

ADOLESCENTS' EATING BEHAVIORS IN THE ERA OF SOCIAL MEDIA: THE ROLE  
OF SOCIAL COMPARISON, BODY SATISFACTION AND NEED SATISFACTION

A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF SOCIAL SCIENCES  
OF  
TED UNIVERSITY

BY

SELİN DAMLA ÖZCAN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER OF SCIENCE  
IN  
THE DEPARTMENT OF PSYCHOLOGY

JULY 2019





**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.**

Name, Last name: Selin Damla Özcan

Signature:

## ABSTRACT

### ADOLESCENTS' EATING BEHAVIORS IN THE ERA OF SOCIAL MEDIA: THE ROLE OF SOCIAL COMPARISON, BODY SATISFACTION AND NEED SATISFACTION

Özcan, Selin Damla

M.A., Department of Psychology

Supervisor: Asst. Prof. Dr. Athanasios Mouratidis

July 2019, 96 pages

This diary study was designed to measure the day-to-day relations between social comparison due to using social media with dysfunctional eating behaviors, through needs and body satisfaction. Those parameters were hypothesized to fluctuate day by day, and their mean levels across a series of days to be predicted from participants' interpersonal differences in self-esteem, eating disorder symptoms, life satisfaction, and perfectionism.

**Method:** Participants were 127 adolescents ( $M_{age} = 16.53$  years;  $SD = 1.18$ ; 70.1% females). and the study was consisted of two parts. In the pre-diary phase, participants' self-esteem, eating disorder symptoms, life satisfaction, and perfectionism were assessed. In the diary phase, which started two weeks after the pre-diary phase, participants reported every second day the daily social comparisons they were engaged during social media use, and their daily need satisfaction, body satisfaction and dysfunctional eating behaviors.

**Results:** Multilevel analyses revealed that all the diary measures fluctuated considerably, and that comparisons with famous people related to dysfunctional eating behaviors through need satisfaction and body satisfaction. Visiting friends' accounts was related to need satisfaction and directly to dysfunctional eating behaviors, which were not found for the famous people. The female sample was also found to have similar relation pathways with the full sample. Participants' eating disorder symptoms were found to predict lower mean levels of daily body satisfaction and higher mean levels of dysfunctional eating behaviors.

**Discussion:** The findings suggested that social comparisons might play a vital role on eating behaviors of adolescents, and by means of needs satisfaction and, in turn, body satisfaction. Eating disorder symptoms affected the daily body satisfaction and dysfunctional eating behaviors for the between-person differences. Future interventions targeting at eating behaviors and body satisfaction should consider their dynamic day-by-day fluctuation pattern and the role of social comparisons that adolescents make through social media use on a daily basis.

*Keywords:* social comparison, need satisfaction, dysfunctional eating behaviors, adolescent, body satisfaction, social media use

## ÖZ

# SOSYAL MEDYA ÇAĞINDA ERGENLERİN YEME DAVRANIŞLARI: SOSYAL KARŞILAŞTIRMA, BEDEN MEMNUNİYETİ VE İHTİYAÇ DOYUMU DEĞİŞKENLERİNİN ROLLERİ

Özcan, Selin Damla

M.A., Psikoloji Bölümü

Tez Yöneticisi: Yrd. Doç. Dr. Athanasios Mouratidis

Temmuz 2019, 96 sayfa

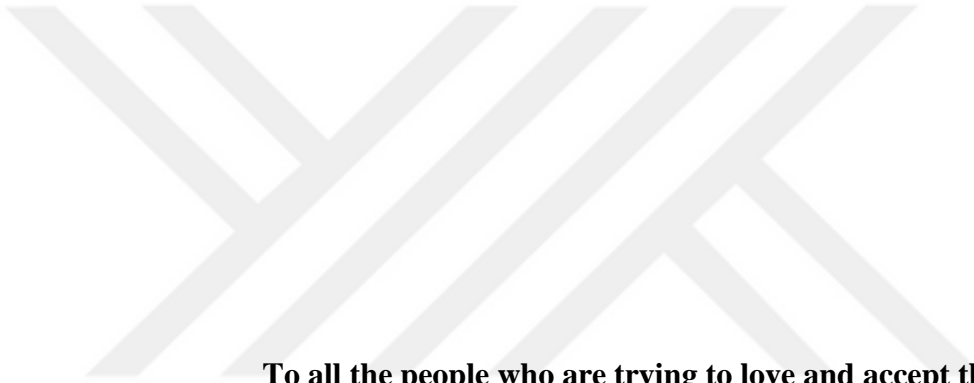
Bu çalışma, sosyal medya kullanımından kaynaklanan sosyal karşılaştırmalar ve işlevsiz yeme davranışları arasında günden güne olan ilişkiyi ihtiyaç doyumu ve beden memnuniyeti üzerinden ölçmek için tasarlanmıştır. Bu parametrelerin günden güne dalgalanma göstereceği hipotez edilmiş ve katılımcıların kişiler arası farklılıklarından olan özsaygı, yeme bozukluğu semptomları, yaşam doyumu ve mükemmeliyetçiliğin günden güne ölçülen değerlerin ortalama seviyelerini öngörebileceği düşünülmüştür.

**Yöntem:** Katılımcılar 127 ergenden oluşmaktadır ( $M_{yaş} = 16.53$  yıl;  $SD = 1.18$ ; % 70.1 kadın) ve çalışma iki bölümden oluşacak şekilde tasarlanmıştır. Günlük öncesi evrede katılımcıların özsaygıları, yeme bozukluğu semptomları, yaşam doyumu ve mükemmeliyetçiliği değerlendirilmiştir. Günlük öncesi evreden iki hafta sonra, katılımcıların iki günde bir sosyal medya kullanımına bağlı karşılaştırma davranışlarını, günlük ihtiyaç doyumlarını, beden memnuniyetlerini ve işlevsiz yeme davranışlarını bildirmeleri istenmiştir.

**Bulgular:** Çok düzeyli analizlere göre tüm günlük parametrelerinin önemli ölçüde dalgalandığını bulunmuştur. Sonuçlara göre, ünlü insanlarla yapılan karşılaştırma işlevsiz yeme davranışları skorları ile günlük ihtiyaç doyumu ve günlük beden memnuniyeti üzerinden ilişkili bulunmuştur. Arkadaşlarla yapılan karşılaştırmalarda, ek olarak arkadaşların sosyal medya hesaplarını ziyaret etmenin günlük ihtiyaç doyumu ve işlevsiz yeme davranışları ile direkt ilişkisi bulunmuştur. Genç kadın örnekleminde de tüm örnekleme benzer sonuçlar bulunmuştur. Katılımcıların yeme bozukluğu semptomları skorlarının günlük beden memnuniyeti skorlarında ortalama olarak daha düşük skorları öngördüğü ve işlevsiz yeme davranışları skorlarında ortalama olarak daha yüksek skorları öngördüğü bulunmuştur.

**Tartışma:** Bulgular, sosyal karşılaştırmaların ergenlerin yeme davranışlarını anlama açısından ihtiyaç doyumu ve buna bağlı olarak bedensel memnuniyeti üzerinden hayati bir rol oynayabileceğini göstermiştir. Yeme bozukluğu semptomlarının günlük değişkenlerden bedensel memnuniyeti ve işlevsiz yeme davranışlarını etkilediği bulunmuştur. Yeme davranışlarının iyileştirilmesi ve beden memnuniyetinin artırılmasını hedefleyen gelecekteki müdahaleler, bu değişkenlerin dinamik yapısını ve ergenlerin sosyal medya kullanımı yoluyla günlük olarak yaptıkları sosyal karşılaştırmaların rolünü göz önünde bulundurmalıdır.

*Anahtar Kelimeler:* sosyal karşılaştırma, ihtiyaç doyumu, işlevsiz yeme davranışları, ergen, bedensel memnuniyet, sosyal medya kullanımı



**To all the people who are trying to love and accept themselves...**

## ACKNOWLEDGEMENTS

First of all, I would like to express my true-hearted gratitude to Asst. Prof. Athanasios Mouratidis. During this process, he was always there when needed, always supported me even though we cannot physically get in touch most of the times. I cannot repay his labor with anything. He made this process much less painful and smooth for me. If this thesis is readable today and turned into a scientific study, my supervisor is the biggest supporter of it. I feel so lucky to be a student of him. I will carry his support and motivations with me throughout my life.

At the same time, I would like to express my sincere thanks to my beloved Asst. Prof. Muazzez Merve Avciođlu, who is more than a teacher to me, a sister. She motivated me when I thought I couldn't manage this process and she was always there for me. I appreciate her presence, and I rely on it both in my professional life and personal life.

Additionally, I would like to thank Assoc. Prof. ř. Gülin Evinç and Asst. Prof. Yađmur Ar Karcı who helped me to improve my thesis by agreeing to take part in my jury committee.

I have my warmest thanks to Batuhan Akbulut, who helped me on all of the processes of this thesis, including data collection and writing up the thesis. Without him, it would be impossible for me to write this thesis. He became my best friend and one of my biggest supporters both in my daily and professional life. He made the whole process easier for me. Also, I am very grateful to my dearest friends Özlem Kırıl, Zeynep Zeynel, Sıla Deniz Beyarslan and İlayda Arkan for making this two-year graduate program meaningful and fun, and supporting me on the thesis process.

Lastly, I would like to thank my dear Umut Çakır, for sharing my both stress and joy during this process, and to my dear father Mustafa Kutlu Özcan and my dear mother Nuran Aslan, for always being there for me and showing me unconditional love.

## TABLE OF CONTENTS

PLAGIARISM.....	iii
ABSTRACT.....	iv
ÖZ.....	v
DEDICATION.....	vi
ACKNOWLEDGEMENTS.....	vii
TABLE OF CONTENTS.....	viii
LIST OF TABLES.....	xi
LIST OF FIGURES.....	xii
CHAPTERS	
1. INTRODUCTION.....	1
1.1 Social Media and Body Satisfaction.....	6
1.2 Social Media and Body Satisfaction: The Role of Social Comparisons.....	7
1.3 From Social Comparisons to Body Satisfaction: The Role of Basic Psychological Needs.....	9
1.4 From Body Satisfaction to Eating Behaviors.....	10
1.5 The Present Research.....	11
2. METHOD .....	15
2.1 Participants.....	15
2.2 Procedures.....	16
2.3 Scales.....	18
2.3.1 Pre-diary Eating Disorder Symptoms.....	18
2.3.2 Pre-diary Perfectionism Scale.....	20
2.3.3 Pre-diary Self-Esteem Scale.....	20



2.3.4 Pre-diary Life Satisfaction Scale.....	21
2.3.5 Body Mass Index.....	21
2.3.6 Daily Social Media Use.....	21
2.3.7 Daily Body Satisfaction.....	22
2.3.8 Daily Dysfunctional Eating Behaviors.....	23
2.3.9 Daily Social Comparisons.....	23
2.3.10 Daily Need Satisfaction.....	23
2.3.11 Plan of Analyses.....	24
3. RESULTS.....	27
3.1 Comparisons with Famous People Model .....	33
3.2 Comparisons with Friends Model.....	37
3.3 Supplementary Analyses with Females Only.....	39
3.4 Comparisons with Famous People Model for Females.....	45
3.5 Comparisons with Friends Model for Females.....	47
4. DISCUSSION.....	49
4.1 Major Findings of the Study.....	49
4.2 Gender Differences.....	56
4.3 Strengths and Limitations.....	58
4.4 Further Implications.....	61
5. REFERENCES.....	65
APPENDICES.....	80
A. Informed Consent for Adolescents.....	80
B. Informed Consent for Parents.....	81
C. Demographic Information Form.....	82
D. Eating Disorders Examination Questionnaire .....	83

E. Child and Adolescent Perfectionism Scale.....	86
F. Rosenberg Self-Esteem Scale.....	87
G. Life Satisfaction Scale.....	88
H. Diary Questions.....	89
I. TED University Ethical Approval Form.....	94
J. Ministry of National Education Ethical Approval.....	96



## LIST OF TABLES

### TABLES

Table 1 Descriptive Information of Male and Female Data.....	15
Table 2 Descriptive Statistics of the Full Sample for Pre-Diary Measure.....	27
Table 3 Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Within-person Level for the Full Sample.....	29
Table 4 Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Between-person Level for the Full Sample.....	32
Table 5 Descriptive Statistics of the Female Data for Pre-diary Measures.....	39
Table 6 Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Within-person Level for Females.....	42
Table 7 Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Between-person Level for Females.....	44

## LIST OF FIGURES

### FIGURES

Figure 1 Model for the daily and between person variables regarding eating behaviors.....	3
Figure 2 Famous People Model for the Full Sample.....	36
Figure 3 Friends Model for the Full Sample.....	41
Figure 4 Famous People Model for the Female Sample.....	46
Figure 5 Friends Model for the Female Sample.....	48



## CHAPTER 1

### INTRODUCTION

Social media have become an integral part of many people's daily lives. It is estimated that about 2.5 billion people are social network users and it was found that an internet user on average had 7.6 social media accounts (Statistica Research Department, 2018). Among social media users, adolescents constitute a large group, with many of them spending, on average, two hours per day on social media (Common Sense Media, 2015). In fact, adolescents seem to devote most of their free time on social media (Strasburger, Jordan, & Donnerstein, 2010), in which every minute about 136,000 photos are uploaded on Facebook worldwide, which is an example of image-based social media platform (Pring, 2012), with many of them promoting either implicitly or explicitly the thin-ideal body type; photos depicting females with flat abdomen, thin legs, and fit bodies and males with muscular and fit bodies (Wallis, 2015). Research has shown that implicitly promoting thin-ideal body type induces social comparisons that can inflict social media users' body and appearance dissatisfaction (Want, 2009) which in turn can lead even to eating disorder (Derenne & Beresin, 2006; Mask & Blanchard, 2011). This is an important issue that needs further attention because eating disorder syndrome is considered among the most detrimental mental illnesses with its mortality rates being on a rise (Fichter & Quadflieg, 2016). In sum, there seems to exist a link between social media use and eating disorders among adolescents as excessive direct exposure to social media brings pressure to endorse a thin ideal body, something which may increase body dissatisfaction, and in turn engage in maladaptive eating habits (López-Guimerà, Levine, Sánchez-carracedo, & Fauquet, 2010).

Given that the onset of eating disorder usually takes place during adolescence (Arcelus, 2011), identifying the reasons that give rise to this syndrome is a critical issue as early interventions can alleviate the problem. Indeed, a recent longitudinal study, has reported

that once an eating disorder has been evolved, it becomes very difficult to stop its progress, and adolescents who already suffer from some severe eating disorder symptoms continue to be in that pathological condition even after 10 years (Pearson et al., 2017). This point is very crucial, because the early detection of eating disorder symptoms may prevent the poor prognosis through timely and appropriate interventions.

Nevertheless, the mechanisms that link exposure of thin body ideal with dysfunctional eating behaviors through body dissatisfaction are not well understood. Also, as most of the research examining these relations has focused on interpersonal differences, it is not well known to what extent body dissatisfaction and dysfunctional eating behaviors fluctuate from day-to-day and whether exposure to thin-ideal body through social media predicts this fluctuation. Showing that body dissatisfaction and in turn dysfunctional eating behaviors are associated with exposure to thin-ideal body in a consistent way across days will further highlight the detrimental role of such exposure among adolescents. Further, as most of this type of research has conducted in Western cultures, we know less whether these associations hold true also in non-Western cultures, such as that of Turkey.

In this thesis, it was examined to what extent day-to-day social media use relates to dysfunctional eating behaviors mainly because of social comparisons. Also, it was investigated whether, day-to-day body dissatisfaction and need frustration act as mediating mechanisms in this relation (see Figure 1). Thus, the associating mechanisms linking social media use with dysfunctional eating behaviors as they fluctuate on a day-to-day basis were considered through a dynamic approach, rather than considering them as solely stable characteristics, this approach enabled the testing of ups and downs of dysfunctional eating behaviors and the respective confluence of their likely antecedents: social media use and comparisons, needs satisfaction, and body satisfaction. Further, it was searched about whether there were any gender-based pathways. Although both genders may suffer from

body dissatisfaction (Cho & Lee 2013), it is possible that the relation between body dissatisfaction and dysfunctional eating behaviors may be especially marked among females (as females tend to favor the thin body ideal). Indeed, research has known that compared to males, females may be more vulnerable to media exposure that promote thinness (Fernandez & Pritchard, 2012), to misinterpret the media messages about thin-ideal and as a result to engage in direct comparisons more (Barcaccia et al., 2017), to express more body dissatisfaction (Jones, 2001) and to suffer from eating disorders (Hay & Mitchison, 2014). On the other hand, it should be acknowledged that males can be affected from social media too, but through the ideal body that promotes muscularity rather than thinness (McCabe & Ricciardelli, 2001). Therefore males are likely to develop an eating disorder too, due to internalization of that specific ideal body type that is promoted through social media (Slater & Tiggemann, 2014).

Between-person differences  
(pre-diary phase)

Perfectionism  
Eating Disorder  
Symptoms

Self-esteem  
Life Satisfaction

Day-to-day fluctuations  
(diary phase)

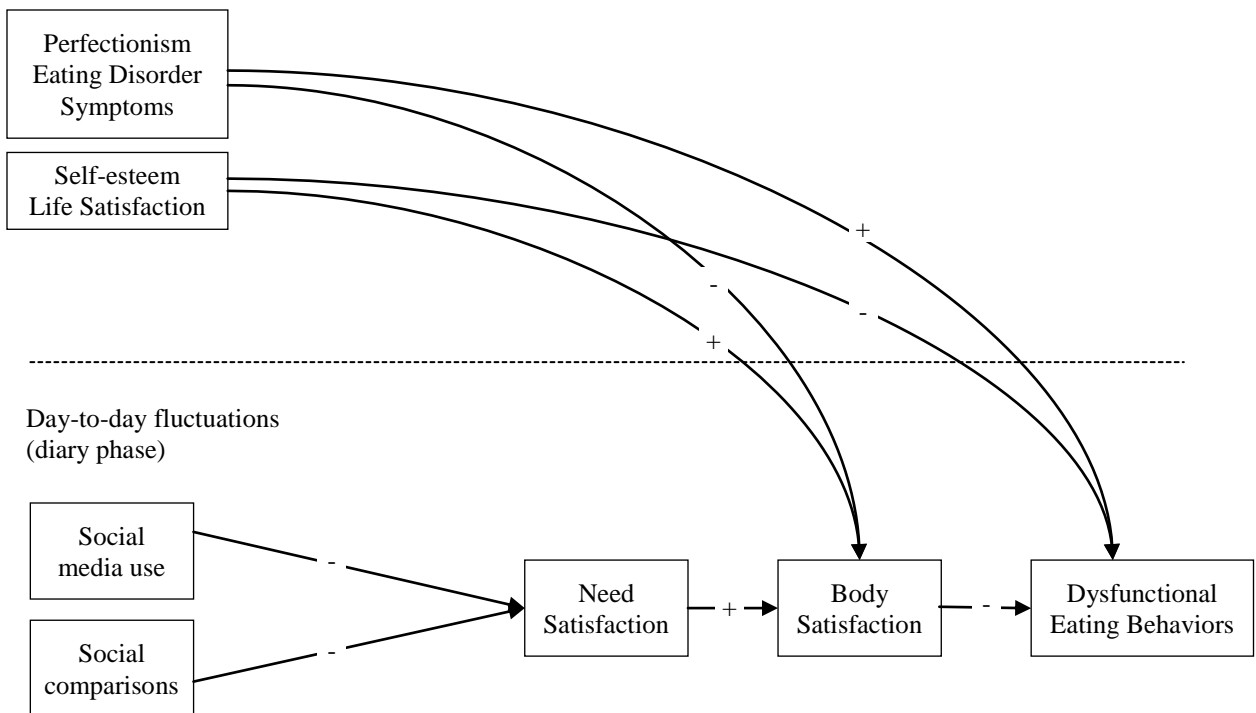
Social  
media use

Social  
comparisons

Need  
Satisfaction

Body  
Satisfaction

Dysfunctional  
Eating Behaviors



*Figure 1.* Model for the daily and between person variables regarding eating behaviors. The paths linking between-person variables to day-to-day social comparisons, need satisfaction, and body dissatisfaction and their relations are not shown for sake of parsimony.

Apart from the gender differences, it was also investigated to what extent other individual factors, namely perfectionism, self-esteem, life satisfaction, and eating disorder symptoms, as they all were assessed during the pre-diary phase, could explain mean level differences in the studied variables. Those variables differ person-to-person, therefore classified as between-person differences.

Perfectionism is reported in the literature to play a role on eating disorders (Fairburn, Cooper, & Shafran, 2003). Specifically, a relation between adolescent perfectionism and eating disorder symptoms has been reported, as longitudinal analyses have found that adolescent girls who report high perfectionism report also more body dissatisfaction and exhibit the highest levels of eating disorder symptoms (Boone, Soenens, & Luyten, 2014). The link between perfectionism and eating disorders is explained as adolescents who have high scores of perfectionism, in other words have high standards for themselves, have a tendency to criticize themselves more on many topics, and their bodies can be one of them. Body is seen by the adolescents as a controllable standard, and by controlling their body they try to control their personal perfectionism (Skårderud & Fonagy, 2012). For understanding the role of perfectionism with eating disorders more, several studies have been conducted. According to these studies, perfectionism predicts eating disorder symptoms, such as body dissatisfaction and drive for thinness (i.e., excessive fear of gaining weight and a preoccupation to be thinner), not only among people diagnosed with eating disorders (Lilenfeld, Wonderlich, Riso, Crosby, & Mitchell, 2006) but also among healthy people (Vansteelandt, Rijmen, Pieters, Probst, & Vanderlinden, 2007). In one of these studies that involved clinical population of female children and adolescents diagnosed with eating disorders, it was found that perfectionism and eating disorders were reciprocally associated



(Drieberg, McEvoy, Hoiles, Shu, & Egan, 2018). Therefore, it is acknowledged that perfectionism can have an explanatory role of eating behaviors of adolescents. Hence, it is a factor that should be investigated on dysfunctional eating behaviors to inform clinicians for further evaluations and experts in designing useful intervention programs.

Self-esteem is another factor that effects eating disorder symptoms. Fairburn and Wilson (1993) suggested that adolescence is the developmental stage during which young people try to form their own identity and that failing to form a coherent identity may disorganize them, increase feelings of doubt about their self, which eventually will leads to low self-esteem. Because adolescents with low self-esteem become more conscious about themselves and critical of themselves, they become more prone to develop eating disorders (Fairburn & Wilson, 1993). Low self-esteem has been linked also with strong desire to be thinner and eating disorder symptoms (Brockmeyer et al., 2013; Courtney, Gamboz, & Johnson, 2008; Fernandez & Pritchard, 2012), and this association has been found among high school students (Tomori & Rus-Makovec, 2000). Also, when the self-esteem scores increased, the treatment outcomes of eating disorders reported to be better (Vall & Wade, 2015). Moreover, research has pointed out that adolescents who are diagnosed with eating disorders tend to define their self-esteem more according to their physical features, like body shape and weight (Serpell, Neiderman, Roberts, & Lask, 2007). At any rate, personal appearance plays a vital role in the development of self-esteem during adolescence (Geller, Srikameswaran, Cockell, & Zaitsoff, 2000), and this could create a vicious cycle where self-esteem can affect physical appearance perceptions which in turn can provoke eating disorders. Even though self-esteem is thought to have various relations with comorbid factors like substance abuse (Stice & Shaw, 2003), anxiety disorders (Sowislo & Orth, 2013) and depression (Stice, Burton, & Shaw, 2004), it is acknowledged that self-esteem is an important

factor that should be taken into account while assessing and applying related treatment programs with adolescence population.

### **1.1 Social Media and Body Satisfaction**

One of the negative implications of exposure to social media concerns body image. Body image refers to one's perception about his or her body and is considered a part of one's identity and perception of the self (Dittmar, 2009). According to Saikali and her colleagues (2004), body image consists of three components; perceptive, subjective and behavioral. The perceptive body image includes one's perception regarding one's physical appearance (e.g., having brown hair), body weight, and body size (e.g., being tall). The subjective body image refers to the concerns one has about his or her physical appearance, whereas the behavioral body image includes the thoughts and behaviors that one endorses to lessen the discomfort because of his or her appearance. Each of these three components can have an effect on body satisfaction, defined herein as the degree to which a person is satisfied with aspects of his or her current physical self that include, among others, body size, body shape, and general appearance (Jones, 2001). Apparently, the more people are satisfied with their body, the less they engage in a set of avoidant behaviors that have direct relation to their appearance. For instance, adolescents with body dissatisfaction tend to avoid wearing slim clothes, social meetings, or eating in front of others (Carmona, Tornero-Quiñones, & Sierra-Robles, 2015).

It should be noted that body dissatisfaction may rest on a distorted image of one's body image (Voelker, Reel, & Greenleaf, 2015). For instance, Brook and Tepper (1997) found female teenagers who were in a risk group of body dissatisfaction to perceive their body as overweight, though they were not according to their body-mass index (BMI). A similar perception was found in a majority of female adolescents who were dissatisfied with their body, though most of them had BMI that was considered normal (Benedikt, Wertheim, & Love, 1998). In another study, it was similarly found that two thirds of adolescents and

emerging adults who reported body dissatisfaction were weighed within the normal range (Santos, Tassitano, Nascimento, Petribú, & Cabral, 2011). Male participants mostly reported a desire to gain body mass, whereas female participants mostly reported a desire to lose weight, and both genders reported body dissatisfaction (Santos et al., 2011). This line of research implies that males and females may equally suffer from body dissatisfaction though they interpret and identify the idealized body differently.

The image-based social media platforms are claimed to have an effect on the perceptive and subjective parts of the body image, altering the perceptions of the users after the exposure to the thin-ideal body types and leading to body dissatisfaction (Perloff, 2014). In fact, the problem of body dissatisfaction caused by social media exposure has become so aggravated that forced some countries such as Spain and Italy to ban the promotion of extremely thin models over media to prevent the preponderance of the thin-ideal body standards (Grabe, Ward, & Hyde, 2008). Young girls are found to be affected negatively from the images that circulate on media (Martin, Martin, & Kennedy, 1993). Additionally, it was found that underaged females were more strongly affected by the thin-ideal body images on social media than older ones (Groesz, Levine, & Murnen, 2002), a finding which indicates the serious impact that social media use can have on body dissatisfaction of female teenagers. But, why social media use and the exposure to thin ideal body relates to body dissatisfaction? Research has shown that a likely mechanism that may explain the relation between exposure to the thin ideal through social media use and body dissatisfaction is social comparisons (Fardouly, Diedrichs, Vartanian, & Halliwell, 2015; Perloff, 2014).

### **1.2 Social Media and Body Satisfaction: The Role of Social Comparisons**

According to Festinger (1954), the comparison made between people is innate and natural as with those comparisons people can better define their own characteristics and attributes, including the physical ones such as physical appearance. The more comparisons

people make, the more they define themselves according to the results of these comparison. Though useful in many circumstances, the comparisons may sometimes come with some psychological cost. According to Richins (1991), social comparisons may breed higher standards of attractiveness, which in turn may undermine body satisfaction. This is because the existing body shape does not meet the adopted new standards of attractiveness, that have been implicitly formed due to the comparisons. Moreover, such kind of social comparisons may carry emotional costs too. After an unfavorable comparison, feelings of inferiority, and eventually shame and guilt may emerge which in turn can bring unhappiness, stress, and feelings of insecurity, all of which are presumed to further increase body dissatisfaction (Rudd & Lennon, 2000).

Among other consequences, body dissatisfaction may lead to bulimic and anorexic behaviors (Rudd & Lennon, 2000). As for the gender differences, it is reported that adolescent females engage in social comparisons more than adolescent boys (Jones, 2001), which underlines the fact that adolescent females are more vulnerable to exhibit such bulimic or anorexic behaviors. For example, a study found that compared to male teenagers female teenagers made more comparisons with respect to the number of likes they got for their photos they posted, reported more jealousy, admitted that they were more dissatisfied with their body, and expressed a desire to be thinner than their friends, or as thin as their friends were (Kalnes, 2013). Additionally, another study found that people who compared themselves with models or with people with thin-ideal body had more obsessions about their own weight and shape, and endorsed behaviors that are indicative of anorexia nervosa, such as direct aim to lose weight and to attain a thin-ideal body (Thomsen, Thomsen, McCoy, & Williams, 2001). It has been also found that teenagers and young adolescents relate and compare themselves with the models in the media more than adults, because the models represented on the media are closer to their ages (Kozar & Damhorst, 2009). This finding

suggests that, adolescents are at risk of being affected from the social media images due to social comparison they usually do.

### **1.3 From Social Comparisons to Body Satisfaction: The Role of Basic Psychological Needs**

A theoretically challenging and practically important question however is why unfavorable comparisons of one's own body shape are associated with body dissatisfaction. Most likely, this happens because the feelings of inferiority may dampen one's basic psychological needs (Thøgersen-Ntoumani, Ntoumani, & Nikitaras, 2010), which is a key issue within the Self Determination Theory (SDT; Deci & Ryan, 2000). Specifically, SDT presumes that people have three basic psychological needs – the need for autonomy, the need for competence, and the need for relatedness – which, when satisfied, people function effectively, integrate successfully their everyday behaviors and activities into their own system of values and beliefs, and in the long run enjoy a healthy psychological growth. The need for autonomy reflects one's preference to have a freedom and willpower on his or her choices and activities; the need for competence refers to one's desire to feel efficacious and that he or she can achieve a desired outcome, while the need for relatedness reflects one's need to feel loved, cared, and connected with others (Ryan & Deci, 2002). In this thesis, it is proposed that when adolescents proceed to unfavorable comparisons with others, they frustrate their need for autonomy (because they feel that they have not a say about their own appearance), competence (because they feel less effective in terms of their own appearance), and relatedness (because they feel that due to their body shape they are less likely to be accepted by their peers). As a result, adolescents are more susceptible to maladjustment.

Indeed, research has shown need frustration relates to psychological ill-being, and even to some forms of psychopathology (Ryan, Deci, Grolnick, & La Guardia, 2006). Not surprisingly, need frustration has been found to relate also to eating disorder symptomatology

(Thøgersen-Ntoumani et al., 2010). A possible reason why need frustration relates to dysfunctional eating behaviors is that adolescents who frustrate their need for autonomy and competence may endorse a rigid eating routine to set up a predictable and secure structure environment. By controlling their food intake and weight, adolescents try to regain their sense of autonomy on their behaviors and by achieving the control, they try to regain their sense of competence. Hence, the food restriction and weight control behaviors may be used as a means to compensate for the frustrated needs of autonomy and competence. By adopting those behaviors adolescents may regain their sense of autonomy and competence (Deci & Ryan, 2000). Moreover, when the need for relatedness is frustrated, adolescents may engage in behaviors that aim to change the appearance of body to gain social approval and therefore to satisfy anew the need of relatedness (Thøgersen-Ntoumani et al., 2010).

There is some evidence in the literature showing how not satisfying needs relates to body dissatisfaction and dysfunctional eating behaviors. For instance, it has been shown that when the three needs (autonomy, competence, and relatedness) are frustrated, teenage girls tend to suffer from body dissatisfaction, which in turn may lead to unhealthy eating and weight control behaviors (Thøgersen-Ntoumani et al., 2010). In a similar fashion, it was found that when the need of autonomy is frustrated in the family, female adolescents tend to display eating disorder symptoms (Karwautz et al., 2003).

#### **1.4 From Body Satisfaction to Dysfunctional Eating Behaviors**

Setting aside the interplay between unfavorable social comparisons to body dissatisfaction through need frustration, there is ample evidence in the literature showing adolescents who are dissatisfied with their body are more likely to adopt unhealthy dietary habits, misuse medications and diuretics, engage in vomiting (Moore, 1993), restrict their food intake, and, in more severe cases, choose to have a plastic surgery in order to become satisfied with their body (Rudd & Lennon, 2000). The behaviors adopted by adolescents who

are dissatisfied with their body may have several negative implications, such as low self-esteem, increased depression, and unhealthy nutritional habits (Stice, Hayward, Cameron, Killen, & Taylor, 2000). Adolescents who are dissatisfied with their body run the risk of developing eating disorders (Vilela, Lamounier, Filho, Neto, & Horta, 2004). It has been found that while adolescents who are pleased with their current weight, eat healthy foods such as fruits and vegetables, eat at least five meals in a day, and sleep better, those who are dissatisfied with their body skip meals, restrict their food intake, and eat non-nutritious foods (Santos et al, 2011). Similar findings have been reported that there was a close relation between body dissatisfaction and unhealthy dietary behaviors (Mäkinen, Puukko-Viertomies, Lindberg, Siimes, & Aalberg, 2012), which are considered indicators of eating disorders. Additionally, it has been reported that being exposed to excessive thin body images on media leads to the internalization of the thin ideal, which in turns leads to the bulimic symptomatology (Stice & Shaw, 1994), a finding which explains the social media effect on body dissatisfaction and dysfunctional eating patterns.

### **1.5 The Present Research**

In the literature, body satisfaction has been found to fluctuate across situations (Haimovitz, Lansky, & O'Reilly, 1993), days (Stefano, Hudson, Whisenhunt, Buchanan, & Latner, 2016), and depending on people's mood (Colautti et al., 2011). Thus, and unlike most previous studies, this thesis treated body satisfaction as a fluctuating characteristic rather than as a stable feature, and the same was true for dysfunctional eating behaviors. Thus, their day-to-day relation to social media use and social comparisons were investigated with daily need satisfaction being an explanatory factor. Specifically, the day-to-day fluctuation of need satisfaction and body satisfaction were examined as potential mediators of the day-to-day relation of social media use and social comparisons to dysfunctional eating behaviors. Although previous research has examined the mediating role of social comparisons and body

satisfaction, to the best of my knowledge, no study before has ever considered need satisfaction as a mediator of the relation of social media to dysfunctional eating behaviors in a diary study. Therefore, because satisfaction of the needs can be undermined from negative daily life experiences, as well as unfavorable social comparisons that may take place through social media on a daily basis, in this study it was examined (a) to what extent body satisfaction and dysfunctional eating behaviors fluctuate within a short period of time (specifically, every second day for a period of 13 days), and (b) whether, this fluctuation coincides with social comparisons that take place through social media use and need satisfaction, and (c) whether need satisfaction and body satisfaction mediate the relation between social comparisons due to social media use and dysfunctional eating behaviors (see Figure 1, bottom panel). Studying the relation of social comparisons through social media use to adolescents' tendency to report dysfunctional eating behaviors by means of need satisfaction and body satisfaction, can inform experts to suggest more effective intervention in the future.

Apart from the day-to-day relations of social comparisons through social media use to dysfunctional eating behaviors through needs satisfaction and body satisfaction, it was investigated to what extent some personal characteristics predict mean-level differences in dysfunctional eating behaviors and body satisfaction. Consider for instance the issue of gender. Most studies have mainly focused on females as the target group. However, in some studies, it was found that males can be also affected from the social media when they are underweight (Presnell, Bearman, & Stice, 2004). Hence, both male and female Turkish adolescents were addressed in this study to measure the relations of social comparisons through social media exposure to dysfunctional eating behaviors through needs satisfaction and body satisfaction.



Apart from studying gender differences, it was investigated, to what extent self-esteem, perfectionism, life satisfaction and eating disorder symptoms (as assessed before the diary phase) explain mean level differences in body satisfaction and dysfunctional eating behaviors. Further, unlike most previous studies which examined the relation of social comparisons to dysfunctional eating behaviors at the between-person level and in Western cultural contexts, in this diary study the day-to-day relations of social comparisons through social media use to dysfunctional eating behaviors by means of needs satisfaction and body satisfaction were examined through a sample that consisted of Turkish adolescents. In that way, the Turkish adolescents' way of using social media and how they were affected from social media will be better analyzed. Turkish adolescents also use social media and possibly engage in social comparisons. Therefore, with the examination of the relations of dysfunctional eating behaviors through social comparisons and mediating factors, the Turkish adolescents will be better understood and possible intervention programs can be formed. Based on these, the following hypotheses have been made:

- First, it was hypothesized that dysfunctional eating behaviors would fluctuate from day to day and that their antecedents, that is, social comparisons, needs satisfaction, and body satisfaction would fluctuate too (Hypothesis 1).
- Second, assuming that social media promote the ideal-body image, it was hypothesized that day-to-day social comparisons due to social media use would relate positively to day-to-day dysfunctional eating behaviors (Hypothesis 2).
- Third, it was hypothesized that the day-to-day relations of social comparisons to dysfunctional eating behaviors would mediate through needs satisfaction, and in turn through body satisfaction, with both of them relating negatively to social comparisons as well as dysfunctional eating behaviors (Hypothesis 3).

- Further, it was hypothesized that the above pattern of day-to-day relations of social comparisons to dysfunctional eating behaviors by means of needs satisfaction and body satisfaction, would hold even when comparisons would refer either to adolescents' friends or some famous people (Hypothesis 4).
- Finally, it was hypothesized that adolescents who score high on perfectionism and eating disorder symptoms, and those who score low in self-esteem and life satisfaction would report less body satisfaction and more dysfunctional eating behaviors than those who score, respectively low in perfectionism and eating disorder symptoms and high in self-esteem and life satisfaction. Thus, perfectionism, eating disorder symptoms, self-esteem, and life satisfaction were expected to predict lower mean levels of body satisfaction and higher mean levels of dysfunctional eating behaviors, irrespective of their day-to-day ups and downs (Hypothesis 5).

## CHAPTER 2

### METHOD

The study is designed to have two parts, a pre-diary phase, and a diary one. In the pre-diary phase participants were provided a battery of questionnaires that included four scales and a demographic information form. Two weeks later, the diary phase started where participants provided reports in the afternoon of every second day for a two-week time period.

#### 2.1 Participants

The initial pool of participants included 127 ( $M_{age} = 16.53$  years;  $SD = 1.18$ ; 70.1% females) high school students who owned at least one social media account (e.g., Instagram, Facebook, Snapchat, etc.). The adolescents, from all of whom a parental consent was provided, which were selected from different schools, located in several regions of Ankara (Yenimahalle, Çankaya and Keçiören). Among participants, 15% of them reported going to first grade, 21.3% of them reported going to second grade, 38.6% of them reported going to third grade and 25.2% of them reported going to fourth grade. 81.1% of the participants reported their socioeconomic status to be middle. The participants in total reported having 3 social media accounts on average ( $M_{socialmediaaccounts} = 3.47$ ;  $SD = 2.27$ ), and 21.3% of the participants reported that they check their social media accounts every 15 minutes. The data is analyzed for females and males (Table 1).

Table 1

#### *Descriptive Information of Male and Female Data*

Descriptive Information	Females	Males
Number of Participants	89	38
Mean Age	16.37 ( $SD = 1.21$ )	16.89 ( $SD = 1.03$ )
Class	47.7% Third Grade	50.3% Fourth Grade

Socioeconomic Status	88.8% Middle SES	63.2% Middle SES
Account Number	3.53 ( <i>SD</i> = 2.28)	3.34 ( <i>SD</i> = 2.28)
Frequency Check	25.8% check 15 minutes	18.4% check 60 minutes

---

*SD*= Standard Deviation

Among 89 females ( $M_{\text{age}} = 16.37$ ;  $SD = 1.21$ ), 18 of them going to first grade of high school, 16 of them going to second grade, 42 of them going third grade and 13 of them going to fourth grade. In the female group, 88.8% of them reported their socioeconomic status being middle. Females' mean number of having social media account is around 3 ( $M_{\text{socialmediaaccounts}} = 3.53$ ;  $SD = 2.28$ ), and 25.8% of females reported that they check their accounts every 15 minutes.

Among 38 males ( $M_{\text{age}} = 16.89$ ;  $SD = 1.03$ ), 1 of them going to first grade of high school, 11 of them going to second grade, 7 of them going third grade and 19 of them going to fourth grade. In the male group, 63.2% of them reported their socioeconomic status being middle. Males' mean number of having social media account is around 3 ( $M_{\text{socialmediaaccounts}} = 3.34$ ;  $SD = 2.28$ ), and 18.4% of them reported that they check their accounts every 60 minutes. 42.1% of males checked the "other" box for the account checking question. Among the answers, males reported that they check their accounts mostly when there is a notification from the social media accounts.

## 2.2 Procedures

First, the ethical committee of TED University approved the study. Because the participants were high school students, an additional approval was needed, and granted, from the Ministry of National Education. After that, different high schools were visited and the study was conducted with the schools of which principals gave permission to conduct the study and provided available time slots to apply the pre-diary battery in the classrooms. The author visited twice each classroom. In her first visit she explained the purposes of the study

and distributed to those who were interested parental consent forms. She also described the design of the study (i.e., that there will be a pre-diary and a diary phase), and highlighted that participants had the right to deny participation at any stage without any consequences. Also, assurance was given that their answers would remain confidential. Participants were kindly requested to sign a consent letter, and to hand to their parents to sign a similar form with which they would permit their children to participate in the study. For the second part of the study, the participants were asked to provide their telephone numbers for the online links to be sent. Because some parents might not want their children to provide their own contact numbers, participants were told that they could provide either their own telephone numbers or that of their parents'. For the sake of privacy of personal information, participants were asked to pick up a nickname for themselves and use it throughout the study. Participants were asked to bring the consent forms to the second visit if they accept all of the terms.

The second visit was made for the application of the pre-diary forms. Only participants who provided the two consent forms (parent, participant) were eligible to fill out the pre-diary questionnaires. The battery was in a paper-and-pencil form. On that visit, participants were reminded anew of their right to withdraw, the confidentiality of their responses and the following steps (i.e., that there would be an diary phase), and needed explanations were given based on the questions of participants.

The participants who reported that they do not use any social media accounts were excluded from the study, and the remaining participants were selected to continue for the diary phase.

In the dairy one, participants were asked to fill out a short online questionnaire every second night for 13 days (seven times, in total). The participants filled out the first questionnaire after 2 weeks of their pre-diary battery application date. For example, if the pre-diary was applied on Friday, the diary phase started after two Fridays, and then continued

on Sunday, Tuesday, Thursday, Saturday, Monday and lastly on Wednesday. In this way, 4 weekdays and 3 weekends (Friday is counted as a weekend day) were included in the study, regardless of which date of the week the participants started filling out the online diary questionnaires. For each day, participants received an online reminder in the afternoon to fill out the online questionnaire. The notification was sent through an SMS with the nicknames of participants. On days the notification to be sent, the time for SMS was planned to be 20.00. During that diary phase, they reported frequency of their social media use, the accounts that they have seen throughout the day, the social comparison they have made, to what extent they satisfied their basic psychological needs, their body satisfaction and dysfunctional eating behaviors.

The diary data were collected through online questionnaires, with all the questions requiring an answer before the daily battery being successfully submitted. The diary data were classified according to the participants' nicknames, ranked according to answer dates, and then matched with the respective pre-diary battery data.

## **2.3 Scales**

**2.3.1 Pre-diary Eating Disorder Symptoms.** To assess to what extent adolescents had eating disorder symptoms, the Eating Disorder Examination Questionnaire (EDEQ; Fairburn & Beglin, 1994) was used. In particular, the scale consists of four subscales: Restraint subscale which refers to limiting the amount of food and consists of items like "Have you *tried* to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?" and "Have you been deliberately *trying* to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?". Shape concern subscale which refers to thoughts and beliefs about the shape, consists of items like "Has your *shape* influenced how you think about (judge) yourself as a person?" and "How dissatisfied have you been with

your *shape*?". Weight concern subscale which refers to thoughts and beliefs about the weight, consisting of items like "How dissatisfied have you been with your *weight* (number on the scale)?" and "Have you had a strong desire to lose weight?". Eating concern subscale which refers to the thoughts and beliefs about eating behavior, consists of questions like "Have you had a definite fear of losing control over eating?" and "Over the past 28 days, on how many days have you eaten in secret (ie, furtively)". The original scale includes 28 items - five questions tapping into eating concerns (e.g., "Has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?"); five items assessing food restraint (e.g., "Have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?"); eight items gauging body shape concerns (e.g., "Has your shape influenced how you think about (judge) yourself as a person?"); five items assessing weight concerns (e.g., "How much would it have upset you if you had been asked to weigh yourself once a week (no more, or less, often) for the next four weeks?"), one of which is common with the both shape concerns subscale; six items measuring binge eating and use of laxative substances (e.g., "Over the past 28 days, how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?"). For the purposes of this study all but the binge eating and use of laxative subscale were used. The participants answered to what extent they were engaged in any of the above behaviors or thoughts over the past 28 days on a seven-point Likert-type scale (0 = *Not at all*; 6 = *Every day*). Higher scores indicate higher tendencies to have eating disorders.

Previous studies have shown satisfactory internal consistency for each subscale (Luce & Crowther, 1999). The EDEQ was adapted to Turkish (Yucel et al., 2011), and the Cronbach alpha for the whole scale in that study was found to be .93. In this study, two questions of this scale ("Over the past 28 days, how many times have you made yourself sick

(vomit) as a means of controlling your shape or weight?" and "Over the past 28 days, how many times have you taken laxatives as a means of controlling your shape or weight?") had been omitted in response to the recommendation of Ministry of National Education, which considered these questions inappropriate as they might indirectly and implicitly encourage adolescents to use of vomiting, or misuse medication to control their body shape or weight. The Cronbach alpha for the whole scale in the current study was found to be .95.

**2.3.2 Pre-diary Perfectionism Scale.** The Child and Adolescent Perfectionism Scale (Flett, Hewitt, Boucher, Davidson, & Munro, 2000) is a scale that consists of 22 items and it assesses self-induced perfectionism (i.e., highly self-set standards) with 12 items and socially-prescribed perfectionism (i.e., one's perception that others demand perfection from him or her) with 10 items. The scale is in self-report style, and it is answered based on a five-point rating (1 = *False-Not at all true of me*; 5 = *Very true of me*). Higher scores indicate higher levels of perfectionism. Self-induced perfectionism subscale includes questions like "I try to be perfect in everything I do", and "It really bothers me if I don't do my best all the time". The socially-demanded perfectionism subscale includes questions like "People around me expect me to be great at everything" or "There are people in my life who expect me to be perfect" etc. The Cronbach alpha coefficient for self-set perfectionism scale is .85 and for the social demand of perfectionism is .81 (Flett et al, 2000). The scale was adapted to Turkish for adolescent population (Baş Uz & Siyez, 2010), where four items have been eliminated (items 3, 4, 9, and 22). The resultant Turkish version comprises 18 items; nine items for self-induced perfectionism subscale and nine items for socially demanded perfectionism subscale. The Cronbach alpha levels of the subscales are in order of .72 and .86 for adolescent population (Baş Uz & Siyez, 2010). In the current study, the Cronbach alpha levels of the subscales were found to be .73 for the self-induced perfectionism and .88 for the socially demanded perfectionism.



**2.3.3 Pre-diary Self-Esteem Scale.** The Rosenberg Self-Esteem Scale has been developed by Morris Rosenberg (1965) and its aim is to measure global self-worth by looking both positive and negative feelings about the self. It is a 10-item scale with satisfactory internal consistency and test-retest reliability (Rosenberg, 1965). The scale consists of 10 questions like "On the whole, I am satisfied with myself" or "I take a positive attitude toward myself". Higher scores indicate higher self-esteem and are all answered on 4-point Likert-type scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*) with higher scores indicating higher self-esteem. The scale has been successfully adapted to Turkish population by Çuhadaroğlu (1986). In the present study, the internal consistency of the scale was  $\alpha = .89$ .

**2.3.4 Pre-diary Life Satisfaction Scale.** Five items, taken by the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) were used to assess the degree to which the participants are satisfied with their everyday life as an index of their psychological well-being. A sample item reads "In most ways my life is close to my ideal". For each question, the adolescents answered to a 7-point Likert-type scale (1 = *Strongly disagree*; 7 = *Strongly agree*). The coefficient alpha was found to be .87 (Diener et al., 1985). The scale has been successfully adapted to Turkish and the Cronbach alpha for university students has been found to be .81 (Durak & Senol-Durak & Gencoz, 2010). In the present study, the Cronbach alpha was acceptable ( $\alpha = .81$ ).

**2.3.5 Body Mass Index.** Participants' Body Mass Index (BMI) was calculated by dividing their weight by their height, squared (i.e.,  $\text{weight} / \text{height}^2$ ) to statistically control for the effects that BMI could have on any of the hypothesized relations. Including BMI was necessary because previous research has shown that high BMI is highly correlated with obesity, depression and anxiety (Luppino et al., 2010; Zhao et al., 2009), and BMI by itself is found to have a relation with body dissatisfaction in young females (Pop, 2017; Yates, Edman, & Aruguete, 2004). BMI was intended to be controlled to see whether participants

report the hypothesized relations regardless of their weight, which means they had the eating disorder symptoms because of their cognitions and thoughts about themselves. The related information for BMI calculation was asked in EDEQ, which can be seen in the original scale (Yucel et al., 2011).

**2.3.6 Daily Social Media Use.** During the diary phase and every second night the adolescents reported (a) the average time they spent on social media in that day (through the question "*How much time have you spent on social media today?*") and (b) how many times they checked their social media accounts (through the question "*How much time have you spent on checking your social media accounts today?*"). In particular, and following the paradigm of Cohen, Newton-John, and Slater (2017), participants were asked how many times and how much did they spend in total on visiting social media accounts that refer to (a) Health and Fitness, (b) Celebrity, and (c) Travel content (Cohen et al, 2017). By health and fitness accounts, it was mentioned as accounts including images of people doing fitness trainings, posing to show muscles etc. By celebrity accounts, it was mentioned as famous people accounts including youtubers, influencers, musicians, actors and actresses etc. By travel accounts, it was mentioned as accounts sharing photos of must see points, touristic places etc. Adolescents were also asked about their exposure to their friends' images shared on social media accounts. Travel accounts were used as a control group with containing more neutral images compared to other account types. Adolescents answered to specific social media accounts questions ("*How often have you encountered Health and Fitness accounts (fitness bloggers, diet plans etc.) today?*", "*How often have you encountered Celebrity accounts (models, actors and actress etc.) today?*", "*How often have you encountered Travel accounts (places, attractions etc.) today?*" and "*How many times have you visited your friends' social media accounts today?*") based on 5-point Likert-type scale ranging from "Never" to "Very often".

**2.3.7 Daily Body Satisfaction.** Given that for practical reasons the diary part of the questionnaire should be short so as not to overload the participants, two questions, taken from the EDEQ were adjusted and used to assess adolescents' daily body satisfaction: "How satisfied have you been today with your *weight*?" and "How satisfied have you been today with your *shape*?". The internal consistency of this two-item subscale was  $\alpha = .96$ .

**2.3.8 Daily Dysfunctional Eating Behaviors.** Accordingly, two questions taken also from the EDEQ were adjusted to assess participants' compensatory behaviors as a response to body dissatisfaction: "Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight today?" and "Have you experienced such episodes of overeating today (i.e. you have eaten an unusually large amount of food and have had a sense of loss of control at the time)?". The internal consistency of this two-item daily scale was found to be  $\alpha = .54$

**2.3.9 Daily Social Comparisons.** Two questions, taken from Jones (2001), were used to assess the degree to which participants compared themselves with celebrities, with people shown in health and fitness accounts, and with friends based on height, weight, body shape and attractiveness (e.g., "*Regarding the physical features listed below, please rate how frequently did you compare yourself today to people seen in the health and fitness, and celebrity accounts*" and "*Regarding the physical features listed below, please rate how frequently did you compare yourself today to friends on social media*"). These questions had been originally created to assess general social comparisons, but the questions were adjusted to target comparisons that people can make with respect to others presented in social media. The questions were answered to a 5-point Likert-type scale ranging from never to always, and the internal consistency for friend comparison items was  $\alpha = .88$  and for fitness and famous comparison items was  $\alpha = .90$ .

**2.3.10 Daily Need Satisfaction.** Three items, taken from Basic Psychological Needs Satisfaction and Need Frustration Scale (Chen et al., 2015) were used to assess to what extent the adolescents satisfied their basic psychological need for autonomy (e.g., “I feel that my decisions reflect what I really want”), competence (e.g., “I feel capable at what I do”), and relatedness (e.g., “I feel close and connected with other people who are important to me”). Those questions were answered based on a 5-point Likert scale, ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). In the original scale, the Cronbach alphas are .77 for the autonomy, .72 for relatedness and .77 for competence (Chen et al., 2015). For the Turkish adaptation of this scale, the research has shown good internal consistency (Mouratidis, Michou, Demircioğlu, & Sayil, 2018) and the same was true for the three-item diary version that was used in the present study ( $\alpha = .97$ ).

### **2.3.11 Plan of Analyses**

When daily measures are used in a study, multilevel analysis should be used to detect and claim the results as significant. Also by this way, theories can be generated with the multilevel analysis and further explanation can be sought, and variability can be detected correctly. Because repeated measures were used in this study in the diary section, the best suitable method is through multilevel analysis, because with this method the violation of the assumption of the independence of observations because of the individual responses which correlate with each other can be accommodated. Further, because we expect the individual responses to fluctuate, and thus not to be linear, the simple linear regression model cannot capture this fluctuation. Through multilevel analysis, the variation in the individual measurements on multiple subjects can be examined. In essence, multilevel analysis is based on the logic that there can be two (or more) levels. At the lower level there is a unique regression for each cluster (herein, each individual) that includes a number of measures nested within this cluster (herein, the daily reports of each individual). At the higher level, the

overall model tries to find a common ground among the coefficients of each unique regression and further to explain why some coefficients may deviate from person to person by examining possible between-person differences. In practice, there are three issues that can be concurrently investigated through multilevel modeling. First, to what extent dysfunctional eating behaviors or body satisfaction may fluctuate from day to day and whether these fluctuations could be explained by respective day-to-day fluctuations of the hypothesized predictors (such as social media use). This part of analyses concerns the lower (i.e., within-person) level. Second, to what extent, regardless of these day-to-day fluctuations and associations, between-person characteristics (such as self-esteem or life satisfaction) can explain why some participants may report, on average, higher levels of day-to-day dysfunctional eating behaviors than some other participants. This part of analyses concerns the higher (i.e., between-person) level. Third, to what extent such between-person characteristics may explain why the day-to-day associations between daily predictors and outcomes may differ from person to person. This part of analyses concerns the moderating (i.e., cross-level) effects that the between-person (level 2) predictors can have at the within-person (level 1) relations.

Mathematically, the multilevel model is as follows:

At the lower (within-person) level, which means level 1,

$$Y_{ij} = \beta_{0j} + \beta_{1j} + r_{ij}$$

where,

$Y_{ij}$  refers to the outcome (e.g., dysfunctional eating behaviors) in day  $i$  for person  $j$ ,

$\beta_{0j}$  refers to the intercept of the regression that refers to person  $j$ ,

$\beta_{1j}$  refers to the slope (i.e., the relation) between the outcome  $Y$  and the predictor  $x_1$  in day  $i$  for person  $j$ , and

$r_{ij}$  refers to the error (unexplained variance) for person  $j$

At the higher (between-person) level, which means level 2,

$$\beta_{0j} = \gamma_{00} + \gamma_{01} + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11} + u_{1j}$$

where,

$\beta_{0j}$ , which, as said above, is the intercept of the regression that refers to person  $j$  and it is estimated through an overall intercept,  $\gamma_{00}$ , a between-person predictor ( $\gamma_{01}$ , e.g., self-esteem), and the error (i.e., unexplained variance)  $u_{0j}$

$\beta_{1j}$ , which is the slope (i.e., relation) between the outcome  $Y$  and the predictor  $x_1$  for person  $j$  and it is estimated through a mean relation,  $\gamma_{10}$ , (called intercept of slope), the between-person predictor ( $\gamma_{11}$ , such as self-esteem) which serves as the potential moderator that can explain why the relation between  $Y$  and  $x_1$  may differ from person to person, and the associated error (unexplained variance),  $u_{1j}$ . Nevertheless, for reasons of model parsimony because of the relatively small ratio of sample size to the total number of estimated paths, the final model was tested with fixed slopes (i.e., without  $u_{0j}$  or  $u_{1j}$ ).

## CHAPTER 3

### RESULTS

The descriptive information of the full sample for the pre-diary measures can be seen in Table 2. According to the data, the eating disorder symptoms score, which was measured to understand the overall inclination of participants' towards developing an eating disorder was moderately low, and the same was true for self-oriented and socially-oriented perfectionism, self-esteem and life satisfaction scores. Body Mass Index (BMI) of the full sample was found to be in normal range, according to the international cut-off points and those that refer to the Turkish population samples (Bundak et al., 2006; Nuttall, 2015).

Table 2

*Descriptive Statistics of the Full Sample for Pre-Diary Measures*

Variables	Mean	Standard Deviation
Eating Disorder Symptoms	1.27	1.22
Self-oriented Perfectionism	2.99	0.69
Socially-oriented Perfectionism	2.79	0.97
Self-Esteem	3.08	0.59
Life Satisfaction	4.29	1.31
Body Mass Index	21.55	3.69

The means, standard deviations and bivariate correlations among the study of the variables for the full sample at the within-person (daily) level are shown in Table 3. This table shows the intraclass correlation coefficient (ICC) which reveals the proportion of variance lying at the between person level. As can be seen, although most of the variance existed among students (i.e., at the between-person level), a considerable variance was also lying at the within-person level, which reflect the day-to-day variation in the reported scales.

For instance, the ICC for visiting famous people's accounts implies (see bottom row in Table 3) although 60% of the variance was lying at the between-person level and thus it was attributed to student interpersonal differences, the remaining part (i.e. 40%) was lying at the within-person level. This finding suggests that about 40% of the observed variance was due to participants' day-to-day fluctuations. Accordingly, inspection of the ICC for visiting friends' accounts implies that 60% of the variance was due to the daily fluctuations and for visiting friends' accounts the ICC was 40%. For the comparison with famous people inspected, it was found that 28% of the variance was because of daily fluctuations and for the comparison with friends the variance was reported to be 32%. Given the respective ICCs, daily fluctuation of body satisfaction was about 20%, while daily need satisfaction and dysfunctional eating behaviors was close to 50%. Here, it can be said that diary measures had daily fluctuation, in other words there was a lot daily variability, which supported the Hypothesis 1.

Also, As can be noticed from the Table 3, visiting famous people's accounts was found to have positive relation with visiting friends' accounts ( $r = .30, p < .01$ ), comparison made with famous people ( $r = .35, p < .01$ ), comparison made with friends ( $r = .39, p < .01$ ), and with dysfunctional eating behaviors ( $r = .25, p < .01$ ). Visiting friends' accounts was found to have positive relation with comparison made with friends ( $r = .32, p < .01$ ) and a negative relation to daily needs satisfaction ( $r = -.25, p < .01$ ). Comparison with famous people by itself was found to have a very strong positive relation with comparison with friends ( $r = .80, p < .01$ ), with being related positively to dysfunctional eating behaviors ( $r = .39, p < .01$ ), and negatively to body satisfaction ( $r = -.45, p < .01$ ). These statistically significant correlations provided support to Hypothesis 2. Comparison with friends was not found to have relations as strong as comparison with famous people, it was reported that comparison with friends had a negative relation with daily needs satisfaction ( $r = -.21, p <$



.01) and with body satisfaction ( $r = -.36, p < .01$ ), and a positive relation with dysfunctional eating behaviors ( $r = .28, p < .01$ ). Daily need satisfaction related positively with daily body satisfaction ( $r = .26, p < .01$ ) and negatively with dysfunctional eating behaviors ( $r = -.15, p < .05$ ). Daily body satisfaction was found to have a negative relationship with dysfunctional eating behaviors ( $r = -.35, p < .05$ ). To summarize, when the visits of famous people's accounts and friends' accounts increased, the comparison behavior also increased, and with the increase of daily comparisons, daily need satisfaction and body satisfaction decreased, and finally with the decrease of body satisfaction, the dysfunctional eating behaviors increases.

Table 3

*Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Within-person Level for the Full Sample*

Variables	1	2	3	4	5	6	7
Diary measures							
1. Visiting famous people's accounts	-						
2. Visiting friends' accounts	.30**	-					
3. Comparisons with famous people	.35**	.26**	-				
4. Comparisons with friends	.39**	.32**	.80**	-			
5. Needs satisfaction	-.11	-.25**	-.22**	-.21**	-		
6. Body satisfaction	-.16	-.17*	-.45**	-.36**	.26**	-	
7. Dysfunctional eating behaviors	.25**	.19*	.39**	.28**	-.15*	-.35*	-
Mean	2.42	1.87	1.61	1.71	3.40	4.41	1.82
SD	1.28	0.96	0.88	0.93	0.97	1.62	1.23
ICC	.60	.40	.72	.68	.54	.80	.56

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . Based on  $N = 439$  daily observations

Setting aside the within-person variation, Table 4 shows the means, standard deviations and bivariate correlations among the studied variables for the full sample at the between-person level. Visiting famous people's accounts was found to have a moderate positive relation with visiting friends' accounts ( $r = .51, p < .01$ ), comparison with famous people ( $r = .51, p < .01$ ) and comparison with friends ( $r = .57, p < .01$ ). Also, it was found that visiting famous people's accounts was found to have a moderate positive relation with dysfunctional eating behaviors ( $r = .48, p < .01$ ). For the pre-diary measures, visiting famous people's accounts was only found to have a positive relation with dysfunctional eating behaviors ( $r = .29, p < .05$ ). Visiting friends' accounts was found to have moderate positive relation with comparison with famous people ( $r = .40, p < .01$ ), comparison with friends ( $r = .49, p < .01$ ) and positively related with dysfunctional eating behaviors ( $r = .38, p < .01$ ). Visiting friends' accounts was also found to have a negative relation with daily need satisfaction ( $r = -.34, p < .05$ ). For the pre-diary measures, visiting friends' accounts was only found to have a positive relation with eating disorder symptoms ( $r = .35, p < .05$ ). Comparisons with famous people was found to have a very strong positive relation with comparison with friends ( $r = .96, p < .01$ ), and moderately related with dysfunctional eating behaviors ( $r = .50, p < .01$ ), also negatively related with daily body satisfaction ( $r = -.46, p < .01$ ). For the pre-diary measures, comparison with famous people was found to have several relations with self-induced perfectionism ( $r = .27, p < .01$ ), socially prescribed perfectionism ( $r = .28, p < .01$ ) and negative relation with self-esteem ( $r = -.26, p < .05$ ). Comparison with friends was found to have strong positive relation with dysfunctional eating behaviors ( $r = .60, p < .01$ ) and negative moderate relation with body satisfaction ( $r = -.59, p < .01$ ). It was found to have a negative relation with daily need satisfaction ( $r = -.26, p < .05$ ). For the pre-diary measures, comparison with friends was found to have a strong positive relation with eating disorder symptoms ( $r = .63, p < .01$ ) and a negative moderate relation with self-esteem

( $r = -.42, p < .01$ ). Daily need satisfaction was found to have a positive relation with daily body satisfaction ( $r = .28, p < .01$ ), and a negative relation with dysfunctional eating behaviors ( $r = -.26, p < .05$ ). Daily need satisfaction had positive relation with self-esteem ( $r = .37, p < .01$ ) and life satisfaction ( $r = .38, p < .01$ ). Daily body satisfaction related strongly and negatively with eating disorder symptoms ( $r = -.75, p < .01$ ), and related moderately with self-esteem ( $r = .41, p < .01$ ) and positively related with life satisfaction ( $r = .27, p < .01$ ). Lastly, dysfunctional eating behaviors related moderately with eating disorder symptoms ( $r = .57, p < .01$ ), and negatively with self-esteem ( $r = -.28, p < .01$ ). Body Mass Index was found to be only related with eating disorder symptoms ( $r = .22, p < .01$ ) and with life satisfaction ( $r = -.21, p < .05$ ). According to the pre-diary measures, self-esteem and eating disorder symptoms seem to be the most important variables as those had various statistically significant relations with the diary measures. Perfectionism, on the other hand, seems to have nearly no significant relation with participants' daily measures and pre-diary measures, which was surprising and not compatible with the literature. The only relation of self-induced perfectionism was found with comparison with famous people ( $r = .27, p < .01$ ) and a negative relation with self-esteem ( $r = -.19, p < .05$ ). Socially prescribed perfectionism had a positive relation with comparison with famous people ( $r = .28, p < .01$ ) and a positive relation with eating disorder symptoms ( $r = .15, p < .05$ ). Therefore, the perfectionism measures were not included in the model. The model was formed accordingly.

Table 4

*Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Between-person Level for the Full Sample*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
Diary measures															
1. Visiting famous people's accounts	2.42	1.28	-												
2. Visiting friends' accounts	1.87	0.96	.51**	-											
3. Comparisons with famous people	1.61	0.88	.51**	.40**	-										
4. Comparisons with friends	1.71	0.93	.57**	.49**	.96**	-									
5. Daily needs satisfaction	3.40	0.97	-.19	-.34*	-.25*	-.26*	-								
6. Daily body satisfaction	4.41	1.62	-.27*	-.25*	-.46**	-.59**	.28**	-							
7. Dysfunctional eating behaviors	1.82	1.23	.48**	.38**	.50**	.60**	-.26*	-.47**	-						
Pre-diary measures															
8. Body Mass Index	20.64	5.78	-.05	.00	-.08	-.04	-.15	-.17	.13	-					
9. Self-induced perfectionism	2.65	0.99	.05	.13	.27**	.18	-.05	-.01	.07	-.15	-				
10. Socially prescribed perfectionism	2.94	0.72	.05	.11	.28**	.16	.02	-.10	.03	-.14	.43**	-			
11. Eating disorder symptoms	1.26	1.19	.29*	.35*	.53**	.63**	-.18	-.75**	.57**	.22**	.07	.15*	-		
12. Self-esteem	3.00	0.66	-.13	-.21	-.26*	-.42**	.37**	.41**	-.28*	-.13	-.19*	.05	-.39**	-	
13. Life satisfaction	4.28	1.30	-.01	-.12	-.03	-.17	.38**	.27**	-.03	-.21*	-.04	.10	-.17*	.52**	-

Next, two main models were examined; the one in which needs satisfaction, and in turn, body satisfaction and dysfunctional eating behaviors are predicted by the comparisons that participants had made of themselves with famous people, and the other by the comparisons they had made with their friends. In both models it was tested whether daily comparison with famous people (or with friends) predicted dysfunctional eating behaviors by means of daily body satisfaction and in turn by means of daily need satisfaction. This part of the model examined the relations of the daily measures at the within-person level. Setting aside the day-to-day relations, the mean level differences in dysfunctional eating behaviors and daily body satisfaction between participants (i.e., at the between-person level) were set to be predicted by between-person differences of eating disorder symptoms, as assessed through the pre-diary measures. Further, in both models and at the between-person level, it was examined to what extent such between-person differences in pre-diary eating disorder symptoms (a) predicted self-esteem and (b) were predicted by self-esteem. In essence it was examined whether pre-diary eating disorder symptoms mediated the relation between self-esteem and life satisfaction. In both models, BMI was included as a between-person covariate to statistically control for possible effects due to this factor. In contrast, in both models none of the two types of perfectionism (i.e., self-oriented and socially-prescribed perfectionism) were included as a between-person predictor as preliminary analyses showed that neither of the two were related to any of the daily measures (except comparisons with famous people – see Table 4).

**3.1 Comparisons with Famous People Model.** The multilevel model with the estimated coefficients is shown in Figure 2. As can be noticed, daily comparison with famous people significantly predicted daily need satisfaction ( $\beta = -.19, p < .05$ ), suggesting that the when daily comparison of one's self with famous people increased, daily needs satisfaction decreased at the within-person level. Daily frequency of visiting famous people's accounts

seemed not to play a role on the daily need satisfaction. In turn, the daily needs satisfaction were found to positively predict daily body satisfaction ( $\beta = .19, p < .05$ ) which in turn negatively predicted dysfunctional eating behaviors ( $\beta = -.24, p < .05$ ). These findings provided support to Hypothesis 3, which stated that day-to-day relations of social comparisons to dysfunctional eating behaviors would be mediated through needs satisfaction, and in turn through body satisfaction.

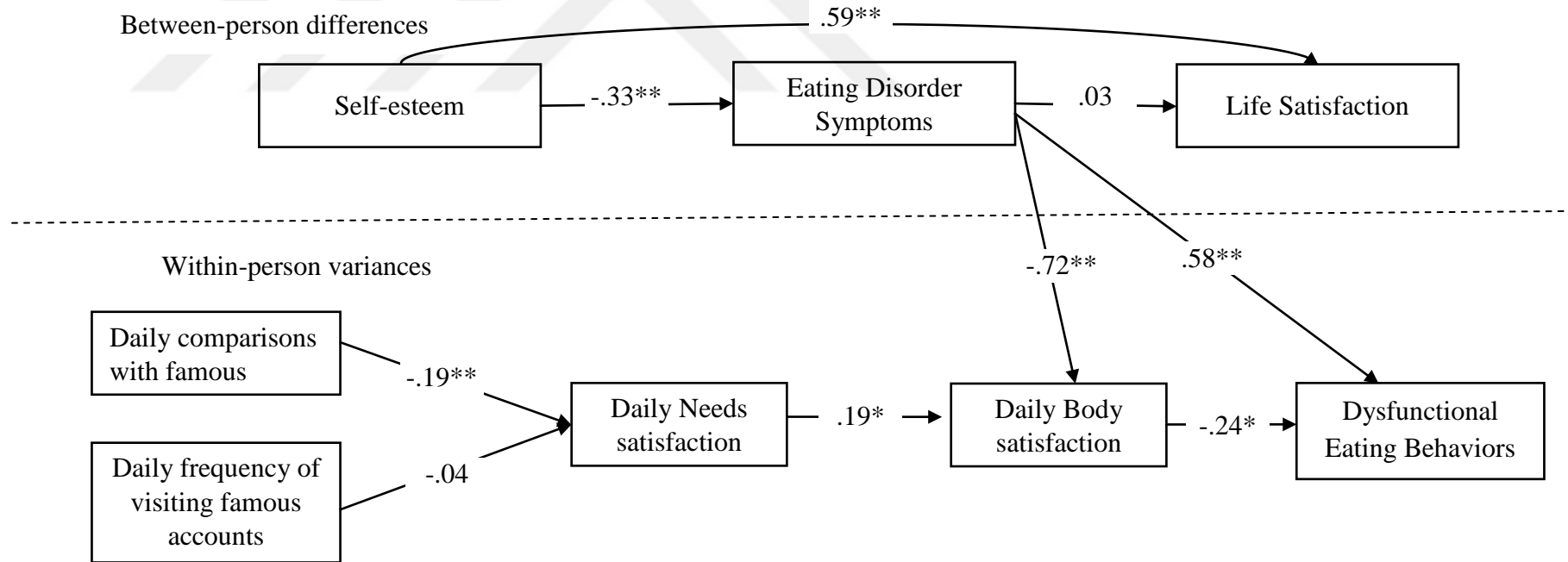
In sum, at the within-person level, if a participant engaged in daily comparisons with famous people or fitness trainers on a specific day, she or he is less likely to satisfy her or his basic psychological needs in that particular day, and in turn express less body satisfaction, and eventually to report more dysfunctional eating behaviors. Given the fluctuation in the reported measures across the assessment days, this pattern of relations suggest that day-to-day changes in the comparison behavior coincided with respective day-to-day changes in eating behaviors by means of psychological needs and body satisfaction; whenever the comparison increased, then dysfunctional eating behaviors increased as well.

Setting aside the day to day fluctuations of dysfunctional eating behaviors and its relation to its proximal predictors (such as body satisfaction) and distal predictors (such as needs satisfaction and social comparisons) at the within-person level, pre-diary eating disorder symptoms scores were found to negatively predict between-person differences in daily body satisfaction measures ( $\beta = -.72, p < .01$ ) and dysfunctional eating behaviors ( $\beta = .58, p < .01$ ) at the between-person level. Interestingly, these associations were found to be statistically significant even though BMI was taken into account. These results provide partly support to Hypothesis 5 as only pre-diary eating disorder symptoms and not perfectionism or self-esteem or life satisfaction were found to predict mean level differences in either daily body satisfaction or dysfunctional eating behaviors. These findings suggest that even though there are differences of a participant's daily answers, which means a single participant's

answers for different days are not the same, the mean (or average) level of those answers could be explained by the individual differences like eating disorder symptoms as assessed at the pre-diary phase as a stable, between-person characteristic. For example, people who had higher scores of EDEQ at the pre-diary phase, reported, on average, lower scores of daily body satisfaction and higher scores of dysfunctional eating behaviors across the diary measurement, regardless of the daily fluctuations and other diary variables. Those participants were more inclined to report higher scores of eating disorder symptoms probably because in the beginning they admitted having higher score of eating disorder symptoms, than their peers who had lower scores of eating disorder symptoms in the pre-diary phase. Moreover, self-esteem was found to predict pre-diary eating disorder symptoms ( $\beta = -.35, p < .01$ ). Self-esteem does not play a direct role on the within-person variables; rather it has an indirect role on the pre-diary eating disorder symptoms through daily body satisfaction and dysfunctional eating behaviors. This is thought to be a critical point to plan clinical interventions. Finally, pre-diary eating disorder symptoms scores were found to be predicted by BMI ( $\beta = .24, p < .01$ ) (not shown in Figure 2).

Figure 2

Famous People Model for the Full Sample



Note. \*  $p < .05$ . \*\*  $p < .01$ . All the paths are standardized. BMI was included as a covariate at the between-person level. (not shown in Figure for reasons of parsimony)



**3.2 Comparisons with Friends Model.** The multilevel model with the estimated coefficients is shown in Figure 3. As can be noticed, daily comparison with friends significantly predicted daily need satisfaction ( $\beta = -.16, p < .05$ ), suggesting that the when daily comparison of one's self with friends increased, daily needs satisfaction decreased at the within-person level. Daily frequency seems to play a role on the daily need satisfaction in this model, predicting the daily needs satisfaction significantly ( $\beta = -.20, p < .01$ ). Moreover, daily frequency of checking friends' accounts had a direct role on dysfunctional eating behaviors ( $\beta = .37, p < .01$ ). This means participants who checked their friends' accounts more on a day, reported higher scores of dysfunctional eating behaviors regardless of other daily measures. Also, daily needs satisfaction was found to positively predict daily body satisfaction ( $\beta = .18, p < .05$ ) which in turn negatively predicted dysfunctional eating behaviors ( $\beta = -.20, p < .01$ ). These findings supported the Hypothesis 3, which stated that day-to-day relations of social comparisons to dysfunctional eating behaviors would be mediated through needs satisfaction, and in turn through body satisfaction.

In sum, at the within-person level, if a participant engaged in daily comparisons with friends specific day and checked their friends' accounts more, she or he is less likely to satisfy her or his basic psychological needs in that particular day, and in turn express less body satisfaction, and eventually to report more dysfunctional eating behaviors. Also, if a participant checked their friends' accounts on a specific day, he or she directly reports higher scores of dysfunctional eating behaviors. Given the fluctuation in the reported measures across the assessment days, this pattern of relations suggest that day-to-day changes in the comparison behavior coincided with respective day-to-day changes in dysfunctional eating behaviors by means of psychological needs and body satisfaction; whenever the comparison and check frequency increased, then dysfunctional eating behaviors increased as well.

Setting aside the day to day fluctuations of dysfunctional eating behaviors and its relation to its proximal predictors (such as body satisfaction) and distal predictors (such as needs satisfaction and social comparisons) at the within-person level, pre-diary eating disorder symptoms scores were found to negatively predicted between-person differences in daily body satisfaction measures ( $\beta = -.72, p < .01$ ) and dysfunctional eating behaviors ( $\beta = .45, p < .01$ ) at the between-person level. Interestingly, these associations were found to be statistically significant even though BMI was taken into account. These results provide partly support to Hypothesis 5 again, only pre-diary eating disorder symptoms were found to predict mean level differences in daily body satisfaction and dysfunctional eating behaviors. This result suggests that even though there are differences of a participant's daily answers, which means a single participant's answers for different days are not the same, the mean (or average) level of those answers could be explained by the individual differences like eating disorder symptoms as assessed at the pre-diary phase as a stable, between-person characteristic. For example, people who had higher scores of EDEQ at the pre-diary phase, reported, on average, lower scores of daily body satisfaction and higher scores of dysfunctional eating behaviors across the diary measurement, regardless of the daily fluctuations and other dairy variables. Those participants were more inclined to report higher scores of dysfunctional eating behaviors probably because in the beginning they admitted having higher score of eating disorder symptoms, than their peers who had lower scores of eating disorder symptoms in the pre-diary phase. Moreover, self-esteem was found to predict pre-diary eating disorder symptoms ( $\beta = -.33, p < .01$ ). Self-esteem again was found to have an indirect role on pre-diary eating disorder symptoms. Finally, pre-diary eating disorder symptoms scores were found to be predicted by BMI ( $\beta = .24, p < .01$ ) (not shown in Figure 3).

Because all the results were similar when the comparisons refer either to the friends or famous people, this finding provides support to Hypothesis 4, reporting that the model would be significant both for the friends and famous people.

### **3.3 Supplementary Analyses with Females Only**

Because the sample was mainly consisted of females and because prior research has shown that eating disorders were rather prevalent among females (Kjelsås, Bjørnstrøm, & Götestam, 2004; Smink, van Hoeken, & Hoek, 2012), it was further examined whether the above associations would also hold among females only. Further, some questions assessing body satisfaction and shape or weight concerns are more feminine oriented and seem not to properly fit with the standards that constitute a desired boy shape. For instance, the questions asking "Have you had a strong desire to lose weight?" and "Have you had a definite fear that you might gain weight?" in EDEQ does not fit to the concerns of the boys, because their desires are mostly based on becoming muscular and not losing weight, rather they want to gain weight. Thus, female data was selected separately and analyzed.

The female data was also analyzed based on the descriptive information of pre-diary and diary measures. According to the pre-diary measures (Table 5), females did not report high scores neither in eating disorder symptoms nor in perfectionism. Self-esteem and life satisfaction scores, compatible with the full data, found to be relatively low. The BMI scores of the females were reported to be in the normal range, which is again ensured with the Turkish sample equivalence (Bundak et al., 2006) and coherent with the full sample.

Table 5

*Descriptive Statistics of the Female Data for Pre-diary Measures*

Variables	Mean	Standard Deviation
Eating Disorder Symptoms	1.32	1.27

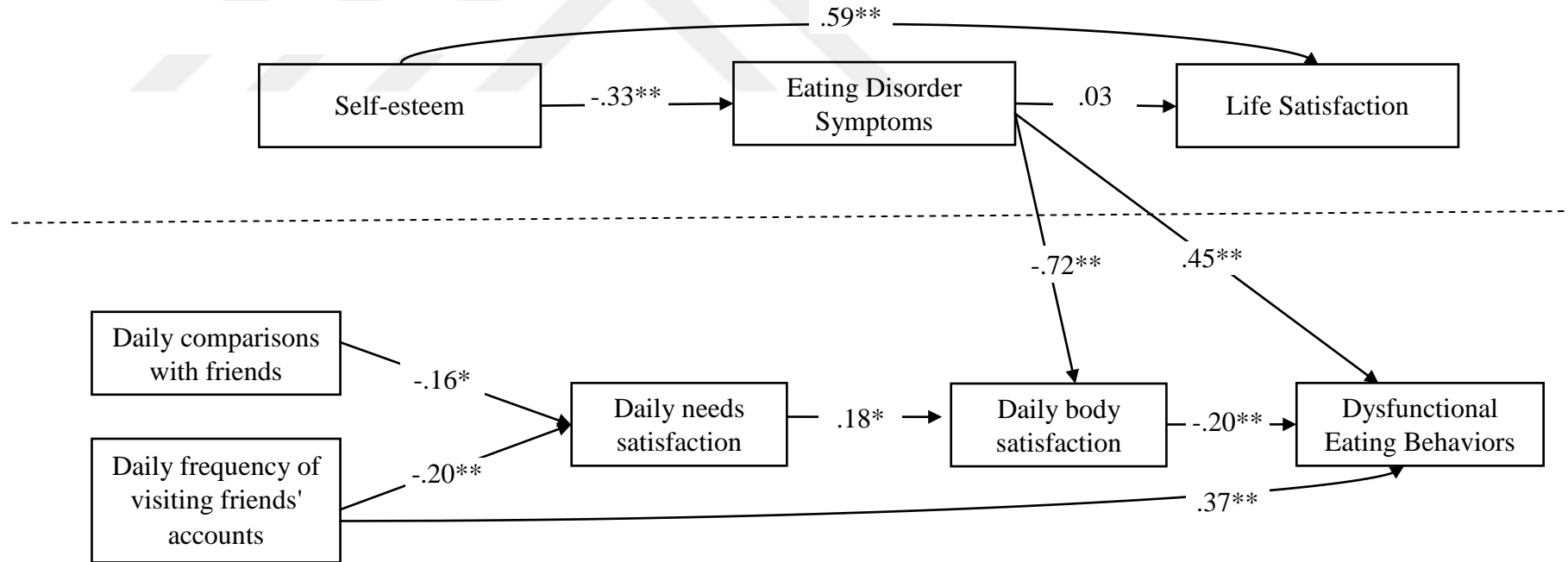
Self-oriented Perfectionism	2.98	0.72
Socially-oriented Perfectionism	2.73	0.92
Self-Esteem	3.02	0.60
Life Satisfaction	4.23	1.23
Body Mass Index	20.89	3.28

The descriptive statistics and bivariate correlations for females at the within-person and between-person level are shown in Tables 6 and 7, respectively.

According to Table 6, different from the full sample, visiting famous people's accounts had a negative relation with body satisfaction in females ( $r = -.20, p < .05$ ) and visiting famous people's accounts were reported to have a slightly stronger positive relation with dysfunctional eating behaviors ( $r = .33, p < .01$ ). Visiting friends' accounts had slightly stronger relations with body satisfaction ( $r = -.25, p < .01$ ) and with dysfunctional eating behaviors ( $r = .24, p < .01$ ) in females compared with the full data. Comparison with famous people was found to have slightly stronger relation with need satisfaction ( $r = .30, p < .01$ ). Comparison with friends was found to have slightly stronger relation with dysfunctional eating behaviors ( $r = .31, p < .01$ ) in females. Daily need satisfaction related negatively to dysfunctional eating behaviors slightly stronger ( $r = -.31, p < .01$ ), which was different compared with the full sample. To summarize, when the visits of famous people's accounts and friends' accounts increased in females, the comparison behavior also increased, and with the increase of daily comparisons, daily need satisfaction and body satisfaction decreased, and finally with the decrease of body satisfaction, the dysfunctional eating behaviors increase.

Figure 3

Friends Model for the Full Sample



Note. \*  $p < .05$ . \*\*  $p < .01$ . All the paths are standardized. BMI was included as a covariate at the between-person level. (not shown in Figure for reasons of parsimony)

Table 6 shows the intraclass correlation coefficient (ICC) which reveals the proportion of variance lying at the between person level for females only. Accordingly, inspection of the ICC for visiting famous people's accounts implies that 42% of the variance was due to the daily fluctuations and for visiting friends' accounts the ICC was 40%. For the comparison with famous people inspected, it was found that 27% of the variance was because of daily fluctuations and for the comparison with friends the variance was reported to be 31%. Given the respective ICCs, daily fluctuation of body satisfaction was about 20%, while daily need satisfaction was 48% and dysfunctional eating behaviors was 40%.

Table 6

*Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Within-person Level for Females*

Variables	1	2	3	4	5	6	7
<b>Diary measures</b>							
1. Visiting famous people's accounts	-						
2. Visiting friends' accounts	.32**	-					
3. Comparisons with famous people	.36**	.27**	-				
4. Comparisons with friends	.42**	.35**	.81**	-			
5. Needs satisfaction	-.15	-.28**	-.30**	-.28**	-		
6. Body satisfaction	-.20*	-.25**	-.49**	-.42**	.28**	-	
7. Dysfunctional eating behaviors	.33**	.24**	.42**	.31**	-.31**	-.44*	-
Mean	2.48	1.92	1.66	1.78	3.39	4.41	1.75
SD	1.32	0.99	0.91	0.97	0.95	1.66	1.18
ICC	.58	.40	.73	.69	.52	.80	.60

According to Table 7, visiting famous people's accounts had a significant negative relation with daily needs satisfaction ( $r = -.30, p < .05$ ), and a slightly stronger relation with daily body satisfaction ( $r = -.34, p < .01$ ), which was different in females compared with the full sample. Also, visiting famous people's accounts was found to have significant relation with eating disorder symptoms ( $r = .33, p < .05$ ) and with self-esteem ( $r = -.31, p < .05$ ). Visiting friends' accounts was found to have stronger relations with diary measures compared with full sample, and additionally was found to have a positive relation with self-induced perfectionism ( $r = .26, p < .05$ ) and with life satisfaction ( $r = -.35, p < .05$ ). Comparison with famous people was found to have a moderate, rather than weak, relation with daily needs satisfaction ( $r = -.40, p < .01$ ), and slightly stronger relation with socially-prescribed perfectionism ( $r = .31, p < .01$ ) and with self-esteem ( $r = -.39, p < .01$ ) in females. Comparison with friends was found to have moderate, rather than weak, relation with daily needs satisfaction ( $r = -.43, p < .05$ ) and a negative significant relation with life-satisfaction ( $r = -.33, p < .01$ ). Daily needs satisfaction in females was found to have stronger relations with daily body satisfaction ( $r = .34, p < .01$ ) and with dysfunctional eating behaviors ( $r = -.51, p < .01$ ). In addition to increases in the relations of daily needs satisfaction with self-esteem ( $r = .49, p < .01$ ) and life satisfaction ( $r = .44, p < .01$ ), it was found that daily needs satisfaction significantly related to eating disorder symptoms in females ( $r = -.22, p < .05$ ). Daily body satisfaction was found to have strong relation with dysfunctional eating behaviors ( $r = -.60, p < .01$ ) in females too. Dysfunctional eating behaviors was found to have significant relations with life-satisfaction ( $r = -.27, p < .05$ ) and moderate, rather than weak, relation with self-esteem ( $r = -.41, p < .01$ ). According to the pre-diary measures, self-esteem and eating disorder symptoms seem to be the most important variables as those had various statistically significant relations with the diary measures, but also life-satisfaction was found to have various significant relations with diary measures in female data.

Table 7

*Means, Standard Deviations and Bivariate Correlations of the Variables of the Study at the Between-person Level for Females*

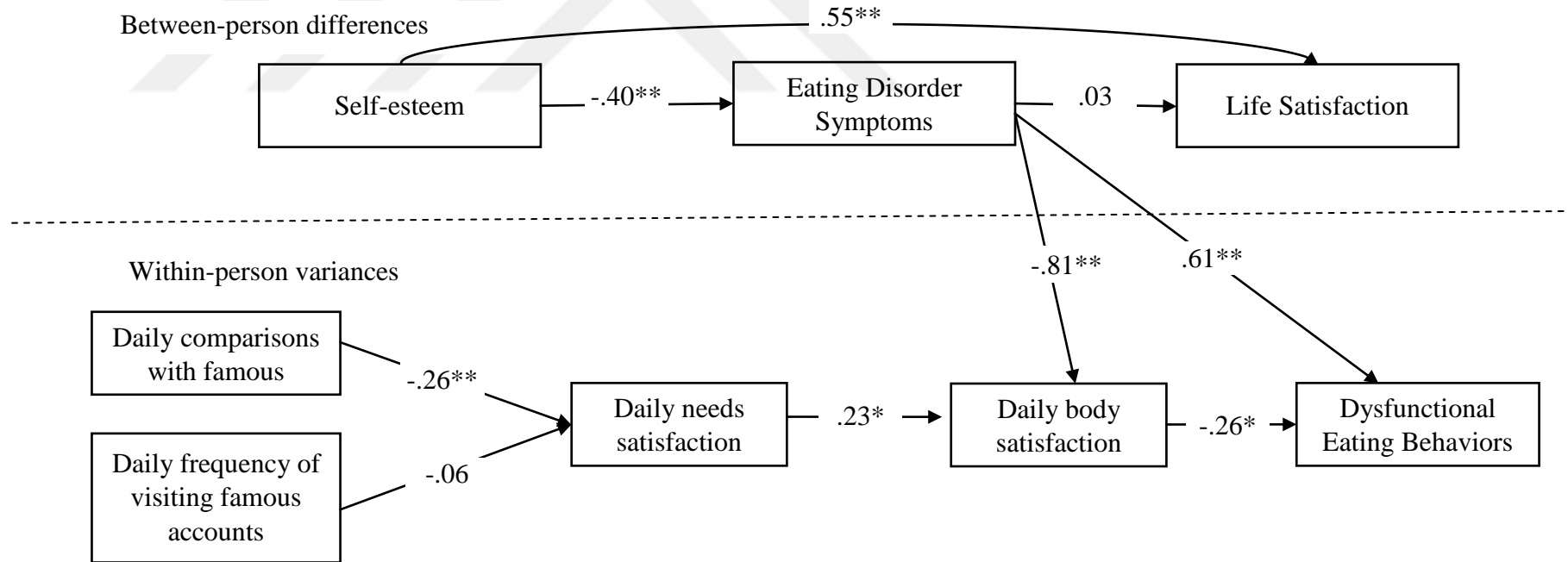
Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
Diary measures															
1. Visiting famous people's accounts	2.48	1.32	-												
2. Visiting friends' accounts	1.92	0.99	.55**	-											
3. Comparisons with famous people	1.66	0.91	.51**	.42**	-										
4. Comparisons with friends	1.78	0.97	.60**	.53**	.96**	-									
5. Daily needs satisfaction	3.39	0.95	-.30*	-.42*	-.40**	-.43*	-								
6. Daily body satisfaction	4.41	1.65	-.34**	-.41*	-.57**	-.67**	.34**	-							
7. Dysfunctional eating behaviors	1.75	1.18	.56**	.48**	.52**	.63**	-.51**	-.60**	-						
Pre-diary measures															
8. Body Mass Index	20.11	5.27	.03	.14	-.01	.03	-.07	-.15	.12	-					
9. Self-induced perfectionism	2.57	0.96	.08	.26*	.28**	.20*	-.03	.01	.07	-.17*	-				
10. Socially prescribed perfectionism	2.91	0.77	.03	.08	.31**	.20	.09	-.14	.07	-.06	.39**	-			
11. Eating disorder symptoms	1.32	1.25	.33*	.47**	.57**	.67**	-.22*	-.81**	.62**	.26**	.05	.13	-		
12. Self-esteem	2.93	0.67	-.31*	-.34	-.39**	-.53**	.49**	.40**	-.41**	-.09	-.28**	.06	-.45**	-	
13. Life satisfaction	4.21	1.23	-.17	-.35*	-.21	-.33**	.44**	.29**	-.27*	-.15	-.07	.08	-.25**	.57**	-



**3.4 Comparisons with Famous People Model for Females.** When the pre-diary measures were analyzed for the female data in the model that concerned comparisons with celebrities (Figure 4), pre-diary eating disorder symptoms scores were found to negatively predicted between-person differences in daily body satisfaction measures ( $\beta = -.81, p < .01$ ) and dysfunctional eating behaviors ( $\beta = .61, p < .01$ ) slightly stronger than the full data. For example, female participants who had higher scores of eating disorder symptoms at the pre-diary phase, reported, on average, lower scores of daily body satisfaction and higher scores of dysfunctional eating behaviors across the diary measurement, regardless of the daily fluctuations and other dairy variables. Moreover, self-esteem was found to predict pre-diary eating disorder symptoms ( $\beta = -.40, p < .01$ ) in female participants too. It was thought in this model that female participants reported in general higher scores of pre-diary eating disorder symptoms and dysfunctional eating behaviors, and reported lower daily body satisfaction compared with the full data. Moreover, they reported lower scores of self-esteem and the prediction power of the self-esteem to pre-diary eating disorder symptoms increased. Not surprisingly, female data was found to report more eating disorder symptoms and body dissatisfaction. Also, BMI (not shown in Figure 4) was found to predict pre-diary eating disorder symptoms at the between-person level ( $\beta = .22, p < .01$ ). To summarize, the female data was found to be similar with the full data model of famous people, only having slightly stronger relations compared with the full sample.

Figure 4

Famous People Model for the Female Sample

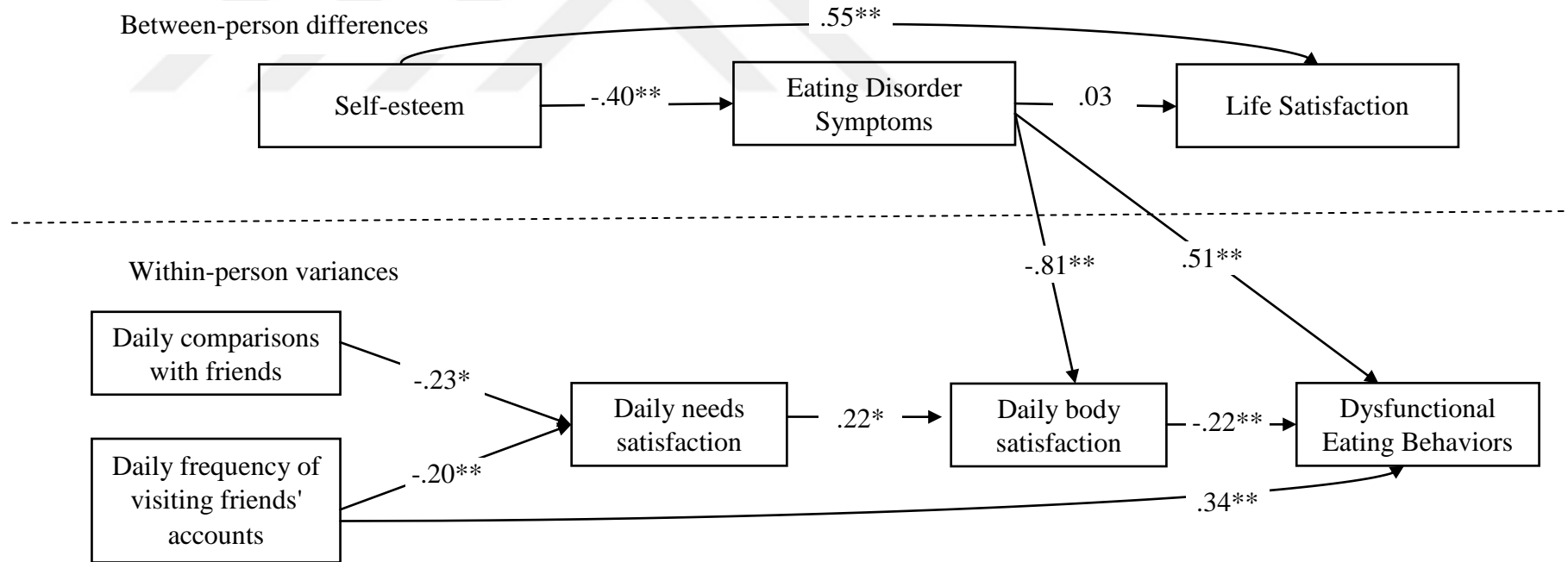


Note. \*  $p < .05$ . \*\*  $p < .01$ . All the paths are standardized. BMI was included as a covariate at the between-person level. (not shown in Figure for reasons of parsimony)

**3.5 Comparisons with Friends Model for Females.** The multilevel model with the estimated coefficients is shown in Figure 5. For female data. The model was found to be nearly similar with the full sample's comparison with friends model. Here again, it was found that daily frequency of checking friends' accounts directly predicting dysfunctional eating behaviors ( $\beta = .34, p < .01$ ). Again, in females, it was found that daily frequency of checking friends' accounts significantly predicted daily needs satisfaction ( $\beta = -.20, p < .01$ ). The diary measures was found to slightly increase in female sample, but in total seems to be similar with the full dataset model for comparison with friends. For the pre-diary measures, self-esteem still predicted the pre-diary eating disorder symptoms ( $\beta = -.40, p < .01$ ) and had a direct relationship with life-satisfaction ( $\beta = .55, p < .01$ ). Pre-diary eating disorder symptoms still predicted the daily body satisfaction ( $\beta = -.81, p < .01$ ) and dysfunctional eating behaviors ( $\beta = .51, p < .01$ ) in females. Also, BMI was found to predict pre-diary eating disorder symptoms ( $\beta = .22, p < .01$ ) (not shown in Figure 5).

Figure 5

Friends Model for the Female Sample



Note. \*  $p < .05$ . \*\*  $p < .01$ . All the paths are standardized. BMI was included as a covariate at the between-person level. (not shown in Figure for reasons of parsimony)

## **CHAPTER 4**

### **DISCUSSION**

This study was designed to investigate whether there were any relations between social comparison behavior through social media of adolescents and dysfunctional eating behaviors through need satisfaction and body satisfaction. Also, it was tested whether those relations would remain stable or fluctuate from day to day; in other words, whether change day by day change in dysfunctional eating behaviors would coincide with respective changes in social comparisons through social media use by means of basic psychological needs satisfaction and body satisfaction. It was tested, for example, if an adolescent engaged in social comparisons because of using social media more on a specific day, would satisfy his needs less, express less body satisfaction, and report more dysfunctional eating behaviors on that specific day. Moreover, between-person differences were taken into account, as self-esteem, perfectionism, eating disorder symptoms and life satisfaction were tested as potential predictors of mean level scores of daily body satisfaction and dysfunctional eating behaviors.

#### **4.1 Major Findings of the Study**

To begin with, it was found that the average number of the social media accounts that an adolescent has was around three. It can be said that in this sample, adolescents had on average three social media accounts which they actively used, a figure which is close to what is reported in the literature (Barry, Sidoti, Briggs, Reiter, & Lindsey, 2017). Notably, approximately 25% of the females reported that they checked their social media accounts every 15 minutes, while around 18% of the males reported that they checked their accounts every 60 minutes. These percentages confirm relevant findings in the literature and suggest that adolescents spend too much time on social media (Bányai et al., 2017). Given that social media covers an important period of time in adolescents' lives, the possible effects arising from extensive use of social media should be a study topic by itself. The same applies also for

eating disorders as research findings attest its prevalence during adolescence (Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011), and the devastating effects that such disorders can have in the physical and mental health of adolescents, such as high mortality rates, retardation of pubertal development, gastric problems for physical health and high comorbidity rates of depression, anxiety disorders and obsessive compulsive disorder for mental health (Herpertz-Dahlmann, 2009). Because of its importance, the present thesis examined the role of social media on dysfunctional eating behaviors, and specifically the social comparisons that adolescents make when they use their social media accounts.

First of all, it was hypothesized that dysfunctional eating behaviors such as eating restriction and binge eating would fluctuate daily, and, moreover, that social comparisons, needs satisfaction, and body satisfaction would fluctuate too. Indeed, in support of this hypothesis, this study, found that adolescents did not report stable scores of social media comparisons, and the same was true for need satisfaction, body satisfaction, and dysfunctional eating behaviors. It was found that social media comparisons that adolescents did on a specific day related to how much they satisfied their basic psychological needs, how much they felt satisfied with their body, and eventually how much they exhibited eating disorders related behaviors, like eating restriction or binge eating crisis. These findings provided support to the second and the third hypotheses. This finding adds nicely to the existing limited literature (Haimovitz et al., 1993; Kelly & Stephen, 2016; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000), because most prior research has studied need satisfaction, body satisfaction and restriction of eating and binge eating as stable factors rather than as dynamic ones. Therefore, studying the fluctuation of all those parameters and examining their associations with a sample of Turkish adolescents is thought to be a unique contribution.

Second, besides the fluctuations, it was found that day-to-day social comparisons, by using social media accounts, had a positive relation to day-to-day dysfunctional eating

behaviors. In support for this hypothesis, it was found indeed a positive relation between daily social comparison behavior, that concerned either friends or famous people, and dysfunctional eating behaviors. In other words, if the reports of comparison behaviors increased on one particular day, then the reports of eating restriction and binge eating also increased in numbers, in that day. This means that this type of relation existed within days, and adolescents had different scores of dysfunctional eating behavior related with different rates of social comparison behavior, and those parameters fluctuate related to each other. This highlights the significance of social comparison while studying dysfunctional eating behaviors. Comparison behavior is a key concept in eating disorders recently (Halliwell & Harvey, 2006; Troop, Allan, Treasure, & Katzman, 2003), and in this study again it was found to be a significant construct. Adolescents were found to compare themselves with famous people based on attractiveness, weight, body shape and height. The comparison behavior by itself related with the adolescents' experience of less need satisfaction, and felt less satisfied with their body and change their eating behaviors. It can be thought like this, a female adolescent checked her social media accounts and encountered with a famous profile, or deliberately checked the famous accounts to see what they are doing in their daily lives, and saw a tall and ideally thin woman with perfect body shape and considered the famous person as attractive. The social comparison started with the exposure of the image seen, and the adolescent directly compared her own features with the related image, and rated herself as less attractive, fatter, shorter and as having a less perfect body shape. Those comparisons were related with not satisfied needs of relatedness, autonomy and competence. Also, she would report less satisfaction with the current body, and changed her eating behavior like restricting her food intake during that day just to change her body shape, or weight, or also because of feeling irritated or stressed, engage in binge eating to reduce the stress level. The comparison by itself initiated the relation chain, and created such a consequence that changes

in eating behavior can be related with the daily changes in comparison behaviors. Therefore, the comparison should be a point in which adolescents should be informed about and should be encouraged to learn about the process behind the comparison and should be warned about the possible harmful consequences like changes in eating behaviors in a hazardous direction.

Third, the main model for the study was formed with two levels. Another major finding of this study was thought to be this two-level model, while assessing the dysfunctional eating behaviors in adolescents. The first level of the model, that of within-person fluctuations, was formed to assess the daily measures, and to find a track from social comparisons to dysfunctional eating behaviors. It was hypothesized that the need satisfaction and body satisfaction would mediate the relationship between social comparisons and dysfunctional eating behaviors. This pattern of relationship was exactly found to be true for this study. There was a negative relation of daily comparisons to famous people, to daily needs satisfaction, and the daily needs satisfaction had a positive relation to daily body satisfaction, and body satisfaction at the end had a negative relation to dysfunctional eating behaviors. To make it simpler, adolescents who reported social comparison behavior with famous people on a day, reported lower levels of need satisfaction and body satisfaction, which in turn resulted with higher scores of dysfunctional eating behaviors on the same day. Therefore, with this study, it can be stated that there is a path that adolescents follow if they start to compare themselves with famous people, which ends up with behaviors related with dysfunctional eating behaviors.

Moreover, this model was found to be true when the target of the comparisons were one's friends. Again, the same pattern was found, as comparisons with friends was associated with dysfunctional eating behaviors too. Furthermore, in addition to the "famous" model, the model which was run with comparison with friends, was found to be nearly similar. The relations of daily comparison with friends to dysfunctional eating behaviors through the



mediator roles of daily needs satisfaction and daily body satisfaction remained the same. More than that, daily frequency of visiting friends' accounts had a negative relation with daily needs satisfaction, a relation which did not emerge in the model that concerned comparisons with famous people. This is because adolescents felt that their needs were less satisfied when they checked their friends' accounts on social media, regardless of making comparisons with their friends or not.

Equally important, daily frequency of visiting friends' accounts was found to have a positive direct relation with dysfunctional eating behaviors. This finding implies that if an adolescent checked their friends' accounts more on a day, their eating behaviors were reported to change, regardless of the other diary measures. Visiting friends' accounts were found to have some distinctive features when compared to visiting famous people's accounts, and this was something different than comparisons. Even though adolescents may admire famous people such as musicians for example, and dream that one day they become like them (Ivaldi & O'Neill, 2010), it seems that friends may more heavily influence their own standards. Spending more time with their friends than their families, adolescents may feel that being like a friend is more attainable as a goal rather than resemble a celebrity. Celebrities may be evaluated as harder to compete due to inequality of resources between a celebrity and an ordinary adolescent, or being like a movie star can be assessed as an unrealistic goal. Friends, on the other hand, are more close and visible, their processes can be tracked and details of any change in friends' lives can be attained, therefore a thought like "If my friend has succeeded, why can't I?" can be formed. Those may be motivations behind the differences of "friends" model than "famous" people, and the reason behind the link of need satisfaction and dysfunctional eating behaviors.

The important point here is that comparison behavior was only measured based on the height, weight, attractiveness and body shape. However, when an adolescent visits a friends'

account and sees a photo including a friend meeting with smiling faces, he or she may think that she or he has not close friends to meet with, does not have friend groups to hang out, and this may frustrate the relatedness need. Another example can be given for the need for competence, if an adolescent sees a friend of her excelling in a contest, or accomplishing something important in their friend group, she may think that she has not the necessary skills to accomplish similar goals, which may again frustrate her need for competence. For the autonomy, an adolescent may see one of his friends studying abroad or having a holiday and then realize that his parents do not permit him to do the same, something which may lead him to think that he has no sense of freedom, feelings which eventually will frustrate his need for autonomy. In these examples, the basic psychological needs are frustrated because of the comparison of the adolescent's personal life with that of their friends. Because in this study the social comparison scale did not include all of the comparisons that can be made, but only included comparisons with attractiveness, body shape, height and weight, that was thought to be the reason why visiting friends' accounts had a direct relation with need satisfaction, without touching the comparisons. The comparison scale in this study only measured specific comparisons, but for the need satisfaction, again comparisons are thought to be made by adolescents. However, further research is needed to have more precise thoughts about this specific relation.

Finally, it was hypothesized that, besides of the daily measures, participants differed between each other in terms of self-esteem, eating disorder symptoms and life satisfaction, and those factors were found to predict mean level differences in daily body satisfaction and dysfunctional eating behaviors. Specifically, it was found that eating disorder symptoms scores, which were assessed before the diary phase, were negatively and strongly related to body satisfaction and positively and moderately related to dysfunctional eating behaviors measures. This was not very surprising. It implies that participants who scored high in the

beginning on eating disorder symptoms, which means who had higher inclination towards having an eating disorder, scored, on average, lower in the body satisfaction and higher in the dysfunctional eating behaviors in the diary measures. Those effects were seen regardless of the daily fluctuations. In other words, those who had higher scores of eating disorder symptoms also fluctuate in the diary scores, but their starting points of fluctuations were higher, compared with the participants whose eating disorder symptoms scores were lower. For the self-esteem, it was found that there is a negative relation between self-esteem and eating disorder symptoms, but not a direct relation of self-esteem towards daily body satisfaction and dysfunctional eating behaviors was measured. These findings oppose previous ones which have indicated low self-esteem as a risk factor towards eating disorders (Stice, Presnell, & Spangler, 2002) and body image concerns (O’dea, 2004). Nevertheless, in this study self-esteem was found to have an indirect role on daily measures of body satisfaction and dysfunctional eating behaviors, through relating negatively with the eating disorder symptoms. Even though it was found that body dissatisfaction and related dysfunctional eating behaviors were related with life satisfaction (Valois, Zullig, Huebner, & Drane, 2003), in this study life-satisfaction was found to relate positive only to self-esteem, but neither to eating disorder symptoms, nor to daily body satisfaction or dysfunctional eating behaviors. Notably, all the above relations were statistically significant even though BMI was statistically controlled. This means that the relations arose due to participants’ perceptions of their body image, as rather than their actual weight, as BMI was not related to most of the variables of the study.

For the perfectionism, even though in the literature it was found that perfectionism has a role on eating disorders (Castro-Fornieles et al., 2007), in this study nearly no significant relation can be found between perfectionism and dysfunctional eating behaviors. Even though self-oriented perfectionism was found to have relation with eating disorders (Castro-Fornieles

et al., 2007), other dimensions of the perfectionism may be preferred to assess the relation of eating disorder symptoms. In the literature it was found that "pure personal standards" dimension was the most related dimension to eating disorders (Sassaroli et al., 2008). Also, because the scales were based on self-report, the adolescents may not represent themselves as they have been, and they may not feel as perfectionist as to report it in the scales. The study may be replicated with other scales measuring perfectionism, or other ways of measurements rather than using self-report questionnaires, to see whether there is any relation of perfectionism with dysfunctional eating behaviors in Turkish adolescents.

In the light of the mentioned findings, it can be stated that prevention programs can be formed. Such prevention programs will aim first to detect adolescents who may be in a risk of showing eating disorder symptoms. For example, adolescents who frequently engage in social comparisons might be more likely to embrace more dysfunctional eating behaviors, according to the tested model, something which may become hazardous for their physical and mental health. Further, such prevention programs can be established to educate adolescents and their parents about the dangers that are inherent in social comparisons through social media use. And last but not least, such prevention programs will target to increase adolescents' self-esteem levels and thus offer further protection against developing dysfunctional eating behaviors and the associated mental and health negative implications. By this way, adolescents can be reached way before they come in a state that their symptoms will be firmly established and correspond to rigid eating disorders.

#### **4.2 Gender Differences**

Because females outnumbered males, the data were further analyzed with the female subsample only. Although male sample was tried to be analyzed, it was found that there was nearly no significant relation between any of the variables, mainly because of the small sample size.

Female data by itself was found to be very similar with the full sample, both in terms of correlations and in terms of path coefficients in the model. The only thing that created the difference was the magnitude of the relations and some additional paths that were found to be statistically significant in the model that included females but not in the model that included both males and females. Specifically, in the diary measures, visiting famous people's accounts was found to have a significant relation with body satisfaction, and in the between person differences, visiting famous people's accounts was found to have a significant relation with daily needs satisfaction and with self-esteem, visiting friends' accounts was found to have a significant relation with life satisfaction, comparison with friends was found to have a significant relation with life satisfaction, daily needs satisfaction was found to have a significant relation with eating disorder symptoms, and dysfunctional eating behaviors with life satisfaction in females.

The two models (i.e., the one that included only females and the one that included all participants) was quite similar both at the within-person and the between-person level. Similarly to the model that included all the participants, the model that included only females showed that when female adolescents compared themselves with famous people when they visited their social media accounts, they felt less need satisfaction and less body satisfaction, and they reported higher scores dysfunctional eating behaviors. Those variables also fluctuate daily. At the between-person level, again self-esteem was found to have an indirect role on eating disorder symptoms, and eating disorder symptoms were found to relate negatively to daily body satisfaction and positively to dysfunctional eating behaviors. In the model that concerned comparison of females with their friends, the same pattern of relations emerged. In particular, it was found that the more females visited their friends' accounts, the more dysfunctional eating behaviors and the less daily needs satisfaction they reported. The reasons behind those additional relations were thought to be the same as mentioned in the full sample.

At the between-person level, the between-person differences were the same with that reported for the full sample: Self-esteem had an indirect role on the eating disorder symptoms, and eating disorder symptoms had negative relation to daily body satisfaction and positive relation to dysfunctional eating behaviors in females too. Markedly, all the above relations were statistically significant even though when BMI was controlled. This indicates that the relations came up because of the female adolescents' appreciation of their body image and not because of their actual weights.

### **4.3 Strengths and Limitations**

This study is among the few ones that tries explain the daily relations of social comparisons, both with friends and famous people, to dysfunctional eating behaviors through need satisfaction and body satisfaction. First of all, even though need satisfaction was studied to explain eating disorders in some studies (Pelletier, & Dion, 2007; Verstuyf, Patrick, Vansteenkiste, & Teixeira, 2012) by stating that need satisfaction predicts body satisfaction (Thøgersen-Ntoumani et al., 2010), this was not a commonly used variable as an explanatory factor while understanding the processes behind dysfunctional eating behaviors. In this study, need satisfaction was found to be a significant mediator between social comparisons with friends and famous people, and body satisfaction, which is a novel finding by itself.

The daily relations between social comparisons and visiting friends' or famous people's accounts with dysfunctional eating behaviors through need satisfaction and body satisfaction was not studied before. By this model, the dysfunctional eating behaviors progress was understood better by various variables, and important mechanisms were found by this study. For example, social comparisons were found to be very important while studying dysfunctional eating behaviors in adolescents, and this was compatible with the literature (Harrison, 2001). As the present study suggests, the link between social comparisons and dysfunctional eating behaviors can be explained through need satisfaction

and body satisfaction. By this way, a conceptual model was formed to better understand the processes behind the dysfunctional eating behaviors.

Further, it was found in this study that, social comparison behavior with friends and with famous people, need satisfaction, body satisfaction and dysfunctional eating behaviors fluctuate day by day. This finding is interesting and original. For example, if an adolescent engaged more in social comparisons with a famous person or with a friend on a specific day, the scores of need satisfaction, body satisfaction and therefore dysfunctional eating behaviors fluctuate accordingly. This finding was also counted as a strength of this study, because to the best of my knowledge even though body satisfaction and dysfunctional eating behaviors were studied to be fluctuating (Kelly & Stephen, 2016), not all these variables have ever been counted before as fluctuating variables.

Combining diary measures with pre-diary measures to study dysfunctional eating behaviors among Turkish adolescents, is a novel approach and has the potential to contribute to the literature. With the two-level model, we can confidently said that dysfunctional eating behaviors and its antecedents (i.e., social comparisons, needs satisfaction and body satisfaction) fluctuate day by day, but between-person differences revealed that such fluctuations can lie to higher or lower level, depending on the eating disorder symptoms an adolescent may have. Specifically, eating disorder symptoms predicted, as expected, higher mean levels of dysfunctional eating behaviors and lower mean levels of body satisfaction. Self-esteem, on the other hand, had a predictive role on the eating disorder symptoms, and thorough it on daily measures of body satisfaction and dysfunctional eating behaviors. By this model, the adolescents' eating disorder symptoms and self-esteem deficits can be detected at the second (i.e., between-person) level, and their day-to-day fluctuations and intra-individual relations between social comparisons, needs satisfaction, body satisfaction, and dysfunctional eating behaviors can be measured at the first (i.e., within-person) level of the model.

Therefore, specific interventions for the individuals can be programmed, with the help of this model. For example, if an adolescent was detected to have high scores of eating disorder symptoms and low scores in the self-esteem, this individual can be thought to have more difficulties regarding daily need satisfaction and daily body satisfaction due to comparisons, and engaged in unhealthy eating behaviors daily, with the light of this model. The individual can be trained about the comparison behavior and what comparison triggers, how the daily feelings may change according to the comparisons, while aiming to increase the self-esteem.

For the limitations, it can be said that the total numbers of the participants were not very high, therefore created an issue of generalizability. This problem was due to the hard circumstances of studying and collecting data for the specific topic from high school students. To give a hint, the schools were needed to provide a permission to work with the adolescents; additionally, a permission should have been obtained from the adolescents' parents. Because adolescents' cell phone numbers were needed, many parents declined to provide permission, even though the consent form informed them about the confidentiality of the information. Nonetheless, the paths of the hypothesized model of the study were found to be statistically significant, despite the relatively small sample size. Future studies can be conducted to replicate and generalize the results with different samples and with increased number or participants.

The male and female participants' numbers were not equal in this study, and this could be counted as a limitation. Boys were observed as not being very interested in participating the study, and most of the male participants did not provide adequate data for the diary measures. This was thought to be because of the questions in the scales. Male participants in this study stated that the questions assessing eating disorders symptoms were not convenient with their type of body satisfaction. Several male participants stated that in the questionnaire it was repeatedly asking the concerns and fear of gaining weight and desire to lose weight,



and defined the questionnaire as female-oriented. They stated that their desire was gaining weight and building up their body mass, in other words becoming muscular. This was coherent with the literature, which has indicated that males are more inclined to suffer from body dissatisfaction because of not being muscular (Carlson Jones, 2004). In this regard, the relations between body satisfaction and the other constructs among males should be interpreted with caution. Nevertheless, it should be noted that the results that included females only replicated the results found with the full sample.

#### **4.4 Further Implications**

This study was conducted in Turkey, with adolescents which were mostly going to public high schools. Even though most of the students in public schools now have access to internet and have smart phones to use social media, it was thought that comparison behavior and body related issues can be more common in adolescent who are going to private high schools. In Turkey, students who are going to public high schools are gathered by an exam which government does, or by placing the students to the nearest high school to residence address. The students in the public high schools can be claimed to be nearly identical in this case. If they are attending to a high school in which they placed with an exam score, they are more or less on the same percentile of success. If they are attending to the nearest high school to their homes, the students are more or less from the same neighborhood. However, in Turkey, private high schools can be applied with or without any condition of success, and students in the private high schools are more heterogeneous than public high schools. A student who is successful enough to enroll in a private school with a full scholar and a student who has parents rich enough to pay the full loan of a private school can be in the same classroom. Because of that, a student may compare herself with a richer student based on opportunities, clothing, body shape, lifestyle etc. Also, a student may compare himself with a more successful student and feel less satisfied with himself, or to undermine his self-esteem.

Therefore it was thought that comparison behaviors may be more common in public schools, and in connection with this, it was thought that eating disorder related symptoms may be more common in private schools rather than public schools, and this was supported with a study finding private high school students expressing more eating disorder symptoms compared with the public high school students (Lesar, Arnow, Stice, & Agras, 2001). This also rings the bells for the private high school students to be in a risk group, because in our study the hypothesized relations were found among for public high school students attending public schools.

Male students in this study were low in number. Even though in the literature it is stated that female adolescents overrepresent the population of people diagnosed with eating disorders (Croll, Neumark-Sztainer, Story, & Ireland, 2002), males may also suffer from eating disorders (Muisse, Stein, Arbess, 2003) and body dissatisfaction (Cohane & Pope, 2001). In their case however, this dissatisfaction is driven by their aspirations to become more muscular rather than become thinner (McCreary & Sasse, 2000). Therefore, the number of boys can be increased and checked whether the specified relations in this study still exist in male adolescents by targeting on muscularity issues as aspect of body dissatisfaction.

Moreover, this study can be replicated with increased number of males, as it can be equivalent with the female number, and again tested to see whether there will be any gender differences in the specified relations. Also by this way, it can be understood whether males also engage in those kind of relations daily, when their kind of body satisfaction was taken into account.

Additionally, this study should be replicated with more adolescents in different cities of Turkey. Then, the model could be tested with larger numbers and can have stronger power to generalize the results. Herein, the data were collected from Ankara only, but the possible differences between urban cities like Ankara, İstanbul, İzmir etc., and rural areas of Turkey

were not tested. This is an important issue because research has found the incidence rates of serious eating disorder symptoms such as bulimia nervosa are more common in the urban areas as compared to the rural areas (Van Son, Van Hoeken, Bartelds, Van Furth, & Hoek, 2006). Hence, it is acknowledged that there is a difference between eating disorder occurrence in urban and rural cities. In this study, such a comparison was not possible, given that the data were collected only from a large urban city. Therefore, if the study is replicated in different cities of Turkey, the results can be compared. By this way, it can be seen that whether the findings are still true regardless of the cities adolescents lived in, and regardless of the cities' geographical properties like being big and urban, or being rural and small.

Finally, according to the findings of this study and the necessary replication studies that should confirm or refute the present findings, an extensive intervention program can be constituted. The findings of this study were interesting and explaining a lot about the continuum of dysfunctional eating behaviors, and show possible target points which could benefit the intervention program developers. For instance, social comparison was found to be an important intervention point while dealing with adolescents showing eating disorder symptoms. This study supported the literature on the relation between social comparison and eating disorders (Morrison, Kalin, & Morrison, 2004), and further highlighted this point as crucial to intervene, because it was found to be the beginning of the chain on daily measures. Thus, if an appropriate intervention program is developed to target adolescent social comparison behavior, the dysfunctional eating behaviors are predicted to decrease.

Also, just visiting the friends' accounts on a specific day was strong enough to have a direct relation with dysfunctional eating behaviors in this study. Friends were thought to have a significant impact on adolescents' lives, and peers by itself were detected to be comparison targets (Kraye, Ingledew, & Iphofen, 2007). The pre-diary measures should be taken into account while providing a sufficient intervention program for adolescents with eating disorder

symptoms or adolescents who are in a risk group of developing an eating disorder. Eating disorder symptoms were found to be an important predictor of daily measures, but self-esteem was thought to be an important intervention point in adolescents. It was found that self-esteem had an indirect role on dysfunctional eating behaviors scores, and adolescents who have lower self-esteem scores are thought to be in a risk group for developing an eating disorder, in this study. Low self-esteem as a risk factor has been also supported from the literature (Button, Sonuga-Barke, Davies, & Thompson, 1996; Cervera et al., 2003), and should be taken into account while developing a treatment program.



## REFERENCES

- Arcelus, J. (2011). Mortality Rates in Patients With Anorexia Nervosa and Other Eating Disorders. *Archives of General Psychiatry*, 68(7), 724. doi:10.1001/archgenpsychiatry.2011.74
- Bányai, F., Zsila, Á., Király, O., Maraz, A., Elekes, Z., Griffiths, M. D., Andreassen, C. S., Demetrovics, Z. (2017). Problematic Social Media Use: Results from a Large-Scale Nationally Representative Adolescent Sample. *PLOS ONE*, 12(1), e0169839. doi:10.1371/journal.pone.0169839
- Barcaccia, B., Balestrini, V., Saliari, A. M., Baiocco, R., Mancini, F., & Schneider, B. H. (2017). Dysfunctional eating behaviors, anxiety, and depression in Italian boys and girls: the role of mass media. *Revista Brasileira de Psiquiatria*, 40(1), 72–77. doi:10.1590/1516-4446-2016-2200
- Barry, C. T., Sidoti, C. L., Briggs, S. M., Reiter, S. R., & Lindsey, R. A. (2017). Adolescent social media use and mental health from adolescent and parent perspectives. *Journal of Adolescence*, 61, 1–11. doi:10.1016/j.adolescence.2017.08.005
- Baş Uz, A. T., & Siyez, D. T. (2010). Adaptation of the child and adolescent perfectionism scale to Turkish: The validity and reliability study. *İlköğretim-Online*, 9(3), 898.
- Benedikt, R., Wertheim, E. H., & Love, A. (1998). Eating attitudes and weight-loss attempts in female adolescents and their mothers. *Journal of Youth and Adolescence*, 27(1), 43–57.
- Boone, L., Soenens, B., & Luyten, P. (2014). When or why does perfectionism translate into eating disorder pathology? A longitudinal examination of the moderating and mediating role of body dissatisfaction. *Journal of Abnormal Psychology*, 123(2), 412–418. doi:10.1037/a0036254

- Brook, U., & Tepper, I. (1997). High school students attitudes and knowledge of food consumption and body image: Implications for school based education. *Patient Education and Counseling*, 30(3), 283-288.
- Brockmeyer, T., Holtforth, M. G., Bents, H., Kämmerer, A., Herzog, W., & Friederich, H. C. (2013). The thinner the better: Self-esteem and low body weight in anorexia nervosa. *Clinical Psychology and Psychotherapy*, 20(5), 394–400. <https://doi.org/10.1002/cpp.1771>
- Bundak, R., Furman, A., Gunoz, H., Darendeliler, F., Bas, F., & Neyzi, O. (2006). Body mass index references for Turkish children. *Acta Paediatrica*, 95(2), 194–198. doi:10.1080/08035250500334738
- Button, E. J., Sonuga-Barke, E. J. S., Davies, J., & Thompson, M. (1996). A prospective study of self-esteem in the prediction of eating problems in adolescent schoolgirls: Questionnaire findings. *British Journal of Clinical Psychology*, 35(2), 193–203. doi:10.1111/j.2044-8260.1996.tb01176.x
- Castro-Fornieles, J., Gual, P., Lahortiga, F., Gila, A., Casulà, V., Fuhrmann, C., Imirizaldu, M., Saura, B., Martínez, E., & Toro, J. (2007). Self-oriented perfectionism in eating disorders. *International Journal of Eating Disorders*, 40(6), 562–568. doi:10.1002/eat.20393
- Carlson Jones, D. (2004). Body Image Among Adolescent Girls and Boys: A Longitudinal Study. *Developmental Psychology*, 40(5), 823–835. doi:10.1037/0012-1649.40.5.823
- Carmona, J., Tornero-Quiñones, I., & Sierra-Robles, Á. (2015). Body image avoidance behaviors in adolescence: A multilevel analysis of contextual effects associated with the physical education class. *Psychology Of Sport & Exercise*, 16, 70-78.
- Cervera, S., Lahortiga, F., Martínez-González, M. A., Gual, P., Irala-Estévez, J. de, & Alonso, Y. (2003). Neuroticism and low self-esteem as risk factors for incident eating

- disorders in a prospective cohort study. *International Journal of Eating Disorders*, 33(3), 271–280. doi:10.1002/eat.10147
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., . . . Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion*, 39, 216-236.
- Cho, A., & Lee, J. (2013). Body dissatisfaction levels and gender differences in attentional biases toward idealized bodies. *Body Image*, 10(1), 95-102.
- Cohen, R., Newton-John, T., & Slater, A. (2017). The relationship between Facebook and Instagram appearance-focused activities and body image concerns in young women. *Body Image*, 23, 183-187.
- Cohane, G. H., & Pope, H. G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders*, 29(4), 373–379. doi:10.1002/eat.1033
- Colautti, L. A., Fuller-Tyszkiewicz, M., Skouteris, H., McCabe, M., Blackburn, S., & Wyett, E. (2011). Accounting for fluctuations in body dissatisfaction. *Body Image*, 8(4), 315-321.
- Common Sense Media. (2015). The Common Sense Census: Media Use by Tweens and Teens. Retrieved from <https://www.commonsensemedia.org/research/the-common-sense-census-media-use-by-tweens-and-teens>
- Courtney, E. A., Gamboz, J., & Johnson, J. G. (2008). Problematic eating behaviors in adolescents with low self-esteem and elevated depressive symptoms. *Eating Behaviors*, 9(4), 408–414. <https://doi.org/10.1016/j.eatbeh.2008.06.001>
- Croll, J., Neumark-Sztainer, D., Story, M., & Ireland, M. (2002). Prevalence and risk and protective factors related to disordered eating behaviors among adolescents: relationship to gender and ethnicity. *Journal of Adolescent Health*, 31(2), 166–175. doi:10.1016/s1054-139x(02)00368-3

- Çuhadaroğlu, F. (1986). *Adolesanlarda benlik saygısı* (Uzmanlık tezi). Hacettepe Üniversitesi, Tıp Fakültesi, Psikiyatri Anabilim Dalı, Ankara.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227–268.
- Derenne, J. L., & Beresin, E. V. (2006). Body image, media, and eating disorders. *Academic Psychiatry, 30*, 257-261.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49*, 71-75.
- Dittmar, H. (2009). How do "body perfect" ideals in the media have a negative impact on body image and behaviors? Factors and processes related to self and identity. *Journal of Social and Clinical Psychology, 28*(1), 1-8.
- Drieberg, H., McEvoy, P. M., Hoiles, K. J., Shu, C. Y., & Egan, S. J. (2018). An examination of direct, indirect and reciprocal relationships between perfectionism, eating disorder symptoms, anxiety, and depression in children and adolescents with eating disorders. *Eating Behaviors*.doi:10.1016/j.eatbeh.2018.12.002
- Durak, M., Senol-Durak, E., & Gencoz, T. (2010). Psychometric Properties of the Satisfaction with Life Scale among Turkish University Students, Correctional Officers, and Elderly Adults. *Social Indicators Research, 99*(3), 413-429.
- Fairburn, C. G., & Wilson, T. G. (1993). *Binge Eating: Nature, assessment, and treatment*. New York: The Guilford Press
- Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: interview or self-report questionnaire?. *The International Journal Of Eating Disorders, 16*(4), 363-370.
- Fairburn, C. G., Cooper, Z., & Shafran, R. (2003). Cognitive behaviour therapy for eating disorders: a “transdiagnostic” theory and treatment. *Behaviour Research and Therapy, 41*(5), 509–528.doi:10.1016/s0005-7967(02)00088-8



- Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. *Body Image*, 1338-45.
- Fernandez, S., & Pritchard, M. (2012). Relationships between self-esteem, media influence and drive for thinness. *Eating Behaviors*, 13(4), 321–325. doi:10.1016/j.eatbeh.2012.05.004
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140.
- Fichter, M. M., & Quadflieg, N. (2016). Mortality in eating disorders - results of a large prospective clinical longitudinal study. *International Journal of Eating Disorders*, 49(4), 391–401. doi:10.1002/eat.22501
- Flett, G., Hewitt, P. L., Boucher, D. J., Davidson, L. A., & Munro, Y. (2000). The Child-Adolescent Perfectionism Scale: Development, Validation, and Association with Adjustment. Unpublished manuscript.
- Geller, J., Srikameswaran, S., Cockell, S. J., & Zaitsoff, S. L. (2000). Assessment of shape- and weight-based self-esteem in adolescents. *International Journal of Eating Disorders*, 28, 339–345.
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134(3), 460-476.
- Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of Eating Disorders*, 31(1), 1–16. doi:10.1002/eat.10005
- Haimovitz, D., Lansky, L. M., & O'Reilly, P. (1993). Fluctuations in body satisfaction across situations. *The International Journal Of Eating Disorders*, 13(1), 77-84.

- Halliwell, E., & Harvey, M. (2006). Examination of a sociocultural model of disordered eating among male and female adolescents. *British Journal of Health Psychology*, *11*(2), 235–248. doi:10.1348/135910705x39214
- Harrison, K. (2001). Ourselves, Our Bodies: Thin-Ideal Media, Self-Discrepancies, and Eating Disorder Symptomatology in Adolescents. *Journal of Social and Clinical Psychology*, *20*(3), 289–323. doi:10.1521/jscp.20.3.289.22303
- Hay, P., & Mitchison, D. (2014). The epidemiology of eating disorders: genetic, environmental, and societal factors. *Clinical Epidemiology*, *89*. doi:10.2147/clep.s40841
- Herpertz-Dahlmann, B. (2009). Adolescent Eating Disorders: Definitions, Symptomatology, Epidemiology and Comorbidity. *Child and Adolescent Psychiatric Clinics of North America*, *18*(1), 31–47. doi:10.1016/j.chc.2008.07.005
- Ivaldi, A., & O'Neill, S. A. (2010). Adolescents' attainability and aspiration beliefs for famous musician role models. *Music Education Research*, *12*(2), 179–197. doi:10.1080/14613801003746568
- Jones, D. (2001). Social comparison and body image: Attractiveness comparisons to models and peers among adolescent girls and boys. *Sex Roles*, *45*(9-10), 645-664.
- Kalnes, K. (2013). Influence of social media use on adolescent females' perceptions of their body image. (Ed.D., Walden University). *ProQuest Dissertations and Theses*, Retrieved from <http://search.proquest.com/docview/1435634429?accountid=11789>
- Karwautz, A., Nobis, G., Haidvogel, M., Wagner, G., Hafferl-Gattermayer, A., Wöber-Bingöl, C., & Friedrich, M. H. (2003). Perceptions of family relationships in adolescents with anorexia nervosa and their unaffected sisters. *European Child & Adolescent Psychiatry*, *12*, 128–135.

- Kelly, A. C., & Stephen, E. (2016). A daily diary study of self-compassion, body image, and eating behavior in female college students. *Body Image, 17*, 152–160. doi:10.1016/j.bodyim.2016.03.006
- Kjelsås, E., Bjørnstrøm, C., & Gøtestam, K. G. (2004). Prevalence of eating disorders in female and male adolescents (14–15 years). *Eating Behaviors, 5*(1), 13–25. doi:10.1016/s1471-0153(03)00057-6
- Krayer, A., Ingledew, D. K., & Iphofen, R. (2007). Social comparison and body image in adolescence: a grounded theory approach. *Health Education Research, 23*(5), 892–903. doi:10.1093/her/cym076
- Kozar, J. M., & Damhorst, M. L. (2009). Comparison of the ideal and real body as women age: Relationships to age identity, body satisfaction and importance, and attention to models in advertising. *Clothing & Textiles Research Journal, 27*(3), 197-210.
- Lesar, M. D., Arnow, B., Stice, E., & Agras, W. S. (2001). Private High School Students Are at Risk for Bulimic Pathology. *Eating Disorders, 9*(2), 125–139. doi:10.1080/10640260127714
- Lilenfeld, L. R. R., Wonderlich, S., Riso, L. P., Crosby, R., & Mitchell, J. (2006). Eating disorders and personality: A methodological and empirical review. *Clinical Psychology Review, 26*(3), 299–320. <https://doi.org/10.1016/j.cpr.2005.10.003>
- López-Guimerà, G., Levine, M. P., Sánchez-carracedo, D., & Fauquet, J. (2010). Influence of Mass Media on Body Image and Eating Disordered Attitudes and Behaviors in Females: A Review of Effects and Processes. *Media Psychology, 13*(4), 387–416. doi:10.1080/15213269.2010.525737
- Luce, K. H., & Crowther, J. H. (1999). The reliability of the Eating Disorder Examination-Self-Report Questionnaire Version (EDE-Q). *International Journal Of Eating Disorders, 25*(3), 349-351.

- Luppino, F. S., de Wit, L. M., Bouvy, P. F., Stijnen, T., Cuijpers, P., Penninx, B. W. J. H., & Zitman, F. G. (2010). Overweight, Obesity, and Depression. *Archives of General Psychiatry*, 67(3), 220. doi:10.1001/archgenpsychiatry.2010.2
- Mäkinen, M., Puukko-Viertomies, L.-R., Lindberg, N., Siimes, M. A., & Aalberg, V. (2012). Body dissatisfaction and body mass in girls and boys transitioning from early to mid-adolescence: additional role of self-esteem and eating habits. *BMC Psychiatry*, 12(1).doi:10.1186/1471-244x-12-35
- Martin, M., Martin, P., & Kennedy. (1993). Advertising and social comparison: Consequences for female preadolescents and adolescents. *Psychology & Marketing*, 10(6), 513-530.
- Mask, L., & Blanchard, C. M. (2011). The effects of 'thin ideal' media on women's body image concerns and eating-related intentions: The beneficial role of an autonomous regulation of eating behaviors. *Body Image*, 8(4), 357-365.
- McCabe, M. P., & Ricciardelli, L. A. (2001). Body image and body change techniques among young adolescent boys. *European Eating Disorders Review*, 9(5), 335–347.doi:10.1002/erv.389
- McCreary, D. R., & Sasse, D. K. (2000). An Exploration of the Drive for Muscularity in Adolescent Boys and Girls. *Journal of American College Health*, 48(6), 297–304.doi:10.1080/07448480009596271
- Moore, D. C. (1993). Body image and eating behavior in adolescents. *Journal of the American College of Nutrition*, 12(5), 505–510. doi:10.1080/07315724.1993.10718343
- Morrison, T. G., Kalin, R., & Morrison, M.A. (2004). Body-image evaluation and body-image investment among adolescents: A test of sociocultural and social comparison theories. *Adolescence*. 39. 571-92.

- Mouratidis, A., Michou, A., Demircioğlu, A. N., & Sayil, M. (2018). Different goals, different pathways to success: Performance-approach goals as direct and mastery-approach goals as indirect predictors of grades in mathematics. *Learning And Individual Differences, 61*, 127-135.
- Muise, A. M., Stein, D. G., & Arbess, G. (2003). Eating disorders in adolescent boys: a review of the adolescent and young adult literature. *Journal of Adolescent Health, 33*(6), 427–435. doi:10.1016/s1054-139x(03)00060-0
- Nuttall F. Q. (2015). Body Mass Index: Obesity, BMI, and Health: A Critical Review. *Nutrition today, 50*(3), 117–128. doi:10.1097/NT.0000000000000092
- O’dea, J. A. (2004). Evidence for a Self-Esteem Approach in the Prevention of Body Image and Eating Problems among Children and Adolescents. *Eating Disorders, 12*(3), 225–239. doi:10.1080/10640260490481438
- Pearson, C. M., Miller, J., Ackard, D. M., Loth, K. A., Wall, M. M., Haynos, A. F., & Neumark-Sztainer, D. (2017). Stability and change in patterns of eating disorder symptoms from adolescence to young adulthood. *International Journal of Eating Disorders, 50*(7), 748–757. doi:10.1002/eat.22692
- Pelletier, L. G., & Dion, S. C. (2007). An Examination of General and Specific Motivational Mechanisms for the Relations Between Body Dissatisfaction and Eating Behaviors. *Journal of Social and Clinical Psychology, 26*(3), 303–333. doi:10.1521/jscp.2007.26.3.303
- Perloff, R. r. (2014). Social Media Effects on Young Women's Body Image Concerns: Theoretical Perspectives and an Agenda for Research. *Sex Roles, 71*(11-12), 363-377.
- Pop CL (2017). Association between Body Mass Index and Self Body Image Perception. *Iran J Public Health. 46*(12), 1744-1745.

- Presnell, K., Bearman, S. K., & Stice, E. (2004). Risk factors for body dissatisfaction in adolescent boys and girls: a prospective study. *The International Journal Of Eating Disorders*, 36(4), 389-401.
- Pring, C. (2012). 100 social media statistics for 2012 | The Social Skinny. Retrieved from <http://thesocialskinny.com/100-social-media-statistics-for-2012/>
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily Well-Being: The Role of Autonomy, Competence, and Relatedness. *Personality and Social Psychology Bulletin*, 26(4), 419–435.doi:10.1177/0146167200266002
- Richins, M. L. (1991). Social comparison and the idealized images of advertising. *Journal of Consumer Research*, 18(1), 71-83.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rudd, N. A., Lennon. (2000). Body image and appearance-management behaviors in college women. *Clothing and Textiles Research Journal*, 18(3), 152-162.
- Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). Rochester, NY: Rochester University Press.
- Ryan, R. M., Deci, E. L., Grolnick, W. S., & La Guardia, J. G. (2006). The significance of autonomy and autonomy support in psychological development and psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology: Vol. 1: Theory and methods* (2nd ed., pp. 795–849). New York, NY: Wiley.
- Saikali, C. J., Soubhia, C. S., Scalfaro, B. M., & Cordás, T. A. (2004). Body Image in Eating Disorders. *Archives of Clinical Psychiatry (São Paulo)*, 31(4), 164-166.

- Santos, E. M. C., Tassitano, R. M., Nascimento, W. M. F., Petribú, M. M. V., & Cabral, P. C.. (2011). Body satisfaction and associated factors among high school students. *Revista Paulista de Pediatria*, 29(2), 214-223.
- Sassaroli, S., Romero Lauro, L. J., Maria Ruggiero, G., Mauri, M. C., Vinai, P., & Frost, R. (2008). Perfectionism in depression, obsessive-compulsive disorder and eating disorders. *Behaviour Research and Therapy*, 46(6), 757–765. doi:10.1016/j.brat.2008.02.007
- Serpell, L., Neiderman, M., Roberts, V., & Lask, B. (2007). The shape- and weight-based self-esteem inventory in adolescent girls with eating disorders and adolescent controls. *Psychotherapy Research*, 17(3), 321–319. <https://doi.org/10.1080/10503300600608173>
- Skårderud, F., & Fonagy, P. (2012). Eating disorders. In A. W. Bateman & P. Fonagy (Eds.), *Handbook of mentalizing in mental health practice* (pp. 347-384). Washington, DC; American Psychiatric Publishing, doi; 10.1176/appi.ajp.2011.11101525
- Slater, A., & Tiggemann, M. (2014). Media matters for boys too! The role of specific magazine types and television programs in the drive for thinness and muscularity in adolescent boys. *Eating Behaviors*, 15(4), 679–682. doi:10.1016/j.eatbeh.2014.10.002
- Smink, F. R. E., van Hoeken, D., & Hoek, H. W. (2012). Epidemiology of Eating Disorders: Incidence, Prevalence and Mortality Rates. *Current Psychiatry Reports*, 14(4), 406–414. doi:10.1007/s11920-012-0282-y
- Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin*, 139(1), 213-240.
- Stefano, E. C., Hudson, D. L., Whisenhunt, B. L., Buchanan, E. M., & Latner, J. D. (2016). Examination of body checking, body image dissatisfaction, and negative affect using ecological momentary assessment. *Eating Behaviors*, 22, 51-54.

- Stice, E., & Shaw, H. E. (1994). Adverse effects of the media portrayed thin-ideal on women and linkages to bulimic symptomatology. *Journal of Social and Clinical Psychology, 13*(3), 288-308.
- Stice, E., Hayward, C., Cameron, R. P., Killen, J. D., & Taylor, C. B. (2000). Body-image and eating disturbances predict onset of depression among female adolescents: A longitudinal study. *Journal of Abnormal Psychology, 109*(3), 438-444.
- Stice, E., Presnell, K., & Spangler, D. (2002). Risk factors for binge eating onset in adolescent girls: A 2-year prospective investigation. *Health Psychology, 21*(2), 131–138. doi:10.1037/0278-6133.21.2.131
- Stice, E., & Shaw, H. (2003). Prospective relations of body image, eating, and affective disturbances to smoking onset in adolescent girls: how Virginia slims. *Journal of Consulting and Clinical Psychology, 71*, 129–135.
- Stice, E., Burton, E. M., & Shaw, H. (2004). Prospective Relations Between Bulimic Pathology, Depression, and Substance Abuse: Unpacking Comorbidity in Adolescent Girls. *Journal of Consulting and Clinical Psychology, 72*(1), 62–71. doi:10.1037/0022-006x.72.1.62
- Strasburger, V. C., Jordan, A. B., & Donnerstein, E. (2010). Health Effects of Media on Children and Adolescents. *PEDIATRICS, 125*(4), 756–767. doi:10.1542/peds.2009-2563
- Statistica Research Department. (2018). Number of social media users worldwide 2010-2021. Retrieved from <https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/>
- Swanson, S. A., Crow, S. J., Le Grange, D., Swendsen, J., & Merikangas, K. R. (2011). Prevalence and Correlates of Eating Disorders in Adolescents: Results From the



- National Comorbidity Survey Replication Adolescent Supplement. *Archives of General Psychiatry*, 68(7), 714-723. doi:10.1001/archgenpsychiatry.2011.22
- Thøgersen-Ntoumani, C., Ntoumanis, N., & Nikitaras, N. (2010). Unhealthy weight control behaviours in adolescent girls: A process model based on self-determination theory. *Psychology and Health*, 25, 535–550.
- Thomsen, S., Thomsen, J. K., McCoy, M., & Williams. (2001). Internalizing the impossible: Anorexic outpatients' experiences with women's beauty and fashion magazines. *Eating Disorders*, 9(1), 49-64.
- Tomori, M., & Rus-Makovec, M. (2000). Eating behavior, depression, and self-esteem in high school students. *Journal of Adolescent Health*, 26, 361–367.
- Troop, N. A., Allan, S., Treasure, J. L., & Katzman, M. (2003). Social comparison and submissive behaviour in eating disorder patients. *Psychology and Psychotherapy: Theory, Research and Practice*, 76(3), 237–249. doi:10.1348/147608303322362479
- Vall, E., & Wade, T. D. (2015). Predictors of treatment outcome in individuals with eating disorders: A systematic review and meta-analysis. *International Journal of Eating Disorders*, 48(7), 946–971. <https://doi.org/10.1002/eat.22411>
- Valois, R. F., Zullig, K. J., Huebner, E. S., & Drane, J. W. (2003). Dieting Behaviors, Weight Perceptions, and Life Satisfaction Among Public High School Adolescents. *Eating Disorders*, 11(4), 271–288. doi:10.1080/10640260390242506
- Van Son, G. E., Van Hoeken, D., Bartelds, A. I. M., Van Furth, E. F., & Hoek, H. W. (2006). Urbanisation and the incidence of eating disorders. *British Journal of Psychiatry*, 189(06), 562–563. doi:10.1192/bjp.bp.106.021378
- Vansteelandt, K., Rijmen, F., Pieters, G., Probst, M., & Vanderlinden, J. (2007). Drive for thinness, affect regulation and physical activity in eating disorders: A daily life study.

- Behaviour Research and Therapy*, 45(8), 1717–1734. <https://doi.org/10.1016/j.brat.2006.12.005>
- Verstuyf, J., Patrick, H., Vansteenkiste, M., & Teixeira, P. J. (2012). Motivational dynamics of eating regulation: a self-determination theory perspective. *International Journal of Behavioral Nutrition and Physical Activity*, 9(1), 21. doi:10.1186/1479-5868-9-21
- Vilela, J. E. M., Lamounier, J. A., Filho, M. A. D., Neto, J. R. B., & Horta, G. M. (2004). Eating disorders in school children. *Jornal de Pediatria*, 80(1), 49–54. doi:10.2223/jped.1133
- Voelker, D. K., Reel, J. J., & Greenleaf, C. (2015). Weight status and body image perceptions in adolescents: current perspectives. *Adolescent Health, Medicine And Therapeutics*, 6149-158.
- Wallis, J. (2015). *The effects of social media on the body satisfaction of adolescent and young adult females* (Unpublished master's thesis). Kansas State University.
- Want, S. C. (2009). Meta-analytic moderators of experimental exposure to media portrayals of women on female appearance satisfaction: Social comparisons as automatic processes. *Body Image*, 6, 257-269.
- Yates, A., Edman, J., & Aruguete, M. (2004). Ethnic differences in BMI and body/self-dissatisfaction among Whites, Asian subgroups, Pacific Islanders, and African-Americans. *Journal of Adolescent Health*, 34(4), 300–307. doi:10.1016/j.jadohealth.2003.07.014
- Yucel, B., Polat, A., Ikiz, T., Dugor, B. P., Yavuz, A. E., & Berk, O. S. (2011). The Turkish version of the Eating Disorder Examination Questionnaire: Reliability and validity in adolescents. *European Eating Disorders Review*, 19(6), 509-511.

Zhao, G., Ford, E. S., Dhingra, S., Li, C., Strine, T. W., & Mokdad, A. H. (2009). Depression and anxiety among US adults: associations with body mass index. *International Journal of Obesity*, 33(2), 257–266. doi:10.1038/ijo.2008.268



## APPENDICIES

### Appendix A

#### Informed Consent for Adolescents

##### Sayın Katılımcı,

Bu yüksek lisans tezi, TED Üniversitesi, Psikoloji Bölümü'nde Gelişim Odaklı Klinik Çocuk ve Ergen Psikolojisi yüksek lisansı kapsamında, Yrd. Doç. Athanasios Mouratidis danışmanlığında Selin Damla Özcan tarafından yürütülmektedir. Araştırmanın amacı, sosyal medya kullanım sıklığı ile yeme davranışları arasındaki ilişkiyi incelemektir. Bu çalışmanın katılımcılarını lise öğrencileri oluşturmaktadır.

Bu yüksek lisans tez çalışmasına katılımınızı onayladığınız takdirde, bu çalışmanın katılımcısı olacaksınız. Çalışma süresince ve sonrasında verdiğiniz bilgiler, bu çalışma amacıyla kullanılıp bunun dışındaki hiç kimseye izniniz dışında paylaşılmayacaktır. Bu çalışma kapsamında elde edilecek olan bilimsel bilgiler sadece araştırmacılar tarafından yapılan bilimsel yayınlarda, sunumlarda ve eğitim amaçlı çevrimiçi bir ortamda paylaşılacaktır. Paylaşılan bilgiler arasında ise katılımcılar tarafından sağlanan iletişim bilgisi yer almayacaktır. Araştırma katılımcılarından kendileri için bir rumuz oluşturmaları ve araştırma süresince isim ve soy isimleri yerine bu rumuzu kullanmaları istenmektedir. Bu uygulama katılımcıların kimliklerinin gizli tutulması amacıyla düzenlenmiştir.

Çalışmanın ilk aşaması yaklaşık 30 dakika sürecek ve anket doldurulması şeklinde tamamlanacak, ikinci aşama ise 13 günlük periyot içerisinde 2 günde bir yaklaşık 15 dakika sürecek ve 13 günlük sorusunun cevaplanması istenecektir. İkinci aşama için katılımcılara SMS üzerinden ilgili günlerde bir link gönderilecek ve bu link üzerinden 13 soruyu cevaplamaları istenecektir. Kişisel bilgiler yerine rumuz kullanılacağından, kişisel gizlilik sağlanmış olacaktır. Çalışmaya katılım gönüllük esasına dayalıdır. Uygulamada yer alan hiçbir aşama kişisel rahatsızlık verecek nitelikte değildir. Ancak herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, uygulamaları nedenini açıklamaksızın yarıda bırakıp araştırmadan çıkmakta serbestsiniz. Böyle bir durumda vermiş olduğunuz bilgilerin araştırmacı tarafından kullanılması ancak sizin onayınızla mümkün olacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederim. Çalışma hakkında daha fazla bilgi almak ve yanıtlanmasını istediğiniz sorularınız için araştırmayı yürüten Selin Damla Özcan ile (E-posta: sdamla.ozcan@tedu.edu.tr) iletişim kurabilirsiniz.

***Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. Verdiğim bilgilerin bilimsel makaleler, akademik sunumlar ve çevrimiçi bir eğitim ortamı dışında kesinlikle kullanılmayacağını biliyorum.***

Çalışmaya katılmak istiyorum

Evet / Hayır

Katılımcı Rumuz Bilgisi: .....

Katılımcı İletişim için Telefon Numarası: 05 \_\_\_\_ \_

Katılımcının İmzası: .....

Tarih .....

Teşekkürler,

Araştırmacının adı, soyadı

Selin Damla Özcan

Danışman: Yrd. Doç. Athanasios Mouratidis

Ziya Gökalp Cad. No:48 Kolej/ Çankaya, ANKARA, TED Üniversitesi

*Araştırmaya katılımınız ve haklarınızın korunmasına yönelik sorularınız varsa ya da herhangi bir şekilde risk altında olduğunuza veya strese maruz kalacağına inanıyorsanız TED Üniversitesi İnsan Araştırmaları Etik Kurulu'na (0312 585 00 11) telefon numarasından veya [iaek@tedu.edu.tr](mailto:iaek@tedu.edu.tr) eposta adresinden ulaşabilirsiniz.*

## Appendix B

### Informed Consent for Parents

Sayın Veli,

Ted Üniversitesi Psikoloji Bölümü, Gelişim Odaklı Klinik Çocuk ve Ergen Psikolojisi yüksek lisans programı kapsamında Yrd. Doç. Athanasios Mouratidis danışmanlığında, Selin Damla Özcan tarafından yürütülen bu yüksek lisans tez çalışmasında, sosyal medya kullanım sıklığı ile yeme davranışları arasındaki ilişki incelenmektedir. Bu mektubu ise, size çocuğunuzun bu çalışmaya katılımı için izin almak amacıyla gönderiyorum.

Bu araştırmada, çocuğunuzdan verilen anket formlarını doldurması istenecek, devamında ise 13 günlük süreç içerisinde 2 günde bir 13 soruluk anketi cevaplaması istenecektir. Bu anket uygulaması için TED Üniversitesi Etik Kurulu'ndan ve Millî Eğitim Bakanlığı'ndan onay alınmıştır.

Bu çalışmaya katılımı onayladığınız takdirde, çocuğunuz okul idaresinin uygun gördüğü saatlerde, sınıf ortamında yaklaşık 30 dakika süren bir anket uygulamasına katılacaktır. Anket uygulama tarihinden 1 ay sonra ise, 11 günlük süreç içerisinde haftanın belirlenen günleri olmak üzere 2 günde bir çocuğunuzun akşam saatlerinde 13 soruluk bir ankete yanıt vermesi istenecektir. Araştırmada yer alan bu uygulamalar çocuğunuza rahatsızlık verecek nitelikte değildir. Çalışmaya katılım gönüllülük esasına dayalıdır. Ancak herhangi bir nedenden ötürü çocuğunuz rahatsızlık hissederse, anketleri nedenini açıklamaksızın yarıda bırakma hakkına sahiptirler. Bununla birlikte, bu çalışmaya çocuğunuzun katılmasına izin vermeniz halinde günümüzde artan sosyal medya kullanımının kişi ile olan ilişkisini ortaya çıkarmak açısından da oldukça önemlidir.

Bu çalışmada çocuğunuzdan herhangi bir kimlik bilgisi alınmayacaktır. Katılımcıların isim, soy isim bilgileri yerine kendileri için bir rumuz üretmeleri ve araştırma süresince bu rumuzu kullanmaları istenmektedir. 11 günlük ikinci aşamada ise katılımcılara SMS ile link iletileceğinden katılımcılardan iletişim numarası istenmektedir, fakat kimlik bilgileri araştırmacıda bulunmayacağından kişiler anonimliğini koruyacaktır. Aynı zamanda, bu çalışma kapsamında elde edilecek olan bilimsel bilgiler, sadece araştırmacılar tarafından yapılan bilimsel yayınlarda, sunumlarda ve eğitim amaçlı paylaşılacaktır. Paylaşılacak bilgiler arasında iletişim numarası bulunmayacaktır. Süreç içerisinde çocuğunuzun paylaşımında bulunduğu bilgiler kesinlikle gizli tutulacak ve sadece çalışmanın araştırmacıları tarafından değerlendirilecektir. Bu çalışmaya katılım izni verdiğiniz için şimdiden teşekkür ederim. Çalışma hakkında daha fazla bilgi almak ve yanıtlanmasını istediğiniz sorularınız için benimle (e-posta: sdamla.ozcan@tedu.edu.tr, telefon: 0545 970 06 18) iletişim kurabilirsiniz.

***Bu çalışmaya çocuğumun katılmasına izin veriyorum. Çocuğumun, istediği zaman bu çalışmadan ayrılabilceğini biliyorum. Araştırma süresince elde edilen bilimsel bilgilerin bilimsel makaleler ve akademik sunumlar dışında kesinlikle kullanılmayacağını biliyorum.***

Teşekkürler,  
Araştırmacının adı, soyadı

Selin Damla Özcan

Adresi  
TED Üniversitesi  
Ziya Gökalp Cad. No:48 Kolej/ Çankaya ANKARA

.....  
Aşağıdaki izin kısmını doldururken lütfen katılımcı rumuzunu kullanınız.

Yukarıda açıklamasını okuduğum çalışmaya, velisi olduğum \_\_\_\_\_'nin katılımına izin veriyorum.

Velinin İmzası: \_\_\_\_\_ Tarih: \_\_\_\_\_

**İmzalanan bu formu lütfen çocuğunuz aracılığı ile sınıf öğretmenine ulaştırınız.**

*Çocuğunuzun katılımı ya da haklarının korunmasına yönelik sorularınız varsa ya da çocuğunuzun herhangi bir şekilde risk altında olabileceğine, strese maruz kalacağına inanıyorsanız TED Üniversitesi İnsan Araştırmaları Etik Kurulu'na (0312 585 00 11) telefon numarasından veya [iaek@tedu.edu.tr](mailto:iaek@tedu.edu.tr) eposta adresinden ulaşabilirsiniz.*

## Appendix C

### Demographic Information Form

#### Demografik Bilgi Formu

1. Yaşınız:
2. Cinsiyetiniz:
3. Sınıfınız:
4. Sizce aşağıdaki seçeneklerden hangisi ekonomik düzeyinizi en iyi ifade etmektedir?  
Çok Düşük  Düşük  Orta  Yüksek  Çok Yüksek
5. Akıllı telefonunuz var mı? Evet  Hayır
5. Sürekli olarak internet bağlantınız var mı? Evet  Hayır
6. Sosyal Medya hesabınız/hesaplarınız var mı? Evet  Hayır

**Evet ise;**

7. Toplam kaç tane sosyal medya hesabına sahipsiniz?  
\_\_\_\_\_
8. Hangi sosyal medya hesaplarına sahipsiniz?  
\_\_\_\_\_
9. Günde hangi sıklıkta sosyal medya hesaplarınızı kontrol ediyorsunuz?  
 15 dakikada bir  
 30 dakikada bir  
 45 dakikada bir  
 60 dakikada (bir saatte) bir  
 Diğer.....

## Appendix D

### Eating Disorder Examination Questionnaire

#### Yeme Bozukluğu Değerlendirme Ölçeği

**YÖNERGE :** Aşağıdaki sorular sadece son 4 hafta ile ilgilidir. Lütfen her soruyu dikkatlice okuyunuz ve tüm soruları yanıtlayınız. Teşekkürler.

**1'den 12'ye kadar olan sorular:** Lütfen sağdaki uygun olan sayıyı yuvarlak içine alınız. Soruların sadece son dört haftayı içerdiğini (28 gün) unutmayınız

	Son 28 günün kaçında...	Hiçbirin -de	1 -5	6 -12	13 -15	16 -22	23 -27	Her gün
1-	Kilonuzu ya da bedeninizin şeklini değiştirmek amacıyla yiyecek miktarınızı kasıtlı olarak sınırlandırmaya çalıştınız? ( <i>Başarılı olup olmadığınız önemli değildir.</i> )	0	1	2	3	4	5	6
2-	Bedeninizin şeklini ya da kilonuzu değiştirmek amacıyla uzun bir süre ( <i>uyanık olduğunuz 8 saat boyunca ya da daha fazla bir süre için</i> ) hiçbir şey yemediniz?	0	1	2	3	4	5	6
3-	Bedeninizin şeklini ya da kilonuzu değiştirmek amacıyla hoşlandığınız yiyecekleri beslenme düzeninizden çıkarmaya çalıştınız? ( <i>Başarılı olup olmadığınız önemli değildir.</i> )	0	1	2	3	4	5	6
4-	Bedeninizin şeklini ya da kilonuzu değiştirmek amacıyla yemenizle ilgili (örn. kalori sınırlandırması) belli kurallara uymaya çalıştınız? ( <i>Başarılı olup olmadığınız önemli değildir.</i> )	0	1	2	3	4	5	6
5-	Bedeninizin şeklini ya da kilonuzu etkilemek amacıyla boş bir mideye sahip olmak için belirgin bir arzu duydunuz?	0	1	2	3	4	5	6
6-	<u>Tamamen düz</u> bir karına sahip olmak için belirgin bir arzu duydunuz?	0	1	2	3	4	5	6
7-	<u>Yiyecek, yemek yeme ya da kalorilerle</u> ilgili düşünmenin, ilgilendiğiniz konulara (örn. çalışma, bir konuşmayı takip etme ya da okuma) yoğunlaşmanızı çok zorlaştırdı?	0	1	2	3	4	5	6
8-	<u>Bedeninizin şekli ve kiloyla</u> ilgili düşünmenin, ilgilendiğiniz konulara (örn. İşinize, bir konuşmayı takip etmenize ya da okumanıza) yoğunlaşmanızı çok zorlaştırdığı oldu?	0	1	2	3	4	5	6
9-	Yemek yemeyle ilgili kontrolü kaybetmekten belirgin biçimde korktunuz?	0	1	2	3	4	5	6

10-	Kilo alabileceğinizden belirgin bir biçimde korktunuz?	0	1	2	3	4	5	6
11-	Kendinizi şişman hissettiniz?	0	1	2	3	4	5	6
12-	Kilo vermek için güçlü bir arzunuz oldu?	0	1	2	3	4	5	6

**13'ten 16'ya kadar olan sorular:** Lütfen sağdaki boşluğa uygun sayıyı yazınız. Soruların yalnızca son dört haftaya yönelik olduklarını (28 güne) hatırlayınız.

	<b>Son dört hafta içinde (28 gün)...</b>	
13-	Son 28 gün içinde, kaç kere, başka insanların alışılmadık miktarda fazla (şartlara göre) olarak tanımlayacakları biçimde yemek yediniz?	.....
14-	Bu süre içinde kaç kere yemek yemenizle ilgili kontrolü kaybetme hissine kapıldınız (yediğiniz sırada) ?	.....
15-	Son 28 günün kaç <b>GÜNÜNDE</b> aşırı yemek yeme nöbetleri ortaya çıktı (örn. Alışılmadık miktarda fazla yemek yediğiniz ve o sırada kontrolü kaybettiğiniz duygusunu yaşadınız)?	.....
16-	Son 28 gün içinde, kilonuzu, bedeninizin şeklini ya da yağ miktarınızı kontrol etmek, kalorileri yakmak amacıyla, kaç kere "kendinizi kaybedercesine" ya da "saplantılı" biçimde egzersiz yaptınız?	.....

**17'den 19'a kadar olan sorular:** Lütfen uygun sayıyı yuvarlak içine alınız. Lütfen bu sorular için "tıknırcasına yeme" teriminin, mevcut koşullarda başkalarına göre alışılmadık miktarda ve kontrolü kaybetme duygusuyla beraber fazla yemeyi ifade ettiğini göz önünde bulundurunuz.

17-	Son 28 gün içinde, kaç kere gizlice (örn. Saklanarak) yemek yediniz? (Tıknırcasına yeme durumlarını saymayınız.)	Hiçbirin -d e	1 -5 gün	6 -12 gün	13 -15 gün	16 -22 gün	23 -27 gün	Her gün
		0	1	2	3	4	5	6
18-	Yemek yediğiniz zaman bedeninizin şeklini ya da kilonuzu etkilediği için ne oranda kendinizi suçlu hissettiniz (hata yaptığınızı hissettiniz)? (Tıknırcasına yemek yeme durumlarını saymayınız.)	Hiçbir zaman	Nadiren	Yarıdan az	Yarı yarıya	Yarıdan fazla	Çoğu zaman	Her zaman
		0	1	2	3	4	5	6
19-	Son 28 gün içinde, başkalarının sizi yemek yerken görmesiyle ilgili ne kadar endişelendiniz? (Tıknırcasına yeme durumlarını saymayınız.)	Hiç	Biraz	Orta	Önemli ölçüde			
		0	1	2	3	4	5	6

**20'den 26'ya kadar olan sorular:** Lütfen sağda uygun bulduğunuz sayıyı yuvarlak içine alınız. Soruların yalnızca son dört haftaya yönelik olduklarını (28 güne) hatırlayınız.

		Hiç	Biraz	Orta	Önemli ölçüde			
20-	<u>Kilonuz</u> , kişi olarak kendiniz hakkında düşüncenizi ve yargınızı etkiledi mi?	0	1	2	3	4	5	6
21-	<u>Bedeninizin şekli</u> , kendiniz hakkındaki düşüncenizi (yargınızı) etkiledi mi?	0	1	2	3	4	5	6
22-	Önümüzdeki dört hafta boyunca, haftada 1 kez tartılmanız istense (ne daha sık ne daha seyrek), bu sizi ne kadar üzerdi ?	0	1	2	3	4	5	6



23-	<u>Kilonuzdan</u> ne derece memnun değilsiniz ?	0	1	2	3	4	5	6
24-	<u>Bedeninizin şeklinden</u> ne derece memnun değilsiniz?	0	1	2	3	4	5	6
25-	Bedeninizi görmekten ne kadar rahatsız oluyorsunuz (örn. Aynada, mağazanın camında, soyunurken, banyo ya da duş yaparken)?	0	1	2	3	4	5	6
26-	<u>Başkalarının</u> bedeninizin şeklini görme- sinden ne derece rahatsız oluyorsunuz? (örn. Soyunma odalarında, yüzerken ya da dar elbiseler giyerken)	0	1	2	3	4	5	6

Şu andaki kilonuz nedir? (Lütfen en yakın tahmini yapınız) .....

Boyunuz ne kadar? (Lütfen en yakın tahmini yapınız) .....

**Kadınlara :** Geçtiğimiz üç-dört aylık dönemde hiç aybaşı (regl) olmadığınız oldu mu?.....

Aksama olduysa kaç tane?.....

Bu nedenle ilaç kullanıyor musunuz?.....

## Appendix E

### Child and Adolescent Perfectionism Scale Çocuk ve Ergen Mükemmeliyetçilik Ölçeği

Sevgili öğrenci, aşağıda bazı cümleler yer almaktadır. Bu cümleleri okuyarak seni en iyi tanımlayan rakamı **yuvarlak içine al**. Doğru yanıtlar vermen, araştırmadan sağlıklı sonuçlar elde etmek için çok önemlidir. LÜTFEN HİÇBİR SORUYU BOŞ BIRAKMA !

Eğer okuduğun cümle senin için **hiç uygun değilse** 1'i yuvarlak içine al.

Eğer okuduğun cümle senin için **çoğunlukla uygun değilse** 2'yi yuvarlak içine al.

Eğer okuduğun cümle senin için **ne doğru ne yanlışsa** 3'ü yuvarlak içine al.

Eğer okuduğun cümle senin için **çoğunlukla doğruysa** 4'ü yuvarlak içine al.

Eğer okuduğun cümle senin için **çok doğruysa** 5'i yuvarlak içine al.

Teşekkürler..☺

		Yanlış					Doğru				
1	Yaptığım her şeyin mükemmel olmasına çalışırım.	1	2	3	4	5					
2	Yaptığım her şeyde en iyi olmak isterim.	1	2	3	4	5					
3	Yaşamımda benden mükemmel olmamı isteyen bekleyen insanlar var.	1	2	3	4	5					
4	Her zaman sınavda en yüksek notu almaya çalışırım.	1	2	3	4	5					
5	Her zaman yapabileceğim en iyisini yapmamam beni gerçekten rahatsız eder.	1	2	3	4	5					
6	Ailem benden mükemmel olmamı bekler.	1	2	3	4	5					
7	İnsanlar benden yapabileceğimden daha fazlasını bekliyorlar.	1	2	3	4	5					
8	Bir hata yaptığımda kendime çok kızarım.	1	2	3	4	5					
9	Eğer her zaman yapabileceğim en iyisini yapmazsam, diğer insanlar başarısız olduğumu düşünür.	1	2	3	4	5					
10	Diğer insanlar daima mükemmel olmamı beklerler.	1	2	3	4	5					
11	Eğer ödevimde bir hata bile varsa moralim bozulur.	1	2	3	4	5					
12	Çevremdeki insanlar her konuda kusursuz olmamı bekliyorlar.	1	2	3	4	5					
13	Yaptığım her şey mükemmel olmalı.	1	2	3	4	5					
14	Öğretmenler ödevimin mükemmel olmasını bekliyorlar.	1	2	3	4	5					
15*	Yaptığım her şeyde en iyisi olmak zorunda değilim.	1	2	3	4	5					
16	Her zaman diğerlerinden daha iyi olmam beklenir.	1	2	3	4	5					
17	Başarılı olsam da, sınıftaki en yüksek notlardan birini almamışsam başarısız olduğumu hissederim.	1	2	3	4	5					
18	İnsanların benden çok şey istediklerini hissediyorum.	1	2	3	4	5					

## Appendix F

### Rosenberg Self-Esteem Scale

### Rosenberg Benlik Saygısı Ölçeği

Aşağıdaki maddeler, kendin hakkında ne düşünüp, genel olarak nasıl hissettiğine ilişkin olarak hazırlanmıştır. Lütfen her bir maddeyi dikkatlice oku ve kendin hakkında nasıl hissettiğini karşılarındaki bölmelerden uygun olanını işaretleyerek belirt.

	Hiç katılmıyorum	Katılmıyorum	Katılıyorum	Tamamen katılıyorum
1. Kendimi en az diğer insanlar kadar değerli buluyorum.				
2. Bazı olumlu özelliklerim olduğunu düşünüyorum.				
3. Genelde, kendimi başarısız bir kişi olarak görme eğilimdeyim.				
4. Ben de diğer insanların birçoğunun yapabileceği kadar bir şeyler yapabilirim.				
5. Kendimde gurur duyacak fazla bir şey bulamıyorum.				
6. Kendime karşı olumlu bir tutum içindeyim.				
7. Genel olarak kendimden memnunum.				
8. Kendime karşı daha fazla saygı duyabilmeyi isterdim.				
9. Bazen kesinlikle kendimin bir işe yaramadığımı düşünüyorum.				
10. Bazen kendimin hiç de yeterli bir insan olmadığımı düşünüyorum.				

## Appendix G

### Life Satisfaction Scale

#### Yaşam Doyumu Ölçeği

Aşağıdaki ifadelere katılıp katılmadığınızı görüşünüzü yansıtan rakamı maddenin başındaki boşluğa yazarak belirtiniz. Doğru ya da yanlış cevap yoktur. Sizin durumunuzu yansıttığını düşündüğünüz rakam bizim için en doğru yanıttır. Lütfen, açık ve dürüst şekilde yanıtlayınız.

7 = Kesinlikle katılıyorum

6 = Katılıyorum

5 = Çok az katılıyorum

4 = Ne katılıyorum ne de katılmıyorum

3 = Biraz katılmıyorum

2 = Katılmıyorum

1 = Kesinlikle katılmıyorum

\_\_\_\_\_ Pek çok açıdan ideallerime yakın bir yaşamım var

\_\_\_\_\_ Yaşam koşullarım mükemmeldir

\_\_\_\_\_ Yaşamım beni tatmin ediyor

\_\_\_\_\_ Şimdiye kadar, yaşamda istediğim önemli şeyleri elde ettim

\_\_\_\_\_ Hayatımı bir daha yaşama şansım olsaydı, hemen hemen hiçbir şeyi değiştirmezdim.

**Appendix H**  
**Diary Questions**  
**Günlük Soruları**

Rumuz:

Tarih:

1- Bugün içerisinde sosyal medyada ne kadar zaman geçirdiniz?

- 0-15 dakika
- 15-30 dakika
- 1-2 saat
- 2-3 saat
- 3-4 saat
- 4-5 saat
- 5-6 saat
- 6-7 saat
- 7-8 saat
- 8-9 saat
- 9-10 saat
- 10 saat ve fazlası

2- Bugün içerisinde sosyal medya hesaplarınızı kontrol etmek için ne kadar vakit  
harcadınız?

- Neredeyse hiç
- 1 veya 2 kere
- 3-5 kere
- 5-10 kere
- 11-15 kere

15-20 kere

Sayabileceğimden daha fazla

3- Bugün içerisinde sosyal medyada bulunan "Sağlık ve Fitness" hesapları (Fitness bloggerları, diyet planları vs.) ile ne kadar karşılaştınız?

Hiç karşılaşmadım

Nadiren karşılaştım

Bazen karşılaştım

Sıklıkla karşılaştım

Her girdiğimde karşılaştım

4- Bugün içerisinde sosyal medyada bulunan "Ünlü kişi" (modeller, film ve/veya dizi yıldızları vs.) hesapları ile ne kadar karşılaştınız?

Hiç karşılaşmadım

Nadiren karşılaştım

Bazen karşılaştım

Sıklıkla karşılaştım

Her girdiğimde karşılaştım

5- Bugün içerisinde sosyal medyada bulunan "Seyahat" (görülecek yerler, turistik bölgeler vs.) hesapları ile ne kadar karşılaştınız?

Hiç karşılaşmadım

Nadiren karşılaştım

Bazen karşılaştım

Sıklıkla karşılaştım

Her girdiğimde karşılaştım

6- Bugün içerisinde arkadaşlarınızın sosyal medya hesaplarını ne kadar sıklıkla ziyaret ettiniz?

- Hiç ziyaret etmedim
- Nadiren ziyaret ettim
- Bazen ziyaret ettim
- Sıklıkla ziyaret ettim
- Her girdiğimde ziyaret ettim

7- Bugün içerisinde kilonuzdan (tartıda beliren rakamdan) ne derece memnundunuz?

- Kesinlikle memnun değildim
- Hiç memnun değildim
- Kısmen memnun değildim
- Fikrim yok
- Kısmen memnundum
- Çok memnundum
- Kesinlikle memnundum

8- Bugün içerisinde bedeninizin şeklinden ne derecede memnundunuz?

- Kesinlikle memnun değildim
- Hiç memnun değildim
- Kısmen memnun değildim
- Fikrim yok
- Kısmen memnundum
- Çok memnundum
- Kesinlikle memnundum

9- Bugün içerisinde kilonuzu ya da bedeninizin şeklini değiştirmek amacıyla yiyecek miktarınızı kasıtlı olarak sınırlandırmaya çalıştınız mı? (Başarılı olup olmadığınız önemli değildir.)

- Hiç  
 Çok az  
 Az  
 Nötr  
 Biraz  
 Fazla  
 Çok fazla

10- Bugün içerisinde, başka insanların alışılmadık miktarda fazla (şartlara göre) olarak tanımlayacakları biçimde yemek yediniz ve bu süreçte kontrolü kaybettiğiniz hissine kapıldınız mı?

- Hiç  
 Çok az  
 Az  
 Nötr  
 Biraz  
 Fazla  
 Çok fazla

11- Aşağıda belirtilen fiziksel özellikleri göz önünde bulundurarak, bugün içerisinde ne sıklıkla kendinizi sosyal medyada gördüğünüz arkadaşlarınızla karşılaştığınızı belirtiniz.

	Hiç	Nadiren	Bazen	Çoğunlukla	Her Gördüğümde
Boy					
Kilo					
Vücut Şekli					
Çekicilik					



12- Aşağıda belirtilen fiziksel özellikleri göz önünde bulundurarak, bugün içerisinde ne sıklıkla kendinizi sosyal medyada gördüğünüz ünlü hesapları, sağlık ve fitness hesapları ile karşılaştığınızı belirtiniz.

	Hiç	Nadiren	Bazen	Çoğunlukla	Her Gördüğümde
Boy					
Kilo					
Vücut Şekli					
Çekicilik					

13- Aşağıda belirtilen ifadelere bugünü baz alarak cevap veriniz.

	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Tamamen Katılıyorum
Önemsediğim insanların da beni önemseydiğini hissettim.					
Gerçekten ilgimi çeken şeyleri yaptığımı hissettim.					
Yaptığım işlerde kendimi yetenekli hissettim.					

Günlük soruları internet üzerinden toplanmıştır. Sorulara internet üzerinden ulaşabilmek için

link: <https://form.jotform.com/90192366379971>

## Appendix I

### TED University Ethical Approval Form

### TED Üniversitesi Etik Onayı

Evrak Tarih ve Sayısı : 23/11/2018-E.3280



**TED ÜNİVERSİTESİ**

**TED ÜNİVERSİTESİ**  
**Etik Komisyonu**

**Sayı** : 61491896-050.01.04/  
**Konu** : İAEK Kararı hk.

**Sayın Selin Damla ÖZCAN**

TED Üniversitesi, İnsan Araştırmaları Etik Kurulu'nun **12.11.2018 tarih ve 2018/241** sayılı kararı ektedir.

Saygılarımla,

**e-imzalıdır**  
**Prof. Dr.Melike SAYIL**  
**Komisyon Başkanı**

Güvenli Elektronik  
İmzalı Aslı ile Aynıdır  
..23../.11.../2018

Çiğdem ÖZBAY  
Yazı İşleri Şubesi

Evrakı Doğrulamak için : [https://ebys.tedu.edu.tr/enVision/Validate\\_doc.aspx?V=BELMLHHA](https://ebys.tedu.edu.tr/enVision/Validate_doc.aspx?V=BELMLHHA)

Ziya Gökalp Caddesi No: 48 06420 Kolej-Çankaya/Ankara

Ayrıntılı bilgi için irtibat: Şeyda Bafra

Tel: 0 312 585 00 00

Faks: 0 312 418 41 48

E-Posta: info@tedu.edu.tr

Elektronik ağ: www.tedu.edu.tr



Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

**TED ÜNİVERSİTESİ**  
**İNSAN ARAŞTIRMALARI ETİK KURULU**

**ETİK KURUL KARARLARI**

Toplantı Tarihi: **12.11.2018**

Toplantı Sayısı: **2018/86**

TED Üniversitesi İnsan Araştırmaları Etik Kurulu **12.11.2018** Çarşamba günü saat 10:00'da toplanarak aşağıdaki kararları almıştır.

**Karar:(241)** TED Üniversitesi, Lisansüstü Programlar Enstitüsü Gelişim Odaklı Klinik Çocuk ve Ergen Psikolojisi Yüksek Lisans Programı Öğrencisi **Selin Damla ÖZCAN**'ın sahibi olduğu "Sosyal Medya Çağında Ergenlerin Yeme Bozuklukları: Sosyal Karşılaştırma, Bedensel Memnuniyet ve İhtiyaç Doyumu/Engellenmesi Değişkenlerinin Rollerini" başlıklı yüksek lisans tezine ilişkin **31.10.2018/233** tarih ve sayılı etik kurul onay talebi görüşülmüş ve etik kurul tarafından talep edilen düzeltmelerin revize başvuruda gerçekleştirilmiş olduğu görülerek proje önerisinde, araştırma kapsamında uygulanacağı beyan edilen veri toplama yöntemlerinin araştırma etiğine uygun olduğuna OYBİRLİĞİ ile karar verilmiştir.



Prof. Dr. Melike SAYIL  
Başkan



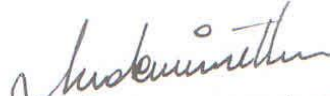
Prof. Dr. Berin GÜR  
Üye



Doç. Dr. Cem AKGÜNER  
Üye



Dr. Öğr. Üyesi Bengi ÜNAL  
Üye




Dr. Öğr. Üyesi Kürşad DEMİRUTKU  
Üye



Dr. Öğr. Üyesi Tekin KÖSE  
Üye



Dr. Öğr. Üyesi Aylin ÇAKIROĞLU ÇEVİK  
Üye



Dr. Öğr. Üyesi Mana Ece TUNA  
Üye

## Appendix J

### Ministry of National Education Ethical Approval

### Milli Eğitim Bakanlığı Etik Onayı



T.C.  
ANKARA VALİLİĞİ  
Milli Eğitim Müdürlüğü

Sayı : 14588481-605.99-E.24865033  
Konu : Araştırma izni

24.12.2018

TED ÜNİVERSİTESİNE  
(Lisansüstü Programlar Enstitüsü)

İlgi: a) MEB Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 2017/25 nolu Genelgesi.  
b) 06/12/2018 tarihli ve 3387 sayılı yazımız.

Enstitünüz Yüksek Lisans Öğrencisi Selin Damla ÖZCAN' ın "**Sosyal medya çağında ergenlerin yeme bozuklukları: Sosyal karşılaştırma, bedensel memnuniyet ve ihtiyaç doyumu/engellenmesi değişkenlerinin rolleri**" konulu tez çalışması kapsamında uygulama yapma talebi Müdürlüğümüzce uygun görülmüş ve uygulamanın yapılacağı İlçe Milli Eğitim Müdürlüğüne bilgi verilmiştir.

Uygulama formunun (10 sayfa) araştırmacı tarafından uygulama yapılacak sayıda çoğaltılması ve çalışmanın bitiminde bir örneğinin (cd ortamında) Müdürlüğümüz Strateji Geliştirme Şubesine gönderilmesini rica ederim.

Turan AKPINAR  
Vali a.  
Milli Eğitim Müdürü

Güvenli Elektronik İmza  
Aslı ile Aynıdır.

24.12.2018

Adres: Emniyet Mah. Alparslan Türkeş Cad. 4/A Yenimahalle

Bilgi için: Emine KONUK

Elektronik AĢ: ankara.meb.gov.tr  
e-posta: istatistik06@meb.gov.tr

Tel: 0 (312) 212 36 00  
Faks: 0 (312) 212 36 00

Bu evrak güvenli elektronik imza ile imzalanmıştır. <https://evraksorgu.meb.gov.tr> adresinden 01ed-3442-3595-9fb2-3e14 kodu ile teyit edilebilir.