

#### **CANKAYA UNIVERSITY**

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#### DEPARTMENT OF PSYCHOLOGY MASTER'S THESIS

# ANTECEDENTS OF SOCIAL MEDIA ADDICTION AND CYBERBULLYING AMONG ADOLESCENTS: ATTACHMENT, THE DARK TRIAD, REJECTION SENSITIVITY AND FRIENDSHIP QUALITY

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#### **ABSTRACT**

# ANTECEDENTS OF SOCIAL MEDIA ADDICTION AND CYBERBULLYING AMONG ADOLESCENTS: ATTACHMENT, THE DARK TRIAD, REJECTION SENSITIVITY AND FRIENDSHIP QUALITY

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With the acceleration of internet use, social media addiction is included in our lives. When looking at the antecedents of SMA, being young has been found to be a risk factor for SMA. It is more important to investigate the effects of SMA on adolescents because, in addition to being in the risk group, adolescents adopt the latest technologies more easily and they are vulnerable to the negative effects of these technologies. The internet is not always used for "innocent" purposes such as self-entertainment or getting information; sometimes it can also be used for malicious purposes, such as humiliating or bullying others. In addition to the benefits of technological advances in education and training, rapid technological developments may also result in problematic behaviors especially among children and young and recently, possibilities brought by technology and more widespread use of technology by young people have created a new concept, namely, cyberbullying, which expands the concept of traditional bullying and that includes using technology for bullying others. The aim of the present study is to examine the effects of attachment anxiety and attachment avoidance on SMA and cyberbullying as distal outcome variables and partial mediating effects of the Dark Triad (DT) personality

traits, angry rejection sensitivity (RS) and anxious RS, and friendship quality in the links of attachment anxiety and avoidance among adolescences. In general, the findings supported the proposed theoretical model. The findings revealed that attachment anxiety was found to be a significant predictor of SMA among adolescent sample. The effect of attachment anxiety on cyberbullying was found to be insignificant. However, angry RS and anxious RS mediated the link between attachment anxiety and cyberbullying. Angry and anxious RS also fully mediated the link between attachment anxiety and friendship quality. The association between attachment avoidance and cyberbullying was mediated by psychopathy. Machiavellianism and psychopathy partially mediated the link between attachment avoidance and friendship quality. The results are discussed in terms of theoretical and practical implications along with suggestions for future research.

**Keywords**: Attachment, the Dark Triad Personality Traits, Rejection Sensitivity, Friendship Quality, Social Media Addiction, Cyberbullying

#### ÖZET

# ERGENLERDE, BAĞLANMA STİLLERİ, KARANLIK ÜÇLÜ KİŞİLİK ÖZELLİKLERİ, REDDEDİLME DUYARLILIĞI VE ARKADAŞLIK KALİTESİNİN SOSYAL MEDYA BAĞIMLILIĞINA VE SİBER ZORBALIĞA ETKİLERİ

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İnternet kullanımının artması ile birlikte, sosyal medya bağımlılığı gibi yeni bağımlılıklar da hayatımıza girmeye başlamıştır ve özellikle genç yaşlarda sosyal medya bağımlılığının etkileri daha fazla sorunlara yol açmaktadır. Ergenler hem risk grubunda oldukları için hem de yeni teknolojileri çok daha kolay benimsedikleri için, sosyal medyanın olası olumsuz sonuçlarına karşı daha savunmasızdırlar. İnsanlar çoğu zaman interneti zaman geçirmek veya eğlence amacı ile kullanırlar ama bu "zararsız" amaçların yanı sıra, diğer insanları aşağılamak veya zorbalık yapmak amacı ile de internet kullanılabilmektedir. Zorbalık, bugün okullarda karşılaşılan en önemli çalışma alanlarından birisi olmakta birlikle, internet kullanımının artması ile siber zorbalık da araştırılan bir diğer konu haline gelmiştir. Bu çalışmanın amacı, bağlanma kaygısı ve bağlanmadan kaçınmanın sosyal medya bağımlılığı ve siber zorbalık üzerindeki etkilerini

ve karanlık kişilik özelliklerinin, reddedilme duyarlılığı ve arkadaşlık kalitesinin bu ilişkilerdeki kısmi aracılık rolünün incelenmesidir. Genel olarak, bulgular önerilen teorik modeli desteklemiştir. Sonuçlar bağlanma kaygısının sosyal medya bağımlılığını yordadığını ortaya koymuştur. Ayrıca, reddedilme duyarlılığının, bağlanmakaygısı ile siber zorbalık arasındaki ilişkide aracı değişken olduğu bulunmuştur. Buna ek olarak, psikopati, Makyavelizm ve arkadaşlık kalitesi, bağlanmadan kaçınma ve siber zorbalık arasındaki ilişkide aracılık etmişlerdir. Sonuçlar, kuramsal ve pratik çıkarımların yanı sıra, gelecekteki araştırmalara yönelik önerilerle birlikte tartışılmıştır.

**Anahtar Kelimeler**: Bağlanma, Karanlık Üçlü Kişilik Özellikleri, Reddedilme Duyarlılığı, Sosyal Medya Bağımlılığı, Siber Zorbalık

To My Beloved Family...

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#### LIST OF SYMBOLS AND ABBREVIATIONS

### **Abbreviations**

SMA : Social Media Addiction

DT : Dark Triad

RS : Rejection Sensitivity

SD3-T : Short Dark Triad-Turkish

CFA : Confirmatory Factor Analysis

#### **CHAPTER I**

#### INTRODUCTION

With the acceleration of internet use, we have many new habits and new types of addictions are included in our lives. One of these addictions is called social media addiction. As with substance, alcohol or internet addictions, social media addiction also has detrimental consequences (Andreassen, Torsheim, Brunborg, & Pallesen, 2012). Internet addiction is the umbrella term of the other internet related addictions like social media addiction (Savci & Aysan, 2017). In the literature, it was found that internet addiction leads to deprivation and withdrawal symptoms like substance and drug addiction, and it also causes some functional failures not only in work but also in family lives (Young, 1998). According to Van den Eijnden, Lemmens, and Valkenburg (2016), internet addiction may be examined in the cluster of compulsive online behaviors.

In order to identify the characteristics of people with problematic internet use, Young (1998) used eight criteria based on gambling addiction in DSM-IV. These criteria are:

- 1. Preoccupation: A great desire to use the internet; being preoccupied with past or future internet use.
- 2. Withdrawal: After a few days without internet use, there is a feeling of anxiety, dysphoric mood, irritability and boredom.
- 3. Tolerance: Increasing amount of internet use to get the needed satisfaction level.
- 4. Difficulty to control: Having profound difficulty in controlling, stopping or reducing the use of internet; or being unable to do the mentioned actions.
- 5. Disregard of harmful consequences: Persistence in excessive internet use disregarding the risk of detrimental psychological and/or physiological consequences such as losing important relationships, jobs, education and career opportunities due to internet usage.

- 6. Loss of social communications and interest: Having decreased satisfaction with previously preferred or enjoyed activities; loss of interest in hobbies, entertaining activities other than internet use.
- 7. Alleviation of negative emotions: To use the internet with the purpose of avoiding problems or calming down negative emotions such as guilt, shame, and anxiety.
- 8. Hiding from friends and relatives: Lying about time spent on or costs of internet to family members, therapists and/or friends.

Individuals who responded to five or more of these eight criteria as 'yes' can be named as "dependent" (Young, 1998). Although only behavior addiction in DSM V is pathological gambling, internet addiction is one of the potential addictions in future DSMs (Young, 1998; Andreassen et al., 2012). As mentioned above, general form of technological addictions were named as internet addiction. Social media addiction, digital game addiction and smart phone addiction are also included in this concept (Griffiths & Szabo, 2014).

There are different definitions of social media addiction (SMA). Ryan, Chester, Reece, and Xenos (2014) defined SMA as an inability to control social media use and disruption in academic and social functions because of social media use. According to Andreassen (2015), SMA can be defined as having strong motivation or an inner compulsion to use social media and it results in some dysfunctional consequences such as work/academic failure, decrease in psychological well-being or social relations. Characteristics or criteria of SMA closely resembles those of internet addiction: Individuals who score high on SMA use social media to buffer negative moods and problems in their personal lives (mood modification); they ruminate to attend social media a lot (salience); their social media use is gradually increased and their gratification level of using social media is, in turn, gradually decreased (tolerance); they exhibit withdrawal symptoms such as becoming irritable and bored when they cannot not use social media (withdrawal); they have problems in controlling, decreasing or outgrowing social media use (relapse); their psychological well-being, physiological well-being and interpersonal relationships are negatively influenced because of excessive use of social media (conflict/problems; Andreassen & Pallesen, 2014).

In the light of this information, it is proposed that for some individuals, use of social media can reach to problematic levels just like internet usage. That is, for some individuals level of social media use may reach to a level of addiction. In addition, detrimental consequences and failure to control of social media use are distinctive features which distinguish those who score high and low on SMA (Andreassen, 2015). When looking at the antecedents of SMA, being young has been found to be a risk factor for SMA (Andreassen, Pallesen, & Griffiths, 2017). It is more important to investigate the effects of SMA on adolescents because, in addition to being in the risk group, adolescents adopt the latest technologies more easily and they are vulnerable to the negative effects of these technologies (Valkenburg & Peter, 2011). However, at least to our knowledge, there are not enough studies investigating the effects of SMA especially among adolescents.

The internet is not always used for "innocent" purposes such as self-entertainment or getting information; sometimes it can also be used for malicious purposes, such as humiliating or bullying others. Although aggression is a problem encountered in various parts of the world from the most primitive communities to the most civilized societies throughout the history, it has become more evident, widespread and more severe in the process of time (Gökler, 2009). While bullying is a concept within aggression, it can be defined as exposing someone to negative actions repeatedly and over time (Olweus, 1994). Negative actions must be intentionally behaved to injure or discomfort (Olweus, 1973); they can be physical, verbal or covert; and they can be performed by one or more people. In addition, the term of bullying can be used if there is an imbalance between either party; that is, a person exposed to bullying should face difficulties in self-defense (Olweus, 1994).

Bullying is one of the most important fields of study encountered in schools today. In addition to the benefits of technological advances in education and training, rapid technological developments may also result in problematic behaviors especially among children and young people (Attewell, Suazo-Garcia, & Battle, 2003; Ybarra & Mitchell, 2005) and recently, possibilities brought by technology and more widespread use of technology by young people have created a new concept, namely, cyberbullying, which expands the concept of traditional bullying and that includes using technology for bullying others (Ayas & Horzum, 2010). Cyberbullying refers to all intentional behaviors that

cause harm to a person or a group of people by using information and communication technologies (Arıcak, 2011). It was argued that, cyberbullying has more detrimental consequences than traditional bullying because victims may be bullied for 7 days 24 hours via internet (Willard, 2007).

Up to now, a few studies focused on the antecedents of SMA and cyberbullying and these studies mainly investigated the effects of the Big Five personality traits, attachment styles, self-esteem. (Andreassen et al., 2017; Blackwell, Leaman, Tramposch, Osborne, & Liss, 2017; Oldmeadow, Quinn, & Kowert, 2013; Tosun & Lajunen, 2010; van Geel, Goemans, Toprak, & Vedder, 2017). However, we have limited knowledge regarding the antecedents of SMA and cyberbullying especially in Turkish sample. In addition, the fact that young people are vulnerable to SMA, and that young age is a risk factor for both SMA and cyberbullying, indicates the importance of identifying the antecedents of SMA and cyberbullying among adolescent sample.

The aim of the present study is to examine the effects of attachment anxiety and attachment avoidance on SMA and cyberbullying as distal outcome variables and partial mediating effects of a) the Dark Triad (DT) personality traits, b) angry rejection sensitivity (RS) and anxious RS, and c) friendship quality in the links of attachment anxiety and avoidance among adolescences. More specifically, it is argued that attachment anxiety and attachment avoidance are both positively and directly associated with SMA, and that attachment avoidance is directly and positively associated with cyberbullying, Attachment anxiety is proposed to be positively related to both angry and anxious RS as well as to Machiavellianism and narcissism dimensions of the DT. On the other hand, attachment avoidance is proposed to be positively associated with all of the three dimensions of the DT as well as with angry RS. The links of attachment anxiety and avoidance with friendship quality are proposed to be fully mediated by the DT personality traits and anxious and angry RS. Friendship quality, which is the proximal outcome variable in the present study, in turn, is suggested to be negatively related to both SMA and cyberbullying. In addition, narcissism and psychopathy dimensions of the DT personality traits, angry RS and anxious RS are suggested to be positively and directly associated with SMA. Finally, narcissism and psychopathy components of the DT personality traits and angry RS are expected to be positively and directly; and anxious RS and friendship quality are expected to be negatively and directly linked with cyberbullying. The proposed partially mediated model is presented in Figure 1.

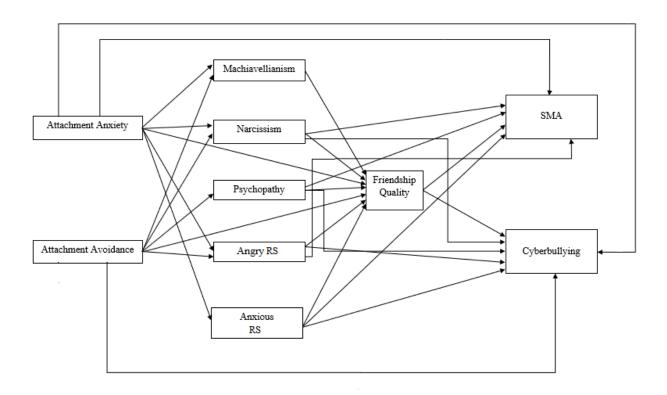


Figure 1. Proposed Model of the Study  $(M_1)$ .

#### 1.1 EFFECTS OF ATTACHMENT ON SMA AND CYBERBULLYING

Bowlby (1988) defined attachment as a link between caregiver and baby or as a desire of the baby to make a connection with caregiver. Attachment styles are shaped or established depending on whether the newborn perceives the caregiver emotionally attainable and whether the newborn perception about herself/himself as worthy of love and care (Ainsworth, Blehar, Waters, & Wall, 1978). According to Bowlby (1988) attachment styles depend on two dimensions: perception of the newborn about the sensitivity of the attachment figure to the demands and calls of the newborn (the model of others), and the perceived value of oneself in the eyes of others (the model of self). Using these two independent dimensions, Bartholomew and Horowitz (1991) created the Four Category Model and characterized four attachment styles as secure, preoccupied, dismissive-avoidant, and fearful-avoidant. Securely attached individuals' model of self

and model of others are positive. The other three types of attachment styles (preoccupied, dismissive, and fearful) are in the cluster of insecure attachment. In preoccupied attachment, the individual's model of self is negative but model of other is positive. On the other hand, dismissive attachment involves a positive model of self and a negative model of others. Finally, fearfully attached individuals' both model of self and model of others are negative (Bartholomew & Horowitz, 1991). It was argued that the attachment style of the baby will be a prototype of future relations and it is one of the most important determinants of the forms of interpersonal relationships including romantic relationships and other types of social interactions with others (Hazan & Shaver, 1987).

In other studies following the works of Bartholomew and Horowitz (1991), it has been suggested that attachment dimensions would generally be more descriptive than attachment categories, and defining attachment styles with basic dimensions rather than distinct categories would be more appropriate and valid approach (Sümer, 2006). Accordingly, Brennan, Clark, and Shaver (1998) showed that attachment behaviors could be defined in two basic dimensions which were anxiety in close relationships and avoidance of getting close to others. Anxiety dimension defines attachment anxiety characterized by hypersensitivity about rejection and abandonment in close relationships. Avoidance dimension, on the other hand, is characterized by discomfort associated with being dependent or close to others. Similar to Bartholomew and Horowitz's (1991) model, individuals are classified into four attachment categories using anxiety and avoidance dimensions. It was argued that anxiety dimension was highly related to the model of self and avoidance dimension was highly related to the model of others dimension in the Four Category Model of attachment (Brennan, Clark, & Shaver, 1998). Within this conceptualization, secure attachment style is defined by low level of anxiety and avoidance, fearful attachment is defined by high levels of both dimensions. Preoccupied attachment style is defined by high anxiety and low avoidance, while dismissive attachment is defined by the combination of low anxiety and high avoidance (Sümer, 2006).

It was argued that individuals' attachment styles were closely related to their cognitions and emotions; and that their first attachment with their primary caregiver mediates the different relationships between the person and the others (Mikulincer &

Shaver, 2007). Lei and Wu (2007) argued that securely attached adolescents were less prone to internet addiction than insecurely attached adolescents. Further empirical evidence showed that secure attachment was a protective factor for SMA both directly (e.g., Monacis, De Palo, Griffiths, & Sinatra, 2017) and indirectly via its effects on personality characteristics (Rom & Alfasi, 2014; Yaakobi & Goldenberg, 2014). That is, individuals with secure attachment style are able to form healthy face-to-face communication rather than online interactions and their behaviors are likely to be reinforced by their actual social interactions (Caplan 2007; Weidman et al., 2012). On the other hand, the literature revealed that anxious and avoidant attachment styles were positively associated with problematic internet use (Shin, Kim, & Jang, 2011). Also, dismissive and fearful attachment styles were found as risk factors for frequent Facebook usage (Jenkins-Guarnieri, Wright, & Johnson, 2013). In addition, in a study conducted in Turkey with university students, Demircioğlu and Göncü Köse (2018) found that, fearful attachment was positively associated with SMA both directly and indirectly via its negative effects on relationship satisfaction.

In the literature, attachment anxiety was found as a risk factor for SMA (Blackwell, Leaman, Tramposch, Osborne, & Liss, 2017). More specifically, Hart, Nailling, Bizer, and Collins (2015) found that attachment anxiety was an antecedent of Facebook engagement in such a way that, attachment anxiety was directly associated with feedback seeking component of Facebook engagement and feedback sensitivity dimension of Facebook engagement partially mediated this relationship. Attachment anxiety is suggested to be positively associated with SMA because individuals with high attachment anxiety are more likely to fear of failure in their actual face-to-face relations (Caplan, 2007) and may tend to decrease their fears with interactions in online platforms. On the other hand, nature of the relationship between attachment avoidance and SMA was controversial. To illustrate, Worsley, Mansfield, and Corcoran (2018) did not found any significant association between attachment avoidance and SMA; and Jenkins-Guarnieri, Wright, and Hudiburgh (2012) did not found any effect of attachment avoidance on Facebook use. However, Blackwell and colleagues (2017) found a positive link between attachment avoidance and SMA. It is argued here that, attachment avoidance is not likely to be directly related to SMA since avoidant individuals are likely to refrain from both offline and online forms of interpersonal contact; however, they still may be likely to use social media for other purposes such as following news and media. Rather than having a direct relationship with SMA, avoidant attachment is proposed to be associated with SMA via its effects on personality traits and quality of interpersonal relationships. Conversely, individuals with high attachment anxiety have a tendency to use hyper activating strategies (e.g., being overly dependent on others), and they use social media to seek comfort and belongingness online (Worsley et al., 2018). Consistently, attachment anxiety is expected to be both directly and indirectly associated with SMA via its effects on personality traits and quality of interpersonal relationships. Therefore, in the light of the attachment theory and the findings mentioned above, the first set of hypotheses of the study is generated as follows:

Hypothesis 1: Attachment anxiety is positively and directly associated with SMA. Parent child relationships affect adolescents' psychological well-being and emotional development (Ackard, Neumark-Sztainer, Story, & Perry, 2006; Liu, 2006). Securely attached children and adolescents are more open to communication, emotionally balanced and their relationships depend on mutual trust (Armsden & Greenberg, 1987). It was found that securely attached individuals were less frequently faced with depression, anxiety, antisocial behaviors and delinquency than insecurely attached individuals (Claes et al., 2005; Steinberg, 2001). Consistently, Kerr, Statin and Burk (2010) emphasized that emotional ties reduce juvenile crime. Securely attached individuals generally have welldeveloped emotional ties with others. In one study, it was found that with increase of family conflict, probability of being a cyberbully offender was also increased (Buelga, Martínez-Ferrer & Cava, 2017). Furthermore, poor emotional bonds in family relationships were found to be among the antecedents of cyberbullying (Ang, 2015). Thus, while secure attachment can be a protective factor, insecure attachment can be a risk factor for cyberbullying. According to Fanti, Demetriou, and Hawa (2012), low level of parental support was an antecedent of becoming a cyberbully offender among adolescents. In one study, it was found that cyberbully offenders had higher attachment anxiety than nonoffenders and attachment anxiety explained the 10% of unique variance of cyberbullying (Varghese & Pistole, 2017). In another study investigating the relationship between attachment and cyberbullying, the authors measured attachment with different dimensions rather than attachment anxiety and attachment avoidance, and it was found that alienation dimension of attachment was associated with cyberbullying (Yusuf et al., 2018).

Among college students, cyberbullying was found to be related to lack of the ability to develop and maintain friendships. Cyberbullying was also found to be positively associated with being emotionless, and negatively linked with empathy (Dilmaç, 2009). There was also a negative association between insecure attachment and empathy (Mikulincer & Shaver, 2007) and therefore, it can be proposed that being high on attachment anxiety and especially on attachment avoidance may be among the antecedents of cyberbullying. More precisely, individuals with high attachment anxiety and high attachment avoidance may be likely to create poor quality face-to-face relationships and this may lead them to engage in cyberbullying as a way to retaliate against others who do not provide them social interactions they desire or those who simply refuse them. Moreover, individuals with high attachment avoidance have a negative view of others (Sümer, 2006). Also, individuals who get higher scores on attachment avoidance tend to have less fear of loss compared to other people (Marazziti, 2010) and these people may not hesitate to hurt others either because they think they are highly self-sufficient or because they lack empathy. These characteristics may all constitute the underlying reasons for individuals who score high on attachment anxiety and avoidance to engage in cyberbullying and, the second set of hypotheses of the present study is generated as follows:

Hypothesis 2a: Attachment anxiety is positively and directly associated with cyberbullying.

Hypothesis 2b: Attachment avoidance is positively and directly associated with cyberbullying.

# 1.2 EFFECTS OF THE DT PERSONALITY TRAITS ON SMA AND CYBERBULLYING

Machiavellianism, narcissism and psychopathy were conceptualized as the DT personality traits by Paulhus and Williams (2002). They are distinct but interrelated subclinical level personality characteristics. Machiavellianism can be defined as having a strong tendency to perform strategic behaviors in accordance with self-interest and being

manipulative, directive and cynical (Gunnthorsdottir, McCabe, & Smith, 2002). Machiavellians give priority to their own interests rather than needs of others and are likely to justify every path to a desired end (Braginsky, 1970). Subclinical narcissism is defined as excessive need for admiration, elevated sense of grandiosity, and dominance (Paulhus, 2001). Low level of empathy, excessive self-love, high desire to be appreciated by others are among the main characteristics of narcissism (Paulhus & Williams, 2002). Psychopathy is characterized by lack of controlling behaviors and moral values (Arrigo & Shipley, 2001). Cleckley (1964) and Hare (1993) defined subclinical psychopathy with some behavioral, cognitive and emotional characteristics. Individuals who score high on subclinical psychopathy display anti-social behaviors; they exhibit some emotions such as conscience, fear, empathy less frequent than others; they frequently seek excitement; and they are defined as manipulative and impulsive (Jonason, Webster, Schmitt, Li & Crysel, 2012).

Sensation seeking was found as a common feature of the DT personality traits (Miller et al. 2010). Taking into account the fact that social media gives individuals opportunity to easily spread their ambitions, it was proposed that the DT personality traits and SMA are positively associated. In the literature, narcissistic individuals were found to use social media with the purpose of self-promotion (Bergman, Fearrington, Davenport, & Bergman, 2011; Buffardi & Campbell 2008; Carpenter 2012). Psychopathic individuals, on the other hand, can easily express their unadmitted behaviors via social media (Jonason & Webster, 2012). Previous studies revealed that narcissism was positively and significantly associated with Facebook usage (Ryan & Xenos, 2011) and internet addiction (Eksi, 2012). Furthermore, psychopathy was found to be positively linked with SMA (Demircioğlu & Göncü Köse, 2018). In addition, Machiavellians may easily manipulate others and reinforce their self-interests by using social media (Abell & Brewer, 2014). However, in contrast to individuals who score high on narcissism and/or psychopathy, Machiavellians' level of social media usage may depend on the context. That is, individuals who get high scores on Machiavellianism may use or avoid using social media depending on perceived benefits, contacted individuals or on the context. Supporting this proposition, Demircioğlu and Göncü Köse (2018) found that the relationship between Machiavellianism and SMA was insignificant and the authors suggested that this result may be due to variability of level of social media use among those who score high on Machiavellianism which stem from the above mentioned reasons. Therefore, in the current study the link between Machiavellianism and SMA is expected to be insignificant. In light of the findings mentioned above, the next hypothesis is generated as follows:

*Hypothesis 3:* Among the DT personality traits, narcissism and psychopathy are positively and directly associated with SMA.

Cyberbullying was found to be related to time spent online and engaging in risky online behaviors; but some personality characteristics were found as significant predictors of cyberbullying rather than risky online behaviors (Görzig & Olafsson, 2013). These characteristics are lack of self-control, high psychoticism, aggression and lack of empathy (Özden & İçelioğlu, 2014; Roberto, Eden, Savage, Ramos-Salazar, & Deiss, 2014; Doane, Pearson, & Kelly, 2014). In the literature, the DT personality traits were associated with a lot of undesirable characteristics such as vengeance, anger and aggressive humor (e.g., Giammaco & Vernon, 2014, Veselka, Giammarco, & Vernon, 2014; Martin, Lastuk, Jeffery, Vernon, & Veselka, 2012). Furthermore, separate characteristics of the DT were found to be positively related with aggression, bullying, and/or cyberbullying. For example, in primary and middle school sample, it was found that narcissism and aggression were positively related (Ang, Ong, Lim, & Lim, 2010; Fanti & Henrich, 2014). Also, narcissism was found as a predictor of cyberbullying for undergraduate students (Aricak, 2009). In adolescent sample, it was found that psychopathy was linked with both aggression and cyber aggression (Chabrol, van Leeuwen, Rodgers, & Gibbs, 2011; Gumpel, 2014; Ciucci, Baroncelli, Franchi, Golmaryami, & Frick, 2014). Consistently, in other studies, it was found that psychopathy was a unique predictor of cyberbullying (Goodboy & Martin, 2015; Pabian, De Backer, & Vandebosch, 2015). However, Machiavellianism and cyberbullying may not be directly associated since, in contrast to those who are high on narcissism and/or psychopathy, an individual with high level of Machiavellianism would deliberately take into account what he or she will lose or gain by cyberbullying and would behave accordingly. Therefore, the fourth hypothesis of the present study is generated as follows:

Hypothesis 4: Among the DT personality traits, narcissism and psychopathy are positively and directly associated with cyberbullying.

# 1.3 EFFECTS OF REJECTION SENSITIVITY ON SMA AND CYBERBULLYING

People's perception of rejection and reactions differ. While some people perceive the unwanted rejection reactions more positively or do not notice the rejection response, some people easily recognize and overreact to rejection reactions (Özen, Sümer, & Demir 2011). Downey and Feldman (1996) defined RS as overreacting to and being extremely sensitive towards rejection cues in social relations. To be more precise, high RS individuals have a tendency to expect rejection and they are more sensitive to rejection situations than low RS individuals. In other words, high RS individuals discordantly overreact small or imaginary behavior that others do not notice or need to react to. These reactions were found to undermine and negatively affect high RS individuals' social relationships and personal well-being (Downey & Feldman, 1996).

To our knowledge, in the literature there were very few studies that have focused on the effects of RS on SMA. In one of these studies, it was found that high RS individuals' Facebook usage was significantly higher than those of low RS individuals (Farahani, Aghamohamadi, Kazemi, Bakhtiarvand, & Ansari, 2011). Furthermore, Saunders and Chester (2008) found a positive relationship between RS and problematic internet use. More recently, in a study conducted in Turkey with university students Demircioğlu and Göncü Köse (2018) found that RS was positively associated with SMA both directly and indirectly via its negative effects on (romantic) relationship satisfaction.

Among children and adolescents, rejection sensitivity was defined with two dimensions which were angry and anxious RS. Angry RS can be defined as feeling anger when faced with rejection. On the other hand, anxious RS can be defined as feeling anxious because of the probability of rejection. Adolescents with high RS may prefer communication over social media instead of face-to-face communication to minimize rejection possibilities. Also, since there are no factors such as tone of voice and eye contact in communication via social media, they may notice less rejection cues, which may

reinforce high RS adolescents' use of social media. Consequently, the next set of hypotheses of the present study is generated as follows:

Hypothesis 5a: Angry RS is positively and directly associated with SMA.

Hypothesis 5b: Anxious RS is positively and directly associated with SMA.

The RS level of the individual is associated with various behavioral patterns (Downey & Feldman, 1996). Individuals with high RS react either in a hostile or in a passive manner to rejection responses (Downey, Feldman & Ayduk, 2000). When individuals with high RS encounter rejection possibility; negative schemes become accessible (Pietrzak, Downey, & Ayduk, 2005). Therefore, when negative or uncertain situations propose that they are about to be rejected, high RS individuals respond in maladaptive ways that can harm their relationships (Downey & Feldman, 1996).

Individuals' processing and reactions of social rejection is shaped by RS. As mentioned above, among children and adolescents, RS was suggested to involve two aspects that give different emotional responses to the probability of perceived rejection (Downey, Lebolt, Rincón, & Freitas, 1998). Angry RS is related with fight responses such as aggression; and anxious RS is related with flight responses such as social withdrawal (London, Downey, Bonica, & Paltin, 2007). Hence, both internalizing and externalizing problems may be the consequence of different facets of RS for adolescents. To be more precise, internalizing problems such as depression are likely to be related to anxious RS, while externalizing problems such as conduct problems are likely to be among the consequences of angry RS (Bondü & Krahé, 2015). In a study which was conducted by Jacobs and Harper (2013), angry RS was found to be a risk factor for aggressive behavior. In addition, Bondü and Krahé (2015) found that angry RS was one of the unique predictors of proactive and reactive types of aggression, but anxious RS was not any predictor of aggression. Consistently, it can be thought that angry RS is likely to be directly and positively associated with cyberbullying. However, anxious RS was found to be positively related to self-blaming (Zimmer-Gembeck, Nesdale, Webb, Khatibi, & Downey, 2016) and bullying others via social media or cyberbullying is likely to increase self-blaming. Therefore, contrary to angry RS, anxious RS is suggested to be negatively linked to cyberbullying. In light of the theoretical background and the findings mentioned above, the next set of hypotheses of the present study is generated as follows:

Hypothesis 6a: Angry RS is positively and directly associated with cyberbullying. Hypothesis 6b: Anxious RS is negatively and directly associated with cyberbullying.

#### 1.4. EFFECTS OF FRIENDSHIP QUALITY ON SMA AND CYBERBULLYING

In the literature, three levels of peer relations were defined: individual, dyad, and group (Rubin, Bukowski, & Parker, 1998). Each of them has a separate developmental significance in peer relations. Friendship is included in the cluster of dyadic relationships and has a substantial effect on social development (Hartup & Abecassis, 2002). According to Hartup (1996), there are three features of friendship development: having friends, identity of one's friends, and quality of the friendships. Friendship quality was found as an antecedent of developmental issues regardless of the personality characteristics of the friends (Berndt, 2002). For example, it was found that friendship quality was positively associated with involvement in school and social acceptance (Keefe & Berndt, 1996). According to Hartup and Stevens (1999), high level of friendship quality is positively associated with self-esteem, adjustment and ability to cope with stress. Also, friendship quality is moderated by the characteristics of the friends, for example antisocial behaviors may increase with friendship quality if one's friends also have antisocial behaviors (Berndt, 2002).

In the literature, Caplan (2007) found that lonely people were more likely to become internet addicts than people who had many friends. Furthermore, it was found that communicating with friends who were met in real life via internet may be a protective factor for depression; on the other hand, communicating with friends who were not met in real life may be an antecedent of depression (Shensa et al., 2018).

According to Uses and Gratification approach (Katz, Blumler, & Gurevitch, 1974), individuals use social media or other communication tools to fulfill their social and psychological needs (cognitive, affective, or personal such as need for personal identity, escape, and self-presentation) which were determined by their personality characteristics; and, social media or online dating sites can be need gratification tools for individuals (Papacharissi & Mendelson, 2011). In addition, according to social compensation hypothesis, those who do not have high quality friendship in their "offline" or "real" lives

can use social media to fulfill their needs with virtual friendships (Ellison, Steinfield, & Lampe, 2007). In line with the theory and the previous findings, the next hypothesis of the present study is generated as follows:

Hypothesis 7: Friendship quality is negatively and directly associated with SMA.

When examining the relationship between friendship quality and aggression, it should be noted that the effects of two types (i.e., physical and relational) of aggressive behaviors are different (Crick & Grotpeter, 1995). Direct physical attack is a form of physical aggression and can be linked to low friendship quality. On the other hand, intentionally isolating someone from a group is a form of relational aggression and it was found to increase the popularity of the individual who isolate others in adolescence groups (Cillessen & Mayeux, 2004).

In the literature, it was found that friendship quality was a protective factor for cyberbullying (Leung, Wong, & Farver, 2018). Connecting with peers, sharing information with them and strengthening social bonds with friends, which would all contribute to formation of high-quality friendships, are expected to decrease motivation for cyberbullying. Therefore, the next hypothesis of the present study is generated as follows:

Hypothesis 8: Friendship quality is negatively and directly associated with cyberbullying.

#### 1.5. EFFECTS OF ATTACHMENT ON FRIENDSHIP QUALITY

There are some characteristics of friendships such as intimacy, affection, and emotional support (Berndt, 2002; Bukowski & Hoza, 1989), and with the transition to adolescence, friendship quality becomes milestone of the developmental issues (Selman, 1980; Youniss & Smollar, 1985). In the literature, it was argued that friendship relations and expectations from friends is highly affected by newborn-caregiver attachment styles (Elicker, Englund, & Sroufe, 1992). In other words, intimacy in friendship is likely to be affected by attachment styles of individuals (Bartholomew & Horowitz, 1991; Sroufe & Fleeson,1986). Working model of self and working model of others were the main mechanisms which originate the link between attachment and friendship (Grabill & Kerns, 2000). Working models are rules or schemes that regulate a person's past experiences in

close relationships, and these also affect individuals' attitudes, feelings, and behaviors in their future lives (Main, Kaplan, & Cassidy, 1985). While the experience of individuals with reliable and understanding people who respond to their needs enables them to see others positively, the relationships they experience with unresponsive and rejecting or avoidant people can lead them to develop negative views towards others (Bretherton, Ridgeway, and Cassidy, 1990). These experiences also affect the individual's self-model as being worthy of love or feeling worthless (Bowlby, 1977). Working models affect relationships on both sides and while interpreting social situations and determining their responses, people can use their working models (Kobak & Hazan, 1991). Secure attachment was found as an antecedent of cooperative friendship (Suess, Grossmann, & Sroufe, 1992). Furthermore, being securely attached in adolescence was found to be associated with high numbers of friendships (Kerns, Klepac, & Cole, 1996) and securely attached adolescents had more positive qualities in their peer relationships (Lieberman, Doyle, & Markiewicz, 1999). However, the literature revealed that insecurely attached individuals have a tendency to evaluate most reactions in various situations as social rejection (Zimmermann, 1999). Indeed, both attachment anxiety and attachment avoidance is argued to negatively affect friendship quality for distinct reasons. To illustrate, individuals with high attachment anxiety may avoid friendships to protect themselves from possible rejections. On the other hand, individuals with high attachment avoidance may refrain from friendship thinking that they do not need friends. Therefore, the next set of hypotheses of the present study is generated as follows:

Hypothesis 9a: Attachment anxiety is negatively and directly associated with friendship quality.

Hypothesis 9b: Attachment avoidance is negatively and directly associated with friendship quality.

## 1.6. MEDIATING EFFECTS OF THE DARK TRIAD PERSONALITY TRAITS AND REJECTION SENSITIVITY IN THE LINKS BETWEEN ATTACHMENT AND FRIENDSHIP QUALITY

In the literature, Machiavellianism has been associated with dysfunctional personality, imbalanced and emotional dysfunctionality, hostile and negative attitudes,

and depressive symptoms (Jakobwitz & Egan, 2006; McHoskey, 2001; Paulhus & Williams, 2002). These features brought to mind the idea that the individuals who get high scores on Machiavellianism may also score high on both anxious and avoidant attachment which demonstrate overlapping characteristics mentioned above. Consistently, Ináncsi, Láng and Bereczkei (2015) found a positive relationship between Machiavellianism and attachment avoidance. In another study, Machiavellianism was found to be related with both attachment anxiety and attachment avoidance (Uysal, 2016).

According to Pistole (1995), "different forms of insecure attachment, characterized by varying degrees of avoidance and/or anxiety may actually have the same purpose in that they are manifestations of defense mechanism employed by individuals high in narcissistic vulnerability" (Smolewska & Dion, 2005, p. 59). In addition, insecure attachment in children and exhibiting remarkable and self-centered attitudes are thought to be results of problematic early parent-child interactions with features such as low empathy and carelessness (Watson, Hickman, Morris, Milliron & Whiting, 1993). Therefore, it was suggested that both attachment anxiety and attachment avoidance can be among the predictors of narcissism.

According to Bowlby (1988), as a result of unresponsiveness or indifference of the child's attachment figures, the child has difficulty in establishing meaningful and close attachment relationships at later ages. In addition, one of the most important predictors of psychopathy is the lack of affective attachment to a person (Meloy, 1992). Supporting these suggestions, it was found that securely attached individuals were displaying lower levels of psychopathic features than individuals who scored high on avoidant attachment (Jonason, Lyson & Bethell, 2014). On the contrary, in the literature, the association between attachment anxiety and psychopathy was controversial. Some of the studies revealed that attachment anxiety was negatively associated with psychopathy (Conradi, Boertien, Cavus, & Verschuere, 2015) while others found that attachment anxiety was positively linked to psychopathy (Mack, Hackney, & Pyle, 2011). Individuals high on attachment anxiety may be less likely to have psychopathic behaviors because of their fragile self-esteem, and psychopathic traits such as fearlessness may not be found among individuals who score high on attachment anxiety. However, such individuals are likely to have negative view of self and they may have difficulty in controlling their feelings in

certain situations and they may also show psychopathic traits in various contexts. Therefore, in the current study the link between attachment anxiety and psychopathy is expected to be insignificant since it was thought that this relation may be moderated by other factors. In light of the findings mentioned above and the theoretical background, the next set of hypotheses of the present study is generated as follows:

Hypothesis 10a: Attachment anxiety is positively and directly associated with Machiavellianism.

*Hypothesis 10b*: Attachment avoidance is positively and directly associated with Machiavellianism.

Hypothesis 11a: Attachment anxiety is positively and directly associated with narcissism.

Hypothesis 11b: Attachment avoidance is positively and directly associated with narcissism.

*Hypothesis 12*: Attachment avoidance is positively and directly associated with psychopathy.

Downey and Feldman claimed resemblance in RS and Bowlby's working models (1996). It has been suggested that RS depicts some of the basic cognitive and emotional subprocesses involved in attachment (Pietrzak et al., 2005). Compared to insecure working models, RS was found to be more specific and precise. More specifically, attachment is about intrinsic representations, whereas RS is about assessment of context and response strategies of individuals. In addition, it was found that rejection of children's needs by parents were positively associated with children's RS levels (Downey & Feldman, 1996; Feldman & Downey, 1994). Also, it was found that attachment styles were significantly related to RS (Erozkan & Komur, 2006; Kennedy, 1999). To illustrate, RS was found to be negatively linked with secure attachment and positively linked with fearful, dismissive and preoccupied attachment styles among Turkish university students (Erozkan, 2009). Furthermore, in a study which investigated the link between attachment and RS using with two-dimensional attachment, attachment anxiety was found to be positively correlated with RS (Khoshkam, Bahrami, Ahmadi, Fatehizade, & Etemadi, 2012).

To our knowledge, no empirical study has investigated the effects of attachment anxiety and attachment avoidance on angry RS and anxious RS separately up to now. It is suggested here that adolescents who get high scores on attachment anxiety may get high scores on both angry RS and anxious RS because attachment anxiety was also characterized as hypersensitivity about rejection and abandonment in close relationships. On the other hand, adolescents with high attachment avoidance may express their feelings with angry RS because these individuals whose model of self is positive and model of others is negative, and who are not eager to frequently form close relationships are likely to feel anger (rather than anxiety) when they are faced or threatened with rejection in relatively rare situations that they demand interaction with others. Consequently, the next set of hypotheses is generated as follows:

*Hypothesis 13a*: Attachment anxiety is positively and directly associated with the anxious and angry RS.

*Hypothesis 13b*: Attachment avoidance is positively and directly associated with the angry RS.

In the literature, Machiavellianism and friendship quality was found to be negatively associated (Abell, Lyons, & Brewer, 2014). Individuals with high Machiavellianism may not be able to fulfill the reciprocity needs of friendship, as they put their own interests before everything else.

When defining psychopathy in adulthood, inability to establish stable, long-term relationships with others are among the remarkable characteristics (Muñoz, Kerr & Besic, 2008). In fact, individuals who get high scores on psychopathy have a tendency to benefit from others in parasitic ways (Cleckley, 1976). Others are viewed as objects which can be used and manipulated to get advanced by psychopaths (Muñoz et al., 2008). Not surprisingly, in a study conducted by Kokkinos, Voulgaridou and Markos (2016), it was found that adolescents who got high scores on psychopathy had problems in their friendships. Also, it was found that psychopathy was negatively related with intimacy (Ali & Chamorro-Premuzic, 2010). In another study, it was found that psychopathic traits and friendship quality were negatively related after controlling for the effects of age, gender and ethnicity among adolescents (Backman, Laajasalo, Jokela, & Aronen, 2018). In addition, adolescents who had psychopathic behaviors were found to be more likely to

perform antisocial behaviors toward their peers than those who scored low on psychopathic behaviors (Kerr & Besic, 2008) and these behaviors are very likely to weaken the friendship bonds. Therefore, the next set of hypotheses of the present study is generated as follows:

Hypothesis 14a: Machiavellianism and narcissism components of the DT personality traits partially mediate the relationship between attachment anxiety and friendship quality.

Hypothesis 14b: The DT personality traits partially mediate the relationship between attachment avoidance and friendship quality.

In the literature, RS was found as an antecedent of relationship dynamics (Downey & Feldman, 1996; Downey, Freitas, Michaelis, & Khouri, 1998). High RS individuals react more sensitively to ambiguous situations because they tend to perceive these situations as actual rejection. These reactions create weak friendship bonds (Downey & Feldman, 1996). RS was found as a proximal antecedent of close relationship behaviors (Downey & Feldman, 1996; Feldman & Downey, 1994). In addition, RS was also found to be negatively correlated with friendship quality (Özen et al., 2011). Individuals with high RS may keep their friendship at shallow levels in order to avoid possible rejection situations and may refrain from making high quality friendship bonds. In other words, both anxious and angry RS are expected to be negatively associated with friendship quality among adolescents and the next set of mediation hypotheses is generated as follows:

*Hypothesis 15a:* Angry and anxious RS partially mediate the relationship between attachment anxiety and friendship quality.

Hypothesis 15b: Angry RS component of RS partially mediates the relationship between attachment avoidance and friendship quality.

# 1.7. MEDIATING EFFECTS OF THE DARK TRIAD PERSONALITY TRAITS AND RS IN THE LINKS OF ATTACHMENT WITH SMA AND CYBERBULLYING

As explained above, attachment anxiety and avoidance are suggested to be both directly and indirectly associated with SMA and cyberbullying via their effects on the DT

personality traits, RS, and friendship quality. To be more precise, in addition to direct effect of attachment anxiety on SMA, individuals with high attachment anxiety are suggested to be more likely to show more narcissistic features and these narcissistic features may be antecedents of both SMA and cyberbullying. Although a direct relationship is not expected between attachment avoidance and SMA, it can be thought that individuals with high avoidant attachment would have more psychopathic and narcissistic features and their SMA and cyberbullying levels may be high due to these features. In addition, adolescents with high attachment anxiety may get higher scores on both angry and anxious RS and these features may increase these individuals' SMA and cyberbullying levels. Furthermore, individuals with high attachment avoidance are suggested to get high scores on angry RS and angry RS is expected to increase the individuals' SMA and cyberbullying levels among adolescents. Therefore, the final set of hypotheses describing the mediated relationships proposed in the present study is generated as follows:

*Hypothesis 16a:* Narcissism component of the DT personality traits partially mediates the relationship between attachment anxiety and SMA.

*Hypothesis 16b:* Narcissism and psychopathy components of the DT personality traits fully mediate the relationship between attachment avoidance and SMA.

*Hypothesis 17a:* Angry and anxious RS partially mediate the relationship between attachment anxiety and SMA.

Hypothesis 17b: Angry RS partially mediate the relationship between and attachment avoidance and SMA.

Hypothesis 18a: Narcissism component of the DT personality traits partially mediates the relationship between attachment anxiety and cyberbullying.

*Hypothesis 18b:* Narcissism and psychopathy components of the DT personality traits partially mediate the relationship between attachment avoidance and cyberbullying.

*Hypothesis 19a*: Angry and anxious RS partially mediate the relationship between attachment anxiety and cyberbullying.

*Hypothesis 19b:* Angry RS partially mediate the relationship between attachment avoidance and cyberbullying.

To sum up, the proposed study suggests that attachment anxiety and attachment avoidance are linked with friendship quality, SMA and cyberbullying both directly and indirectly via their effects on the DT personality traits, and angry and anxious RS. By examining the direct effects of attachment anxiety and attachment avoidance on SMA and cyberbullying as well as by exploring mediating effects of the DT personality traits, RS and friendship quality in the proposed relationships, the present study aimed to contribute to literature and it was intended to develop suggestions for practice.

#### **CHAPTER II**

#### **METHOD**

#### 2.1. PARTICIPANTS AND THE PROCEDURE

The data were collected from high school students in Ankara, Turkey. The number of participants was 595. At the end of the data screening process and after deleting outliers, the final set of data included 547 participants and were included in the main analyses. Of the 547 participants, 273 were girls (49.9%), 265 were boys (48.4%), and 9(1.6%) did not specify gender. 137 (25%) participants were in the 9th grade, 181 (33.1%) were in the 10th grade, 113 (20.7%) were in the 11th grade, and 100 (18.3%) were in the 12th grade, and 16 (2.9%) students did not indicate the class they were studying. The average age of the participants was 15.8 (SD = 1.1).

Four different high schools were selected for data collection according to their education and types. The schools represented Anatolian high school, regular high school and technical and industrial vocational high school. Gazi Anatolian High School was selected as a representative of Anatolian high schools. Mustafa Kemal Anatolian High School and Leyla Turgut Anatolian High School were selected as representatives of regular high schools. Ostim Şehit Alper Zor Technical and Industrial Vocational Anatolian High School was selected as a representative of technical and industrial vocational high schools. Two hundred and eleven (38.6%) of the participants were Gazi Anatolian High School students, 232 (42.4%) of Mustafa Kemal Anatolian High School students, 62 of them (11.3%) were Ostim Şehit Alper Zor Technical and Industrial Vocational Anatolian High School students and 38 (6.9%) of the participants were Leyla Turgut Anatolian High School students. Additionally, 4 participants (0.7%) did not specify the school they were educated at.

The survey package included measures of attachment styles, the DT personality traits, RS, friendship quality, social media addiction and cyberbullying, and also a

demographic section in which information about age, gender, school, class, socioeconomic status, and parental education levels were asked.

#### 2.2. MEASURES

# 2.2.1. Cyberbullying

The European Cyberbullying Intervention Project Questionnaire, which was developed by Del Rey and colleagues (2015) was used to measure high school students' cyberbullying levels. The scale consists of 22 items and two dimensions which are cyberaggression and cyber-victimization. In the present study, only cyber-aggression dimension was used. The traditional translation and back translation process was employed for the subscale and the process was carried out by four expert psychologists for the current study. Unidimensional subscale consists of 11 items and participants reported their answers using a 5-point Likert-type scale ranging from 0 (never more) to 4 (more times a week). The sample item of the scale is "I said nasty things about someone to other people either online or through text messages". The Cronbach alpha of the original form of the subscale was reported as .93 by Del Rey and colleagues (2015). In the present study, the internal consistency reliability score of the subscale was found to be .88.

# 2.2.2. Social Media Addiction

Fourty one item social media addiction scale was used to measure participants' SMA levels. It was developed by Tutgun-Ünal and Deniz (2015) in Turkish. Participants reported their answers using a 5-point Likert-type scale ranging from 1 (never) to 5 (always). The scale consists of four dimensions which are preoccupation, mood modification, relapse, and conflict/problems. The sample item of the 12-item preoccupation subscale is "I think about going online for social media intensively when I am not connected to the internet". The sample item of the 5-item mood modification subscale is "I prefer to spend time in the social media to get rid of negative thoughts in my life". The sample item of the 5-item relapse subscale is "I try to spend less time on social media, but I fail". The sample item of the 19-item conflict/problem subscale is "The use of social media leads to problems in my relationships with people who are important

for me". Tutgun-Ünal and Deniz (2015) found the internal reliability of the overall scale as .97. In the current study, Cronbach's alpha of the overall scale was found to be .95.

# 2.2.3. Friendship Quality

Participants' friendship quality levels were measured by friendship quality scale, which was developed by Thien, Razak, and Jamil (2012), and adopted to Turkish by Akın, Karduz Adam, and Akın (2014). Participants reported their answers using a 6-point Likert-type scale ranging from 1 (totally disagree) to 6 (totally agree). The 21-item scale consists of four dimensions which are closeness, help, acceptance and safety. Closeness dimension includes 6 items and the sample item is "My friends and I always share our life experience". Help dimension consists of 3 items and the sample item of the subscale is "My friends always help me when I have problems in completing my homework". The sample item of the 4-item acceptance dimension is "My relationships with my friends are like brothers and sisters". Safety dimension includes 8 items and the sample item of the subscale is "I believe all the information given by my friends". In the literature, the Cronbach alpha coefficients of the subscales were found as .83 for closeness, .81 for help, .84 for acceptance, .88 for safety, and .91 for the overall scale (Thien, Razak, & Jamil, 2012). In the current study, the internal consistency reliability of the overall scale was found to be .88.

## 2.2.4. Experiences in Close Relationships

Adolescents' attachment anxiety and attachment avoidance levels were assessed by using Experiences in Close Relationships — Revised — General Short Form (ECR-R-GSF) which was developed by Wilkinson (2011). The scale was used for adolescents and it was the modified version of Experiences in Close Relationships — Revised (ECR-R; Fraley, Waller, & Brennan, 2000) which is used for adults. ECR-R-GSF consists of 20 items selected from ECR-R that can be applied to adolescents. The traditional translation and back translation process was employed for the scale and the process was carried out by four expert psychologists for the current study. Participants reported their answers using a 7-point Likert-type scale ranging from 1 (not at all like me) to 7 (very much like me). The scale consists of two dimensions which were attachment avoidance and

attachment anxiety. The sample item of the 10-item attachment avoidance dimension is "I prefer not to show others how I feel deep down". The sample item of the 10-item attachment anxiety dimension is "I often worry that other people don't care as much about me as I care about them". Wilkinson (2011) found the internal reliability scores of both anxiety and avoidance items as .88. In the current study, Cronbach's alpha of the scale was found to be .75 for attachment avoidance dimension and .83 for attachment anxiety dimension.

# 2.2.5. Short Dark Triad-Turkish (SD3-T)

Participants' dark triad personality traits were assessed by Short Dark Triad (SD3) which was developed by Jones and Paulhus (2014) and adapted to Turkish by Özsoy, Rauthmann, Jonason and Ardıç (2017). Participants reported their answers using a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The 27-item scale consists of three dimensions which are Machiavellianism, narcissism and psychopathy. The sample item of 9 items Machiavellianism dimension is "It's not wise to tell your secrets". The sample item of 9 items narcissism dimension is "I have been compared to famous people". The sample item of 9 items psychopathy dimension is "People who mess with me always regret it.". Jones and Paulhus (2014) found the Cronbach alpha coefficients of the Machiavellianism subscale as .71, narcissism subscale as .74, and psychopathy subscale as .77. In the current study, Cronbach's Alpha reliability of the scale was found to be .77 for Machiavellianism subscale, .65 for narcissism subscale, .74 for psychopathy subscale.

# 2.2.6. Adolescent Rejection Sensitivity

Students' rejection sensitivity levels were measured by Children's Rejection Sensitivity Questionnaire (CRSQ; Downey, Lebolt et al., 1998). The traditional translation and back translation process was employed for the scale and the process was carried out by four expert psychologists for the current study. The scale consists of two dimensions which are nervous/anxious expectation and angry expectation. The scale consists of 12 hypothetical vignettes which include scenarios about peers or teachers. At the end of each vignette, participants respond three questions. In the first question,

participants rate the situation in terms of their anxiety level by using 7-point Likert Scale ranging from 1 (not nervous) to 7 (very, very nervous). In the second question, participants rate the situation in terms of their anger level by using 7-point Likert Scale ranging from 1 (not mad) to 7 (very, very mad). Finally, in the third question, participants rated the likelihood of a rejecting response in each vignette using with 6-point Likert Scale ranging from 1 (yes!!) to 6 (no!!). In order to determine the total anxious RS score of the adolescents, anxiety level scores of each item is multiplied by the likelihood of rejection levels and the mean scores of these 12 items are calculated. To determine the total angry RS score of the adolescents, anger levels of each item is multiplied by the likelihood levels and then, the mean scores of these 12 items are calculated.

#### **CHAPTER III**

## **RESULTS**

#### 3.1. OVERVIEW

Analyses conducted in the results section were clustered in five sections. Firstly, data screening and data cleaning processes were presented. In the second section, factor structures and/or reliability analyses of the study measures were presented in detail. The third section included descriptive statistics and bivariate correlations among the study variables. In the fourth section, hypothesis testing results were presented. The final section included additional analysis for explanatory purposes.

Data were analyzed by using Statistical Package of Social Sciences (SPSS; version 22) and the Structural Equation Modeling was used in order to test the hypothesized heuristic model by using AMOS 25.0 (Arbuckle, 2013).

# 3.2. DATA SCREENING AND DATA CLEANING

Out of 595 participants, 18 participants responded the all items in the questionnaires with the same scores. In addition, 17 participants did not fill at least one of the scales. Therefore, 35 participants were eliminated at the beginning of the data analysis.

With 560 participants, the data were screened for missing scores. There were six scales in the questionnaire which included 156 items. Out of 87360 data points, there were 442 missing data points (0.5 %) excluding the demographic variables. According to Tabachnick and Fidell (2007), replacement method can be used to handle the missing values if the missing data points ratio over the total data points is smaller than 5%. Therefore, to keep the sample size as large as possible, the mean replacement method was employed.

After replacing the mean values, outlier analysis was performed. To detect multivariate outliers in the data, Mahalonobis distance was used. Mahalonobis distance

analyses revealed that 13 participants were multivariate outliers and they were excluded from the data set. Therefore, the final sample included 547 participants.

# 3.3. FACTOR STRUCTURES AND/OR RELIABILITY ANALYSES OF THE STUDY MEASURES

Before descriptive statistical analyses, testing of the hypotheses and additional exploratory analysis, reliability analyses of the scales and subscales were conducted. Principal Component analysis and confirmatory factor analysis (CFA) were employed for determining the factor structures of European Cyberbullying Intervention Project Questionnaire, Experiences in Close Relationships - Revised - General Short Form, and Children Rejection Sensitivity Questionnaire which were the scales adapted to Turkish in the current study. For the other scales, internal consistency reliabilities were assessed by calculating Cronbach alpha values.

# 3.3.1. Cyberbullying

An explanatory factor analysis using principal component analysis as the extraction method was conducted on the 11 items of the European Cyberbullying Intervention Project Questionnaire. Bartlett's test of sphericity was significant ( $\chi 2$  (55) = 3023.00, p < .001) and The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was high (KMO =.87), thus it was appropriate to use the factor analytic model on this set of data. Cumulative of explained total variance exceed .40 in the initial factor and the 'leveling off' of eigenvalues on the scree-plot after one factor was determined. Also, in the original form, the questionnaire was presented as unidimensional. For these reasons, the scale is evaluated as unidimensional and the total mean scores were used in the final analysis. The unique factor includes 11 items and explains the 49.05 % of the total variance ( $\alpha$  = .88). Communalities of items in this factor ranged between .35 and .60. Item loadings, eigenvalues, proportion of variance explained, and the alpha value are presented in Appendix D.

Furthermore, one-factor structure of the scale was also tested with a CFA by using AMOS software. The results showed that the proposed model provided good fit to the data  $(\chi 2 \text{ (N = 547, } df = 27) = 52.73, \text{ TLI = .91, CFI = .96, NFI = .92, RMSEA = .04, } p = .002).$ 

#### 3.3.2. Social Media Addiction

44 items social media addiction scale includes 4 dimensions. Cronbach's alpha reliabilities of the preoccupation, mood modification, relapse and conflict/problems subscales were at acceptable levels ( $\alpha$  = .91,  $\alpha$  = .87,  $\alpha$  = .86,  $\alpha$  = .91, respectively). The Cronbach's alpha reliability of the total scale was found as .95.

# 3.3.3. Friendship Quality

21 items scale consists of 4 dimensions. Safety dimension of the scale includes eight items and Cronbach's alpha value of the scale was found to be .79. Closeness dimension of the scale includes six items and Cronbach's alpha value of the scale was found to be .71. Acceptance dimension of the scale includes four items and Cronbach's alpha value of the scale was found to be .73. Help dimension of the scale includes three items and Cronbach's alpha value of the scale was found to be .78. The Cronbach's alpha of the overall scale was .88.

# 3.3.4. Experiences in Close Relationships

An explanatory factor analysis using principal component analysis as the extraction method was conducted for the 20 items of the Experiences in Close Relationships — Revised — General Short Form to investigate the number of dimensions and the structure of the scale. Bartlett's test of sphericity was significant ( $\chi 2$  (190) = 2947.26, p < .001) and The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was high (KMO =.84), thus it was appropriate to use the factor analytic model on this set of data. The 'leveling off' of eigenvalues on the scree-plot after two factors was determined. Also, the original form of the scale includes two dimensions. The number of factors obtained was determined to be two in the final analysis. An orthogonal rotation method, Varimax, was used since the correlations among components did not exceed .40. However, one item (I am nervous when people get too emotionally close to me) cross-loaded on the first and the second factors (.33 and .32; respectively). A subsequent exploratory factor analysis after excluding this cross-loaded item revealed two factors explaining 39.9% of the variance.

The first factor includes 10 items and explains the 22.00% of the total variance ( $\alpha$  = .82). Communalities of the items in this factor ranged between .21 and .55. This factor was labeled as "Anxiety" because this factor was labeled as anxiety in the original form and the highest communality item in this factor was "When I show my feelings to people I care about, I'm afraid that they will not feel the same about me". The second factor was composed of 9 items and explains the 17.9 % of the total variance ( $\alpha$  = .75). Communalities of the items in this factor ranged between .20 and .54. This factor was labeled as "Avoidance" because it was labeled as avoidance in the original form and the highest communality item in this factor was "I find it easy to depend on other people (reverse coded item)". Item loadings, eigenvalues, proportion of variance explained, and alpha values for factors are presented in Appendix E.

In order to investigate whether 19-item scale version is a better measure than 20-item scale, CFA by using AMOS were also conducted. The results of the initial CFA revealed that the two-factor solution provided acceptable fit to the data ( $\chi$ 2 (N = 547, df = 136) = 486.06, TLI = .82, CFI = .88, NFI = .84, RMSEA = .07, p = .00). After excluding this one item from the scale, the two-factor model provided better fit to the data ( $\chi$ 2 (N = 547, df = 121) = 377.37, TLI = .86, CFI = .90, NFI = .86, RMSEA = .06, p = .00). Analyses of the item-total correlations also showed that this item had low item-total correlation (.19). In line with these results, two dimensional 19-items scale was used in the current study.

## 3.3.5. SD3-T

27-items scale includes 3 dimensions. Cronbach's alpha score of the Machiavellianism subscale was .77. The Cronbach's alpha score of the Narcissism subscale was found as .64. Item-total correlation of one item (I feel embarrassed if someone compliments me) in this subscale was low (.15), so this item was excluded from the final form. After excluding this item, the Cronbach's alpha value of 8-item subscale was found to be .65. The Cronbach's alpha score of the psychopathy subscale was .68. Item-total correlation of one item (I have never gotten into trouble with the law) in this subscale was negative (-.07) and after excluding this item, the Cronbach's alpha value of 8-item subscale was found as .74.

# 3.3.6. Children Rejection Sensitivity

An explanatory factor analysis using principal component analysis as the extraction method was conducted on the 12 items of the Children Rejection Sensitivity Questionnaire to investigate the number of dimensions and structure for two components of rejection sensitivity (angry and anxious RS) separately.

# 3.3.6.1. Angry RS

Bartlett's test of sphericity was significant ( $\chi 2$  (66) = 1638.64, p < .001) and The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was high (KMO =.89), thus anger expectation component of Children Rejection Sensitivity Questionnaire was appropriate to use the factor analytic model on this set of data. Cumulative of explained total variance exceed .40 in the second factor; but only one factor was retained by the scree-test (eigenvalue = 4.9). All of the items loaded at .45 or higher for unidimensional scale. One factor explains the 35.67 % of the total variance ( $\alpha$  = .82). Item loadings, eigenvalues, proportion of variance explained, and the alpha value are presented in Appendix F.

In addition to the explanatory factor analysis, the one-factor structure of the angry RS was also tested with CFA by using AMOS software. For one factor structure, the results showed that the proposed model provided good fit to the data ( $\chi$ 2 (N = 547, df = 39) = 43.10, TLI = .99, CFI = .99, NFI = .96, RMSEA = .01, p = .30).

# **3.3.6.2. Anxious RS**

Bartlett's test of sphericity was significant ( $\chi 2$  (66) = 1385.98, p < .001) and The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was high (KMO = .89), thus anxious expectation component of Children Rejection Sensitivity Questionnaire was appropriate to use the factor analytic model on this set of data. Cumulative of explained total variance exceed .40 in the second factor; but only one factor was retained by the scree-plot (eigenvalue = 4.05). All of the items loaded at .45 or higher for unidimensional scale. The unique factor explains the 33.75 % of the total variance ( $\alpha$  = .81). Item loadings, eigenvalues, proportion of variance explained, and the alpha value are presented in Appendix G.

In addition, the one-factor structure of the anxious RS was also tested with CFA by using AMOS software. For one factor structure, the results showed that the proposed model provided good fit to the data ( $\chi$ 2 (N = 547, df = 46) = 59.19, TLI = .98, CFI = .99, NFI = .94, RMSEA = .02, p = .09).

# 3.4. DESCRIPTIVE STATISTICS AND BIVARIATE CORRELATIONS

Means, standard deviations, minimum and maximum values of study variables and reliabilities can be seen in Table 1.

Table 1
Means, Standard Deviations; Minimum and Maximum, and Skewness and Kurtosis
Values of Study Variables

Variable	Mean	SD	Min.	Max.	Skewness	Kurtosis
Age	15.80	1.10	14.00	19.00	-0.06	-0.82
Class	10.33	1.06	9.00	12.00	0.27	-1.13
Mother Education	2.10	.92	1.00	5.00	0.55	-0.02
Father Education	2.37	.96	1.00	5.00	0.42	-0.05
CGPA	80.50	14.98	8.00	100.00	-1.00	0.68
Cyberbullying	0.62	.73	0.00	4.00	1.88	3.74
Social Media Addiction	2.24	.71	1.00	4.93	0.41	-0.26
Preoccupation	2.77	.91	1.00	5.00	0.18	-0.46
<b>Mood Modification</b>	2.43	1.07	1.00	5.00	0.52	-0.60
Relapse	2.10	.99	1.00	5.00	0.92	0.24
Conflict/ Problems	1.90	.69	1.00	5.00	0.74	0.36
Friendship Quality	4.09	.91	1.19	6.00	-0.39	-0.18
Safety	3.49	1.11	1.00	6.00	-0.10	-0.38
Closeness	4.54	1.03	1.00	6.00	-0.54	-0.19
Acceptance	4.51	1.18	1.00	6.00	-0.69	-0.20
Help	4.28	1.48	1.00	6.00	-0.51	-0.80
Attachment Avoidance	4.28	1.04	1.44	7.00	0.05	-0.25
Attachment Anxiety	3.70	1.14	1.00	6.55	0.08	-0.16
Machiavellianism	3.23	.80	1.11	5.00	-0.11	-0.26
Narcissism	3.00	.69	1.00	5.00	0.07	0.22
Psychopathy	2.67	.81	1.00	5.00	0.38	-0.40
Anxious RS	7.87	3.56	1.08	22.33	0.66	0.60
Angry RS	6.49	3.10	1.00	20.00	1.05	1.30

Note. Cyberbullying, social media addiction, Machiavellianism, narcissism and psychopathy are rated on a 5-point Likert type scale. Friendship quality is rated on a 6-point Likert type scale.

Attachment avoidance, attachment anxiety, anxious and angry RS are rated on a 7-point Likert type scale. Father and mother education were measured by using ordinal scale items.

Bivariate correlations among study variables are presented in Table 2. Firstly, gender of the adolescents was positively correlated with cyberbullying. That is, boys reported higher levels of cyberbullying than girls. In addition, gender was positively correlated with Machiavellianism, psychopathy and angry RS (r = .21, p < .01; r = .11, p < .05; r = .12, p < .01; r = .12, p < .01; respectively) meaning that boys reported higher

levels of Machiavellianism, psychopathy and angry RS than girls. Gender was also negatively correlated with SMA, friendship quality, attachment avoidance, attachment anxiety (r = -.11, p < .01; r = -.17, p < .01; r = -.11, p < .05; r = -.15, p < .01; respectively).That is, girls reported significantly higher levels of SMA, friendship quality, attachment avoidance, attachment anxiety than boys. Also, the attended class of the adolescents, cumulative GPA and mother's and father's education levels were correlated with the other study variables in the current study. Specifically, attended class of the adolescents was negatively correlated with SMA, narcissism and angry RS (r = -.11, p < .05; r = -.10, p <.05; r = -.11, p < .01; respectively) and cumulative GPA scores of the adolescents were negatively related with cyberbullying, SMA, psychopathy and angry RS (r = -.17, p < .01; r = -.16, p < .01; r = -.21, p < .01; r = -.16, p < .01; respectively). Furthermore, mother's education level was negatively linked with SMA and angry RS (r = -.13, p < .01; r = -.13, p < .01; respectively). Father's education level was negatively linked with SMA and with angry and anxious RS (r = -.13, p < .01; r = -.11, p < .05; r = -.14, p < .01; respectively). Furthermore, father's education level was also positively correlated with friendship quality (r = .09, p < .05

Table 2
Bivariate Correlations between Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Gender	-					7	$ \overline{} $										
2. Age	.00	- /															
3. Class	12*	.85**															
4. Mother Education	02	.01	.12**														
5. Father Education	02	.00	.09*	.63**	-												
6. CGPA	17**	.03	.23**	.29**	.31**	-											
7. Cyberbullying	.21**	.04	04	.06	.04	17**	-										
8. SMA	11**	06	11*	13**	13**	16**	.23**	-									
9. Preoccupation	15**	07	12**	12**	11*	18**	.22**	.89**	-								
10. Mood Modification	10*	06	10*	10*	12*	22**	.16**	.76**	.65**	-							
11. Relapse	17**	02	.00	10*	10*	01	.05	.74**	.58**	.42**	-						
12. Conflict/ Problems	03	05	09*	11**	13**	11*	.26**	.90**	.66**	.58**	.62**	-					
13. Friendship Quality	17**	.00	.01	.01	.09*	.02	08	02	.05	.03	.01	11*	-				
14. Safety	11**	01	.01	00	.09*	.04	07	06	02	01	01	11**	.84**	-			
15. Closeness	17**	.07	.06	.02	.08	02	.01	.05	.12**	.09*	.03	03	.79**	.45**	-		
16. Acceptance	08	02	03	01	.06	04	06	02	.06	.03	02	11*	.80**	.53**	.61**	-	
17. Help	21**	04	010	.04	.02	.05	16**	03	.01	02	.04	09*	.74**	.49**	.49**	.53**	-

Note. \* p < .05. \*\* p < .01. Gender was coded as "1" for females and "2" for males

Table 2 Continued

Variable  18. Attachment	1	2	3			6	7	8	9	10	11	12	13	14	15	16	17
18. Attachment				4	5	O		0	9	10	11	12	13	14	13	10	1 /
Avoidance	11*	.04	01	08	07	03	.00	.05	.02	.10*	03	.07	26**	26**	15**	17**	19**
19. Attachment Anxiety	16**	12**	06	.03	.07	.09	.05	.32**	.20**	.28**	.27**	.31**	08	02	07	19**	05
20. Machiavellianism	.11**	.04	01	.04	.07	06	.21**	.16**	.17**	.12**	.06	.13**	15**	21**	01	07	14**
21. Narcissism	.04	03	10*	02	01	09	.20**	.12**	.21**	.03	.09*	.06	.05	03	.14**	.10*	.00
22. Psychopathy	.12**	.05	04	02	02	21**	.41**	.32**	.33**	.27**	.09*	.29**	08	14**	.09*	02	13**
23. Anxious RS	05	05	07	06	11*	.01	04	.25**	.18**	.22**	.22**	.24**	15**	10*	17**	14**	09*
24. Angry RS	.12**	04	11**	13**	14**	16**	.15**	.26**	.21**	.23**	.17**	.26**	25**	19**	22**	19**	23**

Note. \* p < .05. \*\* p < .01. Gender was coded as "1" for females and "2" for males

Table 2 Continued

Variable	18	19	20	21	22	23	24
18. Attachment Avoidance	-						
19. Attachment Anxiety	01	-					
20. Machiavellianism	.19**	.10*	-				
21. Narcissism	07	02	.37**	-			
22. Psychopathy	.17**	.06	.53**	.34**	-		
23. Anxious RS	.05	.40**	.06	04	.02	-	
24. Angry RS	.08	.28**	.14**	.12**	.24**	.73**	-

Note. \* p < .05. \*\* p < .01. Gender was coded as "1" for females and "2" for males

As expected, cyberbullying was positively correlated with Machiavellianism, narcissism, psychopathy and angry RS (r = .21, p < .01; r = .20, p < .01; r = .41, p < .01; r = .15, p < .01; respectively); and it was negatively correlated with CGPA (r = -.17, p < .01).

In addition, SMA was positively associated with attachment anxiety, Machiavellianism, narcissism, psychopathy, anxious and angry RS (r = .31, p < .01; r = .16, p < .01; r = .12, p < .01; r = .32, p < .01; r = .25, p < .01; r = .26, p < .01, respectively); and it was negatively associated with class, mothers' education level, fathers' education level, and CGPA of the adolescents (r = -.11, p < .05; r = -.13, p < .01; r = -.13, p < .01; r = -.16, p < .01; respectively).

In addition, cyberbullying levels were positively related with SMA levels of the participants (r = .23, p < .01). Surprisingly, the correlations between cyberbullying and friendship quality, and SMA and friendship quality were found to be non-significant. However, there was a significant positive correlation between help dimension of friendship quality and cyberbullying.

Since gender, class and cumulative GPA of the students, and mother's and father's education levels were significantly associated with main study variables, partial correlations were calculated by controlling for these variables and presented in Table 3. As can be seen in this table, after controlling the above-mentioned demographic variables, the correlations between the study variables were similar to the bivariate correlations.

Table 3

Partial Correlations between Study Variables Controlling for Demographic Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Cyberbullying	- 7		7 7															
2. SMA	.27**	-																
3. Preoccupation	.28**	.88**	-															
4. Mood  Modification	.18**	.76**	.64**															
5. Relapse	.11*	.75**	.58**	.42**	-													
6. Conflict/ Problems	.25**	.91**	.66**	.59**	.63**	-												
7. Friendship Quality	04	02	.04	.02	.02	08	-											
8. Safety	07	06	04	01	01	10*	.84**	-										
9. Closeness	.07	.05	.12*	.07	.02	02	.78**	.45**	-									
10. Acceptance	01	02	.06	.03	.00	09*	.81**	.53**	.62**	-								
11. Help	.12**	04	02	02	.03	08	.74**	.49**	.49**	.53**	-							
12. Attachment Avoidance	.02	.03	01	.07	05	.06	28**	27**	18**	20**	21**	-						
13. Attachment Anxiety	.07	.30**	.18**	.29**	.27**	.30**	08	04	07	17**	05	.01	-					
14. Machiavellianism	.18**	.19**	.21**	.14**	.10*	.14**	14**	22	.01	07	11*	.21**	.09	-				
15. Narcissism	.23**	.14**	.22**	.02	.13**	.07	.05	03	.15**	.08	.00	08	02	.37**	-			
16. Psychopathy	.37**	.35**	.37**	.28**	.15**	.30**	07	15**	.11**	02	11*	.16**	.10*	.54**	.34**	-		
17. Anxious RS	06	.21**	.14**	.22**	.18**	.20**	15**	09*	18**	14**	11*	.03	.41**	.06	03	.03	-	
18. Angry RS	.09*	.23**	.19**	.21**	.18**	.20**	24**	17**	21**	20**	21**	.06	.32**	.12**	.12**	.20**	.74**	-

Note. \* p < .05; \*\* p < .01

## 3.5. HYPOTHESIS TESTING

The main purpose of the current study was to investigate whether the DT personality traits, RS and friendship quality mediate the effects of attachment (attachment anxiety and attachment avoidance) on SMA and cyberbullying. Each of the hypothesized mediated relationships was tested by using AMOS in which Structural Equation Modeling (SEM) encompasses the path analysis technique. The error terms of the DT personality traits, dimensions of attachment, dimensions of RS and the error term between SMA and cyberbullying were allowed to correlate in the model testing. The model in which the Dark Triad personality traits, RS and friendship quality partially mediated the relationship of attachment with SMA and cyberbullying (M<sub>1</sub>) provided good fit to the data ( $\chi$ 2 (N = 547, df = 8) = 2.03, TLI = .96, CFI = .99, NFI = .99, RMSEA=.04; p = .04).

The analyses of the standardized estimates of the paths revealed that Hypothesis 1, which suggested a positive association between attachment anxiety and SMA was supported ( $\beta$  = .24, p < .001). Contrary to Hypothesis 2 which suggested a positive link of attachment anxiety and attachment avoidance with cyberbullying, the association between attachment anxiety and cyberbullying, and the link between attachmet avoidance and cyberbullying were found to be insignificant. Partially supporting to Hypothesis 3, which proposed positive links from narcissism and psychopathy to SMA, and partially supporting Hypothesis 4, which proposed positive links from narcissism and psychopathy to cyberbullying, the paths from psychopathy to SMA and cyberbullying were significant ( $\beta$  = .27, p < .001,  $\beta$  = .36, p < .001, respectively).

Hypothesis 5 was rejected since RS dimensions were not significantly associated with SMA. Hypothesis 6 which suggested that angry RS would be positively; and anxious RS would be negatively associated with cyberbullying was fully supported by the data ( $\beta$  = .20, p < .01,  $\beta$  = -.22, p < .001, respectively). Hypothesis 7 which suggested a negative link between friendship quality and SMA was rejected. Hypothesis 8 was also rejected since friendship quality was not significantly associated with cyberbullying. Hypothesis 9 which proposed the direct relationships of attachment anxiety and attachment avoidance with friendship quality was partially supported in such a way that the negative link between attachment avoidance and friendship quality was found to be significant ( $\beta$  = -.22, p < .01).

Hypothesis 10 was partially supported since only attachment avoidance was significantly and positively associated with Machiavellianism ( $\beta$  = .19, p < .001). On the other hand, Hypothesis 11 was rejected since neither attachment anxiety nor attachment avoidance was significantly associated with narcissism. Hypothesis 12 which proposed the direct link between attachment avoidance and psychopathy was supported ( $\beta$  = .17, p < .001). Hypothesis 13a which proposed positive and direct links from attachment anxiety to anxious RS and angry RS was fully supported ( $\beta$  = .27, p < .001;  $\beta$  = .40, p < .001, respectively). However, Hypothesis 13b was rejected since the association between attachment avoidance and angry RS was found to be insignificant.

Contrary to Hypothesis 14a which proposed that Machiavellianism and narcissism would partially mediate the negative link between attachment anxiety and friendship quality, Machiavellianism and narcissism did not mediate the link between attachment anxiety and friendship quality. Partially supporting Hypothesis 14b which proposed that the DT personality traits would partially mediate the negative links between attachment avoidance and friendship quality, only Machiavellianism mediated the link between attachment avoidance and friendship quality.

Hypothesis 15a was fully supported since angry and anxious RS mediated the negative relationship between attachment anxiety and friendship quality. Hypothesis 15b was rejected since attachment avoidance was not significantly associated with angry RS, so angry RS did not mediate the link between attachment avoidance and friendship quality.

Hypothesis 16a was rejected since narcissism was not significantly associated with SMA. In other words, narcissism did not mediate the link between attachment anxiety and SMA. Partially supporting Hypothesis 16b which proposed that narcissism and psychopathy would fully mediate the positive link between attachment avoidance and SMA, only psychopathy mediated the link between attachment avoidance and SMA.

Since both angry and anxious RS was not significantly associated with SMA, Hypothesis 17a which suggested that angry and anxious RS would partially mediate the link between attachment anxiety and SMA was rejected. In addition, Hypothesis 17b which proposed an indirect relationship between attachment avoidance and SMA mediated via angry RS was also rejected since the link between attachment avoidance and angry RS was not significant.

Since narcissism was not significantly related to cyberbullying, Hypothesis 18a which proposed the mediating effect of narcissism in the relationship between attachment anxiety and cyberbullying was rejected. In addition, narcissism was not significantly associated with cyberbullying, and the first part of the Hypothesis 18b which suggested the mediating effect of narcissism in the relationship between attachment avoidance and cyberbullying was also rejected. On the other hand, attachment avoidance was positively associated with psychopathy, which in turn, was positively associated with cyberbullying. Therefore, the second part of the Hypothesis 18b suggesting the mediating effect of psychopathy in the association between attachment avoidance and cyberbullying was supported.

Attachment anxiety was positively associated with both angry and anxious RS, and angry RS was positively, anxious RS was negatively associated cyberbullying. Therefore, Hypothesis 19a proposing the mediating effects of angry and anxious RS in the link between attachment anxiety and cyberbullying was fully supported. Finally, Hypothesis 19b which proposed the mediating role of angry RS in the link between and attachment avoidance and cyberbullying was rejected since the association between attachment avoidance and angry RS was not significant (Figure 2). The summary of the hypotheses and the results are presented in Table 4.

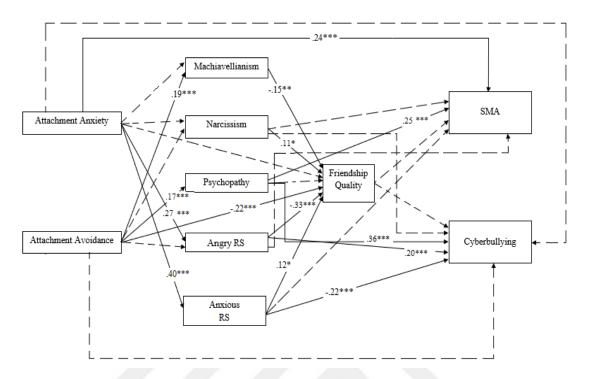


Figure 2. The Standardized Parameter Estimations of the Proposed Model  $(M_1)$ .

Table 4 Summary of the Hypotheses and the Results

Hypothesis	Result
<b>1:</b> Attachment anxiety is positively and directly associated with SMA.	S
<b>2a:</b> Attachment anxiety is positively and directly associated with cyberbullying.	NS
<b>2b:</b> Attachment avoidance is positively and directly associated with	NS
cyberbullying.	
<b>3:</b> Among the DT personality traits, narcissism and psychopathy are positively	~S
and directly associated with SMA.	
<b>4:</b> Among the DT personality traits, narcissism and psychopathy are positively	~S
and directly associated with cyberbullying.	
<b>5a:</b> Angry RS is positively and directly associated with SMA.	NS
<b>5b:</b> Anxious RS is positively and directly associated with SMA.	NS
<b>6a:</b> Angry RS is positively and directly associated with cyberbullying.	S
<b>6b:</b> Anxious RS is negatively and directly associated with cyberbullying.	S
7: Friendship quality is negatively and directly associated with SMA.	NS
<b>8:</b> Friendship quality is negatively and directly associated with cyberbullying.	NS
<b>9a:</b> Attachment anxiety is negatively and directly associated with friendship	NS
quality.	
<b>9b:</b> Attachment avoidance is negatively and directly associated with friendship	S
quality.	
<b>10a:</b> Attachment anxiety is positively and directly associated with	NS
Machiavellianism.	

<b>10b:</b> Attachment avoidance is positively and directly associated with Machiavellianism.	S
11a: Attachment anxiety is positively and directly associated with narcissism.	NS
11b: Attachment avoidance is positively and directly associated with	NS
narcissism.	
12: Attachment avoidance is positively and directly associated with	S
psychopathy.	
<b>13a:</b> Attachment anxiety is positively and directly associated with the anxious	S
and angry RS.	
<b>13b:</b> Attachment avoidance is positively and directly associated with the angry	NS
RS.	
<b>14a:</b> Machiavellianism and narcissism components of the DT personality traits	~S
partially mediate the negative link between attachment anxiety and friendship	
quality.	
<b>14b:</b> The DT personality traits partially mediate the negative links between	NS
attachment avoidance and friendship quality.	
15a: Angry and anxious RS partially mediate the negative link between	S
attachment anxiety and friendship quality.	
<b>15b:</b> Angry RS partially mediates the negative link between attachment	NS
avoidance and friendship quality.	
<b>16a:</b> Narcissism component of the DT personality traits partially mediates the	NS
positive links between attachment anxiety and SMA.	
<b>16b:</b> Narcissism and psychopathy components of the DT personality traits fully	~S
mediate the positive links between attachment avoidance and SMA.	
17a: Angry and anxious RS partially mediate the positive link between	NS
attachment anxiety and SMA.	
17b: Angry RS partially mediate the positive link between and attachment	NS
avoidance and SMA.	
<b>18a:</b> Narcissism component of the DT personality traits partially mediates the	NS
positive link between attachment anxiety and cyberbullying.	
<b>18b:</b> Narcissism and psychopathy components of the DT personality traits	~S
partially mediate the positive links between attachment avoidance and	
cyberbullying.	
19a: Angry and anxious RS partially mediate the positive link between	S
attachment anxiety and cyberbullying.	
<b>19b:</b> Angry RS partially mediate the positive link between and attachment	NS
avoidance and cyberbullying.	
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Note. S = Fully supported,  $\sim S = Partially$  supported, NS = Not Supported.

## 3.6. ADDITIONAL ANALYSES FOR EXPLORATORY PURPOSES

## 3.6.1 Test of an Alternative Model

As can be seen in the bivariate and partial correlation tables, there was a significant negative relationship between the help dimension of friendship quality and cyberbullying. For this reason, hypothesized mediated model was also tested using only the help dimension of friendship quality rather than the overall score of friendship quality ( $M_2$ ). The error terms of the DT personality traits, dimensions of attachment, dimensions of RS and the error term between SMA and cyberbullying were allowed to correlate in the alternative model. The results showed that the alternative or second model ( $M_2$ ) provided better fit to the data ( $\chi 2$  (N = 547, df = 10) = 1.69, TLI = .97, CFI = .99, NFI = .99, RMSEA=.04; p = .08) (Figure 3). The unstandardized and standardized regression coefficients as well as the standard errors of the estimates of  $M_2$  are presented in Table 5.

Table 5
Standardized and Unstandardized Regression Weights and Standard Errors of the Tested
Paths between the Study Variables

	Unstandardized	S.E.	Standardized
	Estimates		Estimates
Attachment Anxiety → Machiavellianism	.05	.03	.07
Attachment Anxiety → Narcissism	02	.02	04
Attachment Anxiety → Angry RS	.72	.11	.27***
Attachment Anxiety → Anxious RS	1.20	.12	.40***
Attachment Anxiety → Friendship Quality	02	.06	02
Attachment Anxiety → SMA	.15	.03	.24***
Attachment Anxiety → Cyberbullying	.04	.03	.06
Attachment Avoidance → Machiavellianism	.15	.03	.19***
Attachment Avoidance → Narcissism	05	.03	07
Attachment Avoidance → Psychopathy	.13	.03	.17***
Attachment Avoidance → Angry RS	.12	.09	.04
Attachment Avoidance → Friendship Quality	21	.06	15***
Attachment Avoidance → Cyberbullying	06	.03	08*
Machiavellianism → Friendship Quality	19	.09	10*
Narcissism → Friendship Quality	.17	.10	.08

Narcissism → SMA	.03	.04	.03
Narcissism → Cyberbullying	.05	.04	.04
Psychopathy → Friendship Quality	.00	.09	.00
Psychopathy → SMA	.25	.04	.28***
Psychopathy → Cyberbullying	.32	.04	.35***
Angry RS → Friendship Quality	17	.03	35***
Angry RS $\rightarrow$ SMA	.01	.01	.05
Angry RS → Cyberbullying	.04	.01	.18**
Anxious RS → Friendship Quality	.08	.03	.19**
Anxious RS → SMA	.02	.01	.11
Anxious RS → Cyberbullying	04	.01	21***
Friendship Quality → SMA	.02	.02	.04
Friendship Quality → Cyberbullying	05	.02	10*

Note. \* p < .05; \*\* p < .01; \*\*\*p < .001

The analyses of the standardized estimates of the paths revealed that, the paths from attachment anxiety and psychopathy to SMA ( $\beta$  = .24, p < .001,  $\beta$  = .28, p < .001, respectively); the paths from attachment avoidance, psychopathy, angry and anxious RS to cyberbullying were significant ( $\beta$  = -.08, p < .05,  $\beta$  = .35, p < .001;  $\beta$  = .18, p < .001;  $\beta$  = -.21, p < .001, respectively). In addition, the paths from avoidance attachment, Machiavellianism, and angry and anxious RS to the help dimension of friendship quality were significant ( $\beta$  = -.15, p < .001;  $\beta$  = -.10, p < .01;  $\beta$  = .11, p < .05;  $\beta$  = -.35, p < .001;  $\beta$  = .19, p < .05, respectively). Furthermore, the path from attachment avoidance to Machiavellianism ( $\beta$  = .19, p < .001); the path from attachment avoidance to psychopathy ( $\beta$  = .17, p < .001); and the paths from attachment anxiety to both angry and anxious expectation dimensions of RS ( $\beta$  = .27, p < .001,  $\beta$  = .40, p < .001, respectively) were also significant (Figure 3).

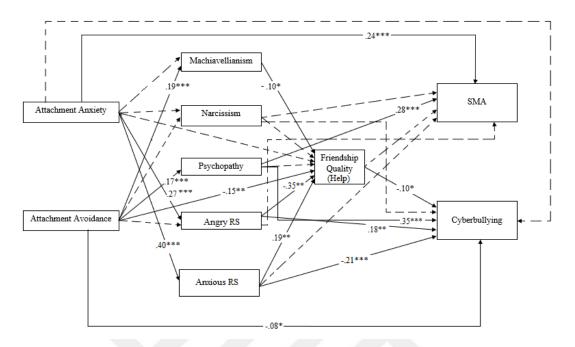


Figure 3. The Standardized Parameter Estimations of the Alternative Model (M<sub>2</sub>).

# 3.6.2. Moderating Effects of Gender

In order to examine the differences in SMA levels, cyberbullying, friendship quality, Machiavellianism, psychopathy, anger RS and attachment scores between females and males, independent samples t-tests were conducted. The results indicated that girls' SMA scores were significantly higher (M = 2.32, SD = 0.72) than those of boys (M = 2.16, SD = 0.70), t(536) = 2.64, p < .01. In addition, girls' cyberbullying scores were significantly lower (M = 0.47, SD = 0.59) than boys' scores (M = 0.77, SD = 0.83), t(471) = -4.88, p < .001. Similarly, girls' Machiavellianism scores were significantly lower (M = 3.13, SD = 0.81) than boys' (M = 3.31, SD = 0.77), t(536) = -2.59, p < .01. Furthermore, girls' psychopathy scores were significantly lower (M = 2.57, SD = 0.82) than those of boys (M = 2.77, SD = 0.78), t(536) = -2.87, p < .01. On the contrary, girls' friendship quality scores were significantly higher (M = 4.25, SD = 0.87) than for boys' scores (M = 3.93, SD = 0.81), t(536) = 4.06, p < .001. Similarly, both attachment anxiety and attachment avoidance scores of girls (M = 3.91, SD = 1.15; M = 4.39, SD = 1.07, respectively) were significantly higher than those of boys (M = 3.54, SD = 1.17; M = 4.16, SD = 0.98, respectively), t(536) = 3.74, p < .001; t(536) = 2.56, p < .05, respectively.

Finally, girls' anger RS scores were significantly lower (M = 6.09, SD = 2.80) than boys' scores (M = 6.83, SD = 3.33), t(515) = -2.78, p < .01.

Contrary to expectations, psychopathy and friendship quality was not found to be significant associated. In addition, it was found that girls' psychopathy scores were significantly lower than those of boys and also girls' friendship quality scores were significantly higher than boys' scores. Therefore, it was proposed that gender might have a moderating effect on the relationship between psychopathy and friendship quality. In order to test the proposed moderating effect of gender, PROCESS macro for SPSS, model 1 was used. According to the results, the overall moderation model had significant effects F (3, 534) = 8.67,  $\Delta R^2$  = .05, p < .001. In addition, the overall interaction effect was also found to be significant (F (1, 534) = 6.94,  $\Delta R^2$  = .02, p < .01). The findings revealed that gender moderated the effects of psychopathy on friendship quality, in such a way that friendships quality scores of girls who scored high on psychopathy was higher than those of girls who scored low on psychopathy; whereas, friendships quality scores of boys who scored low on psychopathy was higher than those of boys who scored high on psychopathy. In addition, girls who reported low scores on psychopathy scored significantly higher on friendship quality than boys who reported low scores on psychopathy (Figure 4).

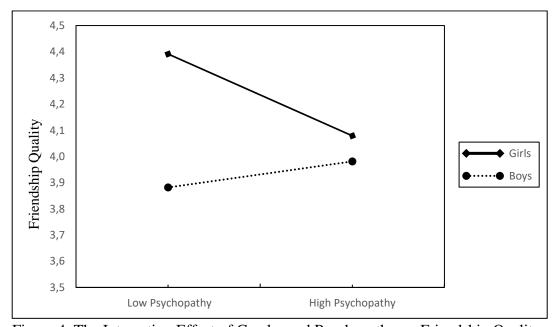


Figure 4. The Interaction Effect of Gender and Psychopathy on Friendship Quality

Contrary to Hypothesis 7 which proposed a negative link between friendship quality and SMA, the link between friendship quality and SMA was found to be insignificant. In addition, it was found that girls' friendship quality and SMA scores were significantly higher than boys' scores. Therefore, it was proposed that gender might have a moderating effect on the relationship between friendship quality and SMA. In order to test the moderating effect of gender in the link between friendship quality and SMA, again PROCESS macro for SPSS, model 1 was used. According to the results, the overall moderation model had significant effects F (3, 534) = 4.34,  $\Delta R^2$  = .02, p < .01. In addition, the overall interaction effect was also found to be significant (F (1, 534) = 4.22,  $\Delta R^2$  = .008, p < .05). The findings revealed that gender moderated the effects of friendship quality on SMA, in such a way that, boys who reported low scores on friendship quality scored significantly higher on SMA than boys who reported high scored on friendship quality. In addition, girls who reported high scores on friendship quality (Figure 5).

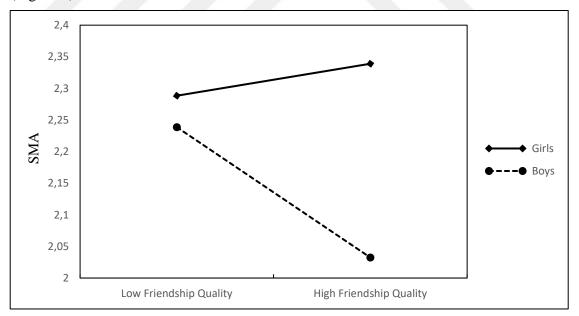


Figure 5. The Interaction Effect of Gender and Friendship Quality on SMA

## **CHAPTER IV**

## **DISCUSSION**

# 4.1. MAIN FINDINGS OF THE STUDY AND DIRECTIONS FOR FUTURE RESEARCH

The current study aimed to examine the direct links of attachment anxiety with SMA and cyberbullying, and attachment avoidance with cyberbullying; and also, to investigate the indirect effects of the attachment anxiety and attachment avoidance on SMA and cyberbullying through their influences on the Dark Triad Personality Traits, RS and friendship quality among adolescents. It was also suggested that both attachment anxiety and attachment avoidance would have direct effects on friendship quality and indirect effects on friendship quality via the Dark Triad Personality Traits and RS. In general, the findings supported the proposed theoretical model.

Regarding the relationships of demographic variables with the main variables of the study, it was found that the attended class of the participants was negatively linked with SMA. One reason for this negative relationship may be the national university entrance exam system. That is, in Turkey, students who graduate from high school take the national university entrance exam in order to acquire the right to register to undergraduate programs and their ranks are determined according to their scored on this exam. Students start to study more and more as they get close to their high school graduation and to this exam, so their SMA levels may be lower than those of students in junior classes. Yet, this speculation needs further support by future studies which would compare SMA scores of adolescents from Turkey with scores of adolescents from other countries where such an exam is not required to get into an undergraduate program.

In addition, it was found that both fathers' and mothers' education levels were negatively associated with SMA among adolescents. This may be due to the fact that parents with high education levels may be more aware of the detrimental effects of social

media and/or excessive internet use in general and, therefore, they may be more likely to limit their children's use of social media than parents with low education levels. Furthermore, with the increase of the education level of the families, the quality time spent with their children may also increase, which may lead adolescents spend less time on social media. However, at least to our knowledge, the present study is the first one that reports the results regarding the relationship between parents' education levels and adolescents' SMA and in order to draw more valid inferences, the findings should be supported by data from future studies.

Another finding related to the demographic variables was that, participants' cumulative GPAs were found to be negatively associated with cyberbullying and SMA. There may be three explanations of these associations. Firstly, individuals who get higher scores on their courses may use social media less than those who get lower scores on their courses since hardworking students spend more of their time with studying. On the other hand, adolescents who fail at school may be using social media more than those who are successful students at school in order to forget about their academic failure or to compensate this failure with social image restoration, and these students may also be more likely to engage in cyberbullying as a way of relief from stress caused by academic failure. Secondly, since the current study had cross-sectional design, the direction of the relationships of CGPA with SMA and cyberbullying cannot be precisely determined and SMA and cyberbullying may be the reasons for students' low grades. That is, students may spend less time studying, because they spend a lot of time on social media, and so their grades may be lower than those who spend average or less time on social media. Similarly, adolescents with a predisposition for externalizing behaviors such as cyberbullying may have low average grades since they spend more time on aggressive or delinquent acts or destructive habits such as playing hostile video games than on studying their courses. Thirdly, there may be a third variable describing the association between CGPA and SMA, and CGPA and cyberbullying and the actual reason of the relationships mentioned above may lie in another psychological process which was not included in the present research. Further studies are suggested to focus on these relationships by employing longitudinal design in order to draw more valid conclusions regarding the directions of the relationships. In addition, future studies are also proposed to investigate the possible mediating and moderating variables such as academic self-esteem in the relationships of academic success or CGPA with cyberbullying and SMA.

SMA was found to be positively correlated with cyberbullying and this finding was consistent with previous findings (Kircaburun, Jonason, & Griffiths, 2018; Kircaburun, Kokkinos, Demetrovics, Király, Griffiths, & Çolak, 2019). The reason for this association may be explained with the social learning theory (SLT). According to SLT, learning is largely or completely based on imitation, modeling, or other social interactions (Bandura & Walters, 1977). According to Bandura and Walters (1977), "Most of the behaviors that people display are learned, either deliberately or inadvertently, through the influence of example (p. 5)". Individuals who use social media a lot may experience cyberbullying or observe cyberbullying on these platforms. This exposure may increase their insensitivity towards cyberbullying in time as well as their likelihood of engaging in similar cyberbullying activities.

As expected, in adolescent sample, the DT personality traits were found as the antecedents of cyberbullying. In both correlation and SEM analyses, the most predictive of the DT traits of cyberbullying was found to be psychopathy. This finding was consistent with previous studies conducted in other cultural contexts and with adult samples, and in line with these findings interventions to reduce cyberbullying are suggested to specifically focus on people with psychopathic characteristics. It was also found that angry RS was positively associated with all of the DT personality traits. At least to our knowledge, the present study was the second one that explored the links of the DT with RS. As the first study that reported these relationships in the literature, Demircioğlu and Göncü Köse (2018) found a negative association between RS and the DT personality traits but that study was conducted with a sample composed of university students. There may be two reasons for these contradictory findings. Firstly, Downey, Lebolt, and colleagues (1998) suggested that especially for children, emotions that cause RS might be different, and they may prompt to different consequences. In line with Downey, Lebolt, and colleagues' (1998) conceptualization, in the current study RS was measured as including two different components and angry RS and all three of the DT personality traits were found to be positively associated, while no significant relationship was found between anxious RS and the DT personality traits. Although intended to measure the same theoretical construct,

the RS scale created for adolescents may be measuring a more comprehensive and slightly different concept than the RS scale created for university students. Secondly, while the adolescent sample was used in the current study, Demircioğlu and Göncü Köse (2018) conducted the study on university students. In addition to the differences in the measurement tools, the contradictory results might have stemmed from real differences between two samples in terms of the links of RS with the DT traits. However, not many studies have been found in the literature examining the relationship between RS and the DT personality traits. In addition to this, at least to our knowledge, the current study is the first study which examines the relationship between two different dimensions of RS and the DT personality among adolescent sample. Therefore, future studies are required to support these findings and the above-mentioned suggestions regarding the differential relationships between RS and the DT.

Surprisingly, there was not found any significant relationship between friendship quality and SMA, and between friendship quality and cyberbullying. In addition, the dimensions of friendship quality and SMA were not significantly associated. The insignificant relationship between friendship quality and SMA may be due to the moderating role of gender in this association. It was found that, for boys, friendship quality was negatively associated with SMA. However, for girls, SMA also increases as friendship quality increases. Probably, while boys may use social media to find new friends, girls may strengthen their existing friendships through social media.

Although overall friendship quality was not significantly related to cyberbullying, help dimension of friendship quality was found to be negatively linked with cyberbullying. In fact, when the specific dimensions of friendship quality are evaluated in more detail, acceptance (i.e., social or emotional acceptance by schoolmates) and safety (i.e., trust in friendships) dimensions would be expected to have stronger relationships with cyberbullying. However, it seems that for adolescent sample, reciprocal helping behavior in friendships may be more effective in preventing problematic online behaviors than other dimensions. For example, empathy feelings of adolescents who receive help from others and help their friends in turn may develop and improve further, and this enhanced empathy may suppress their cyberbullying behavior. It may also be case that adolescents who receive help from their friends may think that their friendship

relationships may be damaged as a result of cyberbullying, and this feeling may prevent their cyberbullying intentions and behaviors. However, further studies are suggested to investigate the relationship between friendship quality and cyberbullying longitudinally and with samples of different age groups in order to draw more confident conclusions.

As expected, according to SEM analysis of the proposed model, attachment anxiety was found to be a significant predictor of SMA among adolescent sample. That is, individuals who get higher scores on attachment anxiety were more likely to engage in problematic social media use. This finding is consistent with the literature (Blackwell, Leaman, Tramposch, Osborne, & Liss, 2017; Hart, Nailling, Bizer, & Collins, 2015). The possible explanation for this relationship may be that individuals who get high scores on attachment anxiety think that they can easily form interpersonal relationships which they cannot form in real life on social media. In another explanation, Demircioğlu and Göncü Köse (2018) argued that these individuals may be likely to avoid offline relationships and have a tendency to compensate these relationships via social media. Another contribution of the current study is revealing the association between attachment anxiety and SMA among adolescent sample. Furthermore, most of the studies focus on the link between attachment and SMA using the four-category model of attachment. However, according to Sümer (2006), defining attachment styles with basic dimensions rather than distinct categories would be more appropriate and valid approach. Since the dimensional attachment model rather than categorical model was employed in the present study, the findings may be more explanatory and useful for understanding the underlying mechanisms in the association between attachment and SMA.

The proposed direct positive links between attachment anxiety and cyberbullying were not found to be significant. However, the SEM results of the model showed that both angry RS and anxious RS fully mediated the link between attachment anxiety and cyberbullying in opposite directions. In addition, angry RS and anxious RS mediated the link between attachment anxiety and friendship quality. To be more precise, attachment anxiety was positively associated with angry RS, which in turn, increase the likelihood of cyberbullying. Furthermore, attachment anxiety which was positively associated with angry RS was negatively related to perceived quality of offline friendship relationships, which in turn, was negatively associated with cyberbullying. On the other hand,

attachment anxiety was positively associated with anxious RS, which in turn, decrease the likelihood of cyberbullying. Finally, attachment anxiety, which was positively associated with anxious RS, was positively related to friendship quality, which in turn, was negatively associated with cyberbullying. In other words, depending on the type of RS that was related to attachment anxiety, the direction of the association between attachment anxiety and cyberbullying is likely to differ. Individuals who get higher scores on attachment anxiety may also get higher scores on anxious RS and these individuals may attempt cyberbullying less because they may not want to lose their existing relationships as a result of cyberbullying and can avoid cyberbullying behavior. Furthermore, individuals who get high scores on anxious expectation may want to keep their friendships to decrease their apprehension, and as a result, they may perform less cyberbullying behavior. However, if attachment anxiety leads to angry RS, this can both affect perceived friendship quality and increase cyberbullying, and it can also directly and positively affect people's cyberbullying behavior. Taking these findings into consideration, another theoretical contribution of this study is suggested to be demonstrating the fully mediated paths between attachment anxiety and cyberbullying, and indicating underlying psychological mechanism in the association between these two variables.

Surprisingly, the proposed direct positive links between attachment avoidance and cyberbullying were found as insignificant. In order to draw more precise conclusions, it is recommended to focus more on the relationship between these two variables in future studies and to examine this relationship with different moderators with especially adolescent samples controlling for effects of social desirability. Although there was no significant direct relationship between attachment avoidance and cyberbullying, psychopathy fully mediated the link between attachment avoidance and SMA. To be more specific, adolescents with high attachment avoidance tended to display more psychopathic traits, which in turn, was positively associated with bullying behaviors in online settings.

In addition, the link between psychopathy and SMA was found to be significant. In a previous study conducted with undergraduate students, Demircioğlu and Göncü Köse (2018) found that among the DT personality traits, only psychopathy was positively associated with SMA. By confirming Demircioğlu and Göncü Köse's (2018) results with adolescent sample and by revealing that psychopathy was also an antecedent of SMA

among adolescents, the present study contributed to the existing body of research regarding the relationships between the DT traits and SMA. Future studies may also focus on these relationships by employing longitudinal design in order to demonstrate whether SMA and psychopathy feed each other over time. Furthermore, among adolescents, psychopathy and cyberbullying was found to be significantly associated with each other; meaning that psychopathic traits seemed to be associated with higher level of incidents of cyberbullying behaviors. This finding was also consistent with the previous literature (Gumpel, 2014; Ciucci, Baroncelli, Franchi, Golmaryami, & Frick, 2014). Moreover, in some studies psychopathy was found to be as a unique predictor of cyberbullying (Goodboy & Martin, 2015; Pabian, De Backer, & Vandebosch, 2015).

Contrary to expectations, the associations of narcissism with SMA and cyberbullying were found to be insignificant. Demircioğlu and Göncü Köse (2018) also found insignificant relationship between narcissism and SMA among university students. According to Miller and Campbell (2008), narcissism can be categorized under two dimensions which are vulnerable and grandiose narcissism. Vulnerable narcissism includes preoccupation with grandiose fantasies, fragile self-confidence between majestic fantasies and unstable self-esteem. Assertive self-image and high levels of desire to be admired by others, on the contrary, characterize grandiose narcissism. One possible explanation for the insignificant relationship between narcissism and SMA found in the current study may be that, the narcissism scale used measured the general narcissism rather than measuring vulnerable and grandiose narcissism as separate dimensions of the construct. In a meta-analytic study, grandiose narcissism was found to be significantly related to SMA, while vulnerable narcissism was not significantly associated with SMA (McCain & Campbell, 2018). Furthermore, the consequences of online activities also differed depending on the types of narcissism (McCain et al., 2016). That is, individuals who scored high on grandiose narcissism were found to experience more positive affect after taking selfies on social media platforms than individuals who scored low on grandiose narcissism. On the contrary, individuals who scored high on vulnerable narcissism were found to experience more negative affect after taking selfies on social media platforms than individuals who scored low on vulnerable narcissism. Future studies may benefit from using the two-dimensional scales of narcissism and investigating the effects of vulnerable and grandiose narcissism on SMA separately. Yet, it should be noted that although the link of narcissism with SMA and cyberbullying were insignificant in the model testing, the association of narcissism to SMA and cyberbullying were found to be significant in both bivariate and partial correlation analyses. Therefore, another possible explanation for insignificant effects of narcissism on SMA and cyberbullying in the SEM analysis may be that the effects of attachment anxiety and psychopath explained most of the variance on SMA, and the effects of psychopathy, angry RS and anxious RS explained most of the variance on cyberbullying. In other words, the paths from narcissism to SMA and cyberbullying might have become insignificant due to the strong effects of psychopathy and attachment anxiety on SMA and to the strong effects of psychopathy and RS on cyberbullying.

Contrary to the Hypotheses 5 and 6, both angry and anxious RS were not significantly associated with SMA, but they were found to be significantly associated in both bivariate and partial correlation analyses. In the model, the relationships of angry and anxious RS with SMA might have been insignificant since most of the variance of SMA was explained with attachment anxiety and psychopathy. Consistent with the findings in the current study, Demircioğlu and Göncü Köse (2018) found a significant positive association between RS and SMA among undergraduate university student sample. On the other hand, as expected, the links of both angry and anxious RS with cyberbullying were found to be significant. That is, adolescents who scored high on angry RS were more likely to engage in cyberbullying than those who scored low on angry RS. On the other hand, adolescents who scored high on anxious RS were more likely to avoid cyberbullying than those who scored low on anxious RS. In other words, although both types of RS may be related to other aversive outcomes for children and adolescents, angry RS was found to be a risk factor and anxious RS was found to be protective factor for cyberbullying. Another contribution of the current study was revealing that RS did not theoretically unidimensional and two subdimensions of RS differential effects on the same variable (i.e., cyberbullying). Therefore, another contribution of the present research was to confirm the two-dimensional structure of RS in Turkish adolescent sample and to reveal the differential effects of angry and anxious RS on cyberbullying. Future studies are strongly encouraged to use two-dimensional conceptualization of RS especially while conducting studies with adolescent samples.

The proposed association between friendship quality and SMA was not found to be significant. However, exploratory analyses revealed that gender moderated the link between friendship quality and SMA in such a way that, boys who got high scores on friendship quality scored low on SMA while girls who got high scores on friendship quality scored high on SMA. These findings show that girls may be more likely to use social media to maintain and enhance their offline friendships, and to contact their face-to-face friends via social media than boys. On the other hand, boys may be more likely to use social media to fill the gap caused by lack of high-quality offline friendships than girls. Therefore, moderating role of gender may be the reason for the insignificant relationship between friendship quality and SMA. Further studies may focus on the effects of different moderators (e.g., relationship status) in the link between friendship quality and SMA.

As one of the unexpected findings, the present study revealed that the direct path from attachment anxiety to friendship quality was not significant. However, it was found that the link between attachment anxiety and friendship quality was fully mediated by angry and anxious RS in such a way that, adolescent with high attachment anxiety got higher scores on both angry and anxious RS, which in turn, were significantly associated with friendship quality. Although angry RS leads to decrease in quality of friendship, anxious RS leads to increase in these behaviors. The reason for finding insignificant direct relationship between attachment anxiety and friendship quality may be that angry RS and anxious RS predict friendship quality in the opposite directions. In addition, it is known that friendship is a type of reciprocal relationship (Vaquera & Kao, 2008) and the quality of friendship can also be affected from main characteristics of friends. Therefore, further studies are suggested to investigate the relationship between attachment anxiety and friendship quality via gathering information from friends as well. Future studies are also suggested to investigate the relationship between attachment anxiety and friendship quality by adding measures of the number of friends and the duration of the friendship in their assessment, to get more precise results.

It was expected that individuals who scored high on attachment anxiety tended to score high on Machiavellianism because they might be likely to try every means to establish and maintain relationships as well as to get approval from others in their daily lives. Even though attachment anxiety was found to be unrelated to Machiavellianism in the final model, the bivariate correlation between attachment anxiety and Machiavellianism was significant and the future studies are suggested to investigate these links by testing possible moderator variables such as perceived availability of alternatives in close relationships and perceived social support from others.

As expected, attachment avoidance and friendship quality were found to be negatively associated. One of the most important components of friendship is reciprocity (Laursen & Hartup, 2002) and according to Goranson and Berkowitz (1966), based on the principle of reciprocity, getting help behavior from the other side increases the person's helping behavior. Adolescents who score high on avoidant attachment may be less likely to help their friends than adolescents who scored low avoidant attachment and this may cause them to get less help from their friends and they got lower scores on friendship quality.

In line with the propositions, there was a positive association between attachment avoidance and Machiavellianism. The positive relationship between avoidant attachment and Machiavellianism may imply that individuals who score high on avoidant attachment tend to direct their relationships in line with their own interests and to retain their avoidant attitudes when there is no self-interest. Furthermore, adolescents who scored high on attachment avoidance get higher scores on Machiavellianism, which in turn, led them to get less help from their friends and to get lower scores on friendship quality.

Neither attachment anxiety nor attachment avoidance was found to be the predictors of narcissism. These insignificant results can also be related to measuring narcissism as a unidimensional construct. Indeed, in a longitudinal study, attachment avoidance was found to be a risk factor for grandiose narcissism whereas attachment anxiety was found to be a risk factor for vulnerable narcissism (Dakanalis, Clerici, & Carrà, 2016). Future studies are suggested to take these findings into consideration while investigating the relationships between attachment anxiety and the DT personality traits, and are proposed to examine the effects of attachment anxiety and attachment avoidance on vulnerable and grandiose narcissism separately in their attempts to replicate the findings and to improve proposed theoretical model of the present study.

The findings regarding the positive association between attachment avoidance and psychopathy were generally consistent with the previous literature (e.g., Ináncsi et al., 2015; Uysal, 2016). Furthermore, psychopathy partially mediated the link between attachment avoidance and cyberbullying. Therefore, the current study contributed to the existing literature by revealing the mediating roles of personality traits (i.e., Machiavellianism and psychopathy) and friendship quality as an interpersonal process in the relationships between attachment avoidance and cyberbullying.

As expected, attachment anxiety was found to be an antecedent of angry and anxious RS. That is, adolescents with high attachment anxiety got higher scores on angry and anxious RS than those who scored low on attachment anxiety. Consistently, Downey, Lebort, and colleagues (1998) suggested that attachment and RS were positively related. Therefore, another contribution of this study is to show that angry and anxious RS have the same antecedents, but they are associated with different outcome variables. In addition, these results confirm the divergent validity of angry and anxious RS and the proposition that they are interrelated but different constructs. To be more specific, attachment anxiety positively related with both angry and anxious RS and while angry RS was positively related to cyberbullying, anxious RS was negatively related to it.

Furthermore, an additional analysis revealed that, gender moderated the link between psychopathy and friendship quality. Among girls, there was a negative association between psychopathy and friendship quality. In other words, girls who displayed more psychopathic traits got lower scores on friendship quality than girls who displayed less psychopathic traits. On the other hand, among boys, there was a positive relationship between psychopathy and friendship quality. More precisely, boys who displayed more psychopathic traits got high scores on friendship quality than boys who displayed less psychopathic traits. In addition, the friendship quality scores of boys with psychopathic characteristics were lower than those of girls who did not report psychopathic features. More specifically, in contrast to boys who have psychopathic features, girls with psychopathic features seem to be less likely to have high quality friendships. One possible explanation for these findings is that, boys' psychopathic traits may not be evaluated as harsh as those of girls by their peers because, in line with the traditional gender norms boys are expected to be more aggressive, assertive, and dominant

than girls (Crick, Bigbee, & Howes, 1996). Yet, the present research is among the few attempts to reveal moderating effect of gender in the links of psychopathy with friendship quality among adolescents and the findings needs to be confirmed and replicated by future studies with divergent samples from various backgrounds and age groups.

# 4.2. FINDINGS OF THE ALTERNATIVE MODEL AND DIRECTIONS FOR FUTURE RESEARCH

After testing the hypothesized mediated model, the model was also tested using with help dimension of friendship quality rather than the overall score of friendship quality. In the alternative model, the proposed direct positive links between attachment avoidance and cyberbullying were found as negative. The possible reason for this finding may be that adolescents with high avoidant attachment level might have distorted their cyberbullying scores in a negative way. However, this relationship strength was very low and no significant relationship between these two variables was found in bivariate and partial correlation analyses. In order to draw more precise conclusions, it is recommended to focus more on the relationship between these two variables in future studies and to examine this relationship with different moderators with especially adolescent samples controlling for effects of social desirability.

As expected, help dimension of friendship quality was found to be negatively associated with cyberbullying. In other words, adolescents who help others and receive help from their friends were less likely to perform cyberbullying behaviors than those who scored low on help dimension of friendship quality. It may be the case that peer relationships based on mutual help and support may cause online aggressive behaviors to decrease or even disappear. There may be several possible explanations of this significant association. Firstly, according to SLT (Bandura and Walters, 1977), individuals generally model and imitate behaviors of people around them. Therefore, people can model help behaviors by getting help from friends, which in turn, may keep them away from cyberbullying. Secondly, adolescents who receive help from their friends may be more likely to develop empathy than those who do not receive help and support from their peers, and these individuals may avoid destructive behaviors such as cyberbullying. Finally, adolescents who scored high on friendship quality can intentionally avoid cyberbullying

in order not to lose their friends because of cyberbullying behaviors since their friends who are helpful and empathic towards them would not approve these kinds of acts.

In addition, according to the findings of the alternative model, help dimension of friendship quality partially mediated the link between attachment avoidance and cyberbullying in such a way that adolescents who scored high on attachment avoidance got low levels of help from their friends, which in turn, was associated with high scores on cyberbullying behavior. To be more precise, such individuals may receive low levels of help from their friends, and these unaided individuals may display more cyberbullying behaviors than individuals who receive more help from their friends.

In addition to mediating effect of Machiavellianism in the association between attachment avoidance and friendship quality; both Machiavellianism and help dimension of friendship quality mediated the link between attachment avoidance and cyberbullying. Getting less help from friends and unstable friendship relations may also lead adolescents to engage in cyberbullying behaviors. Therefore, another contribution of the current study was revealing the serial multiple mediating effects of Machiavellianism and the help dimension of friendship quality in the association between attachment avoidance and cyberbullying.

#### 4.3. PRACTICAL IMPLICATIONS OF THE FINDINGS

The findings of the present study are suggested to contribute to the existing body of research by revealing both the direct effects of attachment anxiety and psychopathy on SMA and cyberbullying and the indirect effects of them on these outcome variables via the DT personality traits, angry RS, anxious RS, and friendship quality. With the increasing rate of using social media, SMA became an important topic of interest for both researchers and practitioners, and cyberbullying became a serious problem especially for adolescents. It was suggested that determination of antecedents of SMA and cyberbullying may facilitate implementation of effective intervention and training strategies. In line with the significant association between friendship quality and cyberbullying, the first practical implication of current study is related to prevention of cyberbullying by increasing the quality of friendship quality of adolescents. In schools, seminars that will increase mutual

help in friendships can be given or problematic students can be targeted in order to prevent cyberbullying.

In addition, attachment avoidance was found to be an antecedent of Machiavellianism, psychopathy and friendship quality. Consistently, another practical implication of the findings may be guiding intervention strategies designed to convert "model of others" from negative to positive. It is known that; attachment avoidance is related with "model of others" dimension of attachment and converting "model of others" from negative to positive may decrease effects of attachment avoidance. In other words, within the framework of the findings of the current study, turning the "model of others" of adolescents into positive with early interventions may cause them to exhibit less Machiavellian and psychopathic characteristics which may also contribute to friendship quality.

Finally, both angry and anxious RS were found to be antecedents of friendship quality and cyberbullying, and making interventions, especially to decrease angry RS, may be among the initial steps to increase friendship quality and reduce cyberbullying.

#### 4.4. LIMITATIONS

As every study, the current study has also a number of limitations. The first limitation of the present study is about Turkish adaptation processes of the measurements. In current study, The European Cyberbullying Intervention Project Questionnaire, Experiences in Close Relationships — Revised — General Short Form (ECR-R-GSF) and Children's Rejection Sensitivity Questionnaire (CRSQ) were adapted to Turkish. However, a pilot study specifically designed to assess the reliability and validity of the measures was not conducted before the main study. However, the internal reliability scores of the scales were very high. In addition, both EFA and CFA analyses were conducted, and the factor analyses confirmed the proposed factor structures.

The second limitation of the current study was not measuring social desirability. The survey package, which consisted of six scales, was long enough for adolescents even without adding desirability measurement. It was thought that the addition of desirability measurement may affect the validity and reliability of other scales. Furthermore, when the mean scores of the scales were analyzed, it was found that only the average scores of the

friendship quality scale were high, and the average scores of all of the other scales were at close to medium points. However, in light of the knowledge that friendship relations are very important during adolescence (Youniss & Haynie, 1992) and may be inflated a little bit by children and adolescents, high average scores of friendship quality scale is not considered to be serious problem for the validity of the findings.

The final limitation of the current study was employing cross-sectional design and attempting to reveal causal relationships. However, by using SEM instead of regression, effects of all variables were examined in a comprehensive theoretical model. Although it is not possible to draw confident inferences regarding the causal relationships with a crosssectional study, causality aspects of the variables in the proposed model were theoretically supported. For instance, it is known that attachment styles are established during infancy, and predicting personality traits (the DT personality traits), attitudinal tendencies such as RS, quality of interpersonal relationships, SMA, and cyberbullying with attachment makes much more sense than predicting attachment with personality traits, attitudinal tendencies, friendship quality, SMA, and cyberbullying. Yet, some of the relationships between the study variables may be suggested to have the reverse directions. To illustrate, adolescents who engage in cyberbullying may also perform other aggressive acts towards others and they may have low quality friendships in which they are not provided help and support from others because of these kinds of actions. Therefore, future studies are suggested to investigate the proposed relationships by employing longitudinal and/or quasi-experimental designs in other to draw more precise and confident conclusions.

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### **APPENDICES**

#### APPENDIX A

# APPROVAL OF THE SOCIAL AND HUMANITIES ETHICS COMMITTEE OF ÇANKAYA UNIVERSITY







Sayı : 80281877-050.99 Konu : Etik Kurul Raporu

#### FEN EDEBİYAT FAKÜLTESİ DEKANLIĞINA

İlgi : 02.08.2019 tarihli ve 76373453-605.01/00000042347 sayılı yazınız.

Fakülteniz Psikoloji Bölümü öğretim elemanlarından Doç. Dr. Aslı GÖNCÜ KÖSE'nin danışmanı olduğu "Ergenlerde, Bağlanma Stilleri, Karanlık Üçlü Kişilik Özellikleri, Reddedilme Duyarlılığı ve Arkadaşlık Kalitesinin Sosyal Medya Bağımlılığına ve Siber Zorbalığa Etkileri" adlı yüksek lisans tez araştırmasının Etik Kurul tarafından değerlendirilmesi talebi, Üniversitemiz Bilimsel Araştırma ve Yayın Etiği Kurulu tarafından değerlendirilmiş ve uygun görülmüştür.

Bilgilerinizi ve ilgiliye bilgi verilmesini rica ederim.

e-imzalıdır Prof. Dr. Can ÇOĞUN Rektör

Ek: 22.08.2019 tarih ve 198 sayılı Araştırma ve Yayın Etiği Kurulu Proje Onay Formu

#### APPENDIX B

#### APPROVAL OF THE MINISTRY OF NATIONAL EDUCATION



T.C. ANKARA VALİLİĞİ Milli Eğitim Müdürlüğü



Sayı : 14588481-605.99-E.24436826 09.12.2019

Konu : Araştırma İzni

### ÇANKAYA ÜNİVERSİTESİNE (Rektörlük)

İlgi : a)MEB Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 2017/25 nolu Genelgesi. b)22.11.2019 tarihli ve 0000050165 sayılı yazınız.

Üniversiteniz Sosyal Bilimler Enstitüsü Psikoloji Anabilim Dalı Psikoloji tezli yüksek lisans programı öğrencilerinden Cansu KARAKUŞ'un "Aile İçi Şiddete Maruziyet ile Zorbalık, Kendini Susturma Davranışı ve Akademik Öz Yeterlilik Arasındaki İlişkiler" ve Zeynep Işıl DEMİRCİOĞLU'nun "Ergenlerde Bağlanma Stilleri Karanlık Üçlü Kişilik Özellikleri, Reddedilme Duyarlılığı ve Arkadaşlık Kalitesinin Sosyal Medya Bağımlılığına Etkileri" konulu çalışmaları kapsamında İlimiz Çankaya, Yenimahalle, Mamak, Sincan ve Altındağ İlçelerine bağlı liselerde uygulama talebi ilgi (b) Genelge çerçevesinde incelenmiştir.

Yapılan inceleme sonucunda, söz konusu araştırmanın Müdürlüğümüzde muhafaza edilen ölçme araçlarının; Türkiye Cumhuriyeti Anayasası, Milli Eğitim Temel Kanunu ile Türk Milli Eğitiminin genel amaçlarına uygun olarak, ilgili yasal düzenlemelerde belirtilen ilke, esas ve amaçlara aykırılık teşkil etmeyecek, eğitim-öğretim faaliyetlerini aksatmayacak şekilde okul ve kurum yöneticilerinin sorumluluğunda gönüllülük esasına göre uygulanması Müdürlüğümüzce uygun görülmüştür.

Bilgilerinizi ve gereğini rica ederim.

Turan AKPINAR Vali a. Milli Eğitim Müdürü

#### **APPENDIX C**

#### THE STUDY SURVEY



Çankaya Üniversitesi Psikoloji Bölümü

#### Sayın katılımcı,

- Bu anket Çankaya Üniversitesi Psikoloji Bölümü Öğretim Üyesi Doç. Dr. Aslı GÖNCÜ KÖSE danışmanlığında, Çankaya Üniversitesi Sosyal ve Örgütsel Psikoloji Yüksek Lisans Programı Öğrencisi Psk. Zeynep Işıl DEMİRCİOĞLU tarafından yürütülen yüksek lisans tez araştırması kapsamında yapılmaktadır. Söz konusu araştırmanın amacı, bireylerin sosyal ve kişisel tutumlarının sosyal medya kullanımı ile olan ilişkilerini araştırmaktır.
- <u>Lütfen her soruyu dikkatle okuyunuz ve hiçbir soruyu yanıtsız bırakmayınız. Boş</u> bırakılan maddelerin olduğu anketler geçersiz sayılacaktır.
- Hiçbir sorunun doğru veya yanlış cevabı yoktur. Sizin içtenlikle vereceğiniz cevaplar bizim için en yararlı olanlardır.
- Çalışmaya katılım tamamıyla gönüllülük esasına dayanmaktadır. Katılım sırasında herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz çalışmayı istediğiniz anda bırakmakta serbestsiniz.
- Verdiğiniz bilgiler gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir; elde edilecek bilgiler yalnızca bilimsel yayınlarda kullanılacak, kesinlikle hiçbir kişi veya kurumla paylaşılmayacaktır.
- Anketin cevaplanmasında süre sınırlaması yoktur; ancak anketin doldurulması, yaklaşık 7-8 dakika sürmektedir.
- Çalışmamıza katılımınız ve yaptığınız katkı bizim için çok değerlidir. Bu anketi doldurmak için zaman ayırdığınız için teşekkür ederiz.

Doc. Dr. Aslı GÖNCÜ KÖSE

Psk. Zevnep Işıl DEMİRCİOĞLU

Cankaya Üniversitesi Cankaya Üniversitesi

Psikoloji Bölümü Psikoloji Bölümü

Bölüm Başkanı Sosyal ve Örgütsel Psikoloji Yüksek

Lisans Programı Öğrencisi

Tel: (0312) 233 14 50-51

# BÖLÜM 1: SOSYAL MEDYA BAĞIMLILIĞI ANKETİ

Aşağıda çeşitli durumlara ilişkin ifadeler bulunmaktadır. Lütfen her bir madde için, ölçekte görüşünüze en uygun olan ifadenin üzerindeki rakamı maddenin sonunda verilen sütuna yazınız.

	1	2	3	4	5
Hie	Hiçbir zaman Nadiren Bazen				Her zaman
1.	Yakın zamand düşünürüm.	da sosyal medyada n	eler olup bittiği hal	kkında oldukça fa	azla
2.	Yapmam gere	eken bir iş varsa önce	esinde sosyal medy	ayı kontrol ederii	m.
3.	Belli süre sos zihnimi meşg	yal medyaya girmed ul eder.	iğimde sosyal med	yaya girme düşür	ncesi
4.	Hayatımın sos düşünürüm.	syal medya olmadan	sıkıcı, boş ve zevk	siz olacağını	
5.	İnternete bağl düşünürüm.	ı değilken yoğun bir	şekilde sosyal med	dyaya girmeyi	
6.	Sosyal medya	ıda neler olup bittiğir	ni merak ederim.		
7.	Sosyal medya	ıda düşündüğümden	daha fazla zaman g	geçirdiğim olur.	
8.		ı ile bağlantımı kesm a daha" derim.	eye her karar verd	iğimde kendi ken	dime
9.	Sosyal medya	ıyı uzun süre kullann	naktan bir türlü vaz	zgeçemem.	
10.	Sosyal medya	ıyı, planladığımdan o	laha fazla kullandı	ğım olur.	
11.	Sosyal medya	ıyı kullanırken zama	nın nasıl geçtiğini a	anlayamam.	
12.	Sosyal medya uzun süreler a	ı ile ilgili eylemlere ( ayırırım.	oyun, sohbet, foto	ğraflara bakmak,	vs)
13.	Kişisel proble	emlerimi unutmak içi	in sosyal medya ku	llanırım.	
14.	Kendimi yaln	ız hissettiğim zaman	larda sosyal medya	ada vakit geçiririr	n.
15.	Yaşamımdaki gezinmeyi ter	olumsuz düşünceler cih ederim.	rden kurtulmak içir	n sosyal medyada	,
16.		den bunaldığımda sı	ğındığım en iyi yer	sosyal medyadır	:.
17.	Sosyal medya	ı kullandığım süre bo	oyunca her şeyi unu	ıturum.	
18.	Sosyal medya	ı kullanımını durdurı	naya çalışıp başara	madığım olur.	

1 2 3 4 5									
Hie	Hiçbir zaman Nadiren Bazen Sık sık Her zam								
19.	19. Sosyal medya kullanımını denetim altına almak için yoğun bir istek duyarım.								
20.	O. Sosyal medya kullanımını bırakmak için sonuç vermeyen çabalar gösteririm.								
21.	Sosyal medya gösteririm.	kullanımını denetin	n altına almak için so	onuç vermeyen ça	ıbalar				
22.	Sosyal medya	da harcadığım zama	nı azaltmaya çalışır,	başarısız olurum					
23.	medyayı daha	fazla kullanırım.	z bir etki yapmasına						
24.	Sosyal medya daha az öncel		ne, boş zaman ve din	lenme faaliyetler	rime				
25.	Eş veya aile ü	yelerini sosyal medy	yadan dolayı ihmal e	ttiğim olur.					
26.	Arkadaşlarım	ı sosyal medyadan d	olayı ihmal ettiğim c	olur.					
27.	Sosyal medya	ı dolayısıyla başladığ	ģīm aktiviteleri zama	nında bitiremem.					
28.	Sosyal medya çalışmaları ih:		geçirmek için okull	a veya işle ilgili					
29.	Sosyal medya ederim.	ıda zaman geçirmeyi	, arkadaşlarımla zam	nan geçirmeye ter	cih				
30.		• • •	n yüzünden okul çalı	şmalarım ya da i	şlerim				
31.	Sosyal medya	yüzünden üretkenli	ğim azalır.						
32.	Sosyal medya ederim.	ıda zaman geçirmeyi	, arkadaşlarımla dışa	ırı çıkmaya tercih	i				
33.		ıl medyada geçirdiği	m zamanın miktarı k	conusunda beni					
34.	Kendimi sosy bulurum.	al medyada ne kada	süre gezindiğimi sa	klamaya çalışırke	en				
35.	Sosyal medya	yüzünden yemek ye	emeyi unuttuğum zar	nanlar olur.					
36.	Sosyal medya olur.	kullanımı yüzünder	ı kişisel bakımıma da	aha az vakit ayırd	lığım				
37.		kullanımı yüzünder	ı uyku düzenimde de	ğişiklikler/bozuk	luklar				
38.	yaşadığım olu	ır.	n fiziksel sorunlar (sı		ırı, vb)				
39.		kullanımı benim içi mama neden olur.	n önemli kişilerle ol	an ilişkilerimde					

1	2	3	4	5		
Hiçbir zaman	Nadiren	Bazen	Sık sık	Her zaman		
40. Sosyal medya kullanımım yaşamımda sorunlar oluşturur.						
41. Yapmam gereken işler çoğaldıkça, sosyal medya kullanma isteğim de o ölcüde artar.						

# BÖLÜM 2: (SİBER ZORBALIK ÖLÇEĞİ)

# Sevgili Gençler,

Aşağıda günlük yaşamda internet ve cep telefonları üzerinde gençler arasında görülen bazı davranışlar yazılmıştır. Lütfen bu davranışları tek tek okuyunuz ve ölçekte davranışınıza en uygun olan ifadenin üzerindeki rakamı maddenin sonunda verilen sütuna yazınız

	0	1	2	3	4			
	Asla	Bir ya da iki kere	Ayda bir	Haftada bir	Haftada bir kereden fazla			
1.	Birisine telefon veya internet mesajları aracılığıyla kötü/edepsiz şeyler söyledim veya isimler taktım.							
2.	Telefon veya internet mesajları aracılığıyla birisi hakkında başkalarına kötü/edepsiz şeyler söyledim.							
3.	Birisini tel	lefon veya interne	t mesajları ar	acılığıyla tehdit etti	m.			
4.		nesabına izinsiz gi al medya hesaplar		el bilgilerini çaldım	(örneğin, e-posta			
5.		nesabına izinsiz gi veya sosyal medya	•	ış gibi davrandım ( acılığıyla).	örneğin, telefon			
6.	Başkasıymış gibi davranarak sahte bir hesap yarattım (örneğin, Facebook veya MSN'de).							
7.	Birisinin kişisel bilgilerini internette yayınladım.							
8.	Birisinin utanç verici video veya fotoğraflarını internette yayınladım.							
9.	Başka birisinin internete konmuş fotoğraf veya videosu üzerinde oynama yaptım.							

	Bir sosyal medya sitesinde veya internet sohbet odasında birini dışladım veya görmezden geldim.	
11.	Birisi hakkında internet ortamında söylentiler yaydım.	

# BÖLÜM 3: ARKADAŞLIK KALİTESİ ÖLÇEĞİ

Lütfen aşağıdaki ifadeleri okuduktan sonra kendinizi değerlendirip sizin için en uygun seçeneği işaretleyiniz.

1 2 3 4 5	6
Tamamen	Tamamen
Katılmıyorum	Katılıyorum
Arkadaşlarımın verdiği her bilgiye inanırım.	
2. Arkadaşlarım asla sözünden dönmez.	
3. Arkadaşlarımın sırlarımı sızdırmayacağına eminim.	
4. Arkadaşlarım bana asla yalan söylemez.	
5. Arkadaşlarımın tavsiyelerini her zaman dinlerim.	
6. Değerli eşyalarım arkadaşlarımda olduğunda içim rahattır.	
7. Bir arkadaşım okulda problemle karşılaşırsa bu durumu hemen arkadaşlarıma bildiririm.	
8. Arkadaşlarım yanımdayken kendimi güvende hissederim.	
9. Her zaman arkadaşlarımla şakalaşırım.	
10. Arkadaşlarımın ruh hallerini anlarım.	
11. Farklı sınıflarda olsalar bile arkadaşlarımla her zaman sohbet ederim.	
12. Arkadaşlarım ve ben her zaman deneyimlerimizi paylaşırız.	
13. Arkadaşlarımın geçmiş yaşantılarını bilirim.	

1	2	3	4	5	6		
Tamamen				<u> </u>	Tamamen		
Katılmıyorum	almıyorum						
14. Arkadaşlarır	14. Arkadaşlarımın önünde komik duruma düşmek beni rahatsız etmez.						
15. Arkadaşlarır	n beni kolayca	a affeder.					
16. Arkadaşlarır gelebiliriz. 17. Arkadaşlarır							
17. Arkadaşlarlı	n dana iyi dav	ramr.					
18. Arkadaşlarır	nla kardeş gib	iyiz.					
19. Arkadaşlarır							
20. Arkadaşlarır yardımcı olur.							
21. Arkadaşlarır							

# BÖLÜM 4: (CLOSE RELATIONSHIPS-REVISED-GENERAL SHORT FORM)

Aşağıda çeşitli durumlara ilişkin ifadeler bulunmaktadır. Lütfen her bir madde için, ölçekte görüşünüze en uygun olan ifadenin üzerindeki rakamı maddenin sonunda verilen sütuna yazınız.

1	2	3	4	5	6	7
Kesinlikle katılmıyorum	Katılmıyorum	Pek katılmıyorum	Kararsızım	Biraz katılıyorum	Katılıyorum	Kesinlikle katılıyorum
1.	Gerçekte ne h	issettiğimi başl	kalarına göst	ermemeyi ter	cih ederim.	
2.	Sıklıkla, yakın olduğum diğer kişilerin beni gerçekten sevmediği kaygısına kapılırım.					
3.	Diğer insanlara güvenip inanmak konusunda kendimi rahat bırakmakta zorlanırım.					
4.	Diğer insanların beni, benim onları önemsediğim kadar önemsemeyeceklerinden endişe duyarım.					
5.	Diğer insanlara yakın olma konusunda çok rahatımdır.					

1	2	3	4	5	6	7		
Kesinlikle katılmıyorum	Katılmıyorum	Pek katılmıyorum	Kararsızım	Biraz katılıyorum	Katılıyorum	Kesinlikle katılıyorum		
6.	İnsanlar bazen	bana olan duy	gularını seb		ğiştirirler.			
7.	Sorunlarımı vo genellikle kola	e kaygılarımı d aydır.	liğer insanlar	la paylaşmak	benim için			
8.	Çok yakın oln	na arzum bazer	ı insanları ko	rkutup uzakl	aştırır.			
9.	Zor zamanları	mda, başkaları	ndan yardım	istemek bana	a iyi gelir.			
10.	İnsanlarla olar	ı ilişkilerim ke	ndimden şüp	he etmeme n	eden olur.			
11.	İnsanlar benin	nle çok yakınla	ıştığında gerş	gin hissederir	n.			
12.	•	Değer verdiğim kişilere duygularımı gösterdiğimde, onların benim için aynı şeyleri hissetmeyeceğinden korkarım.						
13.	Diğer insanlar	a güvenip inan	mak benim i	çin kolaydır.				
14.		yakından tanıc ğından korkarı	, , ,	k ben"den				
15.	Diğer insanlar	a şefkat göster	mek benim i	çin kolaydır.				
16.	Diğer insanlar beni öfkelendi	• • •	yduğum şefk	at ve desteği	görememek			
17.	Özel duygu ve düşüncelerimi diğer insanlarla paylaşmak konusunda kendimi rahat hissederim.							
18.	İlişkilerimi ka	fama çok takaı	ım.					
19.	Diğer insanlara güvenip inanma konusunda rahatımdır.							
20.	Diğer insanlar istemediklerin	ın, bana benim i düşünürüm.	istediğim ka	adar yakınlaş	mak			

# BÖLÜM 4: (KISALTILMIŞ KARANLIK ÜÇLÜ ÖLÇEĞİ)

Aşağıda çeşitli durumlara ilişkin ifadeler bulunmaktadır. Lütfen her bir madde için, ölçekte görüşünüze en uygun olan ifadenin üzerindeki rakamı maddenin sonunda verilen sütuna yazınız.

1 2 3			3	4	5			
	nlikle nyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum			
1.	Sırlarınızı anlatmak akıllıca değildir.							
2.	İstediğimi elde etmek için akıllıca manipülasyon (kendi çıkarları doğrultusunda birilerini ya da bir şeyleri yönlendirme) yapmaktan hoşlanırım.							
3.	Her ne p	pahasına olursa olsun,	önemli kişileri kend	di tarafına çekmelis	sin.			
4.	Başkalarıyla doğrudan çatışma yaşamaktan kaçının, çünkü bu kişiler ileride işinize yarayabilir.							
5.	akıllıcad				ıtmak			
6.		dan intikam almak iç						
7.	İnsanlar	rın bilmesi gerekmeye	en şeyleri onlardan sa	aklamalısınız.				
8.	Planları	nızın başkalarına deği	il, kendinize fayda s	ağlayacağından em	in olun.			
9.	Birçok i	nsan manipüle edileb	ilir.					
10.	İnsanlar	beni doğal bir lider o	olarak görür.					
11.	İlgi oda	ğı olmaktan nefret ede	erim.					
12.	Birçok g	grup aktivitesi bensiz	sıkıcı olur.					
13.	Özel bir	i olduğumu biliyorun	n, çünkü herkes bana	a sürekli böyle söyl	üyor.			
14.	Önemli	kişilerle tanışmaktan	hoşlanırım.					
15.	Biri ban	a iltifat ederse mahcu	p olurum.					
16.	Ünlü ki	şilerle mukayese edilr	nişliğim vardır.					
17.	Ortalam	a biriyim.						
18.	Hak etti	ğim saygıyı görmekte	e ısrar ederim.					
19.	Yetkilil	erden intikam almak l	noşuma gider.					
20.	Tehlike	li durumlardan kaçını	rım.					
21.	İntikam	hızlı ve çirkin (bedel	i ağır bir şekilde) olı	malıdır.				
22.	İnsanlar	sıklıkla kontrolden ç	ıktığımı söyler.					
23.	Başkala	rına karşı kaba olabile	diğim doğrudur.					
24.	Benimle uğraşanlar daima pişman olur.							
25.	Yasa dış	şı işlere bulaşmaktan	dolayı hiç sorun yaş	amadım.				
26.	Kaybed	enlere sataşmaktan ho	oşlanırım.					

1	2	3	4	5		
Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum		
27. İstediğimi almak için her şeyi söylerim.						

# BÖLÜM 5: (ÇOCUKLAR İÇİN REDDEDİLME DUYARLILIĞI ANKETİ)

Lütfen aşağıda açıklanan durumların her birinde kendinizi hayal ediniz ve her birinde nasıl hissedeceğinizi belirtiniz.

1. Sizin için gerçekten önemli olan birine hediye almak istediğinizi, fakat yeterli paranız olmadığını farz ediniz. Bu yüzden, sınıfınızdaki bir çocuktan borç para istiyorsunuz. Çocuk, "Tamam, okuldan sonra beni ön kapının dışında bekle. Parayı getireceğim" diyor. Dışarıda beklerken, çocuğun gerçekten gelip gelmeyeceğini merak ediyorsunuz.

a. O ANDA, çocuğun gelip gelmeyeceği konusunda ne kadar ENDİŞELİ hissederdiniz?								
Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
1	2	3	4	5	6			
b. O AND	A, çocuğun gel	ip gelmeyeceği	konusunda ne	kadar ÖFKELİ	hissederdiniz?			
Hiç öfkeli h	issetmezdim			Çok, çok öfk	teli hissederdim			
1	2	3	4	5	6			
c. Sizce ço	c. Sizce çocuk size parayı getirmek için gelecek mi?							
EVET!!! HAYIR!!!								
1	2	3	4	5	6			

2. Bir gün, öğle arasında sınıftan ayrılan son kişi olduğunuzu hayal ediniz. Kafeteryaya gitmek üzere merdivenlerden aşağıya koşarken, birkaç çocuğun alt merdivenlerde fısıldaştıklarını duyuyorsunuz. SİZİN hakkınızda mı konuşuyorlar diye merak ediyorsunuz.

a. O AND	a. O ANDA, çocukların sizi çekiştirip çekiştirmedikleri konusunda ne derecede								
ENDİŞ	ENDİŞELİ hissederdiniz?								
Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim									
1	2	3	4	5	6				
	OA, çocukların si Lİ hissederdiniz?	, , , , ,	ekiştirmedikler	i konusunda ne o	derecede				
Hiç öfkeli l	hissetmezdim			Çok, çok öfkeli	hissederdim				
1	2	3	4	5	6				
c. Sizce si	c. Sizce sizinle ilgili kötü şeyler söylediler mi?								
EVET!!!	EVET!!! HAYIR!!!								
1	2	3	4	5	6				

3. Sınıfınızdaki bir çocuğun öğretmeninize sizin ona sataştığınızı söylediğini hayal ediniz. Siz yapmadığınızı söylüyorsunuz. Öğretmeniniz koridorda beklemenizi ve sizinle konuşacağını söylüyor. Siz öğretmeninizin size inanıp inanmayacağını merak ediyorsunuz.

a.	ENDİŞELİ hissederdiniz?							
Hi	Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim							
	1	2	3	4	5	6		
b.	b. O ANDA, öğretmeninizin size inanıp inanmayacağı konusunda ne derecede							
	ÖFKELİ	hissederdiniz	?					
Hig	öfkeli hi	ssetmezdim			Çok, çok öfk	eli hissederdim		
	1	2	3	4	5	6		
c.	Sizce öğ	retmeniniz siz	e inanacak mı?					
EV	EVET!!! HAYIR!!!							
	1	2	3	4	5	6		

4. Bir arkadaşınızla önceki gün gerçekten çok kötü bir kavga ettiğinizi hayal ediniz. Şu anda ciddi şekilde sorun yaşıyorsunuz ve arkadaşınızla konuşabilmeyi umuyorsunuz. Dersten sonra arkadaşınızı beklemeye ve onunla konuşmaya karar

# veriyorsunuz. Arkadaşınızın sizinle konuşmak isteyip istemeyeceğini merak ediyorsunuz.

	a. O ANDA, arkadaşınızın sizinle konuşmak ve sorununuzu dinlemek isteyip istemeyeceği konusunda ne derecede ENDİŞELİ hissederdiniz?							
Hiç endişeli	Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim							
1	2	3	4	5	6			
	b. O ANDA, arkadaşınızın sizinle konuşmak ve sorununuzu dinlemek isteyip istemeyeceği konusunda ne derecede ÖFKELİ hissederdiniz?							
Hiç öfkeli hi	ssetmezdim			Çok, çok öfke	eli hissederdim			
1	2	3	4	5	6			
c. Sizce ark	adaşınız sizinl	e konuşmak ve	sorununuzu d	inlemek isteyec	ek mi?			
EVET!!!	EVET!!! HAYIR!!!							
1	2	3	4	5	6			

# 5. Ünlü birinin okulunuzu ziyaret etmeye geleceğini hayal ediniz. Öğretmeniniz bu kişiyle tanışabilecek olan beş çocuk seçecek. Sizi seçip seçmeyeceğini merak ediyorsunuz.

	a. O ANDA, öğretmeninizin sizi seçip seçmeyeceği konusunda ne derecede ENDİŞELİ hissederdiniz?								
Hiç endişeli	Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
1	2	3	4	5	6				
	b. O ANDA öğretmeninizin sizi seçip seçmeyeceği konusunda ne derecede ÖFKELİ hissederdiniz?								
Hiç öfkeli hi	issetmezdim			Çok, çok öfk	eli hissederdim				
1	2	3	4	5	6				
c. Sizce öğ	retmeniniz bu	özel konukla ta	nışmak için Sİ	Zİ seçecek mi?	,				
EVET!!!	EVET!!! HAYIR!!!								
1	2	3	4	5	6				

6. Bir yere yeni taşındığınızı hayal ediniz ve okuldan eve yürüyorsunuz. Keşke eve birlikte yürüyeceğim biri olsa diye düşünüyorsunuz. Önünüzde sınıftan başka bir

çocuğun olduğunu görüyorsunuz ve bu çocuğa doğru yürümeye ve onunla konuşmaya karar veriyorsunuz. Ona yetişmek için acele ederken, sizinle konuşmak isteyip istemeyeceğini merak ediyorsunuz.

	a. O ANDA, onun sizinle konuşmak isteyip istemeyeceği konusunda ne derecede ENDİŞELİ hissederdiniz?							
Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
1	2	3	4	5	6			
	b. O ANDA onun sizinle konuşmak isteyip istemeyeceği konusunda ne derecede ÖFKELİ hissederdiniz?							
Hiç öfkeli his	ssetmezdim			Çok, çok öfke	li hissederdim			
1	2	3	4	5	6			
c. Sizce çoc	uk sizinle ko	nuşmak isteyece	ek mi?					
EVET!!!	EVET!!! HAYIR!!!							
1	2	3	4	5	6			

7. Şimdi yine sınıfta olduğunuzu hayal ediniz. Öğretmeniniz sınıf için bir parti düzenlemeye yardım edecek bir gönüllü istiyor. Bir sürü çocuk elini kaldırıyor ve öğretmen SİZİ seçecek mi diye merak ediyorsunuz.

a.	hissederdiniz?							
Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
	1	2	3	4	5	6		
b.	O AND hissede	_	zin sizi seçip se	çmeyeceği ko	nusunda ne dere	cede ÖFKELİ		
Hie	ç öfkeli l	nissetmezdim		(	Çok, çok öfkeli	hissederdim		
	1	2	3	4	5	6		
c.	Sizce ö	ğretmen SİZİ s	eçecek mi?					
EV	EVET!!! HAYIR!!!							
	1	2	3	4	5	6		

8. Bugünün Cumartesi olduğunu ve eve aileniz için yiyecek taşıdığınızı hayal ediniz. Çok fazla yağmur yağıyor ve siz de eve HIZLICA varmak istiyorsunuz. Birdenbire elinizdeki poşet yırtılıyor. Tüm yiyecekler yere saçılıyor. Kafanızı kaldırdığınızda sizin sınıftan birkaç çocuğun hızlı hızlı yürüdüklerini görüyorsunuz. Durup size yardım edecekler mi diye merak ediyorsunuz.

	a. O ANDA, o çocukların durup size yardım edip etmeyecekleri konusunda ne derecede ENDİŞELİ hissederdiniz?								
Hiç endişeli	Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
1	1 2 3 4 5 6								
	b. O ANDA, o çocukların durup size yardım edip etmeyecekleri konusunda ne derecede ÖFKELİ hissederdiniz?								
Hiç öfkeli hi	ssetmezdim			Çok, çok öfkel	i hissederdim				
1	2	3	4	5	6				
c. Sizce ço	cuklar size yaı	rdım etmeyi tekl	if edecekler n	ni?					
EVET!!!	EVET!!! HAYIR!!!								
1	2	3	4	5	6				

9. Taşındığınızı ve yeni bir okula başlayacağınızı varsayınız. Bu okulda öğretmen çocukların hafta sonu oynamak için bir bilgisayar oyunu alıp götürmelerine izin veriyor. Şimdiye kadar her hafta, başkasının bu oyunu alıp eve götürdüğünü gördünüz. Öğretmeninize, bu oyunu bu kez SİZİN götürüp götüremeyeceğinizi sormaya karar veriyorsunuz. Öğretmeninizin izin verip vermeyeceğini merak ediyorsunuz.

a. O ANDA, öğretmeninizin bu sefer bilgisayar oyununu sizin götürmenize izin verip vermeyeceği konusunda ne derecede ENDİŞELİ hissederdiniz?								
Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
1 2 3 4 5 6								
		zin bu sefer bilg a ne derecede Ö		ınu sizin götürme ederdiniz?	nize izin verip			
Hiç öfkeli h	Hiç öfkeli hissetmezdim Çok, çok öfkeli hissederdim							
1	1 2 3 4 5 6							

c. Sizce öğretmeniniz bilgisayar oyununu bu sefer sizin götürmenize izin verecek mi?						
EVET!!!				I	HAYIR!!!	
1	2	3	4	5	6	

10. Yine sınıfta olduğunuzu hayal ediniz ve herkes özel bir projede birlikte çalışmak üzere altı farklı gruba ayrılıyor. Siz olduğunuz yerde oturuyor ve diğer çocukların gruplara seçilmesini izliyorsunuz. Beklerken, çocukların sizi grupları için isteyip istemeyeceklerini merak ediyorsunuz.

	hissederdiniz?								
Hiç endişeli	Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim								
1	2	3	4	5	6				
	b. O ANDA, sizi seçip seçmeyecekleri konusunda ne derecede ÖFKELİ hissederdiniz?								
Hiç öfkeli hi	ssetmezdim			Çok, çok ö	fkeli hissederdim				
1	2.	3	1	5					
	_	3	4	3	6				
c. Sizce sın	ıfınızdaki çocı	ıklar kendi grup	oları için size s	seçecekler mi?	Ü				
c. Sizce sın	ıfınızdaki çocı	ıklar kendi grup	oları için size s	seçecekler mi?	Ü				

11. Ailenizin yeni bir mahalleye taşındığını ve yeni bir okula gidiyor olduğunuzu hayal ediniz. Ertesi gün büyük bir matematik sınavı var ve gerçekten çok endişelisiniz çünkü şu matematikten hiç anlamıyorsunuz! Dersten sonra beklemeye ve öğretmeninizle konuşmaya karar veriyorsunuz. Size yardım etmeyi teklif edecek mi diye merak ediyorsunuz.

a.	O ANDA, öğretmeninizin size yardım etmeyi teklif edip etmeyeceği konusunda ne							
	derecede ENDİŞELİ hissederdiniz?							
Hi	ç endişe	li hissetmezdim			Çok, çok endiş	eli hissederdim		
	1 2 3 4 5 6							
b.	b. O ANDA, öğretmeninizin size yardım etmeyi teklif edip etmeyeceği konusunda ne derecede ÖFKELİ hissederdiniz?							

Hiç öfkeli hissetmezdim Çok,					eli hissederdim		
1	2	3	4	5	6		
c. Sizce öğ	c. Sizce öğretmen size yardım etmeyi teklif edecek mi?						
EVET!!!					HAYIR!!!		
1	2	3	4	5	6		

12. Okulda tuvalette olduğunuzu ve öğretmeninizin dışarıdaki koridorda bir öğrenci hakkında başka bir öğretmenle konuştuğunu duyduğunuzu hayal ediniz. Öğretmeninizin, bahsettiği bu çocuğun kendi sınıfında olmasından hiç memnun olmadığını söylediğini duyuyorsunuz. Öğretmeniniz SİZDEN mi bahsediyor diye merak ediyorsunuz.

a. O ANDA, öğretmeninizin SİZDEN bahsedip bahsetmediği konusunda ne derecede ENDİŞELİ hissederdiniz?					
Hiç endişeli	Hiç endişeli hissetmezdim Çok, çok endişeli hissederdim			hissederdim	
1	2	3	4	5	6
	b. O ANDA, öğretmeninizin SİZDEN bahsedip bahsetmediği konusunda ne derecede ÖFKELİ hissederdiniz?				
Hiç öfkeli hi	Hiç öfkeli hissetmezdim Çok, çok öfkeli hissederdim			i hissederdim	
1	2	3	4	5	6
c. Sizce öğretmeniniz SİZİ mi kastediyor?					
EVET!!!					HAYIR!!!
1	2	3	4	5	6

# BÖLÜM 6: (DEMOGRAFİK BİLGİ FORMU)

1.	Cinsiyetiniz:	
	O K <sub>1</sub> z	
	O Erkek	
2.	Yasınız:	

3.	Okuduğunuz lise:
4.	Sınıfınız:
5.	Not ortalamanız:
6.	Annenizin mesleği:
7.	Babanızın mesleği:
8.	En sık kullandığınız sosyal paylaşım sitesi hangisidir?  a. Facebook  b. Instagram  c. Twitter  d. Diğer (lütfen belirtiniz:)
9.	Sosyal Medyayı en çok hangi nedenlerle kullanıyorsunuz?  O Arkadaş Takibi için O Etkinlik Takibi için O Fotoğraf Paylaşmak için O İlgilendiğim Ünlüleri Takip Etmek için O Alışveriş Yapmak için O Bilgilendirici Paylaşımlarda Bulunmak için O Diğer ()
10.	Sosyal paylaşım sitelerinde ne sıklıkla fotoğraf paylaşırsınız?  O Günde birkaç kez  O Günde 1 kez  O Haftada birkaç kez  O Ayda birkaç kez  O Yılda birkaç kez  O Hiçbir zaman

ARAŞTIRMAMIZA KATILDIĞINIZ İÇİN ÇOK TEŞEKKÜR EDERİZ :)

### APPENDIX D

# FACTOR LOADINGS OF THE ITEMS OF THE EUROPEAN CYBERBULLYING INTERVENTION PROJECT QUESTIONNAIRE; AND EIGENVALUE, PROPORTION OF VARIANCE EXPLAINED, AND ALPHA VALUE OF THE UNIQUE FACTOR.

Scale Items	Component 1
Q7. I posted personal information about someone online.	.78
Q8. I posted embarrassing videos or pictures of someone online. Q5. I hacked into someone's account and pretended to be them (e.g. through instant messaging or social networking accounts). Q3. I threatened someone through texts or online messages.	.77 .74
Q4. I hacked into someone's account and stole personal information (e.g. through email or social networking accounts).	.74
Q9. I altered pictures or videos of another person that had been posted online.	.73
Q11. I spread rumours about someone on the internet.	.73
Q2. I said nasty things about someone to other people either online or through text messages.	.64
Q6. I created a fake account, pretending to be someone else (e.g. on Facebook or MSN).	.61
Q1. I said nasty things to someone or called them names using texts or online messages.	.59
Q10. I excluded or ignored someone in a social networking site or internet chat room.	.59
Percentage of Variance	49.05
Eigenvalue	5.40
Cronbach's Alpha	.88

### **APPENDIX E**

# FACTOR LOADINGS OF THE ITEMS OF THE EXPERIENCES IN CLOSE RELATIONSHIPS — REVISED — GENERAL SHORT FORM; AND EIGENVALUES, PROPORTIONS OF VARIANCE EXPLAINED, AND ALPHA VALUES OF FACTORS.

Scale Items		Component	
	1	2	
Q4. I often worry that other people don't care as much about me as I care about them.	.74		
Q12. When I show my feelings to people I care about, I'm afraid that they will not feel the same about me.	.73		
Q2. I often worry that other people close to me don't really love me.	.67		
Q20. I find that other people don't want to be as close as I would like.	.67		
Q10. My relationships with people make me doubt myself.	.65		
Q18. I worry a lot about my relationships.	.65		
Q16. It makes me mad that I don't get the affection and support I need from other people.	.59		
Q14. I am afraid that once somebody gets to know me, he or she won't like who I am.	.49		
Q6. Sometimes people change their feelings about me for no apparent reason.	.51		
Q8. My desire to be close sometimes scares people away.	.39		
Q19. I feel comfortable depending on other people. (r)		.73	
Q13. I find it easy to depend on other people. (r)		.72	
Q7. It is usually easy for me to discuss my problems and concerns with other people. (r)		.71	
Q17. I feel comfortable sharing private thoughts and feelings with other people. (r)		.67	
Q5. I am very comfortable being close to other people. (r)		.54	
Q9. It helps to turn to others for support in times of need. (r)		.52	
Q3. I find it difficult to allow myself to depend on other people.		.48	
Q15. It is easy for me to be affectionate with other people. (r)		.39	
Q1. I prefer not to show others how I feel deep down.		.36	
Percentage of Variance	22.00	17.9	
Eigenvalue	4.15	3.21	
Cronbach's Alpha	.82	.75	

### **APPENDIX F**

# FACTOR LOADINGS OF THE ITEMS OF THE ANGRY REJECTION SENSITIVITY CONSTRUCT OF THE CHILDREN REJECTION SENSITIVITY QUESTIONNAIRE; AND EIGENVALUES, PROPORTIONS OF VARIANCE EXPLAINED, AND ALPHA VALUES OF FACTOR

Scale Items	Component 1
Q6. Imagine you have just moved, and you are walking home from school. You wish you had someone to walk home with. You	.74
Q7. Now imagine that you're back in class. Your teacher asks for a volunteer to help plan a party for your class. Lots of kids raise	.71
Q9. Pretend you have moved and you are going to a different school. In this school, the teacher lets the kids in the class take home	.70
Q5. Imagine that a famous person is coming to visit your school. Your teacher is going to pick five kids to meet this person. You wonder if	.69
Q10. Imagine you're back in your classroom, and everyone is splitting up into six groups to work on a special project together. You sit	.68
Q11. Imagine that your family has moved to a different neighborhood, and you're going to a new school. Tomorrow is a big math test	.59
Q8. Imagine it's Saturday and you're carrying groceries home for your family. It is raining hard and you want to get home FAST. Suddenly	.57
Q4. Imagine you had a really bad fight the other day with a friend.  Now you have a serious problem and you wish you had your friend	.57
Q3. Imagine that a kid in your class tells the teacher that you were picking on him/her. You say you didn't do it. The teacher tells	.47
Q1. Imagine you want to buy a present for someone who is really important to you, but you don't have enough money	.47
Q12. Imagine you're in the bathroom at school and you hear your teacher in the hallway outside talking about a student	.45
Q2. Imagine you are the last to leave your classroom for lunch one day. As you're running down the stairs to get to the	.40
Percentage of Variance	35.67
Eigenvalue	4.28
Cronbach's Alpha	.82

### **APPENDIX G**

# FACTOR LOADINGS OF THE ITEMS OF THE ANXIOUS REJECTION SENSITIVITY CONSTRUCT OF THE CHILDREN REJECTION SENSITIVITY QUESTIONNAIRE; AND EIGENVALUES, PROPORTIONS OF VARIANCE EXPLAINED, AND ALPHA VALUES OF FACTOR

Scale Items	Component 1
Q6. Imagine you have just moved, and you are walking home from school. You wish you had someone to walk home with. You	.69
Q10. Imagine you're back in your classroom, and everyone is splitting up into six groups to work on a special project together. You sit	.68
Q9. Pretend you have moved and you are going to a different school. In this school, the teacher lets the kids in the class take home	.65
Q8. Imagine it's Saturday and you're carrying groceries home for your family. It is raining hard and you want to get home FAST. Suddenly	.64
Q5. Imagine that a famous person is coming to visit your school. Your teacher is going to pick five kids to meet this person. You wonder if	.63
Q4. Imagine you had a really bad fight the other day with a friend. Now you have a serious problem and you wish you had your friend	.60
Q3. Imagine that a kid in your class tells the teacher that you were picking on him/her. You say you didn't do it. The teacher tells	.58
Q11. Imagine that your family has moved to a different neighborhood, and you're going to a new school. Tomorrow is a big math test	.56
Q7. Now imagine that you're back in class. Your teacher asks for a volunteer to help plan a party for your class. Lots of kids raise	.54
Q1. Imagine you want to buy a present for someone who is really important to you, but you don't have enough money	.45
Q12. Imagine you're in the bathroom at school and you hear your teacher in the hallway outside talking about a student	.45
Q2. Imagine you are the last to leave your classroom for lunch one day. As you're running down the stairs to get to the	.43
Percentage of Variance	33.75
Eigenvalue	4.05
Cronbach's Alpha	.81

## **CURRICULUM VITAE**

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# **EDUCATION**

Degree	Institution	Graduation year
Undergraduate	Çankaya University	2018
High school	Ankara Atatürk Lisesi	2004

## **CAREER**

Year	Institution	Position
2019-still working	METU Psychology	Research Assistant
	Department	

# Foreign Languages

Advanced English