they may feel themselves different from the society and not conforming to the society's rules, which in turn may affect their self concepts negatively.

Mean Scores For Self Esteem

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	15.91 _a (4.35)	19.09 _b (5.38)	19.81 _b (5.94)	19.84 _b (4.99)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

The Effects of Attachment Styles on Body Satisfaction

One way Analysis of Variance revealed that there is a significant attachment style main effect on body satisfaction. According to the post-hoc analysis for Attachment Styles main effect, secure subjects had higher body satisfaction than the fearful and preoccupied subjects however dismissing subjects did not significantly differ from the other groups of attachment in terms of body satisfaction scores. This finding is consistent with the theoretical framework of the attachment styles, in which dismissing and secure attachment styles have a positive view of self (Bartholomew & Horowitz, 1991).

Mean Scores for Body Satisfaction

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	18.28 _a (4.51)	20.58 _b (4.55)	21.81 _b (5.98)	20.16 _{ab} (4.92)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

The Effects of Attachment Styles on Depression Symptoms

One way Analysis of Variance revealed that there is a significant attachment style main effect on the depression symptoms. According to the post-hoc analysis for Attachment Styles main effect, secure subjects had lower depression symptoms than fearful, preoccupied and dismissing subjects. However there was no significant difference between fearful, preoccupied, and dismissing subjects, in terms of their depression symptoms. Consistent with the literature.

Mean Scores for the Depression Symptoms

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	7.31 _a (5.74)	12.09 _b (8.11)	12.14 _b (8.68)	12.75 _b (10.62)

Note: The mean scores that do not share the same subscript are significantly different from each other according to the Post-hoc comparison (Tukey HSD at .05 alpha level).

The Effects of Attachment Styles on Social Support

One way Analysis of Variance revealed that there is a significant attachment style main effect on perceived social support. According to the post-hoc analysis for Attachment Styles main effect, secure subjects had higher perceived social support scores than fearful, preoccupied and dismissing subjects. However there was no significant difference between fearful, preoccupied, and dismissing subjects, in terms of their social support scores. Consistent with the literature.

Mean Scores for Social Support

Attachment Styles	Secure	Fearful	Preoccupied	Dismissing
Mean (S.D)	69.26 _a (11.83)	61.50 _b (12.68)	59.23 _b (13.84)	61.06 _b (12.46)

The Mediator Role of Self Esteem Between Body Satisfaction and Depression Symptoms Relationship

A hierarchical regression analysis was performed to see whether self esteem variable mediates body satisfaction and depression symptoms relationship or there is a main effect of body satisfaction on depression symptoms. For the initial regression analysis run to test the mediation effect, depression symptoms served as the dependent variable.

The First Regression Analysis

Dependent Variable: Depression symptoms

First Step:

Gender, age, height and weight of the subjects and education level of the subjects' parents were entered by using the stepwise method.

Second Step:

Social support and attachment styles were entered by using the stepwise method.

Third Step:

Body Satisfaction

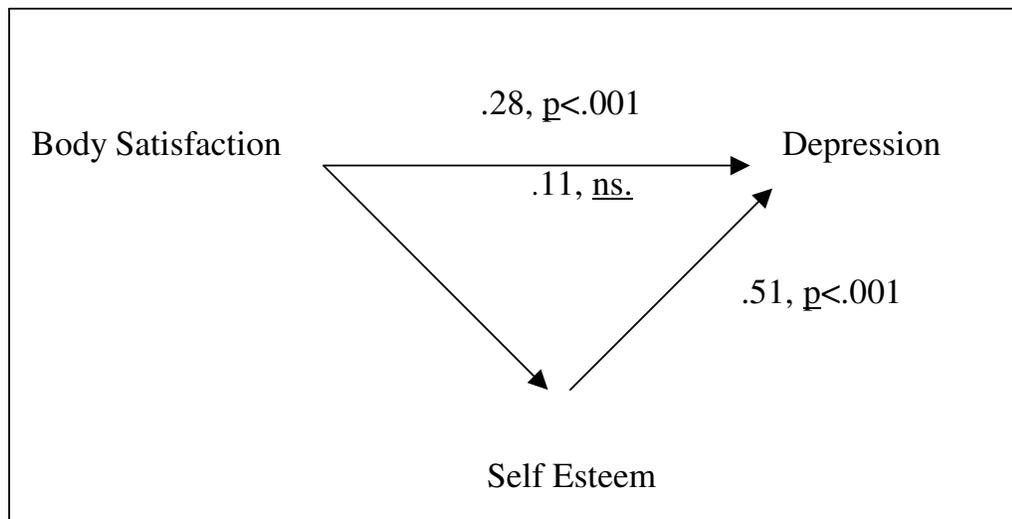
Fourth Step:

Self Esteem

According to the Reduced Model, that is before the mediator (self esteem) entered into the equation, among the control measures **lack of social support** and **not having a secure attachment** style were significantly associated with **the depression symptoms**. After the variance accounted for by these variables were controlled, **Body Satisfaction** revealed a significant association with **Depression symptoms**. However, after the inclusion of **Self Esteem** (Full Model) the association between **Body Satisfaction and Depression Symptoms** lost its significance indicating that the association between Body Satisfaction and Depression Symptoms is maintained by Self Esteem of the subjects. Supporting this argument, on the final step the association between **Self Esteem and Depression Symptoms** was significant.

In order to further support this mediator hypothesis, it is also required to reveal that Body Satisfaction is associated with the **Self Esteem** scores. For this aim the second regression analysis was performed where the dependent variable was the Self Esteem scores.

The First Regression Analysis



The Second Regression Analysis

Dependent Variable: Self Esteem

First Step:

Gender, age, height and weight of the subjects and education level of the subjects' parents were entered by using the stepwise method.

Second Step:

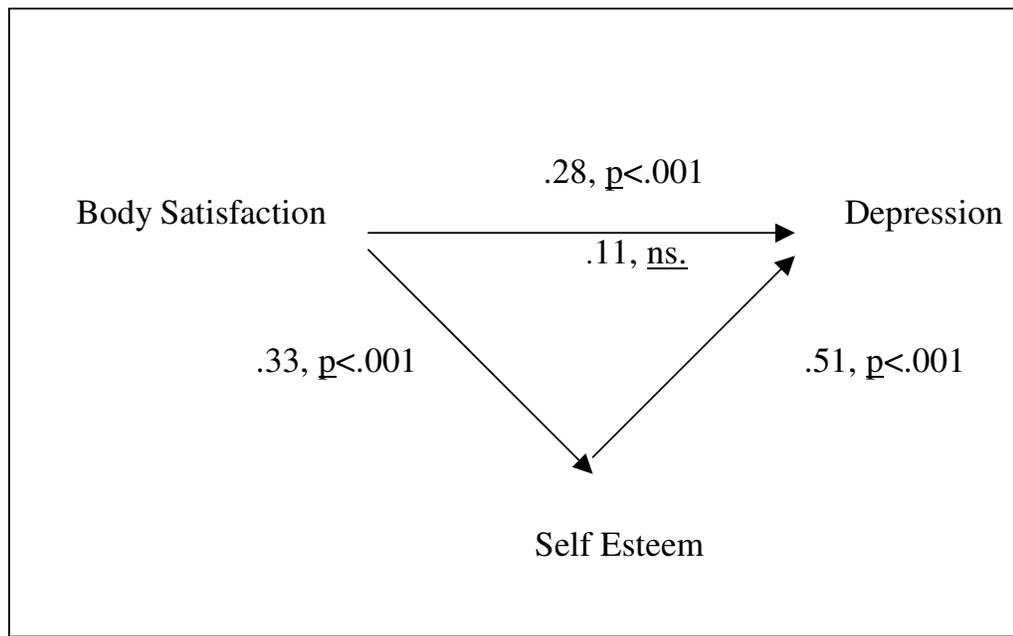
Social support and attachment styles were entered by using the stepwise method.

Third Step:

Body Satisfaction

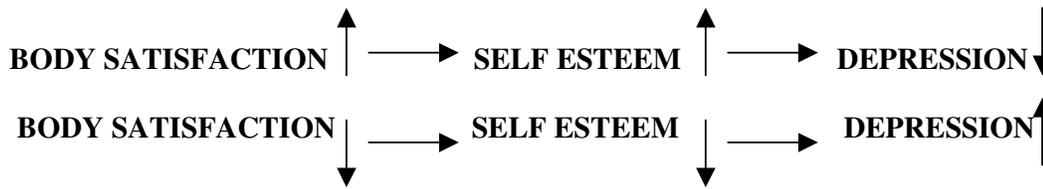
The first and the second step of this analysis was the same as the previous one, so that the same control procedure was utilized. Following these controls, on the third step Body Satisfaction scores were entered into the equation. Results revealed that on the reduced model, among the control measures Social Support ($\beta = -.38, p < .001$) and secure attachment style ($\beta = -.24, p < .001$) were significantly associated with the Self Esteem scores. After excluding the variance explained by these variables, Body Satisfaction was still significantly associated with the Self Esteem scores ($\beta = .33, p < .001$).

The Second Regression Analysis



These two regression analyses revealed that, there was a strong relationship between Body Satisfaction and Depression Symptoms; however this relationship diminished when Self Esteem scores were controlled for. Furthermore, even after controlling for some possible confounding factors (i.e., social support and secure attachment style), Self Esteem revealed significant association with the Depression Symptoms and similarly Body Satisfaction revealed significant association with Self Esteem.

These findings support that increased Body Satisfaction strengthened Self Esteem, which in turn decreased Depressive Symptoms, or vice-versa: decreased Body Satisfaction lowered Self Esteem, which then caused increased Depressive symptoms.



CONCLUSION

- 1) **Body satisfaction was significantly associated with depression symptoms.** ✓
Consistent with the literature which indicated the significant relationship between body dissatisfaction and the depressive symptomatology (Ohring, Graber, & Brooks-Gunn, 2002)
- 2) **Self esteem was significantly associated with depression symptoms.** ✓
Similarly De Man and his colleagues (2001) indicated that individuals with lower levels of self esteem, had higher levels of depression symptoms.
- 3) **The association between body satisfaction and depression symptoms disappeared after controlling for the effect of self esteem.** ✓
Accordingly, Allgood- Merten, Lewinsohn and Hops (1990), found the similar results which indicated that body satisfaction was significantly associated with self esteem and depression symptoms however when the effects of self esteem was controlled the relationship between body satisfaction and depression symptoms disappeared.
- 4) **Body satisfaction was significantly associated with self esteem.** ✓
The past research on body satisfaction and self esteem also pointed to the significant association between them (Abell & Richards, 1996; Furnham & Greaves, 1994; Polce-Lynch et.al., 1998; Sondhaus et.al., 2001)