MODELING THE RELATIONSHIPS AMONG COPING STRATEGIES, EMOTION REGULATION, RUMINATION, AND PERCEIVED SOCIAL SUPPORT IN VICTIMS OF CYBER AND TRADITIONAL BULLYING

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Prof. Dr. Meliha Altunışık
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy.

Prof. Dr. Ayhan Demir
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

Assoc. Prof. Dr. Özgür Erdur-Baker
Supervisor

Examining Committee Members

Prof. Dr. Semra Sungur	(METU, ELE)	
Assoc. Prof. Dr. Özgür Erdur-Baker	(METU, EDS)	
Prof. Dr. Zehra Uçanok	(HU, PSY)	
Prof. Dr. Oya Yerin-Güneri	(METU, EDS)	
Assoc. Prof. Dr. Zeynep Hatipoğlu-Sümer	(METU, EDS)	

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

Name, Last name : Çiğdem Topcu

Signature :

ABSTRACT

MODELING THE RELATIONSHIPS AMONG COPING STRATEGIES, EMOTION REGULATION, RUMINATION, AND PERCEIVED SOCIAL SUPPORT IN VICTIMS' OF CYBER AND TRADITIONAL BULLYING

Topcu, Çiğdem
Ph.D., Department of Educational Sciences
Supervisor : Assoc. Prof. Dr. Özgür Erdur-Baker

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The aim of the present study is to test a model investigating the relationships among coping style, emotion regulation, rumination, perceived social support in victims of traditional and cyber bullying. The sample of the present study consists of 853 adolescents aged between 14 and18, attending public high schools in Ankara. The Revised Cyber Bullying Inventory-II, The Revised Olweus Bully/Victim Questionnaire, Brief COPE, Emotion Regulation Questionnaire, Ruminative Response Scale, Multidimensional Scale of Perceived Social Support, and Strengths and Difficulties Questionnaire were utilized to collect data.

After identifying the participants who reported that they were victimized, the proposed model was tested with traditional victims (n = 482) and cyber victims (n = 511) because cyber and traditional bullying are reported to be strongly related. The SEM results revealed that victimization was positively related to internalizing behavior through maladaptive coping. Also, receiving less support from family and difficulty in reappraisal were found positively associated to internalizing behavior. For traditional victims, rumination was found to be positively related to internalizing behavior, but for cyber victims this path was not significant. The

results indicated several other indirect relationships among the related variables of victims' internalizing behavior.

Consequently, despite the minor differences between the model with traditional victims and the model with cyber victims, two models converged similarly. For both models rather than the direct association from victimization to internalizing behavior, coping style, rumination, reappraisal, and family support was found to be mediating the relationship. Findings were discussed in the light of the related literature.

Keywords: cyber-traditional bullying victims, coping style, emotion regulation, rumination, social support

ÖZ

BAŞ ETME YÖNTEMLERİ, DUYGU DÜZENLEME, RUMİNASYON VE ALGILANAN SOSYAL DESTEĞİN GELENEKSEL VE SİBER ZORBALIK MAĞDURİYETİ İLE İLİŞKİLERİNİN MODELLENMESİ

Topcu, Çiğdem

Doktora, Eğitim Bilimleri Bölümü

Tez Yöneticisi: Doç. Dr. Özgür Erdur-Baker

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Bu çalışmanın amacı baş etme yöntemleri, duygu düzenleme, ruminasyon, ve algılanan sosyal desteğin geleneksel ve siber zorbalık mağduriyeti ile ilişkilerinin modellenmesidir. Araştırmaya Ankara'da devlet liselerinde okuyan ve yaşları 14 ve 18 arasında değişen 853 ergen katılmıştır. Veri toplamak için Yenilenmiş Siber Zorbalık Envanteri-II, Yenilenmiş Olweus Zorba/Mağdur Ölçeği, Başa Çıkma Stratejileri Ölçeği Kısa Formu, Duygu Düzenleme Ölçeği, Ruminasyon Ölçeği Kısa Formu, Çok Boyutlu Algılanan Sosyal Destek Ölçeği, Güçler ve Güçlükler Ölçeği kullanılmıştır.

Katılımcılardan zorbalık mağduru olanlar belirlendikten sonra, geleneksel ortamda yapılan zorbalık ile siber zorbalık arasında güçlü bir ilişki bulunduğu için, önerilen model hem geleneksel (n = 482) hem de siber ortamda (n = 511) mağduriyet yaşayanlarla test edilmiştir. YEM analizi sonuçlarına göre zorbalık mağduriyeti fonksiyonel olmayan baş etme yöntemleri aracılığıyla içe yönelim davranışlarıyla pozitif ilişkili bulunmuştur. Ayrıca, zorbalık mağduriyeti, aileden alınan sosyal desteğin az olarak algılanması ve yeniden ele alma yönteminin kullanılmaması aracılığıyla da içe yönelim davranışlarıyla pozitif ilişkili bulunmuştur. Geleneksel zorbalık mağdurları için ruminasyon aracılığıyla içe yönelim davranışları ile pozitif bir ilişki bulunmuştur fakat bu yol siber zorbalık mağdurları için istatistiksel olarak anlamlı değildir. Ek olarak, araştırma sonuçları

zorbalık mağduriyeti ile içe yönelim davranışı arasında birçok dolaylı ilişki ortaya çıkarmıştır.

Sonuç olarak, geleneksel zorbalık ve siber zorbalık mağdurları ile test edilen iki model bulguları arasında görülen küçük birkaç farka rağmen oldukça benzer sonuçlar elde edilmiştir. Her iki model için de baş etme yöntemleri, ruminasyon, yeniden ele alma, ve aileden algılanan sosyal destek aracılığıyla zorbalık mağduriyeti ile içe yönelim davranışı arasında dolaylı ilişkiler bulunmuştur. Bulgular ilgili alanyazın ışığında tartışılmıştır.

Anahtar Kelimeler: siber-geleneksel zorbalık mağdurları, baş etme stratejileri, duygu kontrolü, ruminasyon, sosyal destek.

“it is the possibility of having a dream come true that makes life interesting”

the alchemist, paulo coelho

“to our dream”

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INTRODUCTION

"Mom, after my death please, please go to schools and talk to kids that bullying and teasing has big consequences. And tell them to please stop crying. That's just my only wish and I hope people will miss me. Please visit my grave often, so I'm not lonely".

(from the letter of Hamed Nastoh, 14 years old, who committed suicide after being victimized),

(Shariff, 2008).

1.1. Background to the Study

Throughout the path from childhood to adolescence, people grow up and experience biological changes on their body; and advancement occurs in their cognitive and emotional development. Adolescence is a period in which youngsters experience several biological, cognitive, emotional, and social changes (Coleman & Hendry, 1999). As an extension of these changes, teenagers' social interactions increase in variety (Broderick & Blewitt, 2010). Social status is very important during adolescence and popular peers are perceived to be more advantageous than rejected, neglected, or average peers in their social interactions (Brown & Larson, 2009).

As a result of the problems in their social interactions, bullying appears as a challenge that adolescents confront during this stage of their lives. "A student is being bullied or victimized when he or she is exposed, repeatedly and overtime, to

negative actions on the part of one or more other students" (Olweus, 1993, p. 197). Until a decade ago, bullying types were classified as physical, verbal, and indirect/relational; however, as the computers, the Internet, and mobile phones became a part of the daily life; the platforms where adolescents bully each other have changed. This newly emerging type of bullying is named cyber bullying and defined as "an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself" (Smith et al., 2008, p. 376).

Early 2000s are the years information and communication technologies have invaded our lives, and from those days on, especially adolescents' lives have dramatically changed because they constitute the number one users of computers, mobile (smart) phones, and the Internet. EU Kids Online Project report summarizing data from 25 European countries including Turkey revealed that 60% of the study sample (25142 participants aged between 9 and 16) reported that they used the Internet daily or almost daily (Livingstone, Haddon, Görzig, & Olafsson, 2011). According to the research findings of Turkish Statistical Institute (TSI), for the year 2012, the most frequent users of computers and the Internet were seen to fall between the ages of 16 and 24. Moreover, the average age to own a smart phone is 10 among 6-15 year-olds and 24.3% of this age range reported using a mobile phone. Parallel to these reports, the statistics presented by the United States Census Bureau (USCB) for the year 2010 showed that people aged between 15 and 24 are the most frequent users of computer and the Internet with a percentage of 73%. Yet, nationally representative research results of the Pew Research Center for the USA manifested that 73% of the 802 12-17 years old teens have a mobile phone and 47% of them reported to possess smart phones.

As is implied, it is almost impossible to be a part of the social network without using smart phones and the Internet particularly for the adolescents. Their social relations (Henderson & Gilding, 2004), academic life (Lawrence, McNeal, & Yıldız, 2009), dating relations (Stonard, Bowen, Lawrence, & Price, 2014), and

sexual communications (Widman, Nesi, Choukas-Bradley, & Prinstein, 2014) have been transferred to the online world. Besides the uncountable advantages of using information and communication technologies, risky use of the smart phones and the Internet bears several disadvantages for children and adolescents because the cyber environment is not free from dangers.

Online platforms provide children and adolescents with great opportunities for bullying others by controlling the degree of anonymity. As the theories explaining the online behavior of human beings have suggested, people may behave differently in the online world than they do in the physical world (Herring, 2004). There has been a debate in the literature on whether traditional and cyber bullying occurring in separate environments consist of the same behaviors or these two types of bullying are totally different phenomena that need to be investigated independently. Pioneer researcher in the bullying literature, Olweus (2012) published an opinion paper discussing his side on this debate and other bullying researchers commented on his arguments by positioning themselves with or against him (Hinduja & Patchin, 2012; Menesini, 2012; Smith, 2012). In this line, several research studies provided empirical evidence revealing both the similarities and the differences between traditional and cyber bullying (Dempsey, Sulkowski, Nichols, & Storch, 2009; Sontag, Clemans, Graber, & Lyndon, 2011). Within the light of these findings, it can finally be concluded that although cyber bullying shares common features with traditional bullying, it requires separate examination because of the unique characteristics of the online world (Dooley, Gradinger, Strohmeier, Cross, & Spiel, 2010).

Researchers who started to conduct studies in the early 2000s wanted to understand the nature and the structure of cyber bullying and measured (a) the prevalence rates of cyber bullying and victimization (Li, 2005; Smith et al., 2008), (b) the relationship of cyber bullying with basic demographic variables such as gender, age, and socioeconomic status (Finn, 2004; Kowalski & Limber, 2007),

and (c) similarities and differences between traditional bullying and cyber bullying (Erdur-Baker & Kavşut, 2007; Greene, 2006; Strom & Strom, 2004).

Gender has always been included in the research studies measuring the rates of traditional and cyber bullying because prevalence rates may change between two genders since males and females may differ in their manifestation of aggressive behaviors (Borsa, Damasio, Bandeira, & Gremigni, 2013). Females generally were reported to prefer indirect types of aggression while males' choice is to be directly and physically aggressive (Björkqvist, Lagerspetz, & Kaukiainen, 1992; Kerestes & Milanovic, 2006). As a specific type of aggression, females' and males' behaviors in traditional and cyber bullying are expected to follow the same pattern. However, results of the studies examining gender difference in bullying yielded inconsistent findings. For a majority of the studies, males were observed to cyber bully more than their female counterparts whilst females were generally the recipient of the bullying incidents (Slonje & Smith, 2008; Wong, Chan, & Cheng, 2014). A very similar pattern is also observed for traditional bullying, that is, males physically bully others more than females (Erdur-Baker, 2010; Robson & Witenberg, 2013). Only a small number of studies provided evidence for female dominancy in bullying both as a bully and a victim in the cyber space (Keith & Martin, 2005; Smith et al., 2008). In their study, Hellström, Beckman, and Hagquist (2013) found that female victims of both traditional and cyber bullying reported at least one incident more than males. A third group of researchers did not present a gender prevalence for the dominancy of bullies or victims in the cyber environment (Williams & Guerra, 2007; Ybarra & Mitchell, 2004).

Similar to gender, examination of developmental level in bullying and victimization is critical because the trajectory in bullying and victimization is influenced by the age of the children and the adolescents. It is interesting to observe that as adolescents' age increases, they become powerful and prevent themselves from being bullied physically, verbally, and relationally; however,

they cannot decrease the possibility of being victims of cyber bullying (Robson & Witenberg, 2013; Wang, Iannotti, & Nansel, 2009).

Another topic that is investigated frequently in the cyber bullying literature is adolescents' reasons to cyber bully others. As mentioned by Olweus (1993), bullying is a specific type of aggression and the motives for aggressive behavior vary (Runions, 2013). Therefore, given that bullying is a subtype of aggressive behavior, its reasons may differ (Rafferty, 2011). Occasionally, cyber bullies select their victims on purpose to take revenge of a previous fight in the physical world (König, Gollwitzer, & Steffgen, 2010) and to intentionally harm the other (Slonje & Smith, 2008). Alternatively, adolescents suggest joking as another motivation to cyber bully others (Topcu, Yıldırım, & Erdur-Baker, 2013).

The other party -cyber victims- in the cyber bullying incident has also been researched. A group of researchers investigated the reactions of victims to cyber bullying incidents and compared those reactions with the responses of traditional bullying victims. It has been well reported that traditional bullying induces negative consequences to its victims such as internalizing problems (Ivarsson, Broberg, Arvidsson, & Gillberg, 2005), posttraumatic stress disorder (Mynard, Joseph, & Alexandra, 2000), psychosomatic symptoms such as sleeplessness, feeling low, irritability, headache, backache, and nervousness (Natvig, Albrektsen, & Qvarnstrom, 2001), depressive symptoms and suicidal thoughts (Roland, 2002). Similar to traditional bullying (Rigby, 1999) cyber bullying gives rise to negative consequences (Hinduja & Patchin, 2006). The studies, which specifically focused on cyber victims, examined the consequences of cyber bullying on its victims (Arıcak, 2009; Erdur-Baker & Tanrıkulu, 2010; Hinduja & Patchin, 2006; Ortega, Elipe, Mora-Merchan, Calmaestra, & Vega, 2009; Price & Dalgleish, 2010; Sourander et al., 2010; Ybarra, Mitchell, Wolak, & Finkelhor, 2006). The range of the problems experienced by cyber victims is also wide. While some of the victims feel nothing serious and continue to live normal life (Ortega et al., 2009), others are suffering from serious problems such as low self-esteem, high levels of

depression (Chang et al., 2013), anxiety (Şahin, Aydın, & Sarı, 2012), poor subjective health (Laftman, Modin, & Östberg, 2013), internalizing difficulties (Bonanno & Hymel, 2013) and even commit suicide (Shariff, 2008). It is worth noting the impacting factors that contribute to being a victim who is negatively affected by the victimization incident because bullying victimization is an emerging public health problem and victimization in early life may have tremendous negative effects on the victims even in their later life (Fergusson, Boden, & Horwood, 2014).

Now, the question to be examined is that "which factors contribute a targeted child being negatively affected by the bullying event?" Previously, certain demographic and internal factors were found as impacting the targeted adolescents to experience negative consequences. For instance, being female, coming from a low SES group, and feeling lonely positively predicted deleterious effects (Ortega, Elipe, & Monks, 2012). These impacting factors implied that not the bullying incident but the victims' characteristics and their appraisal of the situation may cause the deteriorating circumstances. There may be other impacting factors functioning in this process and the traditional bullying literature guides researchers through discovering what these factors might be.

According to the traditional bullying literature, coping style of the victim appears as one of these factors impacting the reactions of victims. One's appraisal and evaluation of the problem situation have a determining role in the final outcome (Lazarus, 1966). Thus, how the victims perceive and evaluate the bullying incident determines the degree of influence from the bullying event. To date, coping strategies and internal mechanisms of victimized children and adolescents in the physical world have been scrutinized (Hunter & Boyle, 2004; Kochenderfer-Ladd & Skinner, 2002). Studies on the ways of coping with traditional bullying revealed that victims of traditional bullying utilized maladaptive coping strategies (passive avoidance, rumination, resignation) which resulted in experiencing emotional and behavioral problems (e.g., Hampel,

Manhal, & Hayer, 2009). Other coping strategies that traditional victims reported to have employed were asking help from others (a peer or an adult), telling someone, ignoring the situation, retaliating physically or verbally and seeking revenge (Cowie, 2000; Flanagan et al., 2013), distancing (Kristensen & Smith, 2003), avoiding the situation (Hunter & Boyle, 2004), and regulating emotion (Mahady-Wilton, Craig, & Pepler, 2000).

The existing literature on cyber victims' coping is generally based on behavioral coping strategies such as seeking help from others and receiving social support after the bullying event occurred (Paul, Smith, & Blumberg, 2012; Sleglova & Cerna, 2011; Wachs, Wolf, & Pan, 2012). A few studies focused on other types of coping strategies that are utilized by a targeted child and/or adolescent. Findings of Lodge and Frydenberg (2007) revealed that victims reported using avoidant coping strategies (seeking social support, tension reduction, social action, and self-blame) and active coping strategies (physical activity, relaxing and working hard to solve the problem) after being bullied online.

Another impacting factor on reactions of victims is emotion regulation. Gross and Thompson (2007) emphasize the importance of the ability of emotion regulation while dealing with a problem situation. Emotion regulation includes four components: being aware of the emotion, being aware of when the person has that specific emotion, being aware of how the person is experiencing that emotion and being aware of how the person expresses that emotion (Gross, 1998). According to Gross (1998), people who are not good at regulating their emotions have physiological problems which lead to obstacles in social functioning. Emotion regulation abilities of victims of traditional bullying have been examined before and victims' scores of emotion dysregulation were found to be higher than non-victims' (Schwartz, 2000; Spence, De Young, Toon, & Bond, 2009). Moreover, emotion regulation has been manifested as a protective factor against the negative consequences of bullying (Kelly, Schwartz, Gorman, & Nakamoto, 2008). Yet, as in most cases, cyber victims' emotion regulation strategies remained unclear. Role

of emotion regulation in the coping process of cyber bullying needs to be clarified since it may differ from the emotion regulation process in the physical world. Cyber world lacks facial cues and victims may thus have difficulty in reading the emotions of the bully in the cyber world (Suler, 2004).

Additionally, to gain a holistic understanding of the coping process, another impacting factor on the reactions of victims, i.e. rumination, has been researched. The studies in the rumination literature have generally been conducted to understand the role of rumination in the recovery process after traumatic events such as grief (Nolen-Hoeksema & Davis, 1999). It is known that victims of bullying display similar responses with trauma victims. Erdur-Baker (2009) found that rumination mediated the relationship between traditional victimization and depressive symptoms. In a recent study, cyber victims' ruminative tendencies were examined (Feinstein, Bhatia, & Davilla, 2014) and rumination was also found as a mediating factor in the relationship between cyber victimization and depressive symptoms. Thus, rumination seems to be among the impacting factors on reactions of victims and deserve to be explored more in victimization context.

A final impacting factor on the reactions of victims that appears in the bullying literature is victims' perception of social support. Asking for social support after being bullied offline and/or online was found among the mostly stated coping strategies (Cowie, 2000; Flanagan et al., 2013; Paul et al., 2012; Sleglova & Cerna, 2011; Wachs et al., 2012). Having social support is suggested to help the person to use more adaptive coping styles as well as providing him/her with the opportunity to ask for help (Price & Dalgleish, 2010). Understanding the role of social support can help researchers and practitioners in figuring out whether having social support encourages victims to distract their attention and experience less negative consequences or not.

Additionally, in conceptual papers, researchers suggest informing others in case of a bullying incident, especially an adult, and making the bullying public to be able to cope with it (Mischna, Saini, & Solomon, 2009; Rothon, Head, Klineberg, &

Stansfeld, 2011). However, rather than the availability of social support in the environment, one's perception of having resources around is a strong predictor of wellness (Prati & Pietrantoni, 2010; Rigby, 2000). Adolescents who perceive themselves as lonely and having insufficient social support are more likely to have depressive symptoms than those who do not (Brage-Hudson, Elek, & Campbell-Grossman, 2000). For this reason, examining victims' perceptions of social support rather than the quantity of the people around extend the current knowledge of social support and victimization relationship.

In summary, based on the bullying literature, several demographic, emotional, and cognitive factors seem to impact the reactions of victims after being bullied. Among these factors, demographic variables have been examined previously (Ortega et al., 2012). However, the relation of emotional and cognitive factors to internalizing behavior in traditional and cyber victimization contexts have not been investigated. In the present study, coping styles, emotion regulation, rumination, and perceived social support are selected to be explored further. So far, the associations among coping style, emotion regulation, rumination, perceived social support, and negative outcome in traditional and cyber victimization contexts were examined in separate studies. However, none of the existing studies explored the relationships among these factors and internalizing behavior simultaneously for traditional and cyber bullying victims. Effective strategies can be planned only after discovering what has been happening in the inner world of a victim adolescent.

1.2. Purpose of the Study

The aim of the present study is to test a model that investigates the relationships among coping style, emotion regulation, rumination, and perceived social support in internalizing behaviors of victims' of cyber and traditional bullying.

1.3. Research Questions

1. How does cyber victims' coping style, rumination, emotion regulation style, and perceived social support relate to internalizing behavior in a model?

Specific Research Questions:

1.1. How does cyber victims' coping style relate to internalizing behavior?

1.2. How does cyber victims' rumination relate to internalizing behavior?

1.3. How does cyber victims' emotion regulation relate to internalizing behavior?

1.4. How does cyber victims' perceived social support relate to internalizing behavior?

2. How does traditional victims' coping style, rumination, emotion regulation style, and perceived social support relate to internalizing behavior in a model?

Specific Research Questions:

2.1. How does traditional victims' coping style relate to internalizing behavior?

2.2. How does traditional victims' rumination relate to internalizing behavior?

2.3. How does traditional victims' emotion regulation relate to internalizing behavior?

2.4. How does traditional victims' perceived social support relate to internalizing behavior?

1.4. Significance of the Study

The aims of families, government policy makers and practitioners in education in several countries is to strengthen children and adolescents, and raise them as resilient adults (Frydenberg et al., 2004). School violence especially peer bullying has been considered among the most significant social problems in the schools and media has increased the attention of the community to this topic in Turkey and several other countries. In addition to traditional bullying, which has always been a common problem, with the frequent use of technology, cyber bullying now emerged as a new challenge in the lives of adolescents and thus researchers' endeavors should be directed towards understanding how adolescents live with these problems.

Similar to international researchers, Turkish scholars have already started carrying out research on peer bullying including cyber bullying. Additionally, given that the consequences of traditional and cyber bullying on the victims is severe (Arıcak, 2009; Erdur- Baker & Tanrıkulu, 2010; Hinduja & Patchin, 2006; Ortega et al., 2009; Price & Dalgleish, 2010; Sourander et al., 2010; Ybarra et al., 2006), researchers and practitioners are responsible for designing and applying effective prevention and intervention programs to help children and adolescents staying away from being a bully and/or victim in the cyber and the physical environments (Lee, Zi-Pei, Svanström, & Dalal, 2013; Ortega-Ruiz & Nunez, 2012).

Being one of those studies that aims to understand the cyber and traditional victimization experiences of adolescents, the significance of the current study is threefold. Firstly, the present study contributes to the theory of peer bullying by proposing a model that explains the relationships among coping styles, emotion regulation, rumination, and perceived social support, in victims' of cyber and traditional bullying for the first time. Secondly, the implications of the findings are possible in terms of counseling and educational purposes at schools. Finally, measuring cyber bullying and victimization efficiently has been among the significant problems in the cyber bullying literature. In the present study, Revised

Cyber Bullying Inventory (RCBI), which is one of the frequently used measurement tools for evaluating cyber bullying and victimization nationally and internationally, was revised and named RCBI-II.

To begin with the contribution to theory, as summarized above, victims of traditional and cyber bullying suffer from serious psychological problems such as disappointment, anger, sadness, isolation, helplessness, depression, anxiety, family and peer problems (Hinduja & Patchin, 2006; Juvonen & Gross, 2008; Laftman et al., 2013). In addition to the drawbacks for individuals, these heavy impacts create financial burden and social problems for the society (Price & Dalgleish, 2010). Different from traditional bullying, it is unrealistic to think that cyber bullying can be stopped by limiting or banning technology use (Sticca, Ruggieri, Alsaker, & Perren, 2013). Rather, researchers are supposed to elaborate on the characteristics which would help adolescents prevent themselves from being negatively affected by the undesired outcomes of bullying incidences. Prevention is generally easier than intervention because it requires less effort and energy, and cost much less.

In the present study, the answer of the question "why do some adolescents experience disturbances more while others experience less, although both groups became the target of bullying acts?" become more clear. Moreover, there has been a debate in the literature on the similarities and differences between traditional and cyber bullying (Olweus, 2012; Smith, 2012). This study also tests for the relationships among research variables for traditional victimization context to substantiate evidence for the similarities and differences between two types of bullying.

Additionally, the conceptual papers recommend strengthening of the victims' emotional, cognitive, and social coping strategies by teachers, educators, counselors, and parents (Price & Dalgleish, 2010). However, the role of those inner strategies have not been empirically validated for traditional and cyber victims in a model, simultaneously. By examining how coping style, emotion

regulation, rumination, and perceived social support are related to traditional and cyber victims' internalizing behaviors, more efficient prevention and intervention strategies can be developed. The present study sheds light to the practitioners by presenting findings on how these variables are related to internalizing behavior of cyber and traditional victims.

Lastly, in the present study, Revised Cyber Bullying Inventory (RCBI) was reveised and a better version of it, which is RCBI-II, was obtained. The problem of RCBI is that it consists of specific technology names such as Facebook, messenger, and chat room. As the technology changes rapidly, the mentioned tools and programs may fall into disuse; it may become hard for the participants to follow the names of specific tools, programs that have been newly introduced or those that have become obsolete. After revision, RCBI has a new format that does not include any specific technological terminology and is therefore affected less by the changes in technology. Revised Cyber Bullying Inventory-II is presented as a valid, reliable and a practical tool that measures cyber bullying and victimization. Except from RCBI-II, which measures cyber bullying, all the other measurement tools were originally generated in English, and adapted into Turkish previously. Utilization of these scales in the present study verified their usage with Turkish samples and contributed to their validity and reliability evidences.

1.5. Definition of Terms

Traditional bullying is defined by Olweus (1993) saying that a "student is being bullied or victimized when he or she is exposed, repeatedly and overtime, to negative actions on the part of one or more other students" (p. 197).

Cyber bullying is "an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself" (Smith et al., 2008, p. 376).

Coping is “the thoughts and behaviors used to manage the internal and external demands of situations that are appraised as stressful” (Folkman & Moskowitz, 2004, p. 745).

Emotion regulation is “the process by which individuals influence which emotions they have, when they have them, and how they experience or express these emotions” (Gross, 1998, p. 275).

Ruminative response style is “a pattern of behaviors and thoughts that focus the individual's attention on his or her emotional state and inhibit any actions that might distract the individual from his or her mood” (Nolen-Hoeksema, 1991, p. 569).

Perceived Social Support is "an individual’s perception of general support or specific supportive behaviors (available or enacted on) from people in their social network, which enhances functioning or may buffer them from adverse outcomes” (Demaray & Malecki, 2002, p. 215).

Internalizing behaviors, which are the negative and hazardous behaviors that target the self, lead a person to have problems in coping with distress and withdrawn (Goodman, Lamping, & Plaubidis, 2010).

CHAPTER 2

LITERATURE REVIEW

The main aim of the current study is to model the relationships among coping styles, emotion regulation, rumination, and perceived social support in victims of cyber and traditional bullying. Although there are a number of factors that can be included in the model, four (coping styles, emotion regulation, rumination, and perceived social support) seem particularly important. Previously, in separate studies, the relationships between each of these factors and internalizing behaviors of bullying victims were examined. However, to understand the whole picture there has been a need for combining these factors as a model and investigate the relationships among them. In the present study, the same model is tested with victims of traditional bullying in addition to cyber victims because a majority of the literature on bullying presents empirical evidences for the high correlation between traditional and cyber bullying (Griezel, Finger, Bodkin-Andrews, Craven, & Yeung, 2012; Twyman, Saylor, Taylor, & Comeaux, 2010). By testing the same model with traditional bullying victims, additional evidence for the similarities and differences between two types of bullying are presented in the current study.

This chapter which consists of four main sections presents the review of the literature considering the aim of the current study. The flow of this chapter is parallel to the development of the bullying literature. Early studies in the bullying literature aim to discover the nature of bullying by examining its definition, types, and prevalence. The first section of this chapter discusses the definition of bullying with regard to its types as traditional and cyber bullying and presents the studies examining how prevalent traditional and cyber bullying are. After receiving information on the definition, types, and prevalence of bullying and

victimization, research on the consequences of bullying has been published in the literature and the second section of this chapter covers studies examining the consequences of traditional and cyber bullying. Then, after substantiating the deleterious effects of bullying on its victims, researchers have started to investigate the impacting factors on reactions of victims to bullying. There appears several individual demographic, emotional, and cognitive impacting factors on the reactions of victims in the bullying literature. Because the demographic factors were examined previously, for the present study, a group of emotional and cognitive factors were selected to be explored further. These factors are coping style, emotion regulation, rumination, and perceived social support. In the third section findings from separate studies investigating the relationships between each factor and victims' internalizing behavior are discussed. Finally, in the fourth section of this chapter, a summary of the literature reviewed is presented.

2.1. Bullying and Victimization: Definition, Types, and Prevalence

Peer bullying has been an escalating problem among children and adolescents for years. The bullying literature started with Olweus in the 1970s with his distinction of bullying from common aggressive behavior. He defined traditional bullying suggesting that a "student is being bullied or victimized when he or she is exposed, repeatedly and overtime, to negative actions on the part of one or more other students" (Olweus, 1993, p. 197). Although there are various definitions of bullying, researchers agree upon three basic criteria for an act to be defined as bullying. These criteria are repetition, power imbalance, and intention to hurt (Olweus, 1993).

The diameter of bullying has broadened within the last four decades to include new types. While physical and verbal bullying has been examined since 80s, relational and indirect forms of bullying became popular during the 90s (Slonje & Smith, 2008). The proliferation in using computers, mobile phones, smart phones, and the Internet has yet introduced another type of bullying that is called cyber

bullying. One of the mostly cited definitions of cyber bullying which belongs to Smith et al. (2008) is "an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself" (p. 376). This definition is based on the three criteria of traditional bullying, and with the endeavor of proposing a unique definition for cyber bullying, several researchers interpreted the definition of traditional bullying, reviewed the criteria of traditional bullying (repetition, power imbalance, and intention to hurt), and discussed the application of these criteria to cyber bullying (Langos, 2012; Menesini et al., 2012; Nocentini et al., 2010). Because physical and cyber environments have different characteristics, aforementioned criteria of traditional bullying need to be revised as follows.

First, the repetition criterion in traditional bullying seems to be clear, that is, the bullying act occurs for the same victim more than once. Yet, in the cyber world, although the cyber bullying incidence (e.g., posting of an embarrassing photo on a social network site) takes place only once, the online material may be viewed, saved, forwarded or re-posted (Langos, 2012). Hence, although the cyber bullying act is conducted only once, the victim may perceive the this act as happening over time because the victim is exposed to the material continuously or the bystanders may continue the cyber bullying incident.

The second criterion of traditional bullying is power imbalance between the bully and the victim. In the physical world, the sources of power imbalance are discrepancy in physical appearance (age, sex, height, and weight), popularity level, and socioeconomic status of bullies and victims (Langos, 2012). However, in the cyber world, because the physical comparison is not possible, cyber bullies' superiority comes from a multitude of other sources. Langos (2012) lists these sources as (a) cyber bullies are free to control the online material by deciding what to post, whom to post, when to post, and where to post (b) cyber bullies have the power to determine the number of bystanders and who these bystanders will be (c) because of the anonymous nature of the cyber world, not knowing who the

cyber bully is makes the cyber victims feel more powerless (d) being tech-savvy (one who is very knowledgeable on technology) might be among the reasons that create the power imbalance between cyber bullies and victims. However, achieving some of the cyber bullying acts (e.g., embarrassing someone on Facebook by leaving an inappropriate comment) is so easy that the cyber bully does not need to be a technology geek (Cassidy, Faucher, & Jackson, 2013). In contrast to traditional bullying, victims of cyber bullying are capable of stopping the cyber bullying act by leaving the online environment but since it is not possible to give up using technology forever, victims are still in a disadvantaged position (Cassidy et al., 2013).

The application of the third criterion, that is the intention to hurt, to cyber bullying is also confusing because of its indirect nature (Menesini & Nocentini, 2009). Joking or entertainment emerge among the most popular and the most frequently reported motives of the cyber bullies (Li, 2010; Topcu et al., 2013; Varjas, Jasmaine, Meyers, Parris, & Cutts, 2010; Yaman & Peker, 2012). Thus, for most of the cyber bullying acts, it is hard to understand the true intention of the bully. Alternatively, in order to test the appropriateness of intention to harm criterion to cyber bullying, looking for the victim's perception might be informative (Naruskov, Luik, Nocentini, & Menesini, 2012). In other words, rather than observing the intention of the bully, understanding whether victims perceive the act as threatening and harmful will provide a more precise judgment as to whether the act is perceived to have the intention to harm.

In addition to the existing criteria of traditional bullying, two more criteria (anonymity and publicity) have been added to evaluate cyber bullying as a result of the distinguishing characteristics of the cyber world (Nocentini et al., 2010). For traditional bullies displaying their bullying acts in front of an audience is crucial because it is a sign of how much the bully is perceived as powerful and popular by the bystanders (Sticca & Perren, 2013). Conversely, being anonymous is considered as an advantage in cyber bullying because anonymity in the cyber

world facilitates impersonation and helps cyber bullies in hiding their identity by positioning the victim in a vague and threatening situation (Menesini et al., 2012). The public nature of the cyber world extends the impacts of private bullying incident and moves it to a stage where an infinite number of audiences can watch what is happened to victims (Menesini & Nocentini, 2009). The control of the degree in revealing the identities of the cyber bullies belong to themselves in cyber bullying.

In conclusion, the existing three criteria for traditional bullying (repetition, power imbalance, and intention to harm) are evolved for cyber bullying and along with them, two more criteria (anonymity and publicity) have been added to reevaluate bullying in the cyber world as a result of the unique characteristics of the online environment. To understand the nature of cyber bullying and decide whether cyber bullying is a brand new type of peer bullying or an extension of traditional bullying, criteria of traditional bullying have been discussed in relation to cyber bullying. Next section presents the arguments between two groups of researchers; one group states that cyber bullying is an extension of traditional bullying (Olweus, 2012) and the other group argues that cyber bullying is totally different form of peer bullying with its distinguishing characteristics (Smith, 2012).

2.1.1. Traditional Bullying and Cyber Bullying: Are They Different or Similar?

The debate that has been going on whether traditional and cyber bullying are similar acts occurring in separate environments or these two types of bullying are totally different phenomena that are subjected to be investigated distantly has been one of the hot topics in the bullying literature. Pioneer researcher in the bullying literature, Olweus (2012) published an opinion paper discussing his side on this debate and other bullying researchers commented on his arguments by positioning themselves with him or against him (Hinduja & Patchin, 2012; Menesini, 2012; Smith, 2012).

In his opinion paper, Olweus (2012) presented his arguments about the wrong belief that says cyber bullying is a unique type of bullying and its prevalence has been increasing rapidly. In order to provide empirical evidence for his argument, Olweus included findings from several large scale studies from the USA and Norway. American data was obtained from a series of studies conducted with the US samples and comprised of approximately 440.000 adolescents attending 1st to 12th grade (Kowalski & Limber, 2007; Kowalski, Limber, & Agatston, 2008; Olweus & Limber, 2010). Norwegian data (approximately 9000) was collected from students attending 4th to 10th grade at 41 schools in Oslo that is the capital city of Norway. Olweus refuted the idea that cyber bullying prevalence rates was exceeding the traditional bullying rates and upsurged rapidly by comparing the frequencies of verbal and cyber bullying between the years 2007 and 2010. Mean rates for verbal bullying was reported to be 9.6% while mean percentage of cyber bullying was 2.8%. Moreover, both verbal and cyber bullying rates were found stable across time and did not boost in the mentioned years. Another argument of Olweus has been that the same group of adolescents experienced bullying and victimization both in the physical and in the cyber environments. He reanalyzed Kowalski and Limber's (2007) data that were collected in the US in addition to Norwegian sample and find out that there is a very high overlap between two types of bullying. For the US sample, degree of overlap for both cyber and traditional bullying and cyber and traditional victimization was discovered to be 88%. For Norwegian sample, the overlap was 91% for cyber and traditional bullying, and while 93% of overlap appeared for cyber and traditional victimization. The final argument of Olweus has been that being cyber bullied did not have an additional negative effect above and beyond the effect of being traditionally bullied. That is, if a child or adolescent was a victim in both the physical and in the cyber world; the devastating effect of cyber victimization could have been disregarded. Olweus concluded his paper by stating that myths and misconceptions about cyber bullying might create panic among parents and direct their attention to only online environment by ignoring the whole picture. He

suggests placing cyber bullying as a subtype of traditional bullying and examine its prevalence and effects more realistically without exaggerating them.

As opposed to Olweus (2012), on the other hand, Smith (2012), manifested that cyber bullying rates increased rapidly between the years 2000 and 2005, i.e. the period prior to the studies Olweus reported. Additionally, Smith listed seven features of cyber bulling and criticized Olweus' underestimations of the importance of cyber world's unique characteristics. Briefly, those characteristics emphasize that cyber bullying necessitates a medium of technology, is an indirect form of bullying, and the immediate reaction of the cyber victim is unknown to the cyber bully. Moreover, bystanders may be with the bully and facilitate cyber bullying, be with the victim and support him or her, or be uninvolved. The number of the audience in cyber bullying may also be infinite. Opposite to traditional bullying, because of the anonymity factor, the drive of the cyber bully may not solely be popularity. Lastly, while the victim of traditional bullying may feel safe at home, cyber bullying has a 24/7 nature and the victims cannot escape from it even when they are at their home. Smith (2012) lastly suggested that research on cyber bullying should rather be multidisciplinary (involving psychologists, psychiatrists, educators, lawyers, sociologists), adopt both quantitative and qualitative approaches, and extend to out of school contexts.

Menesini (2012) also published a commentary as a response to Olweus' (2012) remarks. She routed her arguments by revealing her ideas on four main planes as (a) the definition of cyber bullying (b) measurement issues (c) impacts of cyber and traditional bullying and (d) intervention strategies for traditional and cyber bullying. Similar to Smith (2012), Menesini believes that while defining cyber bullying, traditional bullying criteria need to be revised and two new criteria (anonymity and publicity) of cyber bullying should be considered. She also recommended using parallel measurement tools after providing the participants with the definitions of traditional and cyber bullying. When it comes to the prevalence of cyber bullying, she discovered that if the data were collected online,

cyber bullying yielded higher rates than traditional bullying; whereas if the data were collected at schools, traditional bullying was found to be more prevalent. In this commentary, Menesini (2012) also talked about studies that were conducted to examine the impacts of cyber victimization by controlling for the effects of traditional bullying and concludeed that cyber bullying has a unique contribution to the negative outcomes on victims. Finally she concluded her complementary approach to two types of bullying by recommending intervention programs of general bullying that also includes specific components for cyber bullying.

Yet again as a reaction, summarizing the findings of their research on cyber bullying since 2002 (with a total sample size of approximately 12000 adolescents from over 80 schools), Hinduja and Patchin (2012) criticized Olweus as presenting very low prevalence rates for cyber bullying and victimization that they have never come across with in the literature before. Nevertheless, they also supported Olweus' view that the prevalence rates of cyber bullying have not been increasing, but it rather was stable over time. Another argument of Olweus supported by Hinduja and Patchin (2012) has been that the victims and bullies are the same adolescents in the cyber and the physical environments. Finally, Hinduja and Patchin (2012) end their words by suggesting a systematic multi-domain (school, parents, legal parties etc.) approach for the prevention and intervention of traditional and cyber forms of bullying.

Clearly, the ongoing debate on the definitions and determinative criteria for traditional and cyber bullying shows that there is a theoretical common ground between traditional and cyber bullying. More specifically, findings of empirical studies conducted utilizing very various methodologies demonstrated that there is substantial overlap between traditional and cyber bullying. For instance, Twyman et al. (2010) intended to show the overlap between the two types of bullying. Recruiting 52 children between the ages of 11 and 17 and including 52 matched controls, they found that cyber victims were at the same time both traditional bullies and traditional victims in comparison to their matched peers who did not

have any cyber bullying and/or victimization experience. Also, Griezel et al. (2012) carried out a series of psychometric analyses (confirmatory factor analysis, factorial invariance testing, and Multiple-Indicators-Multiple-Causes-MIMIC model) to uncover the structural similarities and differences between traditional and cyber bullying. As a result of all these analyses, cyber bullying has been concluded to be an extension of traditional bullying but at the same time it was decided to consist of distinct features that rendered it a different form of bullying. Furthermore, a three-year longitudinal study sampled 1774 (52% female) adolescents aged between 11 and 16 and tested whether bullying and victimization in the physical world and in the cyber environment were stable over time and whether they were predictive of each other or not (Jose, Kljaković, Scheib, & Notter, 2011). Supporting the findings of previous research, results of this longitudinal study enable us to draw a further and valid predictive link from traditional victimization to cyber victimization. Therefore, there accumulated ample evidence presenting not only the concurrent relationship between traditional and cyber victimization but also an association and prediction over time.

To conclude, cyber bullying is an unavoidable reality that has been a serious problem among children and adolescents for more than a decade. Almost all of the researchers who revealed their opinions in the comparison of traditional and cyber bullying state that two types of bullying have both common and distinguishing characteristics. This idea has also been supported by empirical findings in the bullying literature.

The following section demonstrates how common the bullying problem is by summarizing the findings of a group of studies that examine the rates of traditional bullying and cyber bullying.

2.1.2. Prevalence of Bullying: The Roles of Gender and Age

Researchers aim to observe the prevalence rates of traditional and cyber bullying in order to determine how widespread the bullying problem is and how large a group is involved in this problem. By identifying the limits of the bullying problem, researchers will be able to justify their concern on the importance of bullying and victimization that is listed among the sensitive topics of investigation. Given that bullying and victimization are serious and prevalent problems significantly impacting the lives of the children and adolescents, several measures have been taken to prevent bullying and strategies have been developed to support victims with the help of funding and contribution of professionals in the field of education.

Prevalence studies should be conducted with random and nationwide representative samples. However, especially for cyber bullying and victimization, studies that have been carried out with a systematic methodology and report accurate prevalence rates fall short in quantity. In general, the rates have been reported by studies with non-random, small, and non-representative samples. Therefore, while examining these studies, the reader must keep in mind that the reported rates might not necessarily represent true prevalence numbers. According to the researcher, the sample characteristics and the methodology followed are observed to significantly influence the reported rates for both bullying and victimization.

Two other factors that one should keep in mind while reading the prevalence rates are the gender and age of the sample recruited. Gender is generally included while reporting the prevalence rates because males and females may differ in their manifestation of traditional and cyber bullying. Similarly, based on the age of the sample, the type and prevalence rates of bullying and victimization may change. In the following paragraphs, in addition to describing the employed sample and the followed methodology, differences regarding age and gender are presented where applicable.

To make an exact prediction of the rates of cyber bullying is not as easy as measuring the prevalence of traditional bullying owing to the problems with operationalizing cyber bullying and to the inconsistency in measurement techniques (Riebel, Jager, & Fischer, 2009). Nevertheless, starting with the emergence of the concept of cyber bullying in the early 2000s, studies employed procedures that measured the rates of traditional bullying as well as the frequency of cyber bullying. Research exploring only cyber bullying without investigating the overlap between traditional bullying are rare but still existing. For instance, Arslan, Savaşer, Hallett, and Balci (2012) examined the prevalence rates of cyber bullying with a sample of 372 2nd, 3rd, and 4th grade students. They found that 27% of the sample was cyber bullying victims, 18% of them were cyber bullies, and 15% were cyber bully/victims. Findings also showed that males cyber bullied others more than females.

In general, studies exploring the prevalence rates of cyber bullying were seen to measure the frequencies for traditional bullying as well. As an example, Del Rey, Elipe, and Ortega-Ruiz (2012) conducted a study in Spain with 274 adolescents aging 12 to 18 years old. They aimed to test the degree of overlap and the predictive role of being a traditional bully and a victim in the involvement in cyber bullying and victimization. The findings of this longitudinal study (3 months) revealed an overlap between cyber bullying and traditional bullying (by 64%) and cyber victimization and traditional victimization (by 50%) at Time 1 and at Time 2. It was deiscovered that being a traditional victim predicted being a traditional bully, a cyber bully, and a cyber victim. However, cyber victims did not necessarily become traditional bullies; rather they were found to be more likely to be cyber bullies.

In order to investigate whether traditional bullies and victims were also bullies and victims in the cyber space, Gradinger, Strohmeier, and Spiel (2010) looked for the co-occurrence of traditional bullying/victimization and cyber bullying/victimization. Recruiting 1150 Austrian adolescents (551 females, 599

males) attending 5th through 8th grades (M_{age} = 12.39, *SD* = 1.16), they explored the rates of traditional bullying/victimization and cyber bullying/victimization. They used a global item (single question measuring bullying frequency) and three specific items to measure each type of bullying. The results showed that the rate of cyber bullying (6.3%) was dramatically lower than the rate of traditional bullying (47.5%) when a global item was used. Likewise, with specific items, the rate of traditional bullying exceeded the rate of cyber bullying. In terms of gender, for both global and specific item measurement, males both traditionally and cyber bullied others more than their female counterparts.

Holfeld and Grabe (2012) conducted a cross-sectional study with 665 (50.3% female) adolescents attending 7th and 8th grades. They aimed at measuring the prevalence rates of cyber bullying and victimization in addition to the identifying role of a group of individual risk factors (gender, frequency of Internet use, being a traditional bully and a victim) in predicting cyber bullying and cyber victimization. Of the participants, 20% reported that they were cyber bullied in the past year and 55% of them declared they were cyber bullied in the past 30 days. Being a traditional victim and being female were found as the two most significant risk factors for cyber victimization.

In addition to the selected aforementioned individual studies, findings of review studies that analyze the prevalence of bullying are presented below (Berne et al., 2013; Rigby & Smith, 2011; Veenstra, 2009). A broad range of prevalence rates have been reported for traditional and cyber bullying in the existing literature. Veenstra (2009) analyzed thirty research studies and concluded that the rate of cyber bullying was between 4% and 56%, and the rate of cyber victimization was reported to range between 6% and 72%.

There exists a continuing debate in the literature regarding the measurement techniques employed to explore cyber bullying (Menesini, Nocentini, & Calussi, 2011) and different measurement tools have so far been developed to assess the underlying structure of the cyber bullying construct. Depending on the

characteristics of the measurement tool, prevalence rates in bullying and victimization appear to vary. That is, in some studies, after providing a definition of what cyber bullying is, a single (global) item (Have you ever bullied someone? Have you ever been bullied?) has been used (Hinduja & Patchin, 2008) while in some other studies multiple item questionnaires are utilized (Slonje & Smith, 2008; Raskauskas & Stoltz, 2007).

Berne et al. (2013) conducted a systematic review study and analyzed the studies to examine the types of instruments generated to measure cyber bullying. The autohors identified 636 studies that were published before October 2010. In order to determine which studies they would include in their review, they set certain inclusion criteria (e.g., written in English, items and whether full psychometric properties for the scale were provided or not) and ended up with 44 studies. Drawing from the implications of the meta-review implied, Berne et al. (2013) grouped the measurement tools into two: questionnaires that directly measured cyber bullying and questionnaires that measured cyber bullying without considering the criteria of bullying. Based on a review and meta-analysis of measurement of cyber bullying and victimization, other than the number of items, nature of items, that is, how comprehensive the items are, provision of a bullying definition, and comeasurement of traditional bullying, are listed as factors that may be influencing the measurement of cyber bullying and victimization (Kowalski, Giumetti, Schroeder, & Lattaner, 2014).

Similar to the study by Kowalski and her colleagues (2014), Vivolo-Kantor, Martell, Holland, and Westby (2014) conducted a systematic review study and analyzed measurement tools that assessed both traditional and cyber bullying. More than 1000 studies published between the years 1985 and 2012 have been reviewed, a total of 164 measures have been identified and a final number of 41 tools have been included in the study. The analysis of these measures showed that significant differences existed in terms of the data source (self-report, teacher or peer report) and the time frame bullying incidents took place (ranging from the

past 6 months to the past school year). To conclude, based on how bullying is defined and measured, rates appear to vary. Therefore, direct comparison of prevalence rates from sample to sample or from country to country is not advisable.

To remedy the problem of making sound comparisons among the existing prevalence rates, Rigby and Smith (2011) reviewed studies published between the years 1990 and 2009 and included those that used the same or very similar measurement tools. The selected studies were conducted with samples from 27 countries in Europe (Czech Republic, Denmark, Estonia, France, Germany, Greece, Greenland, Hungary, Ireland, Latvia, Norway, Poland, Portugal, Russia, Scotland, Sweden, Switzerland, England, Wales, Spain, Norway, Finland, Lithuania, Austria, Belgium etc.), America (Canada and the United States), Middle East (Israel), and Australia. As a limitation, this review study included only two studies on specifically cyber bullying that used the same or similar measurement tools. The authors concluded that while the prevalence of traditional bullying decreases, rates of cyber bullying increases over time. As an alternative view on the rapid increase in cyber bullying rates, Cassidy et al. (2013) claim that not the rates of cyber bullying but the attention directed to cyber bullying has been growing.

Studies conducted in the Turkish context report relatively higher traditional bullying and victimization rates than those conducted abroad. For instance, Pişkin (2010) measured traditional bullying and victimization rates among 1154 students (48% females) attending 4^{th} through 8^{th} grades. Of the participants, 35.1% were victims, 6.2% were bullies, and 30.2% were bully/victims of traditional bullying. In Pişkin's (2010) study, boys were found to victimize others more than girls, whereas girls reported that they were victims of bullying more than boys. Similarly, Ayas and Pişkin (2011) examined the rates of bullying with 600 high school students and extended the results coming from the study of Pişkin (2010). Findings of Ayas and Pişkin (2011) pointed out that females' scores were

significantly higher than males' only for verbal victimization whereas for the rest of victimization types (physical victimization, isolation, rumor spreading, harming the personal property, sexual victimization), males' scores significantly exceeded females'. When it comes to bullying rates, males scored higher than females for all types of bullying except isolation. No significant difference between two genders was found for isolation. More recently, Atik and Yerin-Güneri (2013) reported the prevalence rate for traditional bullying as 4.6%, for victimization as 21.3%, and for bullying/victimization as 6.5% for a sample of 742 (52.9% female) students aged between 11 and 15.

The first published study examining cyber bullying in Turkey was conducted by Erdur-Baker and Kavşut (2007). The development of research on cyber bullying in Turkey follows the paths in the international cyber bullying literature. After Erdur-Baker and Kavşut (2007), researchers interested in cyber bullying published studies on the rates of cyber bullying and victimization (Yılmaz, 2011), its relation to basic demographic variables (Özdemir & Akar, 2011), the underlying reasons of cyber bullying (Topcu et al., 2013; Yaman & Peker, 2012), and the impacts of cyber bullying on its victims (Arıcak, 2009; Erdur-Baker & Tanrıkulu, 2010).

The rates of cyber bullying and victimization reported by in the Turkish researchers are similar to the rates substantiated in the international literature. To illustrate, Yılmaz (2011) reported that the cyber victimization rate for 756 (48% female) 7^{th} grade students was found 17.9% while the cyber bullying rate was 6.4%. However, according to the results of another group of studies, frequencies of cyber bullying are higher than those reported in the international literature. For instance, findings of Topcu (2008) revealed that 47.6% of 717 adolescents (57.3% female) aged between 13 and 21 reported a history of cyber bullying another person. Also, Topcu, Erdur-Baker, and Çapa-Aydın (2008) calculated cyber bullying and victimization rates based on multiple item measurement with a sample of 183 adolescents aged 14 and 15. In their study, cyber bullying ranged

between 5.1% and 26.7% and cyber victimization ranged between 2.6% and 34.3%. Another study conducted by Akbulut, Şahin, and Erişti (2010) with an online survey and by recruting a sample of 1470 pointed out that 56% of the participants reported being victimized at least once. A cautionary note to the reader is that, the sample of Akbulut and his colleagues' study was not limited to adolescents and the mean age was reported as 23. The reason of obtaining higher rates in Turkey may be related to using different measurement tools and recruiting relatively older age samples.

Parallel to the studies in the international literature presenting evidence for male dominancy in cyber bullying, studies with Turkish samples also showed that males cyber bully others more than females do (Erdur-Baker, 2010). Topcu and Erdur-Baker (2012) investigated the reason of gender difference and found that empathy level has a mediating role in gender and cyber bullying relationship. That is, females scored lower than males in bullying, but, their empathy scores were higher than males'. Therefore, empathy seems to work as an explanatory factor in the gender difference in cyber bullying.

To sum up, regardless of the utilized measurement tool, provided definition, or recruited sample, it is clear that there is a problem among adolescents called bullying. Depending on the platform bullying takes place, the act is labelled with the prefix "traditional" or "cyber". Therefore, considering the widespread occurrence of bullying based on high prevalence rates in Turkey and in the other countries; consequences of traditional and cyber bullying on victims need to be clarified.

2.2. Consequences of Bullying

No doubt that a consensus among the researchers in academia exists on the reality of bullying agreing upon the fact that it is an eye-catching issue. As mentioned above, several studies from various countries report a significant percentage of bullies and victims involved in both traditional and cyber bullying. Adding to the

remarkable prevalence rates, the reports of the victims highlight the magnitude of the problem. Mother of a victim published the suicide letter of her "victim child" in order to grab the attention of the researchers and increase awareness in the community on the issue of bullying (Shariff, 2008).

Traditional victimization was found significantly related to posttraumatic stress disorder (Mynard et al., 2000), and psychosomatic symptoms such as sleeplessness, feeling low, irritability, headache, backache, and nervousness (Natvig et al., 2001), depressive symptoms, suicidal thoughts (Roland, 2002), internalizing problems such as depression and anxiety (Ivarsson et al., 2005; Nordahl, Beran, & Dittrick, 2013), and loneliness (Estevez, Murgui, & Musitu, 2009).

Hawker and Boulton (2000) conducted a meta-analysis wherein cross-sectional studies conducted between the years 1978 and 1997 were covered and investigated the effects of traditional bullying on its victims. Based on the effect size calculations by Hawker and Boulton (2000), a strong link was identified between traditional victimization and depression and a less stronger link was found between traditional victimization and anxiety.

Further, empirical research indicated that cyber victims suffer from depression, anxiety, stress, low self-esteem (Aoyama, Saxon, & Fearon, 2011; Chang et al., 2013; Patchin, & Hinduja, 2010) and suicidal thoughts (Hinduja & Patchin, 2010). Shared reactions observed after being bullied in the physical world or bullied in the cyber world are feeling lonely, defenseless, depressed, stressed, afraid, embarrassed, worried, upset, and angry (Ortega et al., 2009). Furthermore, the relationship between victimization (both traditional and cyber) and suicidal behaviors was found to be mediated by substance use, violent behavior, and unsafe sexual behavior (Litwiller & Brausch, 2013).

In order to examine the complications brought by pure cyber victimization, Perren, Dooley, Shaw, and Cross (2010) sought to clarify whether the impacts of

cyber and traditional bullying varied or not. A total of 1694 students (52% female and M_{age} = 13.8, *SD* = 1.0) from Switzerland and Austria participated in the study. Findings showed that even after controlling for the effects of traditional bullying, cyber victims reported experiencing high levels of depression.

Also, Laftman et al. (2013) sampled 22544 Swedish adolescents aged between 15 and 18 aiming to identify the prevalence rates of cyber and traditional bullying, the overlap between two types of bullying, and the relation of cyber victimization to subjective health. Findings were seen to echoe the results of Perren et al. (2010) indicating that cyber victims had poor subjective health even after the impact of traditional bullying is controlled. That is to say, cyber bulling was found as related to negative outcomes above and beyond the impacts of traditional bullying.

Ortega et al. (2012) conducted a study with a large-scaled sample consisting of adolescents from Italy (*n* = 1964), Spain (*n* = 1671), and England (*n* = 2227) and found that bullying and victimization in the physical and cyber world was widespread. Yet, the results of this study also demonstrated that the impacts of traditional bullying and cyber bullying were not exactly the same. Although victims of traditional and cyber bullying shared common reactions such as anger, there existed differences in their reports. To illustrate, traditional victims reported feelings of being defenseless and embarrassed more than cyber victims. Ortega et al. (2012) interpreted this interesting finding suggesting that since bullies do not physically present themselves in the cyber world, victim might not feel threatened and embarrassed as much and may therefore be affected less.

A more recent study conducted by Bonanno and Hymel (2013) with 399 Canadian students from 3rd through 8th grades found that both cyber and traditional victimization were related to depressive symptomology and suicidal ideation. However, cyber bullying had a unique association to the mentioned negative consequences over and above traditional bullying.

Underlying reason in trying to find out whether the effects of traditional and cyber bullying vary is to understand which type of bullying causes more harm. Theoretical discussion on the factors influencing the strength of the impact reveals that cyber victims suffer from negative consequences more than victims of traditional bullying because cyber bullying may happen 24/7 and anywhere (Smith, 2012). Talbert and Aoyama (2010) claim that anonymity in the cyber space encourages the cyber bully to behave in a way he or she cannot normally do in the physical world; therefore, the impact of cyber bullying would be more severe. Additionally, in the cyber world, victims may experience difficulty in guessing from where and when the danger is coming and thus feel helpless in preventing themselves. Further, the large amount of bystanders in cyber environment may render the effect of cyber bullying more severe (Menesini & Nocentini, 2009).

In the same vein, Campbell, Spears, Slee, Butler, and Kift (2012) searched whether the perception of cyber and traditional victims differed in terms of impact severity. They hypothesized that the cyber victims evaluated bullying rather harsher than did the traditional victims and conducted a study with 3112 (50.5% females and 49.4% males) Australian 6^{th} to 12^{th} graders. Although the authors failed to confirm their hypothesis and found that traditional bullying was perceived as "harsher and crueler", cyber victims'voices suggesting said that they experienced social difficulties, anxiety, and depression more than traditional victims have been heard.

To compare the severity of the impact in traditional and cyber victimization, Bauman and Newman (2013) conducted an empirical study asking 588 (76% female) university students aged between 17 and 25 (M = 19.8, SD = 1.41) to rate the severity of the same behavior once in the physical world and once in the cyber world. Their goal was to examine whether the type of bullying (traditional or cyber) or the act itself hurts more. No difference was found between the level of distress caused by traditional bullying and cyber bullying. The authors concluded

that instead of where the bullying behavior takes place, the nature of the bullying act creates the negative effect.

Similar to Bauman and Newman (2013), Sticca and Perren (2013) also examined whether the unique characteristics of the cyber world (anonymity and publicity) worsen the impact of cyber bullying or not. Presenting hypothetical bullying scenarios with cartoons to the participants (approximately 800 high school students attending 7th and 8th grades), the authors asked them to rate the severity of the bullying behavior that were manipulated as anonymous vs. not anonymous, public vs. not public, and traditional vs. cyber in each cartoon. Findings showed that cyber victimization was not necessarily evaluated as more severe than traditional victimization. Rather, bullying occurring in public and anonymous environments were evaluated as more severe regardless of whether it was happening in the physical or in the cyber world.

In addition to the characteristics of the cyber world such as being anonymous and public, individual level factors may have a role in determining the presence or absence of negative outcomes besides the severity of the impact. Dredge, Gleeson, and de la Piedad Garcia (2014) carried out a qualitative study in which they examined factors behind impact severity in cyber victimization. A total of 25 participants (aged 15 to 24) were interviewed and in addition to the cyber world related themes (the role of publicity and anonymity, unique features of the medium, the role of bystanders), themes regarding individual factors (such as ability to joke, positivity, having a thick skin, high self-esteem, confidence, being easy going, and the belief in the universality of cyberbullying) emerged. That is, according to the participants these individual factors may help the victim experience less distress after being bullied.

In Turkey, negative consequences of being exposed to bullying have also been explored. For instance, recently, Arslan, Hallett, Akkaş, and Altınbaş-Akkaş (2012) recruited 1315 adolescents (aged between 11 and 15) and examined victims' risk of being negatively affected by the bullying incident. Findings

showed that traditional victims felt isolated, helpless, and lonely, had a low mood, tiredness in the morning, and sleep difficulties more than those who did not have a victimization experience. However, the relationship between cyber bullying and negative outcomes was unsearched.

When it comes to cyber victimization, Arıcak (2009) showed that Turkish undergraduate students who were victims of cyber bulling suffered from somatization, obsessive compulsive symptoms, depression, and anxiety. Erdur-Baker and Tanrıkulu (2010), with a sample of 165 (94 females and 71 males) secondary school students (aged between 10 and 14) unearthed a positive link between cyber victimization and depression. Likewise, Şahin et al. (2012) conducted a study with 300 high school students (52.7% female) aged between 15 and 19, and reported a positive association between cyber victimization and anxiety.

To sum up, both traditional and cyber victims from Turkey and other countries seem to experience negative psychological consequences. Results of the studies that compared the impacts of traditional and cyber bullying in terms of severity appear to be inconsistent, though. According to the results of the studies discussed above, rather than the type of bullying (traditional or cyber), the characteristics of the act (level of anonymity and publicity) seem to determine the impact severity. It is tempting to conclude that victimization causes psychosocial disturbances and several other negative outcomes; however, as Kaltiala-Heino, Rimpela, Rantanen, and Rimpela (2000) state, the aforementioned studies are correlational in nature and thus inferring causation cannot be possible. To argue that the negative outcome is caused by victimization, experimental design studies that control for other confounding variables such as individual, environmental, school-related, family- related factors etc. are needed.

The present study aims to test a model that examines the relationships among a group of impacting factors (coping style, emotion regulation, rumination, and perceived social support) and their relation to victims' internalizing behavior.

Based on how these factors are related to victims' internalizing behavior, the consequences of bullying can be intervened. By means of testing the relationships among the variables in the model, their roles in the victimization process can be clarified and effective strategies can be planned to cope with negative consequences of bullying. The following section presents the literature on the impacting factors on the reactions of victims.

2.3. Impacting Factors on the Reactions of Victims

After examining whether victimization is related to certain negative consequences, researchers have started to examine what type of factors impact victims' reactions. Traditional bullying literature pointed out that victims' coping style (Shelley & Craig, 2010), their perception of social support (Konishi & Hymel, 2009), ruminative response (Rudolph, Troop-Gordon, & Granger, 2011), and emotion regulation ability (Garner & Hinton, 2010) seem to be associated to their reactions to bullying incident.

A few years ago, researchers started to investigate how cyber victims cope with cyber bullying (Sleglova & Cerna, 2011). For instance, Li (2010) carried out a study with 269 children (37.5% female) attending 7^{th} to 12^{th} grade and sought answers to the question "what happens after students are cyberbullied?" Although conducted with a relatively small sample size, Li's (2010) findings showed that for 26.8% of the victimized children being bullied was no big deal and 42.5% of them did nothing. Research on negative consequences of cyber bullying was limited and existing studies were generally based on technology related behavioral coping strategies (online strategies, leaving the situation, blocking the bully, removing the bully from the friend list). However, Machackova, Cerna, Sevcikova, Dedkova, and Daneback (2013) showed that technological coping strategies should be combined with psychological ways of coping because the negative effects of bullying are mostly psychological.

Also, Cowie (2011, 2013) stated that cyber bullying is an interpersonal problem and psychosocial ways of coping should be recognized. Given that coping is a multifaceted process and includes several aspects of a human being such as emotional, cognitive, behavioral, social, school-related, environmental, family-related (Folkman & Moskowitz, 2004), covering only technology related behaviors disregards other aspects of coping process. Exploring emotional, cognitive, and social mechanisms as well as behavioral strategies in coping with bullying is crucial. A group of individual demographic factors (such as being female and coming from lower socioeconomic groups) and internal mechanisms (feeling lonely and perceiving fewer social support) of victims' was found to differentiate the degree of influence from the bullying incidence (Ortega et al., 2012). That is, those who feel lonely and perceived that they received fewer social support displayed more negative symptoms after being bullied. Ortega et al.'s (2012) study reveals the important role of some internal mechanisms in the coping process of bullying by the victims.

Victims seem to experience negativities not because they are bullied but because they have problems in coping with the bullying episode. There may be other internal mechanisms functioning in this process and the traditional bullying literature guides researchers what kind of factors these internal mechanisms may be. Kochenderfer-Ladd and Skinner (2002) argued that the type of the utilized coping strategies differentiates traditional bullying victims' adjustment level. That is, those who used maladaptive coping strategies suffered from negative consequences. In addition to coping strategies, emotion regulation abilities of victims of traditional bullying were researched and poor emotion regulation was found as a characteristic of victims (Spence et al., 2009). Furthermore, to make a holistic picture of the coping process ruminative tendencies of traditional victims were investigated and rumination was reported as a risk factor for traditional victims' likelihood of displaying depressive symptoms (Erdur-Baker, 2009). Moreover, as shown by a meta-analytical review (Prati & Pietrantoni, 2010) social support is one of the assets that lead people to use adaptive coping strategies,

therefore, the role of social support in tackling with the negative consequences of bullying need to be described clearly by researchers.

In summary, based on the traditional bullying literature, coping style, emotion regulation, rumination, and perceived social support are noted as the impacting factors on the reactions of victims. Relationships between each of these factors (coping strategy, emotion regulation, rumination, and perceived social support) and traditional victimization was examined in separate studies. Yet, none of the existing studies covered all of these factors and investigate the relationships among victimization, coping style, emotion regulation, rumination, perceived social support, and internalizing behavior simultaneously in a model. Moreover, how these factors behave in cyber victimization context was not examined clearly. For a better understanding of the whole picture, the present study aims to scrutinize the relationships among victimization, coping styles, emotion regulation, rumination, perceived social support, and internalizing behavior for both traditional victims and cyber victims. The next four sections present the findings of the separate studies that investigated the relationships between each factor and internalizing behavior in the traditional and cyber victimization contexts.

2.3.1. Coping styles and Victimization

The first impacting factor on the reactions of victims, which is covered in the present study, is coping styles. The term coping covers all the cognitions, emotions, and behaviors a person utilize when faced with a problem situation (Frydenberg, 1997). The most popular model of coping is "Transactional Model of Stress and Coping" (Lazarus & Folkman, 1984) and one of the widely accepted categorization of coping styles is proposed by Folkman and Lazarus (1985). According to them, there are two groups of coping strategies; problem focused coping and emotion focused coping. Literally, problem focused coping is approaching the problem and aiming to solve the problem itself. Emotion focused coping requires the usage of emotion regulation strategies in order to deal with the

stress caused by the problem. Emotion focused coping can be twofold: active emotional and avoidant emotional. Active emotional strategies are considered among the adaptive coping strategies with problem focused coping strategies whereas avoidant emotional strategies are grouped as maladaptive (Folkman & Lazarus, 1985). Folkman and Lazarus (as cited in Folkman & Lazarus, 1985) believed that after the first appraisal of the situation, one chooses a problem-focused coping strategy if the problem situation is considered as changeable. However, if the problem situation is assessed as unchangeable, one chooses to cope by using emotion-focused strategies.

The utilized coping strategy has a determining role in the adaptation process after experiencing a stressful problem situation. In general, peer victimization is a problematic and stressful situation, and victims' coping styles ameliorate or aggravate the outcome. Using an adaptive coping style is found to mediate the stress and bullying relationship, that is, bullying causes in stress in the victim only if the victimized child is not using an adaptive coping strategy (Konishi & Hymel, 2009). Some researchers stressed the importance of identifying victims' coping styles in order to help them more and recommended exploration of coping strategies of traditional (Kochenderfer-Ladd & Skinner, 2002) and cyber victims (Machackova et al., 2013).

More specifically, Kochenderfer-Ladd and Skinner (2002) carried out a cross-sectional research to test the moderating role of a group of coping strategies (problem solving, seeking support, distancing, internalizing, and externalizing) in the relationship between traditional victimization and adjustment. A total of 356 (49.7% female) adolescents were recruited as participants. Surprisingly, non-victim participants said that they did not use problem solving strategy and seeking social support that were known as adaptive coping strategies. Additionally, distancing and internalizing coping (avoidant coping strategies) anticipated loneliness and anxiety for victimized adolescents.

When the focus extended to cyber bullying, Lodge and Frydenberg (2007) investigated coping patterns of cyber victims by using cluster analysis. They recruited 652 (204 male and 378 female) adolescents aged between 11 and 17 and measured the rates of traditional and cyber victimization in addition to coping actions. Cluster analysis indicated that female victims used apprehensive and avoidant coping (worry, tension reduction, and self-blame) and kept their negative feelings inside and did not ask for help from others. Additionally, they were more likely to experience negative consequences. Conversely, males used apprehensive but active coping. That is, they worried, used wishful thinking coping, and kept their negative feelings inside but engaged in distractive and relaxing behavior such as physical activity. At the same time, males experienced more adaptive consequences.

In another study, Skrzypiec, Slee, Murray-Harvey, and Pereira (2011) examined the effectiveness of coping strategies among victims of bullying of different types (physical, verbal, relational, and cyber). Their sample consisted of 452 adolescents (52.9% males, mean age = 13, *SD* = .41) and findings indicated that victims reported utilizing avoidant coping more than non-victims. No significant difference was found with regard to type of bullying. For problem-focused coping and seeking social support, victims and non-victims did not differ significantly.

Riebel et al. (2009) tested the coping styles of 1987 German children and adolescents (64.3% female) aged between 6 and 19. Data were collected online and results revealed that victims of traditional and cyber bullying shared similar coping strategies that were aggressive, helpless, and cognitive coping. Similar to Skrzypiec et al. (2011), Riebel et al. (2009) found that while traditional victims utilized social coping, cyber victims used technical coping (e.g., switching off the computer, changing the e-mail address or the nickname and only give them to the people that the person can trust). Different from other studies, cognitive coping (thinking on the bullying incident) emerged in this study and an example of cognitive coping was that “I wonder why he/she does that”.

Besides the coping strategy preffered by the cyber victims, a better understanding of the effectiveness of that coping strategy was necessary since effectiveness may differ based on the needs and characteristics of the person trying to cope. The way effectiveness of a coping strategy can be conceptualized is twofold: reducing further victimization and buffering the negative consequences (Perren et al., 2012).

Paul et al. (2012) tested the effectiveness of a group of coping strategies against bullying with 217 (45.6% female) British adolescents aged between 11 and 13. Participants were given a worksheet that consisted of 20 coping strategies and were asked to rate the effectiveness of each coping strategy for traditional and cyber bullying. Results showed that participants rated the same coping strategies as equally effective for both traditional and cyber bullying. Receiving social support from family was the most effective coping strategy for traditional and cyber bullying.

Similar to Paul et al. (2012), Machackova et al. (2013) sampled 2092 Czech adolescents (54.7% female) aged between 12 and 18, measured their cyber victimization frequency and, coping styles, and asked them to evaluate the effectiveness of the coping strategy they used. Of the sample, 422 (62% female) adolescents reported to have cyber victimization experience. Findings showed that victims of cyber bullying used several ways of coping such as technological coping (e.g., deleting the person from the contact list), reframing (e.g., I thought to myself that the person was pitiful and stupid), dissociation (e.g., I thought to myself that if something similar were happen in real life, it would be much worse), cognitive avoidance (e.g., I tried to focus on something else to avoid thinking about what happened), behavioral avoidance (e.g., I started avoiding the person in real life), seeking support (e.g., I told someone about it), confrontation (e.g., I tried talking to the person on the internet or via cellphone to persuade him or her to stop), and retaliation (e.g., I did something similar to the person, face-to-face-in real life). Purposefully ignoring the incident was evaluated as effective by

victims for dealing with the negative emotional impacts and also reported to discourage the perpetrator from carrying the bullying act on. Likewise, technological coping and seeking social support were assessed as effective, while confrontation and retaliation were found less effective.

In order to test whether the coping strategy used in general life was related to cyber bullying specific coping, Völlink, Bolman, Dehue, and Jacobs (2013) adapted the Utrecht Coping List for Adolescents to coping with cyber bullying and measured the overlap between general coping and cyber bullying specific coping. A total of 325 (53% females) adolescents aged between 11 and 12 participated in the study. Their findings confirmed that coping styles in general life were found to be the same as cyber bullying specific coping strategies. Moreover, cyber victims generally used emotional expressive, avoidance, and depressive coping in general life that positively predicted using depressive coping for dealing with the cyber bullying incident. At the end, this pattern resulted in higher levels of depression and health complaints. Interestingly, no association (neither positive nor negative) was found between problem-focused coping and negative outcome.

Different from the research mentioned so far, Shelley and Craig (2010) conducted a longitudinal study with 220 children to examine how well the type of coping predicted victimization within and over time. Cross-sectional findings revealed that males who used externalizing, internalizing, revenge, and social support seeking coping experienced significantly higher levels of victimization within time. For females, externalizing, internalizing, and distancing coping were found to relate to higher levels of victimization. Longitudinally, for males, higher levels of distancing coping and for females lower levels of social support seeking coping predicted higher levels of victimization over time.

Studies that were compiled above so far examined coping with bullying (both traditional and cyber) based on quantitative methodologies. Another group of researchers tried bringing greater understanding to the coping with cyber bullying

by considering the unique characteristics of cyber bullying and by conducting qualitative methods. For instance, by using several Czech social sites, Sleglova and Cerna (2011) contacted 18950 users and 35 of the contacted people positively responded to the invitation for an interview and accepted to participate. Based on the cyber bullying experience they had, 15 adolescents (13 females and 2 males) aged between 14 and 18 have been selected and interviewed online. Five coping styles emerged from coding the interview data: technical coping, avoidance, defensive strategies, social support, and activity directed at the aggressor.

Another study that examined coping with cyber bullying by adopting qualitative research methods was conducted by Parris, Varjas, Meyers, and Cutts (2012). They interviewed 20 (13 male and 7 females) students aged between 15 and 19 and asked what type of behaviors one could do to cope with cyber bullying. Two types of coping that emerged are reactive coping strategies (avoidance, acceptance, justification, and seeking social support), and preventive coping strategies (talk in person and increased security and awareness). In addition, a group of participants responded that there was no way to prevent cyberbullying. *Justification* emerged as a cognitive coping strategy for the second time after Riebel et al. (2009) and could be interpreted as victims' reappraisal of the situation and rationalization of the reason why they should not feel sorry because of the bullying incident.

Chi and Frydenberg (2009) said that coping with traditional bullying has been examined and the preventive and ameliorative role of effective coping strategies against depression and poor mental health has been proven with empirical data. However, there is paucity in the literature examining the role of the coping strategies in dealing with the negative outcome. They tested the effect of two programs; one for improvement of general coping (The Best of Coping –BOC-Program) and the other for increasing cyber specific coping strategies (Cyber Savvy Teens-CST-Program) on the coping abilities of cyber victims. CST program lasts 90 minutes and can be applied individually or as a group activity.

The program consists of knowledge on ethical and respectful Internet use, problem solving abilities, coping strategies against cyber bullying episodes, and activities that help the trainees make better online choices. Their results showed that CST worked better for cyber specific incidents while BOC helped the participants to cope better in general life events.

Machmutow, Perren, Sticca, and Alsaker (2012) conducted a longitudinal study in order to test the mediational role of a group coping strategies in cyber victimization and depression relationship. A total of 765 (52.1% female, mean age = 13.18, *SD* = 0.63) adolescents recruited and to measure coping strategies a tool that asked cyber bullying specific coping in a hypothetical cyber bullying situation was generated. Findings showed that cyber victimization was found as a risk factor over time, those who used social support experienced less depressive symptoms while those who used avoidant and emotion-focused coping encountered higher levels of depressive symptoms. Interestingly, those who have a cyber-victimization experience utilized social support less than those who did not have.

Jacobs, Dehue, Völlink, and Lechner (2014) reviewed the literature and identified the factors that determine coping with cyber bullying. They used Delphi technique in which the experts of cyber bullying field were asked to respond to questionnaires that consisted of questions measuring experts' opinion about the topic in three rounds. The answers of the experts were kept anonymous and after each round experts were given feedback about other experts' answers. Authors confirmed that factors influencing coping with traditional bullying (age, previous victimization, emotional expression, wishful thinking) were also found as related to coping with cyber bullying. They also concluded that factors affecting coping with cyberbullying were generally psychological and environmental, and suggested that future researchers who wanted to investigate coping with cyberbullying to focus on these factors.

In Turkey, Türkileri-İnselöz and Uçanok (2013) employed 2658 (52.1% female) students attending 6th through 12th grades and directed open ended questions on the reasons of cyber bullying, the reactions of cyber victims to bullying incident, and the coping strategies in cyber bullying episodes. Coding of the responses resulted in six themes: "constructive strategies, non-constructive strategies, general suggestions, unnecessary to stop, couldn't do anything and no specific solution". Two thirds of the students reported that they utilized active coping strategies (sharing the experience with someone, tell the bully to stop, and informing an authority) or simply ignore the bullying incident. Among non-constructive coping strategies, coping by avoiding the situation by limiting online activities of the victim and counter attacking were stated. Different from the studies conducted in other countries, a small amount of the participants said that there was not a way to stop and cope with bullying.

In sum, frequently stated coping ways with bullying victimization are regulating emotion and seeking social support. Cognitive coping is also remarkable in coping with the bullying literature. Below a more detailed discussion of these coping ways and their relation to victimization is presented.

2.3.2. Emotion Regulation and Victimization

Another impacting factor on reactions of victims that is included in the model is emotion regulation. Emotion regulation ability could be considered as a specific coping strategy and its association to victimization and the negative outcome was also elucidated. For instance, Kelly et al. (2008) argued that regulation of emotion worked as a buffering factor that prevented children who were victimized from being rejected by their peers. Before talking deeply about emotion regulation and victimization relationship, it is better to understand what emotion and how vital its regulation for healthy development and functioning of an adolescent is.

Emotion is defined as the biologically driven state which helps the person to evaluate the situation and behave accordingly (Gross & Thompson, 2007).

According to Cole, Martin, and Dennis (2004), emotion orders the behaviors of people and help them position themselves in the society. On another hand, emotion regulation is defined as "theoretical conceptualization of physiological, behavioral, and cognitive processes that enable individuals to modulate the experience and expression of positive and negative emotions" (Bridges, Denham, & Ganiban, 2004, p. 340). According to Gratz and Roemer (2004), the first task in emotion regulation is to be aware of the emotion and to understand it. Then, the person should accept what he or she is feeling. After accepting the emotion, the third task is the ability to control it and behave goal-directed in the presence of negative emotion. The last task to be achieved is being flexible in regulating the emotion. There are two main types of emotion regulation strategies and these are cognitive reappraisal and expressive suppression. "Cognitive reappraisal is a form of cognitive change that involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact" (Lazarus & Alfert as cited in Gross & John, 2003). Emotional suppression is a "response-focused strategy" and the people behaviorally do not allow themselves to manifest the emotion aroused by the stressful event (Gross & John, 2003). Reappraisal and suppression result in divergent consequences for the person who utilized them (Gross & John, 2003). According to them, reappraisal is defined as an "antecedent focused strategy", targets the stressful event before the negative emotion appears, and regulates the emotion that the stressful event causes. The other strategy, suppression is used by the person after the event occurrs and the negative emotion is experienced.

Studies in the existing literature pointed out a positive relationship between poor emotion regulation and psychopathology (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Livingstone, Harper, & Gillanders, 2009). When difficulties occur in regulation of emotion, affective, cognitive and behavioral problems (Dennis, 2007; Garner & Hinton, 2010) or serious psychopathology (Aldao et al., 2010) may arise.

There are a few studies conducted with the community samples and the significance of studying the nature of emotion regulation in bullying behavior has been suggested (Campos, Frankel, & Camras, 2004). Emotion regulation research on bullying has two paths: one examining the emotion regulation ability of bullies and the other investigating how emotion regulation ability plays a role in mitigating the negative impacts of bullying on victims. Firstly, poor emotion regulation (Campos et al., 2004) and difficulty in emotion regulation (Bowie, 2010) are reported as the characteristics of bullies.

Myers et al. (2013) conducted a study in which they recruited 61 (55.7% female) children aged between 7 and 13 who were attending a sleepover camp. Participating children responded to a paper-pencil questionnaire comprised of questions on bullying, victimization, and emotion regulation. In addition to children's self-report, camp mentors completed Child-Behavior Checklist and evaluated each child's adjustment. Results indicated that poor emotion regulation ability was a factor to be evaluated as a bully by the mentors.

In Garner and Hinton's (2010) study, 77 (53.2% female) children aged between 7 and 11 completed paper-pencil questionnaires. Their results confirmed that bullies experienced problems in managing and regulating their emotions. Victims had trouble in interpreting problems with display rule knowledge and solving the underlying meaning behind an act. Garner and Hinton (2010) explained this interesting finding as a reason for victims' enduring future victimization. That is, lack of competency in emotion self-regulation led a child become a candidate for further victimization and tend to be affected negatively by the bullying act. Those who are good at regulating their emotions prefer to inhibit their sadness after being bullied in order not to be targeted as a victim again (Garner & Hinton, 2010).

Empirical findings of Garner and Hinton (2010) supported Cowie and Berdondini's (2002) arguments on how a victim reacted a bullying episode determines the likelihood of further victimization. According to Cowie and

Berdondini (2002) when victims had difficulty in regulating emotion after the bullying incident and reacted inappropriately, their reaction provoked the bullies and led them to continue to victimizing the target.

Recently, Baroncelli and Ciucci (2014) tested the relationship between emotion regulation and bullying (both traditional and cyber). A total of 529 (53.1 % female) adolescents attending 6th and 8th grades participated in the study. Confirming the authors' hypothesis, findings of the study showed that lack of emotion regulation was related to traditional and cyber bullying.

The second group examined how emotion regulation ability was involved in coping with bullying victimization. Kelly et al. (2008) reported that cyber victims with efficient emotion regulation strategies recovered easier and would not experience negative consequences. Spence et al. (2009) conducted a longitudinal study and sampled 255 (53.3% female) adolescents aged between 11 and 14. They provided empirical evidence showing that participants with higher levels of victimization had problems in emotion regulation, and used maladaptive and internalizing coping.

Shields and Cicchetti (2001) supported the findings of studies coming from both paths. They sampled a special group, 169 maltreated children aged between 8 and 11 and showed that those who had bullying and victimization experiences also had trouble in emotion regulation.

In another study, Schwartz (2000) investigated emotion regulation ability with regard to status in bullying. Recruiting 354 children (50% female) attending 4th through 6th grade, they identified aggressive victims, non-aggressive victims, non-victimized aggressors, and normative constant by peer nomination. Different from the studies presented so far, in this study emotion regulation ability of the children was assessed by teachers. Findings revealed that aggressive victims were the only group who had problems in emotion regulation and internalized more than other groups.

In addition to the aforementioned work, Herts, McLaughlin, and Hatzenbuehler (2012) conducted a longitudinal study with 1065 (48.8% female) adolescents aged between 11 and 14 in order to test the role of emotion regulation in the relationship between victimization and aggressive behavior over time (4 months). Their findings substantiated the results of cross-sectional design studies. That is, emotional dysregulation mediated the relationship between victimization and later aggressive behavior.

In a review by Hong, Espelage, Grogan-Kaylor, and Allen-Meares (2012) emotion regulation was identified among the explanatory mediating factors of distress and bullying in addition to depression, anger, and social deficits skills. The authors of this review finalized their words by suggesting empirical studies that test the role of these factors.

All the studies on emotion regulation that were discussed above operationalized emotion regulation holistically and did not investigate whether subtypes of emotion regulation strategies behaved differently. Recently, in a longitudinal study, the relationship between emotional suppression and peer victimization was examined and no significant association was reported between suppression and victimization (Larsen et al., 2012).

Gross and John (2003) substantiated that two subtypes of emotion regulation (reappraisal and suppression) differed in terms of consequences they resulted in; therefore, exploring them separately in a model is necessary. While evaluating the role of suppression, which is one type of emotion regulation, one should keep in mind that suppression may have a functional role for short term. In an experimental study expressive suppression was found to decrease arousal and heart rate (Gross & Levenson, 1993, 1997). In addition, the dysfunctional effect of suppressing emotions is well-known in the emotional regulation literature. For instance, Roemer and Borkovec (1994) conducted an experimental study and showed that subjects who were instructed to suppress their thoughts displayed

higher anxiety and depressive symptoms whereas those who expressed their thoughts reported to have decreased anxiety scores.

To address the gap that is a lack of examination of emotion regulation types separately in the literature, the present study will conceptualize emotion regulation as two dimensional (reappraisal and suppression) and provide answer for the unique relationship of each dimension to other variables in the model.

2.3.3. Rumination and Victimization

Another impacting factor on the reactions of victims that is included in the present study is rumination. Rumination, which is considered as one of the cognitive coping strategies, means continuously thinking on the problem nonproductively; and focusing on the symptoms and on the emotions they experienced after facing with the problem situation rather than dealing with the problem itself (Nolen-Hoeksema, 1991). Rumination resembles reappraisal; both of them consists of thinking on the problem but in a different way. While reappraisal includes trying to produce alternative point of view to a problem, rumination has a non-productive nature (Nolen-Hoeksema & Jackson, 2001). Sample ruminative behaviors are "sitting alone thinking about how tired and unmotivated one feels, worrying that one's moods will interfere with one's job, and passively reviewing all the things wrong in one's life that might be contributing to those moods" (Nolen-Hoeksema & Jackson, 2001).

According to Treynor, Gonzalez, and Nolen-Hoeksema (2003) rumination has two subtypes: brooding and reflection. Treynor et al. (2003, p. 256) labelled brooding as the "moody pondering" meaning that thinking about the problem continuously in a dysfunctional way, and defined reflection as "…purposefully turning inward to engage in cognitive problem solving…". Reflection seems to be helpful for the person to some extent but it is not exactly a healthy way of coping.

Rumination as a whole is not a healthy coping strategy. Ruminative people tend to report more psychological symptoms while non-ruminative ones do not and

rumination is always found as a significant and strong predictor of depression (Nolen-Hoeksema & Jackson, 2001). Rumination is also found to predict internalizing problems of adolescent peer victims (McLaughlin & Nolen-Hoeksema, 2012).

In the literature, there exists only a few studies that examine the relationship between victimization and rumination. First one is conducted by Erdur-Baker (2009) in Turkey with 250 (43.2% female) adolescents aged between 13 and 18. Her findings pointed out that rumination mediates the relationship between victimization and depression. Later, findings of Rudolph et al. (2011) and Flanagan et al. (2013) supported the findings of Erdur-Baker (2009).

Later, in a recent study, Feinstein, Bhatia, & Davilla (2014) examined the same relationship in cyber victimization context. They recruited 565 (64.7% female) college students aged between 18 and 42. Although the sample age range did not correspond to adolescence years, findings of this study are crucial because it is the only study that examined the role of rumination in the cyber bullying context. Results of this longitudinal study yielded the same pattern that appeared in the relationship among traditional victimization, rumination, and depressive symptoms. That is, cyber victimization predicted rumination positively and it in turn predicted higher levels of depressive symptoms. Therefore, initial studies point out that the role of rumination in victimization process should further be examined.

2.3.4. Perceived Social Support and Victimization

The final impacting factor on the reactions of victims that is selected to be further examined in the current study is perceived social support. Social support is defined as receiving clues from others indicating that one is cared and considered as important and valuable by his or her network (Cobb, as cited in Seeds, Harkness, & Quilty, 2010). Buffering hypothesis suggested that social support works as a protective factor to mitigate the negative effects of a stressful event

(Prati & Pietrantoni, 2010). Furthermore, social support, which is mostly associated with healthy development, facilitates coping, has a therapeutic value and negatively relates to psychopathology (Pearson, 1986).

However, a distinction between acquired and perceived social support is highlighted in a meta-analysis by Prati and Pietrantoni (2010). Results of this meta-analysis indicated that the effect size of perceived social support was larger than that of received social support, that is, the positive effect of social support was coming from people's perception rather than the true amount of social support acquired. To be more clear in the current study, perceived social support is defined as "an individual's perception of general support or specific supportive behaviors (available or enacted on) from people in their social network, which enhances functioning or may buffer them from adverse outcomes" (Demaray & Malecki, 2002, p. 215).

Having social support may be helpful for the victims if their needs are satisfied through sharing experiences and emotions with the people in their social network. Otherwise, having a social network may create a burden for the victim. Kennedy-Moore and Watson (2001) discussed how and when emotional expression helps in trauma context and revealed that sharing needs to have certain characteristics in order to be helpful for the sharer. A good quality of sharing should facilitate insight about the emotions and help the victims to create a meaning for their feeling, reduce distress, and strengthen the bond between two people (who shares the experience and who listens to the victim). In peer victimization context, the same rules should be valid.

Acknowledging the importance of social support in the problem situations and considering the bullying act as a stressor, researchers examined the role of social support in bullying experiences of youngsters (Rigby, 1998). Many studies reported the protective role of perceived social support in case of adversity and its positive contribution to the overall life satisfaction and well-being of adolescents (Demaray & Malecki, 2002). Rigby (2000) examined how social support was

associated to victims' well-being with 845 adolescents (46.7% female) aged between 12 and 16. For both male and female participants who experienced traditional victimization, lower levels of social support were found as a risk factor for poor mental health. Adolescents who were neither bully nor victim perceived social support from their parents more than bullies and bully/victims whereas victims did not say that they perceived less social support from their parents as compared to those not involved in bullying and victimization (Demaray & Malecki, 2003). In a more recent study, Fanti, Demetriou, and Hawa (2012) recruited 1416 (50.1% female) adolescents aged 11 to 14 and investigated the protective role of social support on cyber victimization. Their findings indicated that lower levels of perceived social support from family and friends predicted higher level of cyber victimization among participants.

The underlying mechanism behind the function of perceived social support was that it provides people with sources of instrumental or emotional help (Rothon et al., 2011). Additionally, just by observing how others are dealing with the negativities in their life, one could learn new ways of coping (Pearson, 1986). In their correlational study, Bijttebier and Vertommen (1998) examined how victimization and social neglect were associated to a group of coping strategies (problem solving, distancing, social support seeking, internalizing, and externalizing coping). By recruiting 329 (48.9% female) children aged between 9 and 13, they found out that even though the victims of bullying encountered social problems, they endured seeking social support.

Considering that social support might also have a buffering effect for perpetrators in bullying incidents, Konishi and Hymel (2009) conducted a study with 312 (52.8% female) children whose ages ranged from 9 to 13 and who were living in Canada. They aimed to analyze the role of social support in diminishing the likelihood of being a bully after a stressful situation. According to their results, perceived social support worked as a protective stress buffering mechanism and kept the child away from engaging in bullying.

The relation of perceived social support to victimization is two fold. First, high level of perceived social support around the victims helps them to appraise the situation and cope better. Holt and Espelage (2007) evaluated the differences in social support perceptions of bullies, victims, bully/victims, and uninvolved children. According to their findings uninvolved children reported the lowest anxiety/depression and highest social support scores. Moreover, pupils with lower levels of perceived social support are more likely to be targeted as victim again (Newman, Holden, & Delville, 2005).

Second, the studies emphasizing the importance of having social support fuelled out another line of research that examined the role of help seeking behavior of cyber and traditional victims' for their emotional experiences (Dooley et al., 2010). Although it is not directly related to having social support, if the victimized children perceived that they have social support, they can ask for help to cope with the bullying act. In general, bullying prevention research suggests informing adults about the bullying episode and asking for help from others in case of victimization. For traditional victimization, the effectiveness of parental monitoring has been reported in the literature (Fekkes, Pijpers, & Verloove-Vanhorick, 2005). Additionally, because the traditional bullying incident takes place in front of other students and sometime teachers at school, adults are most likely to be aware of who the victims are and can intervene in the bullying event. However, in cyber bullying, detecting who is victimized is harder. Therefore, reporting the cyber bullying episodes to adults to ask for their help is vital. Price and Dalgleish (2010) tested the importance of this suggestion empirically and reported that children who were exposed to cyber bullying asked help firstly from their parents and secondly from their peers. However, other research findings suggested that children did not prefer to disclose the cyber bullying case to adults and therefore did not ask for help from parents or teachers because they thought adults would not understand what they were experiencing or their parents would not allow them to use the Internet in order to prevent them from being bullied again (Agatston, Kowalski, & Limber, 2007; Li, 2010; Mischna et al., 2009).

However, role of the parents in decreasing cyber victimization rates was reported as very crucial since empirical findings showed that parental prevention strategies helped to decrease the rate of cyber victimization (Floros, Siomos, Fisoun, Dafouli, & Geroukalis, 2013). Dooley et al. (2010) stated that victims of cyber bullying did not ask for help when they were bullied. Their interpretation of this finding is related to the nature of cyber bullying; because cyber bullying is not limited to school environment, youngsters may not be willing to report the case to teachers or school personnel. They strongly recommended further research scrutinizing the help seeking behavior of cyber victims. In contrast, findings of O'Brien and Moules (2013) resulted in a different pattern. They sampled 473 (57.7% female) adolescents aged between 11 and 19 and explored their cyber bullying and victimization experiences regarding its impacts and victims' support needs. Of the cyber victims, 78% said they asked for help from their parents, 53.7% reported that they asked for help from friends.

2.4. Summary

Bullying has been a rapidly growing problem among adolescents and for a decade, with the improvements in technology, a new type of bullying that is called cyber bullying has risen. First group of studies investigated the nature of bullying and victimization by examining its definition and the prevalence rates in traditional and cyber environments. After substantiating that bullying and victimization is prevalent among adolescents, studies were conducted to understand how victims react to bullying. Victims of traditional and cyber bullying suffered from a great variety of negative consequences such as depression, anxiety, low academic achievement, sleeplessness, and peer problems (Aoyama et al., 2011; Chang et al., 2013; Patchin, & Hinduja, 2010). In order to help the victims, researchers need to develop prevention and intervention programs, and examination of how victims cope with the negative consequences of bullying is required.

There appears several demographic, emotional, and cognitive factors that seem to be related to the reactions of victims. Among these factors emotional and cognitive ones detected based on the literature and included in the present study because demographic factors were examined previously (Ortega et al., 2012). However, the relationships among the emotional and cognitive factors and their relation to victimization are not inveastigated well enough. These factors are selected as coping styles, emotion regulation, rumination, and perceived social support. Using maladaptive coping strategies, having poor emotion regulation strategies, ruminating and perceiving less social support from others were found to be related to negative consequences for traditional and cyber victims (Erdur-Baker, 2009; Kelly et al., 2008; Kochenderfer-Ladd & Skinner, 2002; Rigby, 2000). Relationships between each of these factors and negative outcome were analyzed separately for both traditional and cyber victims; however, none of the existing studies examined a model that investigates the relationships among these factors and internalizing behavior in traditional and cyber victimization contexts.

Therefore, the aim of the current study is to bring these variables together and propose a model by which their relative contribution is outlined and test it for both traditional and cyber victims. Sheding light on victims' emotional experiences and rumination behaviors as well as coping and help seeking behavior would help to develop better and more efficient prevention and intervention strategies.

CHAPTER 3

METHOD

The previous chapter presents a review of the traditional and cyber bullying literature and stated the goal of the present study as to test a model that consists of coping style, emotion regulation, rumination, perceived social support, and internalizing behavior and outlines the relationships among these variables in traditional and cyber victimization contexts. In this chapter, the methodological procedures to achieve the stated aim are presented. First, this cross-sectional design study is described briefly. Later, participant characteristics and sampling procedure are introduced. Afterwards, information on the measurement tools and pilot study that was conducted to test the reliability and validity of measurement tools are explained in detail. Subsequently, data collection procedure and data analysis techniques are presented. Finally, limitations of the study are discussed.

3.1. Overall Design of the Study

The present study aims to test a model which consists of coping style, emotion regulation, rumination, perceived social support, and internalizing behavior and outlines the relationships among these variables in traditional and cyber victimization contexts. Revised Cyber Bullying Inventory-II, Revised Olweus Bully/Victim Questionnaire, Brief COPE, Emotion Regulation Questionnaire, Ruminative Response Scale, Multidimensional Scale of Perceived Social Support, and Strengths and Difficulties Questionnaire were utilized to collect data in addition to a demographic information form. Correlational research design was adopted to investigate the associations among variables. Basically, "a correlational study describes the degree to which two or more quantitative variables are related, and it does so by using a correlation coefficient" (Fraenkel,

Wallen, & Hyun, 2012, p. 331). In this study, Structural Equation Modeling (SEM) techniques were used to test the correlational relationship among variables.

3.2. Sampling Procedure and Participants

Data were collected in the spring semester of the 2013-2014 academic year. First of all, the approval from Middle East Technical University Human Subjects Ethics Committee (Appendix A) and permission for data collection from Ankara Provincial Directorate of National Education (Appendix B) were received. The participants of the study were recruited through cluster random sampling procedure. In the first step, list of the public high schools in Ankara was obtained from the Ankara Provincial Directorate of National Education. Then, in the second step, one school from each of the seven main districts of Ankara (Altındağ, Çankaya, Etimesgut, Keçiören, Mamak, Sincan, and Yenimahalle) was selected randomly by using random number generator tool at random.org. Randomly selected schools were visited by the researcher and the aim and the procedure of the study were explained to school principals. In the third step, two classrooms from each grade level (9^{th}, 10^{th}, 11^{th}, and 12^{th}) from each school were selected. Data were collected from volunteered students who were attending during the day of data collection.

3.2.1. Participants

Ouestionnaires were distributed to 1189 high school students attending public high schools in Ankara. A total of 1071 questionnaires were received with a return rate of 90.07%. Listwise deletion was used to handle missing data and final number of students who participated to the study counted up to 853. As seen in Table 1, sample consisted of 476 (55.8%) female and 377 (44.2%) male students. The mean age for the sample is 16.18 (*SD* = 1.05) where the age of the participants ranged between 14 and 18.

Considering the mother education level, 8 (0.9%) were reported to be illiterate, 3 (0.4%) were reported to be literate, 161 (18.9%) were reported to be primary

school graduate, 143 (16.8%) were reported to be secondary school graduate, 279 (32.7%) were reported to be high school graduate, 33 (3.9%) were reported to have a two-year degree, 191 (22.4%) were reported to be university graduate, 20 (2.3%) were reported to have a master degree, and 7 (0.8%) were reported to have a PhD degree. For father education level, 2 (0.2%) were reported to be illiterate, 5 (0.6%) were reported to be literate, 65 (7.6%) were reported to be primary school graduate, 94 (11%) were reported to be secondary school graduate, 259 (30.4%) were reported to be high school graduate, 47 (5.5%) were reported to have a two-year degree, 299 (35.1%) were reported to be university graduate, 44 (5.2%) were reported to have a master degree, and 24 (2.8%) were reported to have a PhD degree.

Regarding the participants' computer and mobile phone usage characteristics (Table 2), of the participants, 819 (96%) stated that they had a mobile phone, 733 (89.5%) said that they have a data plan with their mobile phone, and 790 (96.5%) reported that they use their mobile phone to take a photo or a video. When the participants were asked whether they have the Internet connection at home 748 (87.7%) said that they connected to the Internet at home. Of the participants, 694 (81.4%) reported that they connected to the Internet via a smart phone, 512 (60%) said that they used a laptop to connect to the Internet, 479 (56.2%) stated that they connected to the Internet with a desktop, and 332 (38.9%) told that they use tablet to connect to the Internet. Participants generally evaluated their weekly Internet usage frequency as ranging between 4 to 7 hours (21.1%).

Table 1

Demographic Characteristics of the Participants

	f	%
Gender		
Female	476	55.8
Male	377	44.2
Age		
14	22	2.6
15	242	28.4
16	246	28.8
17	246	28.8
18	97	11.4
Mother Education Level		
Illiterate	8	0.9
Literate	3	0.4
Primary School	161	18.9
Secondary School	143	16.8
High School	279	32.7
Two-year degree	33	3.9
University	191	22.4
Master	20	2.3
Doctorate	7	0.8
Father Education Level		
Illiterate	2	0.2
Literate	5	0.6
Primary School	65	7.6
Secondary School	94	11
High School	259	30.4
Two-year degree	47	5.5
University	299	35.1
Master	44	5.2
Doctorate	24	2.8

Table 2

Mobile Phone and Computer Usage Related Characteristics of Participants

	f	%
Having a mobile phone		
Yes	819	96
No	34	4
Having mobile phone with a data plan		
Yes	733	89.5
No	75	9.1
Taking photos or videos with mobile phone		
Yes	790	96.5
No	26	3.2
Having Internet connection at home		
Yes	748	87.7
No	93	10.9
Connecting the Internet via*		
Smart phone	694	81.4
Laptop	512	60
Desktop	479	56.2
Tablet	332	38.9
Other		
Television	20	2.3
Gaming console	9	1.1
Mobile phone	7	0.8
Internet café	1	0.1
Weekly Internet usage frequency		
Never	8	0.9
Less than 1 hour	49	5.7
1-3 hours	157	18.4
4-7 hours	180	21.1
8-14 hours	148	17.4
15-21 hours	95	11.1
22-28 hours	97	11.4
28 hours or more	112	13.1

*Participants were allowed to select more than one response, therefore total percentages may exceed 100.

3.2.2. Data Collection Instruments

In order to collect data, seven questionnaires (Revised Cyber Bullying Inventory-II, Revised Olweus Bully/Victim Questionnaire, Brief COPE, Emotion Regulation Questionnaire, Ruminative Response Scale, Multidimensional Scale of Perceived Social Support, and Strengths and Difficulties Questionnaire) were utilized in addition to a demographic information form. Prior to the main study, a pilot study was conducted to assess the validity and reliability of the questionnaires that were used in the present study.

3.2.2.1. Pilot Study

A pilot study was conducted to test the validity and reliability of the instruments that were used in the main study. Information on data collection procedure, sample characteristics, assumption tests, and data analyses in the pilot study were listed below. Afterwards, findings of the validity and reliability analyses for each measurement tool were presented after the questionnaires were introduced.

3.2.2.1.1. Sample and Procedure

The sample for the pilot study was recruited through cluster random sampling which is defined by Fraenkel et al. (2012, p. 96) as "the selection of groups, or clusters, of subjects rather than individuals". After receiving the approval from Middle East Technical University Human Subjects Ethics Committee (Appendix A) and Ankara Provincial Directorate of National Education (Appendix B), one school from 7 main districts of Ankara (Altındağ, Çankaya, Etimesgut, Keçiören, Mamak, Sincan, and Yenimahalle) was randomly selected by using random number generator tool at random.org. Schools were visited by the researcher and the aim and the procedure of the study were explained to school principals. The principal of the school which was located at one of the aforementioned districts did not accept to collaborate. Data were collected from six schools that were located at other main districts of Ankara. One classroom from each grade level

was selected and data were collected from volunteered students attending during the day of data collection.

A total of 587 (341 females and 246 males) adolescents aged between 14 and 19 (M = 15.89, SD = 1.07) were reached. Participants were from 9th (39.7%), 10th (30.8%), 11th (16.9%), and 12th (12.6%) grade.

As the first step, pilot data were screened and missing value analysis was conducted. Results of Little's MCAR Test (Little & Rubin, 1987) yielded in a significant Chi-square value indicating the missing data pattern was not perfectly random. Chi-square test is sensitive to sample size and may yield in a significant value with samples larger than 200 (Tabachnick & Fidell, 2007). Researchers are suggested to analyze the pattern and reason of missingness in data. Allison (2002) suggested comparing cases with complete scores and cases with missing data with regard to variables in the study. In this study, cases with complete scores and cases with missing data were not significantly different from each other in terms of study variables. Allison (2002) also recommended that listwise deletion was robust to violation of missing at random assumption. Additionally, according to Tabachnick and Fidell (2007), if the missing data is less than 5%, any technique would result in similar results. In the present study, for all of the questionnaires, rate of missing value was lower than 5%. Therefore, considering the large sample size, Allison's (2002) recommendation, and the non-significant differences between cases with complete scores and cases with missing data, listwise deletion was done in the pilot study. After listwise deletion sample size counted up to 396 (238 females and 158 males) with a mean age of 15.88 (SD = 1.07). The distribution among grade was very similar to the sample before listwise deletion (37.4% were 9th graders, 32.8% were 10th graders, 16.2% were 11th graders, and 13.6% were 12th graders).

Several criteria for deciding the adequacy of sample size to conduct CFA was suggested in the literature. As a rule of thumb, 200 participants were suggested to

conduct a CFA (Kline, 2011). In the pilot study, there were 396 cases that was a large enough sample to conduct CFA according to the above criteria.

In the third step, normality assumption was tested via skewness and kurtosis values. According to Kline (2011) a value close to 3 indicates a normal distribution. Values those are higher than 3 show positive kurtosis and values that are lower than 3 show negative kurtosis. Similarly, values which are larger than 3 are considered as skewed distributions. Results of these test showed that the sample distribution in the present study was not perfectly normal. After a closer examination of normality test results, it has been realized that deviations from normal distribution were for bullying and victimization items. Although transformation was a technique to handle non-normal data, researchers were also warned about the problems that transformation may result in while interpreting findings from transformed data (Tabachnick & Fidell, 2007).

Thus, in the pilot study researcher decided to continue with the slightly non-normal data to work with original reports of participants' rather than manipulating data and creating a new data set by transformation. Byrne (2010) claimed that in practice researchers generally fail to meet normality assumption and in an attempt to reduce the influence of non-normality, they effort to increase the robustness of the model. Therefore, as a remedy to eliminate the effects of non-normality, bootstrapping was used. *Bootstrapping* "is a computer-based method of resampling" and used to estimate standard errors for non-normal samples, categorical data or for data with missing cases (Kline, 2011, p. 42). In the present study, bootstrapping was applied in order to eliminate the effects of non-normality.

Further, in order to understand whether outlier scores yielded in deviations from normal distribution, standardized Z scores were checked. For all questionnaires, there were cases lower than -3.29 and higher than +3.29 and these cases could be labeled as outliers according to Tabachnick and Fidell (2007). For detecting multivariate outliers, Mahalonobis distances were examined (Kline, 2011;

Tabachnick & Fidell, 2007). According to the results of the analysis, a few cases were out of the Chi-square distance that was given by the analysis. All the analyses were conducted twice, once with the outliers and once without the outliers. Because the results of the two analyses did not differ, outliers were kept in the data set in order not to lose variation in sample.

Afterwards, by using AMOS Version 18 (Analysis of Moment Structures) (Arbuckle, 2009) Confirmatory Factor Analysis (CFA) was conducted for each scale to test the validity of the questionnaires. For examining the internal consistency of the questionnaires, Cronbach alpha coefficients were calculated. Cronbach alpha value could range between 0 and 1, and .60 is considered as the lowest acceptable value for social sciences (Hair, Black, Babin, Anderson, & Tatham, 2009). Additionally, using SEM as the main analysis tools would also controls for the measurement error that could be a problem caused by imperfect reliability (Schumacker & Lomax, 2010).

Prior to CFA, in addition to testing normality and influential outliers assumptions of CFA were tested. Linearity assumption was checked by creating residual plots and scatterplots. Visual inspection of the plots indicated that linearity assumption was not violated. Lastly, multicollinearity assumption was checked by reviewing bivariate correlation coefficients, VIF (variance inflation factor) and tolerance values. Multicollinearity is a problem when two or more independent variables correlate more than desired (Tabachnick & Fidell, 2007). To meet this assumption, correlation coefficients must be lower than .85 (Kline, 2011), VIF values must be less than 10, and tolerance values must be higher than .20 (Tabachnick & Fidell, 2007). All of the VIF and tolerance values fall in the expected ranges; therefore, results of the present study did not indicate a problematic item for multicollinearity assumption.

To evaluate model fit in CFA, approximate fit indexes were consulted. Fit indexes were grouped into three; absolute, incremental (comparative), and parsimony-adjusted (Kline, 2011). Although Hu and Bentler (1999) suggested reporting two

fit indexes; SRMR and a fit index from incremental (comparative) fit indexes group, in the present study, representative fit indexes from each of the three groups (absolute, incremental,and parsimony-adjusted) were selected and reported. These were Chi-square value, χ^2/df, and Standardized Root Mean Square Residual (SRMR) from absolute fit indexes group, The Bentler Comparative fit index (CFI) and Tucker-Lewis index (TLI) from incremental (comparative) fit indexes group, and Root Mean Square of Error Approximation (RMSEA) from parsimony-adjusted index. Below are the detailed descriptions of these fit indexes.

Model Chi-Square (χ^2): This is the basic model test statistic and a value of 0 with a non-significant p value indicates a perfect fit. However, the model Chi-square value has some limitations. Chi-square value is sensitive to sample size and correlation size. With large data sets, Chi-square value tends to be statistically significant. In order to eliminate the problems caused by sensitivity of Chi-square to sample size, normed Chi-square (ratio of χ^2 to its expected value that is degree of freedom-*df*) is used. For the threshold level of χ^2/df, Kline's (2011) criterion, which is 3, is used in the present study.

Standardized Root Mean Square Residual (SRMR): It is "the overall difference between the observed and predicted correlations" (Kline, 2011, p. 209). According to Hu and Bentler (1999) a value that is lower than .08 indicates good fit.

The Bentler Comparative Fit Index (CFI): It compares the proposed model and a baseline model (independence model), then, evaluates how good the proposed model is (Kline, 2011). The range of the fit index is between 0 and 1 where higher scores indicate a good fit. According to Hu and Bentler (1999), values higher than .95 indicate a good fit.

Tucker-Lewis Index (TLI): Another fit index from incremental (comparative) fit indexes category is TLI and this index is also known as Non-Normed Fit Index (NNFI). It has a range of 0 to 1. Similar to CFI, as the score approximates to 1,

model fit improves and values higher than .95 indicates good fit (Hu & Bentler, 1999).

Root Mean Square of Error of Approximation (RMSEA): Based on non-centrality parameter, this index evaluates badness-of-fit and a value close to 0 indicates a good fit. According to Hu and Bentler (1999), values close to .06 shows a good fit. Values between .08 and .10 indicate a mediocre fit and values higher than .10 is a sign of poor fit (MacCallum, Browne, & Sugawara, 1996).

3.2.2.1.2. Revised Cyber Bullying Inventory-II (RCBI-II)

Revised Cyber Bullying Inventory-II has 10 items and two scoring columns. The participants are asked to rate each item twice (once for reporting cyber bullying experience on "I did it" column and once for reporting cyber victimization experience on "It happened to me" column) on a 4-point rating scale (*1 = never, 2 = once, 3 = twice or three times, 4 = more than three times*). One sample item read as "sending embarrassing or hurtful messages on the Internet" (Appendix C). The possible lowest score is 10 and the possible highest score is 40 where higher scores indicate more frequent cyber bullying and cyber victimization. In order to identify status of cyber bullying (cyber bullies, cyber victims, cyber bully/victims, and not involved) a categorical scoring is also possible. Those who receive 10 points are grouped as students who are not involved in cyber bullying. Because cyber bullying and victimization requires repetition, it is possible to identify the cyber bullies and cyber victims after eliminating those who reported that they cyber bullied or were cyber victimized only once.

3.2.2.1.2.1. Development of RCBI-II

Revised Cyber Bullying Inventory-II was obtained as a result of a second revision of CBI after the first revision which yielded in RCBI. Cyber Bullying Inventory was developed in 2007, revised in 2010 and RCBI was obtained. For the current study, RCBI was revised again.

Cyber Bullying Inventory (CBI) was developed by Erdur-Baker and used in Erdur-Baker and Kavşut (2007) for the first time. It has two similar forms, one to measure cyber bullying frequency (16 items) and one to measure cyber victimization frequency (18 items). Both forms ask participants to rate their experience on a 4-point rating scale (1 = *It has never happened to me*, 2 = *It happened once or twice*, 3 = *It happened three-five times*, 4 = *It happened more than five times*). The Cronbach alpha coefficient of cyber bullying form was .92 and cyber victimization form was .80 (Erdur-Baker & Kavşut, 2007). Topcu et al. (2008) used CBI with two different samples and reported the Cronbach alpha coefficients of it as .81 and .91 for the cyber bullying form, and .72 and .88 for the cyber victimization form.

Topcu and Erdur-Baker (2010) revised CBI and created *Revised Cyber Bullying Inventory* (RCBI) that has 14 items. Participants are asked to rate each item twice: one to measure cyber victimization under "It happened to me" column, and one to measure cyber bullying under "I did it" column on a 4-point rating scale (*1 = never, 2 = once, 3 = twice or three times, 4 = more than three times*). Sample item from the RCBI read as "Threatening in online forums (like chat rooms, facebook, or twitter)". The possible lowest score was 14 and the possible highest score was 56 where higher scores indicated more frequent cyber bullying and cyber victimization experiences. Confirmatory factor analysis results showed that both cyber bullying and cyber victimization forms have one factor structure and internal consistency coefficients of RCBI was reported as .82 for cyber bullying form and .75 for cyber victimization form (Topcu & Erdur-Baker, 2010).

The problem of RCBI is that it consists of specific technology names such as Facebook, messenger, and chat room. As the technology changes rapidly, the mentioned tools and programs may fall into disuse. It is hard for the participants to follow the names of specific tools and programs that are introduced new or they become old-fashioned. In the current study, RCBI was revised and have a new

format that does not include any specific technology name and is affected the changes in technology less.

3.2.2.1.2.2. Expert Opinion for RCBI-II

Revised items were examined by six faculty members with the background on Psychological Counseling and Guidance, Computer Education and Instructional Technology, and Curriculum and Instruction. These experts suggested minor grammar changes and edit some items' wording in order to achieve better clarity and readability. After the revisions that were suggested by the six faculty members, four PhD candidates of Educational Sciences were asked to review the final version of the questionnaire for a final check of the wording, the format, and the spelling. Based on all the feedback received, RCBI-II was finalized.

3.2.2.1.2.3. Feedback Session for RCBI-II

After obtaining experts' opinions on the items, a feedback session was conducted with six high school students (3 females, 3 males) aged 14 and 15. The school where the feedback session took place was selected through convenience. The feedback session that was held in school counselor's office lasted approximately 40 minutes and school counselor also attended the session to assist the researcher while directing the group talk. Students in the feedback session filled out the questionnaire and provide feedback on the readability and understandability of the items besides average time necessary to finish responding all the items. There was not much change and they evaluated the items as easy to read and understand.

3.2.2.1.2.4. Confirmatory Factor Analysis of the RCBI-II

3.2.2.1.2.4.1. Cyber Victimization Section

For the cyber victimization section of the RCBI-II, one-factor solution was tested. Kline (2011) suggested item parceling while conducting CFA with questionnaires that have more than 5 items. Because RCBI-II has 10 items, item parceling technique was conducted and four parcels were created based on mean scores of

the items. Results of CFA showed that one factor solution had a good fit for the data (Table 3). Standardized estimates of the model ranged between .60 and .92.

Table 3

Goodness of Fit Indexes for One Factor Model of Cyber Victimization Section of RCBI-II

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	1.61 (p = .44)	2	.83	1.00	1.00	.00	.01

3.2.2.1.2.4.2. Cyber Bullying Section

For the cyber bullying section of the RCBI-II, one-factor solution was tested. Similar to the cyber victimization part, item parceling technique was conducted and four parcels were created. Results showed that a poor fit of one factor model for the data (Table 4). After the modification indexes were checked, the error covariance of parcel 3 and parcel 4 was freely estimated. Conducted modification improved the model fit (Table 4). Standardized estimates ranged between .40 and .69.

Table 4

Goodness of Fit Indexes for One Factor Model of Cyber Bullying Section of RCBI-II

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	26.29***	2	13.14	.92	.75	.17	.05
Model 2	1.08 (p = .30)	1	1.08	1.00	1.00	.01	.01

***p < .001

3.2.2.1.2.5. Reliability of RCBI-II

Internal consistency coefficient of the RCBI-II was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .84 for the cyber victimization part and .69 for the cyber bullying part.

3.2.2.1.3. The Revised Olweus Bully/Victim Questionnaire (ROVBQ)

ROVBQ was generated by Olweus (as cited in Dölek, 2002, p. 271) and used to measure the bullying and victimization experiences of adolescents. ROBVQ has 40 questions measuring bullying and victimization in detail. In the present study, only the items that measures frequency of traditional victimization and traditional bullying during the last six months were used. One sample item from the victimization section is "I was intentionally isolated from the group and ignored" and a sample item from the bullying section was "I called another student(s) mean names, made fun of, or teased in a hurtful way". To receive parallel frequencies as cyber bullying and cyber victimization, each item was asked to be rated on a 4-point rating scale (*1 = never, 2 = once, 3 = twice or three times, 4 = more than three times*).

Turkish adaptation of ROBVQ was conducted by Dölek (2002) but psychometric properties of the questionnaire were not reported in the adaptation study. Although the reliability and validity reports are not clearly described in the adaptation study, this questionnaire is a very widely used in Turkish bullying literature and evidence for its validity and reliability comes from other studies in the literature. For instance, Atik (2006) utilized the scale with Turkish adolescents and reported the internal consistency coefficient as .71 for victimization and .75 for bullying. Appendix D presents sample items from the Turkish version of the scale.

3.2.2.1.3.1. Confirmatory Factor Analysis of ROBVQ

3.2.2.1.3.1.1. Traditional Victimization Section

One-factor solution was tested for victimization part of ROBVQ through CFA. Results showed a poor fit of one-factor model to the data (Table 5). After the modification indexes were checked, the error covariance of item 1 and item 4 was freely estimated. These items measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted

modification improved the model fit (Table 5). Standardized estimates ranged between .67 and .55.

Table 5

Goodness of Fit Indexes for One Factor Model of Traditional Victimization Section of ROBVQ

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	51.5***	9	5.72	.93	.88	.10	.05
Model 2	30.04***	8	3.76	.96	.93	.08	.03

****p* < .001

3.2.2.1.3.1.2. Traditional Bullying Section

One-factor solution was tested for the bullying section of ROBVQ through CFA. Results showed a poor fit of one-factor model for the data (Table 6). After the modification indexes were checked, the error covariance of item 4 and item 6 was freely estimated. These items measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted modification improved the model fit (Table 6). Standardized estimates ranged between .70 and .42.

Table 6

Goodness of Fit Indexes for One Factor Model of Traditional Bullying Section of ROBVQ

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	40.79***	9	4.53	.94	.89	.09	.04
Model 2	24.97***	8	3.12	.97	.94	.07	.03

****p* < .001

3.2.2.1.3.2. Reliability of ROBVQ

Internal consistency coefficient of ROBVQ was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .79 for the traditional victimization section and .76 for traditional bullying section.

3.2.2.1.4. Brief COPE

Original COPE was developed by Carver, Scheier, and Weintraub (1989) and consisted of 15 subscales; active coping, planning, suppression of competing activities, restraint coping, seeking instrumental social support, seeking emotional social support, positive reinterpretation and growth, acceptance, denial, turning to religion, focus on and venting of emotions, behavioral disengagement, mental disengagement, alcohol and drug use, and humor. There are four items in each subscale and it makes a total of 60 items. Carver (1997) revised the scale and called it Brief COPE. It has 14 subscales; active coping, planning, positive reframing, acceptance, humor, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame, and includes two items in each subscale making a total of 28 items. Each item was asked to be rated on a 4-point rating scale (*1 = I'm not doing this at all* to *4 = I'm doing this a lot*). The factor structure of Brief COPE was reported as very similar to riginal COPE with the internal consistency coefficients ranging from .50 to .90 (Carver, 1997). Contrary to the conventional procedure, Carver (1997) did not presented statistical evidences for structural validity of the Brief COPE and recommended flexible and creative usage of it by other researchers as it fits to the data set. Additionally, Carver (1997) allowed researchers to select and use set of subscales as needed.

Later, Schnider, Elhai, and Gray (2007) proposed a three factor structure (first factor included active coping, planning, instrumental support, and religion; second factor consisted of venting, positive reframing, humor, acceptance, and using emotional support; and third factor comprised of self-distraction, denial, behavioral disengagement, self-blame, and substance use) for Brief COPE. First factor was called problem-focused coping, second factor was named active-emotional coping, and the third factor was called avoidant-emotional coping. Cronbach alpha coefficients were reported as .80 for problem-focused coping, .81 for active emotional coping, and 88 for avoidant emotional coping.

The Turkish adaptation study of Brief COPE was carried out by Tuna (2003). An eight factor solution was found as a result of exploratory factor analysis and a second order factor structure was presented. The subscale total scores were calculated based on the original Brief COPE. The items for "using instrumental support" were eliminated due to low item-total correlations. Afterwards, by using these total scores another factor analysis were carried out and a three-factor solution was found. The item-total correlations of Brief COPE were reported as changing between .15 and .84 in Tuna (2003). "I'm taking action to try to make the situation better" is a sample item from the active coping component. Ankara Provincial Directorate of National Education did not let the researcher to include questions that were measuring coping with substance use. Therefore, in the present study, two items asking about substance use were excluded from the scale. Appendix E presents sample items from the Turkish version of the scale.

3.2.2.1.4.1. Confirmatory Factor Analysis of Brief COPE

First, by using CFA, original factor structure of Brief COPE was tested. Results showed that, Chi-square statistic was statistically significant ($\chi^2(221) = 425.01$, $p < .001$) although χ^2/df ratio was 1.92 that was below the threshold value, which is 3, suggested by Kline (2011). Comparative indexes of fit indicated poor fit CFI = .92, TLI = .89, whereas RMSEA value showed .05 good fit (Hu & Bentler, 1999). As a result of the controversy among fit indexes, three factor structure (problem focused coping, active-emotional coping, and avoidant emotional coping) that was proposed by Schnider et al. (2007) was tested.

Kline (2011) suggested item parceling while conducting CFA with questionnaires that have more than 5 items. Item parceling technique was conducted with 26 items and 12 parcels were created based on the mean score of each item. Three-factor CFA resulted in significant Chi square statistic ($\chi^2(51) = 189.32$, $p < .00$, and χ^2/df ratio was 3.71 that was slightly above 3 which is the criteria of good fit suggested by Kline (2011). CFI value was .89 and TLI value was .86. According to the criteria of Hu and Bentler (1999), CFI and TLI must be higher than .95.

After the modification indexes were checked, the error covariance of parcel 1 and parcel 2 was freely estimated. These parcels measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted modifications improved the model fit but Chi-square value was still statistically significant ($\chi^2(50) = 138.78$, $p < .001$, and χ^2/df ratio was 2.77 that is below 3 which is the criteria of good fit suggested by Kline (2011). CFI value was .93 and TLI value was .91. According to Hu and Bentler (1999), CFI and TLI must be higher than .95. Even though CFI and TLI could not reach the threshold level (.95), they approximated .95. RMSEA value was found as .06, for RMSEA, values close to .06 indicate a good fit (Hu & Bentler, 1999). Standardized estimates ranged between .81 and .46. Although the model fit looked good, all the parameter estimates were significant and high enough, there was a multicollinearity problem. The latent correlation coefficient between problem focused coping and active emotional coping was .85 which is the threshold value of detecting multicollinearity according to Kline (2011).

In order to eliminate multicollinearity problem, problem focused coping and active emotional coping factors were combined as mentioned by Schnider et al. (2007). This new combined factor was named as adaptive coping and avoidant coping was renamed as maladaptive coping as stated by Schnider et al. (2007). Results indicated a poor fit of two factor model for the data (Table 7). After the modification indexes were checked, the error covariance of parcel 1 - parcel 2, parcel 5 - parcel 8, parcel 7 – parcel 8, and parcel 10 - parcel 11 were freely estimated. These items measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted modification improved the model fit (Table 7). Standardized estimates ranged between .37 and .78 for adaptive coping and between .48 and .66 for maladaptive coping.

Table 7

Goodness of Fit Indexes for Two Factor Model for Brief COPE

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	232.35***	53	4.39	.86	.83	.09	.07
Model 2	117.14***	49	2.39	.95	.93	.06	.05

****p* < .001

3.2.2.1.4.2. Reliability of Brief COPE

Internal consistency coefficient of the Brief COPE was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .82 for adaptive coping, and .65 for maladaptive coping.

3.2.2.1.5. Emotion Regulation Questionnaire (ERQ)

Emotion Regulation Questionnaire was developed by Gross and John (2003). The aim of this tool is to assess the strategies of people while regulating their emotions. ERQ composed of 10 items which were asked to be responded on a 7-point Likert rating scale (*1 = strongly disagree* to *7 = strongly agree*). According to Gross and John (2003), there are two subscales; six items measuring cognitive reappraisal and four items measuring expressive suppression. One sample item from the expressive suppression subscale of the ERQ is "I control my emotions by not expressing them" and from the cognitive appraisal subscale is "I control my emotions by changing the way I think about the situation I'm in". The reported internal consistency coefficient for cognitive reappraisal is .79, and for expressive suppression is .73 while 3 month test-restest reliability was found as .69 for both subscales (Gross & John, 2003).

Turkish adaptation of the ERQ was carried out by Yurtsever (2004). The Cronbach alpha coefficient for the cognitive reappraisal component was .88 and for the expressive suppression was .82. Information regarding the validity evidences was not presented in the Turkish adaptation study. Appendix F presents sample items from the Turkish version of the scale.

3.2.2.1.5.1. Confirmatory Factor Analysis of ERQ

Proposed two-factor solution was tested for ERQ through CFA. Results showed a mediocre fit of two factor model for the data (Table 8). After the modification indexes were checked, the error covariance of item 4 and item 5 was freely estimated. These items measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted modification improved the model fit (Table 8). Standardized estimates ranged between .50 and .85 for reappraisal and between .36 and .69 for suppression.

Table 8

Goodness of Fit Indexes for Two Factor Model for ERQ

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	122.68***	34	3.61	.93	.91	.08	.05
Model 2	84.8***	33	2.57	.96	.95	.06	.05

****p* < .001

3.2.2.1.5.2. Reliability of ERQ

Internal consistency coefficient of the ERQ was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .85 for reappraisal subscale and .65 for suppression subscale.

3.2.2.1.6. The Ruminative Response Scale (RRS)

As part of the Response Styles Questionnaire (RSQ), RRS was generated and used for measuring the ruminative tendencies of people (Nolen-Hoeksema & Morrow, 1991). Beside RRS, which has 21 items, RSQ consists of Distracting Response Scale, Problem Solving Scale, and Dangerous Activities Scale that makes a total of 71 items.

The short version of RRS (Treynor et al., 2003) was used in the present study in order to measure the ruminative tendencies of participants. Short version has 10

items and two factors (reflection and brooding). Each item is asked to be rated on a 4-point rating scale (*1 = almost never* to *4 = almost always*). Treynor et al. (2003) reported Cronbach alpha coefficients for reflection subscale as .72 and for brooding subscale as .77, and test-retest reliability for reflection subscale as .60 and for brooding subscale as .62. One sample item from the reflection factor is "Write down what you are thinking and analyze it" and for the brooding factor is "Think 'Why do I always react this way'".

The RRS was firstly translated into Turkish by Erdur (2002) and the Cronbach alpha coefficient was reported as .90. Later, Bugay (2010) used RSS in her study and presented validity evidence for one-factor structure and reported the Cronbach alpha coefficient as .77. Then, Erdur-Baker and Bugay (2012) presented validity and reliability evidences for RRS. Original two-factor structure was confirmed with the Turkish sample for short version of the scale by Erdur-Baker and Bugay (2012). The Cronbach alpha coefficients were reported as .77 for reflection and .75 for brooding subscales. Appendix G presents sample items from the Turkish version of the scale.

3.2.2.1.6.1. Confirmatory Factor Analysis of RSS

In the current study, total score of RSS was used and one-factor structure was tested. Kline (2011) suggested item parceling while conducting CFA with questionnaires that have more than 5 items. Item parceling technique was conducted with 10 items and four parcels were created based on the mean score of each item. CFA results showed a good fit of the one factor model to data (Table 9). Standardized estimates ranged between .84 and .60.

Table 9

Goodness of Fit Indexes for One Factor Model for RRS

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	4.93 (p = .08)	2	2.46	.99	.98	.06	.02

3.2.2.1.6.2. Reliability of RSS

Internal consistency coefficient of the RRS was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .81.

3.2.2.1.7. Multidimensional Scale of Perceived Social Support (MSPSS)

MSPSS which is a 12-item self-report measure was developed by Zimet, Dahlem, Zimet, and Farley (1988) to assess the subjective evaluation of received social support. The response range of MSPSS is between *1 = Strongly Disagree* and *7 = Strongly Agree* where having higher scores from MSPSS indicated high perception of social support. MSPSS consisted of three subscales: Significant Others, Family, and Friends (Zimet et al., 1988). Sample items from the significant other subscale is "There is a special person who is around when I am in need"; from the family subscale is "I get the emotional help and support I need from my family"; and from the friends subscale is "I have friends with whom I can share my joys and sorrows". Cronbach alpha coefficients for significant other, family, and friends subscales were reported as .91, .87, and .85, respectively.

MSPSS was adapted into Turkish by Eker and Arkar (1995) and revised by Eker, Arkar, and Yaldız (2001). In the present study, the revised Turkish version of the MSPSS (Eker et al., 2001) was used. Eker et al. (2001) reported a three-factor solution parallel to the original factor structure which was reported by Zimet et al. (1988). Cronbach alpha coefficients were reported for a clinical sample as .83 (family), .84 (friends), and .88 (significant other) and for a community sample as .80 (family), .85 (friends), .92 (significant other). Sample items from the Turkish version of MSPSS were presented in Appendix H.

3.2.2.1.7.1. Confirmatory Factor Analysis of MSPSS

Proposed three-factor solution was tested for MSPSS through CFA. Results showed a mediocre fit of three-factor model for the data (Table 10). After the modification indexes were checked, the error covariance of item 8 and item 12

was freely estimated. These items measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted modification improved the model fit (Table 10). Standardized estimates ranged between .70 and .80 for family support, between .67 and .87 for friend support, and between .81 and .84 for significant other support.

Table 10

Goodness of Fit Indexes for Three Factor Model for MSPSS

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	213.89***	51	4.19	.94	.92	.09	.04
Model 2	174.69***	50	2.57	.95	.94	.07	.04

****p* < .001

3.2.2.1.7.2. Reliability of MSPSS

Internal consistency coefficient of the MSPSS was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .85 for family subscale, .86 for friends subscale, and .90 for significant other subscale.

3.2.2.1.8. Strengths and Difficulties Questionnaire (SDQ)

SDQ was developed to evaluate adolescents' adaptation levels and is a widely used measure of adolescence adjustment (Goodman, 1997; Goodman, Meltzer, & Bailey, 1998). It includes 25 items measuring both positive and negative attributes of adolescents and five subscales (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior). Sample items from each subscale are "Often complains of headaches, stomach-ache or sickness", "Often has temper tantrums or hot tempers", "restless, overactive, cannot stay still for long", "Has at least one good friend", and "Considerate of other people's feelings". The total score of the scales except the prosocial behavior subscale indicates the difficulties and the total score of prosocial behavior subscale points out the strength level. The response range for the items vary between *0 = not true* and *2 = certainly true*. The Cronbach alpha

coefficient for total difficulties was reported as .82, for emotional symptoms as .75, for conduct problems as .72, for hyperactivity as .69, for peer problems as .61, and for prosocial behavior as .65.

Alternatively, Goodman et al. (2010) recommended using a three-factor structure for SDQ while working with community samples; internalizing behavior (emotional symptoms and peer problems), externalizing behavior (hyperactivity/impulsivity and conduct problems), and prosocial behavior. The Cronbach alpha coefficient for internalizing behavior was reported as .66, for externalizing behavior as .76, and for prosocial behavior as .66.

SDQ was adapted into Turkish by Güvenir et al. (2008). To provide evidences for structural validity of SDQ, Güvenir et al. (2008) compared clinical and community samples across five subscales and presented findings on the ability of the subscales differentiating two groups successfully. The Cronbach alpha coefficients for emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behavior were reported as .70, .50, .70, .22, .54, respectively. Appendix I presents sample items from the Turkish version of the scale.

3.2.2.1.8.1. Confirmatory Factor Analysis of SDQ

Considering the recommendation of Goodman et al. (2010) who suggested using the three-factor structure with community samples, three-factor solution was tested. First of all, because the factor loadings and correlation coefficients were low, four of the items (item 12 and item 18 from conduct problems factor, item 11 and 23 from peer problems factor) were eliminated. Kline (2011) suggested item parceling while conducting CFA with scales that have more than 5 items. Item parceling technique was conducted with the remaining 21 items and 8 parcels were created based on the mean score of each item.

CFA results for three-factor model showed a poor fit (Table 11). After the modification indexes were checked, the error covariance of parcel 4 and parcel 5

was freely estimated. These items measured similar behavior and there is theoretical justification for relating the covariance of errors of these items. Conducted modification improved the model fit (Table 11).

Table 11

Goodness of Fit Indexes for Three Factor Model for SDQ

	χ^2	*df*	χ^2/df	*CFI*	*TLI*	*RMSEA*	*SRMR*
Model 1	67.56***	17	3.97	.89	.82	.09	.06
Model 2	61.22***	16	3.82	.90	.83	.08	.05

****p* < .001

According to the criteria of Hu and Bentler (1999), CFI and TLI must be higher than .95. Even though TLI could not reach the threshold level (.95), researcher decided to continue because CFI which is another fit index from comparative (incremental) fit indexes group approximated to the threshold value. Standardized estimates ranged between .84 and .39.

In the present study, only the internalizing behavior subscale was used during the main analyses because victims and bully-victims were reported to experience internalizing problems more than non-victims and bullies whereas externalizing behavior was not found as a characteristic of victims and bully/victims (Bijttebier & Vertommen, 1998; Ttofi, Bowes, Farrington, & Lösel, 2014).

3.2.2.1.8.2. Reliability of SDQ

Internal consistency coefficient of the SDQ was evaluated by computing Cronbach alpha coefficient. The Cronbach alpha coefficient was found as .67 for internalizing behavior, .51 for externalizing behavior, and .70 for prosocial behavior.

3.2.2.1.9. Demographic Information Form

Gender, age, mother and father education level (*0 = Illiterate, 1 = Literate, 2 = Primary School, 3 = Secondary School, 4 = High School, 5 = Two-year degree, 6*

= University, 7 = Master, 8 = Ph.D.) were asked by a demographic information form. In addition, demographic information form included questions asking whether the participant owns a mobile phone (*0 = no, 1 = yes*), whether the mobile phone has a data plan (*0 = no, 1 = yes*), whether the participants use the mobile phone to take photos or video (*0 = no, 1 = yes*), and whether the participant has Internet connection at home (*0 = no, 1 = yes*). Another question was "Which tools do you use to connect to the Internet?" and the response options were (*1 = desktop, 2 = laptop, 3 = tablet, 4 = smart phone, and 5 = other*). A further question inquired participants' weekly Internet usage frequency (*0 = never, 1 = less than 1 hour, 2 = 1-3 hours, 3 = 4-7 hours, 4 = 8-14 hours, 5 = 15-21 hours, 6 = 21-28 hours, 7 = 29 hours or more*).

In the second part of the demographic form (Appendix J), definition and some example incidents of cyber bullying was given. Following the definition and a few examples of cyber bullying three questions were asked. These were "Have you ever cyber bullied someone?", "Have you ever been cyber bullied?", and "Do you know the person who cyber bullied you?" Also, to measure traditional victimization frequency with a single item, one question (Have you ever been victimized offline?) was asked and participants were expected to respond on a dichotomous response range, *0 = no* and *1 = yes*.

In order to obtain information on the victims' tendency to seek help, two questions were asked to participants in the present study. These questions were "Whom did you ask for help after you were being bullied online?" and "Whom did you ask for help, after being bullied offline?" The participants were asked to respond these questions on a response scale of *1 = no one, 2 = parents/guardians, 3 = siblings, 4 = friends, 5 = school counselor, 6 = teachers, 7 = other family members/relatives, 8 = others*.

3.3. Data Collection Procedure

Approval letters were obtained from the Middle East Technical University Human Subjects Ethics Committee (Appendix A) and Ankara Provincial Directorate of National Education (Appendix B). After receiving the approval letters, the selected schools were visited by the researcher, the goal and the procedure of the study were explained to the school principals, and their collaboration was requested.

Data were collected during the spring semester of the 2013-2014 academic year. For pilot study, data were collected at February and data collection process lasted for two weeks. Data collection for the main study started at the second week of April and lasted for six weeks until mid-May. On the day of data collection, researcher introduced the study to the students at their classrooms. Volunteered students were given the informed consent forms and the questionnaire booklet. Based on the confidentiality principle, participants were not asked any identifying information and data were collected anonymously. Data collection sessions took approximately 40 minutes.

3.4. Description of Variables

Cyber Victimization: The total scores of the Cyber Victimization section of Revised Cyber Bullying Inventory-II.

Cyber Bullying: The total scores of the Cyber Bullying section of Revised Cyber Bullying Inventory-II.

Traditional Victimization: The total scores of the Traditional Victimization section of Revised Olweus Bully/Victim Questionnaire.

Traditional Bullying: The total scores of the Traditional Bullying section of Revised Olweus Bully/Victim Questionnaire.

Rumination: The total score of short version of Ruminative Response Scale.

Cognitive Reappraisal: The total score of Cognitive Reappraisal subscale of Emotion Regulation Questionnaire.

Emotional Suppression: The total score of Emotional Suppression subscale of Emotion Regulation Questionnaire.

Adaptive Coping Style: The total score of Problem Focused Coping subscale and Active Emotional Coping subscale of Brief COPE.

Maladaptive Coping Style: The total score of Avoidant Emotional Coping subscale of Brief COPE.

Perceived Social Support from Family: The total score of Family subscale of Multidimensional Scale of Perceived Social Support.

Perceived Social Support from Friends: The total score of Friends subscale of Multidimensional Scale of Perceived Social Support.

Perceived Social Support from Significant Other: The total score of Significant Other subscale of Multidimensional Scale of Perceived Social Support.

Internalizing Behavior: The total score of Internalizing Behavior subscale of Strengths and Difficulties Questionnaire.

3.5. Data Analysis

The present study aims to test a model that analyzes the relationships among coping style, emotion regulation, rumination, perceived social support, and cyber victims' internalizing behavior. A further aim was to test the same model with traditional bullying victims'. In order to achieve these aims, structural equation modeling (SEM) technique was used. Before running SEM, data were screened, missing value analysis (MVA) was conducted, influential outliers were examined, and assumptions (independent observation, normality, linearity, homoscedasticity, and multicollinearity) were checked. Then, descriptive analyses were conducted and since SEM is a correlation based procedure, bivariate correlations among

variables were calculated. For the purpose of analyzing mean differences in relation to gender, ANOVA and Chi-square analyses were conducted. All the analyses except MVA were conducted with SPSS Version 22 (IBM Corp., 2013); MVA analysis was conducted with PASW Version 18 (SPSS Inc., 2009). As the last step before SEM, by using AMOS Version 18 (Arbuckle, 2009) confirmatory factor analyses were analyzed in order to test the measurement model. Finally, structural model was tested via AMOS Version 18 (Arbuckle, 2009).

Structural Equation Modeling (SEM) is an umbrella term that is used to define a family of techniques that test the hypothesized relationship based on theory or previous research findings among a group of variables (Byrne, 2010). SEM techniques which include both exploratory and confirmatory procedures allow researchers to analyze both observed (manifest) and unobserved (latent) variables. By utilizing certain estimation methods (namely, unweighted least squares, maximum likelihood, generalized least squares, and asymptotically distribution free-often called weighted least squares) SEM generates estimates and eliminates residuals to some extent. Eliminating measurement error makes SEM more powerful than multiple regression (Kline, 2011). SEM takes place in four steps (a) model specification, (b) model identification, (c) model estimation, and (d) model evaluation. Below, the terminology of SEM was presented in order to make the reader more comfortable in reading the methods and findings of the present study.

Latent (Unobserved, Unmeasured) Variables are "hypothetical constructs or factors, which are explanatory variables presumed to reflect a continuum that is not directly observable" (Kline, 2011, p. 9). In this study, latent variables are cyber victimization, traditional victimization, rumination, reappraisal, suppression, adaptive coping, maladaptive coping, perceived social support from family, perceived social support from friends, perceived social support from a significant other, and internalizing behavior.

Manifest (Observed, Measured) Variables are also called as indicators and "used as an indirect measure of a construct" (Kline, 2011, p. 9). In this study, items and item parcels were the indicators.

Exogenous Latent Variables are "synonymous with independent variables; they 'cause' fluctuations in the values of other latent variables in the model" (Byrne, 2010, p. 5). In this study, exogenous latent variables were cyber victimization and traditional victimization.

Endogenous Latent Variables are "synonymous with dependent variables and, as such, are influenced by the exogenous variables in the model, either directly or indirectly" (Byrne, 2010, p. 5). In this study, endogenous latent variables were rumination, reappraisal, suppression, adaptive coping, maladaptive coping, perceived social support from family, perceived social support from friends, perceived social support from a significant other, and internalizing behavior.

Measurement Model tests the associations between unobserved variables and their indicators (Byrne, 2010).

Confirmatory Factor Analysis is a measurement model that consists of a number of factor and observed variables (indicators) which belong to those factors (Kline, 2011).

Structural Model tests the associations among unobserved variables (Kline, 2011).

Structural Regression Model is a combination of a measurement model and a structural model and also called as *full model* (Kline, 2011).

Item parceling "involves summing or averaging item scores from two or more items from the same scale and using these parcel scores in place of the item scores in an SEM analysis" (Bandalos, 2008, p. 212). Item parceling which is a common practice in latent-variable analysis techniques such as factor analysis and SEM, is a procedure that is used to have a more normal and continuous distribution and to decrease the number of parameters estimated (Bandalos & Finney, 2009).

Direct Effect(s) "are the effects that go directly from one variable to another variable" (Raykov & Marcoulides, 2006, p. 7).

Indirect Effect(s) "are the effects between two variables that are mediated by one or more intervening variables that are often referred to as a mediating variable(s) or mediator(s)" (Raykov & Marcoulides, 2006, p. 7).

Total Effect(s) are "the combination of direct and indirect effects makes up the *total effect* of an explanatory variable on a dependent variable" (Raykov & Marcoulides, 2006, p. 7).

Model Specification is "the representation of your hypothesis in the form of structural equation model" (Kline, 2011, p. 92).

Model Identification is the second step before data collection. Theoretically the model must be identified in order for the computer program to generate estimates, otherwise the model needs to be re-specified (Kline, 2011).

Model Trimming is a technique in which the researcher removes the free parameters from the model in order to come up with a more parsimonious model (Kline, 2011).

Model Building starts with an over-identified model and paths whose variances were fixed to zero previously were freed in model building. Based on theory or empirical evidence, variances were freed and as a result, model fit increases (Kline, 2011).

A p*ath coefficient/weight* is the "statistical estimate of direct effect" (Kline, 2011, p. 103).

Disturbance refers to the error term of endogeneous variables and is represented as *D* (Kline, 2011).

Measurement Error (e) refers to the error in the observed variables whose variance is not accounted for the unobserved variable (Kline, 2011).

Model Estimation is the procedure of estimation of parameters in a model. There are several types of estimation procedures namely unweighted least squares, maximum likelihood, generalized least squares, and asymptotically distribution free-often called weighted least squares. In the present study, Maximum Likelihood Estimation (MLE) method is used. MLE is "the statistical principle that underlies the deviation of parameter estimates; the estimates are the ones that maximize the likelihood (the continuous generalization) that the data (the observed covariances) were drawn from this population" (Kline, 2011, p. 154).

Bootstrapping "is a computer-based method of resampling" and used to estimate standard errors for non-normal samples, categorical data or for data with missing cases (Kline, 2011, p. 42). In the present study, bootstrapping was applied in order to eliminate the effects of non-normality.

Model Evaluation: To evaluate model fit, approximate fit indexes were consulted. Fit indexes were grouped into three; absolute, incremental (comparative), and parsimony-adjusted (Kline, 2011). Representative fit indexes from each group were selected and reported for the present study. These were Chi-square value, χ^2/df ratio and Standardized Root Mean Square Residual (SRMR) from absolute fit indexes group, The Bentler Comparative fit index (CFI) and Tucker-Lewis index (TLI) from incremental (comparative) fit indexes group, and Root Mean Square of Error Approximation (RMSEA) from parsimony-adjusted index group were selected. Below are the detailed descriptions of these fit indexes.

Model Chi-Square (χ^2): This is the basic model test statistic and a value of 0 with a non-significant p value indicates a perfect fit. However, the model Chi-square value has some limitations. Chi-square value is sensitive to sample size and correlation size. With large data sets, Chi-square value tends to be statistically significant. In order to eliminate the problems caused by sensitivity of Chi-square to sample size, normed Chi-square (ratio of χ^2 to its expected value that is degree of freedom) is used. For the threshold level of χ^2/df, Kline's (2011) criterion, which is 3, is used in the present study.

Standardized Root Mean Square Residual (SRMR): It is "the overall difference between the observed and predicted correlations" (Kline, 2011, p. 209). According to Hu and Bentler (1999), a value that is lower than .08 indicates good fit.

The Bentler Comparative Fit Index (CFI): It compares the proposed model and a baseline model (independence model) and evaluates how good the proposed model is (Kline, 2011). The range of the fit index is between 0 and 1 where higher scores indicate a good fit. According to Hu and Bentler (1999), values higher than .95 indicate a good fit.

Tucker-Lewis index (TLI): Another fit index from incremental (comparative) fit indexes category is TLI and this index is also known as Non-normed Fit Index (NNFI). It has a range of 0 to 1. Similar to CFI, as the score approximates to 1, model fit improves and values higher than .95 indicates good fit (Hu & Bentler, 1999).

Root Mean Square of Error of Approximation (RMSEA): Based on non-centrality parameter this index evaluates badness-of-fit and a value close to 0 indicate a good fit. According to Hu and Bentler (1999), values close to .06 shows a good fit. Values between .08 and .10 indicate a mediocre fit and values higher than .10 is a sign of poor fit (MacCallum et al., 1996).

3.6. Limitations of the Study

The current study has certain limitations as well as its strengths. The findings should be interpreted by considering these limitations. First, in the present study, cluster random sampling strategy was utilized and high school students from each of the main seven district of Ankara were recruited. Since cluster random sampling is not a pure randomization strategy, sampling method was a threat to external validity (Fraenkel et al., 2012). Results can be generalized only to students who attend 9^{th}, 10^{th}, 11^{th}, 12^{th} grades of high schools in Ankara.

Second shortcoming of the study is caused by utilizing self-report measurement tools. Although self-report tools are the preferable methods to obtain data from participants, specifically for sensitive research topics, it is always a problem for veracity because participants may not want to disclose their disadvantaged situation such as bullying or victimization due to social desirability. On the other hand, it is hard to observe or use other-report (such as teacher, peer, or parent report) for sensitive topics (cyber victimization and cyber bullying) or collecting data on inner mechanism (such as emotion regulation, and rumination).

Third, correlational research design was used in the present study. Although structural equation modeling techniques let researchers to make predictions among variables to some extent, only studies with longitudinal and experimental design will display the causal associations among the variables under examination and only longitudinal design studies allow for true prediction. Therefore, in the present study inferring causation is not possible.

Another weakness is that data were collected at one time point based on a cross-sectional design. However, the variables under investigation are expected to be sensitive to age and maturation, thus, in order to learn how age affects reactions of victims, adoption of longitudinal design is recommended to further researchers.

As a warning for the reader and for future researchers, in the present study two items of the Brief COPE were excluded because reviwers of the Ankara Provincial Directorate of National Education evaluated these two items as inappropriate. Turkish researchers should be careful while using Brief COPE with high school students.

Final shortcoming of the study is that there might be other factors impacting reactions of victims such as family or school related factors. The present study is limited to coping style, emotion regulation, rumination, and perceived social support. Further research should examine environmental factors in order to understand the whole picture.

CHAPTER 4

RESULTS

The literature on bullying and victimization examined the definition, types, and prevalence of bullying and victimization. After concluding that there has been a prevalent problem of bullying among adolescents in the cyber space as well as in the physical world, consequences of bullying were investigated. Both traditional and cyber bullying was found to be associated to negative consequences such as depression, anxiety, stress, and low self-esteem (Aoyama et al., 2011; Chang et al., 2013; Patchin, & Hinduja, 2010). Recently, researchers have been analyzed what type of factors play a role in determining the reactions of victims to bullying incident for traditional and cyber bullying victims. Although there are a number of impacting factors that can be included in the model, four seem particularly important, namely coping styles, emotion regulation, rumination, and perceived social support. Previously, in separate studies, the relationships between each factor and internalizing behaviors were examined for both cyber and traditional victimization. However, to understand the whole picture there has been a need for combining these factors as a model and investigate the relationships among victimization, coping style, emotion regulation, rumination, perceived social support, and internalizing behavior. The main aim of the present study is to model the relationships among the impacting factors on reactions of victims in the cyber and physical environments. In the present study, the same model was tested with victims of traditional bullying in addition to cyber victims because a majority of the literature on bullying presents empirical evidences for the high correlation between traditional and cyber bullying (Griezel et al., 2012; Twyman et al., 2010). By testing the same model with traditional bullying victims, additional evidence

for the relationship between two types of bullying are presented in the current study. In the previous chapter, methodological procedures were presented.

This chapter presents the results of the analyses in the current study. First, the findings of the preliminary analyses were reported. Preliminary analyses included data screening in terms of missing data, influential outliers, sample size adequacy, and tests of required assumptions (independent observation, normality, linearity, homoscedasticity, and multicollinearity) to conduct further analysis. Second, the descriptive analyses that were conducted to identify the adolescents who had a victimization experience were reported. Then, results of the measurement model that was tested to provide evidence for the validity of the measurement tools that were used to collect data for the main analyses were explained. Finally, findings of the two structural models (same model was tested twice; once with traditional victims and once with cyber victims) that was tested with the participants who reported that they had victimization experience were presented.

4.1. Preliminary Analyses

Before running Structural Equation Modeling (SEM) analyses, data were screened in order to be sure that the data set was accurate and appropriate to conduct the main analysis. By using SPSS Version 22 (IBM Corp., 2013), frequency tables were examined for each item and detected unusual numbers were checked with the hardcopy questionnaires and corrected by the researcher. Then, reversed items were recoded.

4.1.1. Missing Data

Kline (2011) suggested prevention of missing data as the first step while dealing with missing data. In the current study, during data collection researcher was present and told participants to respond all of the items carefully and remind them missing values would resulted in problems in analyses and interpretation of the results. This preventive approach was helpful and in the present study, all of the items had missing data less than 1.5%. Since SEM requires complete data for all

cases, procedures to deal with missing data were investigated. Listwise deletion and imputing missing data were two commonly suggested remedies for managing missing data (Allison, 2002; Kline, 2011; Tabachnick & Fidell, 2007). Before deciding to delete or impute the missing data, Little's MCAR test (Little & Rubin, 1987) was conducted to analyze if there was a pattern in terms of missing data. Little's MCAR test resulted in a significant Chi-square value indicating that missing data was not missing completely at random. Chi-square test is sensitive to sample size and may yield in a significant value with samples larger than 200 (Tabachnick & Fidell, 2007). Researchers are suggested to analyze the pattern and reason of missingness in data. Allison (2002) suggested comparing cases with complete scores and cases with missing data in terms of critical variables in the study. In this study, cases with complete scores and cases with missing data were compared by a series of ANOVAs and results showed that cases with complete scores and cases with missing data did not significantly different from each other in terms of variables under investigation. Allison (2002) also recommended that listwise deletion was robust to violation of missing at random assumption. According to Tabachnick and Fidell (2007), if the missing data is less than 5%, any technique would result in similar results. Therefore, considering the large sample size, Allison's (2002) recommendation, and the non-significant differences between cases with complete scores and cases with missing data, listwise deletion was done in the present study.

4.1.2. Influential Outliers

Univariate outliers are the cases that have an unusual score on one variable and multivariate outliers are the cases those have "an unusual combination of scores on two or more variables" (Tabachnick & Fidell, 2007). In the present study, univariate outliers were examined through standardized (Z) scores. Cases with Z scores exceeding +3.29 and cases with Z scores lower than -3.29 are potential outliers (Tabachnick & Fidell, 2007). However, Tabachnick and Fidell (2007) warned the researchers that with large sample sizes a few Z scores exceeding the

given range are possible. In the present study, there were some cases out of the range for Cyber Victimization and Cyber Bullying scales. Given the nature of the variables (cyber victimization and cyber bullying) under examination it is expected to have several cases with no cyber victimization and cyber bullying experience. Therefore, researcher decided to keep those cases in data set not to lose variation. In order to check multivariate outliers, Mahalonobis distance was used. Because the dependent variable does not influence the results, Mahalonobis distance was calculated by linear regression using age as the criterion variable (Kline, 2011; Tabachnick & Fidell, 2007). According to the results of the analysis, a few cases were out of the Chi-square distance that was given by the analysis but they were retained in the data set.

4.1.3 Sample Size Adequacy

As a rule of thumb, Kline (2011) recommended using a sample size over 200 while using SEM. In the current study, while testing the model for cyber victims there were 511 cases and for traditional victims there were 482 cases. Therefore, the sample was large enough to conduct SEM according to Kline's (2011) criteria.

4.1.4. Assumptions

4.1.4.1. Independent Observation

Independent observation assumption means that "measures for each respondent be totally uncorrelated with the responses from other respondents in the sample" (Hair et al., 2009, p. 329). In the present study, researcher was in the classroom during data collection and intervened in any situation that was possible to contaminate independent observation assumption. Questionnaires that were responded without independent observation were marked during data collection by researcher and removed from other questionnaires before data entry. In addition, questionnaires were examined and cases that were uncompleted (missing more than 10%) were also excluded. As a result, 1189 questionnaires were distributed and 1071 of them were received with the return rate of 90.07%.

4.1.4.2. Normality

Univariate normality assumption was tested via skewness and kurtosis values. According to Kline (2011) a skewness value larger than 3 and a kurtosis value larger than 20 indicate non-normal distribution and would be problematic. In the present study, all the skewness and kurtosis values were in the expected range (Appendix K and Appendix L). In addition to skewness and kurtosis values, histograms and Q-Q plots were examined. Visual inspection of histograms and Q-Q plots showed that the sample distribution in the present study was not perfectly normal. After a closer examination of normality test results, it has been realized that deviations from normal distribution were for bullying and victimization items. Although transformation was a technique to handle non-normal data, researchers were warned about the problems that transformation may result in while interpreting findings from transformed data (Tabachnick & Fidell, 2007). Thus, in the present study researcher decided to continue with the slightly non-normal data to work with original reports of participants' rather than manipulating data and creating a new data set by transformation. Byrne (2010) claimed that in practice researchers generally fail to meet normality assumption and in an attempt to reduce the influence of non-normality, they effort to increase the robustness of the model. Therefore, as a remedy to eliminate the effects of non-normality, bootstrapping was used. *Bootstrapping* "is a computer-based method of resampling" and used to estimate standard errors for non-normal samples, categorical data or for data with missing cases (Kline, 2011, p. 42). In the present study, bootstrapping was applied in order to eliminate the effects of non-normality.

4.1.4.3. Linearity and Homoscedasticity

Linearity and homoscedasticity were the two assumptions that relate to multivariate normality. Linearity tests the linear relation between scores that is required for all correlation based analyses and homoscedasticity refers to "the assumption that dependent variable(s) exhibit equal levels of variance across the

range of predictor variable(s)" (Hair et al., 2009). Residual plots were created via SPSS Version 22 (IBM Corp., 2013) and presented in Appendix M. Visual inspection of the plots indicated that they were approximately elliptical showing the linearity assumption was not violated (Stevens, 2009).

4.1.4.4. Multicollinearity

Multicollinearity is a problem when two or more independent variables correlate more than desired (Tabachnick & Fidell, 2007). Multicollinearity assumption was checked by reviewing bivariate correlation coefficients, VIF (variance inflation factor) and tolerance values. To meet this assumption, correlation coefficients must be lower than .85 (Kline, 2011), VIF values must be less than 10, and tolerance values must be higher than .20 (Tabachnick & Fidell, 2007). In the current study, the correlation coefficients ranged between .07 and .65 and none of them exceeded .85. In addition, all of the VIF (ranged between 1.01 and 2.23) and tolerance (ranged between .44 and .91) values fall in the expected ranges; therefore, results of the present study did not indicate a problematic item for multicollinearity assumption.

4.2. The Distribution of the Participants by Status of Bullying

Please note that in the present study, because of the debate in the bullying literature about measurement of bullying and victimization, bullying and victimization rates were measured twice. Following section presents the findings of the single question measurements for frequency of cyber victimization, cyber bullying, and traditional victimization. After presenting these descriptive results, frequencies that were obtained from RCBI-II (for cyber bullying and victimization) and ROBVQ (for traditional bullying and victimization) were calculated to detect participants with victimization experience. The phi coefficient between two types of measurement yielded in non-significant results indicating that two types of measurements were independent of each other for both the cyber (φ = .02, p = .56) and traditional (φ = .01, p = .99) victimization. Because multiple

item measures have stronger reliability and rich in terms of content validity (Fraenkel et al., 2012), model testing was conducted with the scores that were obtained via RCBI-II and ROBVQ.

4.2.1. Frequency of Cyber Victimization, Cyber Bullying, and Traditional Victimization Based on a Single Question

The frequencies and percentages for the single question cyber bullying indicated that 100 (11.7%) participants said that they engaged in cyber bullying. A quarter of the participants (25.8%) revealed that they were victims of cyber bullying incident. The number of the participants who reported that they had both cyber bullying and victimization experience is 65 (7.6%). Almost half of the cyber victims (45.9%) stated that they knew who cyber bullied them. Slightly more than half of the participants (56.3%) who revealed that they were victims of cyber bullying said that they asked for help after being victimized online. Responses of participants indicated that the major sources of help were friends (37.9%) and parents (37.1%). Siblings (10.4%) were the other source that participants said they asked for help. Very few number of participants said that they asked for help from other family members (8.1%). School counselor (5.6%) and teachers (4.8%) were the last two sources of help after being bullied online. Table 12 presents the distribution of cyber bullying and cyber victimization experiences of participants based on the single question measurement.

Table 12

Single Question Measurement on Cyber Bullying, Cyber Victimization, and Help Seeking

	f	%
Have you ever cyber bully someone?		
Yes	100	11.7
No	748	87.7
Have you ever been cyber bullied?		
Yes	220	25.8
No	623	73
Do you know the person who cyber bullied you?		
Yes	101	45.9
No	118	53.6
Receive help after being bullied online		
Yes	124	56.3
No	95	43.1
Whom did you ask for help after you were being bullied online?*		
Friends	47	37.9
Parents	46	37.1
Siblings	13	10.4
Other family members	10	8.1
School Counselor	7	5.6
Teachers	6	4.8
Others		
Police	3	2.4
Web	3	2.4
Technical support	1	0.8
School principle	1	0.8

*Participants were allowed to select more than one response; therefore total percentages may exceed 100.

When it comes to the findings of single question measurement on traditional victimization frequency and percentages, 203 (23.8%) participants revealed that they were target of traditional bullying. The overlap between cyber victims and traditional victims is 86 (10.1%). Of the participants who said that they were victimized offline, 78 (38.4%) reported that they asked for help after being victimized offline. Similar to the cyber victimization, the first source of help was friends (96.1%) and parents (53.8%) were the second source. Siblings (28.2%) and school counselor (17.9%) were the third and fourth sources of help after

traditional victimization. Teachers (15.3%) and other family members (10.2%) were the last two sources of help after being bullied offline. Table 13 presents the distribution of traditional victimization experiences of participants based on the single question measurement.

Table 13

Single Question Measurement on Traditional Victimization and Help Seeking

	f	%
Have you ever been bullied offline?		
Yes	203	23.8
No	642	75.3
Receive help after being bullied offline		
Yes	78	38.4
No	120	59.1
Whom did you ask for help after you were being bullied offline?*		
Friends	75	96.1
Parents	42	53.8
Siblings	22	28.2
School Counselor	14	17.9
Teachers	12	15.3
Other family members	8	10.2
Other		
Police	3	3.85
School principle	2	2.56
Acquaintance	2	2.56

*Participants were allowed to select more than one response; therefore total percentages may exceed 100.

4.2.2. Frequency of Cyber Bullying and Victimization Based on RCBI-II and Traditional Bullying and Victimization Based on ROBVQ

Based on the findings from RCBI-II, participants consisted of cyber victims, cyber bullies, cyber bully/victims, and students who were not involved (Table 14).

Table 14

Distribution of Participants by Cyber Bullying and Cyber Victimization Status

	Females		Males		Total	
	f	*%*	*f*	*%*	*f*	*%*
Cyber Victims	65	13.7	49	13	114	23.4
Cyber Bullies	41	8.6	41	10.9	82	9.6
Cyber Bully/Victims	205	43.1	192	50.9	397	46.5
Not Involved	165	34.7	95	25.2	260	30.5

Similarly, based on the findings from ROBVQ, participants distributed among traditional victims, traditional bullies, traditional bully/victims, and students who were not involved categories (Table 15).

Table 15

Distribution of Participants by Traditional Bullying and Traditional Victimization Status

	Female		Male		Total	
	f	*%*	*f*	*%*	*f*	*%*
Traditional Victims	106	22.3	52	13.8	158	18.5
Traditional Bullies	64	13.4	38	10.1	102	12
Traditional Bully/Victims	151	31.7	173	45.9	324	38
Not Involved	155	32.6	114	30.2	269	31.5

Of the whole sample, 5.7 % was identified as being victimized in both the physical and the cyber environment. The percentage of the group who were bully/victims in both physical and cyber world was 27.1%. In the present study, cyber victims and traditional victims were analyzed as two separate groups and the overlapping part was out of interest.

4.2.3. Relationship of Status of Cyber and Traditional Bullying and Internalizing Behavior

In order to analyze whether bullying status and internalizing behavior were related, two ANOVAs were conducted. Prior to ANOVAs, homogeneity of variance assumption was tested and Levene's test was non-significant indicating that equal variances were assumed for the groups for cyber victims, $F(3, 849) = 1.96$, $p = .12$. For traditional victims, Levene's test yielded in significant findings, $F(3, 849) = 3.71$, $p < .05$), however, F test is robust to violation of homogeneity of variance assumption.

For both of the analyses the dependent variable was internalizing behavior. In the first analysis, the independent variable was status of cyber bullying (with four levels: cyber bully, cyber victim, cyber bully/victim, not involved), and in the second analysis the independent variable was status of traditional bullying (with four levels: traditional bully, traditional victim, traditional bully/victim, not involved). Findings showed significant differences for both traditional bullying groups ($F(3,849) = 16.97$, $p < .001$) and cyber bullying groups ($F(3,849) = 4.79$, $p < .01$). Post-hoc analysis indicated that cyber victims ($M = 5.31$) and cyber bully/victims ($M = 5.13$) experience internalizing behavior more than participants who were cyber bullies ($M = 4.24$) or those who did not have any cyber bullying or victimization experience ($M = 4.35$). Post-hoc analysis for traditional bullying yielded in very similar results. Traditional victims ($M = 5.63$) and traditional bully/victims ($M = 5.45$) experience internalizing behavior more than participants who were traditional bullies ($M = 3.67$) or those who did not have any traditional bullying or traditional victimization experience ($M = 4.06$). Previous research also showed that, bully/victims were found to resemble victims rather than bullies (Estevez et al., 2009).

4.2.3.1. Comparison of Victims and Bully/Victims

Cyber victims and cyber bully/victims did not significantly differ regarding their age ($F(3, 849) = 1.38$, $p = .25$), rumination ($F(3, 849) = 5.09$, $p = .30$), reappraisal ($F(3, 849) = 63.54$, $p = .38$), suppression ($F(3, 849) = .13$, $p = .94$), maladaptive coping ($F(3, 849) = 3.65$, $p = .99$), adaptive coping ($F(3, 849) = 1.10$, $p = .35$), perceived social support from family ($F(3, 849) = 5.04$, $p = .21$), friends ($F(3, 849) = .97$, $p = .41$), and significant other ($F(3, 849) = .63$, $p = .60$) scores.

Likewise, traditional victims and traditional bully/victims did not significantly differ regarding their age ($F(3, 849) = 1.43$, $p = .23$), rumination ($F(3, 849) = 7.75$, $p = .99$), reappraisal ($F(3, 849) = 2.26$, $p = .08$), suppression ($F(3, 849) = 2.96$, $p = .79$), maladaptive coping ($F(3, 849) = 6.63$, $p = .39$), adaptive coping ($F(3, 849) = .81$, $p = .49$), perceived social support from family ($F(3, 849) = 5.27$, $p = .16$), friends ($F(3, 849) = 5.38$, $p = .16$), and significant other ($F(3, 849) = 1.97$, $p = .12$) scores.

In order to test whether victims and bully/victims differ based on gender, two 2 (victims vs. bully/victims) X 2 (male vs. female) Chi-square analyses were conducted. Chi-square analyses yielded in nonsignificant results for cyber victims, $\chi^2(1) = 1.03$, $p = .31$. Similarly, Chi-square analysis indicated nonsignificant results for traditional victimization, $\chi^2(1) = 1.09$, $p = .33$. Thus, models for both cyber victims and traditional victims were tested for whole sample.

Hence, pure bullies and not involved students were removed from data set and model testing was conducted with those who have victimization experiences which is the main interest of the current study. Victim and bully/victim categories were collapsed for both cyber victimization and traditional victimization because their scores did not differ significantly in terms of variables in the study.

From this point on, the term cyber victims will be used to mention the category in which the cyber victims and cyber bully/victims were in, and the term traditional victims will be used to mention the category in which the traditional victims and

traditional bully/victims were present. The proposed model was tested for cyber victims and for traditional victims.

Two more ANOVAs were conducted to understand whether cyber victims and traditional victims differ based on gender. ANOVAs resulted in insignificant findings for both traditional ($F(1, 480) = 1.81$, $p = .29$) and cyber ($F(1, 509) = .98$, $p = .32$) victims. Two other ANOVAs were conducted to analyze whether there was a gender difference regarding internalizing behavior that was the outcome variable in the model. ANOVAs yielded in non-significant results for both ($F(1, 480) = .11$, $p = .74$) traditional and cyber ($F(1, 509) = 1.69$, $p = .19$) victims. Because gender did not make a difference in terms of being victimized and experiencing internalizing behaviors, model testing was conducted with the whole sample.

4.3. Descriptive Analyses

In this section, first, means and standard deviations were presented (Table 16). Then, bivariate correlations among the scores were examined and presented (Table 17 and 18).

4.3.1. Means and Standard Deviations

Table 16
Means and Standard Deviations of the Variables

	Cyber Victims (n = 511)		Traditional Victims (n = 482)	
	M	*SD*	*M*	*SD*
Cyber Victimization	13.02	4.05	12.44	4.48
Cyber Bullying	12.04	4.21	11.78	4.41
Traditional Victimization	10.59	4.22	11.81	3.77
Traditional Bullying	9.57	3.78	10	3.86

PSSFF: Perceived Social Support from Family; PSSFFR: Perceived Social Support from Friends; PSSFSO: Perceived Social Support from Significant Other

Table 16 (continued)

Means and Standard Deviations of the Variables

	Cyber Victims (n = 511)		Traditional Victims (n = 482)	
Reappraisal	27.89	7.65	27.77	7.82
Suppression	15.84	5.69	16.02	5.64
Adaptive Coping	48.04	8.17	48.02	8.36
Maladaptive Coping	18.81	3.76	18.93	3.90
PSSFF	21.15	6.20	21.13	5.97
PSSFFR	22.03	5.80	21.58	5.97
PSSFSO	18.22	7.37	17.93	7.48
Internalizing Behavior	5.18	3.35	5.51	3.33

PSSFF: Perceived Social Support from Family; PSSFFR: Perceived Social Support from Friends; PSSFSO: Perceived Social Support from Significant Other

4.3.2. Bivariate Correlations

Before testing the model, bivariate correlations were calculated. To evaluate the strengths of correlations, Field (2005) suggested the cut off points as ±.10 is small, ±.30 is medium, and ±.50 is large correlation. The Pearson correlation coefficient between cyber and traiditional victimization was calculated. A large correlation coefficient was found between two types of victimization (r = .57, p < .01). That is, those who said that they had victimization in the physical environment also reported that they experienced victimization in the cyber environment.

To analyze the relationship between age and victimization, Pearson correlation coefficients were calculated for both traditional victimization and cyber victimization. Small size positive correlation coefficents were obtained for both age and traditional victimization (r = .11, p < .01) and for age and cyber victimization (r = .11, p < .01). That is, for both traditional and cyber victimization as the age of the participants increases, they reported that they had more victimization experience.

Pearson correlation coefficients among scores (cyber victimization, rumination, reappraisal, suppression, perceived social support from family, perceived social support from friends, perceived social support from significant others, adaptive coping, maladaptive coping, and internalizing behavior) for cyber victims were presented in Table 17.

Table 17

Correlation Table for Cyber Victims

	1.Cyber Victim	2.Rumination	3.Reappraisal	4.Suppression	5.PSSFF	6.PSSFFR	7.PSSFSO	8.Adaptive Coping	9.Maladaptive Coping	10.Internalizing Behavior
1.										
2.	.17**									
3.	-.06	.09*								
4.	-.03	-.03	.15**							
5.	-.15**	-.04	.32**	-.04						
6.	-.04	.01	.20**	-.06	.49**					
7.	-.06	-.01	.26**	-.08	.50**	.38**				
8.	.02	.35**	.43**	-.10*	.27**	.28**	.29**			
9.	.09*	.43**	.11*	.07	.01	.07	.06	.26**		
10.	.19**	.46**	-.18**	.15**	-.23**	-.22**	-.09*	-.03	.37**	

PSSFF: Perceived Social Support from Family; PSSFFR: Perceived Social Support from Friends; PSSFSO: Perceived Social Support from Significant Other. *$p < .05$, **$p < .01$

As depicted in Table 17, as cyber victimization increases together with ruminative tendencies, internalizing behavior, and maladaptive coping strategies increases. However, cyber victimization did not correlate with adaptive coping and emotion regulation strategies (reappraisal and suppression). Additionally, cyber victimization was found to be negatively related to perceived social support from family whereas it did not correlate with perceived social support from friends and significant other. Even though the strengths of correlation coefficients were low and medium, it is unexpected that those who ruminated also reappraised the

situation and adopted an adaptive coping strategy. As expected, ruminative people also adopted maladaptive coping strategies and experienced internalizing behavior more.

When it comes to emotion regulation, those who reappraised the situation also utilized suppression as emotion regulation strategy, perceived that they receive social support from their families, friends, and significant others, and adopted adaptive coping strategies, and experienced less internalizing behavior. People who suppressed their emotions did not adopt adaptive coping strategies and experienced more internalizing behavior.

Perceiving social support from different sources (family, friends, and significant others) were found as positively correlated with adaptive coping and negatively correlated with internalizing behavior. In addition, receiving social support from family was positively correlated with receiving social support from friends and significant other. Receiving social support from friends was positively correlated with receiving social support from significant other.

As an unexpected finding, two types of coping strategies were found as positively correlated. That is, people who utilized adaptive coping strategies also adopted maladaptive coping strategies. Those who utilized maladaptive coping also experienced internalizing behavior.

Pearson correlation coefficients among scores (traditional victimization, rumination, reappraisal, suppression, perceived social support from family, perceived social support from friends, perceived social support from significant others, adaptive coping, maladaptive coping, and internalizing behavior) for traditional victims were calculated and presented in Table 18.

Table 18

Correlation Table for Traditional Victims

	1.Trad. Victim	2. Rumination	3. Reappraisal	4. Suppression	5. PSSFF	6. PSSFFR	7. PSSFSO	8. Adaptive Coping	9 .Maladaptive Coping	10.Internalizing Behavior
1.										
2.	.17**									
3.	-.09	.07								
4.	.01	-.03	.18**							
5.	-.22**	.02	.32**	-.01						
6.	-.13**	.02	.19**	-.05	.46**					
7.	-.14**	.03	.24**	-.06	.46**	.40**				
8.	.02	.33**	.46**	-.08	.32**	.32**	.30**			
9.	.21**	.42**	.12**	.04	-.02	.05	.02	.26**		
10.	.27**	.42**	-.27**	.08	-.22**	-.21	-.08	-.06	.34**	

PSSFF: Perceived Social Support from Family; PSSFFR: Perceived Social Support from Friends; PSSFSO: Perceived Social Support from Significant Other. ***p* < .01.

As shown in Table 18, as traditional victimization increases together with ruminative tendencies, internalizing behavior, and maladaptive coping strategies increases. However, traditional victimization did not correlate with adaptive coping and emotion regulation strategies (reappraisal and suppression). Additionally, traditional victimization was found to be negatively related to perceived social support from family, friends, and significant other. Even though the strengths of correlation coefficients were low and medium, it is unexpected that those who ruminated also adopted an adaptive coping strategy. As expected, ruminative people also adopted maladaptive coping strategies and experienced internalizing behavior more.

The first emotion regulation strategy reappraisal correlated all the other scores in the study significantly and positively except internalizing behavior. Reappraisal correlated negatively with internalizing behavior. On the contrary, the second type

of emotion regulation strategy, suppression, correlated significantly none of the scores in the study.

Perceiving social support from different sources (family, friends, and significant others) were found as positively correlated with adaptive coping. Internalizing behavior negatively correlated with only perceived social support from family and did not significantly associated with support from friend and significant other. In addition, receiving social support from family was positively correlated with receiving social support from friends and significant other. Receiving social support from friends was positively correlated with receiving social support from significant other.

As an unexpected finding, two types of coping strategies were found as positively correlated. That is, people who utilized adaptive coping strategies also adopted maladaptive coping strategies. Those who utilized maladaptive coping also experienced internalizing behavior.

4.4. Model Testing

4.4.1. Measurement Models

Measurement model for cyber victims presents the relationships among latent variables (cyber victimization, rumination, reappraisal, suppression, adaptive coping, maladaptive coping, perceived social support from family, perceived social support from friends, perceived social support from significant other, and internalizing behavior) and their indicators (items and parcels) (Figure 1). A ten-factor model was tested through CFA. Same model was tested with traditional victims by replacing cyber victimization scores with traditional victimization scores through CFA. Cronbach alpha coefficients of the each measurement tool with the main data were presented in Appendix N.

4.4.1.1. Measurement Model for Cyber Victims

According to the results of CFA to test measurement model for cyber victims, Chi-square value was significant ($\chi^2(894) = 1708.46$, $p < .001$) and χ^2/df value was 1.91 that was lower than 3 which is the criteria of good fit suggested by Kline (2011). *CFI* value was .91 and *TLI* value was .90, and according to Hu and Bentler (1999), *CFI* and *TLI* must be higher than .95. Even though *CFI* and *TLI* could not reach the threshold level (.95), it approximates .95 indicating a mediocre fit. *SRMR* value was .06 and *RMSEA* value was .04 (90% *CI* = .04-.05), and they both showed a good fit (Hu & Bentler, 1999). All of the standardized factor loadings were significant and ranged between .42 and .88 (Table 19). Figure 1 depicted standardized estimates for model parameters of cyber victims and Table 20 showed latent correlations among variables in the model.

Table 19

Standardized Regression Weights for Measurement Model of Cyber Victims

			Estimate	*CI*
er10	<---	suppre	.42	.31-.52
er9	<---	suppre	.57	.47-.68
er8	<---	suppre	.64	.53-.72
er7	<---	suppre	.73	.63-.81
sd10	<---	fam	.71	.63-.77
sd7	<---	fam	.74	.66-.80
sd2	<---	fam	.88	.85-.92
sd1	<---	fam	.84	.80-.88
sd12	<---	frie	.76	.69-.83
sd8	<---	frie	.77	.70-.84
sd4	<---	frie	.86	.82-.89
sd3	<---	frie	.86	.81-.91
sd9	<---	so	.86	.81-.90
sd6	<---	so	.80	.74-.85
sd5	<---	so	.79	.74-.84
sd11	<---	so	.83	.77-.88

Table 19 (continued)

Standardized Regression Weights for Measurement Model of Cyber Victims

			Estimate	*CI*
pc11	<---	maladap	.50	.40-.60
pc10	<---	maladap	.31	.18-.42
pc9	<---	maladap	.43	.31-.53
pc12	<---	maladap	.69	.60-.79
pc4	<---	adap	.75	.69-.80
pc3	<---	adap	.75	.70-.80
pc2	<---	adap	.47	.38-.54
pc1	<---	adap	.48	.40-.56
pc5	<---	adap	.68	.62-.73
pc6	<---	adap	.66	.58-.72
pc7	<---	adap	.27	.17-.37
pc8	<---	adap	.26	.16-.36
parint3	<---	int	.60	.51-.67
parint2	<---	int	.53	.44-.62
parint1	<---	int	.80	.71-.87
pcv4	<---	cv	.46	.34-.56
pcv3	<---	cv	.81	.69-.92
pcv2	<---	cv	.59	.48-.70
pcv1	<---	cv	.43	.30-.55
pru4	<---	rum	.70	.63-.76
pru3	<---	rum	.66	.59-.71
pru2	<---	rum	.77	.72-.82
pru1	<---	rum	.81	.75-.85
er4	<---	reapp	.61	.52-.70
er3	<---	reapp	.80	.74-.85
er2	<---	reapp	.82	.77-.87
er1	<---	reapp	.67	.60-.74
er5	<---	reapp	.55	.46-.63
er6	<---	reapp	.48	.39-.57

Table 20

Estimated Latent Correlations for Model with Cyber Victims

	1.Cyber Victim	2.Rumination	3.Reappraisal	4.Suppression	5.PSSFF	6.PSSFFR	7.PSSFSO	8.Adaptive Coping	9.Maladaptive Coping	10.Internalizing Behavior
1.										
2.	.21***									
3.	-.08	.16**								
4.	-.04	-.05	.23***							
5.	-.19**	.01	.34***	-.01						
6.	-.06	.05	.21***	-.01	.54***					
7.	-.08	.03	.29***	-.09	.54***	.43***				
8.	.02	.52***	.47***	-.12*	.36***	.37***	.38***			
9.	.19**	.66***	.10	.15*	-.04	.07	.06	.31***		
10.	.26***	.60***	-20***	.13*	-25***	-20***	-.08	.06	.63***	

PSSFF: Perceived Social Support from Family; PSSFFR: Perceived Social Support from Friends; PSSFSO: Perceived Social Support from Significant Other. *$p < .05$, **$p < .01$, ***$p < .001$.

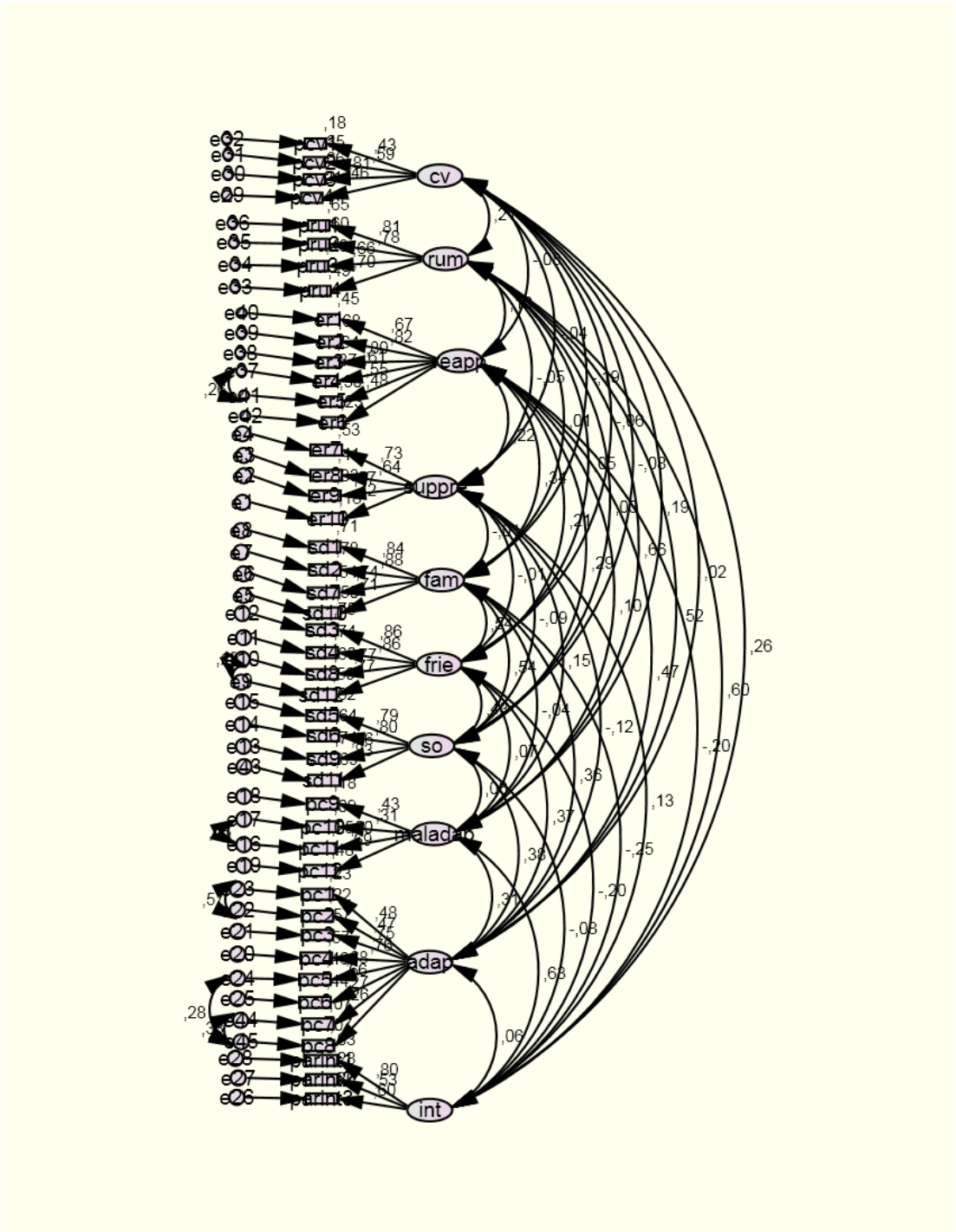

Figure 1. Standardized estimates for the parameters in measurement model for cyber victims.

4.4.1.2. Measurement Model for Traditional Victims

According to the results of CFA to test measurement model for traditional victims, Chi-square value was significant ($\chi^2(982) = 1718.32$, $p < .001$) and χ^2/df value was 1.75 that was lower than 3 which is the criteria of good fit suggested by Kline (2011). *CFI* value was .92 and TLI value was .91, and according to Hu and Bentler (1999), *CFI* and *TLI* must be higher than .95. Even though *CFI* and *TLI* could not reach the threshold level (.95), it approximates .95 indicating mediocre fit. *SRMR* value was .06 and R*MSEA* value was .04 (90% *CI* = .04-.04), and they both showed a good fit (Hu & Bentler, 1999). All of the standardized factor loadings were significant and ranged between .33 and .89 (Table 21). Figure 2 depicted standardized estimates for model parameters of traditional victims and Table 22 showed latent correlations among variables in the model.

Table 21

Standardized Regression Weights for Measurement Model of Traditional Victims

			Estimate	*CI*
tv4	<---	tv	.54	.41-.67
tv3	<---	tv	.44	.29-.57
tv2	<---	tv	.49	.37-.60
tv1	<---	tv	.33	.20-.44
tv5	<---	tv	.42	.28-.55
tv6	<---	tv	.52	.37-.63
pru4	<---	rum	.69	.62-.75
pru3	<---	rum	.68	.61-.74
pru2	<---	rum	.78	.73-.83
pru1	<---	rum	.80	.75-.85
er4	<---	reapp	.59	.48-.68
er3	<---	reapp	.79	.73-.84
er2	<---	reapp	.85	.80-.88
er1	<---	reapp	.72	.64-.77
er5	<---	reapp	.57	.47-.65
er6	<---	reapp	.48	.39-.57

Table 21 (continued)

Standardized Regression Weights for Measurement Model of Traditional Victims

			Estimate	*CI*
er10	<---	suppre	.43	.31-.54
er9	<---	suppre	.57	.47-.68
er8	<---	suppre	.61	.50-.72
er7	<---	suppre	.70	.60-.80
sd10	<---	fam	.72	.64-.79
sd7	<---	fam	.74	.66-.80
sd2	<---	fam	.89	.86-.93
sd1	<---	fam	.84	.80-.88
sd12	<---	frie	.76	.69-.83
sd8	<---	frie	.79	.71-.85
sd4	<---	frie	.88	.84-.91
sd3	<---	frie	.87	.82-.91
sd9	<---	so	.87	.83-.91
sd6	<---	so	.82	.75-.86
sd5	<---	so	.79	.73-.84
sd11	<---	so	.83	.78-.88
pc11	<---	maladap	.53	.42-.62
pc10	<---	maladap	.32	.18-.43
pc9	<---	maladap	.46	.35-.58
pc12	<---	maladap	.70	.60-.79
pc4	<---	adap	.77	.71-.82
pc3	<---	adap	.75	.69-.79
pc2	<---	adap	.49	.41-.56
pc1	<---	adap	.46	.38-.54
pc5	<---	adap	.68	.61-.74
pc6	<---	adap	.67	.59-.73
pc7	<---	adap	.27	.16-.37
pc8	<---	adap	.33	.22-.42
parint3	<---	int	.61	.52-.68
parint2	<---	int	.53	.44-.62
parint1	<---	int	.78	.70-.86

Table 22

Estimated Latent Correlations Model with Traditional Victims

	1.Trad. Victim	2.Rumination	3.Reappraisal	4.Suppression	5.PSSFF	6.PSSFFR	7.PSSFSO	8.Adaptive Coping	9.Maladaptive Coping	10.Internalizing Behavior
1.										
2.	.26***									
3.	-.13*	.10								
4.	.01	-.04	.26***							
5.	-.28***	.05	.36***	.01						
6.	-.14*	.05	.20***	-.02	.51***					
7.	-.18*	.04	.27***	-.08	.50***	.45***				
8.	-.03	.63***	.51***	.10	.42***	.41***	.34***			
9.	.37***	.43***	.10	.10	-.06	.04	.01	.28***		
10	.40***	.57***	-33***	.05	-25***	-21***	-.07	-.02	.59***	

PSSFF: Perceived Social Support from Family; PSSFFR: Perceived Social Support from Friends; PSSFSO: Perceived Social Support from Significant Other. *$p < .05$, ***$p < .001$.

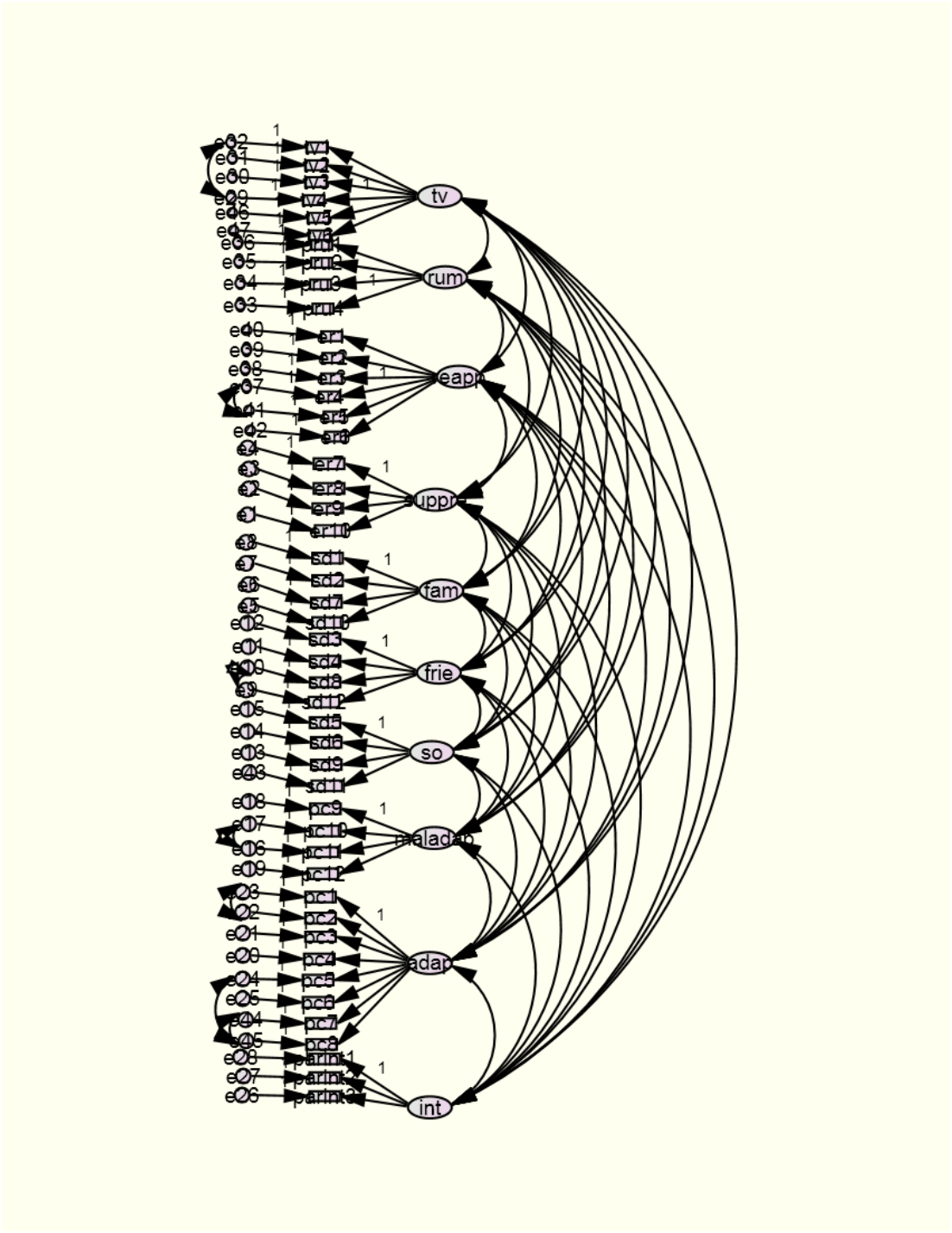

Figure 2. Standardized estimates for the parameters in the measurement model for traditional victims.

4.4.2. Structural Models

Considering that the cyber victims were found to be experiencing internalizing behavior, the aim of the proposed model was to investigate the relationships among coping style, emotion regulation, rumination, perceived social support from others, and cyber victims' internalizing behavior. A further aim was to test the same model with traditional victims.

4.4.2.1. Structural Model for Cyber Victims

Proposed model was tested via bootstrapping method (2000 bootstrapped samples and 95% *CI*) to estimate indirect effects in mediating relationships and to eliminate the potential effects of non-normality. Results showed an acceptable fit of the model to data. Although Chi-square value was significant, ($\chi^2(908) = 1771.40$, $p < .001$), χ^2/df value was 1.95, *CFI* value was .91, *TLI* was .90, *RMSEA* was .04 (90% *CI* = .04-.05), and *SRMR* was .06 (Hu & Bentler, 1999). As a result, the hypothesized structural model fitted to the data. Considering the measurement portion of the model, all of the factor loadings were significant and ranged between .27 and .88 showing that the indicator variables (items and parcels) were significantly explained by their latent variables. Figure 3 presents the proposed model. For ease of reading the model, only latent variables are included in the figure.

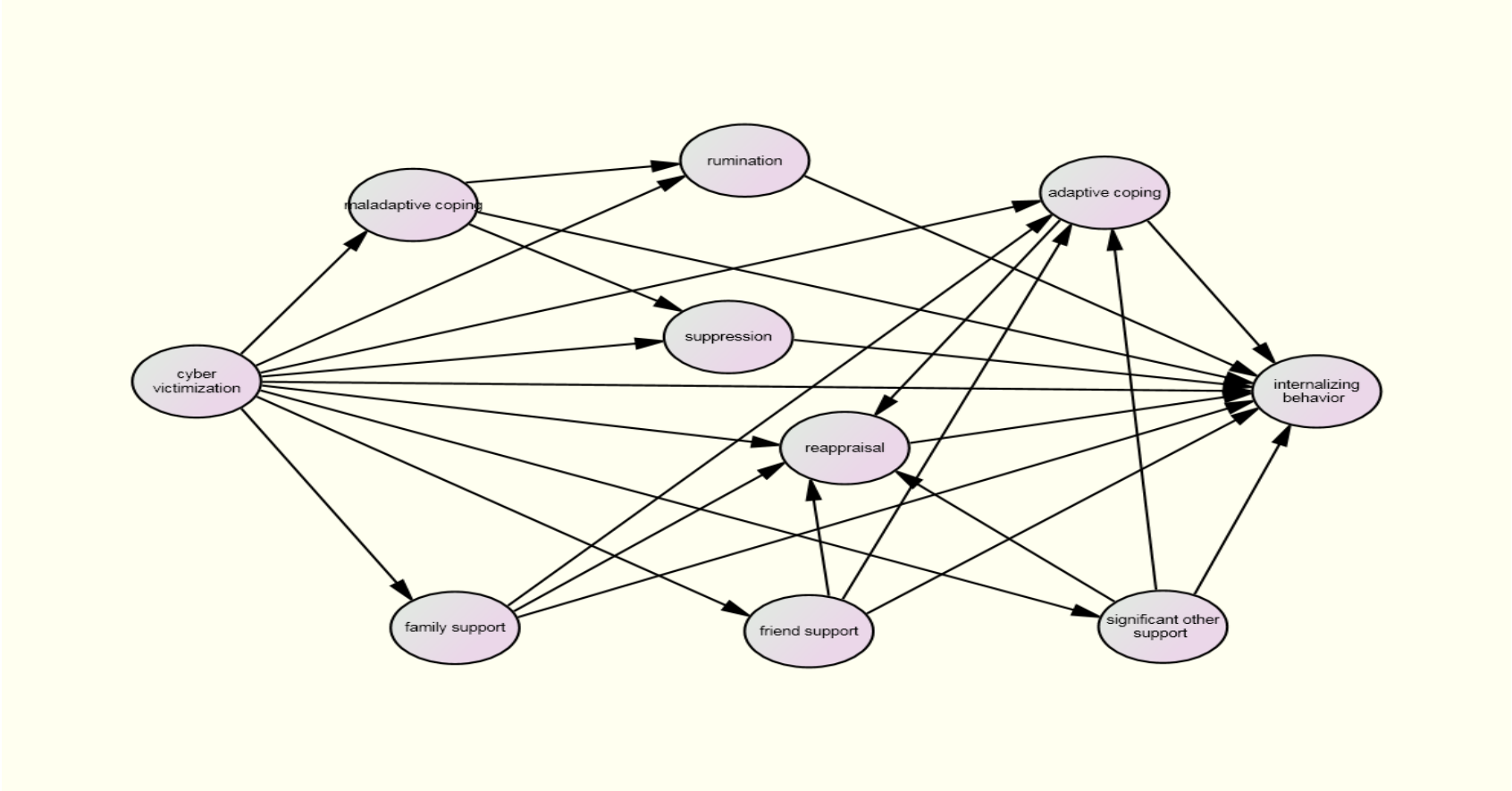

Figure 3. Proposed structural model for cyber victimization.

Direct Effects of Cyber Victimization on Other Scores

Estimates for direct effects were presented in Figure 4, dashed lines showed the non-significant paths. More specifically, cyber victimization had a positive and small significant direct effect on maladaptive coping (γ = .22, p < .05) and a negative and small significant direct effect on perceived social support from family (γ = -.19, p < .01). That is, as the cyber victimization experiences of students increased, they utilized maladaptive coping and perceived that they did not receive social support from their families. Contrary to the expectation, direct effects of cyber victimization to all the other scores were not significant (Table 23).

Relationships among Impacting Factors and Internalizing Behavior

Social support from family positively (γ = .18, p < .01) and from friend negatively (γ = -.08, p < .01) predicted reappraisal although the strength of the direct effect from friend to reappraisal was very low. These findings revealed that students who said that they received social support from their families also said that they reappraised the situation more while those who reported that they received social support from friends also said that they reappraised the situation less. Participants who said that they used adaptive coping also reported that they reappraised the situation more (γ = .42, p < .01) and experienced internalizing behavior less (γ = -.21, p < .01). All sources of social support positively predicted adaptive coping (family: γ = .16, p < .05; friend: γ = .17, p < .05; significant other: γ = .20, p < .01). That is, participants who said that they received social support from family, friend, and significant other also said that they used adaptive coping more.

Maladaptive coping positively predicted rumination (γ = .81, p < .01) and internalizing behavior (γ = .60, p < .01). That is, those who said that they used maladaptive coping also said that they ruminated and experienced internalizing behavior more. Similar to maladaptive coping, suppression positively predicted internalizing behavior (γ = .18, p < .01). Thus, students who reported that they

suppressed their emotions also said that they experienced internalizing behavior more. Adaptive coping (γ = -.21, p < .05) predicted internalizing behavior negatively. That is, students who said that they used adaptive coping also reported that they experienced internalizing behavior less.

Two sources of social support had opposite relationships with internalizing behavior. Perceived social support significant other positively (γ = .17, p < .05) and perceived social support from friends negatively (γ = -.13, p < .05) predicted internalizing behavior. That is, those who said that they received social support from friend also said that they experienced internalizing behavior less while those who reported that they received social support from a significant other also said that they experienced internalizing behavior more. Finally, reappraisal negatively (γ = -.29, p < .05) predicted internalizing behavior.

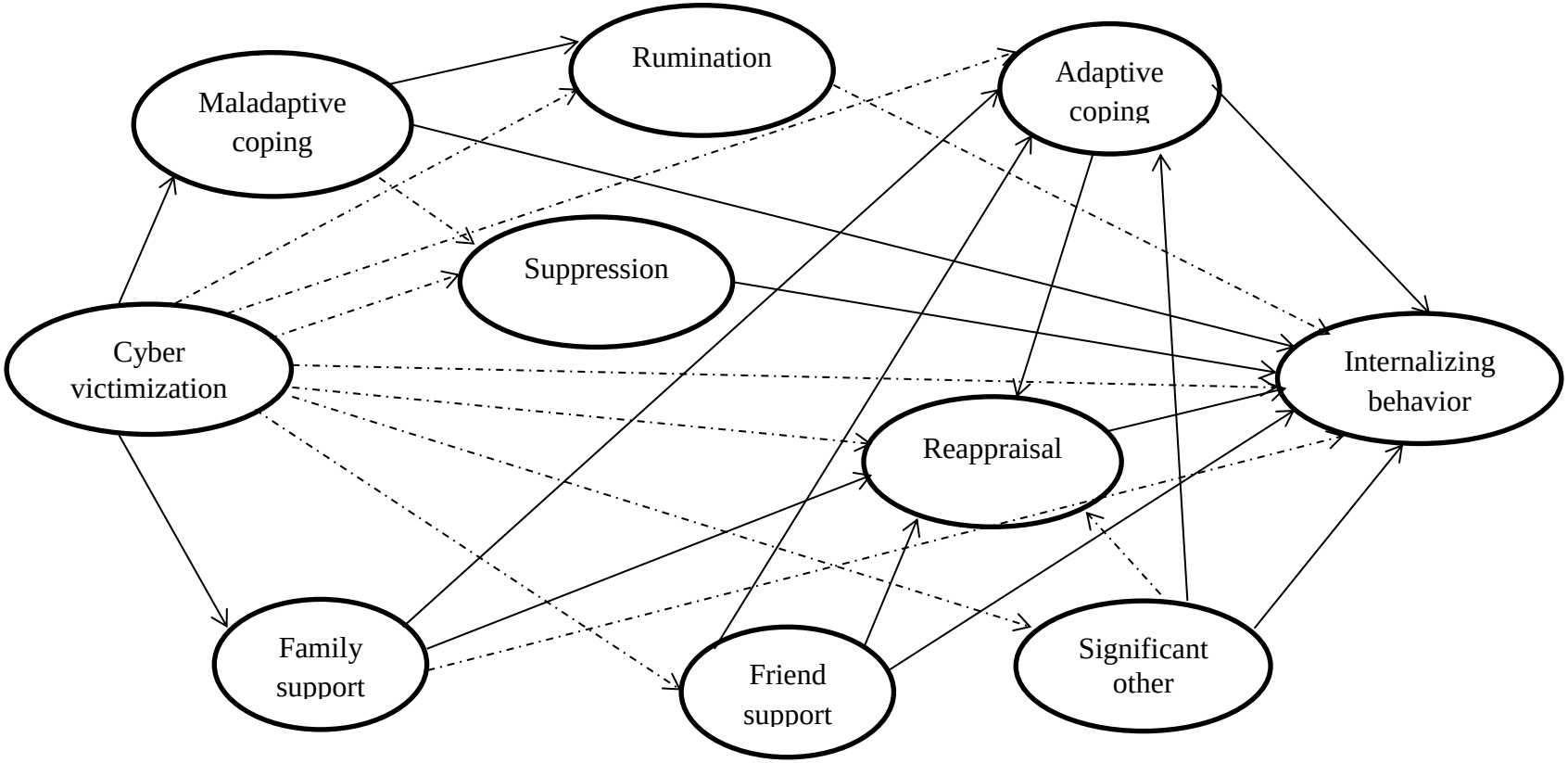

Figure 4. Structural model for cyber victims.

Table 23

Standardized Direct, Indirect, and Total Effects for Cyber Victims

		CV	Sig. Other Support	Friend Support	Family Support	Adaptive Coping	Maladaptive Coping	Reappraisal	Rumination	Suppression
Sig. Oth.	Direct Effect	-.07	-	-	-	-	-	-	-	-
Support	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.07	-	-	-	-	-	-	-	-
Friend	Direct Effect	-.06	-	-	-	-	-	-	-	-
Support	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.06	-	-	-	-	-	-	-	-
Family	Direct Effect	.19**	-	-	-	-	-	-	-	-
Support	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.19**	-	-	-	-	-	-	-	-
Adaptive	Direct Effect	.08	.20**	.17*	.16**	-	-	-	-	-
Coping	Total Indirect	-.06*	-	-	-	-	-	-	-	-
	Total Effects	.02	.20**	.17**	.16**	-	-	-	-	-
Maladaptive	Direct Effect	.22*	-	-	-	-	-	-	-	-
Coping	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	.22*	-	-	-	-	-	-	-	-

*$p < .05$, **$p < .01$, ***$p < .001$.

Table 23 (continued)

Standardized Direct, Indirect, and Total Effects for Cyber Victims

		CV	Sig. Other Support	Friend Support	Family Support	Adaptive Coping	Maladaptive Coping	Reappraisal	Rumination	Suppression
Reappraisal	Direct Effect	-.06	.07	-.08**	.18**	.42**	-	-	-	-
	Total Indirect	-.02	.09*	.07**	.07*	-	-	-	-	-
	Total Effects	-.08	.16**	-.01	.25**	.42**	-	-	-	-
Rumination	Direct Effect	.03	-	-	-	-	.81**	-	-	-
	Total Indirect	.18*	-	-	-	-	-	-	-	-
	Total Effects	.21**	-	-	-	-	.81**	-	-	-
Suppression	Direct Effect	-.05	-	-	-	-	.04	-	-	-
	Total Indirect	.01	-	-	-	-	-	-	-	-
	Total Effects	-.04	-	-	-	-	.04	-	-	-
Internalizing	Direct Effect	.06	.17**	-.13*	-.07	-.21*	.60*	-.29**	.25	.18**
	Total Indirect	.20*	-.09**	-.03	-.11**	-.12**	.21	-	-	-
	Total Effects	.26**	.08	-.16**	-.18**	-.33**	.81**	-.29**	.25	.18**

*$p < .05$, **$p < .01$, ***$p < .001$.

Indirect Effects

In addition to direct effects, a group of indirect effects were significant in the model (Table 23). Although cyber victimization did not predict adaptive coping directly, it had small (-.06) and negative significant indirect effect on adaptive coping. More specifically, cyber victimization had an indirect effect on adaptive coping through perceived social support from family. That is, those who perceived that they did not receive social support from family also said that they utilized adaptive coping. Similarly, cyber victimization did not significantly predict rumination. However, it had a significant positive and small (.18) indirect effect on rumination through maladaptive coping. When students had cyber victimization experience they said they utilized maladaptive coping and those who said that they used maladaptive coping also reported that they ruminated. Like rumination, cyber victimization did not predict internalizing behavior directly but it had an indirect effect through several intervening factors. First path is through maladaptive coping, second path is through perceived social support from family and adaptive coping, and the third path is through perceived social support and reappraisal. The total indirect effect of cyber victimization through the aforementioned three paths on internalizing behavior was small but statistically significant (.20).

Table 24 depicted the R^2 values for the latent variables and showed how much variance was accounted for in the latent variables. Maladaptive coping accounted for 67% variance in rumination. In addition, maladaptive coping, suppression, adaptive coping, reappraisal, suppression, perceived social support from friend and a significant other accounted 68% variance in internalizing behavior. The variance accounted for reappraisal by adaptive coping, perceived social support from family and friend was 27%. Perceived social support from family, friend, and significant other accounted for 19% of the variance in adaptive coping. Variance accounted for maladaptive coping, perceived social support from family,

significant other, friend, and suppression by cyber victimization were 5%, 4%, 1%, 1%, 1%, respectively.

Table 24

Squared Multiple Correlations for the Proposed Model with Cyber Victims

	Rumination	Internalizing Behavior	Adaptive Coping	Reappraisal	Maladaptive Coping	PSSFF	PSSFSO	PSSFFR	Suppression
R^2	.67	.68	.19	.27	.05	.04	.01	.01	.01

4.4.2.2. Model Trimming for the Model with Cyber Victims

According to the results of the test of the hypothesized model, some paths were non-significant in the model. In order to obtain a more parsimonious model, model trimming was conducted and non-significant paths were eliminated from the model. Figure 5 depicts the trimmed model. For ease of reading the model, only latent variables are included in the figure.

Results of the trimmed model indicated an acceptable fit and yielded in a significant Chi-square test, $\chi^2(922) = 1793.81$, $p < .001$) and the χ^2/df was 1.94. *CFI* and *TLI* values were .90, *RMSEA* value was .04 (90% *CI* = .04-.05), and SRMR value was .06. Because the trimmed model was a nested model of the proposed model, the model fit of the trimmed model and the proposed model was compared based on a Chi-square difference test. The results of the nested model comparison showed that the Chi-square difference test was non-significant $\Delta\chi^2(14) = 22.41$, $p = .10$. That is, the trimmed model which was more parsimonious fitted the model more than the proposed model and explained it better.

In this final model (Table 25), cyber victimization positively predicted maladaptive coping ($\gamma = .22$, $p < .01$) and negatively predicted perceived social

support from family (γ = -.15, p < .01). That is, as the cyber victimization experiences of students increase, they said that they utilized maladaptive coping and reported that they did not receive social support from their families.

Social support from family (γ = .16, p < .01), friend (γ = .20, p < .01), and significant other (γ = .18, p < .01) predicted adaptive coping positively. These findings revealed that students, who received social support from their families, friends, and a significant other, also said that they utilized adaptive coping more. Likewise, social support from family positively predicted (γ = .19, p < .01) reappraisal. Those who said that they received social support from family also reported that they reappraised the situation. Adaptive coping positively predicted (γ = .41, p < .01) reappraisal and negatively predicted (γ = -.26, p < .01) internalizing behavior. That is, those who said that they used adaptive coping strategy also reported that they reappraised the situation and said that they experienced internalizing behavior.

Maladaptive coping positively predicted rumination (γ = .86, p < .01) and internalizing behavior (γ = .91, p < .01). That is, those who said that they used maladaptive coping also reported that they ruminated and experienced internalizing behavior more. Similar to maladaptive coping, suppression positively predicted internalizing behavior (γ = .17, p < .01). Thus, students who said that they suppressed their emotions also reported that they experienced internalizing behavior more. Finally, reappraisal negatively predicted (γ = -.28, p < .05) internalizing behavior.

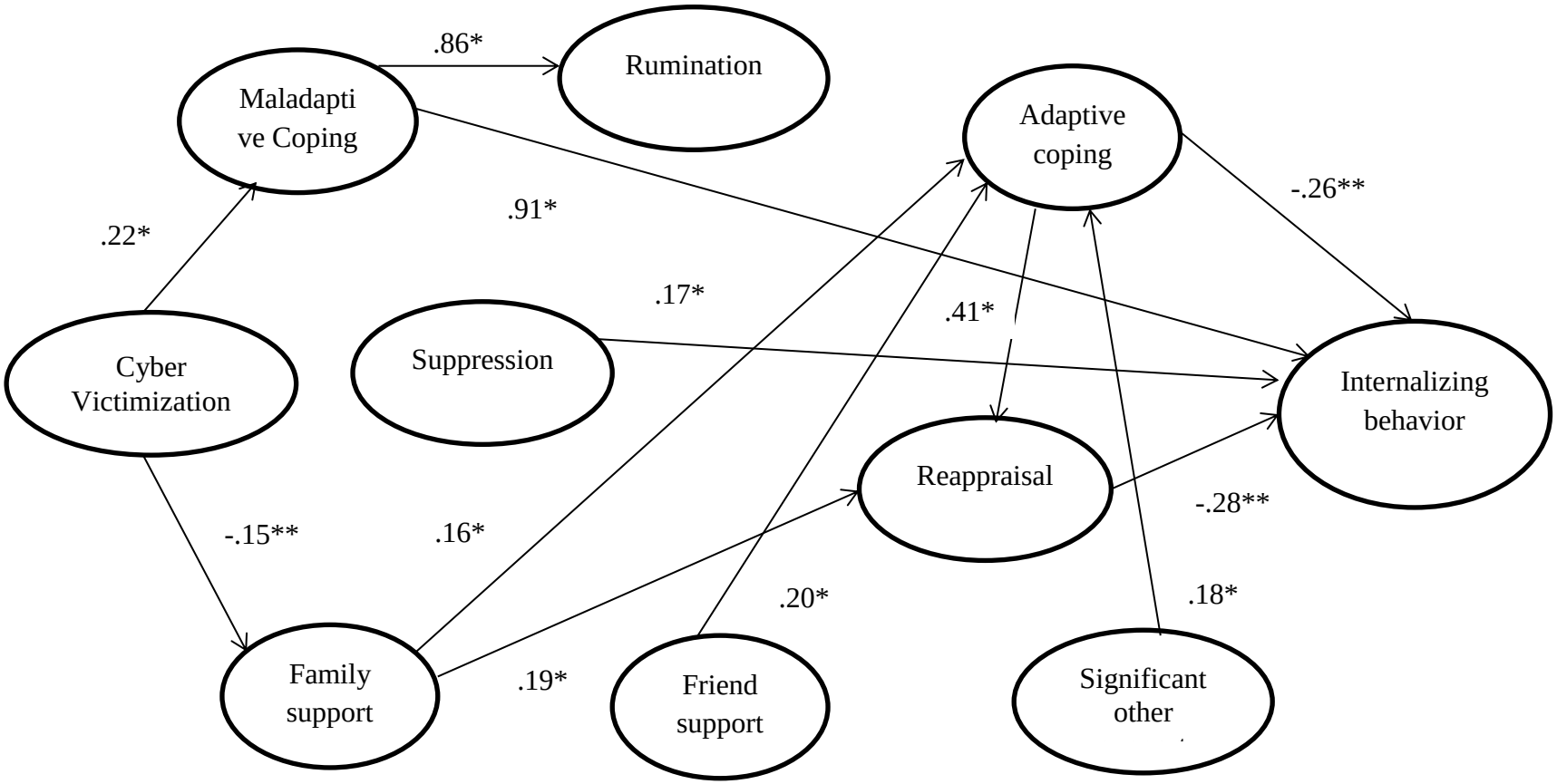

Figure 5. Standardized estimates of the final model with cyber victims.

Table 25

Standardized Direct, Indirect, and Total Effects of the Final Model with Cyber Victims

		CV	Sig. Other Support	Friend Support	Family Support	Adaptive Coping	Reappraisal	Maladaptive Coping	Suppression
Family Support	Direct Effect	-.15**	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-
	Total Effects	-.15**	-	-	-	-	-	-	-
Adaptive Coping	Direct Effect	-	.18**	.20**	.16*	-	-	-	-
	Total Indirect	-.02*	-	-	-	-	-	-	-
	Total Effects	-.02*	.18**	.20**	.16*	-	-	-	-
Reappraisal	Direct Effect	-	-	-	.19**	.41	-	-	-
	Total Indirect	-.04**	.07**	.08**	.06**	-	-	-	-
	Total Effects	-.04**	.07**	.08**	.25**	.41	-	-	-
Maladaptive Coping	Direct Effect	.22**	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-
	Total Effects	.22**	-	-	-	-	-	-	-
Rumination	Direct Effect	-	-	-	-	-	-	.86**	-
	Total Indirect	.19**	-	-	-	-	-	-	-
	Total Effects	.19**	-	-	-	-	-	.86**	-
Internalizing	Direct Effect	-	-	-	-	-.26**	-.28**	.91**	.17**
	Total Indirect	.22**	-.07**	-.07**	-.11**	-.11**	-	-	-
	Total Effects	.22**	-.07**	-.07**	-.11**	-.37**	-.28**	.91**	.17**

*$p < .05$, **$p < .01$, ***$p < .001$.

Indirect Effects

Indirect effects of the final model were depicted in Table 25. Although cyber victimization did not predict adaptive coping directly, it had very small (-.02) and negative significant indirect effect on adaptive coping. More specifically, cyber victimization had an indirect effect on adaptive coping through perceived social support from family. That is, those who said that they have cyber victimization experience also reported that did not receive social support from family, and those who said that they received social support from family also reported that they utilized adaptive coping. Similarly, cyber victimization did not predict rumination directly. However, it had a significant positive and small (.19) indirect effect on rumination through maladaptive coping. When students had cyber victimization experience they said that they utilized maladaptive coping and those who reported that they used maladaptive coping also said that they ruminated. Like rumination, cyber victimization did not predict internalizing behavior directly but it had an indirect effect through several intervening factors. First path is through maladaptive coping, second path is through perceived social support from family and adaptive coping, and the third path is through perceived social support from family and reappraisal. The total indirect effect of cyber victimization through the aforementioned three paths on internalizing behavior was small but statistically significant (.22).

Table 26 depicted the R^2 values for the latent variables of the final model and showed how much variance was accounted for in the latent variables. Maladaptive coping accounted for 73% variance in rumination. In addition, maladaptive coping, suppression, adaptive coping, and reappraisal accounted 70% variance in internalizing behavior. The variance accounted for reappraisal by adaptive coping and support from family was 26%. Perceived social support from family, friend, and significant other accounted for 19% of the variance in adaptive coping. Variance accounted for maladaptive coping and perceived social support from family by cyber victimization were 5% and 2%, respectively.

Table 26

Squared Multiple Correlations for the Final Model with Cyber Victims

	Rumination	Internalizing Behavior	Adaptive Coping	Reappraisal	Maladaptive Coping	PSSFF
R^2	.73	.70	.19	.26	.05	.02

4.4.2.3. Structural Model for Traditional Victims

As mentioned before, cyber victimization and traditional victimization shares several common characteristics despite their differences. Based on the literature, bullying and victimization works similarly both in the physical world and in the cyber space, the proposed model was also tested for traditional victimization.

Proposed model was tested via bootstrapping method (2000 bootstrapped samples and 95% CI) to estimate indirect effects in mediating relationships and to eliminate the potential effect of non-normality. Results showed an acceptable fit of the model to data. Although Chi-square value was significant, ($\chi^2(997) = 1764.85$, $p < .001$), χ^2/df value was 1.77, *CFI* value was .91, *TLI* was .91, *RMSEA* was .04 (90% *CI* = .04-.04), and *SRMR* was .06 (Hu & Bentler, 1999). As a result, the proposed structural model fitted the data. Considering the measurement portion of the model, all of the factor loadings were significant and ranged between .32 and .89 showing that the indicator variables (items and parcels) were significantly explained by their latent variables. Figure 6 presents the model. For ease of reading the model, only latent variables are included in the figure.

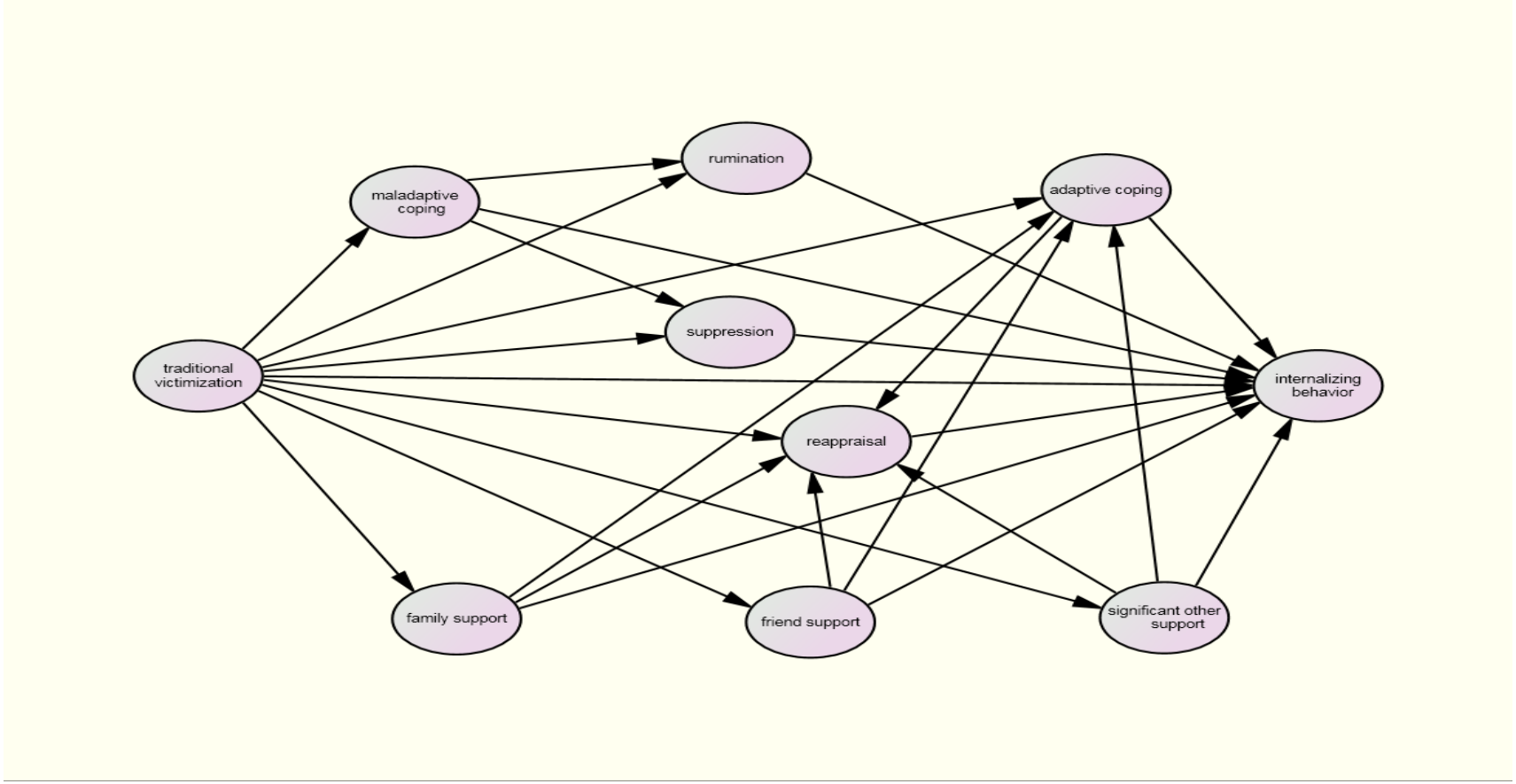

Figure 6. Proposed structural model for traditional victimization.

Direct Effects of Traditional Victimization on Other Scores

Estimates for direct effects were presented in Figure 7, dashed lines showed the non-significant paths. More specifically, traditional victimization positively predicted maladaptive coping (γ = .39, p < .01), and negatively predicted perceived social support from significant other (γ = -.17, p < .05) and family (γ = -.26, p < .05). That is, as the traditional victimization experiences of students increased, they reported that they utilized maladaptive coping and said that they did not receive social support from their families and from a significant other. Contrary to the expectation, traditional victimization did not predict any other scores significantly (Table 27).

Relationships among Impacting Factors and Internalizing Behavior

Social support from family (γ = .23, p < .05), friend (γ = .20, p < .05), and significant other (γ = .18, p < .05) positively predicted adaptive coping. These findings revealed that students who said that they received social support from their families, friends, and a significant other also reported that they used adaptive coping. Two types of social support worked in the opposite direction in predicting reappraisal. Perceived social support from family (γ = .18, p < .01) positively predicted reappraisal while perceived social support from friend (γ = -.11 p < .05) negatively predicted reappraisal. Adaptive coping predicted reappraisal positively (γ = .47, p < .01). That is, those who said that they reappraised the situation also reported that they utilized adaptive coping more.

Maladaptive coping positively predicted rumination (γ = .73, p < .01) and internalizing behavior (γ = .42, p < .01). That is, those who said that they used maladaptive coping also reported that they ruminated and experienced internalizing behavior more. Similar to maladaptive coping, suppression (γ = .15, p < .01) and rumination (γ = .33, p < .01) positively predicted internalizing behavior. Thus, students who said that they suppressed their emotions and ruminated reported that they experienced internalizing behavior more.

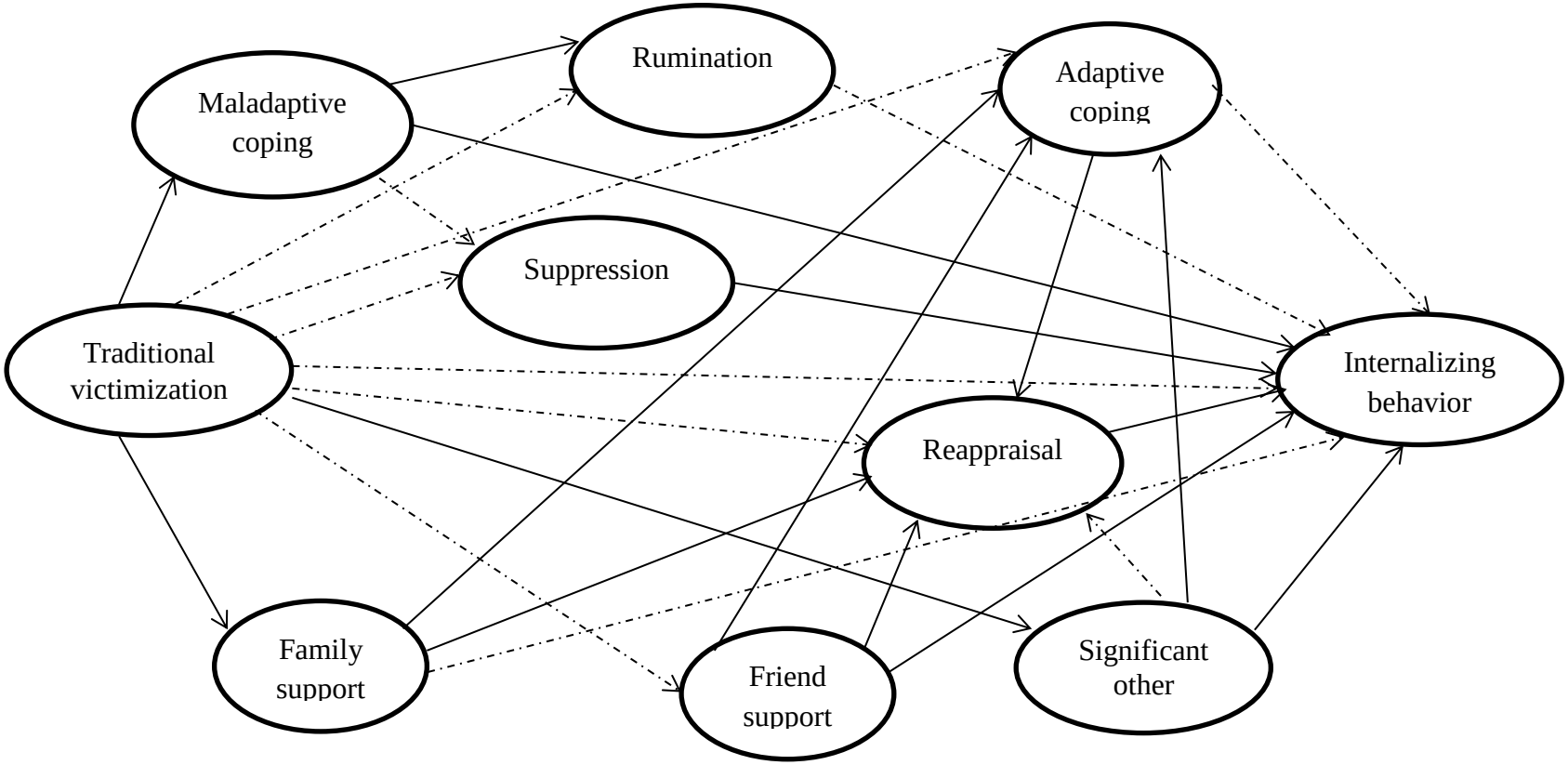

Figure 7. Structural model for traditional victims.

Table 27

Standardized Direct, Indirect, and Total Effects for Traditional Victims

		TV	Sig. Other Support	Friend Support	Family Support	Adaptive Coping	Maladaptive Coping	Reappraisal	Rumination	Suppression
Sig. Oth. Support	Direct Effect	-.17*	-	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.17*	-	-	-	-	-	-	-	-
Friend Support	Direct Effect	-.12	-	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.12	-	-	-	-	-	-	-	-
Family Support	Direct Effect	-.26*	-	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.26	-	-	-	-	-	-	-	-
Adaptive Coping	Direct Effect	.08	.18**	.20**	.23**	-	-	-	-	-
	Total Indirect	-.11**	-	-	-	-	-	-	-	-
	Total Effects	-.03	.18**	.20**	.23**	-	-	-	-	-

*$p < .05$, **$p < .01$, ***$p < .001$.

Table 27 (continued)

Standardized Direct, Indirect, and Total Effects for Traditional Victims

		TV	Sig. Other Support	Friend Support	Family Support	Adaptive Coping	Maladaptive Coping	Reappraisal	Rumination	Suppression
Maladaptive Coping	Direct Effect	.39**	-	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	.39**	-	-	-	-	-	-	-	-
Reappraisal	Direct Effect	-.07	.05	-.11*	.17**	.47**	-	-	-	-
	Total Indirect	-.06	.08**	.09**	.11**	-	-	-	-	-
	Total Effects	-.13	.13*	.02	.28**	.47**	-	-	-	-
Rumination	Direct Effect	-.05	-	-	-	-	.73**	-	-	-
	Total Indirect	.29**	-	-	-	-	-	-	-	-
	Total Effects	.24**	-	-	-	-	.73**	-	-	-
Suppression	Direct Effect	-.01	-	-	-	-	.04	-	-	-
	Total Indirect	.02	-	-	-	-	-	-	-	-
	Total Effects	.01	-	-	-	-	.04	-	-	-
Internalizing	Direct Effect	.09	.18**	-.15*	-.04	-.09	.42**	-.40**	.33*	.15**
	Total Indirect	.30**	-.07*	-.01	-.13**	-.18**	.25**	-	-	-
	Total Effects	.39**	.11	-.16*	-.-.17**	-.27**	.67**	-.40**	.33**	.15*

*$p < .05$, **$p < .01$, ***$p < .001$.

While reappraisal (γ = -.40, p < .01) negatively predicted internalizing behavior, rumination (γ = .33, p < .01) positively predicted it. These results revealed that those who said that they reappraised the situation also reported that they experienced internalizing behavior less while ruminators said that they internalized more.

Finally, two sources of social support had opposite relationships with internalizing behavior. Perceived social support from significant other positively (γ = .18, p < .01) and perceived social support from friends negatively (γ = -.15, p < .05) predicted internalizing behavior. That is, those who said that they received social support from friend also reported that they experienced internalizing behavior less while those who reported that they received social support from a significant other also said that they experienced internalizing behavior more.

Indirect Effects

In addition to direct effects, a group of indirect effects were significant in the model (Table 27). Although traditional victimization did not predict adaptive coping directly, it had small (-.11) and negative significant indirect effect on adaptive coping. More specifically, traditional victimization had an indirect effect on adaptive coping through perceived social support from family. That is, those who reported that they had traditional victimization said that they did not receive social support from family, and those who reported that they received social support from family also said that they utilized adaptive coping. Similarly, traditional victimization did not directly predicted rumination. However, it had a significant positive (.29) indirect effect on rumination through maladaptive coping. When students had traditional victimization experience they reported that they utilized maladaptive coping and those who said that they used maladaptive coping reported that they ruminated. Like rumination, traditional victimization did not predicted internalizing behavior directly but it had an indirect effect through several intervening factors. First path is through maladaptive coping, second path is through perceived social support from family and reappraisal, the third path is

through maladaptive coping and rumination, and the fourth path is through perceived social support from a significant other. The total indirect effect of traditional victimization through the aforementioned three paths on internalizing behavior was small but statistically significant (.30).

Table 28 depicted the R^2 values for the latent variables and showed how much variance was accounted for in the latent variables. Maladaptive coping accounted for 50% variance in rumination. In addition, rumination, maladaptive coping, suppression, reappraisal, friend, and significant other support accounted 67% variance in internalizing behavior. The variance accounted for reappraisal by adaptive coping, support from family and friend was 30%. Perceived social support from family, friend, and significant other accounted for 24% of the variance in adaptive coping. Variance accounted for maladaptive coping, perceived social support from family, significant other, friend, and suppression by traditional victimization were 15%, 7%, 3%, 2%, 1%, respectively.

Table 28

Squared Multiple Correlations for the Proposed Model with Traditional Victims

	Rumination	Internalizing Behavior	Adaptive Coping	Reappraisal	Maladaptive Coping	PSSFF	PSSFSO	PSSFFR	Suppression
R^2	.50	.67	.24	.30	.15	.07	.03	.02	.01

4.4.2.4. Model Trimming for the Model with Traditional Victims

According to the results of the test of hypothesized model, some paths were non-significant in the model. In order to obtain a more parsimonious model, model trimming was conducted and non-significant paths were eliminated from the model. Figure 8 presents the trimmed model. For ease of reading the model, only latent variables are included in the figure.

Results of the trimmed model indicated an acceptable fit and yielded in a significant Chi-square test, $\chi^2(1009) = 1787.59$, $p < .001$) and the χ^2/df was 1.78. *CFI* value was .91 and *TLI* value was .90, *RMSEA* value was .04 (90% *CI* = .04-.04), and *SRMR* value was .06. Because the trimmed model was a nested model of the proposed model, model fit of the trimmed model and proposed model was compared based on a Chi-square difference test. The results of the nested model comparison showed that the Chi-square difference test was significant $\Delta\chi^2(12) = 22.74$, $p < .05$. Given that the Chi-square test is so sensitive to sample size that very small values may turn out to be significant p-values with large sample sizes (Tabachnick & Fidell, 2007). Considering the very close fit indexes of the proposed model and the trimmed model, due to parsimony, trimmed model was considered as the final model.

In this final model (Table 28), traditional victimization positively predicted maladaptive coping ($\gamma = .38$, $p < .01$) and negatively predicted perceived social support from family ($\gamma = -.18$, $p < .01$). That is, as the traditional victimization experiences of students increases, they reported that they utilized maladaptive coping and said that they did not receive social support from their families.

Social support from family ($\gamma = .21$, $p < .01$), friend ($\gamma = .21$, $p < .01$), and significant other ($\gamma = .18$, $p < .01$) predicted adaptive coping positively. These findings revealed that participants who said that they received social support from their families, friends, and a significant other also reported that they utilized adaptive coping. Likewise, social support from family positively predicted ($\gamma = .18$, $p < .01$) reappraisal. Those who said that they received social support from family also reported that they reappraised the situation. Adaptive coping positively predicted ($\gamma = .44$, $p < .01$) reappraisal. That is, those who said that they used an adaptive coping strategy also reported that they reappraised the situation.

Maladaptive coping positively predicted rumination ($\gamma = .70$, $p < .01$) and internalizing behavior ($\gamma = .46$, $p < .01$). That is, those who reported that they used maladaptive coping also said that they ruminated and experienced internalizing

behavior. Similar to maladaptive coping, suppression positively predicted internalizing behavior (γ = .17, p < .01). Thus, students who reported that they suppressed their emotions also said that they experienced internalizing behavior.

While perceiving social support from friends negatively predicted (γ = -.18, p < .01) internalizing behavior, perceived social support from a significant other positively predicted (γ = .14, p < .05) experiencing internalizing behavior.

Finally, while reappraisal (γ = -.46, p < .01) negatively predicted internalizing behavior, rumination (γ = .31, p < .01) positively predicted it. These results revealed that those who said that they reappraised the situation also reported that they experienced internalizing behavior less. However, those who reported that they ruminated also said that they internalized more.

Indirect Effects

Indirect effects of the final model were depicted in Table 29. Although traditional victimization did not predict adaptive coping directly, it had very small (-.04) and negative significant indirect effect on adaptive coping. More specifically, traditional victimization had an indirect effect on adaptive coping through perceived social support from family. That is, those who reported that they experienced higher victimization said that they did not receive social support from family and those who reported that they received social support from family also reported that they utilized adaptive coping. Similarly, traditional victimization did not predict rumination directly. However, it had a significant positive and small (.26) indirect effect on rumination through maladaptive coping. When students had traditional victimization experience they said that they utilized maladaptive coping and those who reported that they used maladaptive coping also said that they ruminated. Like rumination, traditional victimization did not predict internalizing behavior directly but it had an indirect effect through several intervening factors. First path is through maladaptive coping, second path is through maladaptive coping and rumination, the third path is through perceived

social support from family and reappraisal, the fourth path is through perceived social support from family, adaptive coping, and reappraisal. The total indirect effect of traditional victimization on internalizing behavior was small but significant (.28).

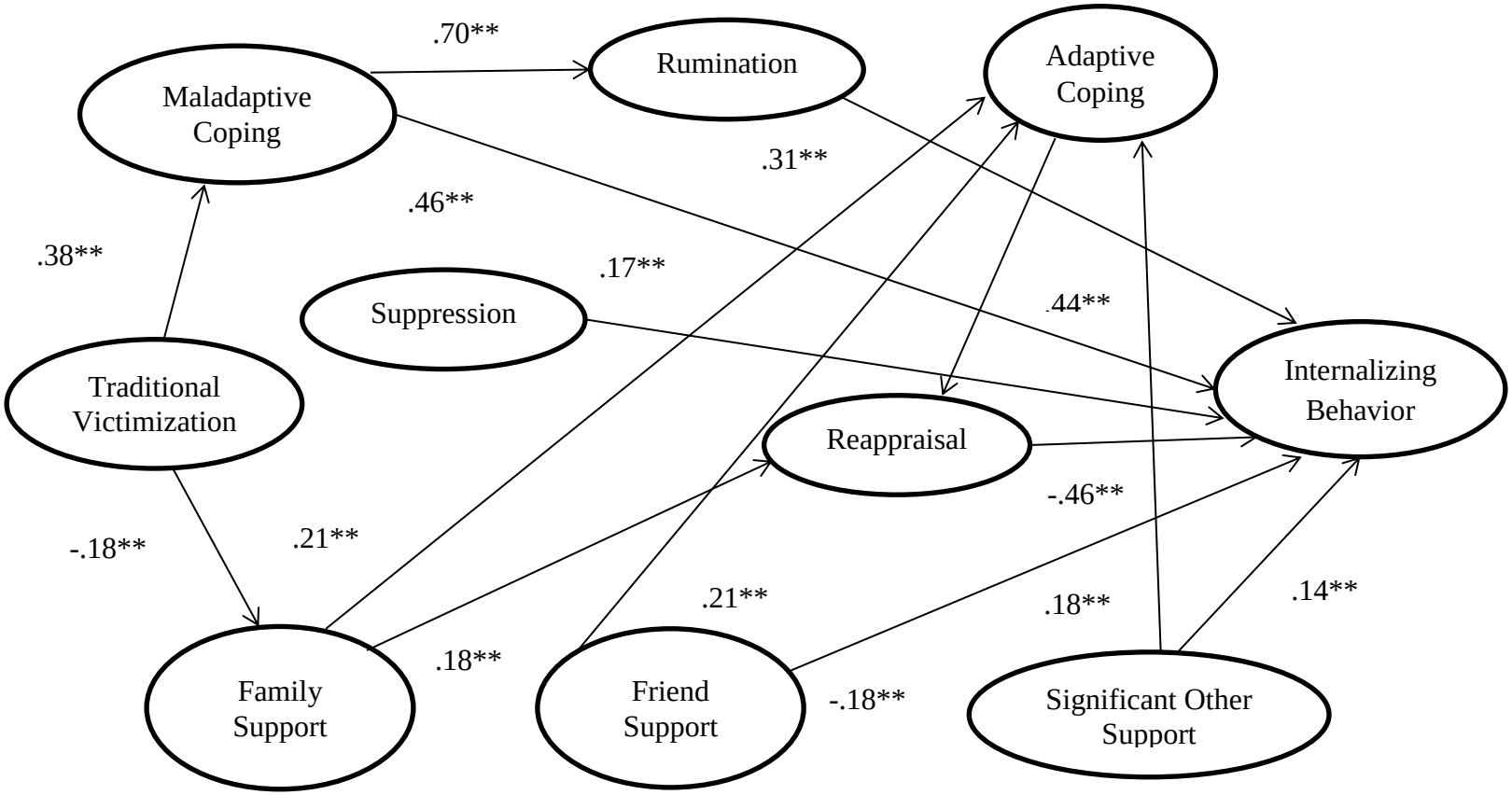

Figure 8. Standardized estimates of the final model with traditional victims.

Table 29

Standardized Direct, Indirect, and Total Effects of the Final Model with Traditional Victims

		TV	Sig. Other Support	Friend Support	Family Support	Adaptive Coping	Maladaptive Coping	Rumination	Reapparaisal	Suppression
Family Support	Direct Effect	-.18**	-	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	-.18**	-	-	-	-	-	-	-	-
Adaptive Coping	Direct Effect	-	.18**	.21**	.21**	-	-	-	-	-
	Total Indirect	-.04**	-	-	-	-	-	-	-	-
	Total Effects	-.04**	.18	.21**	.21**	-	-	-	-	-
Maladaptive Coping	Direct Effect	.38**	-	-	-	-	-	-	-	-
	Total Indirect	-	-	-	-	-	-	-	-	-
	Total Effects	.38**	-	-	-	-	-	-	-	-
Reappraisal	Direct Effect	-	-	-	.18**	.44**	-	-	-	-
	Total Indirect	.05**	-	.09**	.09**	-	-	-	-	-
	Total Effects	.05**	-	.09**	.27**	.44**	-	-	-	-
Rumination	Direct Effect	-	-	-	-	-	.70**	-	-	-
	Total Indirect	.26**	-	-	-	-	-	-	-	-
	Total Effects	.26**	-	-	-	-	.70**	-	-	-
Internalizing	Direct Effect	-	.14*	-.18**	-	-	.46**	.31**	-.46**	.17**
	Total Indirect	.28**	-.04**	-.04**	-.13**	-.20**	.21**	-	-	-
	Total Effects	.28**	.09	-.22**	-.13**	-.20**	.67**	.31**	-.46**	.17**

*$p < .05$, **$p < .01$, ***$p < .001$.

Table 30 depicted the R^2 values for the latent variables of the final model and showed how much variance was accounted for in the latent variables. Maladaptive coping accounted for 49% variance in rumination. In addition, rumination, maladaptive coping, suppression, reappraisal, perceived social support from friend and a significant other accounted 65% variance in internalizing behavior. The variance accounted for reappraisal by adaptive coping and support from family was 29%. Perceived social support from family, friend, and significant other accounted for 23% of the variance in adaptive coping. Variance accounted for maladaptive coping and perceived social support from family by traditional victimization variables were 14% and 3%, respectively.

Table 30

Squared Multiple Correlations for the Final Model with Traditional Victims

	Rumination	Internalizing Behavior	Adaptive Coping	Reappraisal	Maladaptive Coping	PSSFF
R^2	.49	.65	.23	.29	.14	.03

4.5. Summary of the Results

Victims of traditional and cyber victimization were found to be related to serious problems that are generally reported to be internalizing problems such as depression, anxiety, stress, and low self-esteem (Aoyama et al., 2011; Chang et al., 2013; Patchin, & Hinduja, 2010). To help the victims, researchers need to understand what type of factors impact the reactions of victims. Given that cyber and traditional bullying are strongly related (Griezel et al., 2012; Twyman et al., 2010) researchers consult to the traditional bullying literature to understand what type of factors play a role in victims' reactions to bullying. Based on the traditional bullying literature, coping style (Kochenderfer-Ladd & Skinner, 2002), emotion regulation (Kelly et al., 2008), rumination (Erdur-Baker, 2009), and perceived social support (Rigby, 2000) seem to playing a role in determining

victims' reaction bullying. The goal of the current study is to test a model to uncover the relationships among coping styles, emotion regulation, rumination, perceived social support, and internalizing behavior in traditional and cyber victimization contexts. Model testing was achieved via structural equation modeling techniques. Findings of the two models were very similar that for both traditional and cyber victims, victimization was directly and positively related to maladaptive coping and was directly but negatively related to perceived social support from family. For both of the models, three indirect paths are observed from victimization to internalizing behavior. For cyber victimization model,

1. As the participants' cyber victimization experiences increases, they reported that they used maladaptive coping strategies and using maladaptive coping strategies was found to be positively associated to experiencing more internalizing behavior.
2. As the participants' cyber victimization experiences increases, they reported that they did not receive social support from their parents. Cyber victimization is indirectly and negatively related to reappraisal through perceived social support from family. Reappraisal is negatively and directly related to experiencing internalizing behavior. Cyber bullying is indirectly and positively related to experiencing internalizing behavior through perceived social support from family and reappraisal.
3. As the participants' cyber victimization experiences increases, they reported that they did not receive social support from their parents. Cyber victimization is indirectly and negatively related to adaptive coping through perceived social support from family. Adaptive coping is negatively and directly related to experiencing internalizing behavior. Cyber bullying is indirectly and positively related to experiencing internalizing behavior through perceived social support from family and adaptive coping.

For traditional victimization model,

1. As the participants' traditional victimization experiences increases, they reported that they used maladaptive coping strategies and using maladaptive coping strategies was found to be positively associated to experiencing more internalizing behavior.
2. As the participants' traditional victimization experiences increases, they reported that they did not receive social support from their parents. Traditional victimization is indirectly and negatively related to reappraisal through perceived social support from family. Reappraisal is negatively and directly related to experiencing internalizing behavior. Traditional bullying is indirectly and positively related to experiencing internalizing behavior through perceived social support from family and reappraisal.
3. As the participants' traditional victimization experiences increases, they reported that they used maladaptive coping strategies and using maladaptive coping strategies was found to be positively associated to rumination. Traditional victimization was found to be indirectly and positively related to rumination through maladaptive coping. Rumination is positively and directly related to experiencing internalizing behavior. Traditional bullying is indirectly and positively related to experiencing internalizing behavior through maladaptive coping and rumination.

Despite the minor differences in the models for traditional and cyber victims, overall similarity in the two models supported the idea that cyber bullying is an extension of traditional bullying happening in the cyber environment.

CHAPTER 5

DISCUSSION

With the improvement in information and communication technologies and its prevalent usage by youngsters, cyber bullying has appeared as a new type of bullying among adolescents. Similar to victims of traditional bullying, cyber bullying victims reported that they suffered from serious problems that are generally reported to be internalizing problems such as depression, anxiety, stress, and low self-esteem (Aoyama et al., 2011; Chang et al., 2013; Patchin, & Hinduja, 2010). Researchers who aim to develop strategies that help the children and adolescents to be safe from bullying and victimization emphasize the rigorous need to unearth the underlying mechanisms in bullying and victimization experiences of youth (Lee et al., 2013; Ortega-Ruiz & Nunez, 2012). To help the victims, researchers need to understand the type of factors that have an impact on their reactions. Given that cyber and traditional bullying are strongly related (Griezel et al., 2012, Twyman et al., 2010), researchers consulted to the traditional bullying literature to understand these factors playing a role in victims' reactions to bullying. Based on the traditional bullying literature, coping style (Kochenderfer-Ladd & Skinner, 2002), emotion regulation (Kelly et al., 2008), rumination (Erdur-Baker, 2009), and perceived social support (Rigby, 2000) appear to relate to victims' reactions to bullying.

Little research however has been conducted to understand the role of these impacting factors in the cyber victimization context. Moreover, the independent roles of these factors on victims' reactions in traditional and cyber bullying contexts have been analyzed separately, but none of the existing studies explored the relationships among these factors and their association to internalizing behavior simultaneously for traditional and cyber bullying victims.

In the present study, a model that examines the relationships among coping style, emotion regulation, rumination, perceived social support and cyber victims' internalizing behavior were tested. Moreover, the same model was tested with targets of traditional bullying because traditional and cyber bullying share common characteristics despite minor differences (Jose et al., 2011). The aim of the study was achieved through structural equation modeling by analyzing data that was collected from high school students in Ankara.

As expected, findings from the two models are very similar to each other. The results revealed several direct and indirect relationships among the related variables of victims' internalizing behavior. Victimization was found to be directly and positively related to maladaptive coping and directly but negatively associated to perceived social support from family. In addition to these direct paths, several indirect paths from victimization to internalizing behavior were observed.

This final chapter outlines and discusses the research results in three main sections. The first section summarizes the findings of the present study and discusses the obtained relationships in the light of the literature. Second section provides the reader with the interpretations on how teachers, parents, and school counselors can use the findings of the present study. The final section consisted of recommendations for researchers of further studies.

5.1. Discussion of the Findings

Before discussing the main findings, results of the preliminary analyses are interpreted because these analyses also revealed important conclusions. In the current study, the preliminary analysis was conducted to identify the participants who reported that they have traditional and cyber victimization experience. Two types of measurements were carried out to detect victims in the present study. The first discussion is on the comparison of two different measurements methods (single item vs. multiple items) that were used to identify victims. Second, after

identifying the victims, another preliminary analysis was conducted to examine the relationship between victimization and internalizing behavior. As compared to bullies and participants who reported that they did not have any bullying and victimization experience, victims were found to be experiencing more internalizing behavior. The second discussion topic before moving through the discussion of the model is on the relationship between victimization and internalizing behavior. Third, correlation coefficients were calculated between cyber victimization and traditional victimization. A large correlation coefficient was found between victimization in the physical and cyber environments. This finding supported the idea that traditional and cyber victimization are strongly related and a brief discussion on this findings is presented. Later, the discussion of the main findings that is the results of the model testing is presented.

First, in the present study, the goal was to test a model that investigates relationships among coping style, emotion regulation, rumination, and perceived social support in victims' internalizing behavior. Thus, the initial step of the analyses was to detect the participants who had cyber and traditional victimization experience. There has been a debate in the literature on the measurement of bullying and victimization. The literature suggested two major ways of measuring bullying and victimization experiences to identify the victims and bullies. A group of researchers preferred measuring frequency of bullying and victimization with a single question (Hinduja & Patchin, 2008) whereas another group used multiple-item questionnaires (Raskauskas & Stoltz, 2007; Slonje & Smith, 2008). In the current study, bullying and victimization experiences of the participants in the cyber and traditional environments were measured twice; once with a single item after providing the participants with the definition of bullying and once with a mullti-item questionnaire. Interestingly, using a single item measure and asking "Have you ever been bullied?" resulted in receiving higher frequency of victimization in both the cyber and physical environments. This finding was in contrast with Gradinger et al. (2010) who also utilized a global item and multiple-items to measure cyber bullying and victimization. For both cyber bullying and

victimization, they reported higher rates when asked with a single global item. It is no surprise that with a single item measurement rates of bullying and victimization are inflated because those who experienced bullying and victimization only once cannot be separated with a single question that enabled the respondent to answer in only yes or no options. Therefore, checking on the repetition criterion of bullying is not possible with a single item. However, with a multi-item questionnaire the researcher can analyze the repeated acts and detect those who experience bullying and victimization. Additionally, although the participants have an experience, they may not be sure whether they should evaluate this act as bullying and victimization, and underestimate or overestimate their experience while answering a single item. In the present study, the correlation coefficients between the two measurements yielded non-significant results for both traditional and cyber victimization. That is, victims who were detected through two measurement strategies were not the same participants. Because multi-item questionnaires have stronger reliability and are rich in terms of content validity (Fraenkel et al., 2012), the researcher in the present study decided to use the multi-item questionnaires to identify the victims.

Second, after detecting the participants who reported that they were victimized, model testing was conducted with those who had victimization experience based on the classification of multi-item questionnaires. Overall, parallel to the studies that investiagated the consequences of bullying (Hinduja & Patchin, 2010; Ivarsson et al., 2005; Nordahl et al., 2013), in the current study both cyber victimization and traditional victimization was found to be positively related to internalizing behavior. Cyber and traditional victims reported that they experienced internalizing behaviors more than bullies and than those who did not have any type of bullying experience both as a bully and a target.

Third, the preliminary analyses indicated another important evidence for the debate on the similarities and differences between traditional and cyber bullying and victimization. Despite the unique characteristics of the cyber environment

such as being anonymous and enabling the bullies hide their identity, models for traditional victimization and cyber victimization converged very similarly almost identical, confirming the expectations of the researcher. In line with Olweus (2012) who argued that cyber and traditional victimization were similar and not two distinct types of bullying, findings of the current study also substantiated evidence for the idea that there was only one type of bullying and victimization happening in two separate environments (physical and cyber). While handling the bullying and victimization incidents in the physical and cyber environments, similar strategies can be used. Still, the technological coping strategies may be used for preventing adolescents from being cyber victims and intervening in the cyber bullying incidents. Yet, similarity between models supported the idea that not the medium of the bullying but the related factors should be directed in the efforts for understanding the coping process in bullying. Also, as Olweus (2012) argued, the popularity of the cyber bullying should not underestimate traditional bullying that is still prevalent among adolescents.

Because the findings of the model with cyber victims and the results for the model with traditional victims are very similar to each other, they are discussed together. Minor differences that were specific to each model are also mentioned when it is necessary. For both cyber and traditional victimization, the overall fit of the models are acceptable even though some of the paths in both of the models are non-significant. The non-significant paths were trimmed in both of the models. After trimming, the overall fit of the models are still acceptable and very similar to the fit indexes of proposed models. Therefore, trimmed models were considered as the final models and findings from the finalized trimmed models are discussed in this chapter.

To begin with, the associations among coping styles, emotion regulation, rumination, and perceived social support in victims' of traditional and cyber bullying were tested. Because coping styles, emotion regulation, rumination, and

perceived social support are known to be related to each other, associations among these factors were also examined.

In general, coping styles and perceived social support from family determined the relationship of victimization to internalizing behavior both directly and indirectly through their presumed pathways. Yet, rumination and emotion regulation were found to be indirectly related to internalizing behaviors. For both of the models, three paths are observed from victimization to internalizing behavior.

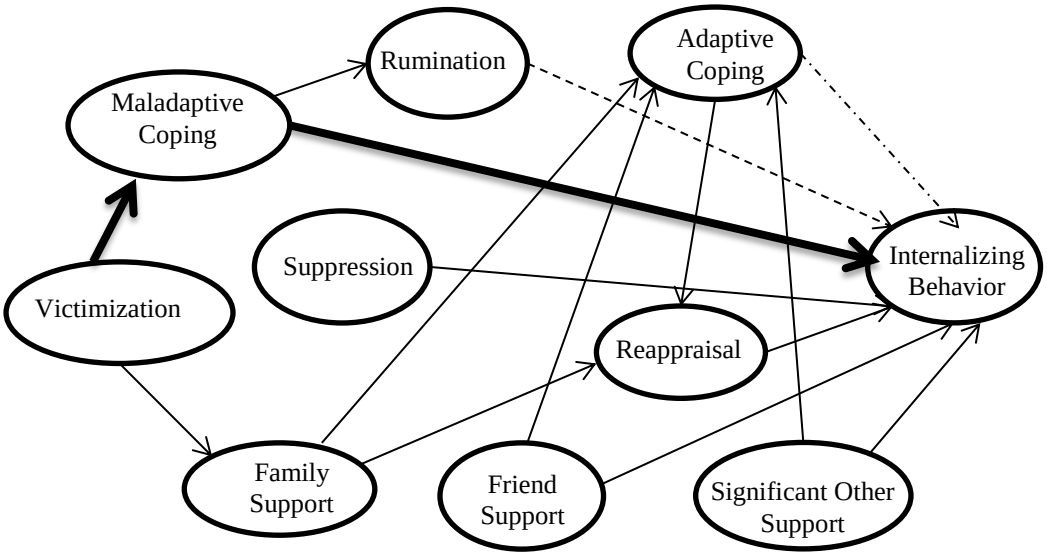

Figure 9. Path from victimization to internalizing behavior through maladaptive coping for both models.

(-·-·-> line means the path is significant for the cyber victimization but not significant for the traditional victimization, -------> line means the path is significant for the traditional victimization but not significant for the cyber victimization, ⟶ line means the path is significant for both traditional and cyber victimization)

For both cyber and traditional victimization models,

1. As the participants' victimization experiences increased, they reported that they used maladaptive coping strategies and using maladaptive coping strategies was found to be positively associated to experiencing more internalizing behavior (Figure 9).

2. As the participants' victimization experiences increased, they reported that they did not receive social support from their parents. Victimization is indirectly and negatively related to reappraisal through perceived social support from family. Reappraisal is negatively and directly related to experiencing internalizing behavior. Victimization is indirectly and positively related to experiencing internalizing behavior through perceived social support from family and reappraisal (Figure 10).

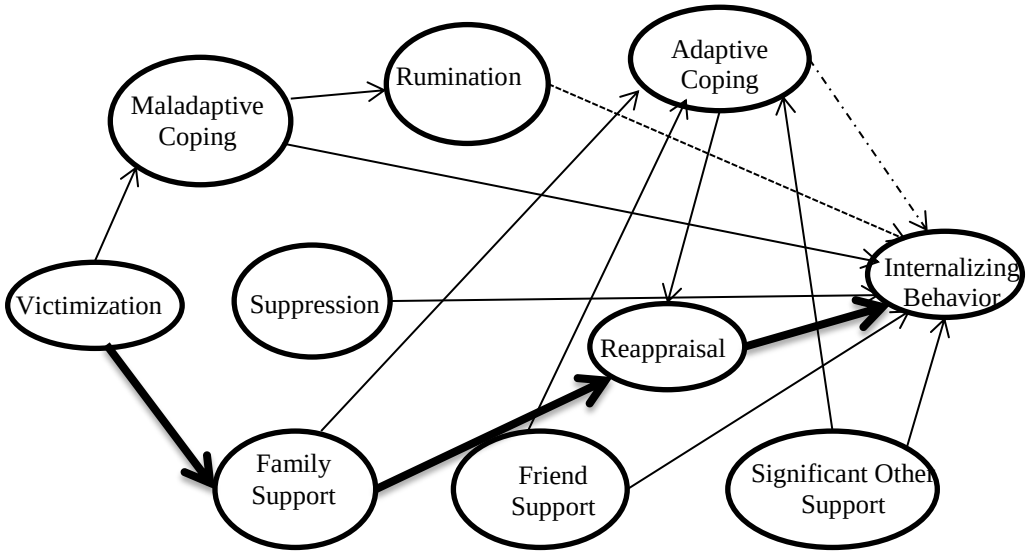

Figure 10. Path from victimization to internalizing behavior through family support and reappraisal for both models.

(·-·-·➢ line means the path is significant for the cyber victimization but not significant for the traditional victimization,-----➢ line means the path is significant for the traditional victimization but not significant for the cyber victimization, ⟶ line means the path is significant for both traditional and cyber victimization)

First two paths were exactly same but the third path differs between models.

For cyber victimization model,

3. As the participants' cyber victimization experiences increased, they reported that they did not receive social support from their parents. Cyber victimization is

indirectly and negatively related to adaptive coping through perceived social support from family. Adaptive coping is negatively and directly related to experiencing internalizing behavior. Cyber bullying is indirectly and positively related to experiencing internalizing behavior through perceived social support from family and adaptive coping (Figure 11).

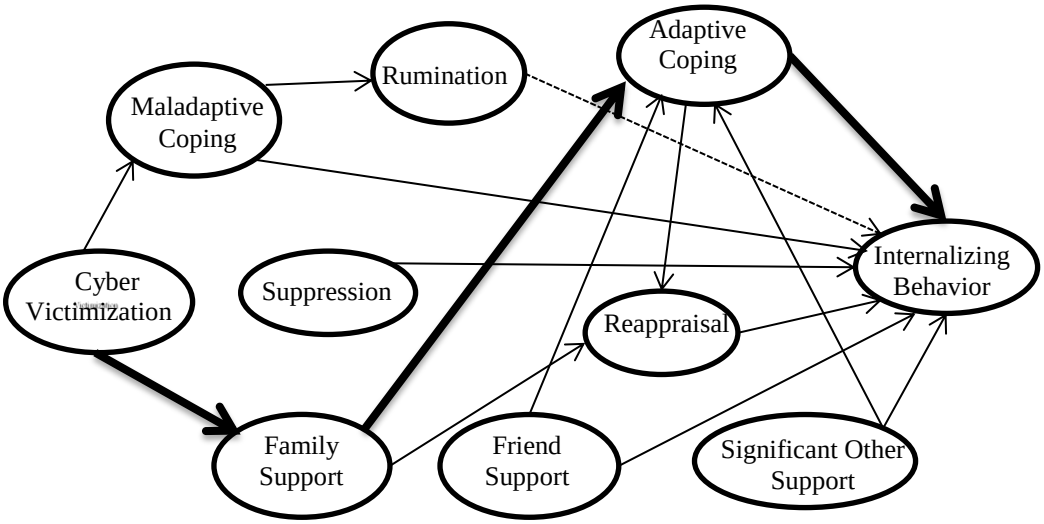

Figure 11. Path from cyber victimization to internalizing behavior through family support and adaptive coping.

For traditional victimization model,

3. As the participants' traditional victimization experiences increased, they reported that they used maladaptive coping strategies and using maladaptive coping strategies was found to be positively associated to rumination. Traditional victimization was found to be indirectly and positively related to rumination through maladaptive coping. Rumination is positively and directly related to experiencing internalizing behavior. Traditional bullying is indirectly and positively related to experiencing internalizing behavior through maladaptive coping and rumination (Figure 12).

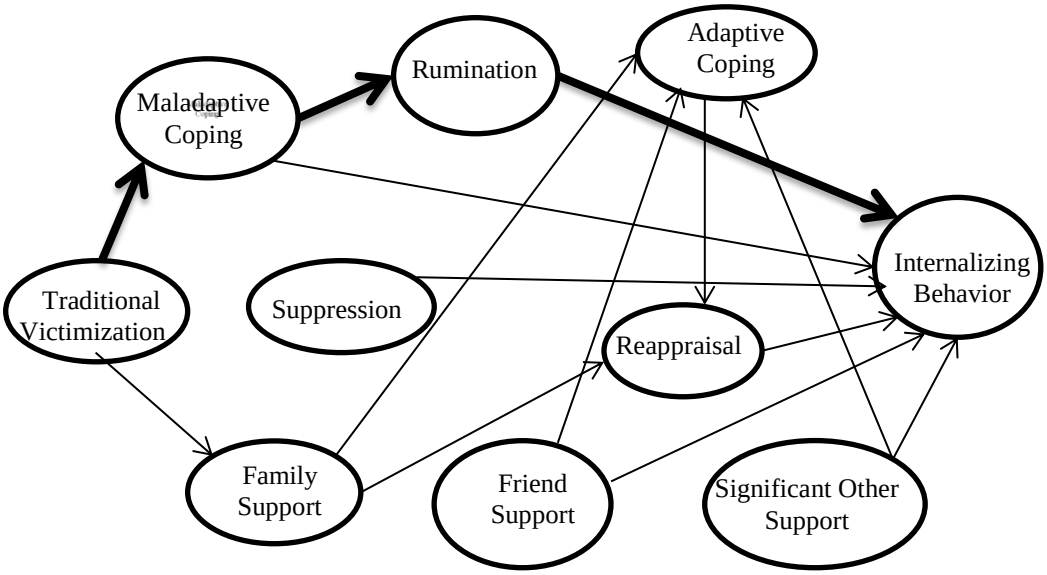

Figure 12. Path from traditional victimization to internalizing behavior through maladaptive coping and rumination.

It is interesting to observe that wherever the bullying incident takes place, victims' strongest reaction is to use a maladaptive coping style. As the victimization experiences increased among participants they revealed that they used maladaptive coping and those who reported that they utilized maladaptive coping said that they experienced internalizing behavior more. This finding was in line with the results of the study by Palladino, Nocentini, and Menesini (2012) which showed that using maladaptive coping seemed to be a risk factor for victims of traditional and cyber bullying to experience internalizing behavior. It is not clear that whether victims are already maladaptive coping style users or they use maladaptive coping strategies after being targeted. It can be speculated that victims may be targeted because they were not successful at using adaptive coping strategies, but, because the present study is not causational, one needs to be careful while interpreting this finding.

The scale that was used in the present study to measure maladaptive coping style included items on avoiding the stressful situation. That is, in the present study, victims prefer avoiding the bullying incident. As a speculation, victims may think that it is impossible to stop bullying based on their previous experiences and may

accept bullying as a normal part of life and in turn, try handling the incident by avoiding it. Nevertheless, maladaptive coping is not a healthy way of dealing with bullying since those who use maladaptive coping style frequently report that they experienced internalizing behavior.

In line with the findings of Völlink et al. (2013) and Skrzypiec et al. (2011), both cyber and traditional victimization does not directly predict adaptive coping. However, there is a negative indirect effect of victimization on adaptive coping meaning that victims reported that they did not use adaptive coping. The indirect effect of victimization on adaptive coping is through perceived social support from family. Although the interpretation of these findings should be carefully made, it still can be speculated that because receiving social support from family positively links to adaptive coping use and since victims of both types of bullying reported that they did not receive enough social support from their parents, it is coherent to conclude that victims reported that they did not use adaptive coping style. Adaptive coping scale consisted of items mentioning trying to ask for help from others but if the victims think that they do not have enough social support from adults, it is more likely for them not to ask help from others that can be considered among adaptive coping strategies. For cyber victimization, adaptive coping works as a preventive factor whereas for traditional victimization it does not. Similar to the discussion on maladaptive coping style use of victims, it is not clear that whether victims were targeted because they were not successful at using adaptive coping strategies or not.

A surprising finding was the positive relationship between two opposing types of coping strategies. As Carver et al. (1989) hinted, participants in the present study may have responded to each item in coping scale by imagining a different event. That is, since the instructions above the coping scale did not warn the participant to think a specific event that they needed to cope with and answer all the items by keeping that specific event in their minds, respondents may have switched the event that they imagined to cope with while answering each item. Therefore, one

participant may use adaptive coping for one specific incident, but, may use maladaptive coping for another incident. Hence, two types of coping strategy correlate positively because one can use both adaptive and maladaptive strategies at different times.

The second path from victimization to internalizing behavior for both of the models is through perceived social support from family and reappraisal. Reappraisal was found to be a protective factor against experiencing internalizing behavior for both traditional and cyber victims; and similar to adaptive coping style, there is a negative indirect effect of victimization on reappraisal for both traditional and cyber victimization through perceived social support from family. It makes sense that adult support is necessary to reappraise a situation. Reappraisal can be learned through modeling and an adult could well be a role model for adolescents to experience how to regulate their emotions through reappraisal.

Victimization has a positive indirect effect on rumination through maladaptive coping. In other words, maladaptive coping acts as a mediator in victimization and rumination relationship. Rumination has an established relation to negative outcome such as internalizing problems (McLaughlin & Nolen-Hoeksema, 2012) and depression (Wilkinson, Croudace, & Goodyer, 2013). However, interestingly, rumination was found to be related to internalizing behavior in the context of traditional victimization but it was not associated to internalizing behavior in the cyber victimization context. The interpretation of this surprising finding in the present study could be related to the characteristics of the cyber environment. In the physical environment, the threat of the bully and the bullying incident is obvious to the victims and may force them to change their habits such as changing way to back home from school to avoid the bullies, and avoiding schoolyard and cafeteria. However, in the cyber context, the threat may be perceived as more subtle and hidden. Therefore, even though both groups ruminated through the

usage of maladaptive coping, the severity of ruminating behavior may be different and for cyber victims, it might not be related to internalizing behavior.

The second type of emotion regulation strategy that is suppression was not found to be associated to both cyber and traditional victimization parallel to the findings reported by Larsen et al. (2012). As mentioned by Gross and John (2003) suppression is a "response-focused strategy" and in order to use it, the victims must first experience an unpleasant emotion and only then they can suppress the unwanted emotion. In the present study, victimization experiences were measured but how the victim was affected by the bullying event was not clear. Further research should manifest that the cyber bullying incident causes a negative emotion on the victims and then test the use of suppression as a reaction to the negative emotion felt because of the bullying incident.

It is unfortunate that victims reported that they did not receive social support from their parents because parallel to the literature (Agatston et al., 2007; Li, 2010; Mischna et al., 2009), descriptive findings of the present study showed that when they were bullied, adolescents first asked help from their friends and then their parents. On the contrary to the findings of O'Brien and Moules (2013), parents were not preferred as a source of help at the beginning because victimized adolescents might think that parents are overreacting to the situation (Sleglova & Cerna, 2011). The order of the sources of help differed for traditional and cyber victims in this study. Top three sources were same but cyber victims preferred asking for help from other family member as the fourth source after friends, family, and siblings but traditional victims said they asked for help from school counselor, teachers and asked for help from other family member lastly. It is guessed that for cyber victims, other family member may be someone who can provide them with technological help. For traditional victims, school counselor and teachers preceded other family member because the content of help they are looking for may be different. Probably, traditional bullying takes place at school and victims of traditional bullying need help from someone present at school.

Current research findings were also consistent with Holfeld and Grabe's (2012) results suggesting that cyber victims reported their victimization experiences to peers and parents but not to teachers. It is interesting that although the teacher support was evaluated effective in Holfeld and Grabe (2012), participants said they did not report the bullying incident to teachers. In the present study, first source of help for both traditional and cyber victims were reported as peers. Parents were the second source of help. However, participants in Holfeld and Grabe's (2012) study assessed peer support as ineffective because peers in general think that it is a not big deal. Moreover, parent help was found as protective in decreasing cyber victimization rates (Floros et al., 2013). In the same vein, the model in present study showed that perceived social support from parents led to reappraise the situation and at the end yielded in a decrease in internalizing behavior for cyber and traditional victims, whereas perceived social support from peers was not found related to victimization.

5.2. Implications of the Findings to Practice

Bullying has been a problem among children and adolescents for years (Olweus, 1993). For a group of researchers such as Campbell (2005), bullying is a normal part of human development and people may be exposed to victimization during childhood and adolescence. Additionally, the relatively new type of bullying, cyber bullying, occurs through technology and limiting the access of adolescents to technology in order to keep them away from being bullied online is not possible. Therefore, bullying will continue to be a problem among adolescents in the future. One of the best ways of helping children and adolescents who are both current and potential victims of traditional and cyber bullying is to empower and assist them to become resilient individuals.

In the literature, several resilience models have been proposed especially for trauma contexts (Flach, 1997; Mrazek & Mrazek, 1987; Richardson, 2002). Although these models bear differences, the common point among these proposed models of resilience is that they focus on both the individual and the

environmental factors. Being inspired from these resilience models and based on the findings of the current study, a multi-layer empowerment model for victims of bullying is proposed (Figure 13). As stated by Cowie (2009) because bullying is a multi-dimensional problem, its solution should include all stakeholders (bully and victims, bystanders, peers, parents, teachers, and school counselors); otherwise it will be impossible to handle the problem. According to this empowerment model, individual is at the center. The outer layers involve external sources and recommend working with parents (at home), peers (at classrooms), and teachers and school counselor (at schools).

Recommendations are presented for each layer. Starting from the center, individual's internal mechanisms should be focused on. Findings of the current study indicated that endeavors to prevent being negatively affected by victimization should focus especially on the coping styles of the victims. Results of the current study pointed out that victims reported that they used maladaptive coping and did not use adaptive coping styles. Knowing that maladaptive coping is positively and adaptive coping is negatively related to internalizing behavior, use of adaptive coping styles should be reinforced among adolescents. Even though this study found that rumination and reappraisal are not directly associated to victimization, they have indirect relationships to victimization. Rumination was found to be positively and reappraisal was found to be negatively associated to internalizing behavior. Therefore, adolescents should be trained to use reappraisal and not to ruminate when they face with a problem situation specifically a bullying incident.

Supporting victims to improve their usage of adaptive coping strategies will also help them to use reappraisal. However, teaching adolescents adaptive coping styles, functional emotion regulation strategies and preventing them to ruminate cannot be possible in a one-hour training session; it requires quite an amount of effort, time, trial, and experience. Parents, teachers, and school counselors should therefore collaborate to assist adolescents in internalizing the use of adaptive

coping styles, healthy emotion regulation strategy that is reappraisal and in preventing them to ruminate.

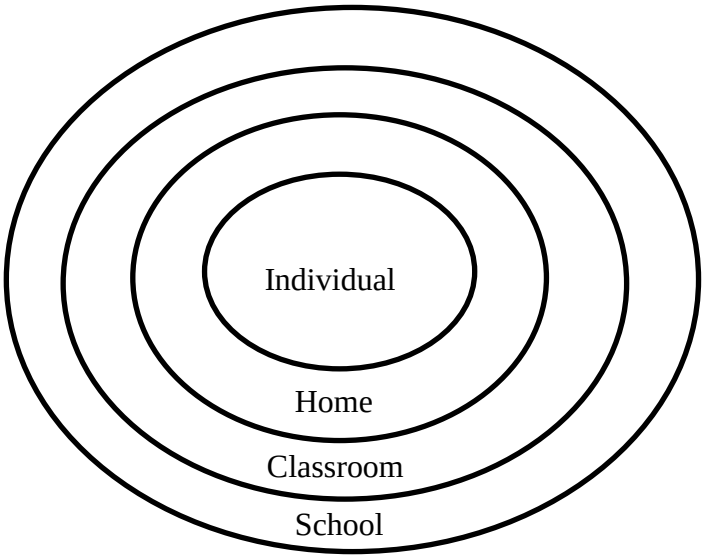

Figure 13. Multi-layer empowerment model for victims of bullying.

At schools, particularly school counselors' role is crucial because they have the power to influence students, parents, and teachers. To increase the adaptive coping skills of the students, school counselors should carry out specific programs. There are studies showing the effectiveness of programs that aim to improve adolescents' adaptive coping skills and decrease the frequency of bullying and victimization incidents (Chi & Frydenberg, 2009; Palladino et al., 2012). When the prevalent rates of traditional and cyber victimization is taken into account, there exists an urgent and definite need for a program for Turkish adolescents to decrease maladaptive coping strategy use and to increase adaptive coping strategy use and reappraisal.

Cognitive behavioral therapy (CBT) is suggested among the most helpful strategies to teach adaptive coping styles to victims who are at-risk to manifest negative outcomes (Lodge & Frydenberg, 2007; Perren et al., 2012). Turkish programs that include CBT techniques to make adolescents gain adaptive coping

strategies could be developed by modeling already available programs. Specific adaptive coping strategies such as problem solving, asking for help from adults and peers, and distraction should be included in the curriculum and be taught to adolescents. These programs should be planned in a way they can be applied individually or as a group activity. Also, they should incorporate information giving sessions on coping, emotion regulation, and rumination and should allow adolescents to experience learned skills in a safe environment before using these skills in the real life. One example activity for these programs can be changing the core belief of adolescents about bullying cannot be prevented and victims cannot cope with bullying effectively. Another method can be discussion of cases of bullying incidents in the physical and cyber environments. These programs should also consist of knowledge on ethical and respectful Internet use, problem solving abilities, coping strategies against cyber bullying episodes, and activities that help the adolescents to make better online choices.

Additionally, in the current study, both traditional and cyber victims reported that their first source of social support was their peers. However, peer support was not found as an effective resource in preventing internalizing behavior. The reason might be that peers are at the same age as victims and they have a similar experience level in life. Considering victims reported that they asked for help from their peers, quality of peer support should be improved. School counselors should design programs that specify strategies to create a positive school climate and by which peer support can be used to prevent and intervene in bullying. Improving bystanders' empathy and self-efficacy levels to become aware of their potential to intervene in the bullying incident and support the victim should be among the goals of these programs.

A secondary role of school counselors while helping adolescent victims is through training teachers and parents. School counselors should increase the awaraness of bullying among teachers to detect bullying incidents at classrooms. Teachers should also be informed on how to intervene in the bullying incidents in the

classrooms and how to identify victims in order to refer them to counseling services. School counselors can use handouts, notice boards, and meetings to increase awareness on bullying. Considering that cyber bullying is a relatively new type of bullying, children and adolescents need more information about cyber bullying. Information on ethical and respectful use of the Internet and mobile phones should be presented in these handouts and at the bulletin boards.

Moreover, school counselors should also inform parents about bullying and inform them on how to create a positive and supportive home environment that help the adolescents to disclose their bullying experiences. Another support that school counselors can provide to parents whose children were victimized is to help them to become psychologically healthy because parents may be impacted because of the victimization of their children as well.

At home, parents also empower their children to speak up when they are targeted both offline and online. Findings of the current study indicated that victims of both traditional and cyber bullying perceived their parents to be less supporting them. Given that the role of parent support is protective against internalizing behavior through reappraisal, providing a supportive parent-child relationship and becoming a productive social support provider would be crucial for adolescents. Parents should use effective communication skills to establish healthy relationships with their children. Also, they should be models for their children to demonstrate how to be a good problem solver and how to cope with a problem situation by using adaptive coping styles. Specifically for cyber bullying and victimization, due to the technological advances, parents are faced with an entirely new realm where parental monitoring is needed. Yet, they are largely unfamiliar with these new advances and are frequently unable to keep up with technology and follow the accelerated improvements (Prensky, 2001). Because limiting their children's access to the Internet and mobile phones is not realistic and possible, parents should be knowledgeable about the dangers in the cyber space and the strategies of monitoring their children. Parents should talk to their children about

the right and wrong behaviors while using the Internet, turn certain filters on children's computer, check the websites their children connect to, and monitor the time children spend on the Internet (Topcu, 2008).

A final note to Ministry of National Education is that nationwide programs should be planned and applied to increase the awareness of students, teachers, and parents in bullying. Through in-service trainings, teachers and school counselors should be equipped with required skills and knowledge on training parents and students on bullying prevention and intervention. While designing the in-service trainings, Ministry of National Education officers should collaborate with researchers and academicians who conduct research on bullying.

5.3. Recommendations for Further Research

The present study showed that for both cyber and traditional victims, the most significant risk factor for manifesting internalizing behavior is using maladaptive coping and the most significant protective factors are perceived social support from family and reappraisal. Employing a cross-sectional design, current research is not able to show the relationships among coping style, emotion regulation, rumination, and perceived social support in victims of traditional and cyber bullying over time. Future studies should use longitudinal design to retest the same model over time and make true prediction. One step further, in order to be able to bind causal links from each factor to internalizing behavior, experimental design should be adopted. By means of this, one can truly be sure that maladaptive coping and rumination are the causes for victims to manifest internalizing behavior or perceiving social support, reappraisal, and adaptive coping enable victims to experience less internalizing behavior.

In addition, in the current study the relationships among coping style, rumination, emotion regulation, perceived social support, and victims' manifestation of internalizing behavior were examined. There might be other factors such as family- or school-related variables that may be associated with victims'

internalizing behavior. These factors should also be scrutinized in the future studies. Frisen, Hasselblad, and Holmqvist (2012) asked former traditional victims that "what makes bullying stop?" Similar to their approach, by utilizing qualitative methodology (such as making observations and/or interviewing with adolescents those who have cyber and/or traditional victimization experiences), former traditional and cyber victims should be interviewed and they should be asked "what helped you during managing the effects of bullying?" and "what made the situation worse?" In the light of their answers, new variables can be detected and tested in the model later on.

Another recommendation for future researchers is the use of alternative measurement tools. International bullying researchers used peer nominations and teacher report as well as self-report in Turkey, however, generally self-report has been used to assess the frequency of bullying and victimization. Utilizing self-report as the measurement tool to evaluate bullying and victimization may result in underestimated frequencies because both bullying and victimization are sensitive experiences and participants may not want to reveal their true experience. In further research, peer nomination and teacher report should also be used in addition to self-report studies.

As was mentioned by Wachs, Wolf, and Pan (2012), underprivileged minority groups and children with special needs (with impairment, low social status, immigrants, etc.) need to be focused in addition to mainstream population because their likelihood of being victimized are generally higher than others. Because these adolescents may be perceived as different than the others and they may be victimized more. They need to be equipped with necessary coping skills before they are targeted. By using qualitative methodologies, needs of these underresearched groups should be explored, and based on these observations prevention and intervention strategies covering those groups should also be included into the bullying programs of schools. Also, other students should be

taught by their parents and at schools about individual differences and trained to be respectful to others who have different characteristics.

Finally, translation or adaptation of prevention and intervention programs that are used in other countries is necessary. Researchers should adapt these programs for Turkish adolescents or design brand new programs that are tailored for Turkish culture and test their effectiveness. After that, country wide application of these programs is necessary. Although the sample of the present study was limited to high schools in Ankara, children and adolescents living in other cities in Turkey also suffer from bullying and victimization. Future research should include samples selected from other cities in Turkey.

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Appendix A

Approval Letter from Middle East Technical University Human Subjects Ethics Committee

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

DUMLUPINAR BULVARI 06800
ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

Sayı: 28620816/ 314 – 910

28.11 2013

Gönderilen : Doç.Dr. Özgür Erdur Baker
Eğitim Bilimleri

Gönderen : Prof. Dr. Canan Özgen
IAK Başkanı

İlgi : Etik Onayı

Danışmanlığını yapmış olduğunuz Eğitim Bilimleri Bölümü öğrencisi Çiğdem Topcu'nun "Siber Zorbalık Mağduru Ergenlerin Deneyimlediği Psikolojik Problemler ve Bu Problemlerle Baş Etmede İlişkili İçsel Mekanizmaların İncelenmesi" isimli araştırması "İnsan Araştırmaları Komitesi" tarafından uygun görülerek gerekli onay verilmiştir.

Bilgilerinize saygılarımla sunarım.

Etik Komite Onayı

Uygundur

28/11/2013

Prof.Dr. Canan Özgen
Uygulamalı Etik Araştırma Merkezi
(UEAM) Başkanı
ODTÜ 06531 ANKARA

Appendix B

Permission Letter from Ankara Provincial Directorate of National Education

T.C.
ANKARA VALİLİĞİ
Milli Eğitim Müdürlüğü

ÖĞRENCİ İŞLE
DAİRESİ BAŞKANLIĞI
Ev. Arş. Md. Saat :

Sayı : 14588481/605.99/441572 30/01/2014
Konu: Araştırma izni

ORTA DOĞU TEKNİK ÜNİVERSİTESİNE
(Öğrenci İşleri Daire Başkanlığı)

İlgi: a) MEB Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 2012/13 nolu Genelgesi.
b) 27/12/2013 tarih ve 139 sayılı yazınız.

Üniversiteniz Eğitim Bilimleri Bölümü Doktora Öğrencisi Çiğdem TOPCU' nun **"Siber zorbalık mağduru ergenlerin deneyimlediği psikolojik problemler ve bu problemlerle baş etmede ilişkili içsel mekanizmaların incelenmesi"** konulu tezi kapsamında çalışma yapma talebi Müdürlüğümüzce uygun görülmüş ve araştırmanın yapılacağı İlçe Milli Eğitim Müdürlüğüne bilgi verilmiştir.

Anket formlarının (12 sayfa) araştırmacı tarafından uygulama yapılacak sayıda çoğaltılması ve çalışmanın bitiminde iki örneğinin (cd ortamında) Müdürlüğümüz Strateji Geliştirme Bölümüne gönderilmesini arz ederim.

Hakan GÖNEN
Müdür a.
Şube Müdürü

Güvenli Elektronik İmzalı
Aslı ile Aynıdır.
.../201...

Yaşar SUBAŞI
Şef

03-02-2014-2074

Bu belge, 5070 sayılı Elektronik İmza Kanununun 5 inci maddesi gereğince güvenli elektronik imza ile imzalanmıştır
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e-posta: istatistik06@meb.gov.tr

Ayrıntılı bilgi için: Emine KONUK
Tel: (0 312) 221 02 17/135

Appendix C

Sample Items from RCBI-II

İnternet aracılığıyla,

1. birine hakaret etmek
2. sahibinin görülmesinden rahatsızlık duyacağı bir fotoğrafı veya videoyu başkalarıyla paylaşmak
3. bir başkası adına profil açıp oymuş gibi davranmak

Appendix D

Sample Items from the Turkish Version of The ROBVQ

1. Bana kötü isimler takıldı, kırıcı şekilde alay ettiler.
2. Beni itip kaktılar, bana vurdular ve tehdit ettiler.
3. Görünüşüm veya konuşmamla alay ettiler.

Appendix E

Sample Items from the Turkish Version of BRIEF COPE

1. Zihnimi boşaltmak için kendimi işe veya diğer etkinliklere veriyorum.
2. Durumu daha iyi yapmaya çalışmak için harekete geçiyorum.
3. Diğer insanlardan yardım ve tavsiye alıyorum.
4. Kendimi eleştiriyorum.
5. Beni rahatlatan ve bana anlayış gösteren birisini buluyorum.
6. Sorunu daha az düşünmek için sinemaya gitmek, TV seyretmek, okumak, hayal kurmak, uyumak, alışveriş yapmak gibi şeyler yapıyorum.
7. Bu durumla yaşamayı öğreniyorum.
8. Olup bitenler için kendimi suçluyorum.

Appendix F

Sample Items from the Turkish Version of ERQ

1. Olumsuz duygularımın az olmasını istersem, durumla ilgili düşünme şeklimi değiştiririm.
2. Olumlu duygularımın fazla olmasını istersem (mutluluk veya eğlence) düşündüğüm şeyi değiştiririm.
3. Duygularımı ifade etmeyerek kontrol ederim.
4. Stresli bir durumla karşılaştığımda, bu durumu sakin kalmamı sağlayacak şekilde düşünmeye çalışırım.

Appendix G

Sample Items from the Turkish Version of RRS

1. "Niye bu şekilde bir tepki gösteriyorum?" diye ne kadar sık düşünüyorsun?
2. Ne kadar sık, düşüncelerini yazıp, çözümlemeye ve anlamaya çalışıyorsun?
3. Son zamanlarda yaşadığın olaylar hakkında "keşke daha iyi sonuçlansaydı" diye ne kadar sık düşünüyorsun?
4. Ne kadar sık, tek başına bir yere gidip duygularını anlamaya çalışıyorsun?

Appendix H

Sample Items from the Turkish Version of MSPSS

1. İhtiyacım olan duygusal yardımı ve desteği ailemden (örneğin, annemden, babamdan, kardeşlerimden) alırım.
2. İşler kötü gittiğinde arkadaşlarıma güvenebilirim.
3. Ailem ve arkadaşlarım dışında olan ve ihtiyacım olduğunda yanımda olan bir insan (örneğin, akraba, komşu, doktor) var.
4. Sorunlarımı ailemle (örneğin, annemle, babamla, kardeşlerimle) konuşabilirim.
5. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var.

Appendix I

Sample Items from the Turkish Version of SDQ

1. En az bir yakın arkadaşım var.
2. Yaşıtlarım genelde beni sever.
3. Çok fazla baş ağrım, karın ağrım ya da bulantım olur.
4. Çok öfkelenirim ve sıkça kontrolümü kaybederim.
5. Bir şeyi yapmadan önce düşünürüm.
6. Sıkça başkalarına (anne baba, öğretmen, çocuklar) yardım etmeye istekli olurum.

Appendix J

Demographic Information Form

1. Cinsiyetiniz: Kız Erkek
2. Yaşınız: _____
3. Annenizin eğitim durumu (en son mezun olduğu okul):
   - Okuma yazma bilmiyor
   - Okuma yazma biliyor
   - İlkokul
   - Ortaokul
   - Lise
   - Önlisans (Yüksekokul)
   - Üniversite
   - Yükseklisans
   - Doktora
4. Babanızın eğitim durumu (en son mezun olduğu okul):
   - Okuma yazma bilmiyor
   - Okuma yazma biliyor
   - İlkokul
   - Ortaokul
   - Lise
   - Önlisans (Yüksekokul)
   - Üniversite
   - Yükseklisans
   - Doktora
5. Cep telefonunuz var mı? (Cevabınız hayır ise 8. soruya geçiniz).
   - Evet Hayır
6. Cep telefonunuz ile internete bağlanıyor musunuz?
   - Evet Hayır

7. Cep telefonunuz ile fotoğraf veya video çekiyor musunuz?
   □ Evet □ Hayır
8. Evinizde internet bağlantısı var mı?
   □ Evet □ Hayır
9. İnternete hangi cihazlarla bağlanıyorsunuz? (Birden fazla seçenek işaretleyebilirsiniz).
   □ Masaüstü bilgisayar
   □ Dizüstü bilgisayar
   □ Tablet bilgisayar
   □ Akıllı telefon
   □ Diğer (lütfen belirtiniz) _____
10. Haftada ortalama ne kadar süre internet kullanırsınız?
   □ Hiç kullanmam
   □1 saatten az
   □1-3 saat
   □4-7 saat
   □8-14 saat
   □15-21 saat
   □21-28 saat
   □40 saat ve/veya üstü

İnternet teknolojileri (elektronik posta, sosyal medya hesapları, SMS, MMS, cep telefonu mesajı vb.) aracılığıyla bir kişiye zarar vermek **Siber Zorbalık** olarak adlandırılmaktadır. Siber zorbalık davranışlarına örnek olarak **birinin cep telefonuna tehdit veya hakaret içeren mesaj göndermek, bir kişiye ait utandırıcı fotoğraf ya da videoyu izinsiz paylaşmak ya da internet ortamında bir kişi hakkında olumsuz söylentiler yaymak** verilebilir.

11. Hiç siber zorbalık yaptınız mı?
   □ Evet □ Hayır

12. Size siber zorbalık yapıldı mı? (Cevabınız hayır ise arka sayfaya geçiniz).

    □ Evet □ Hayır

13. Size siber zorbalık yapan kişiyi tanıyor muydunuz?

    □ Evet □ Hayır

14. Siber zorbalığa maruz kaldıysanız bu durumla ilgili kimden yardım istediniz? (Birden fazla seçenek işaretleyebilirsiniz).

    □ Hiç kimseden

    □ Annem veya babamdan

    □ Kardeşim/ablam/ağabeyimden

    □ Arkadaşımdan

    □ Rehber öğretmenimden

    □ Diğer öğretmenlerimden

    □ Akrabalarımdan

    □ Diğer (lütfen kim olduğunu belirtiniz) _____

15. İnternet ortamı dışında zorbalığa maruz kaldınız mı?

    □ Evet □ Hayır

16. İnternet ortamı dışında zorbalığa maruz kaldıysanız bu durumla ilgili kimden yardım istediniz? (Birden fazla seçenek işaretleyebilirsiniz).

    □ Hiç kimseden

    □ Annem veya babamdan

    □ Kardeşim/ablam/ağabeyimden

    □ Arkadaşımdan

    □ Rehber öğretmenimden

    □ Diğer öğretmenlerimden

    □ Akrabalarımdan

    □ Diğer (lütfen kim olduğunu belirtiniz) _____

Appendix K

Mean, Standard Deviation, Skewness, and Kurtosis Values for Items and Parcels in the Traditional Victimization Data

	M	*SD*	*Skewness*	*SE*	*Kurtosis*	*SE*
tv3	1.82	1.05	.98	.11	-.39	.22
tv4	1.89	1.08	.84	.11	-.69	.22
tv5	1.70	1.01	1.18	.11	.03	.22
tv6	2.11	1.11	.55	.11	-1.07	.22
er1	4.57	1.77	-.59	.11	-.57	.22
er2	4.47	1.71	-.48	.11	-.61	.22
er3	4.68	1.71	-.57	.11	-.49	.22
er4	4.94	1.67	-.81	.11	-.11	.22
er5	4.51	1.81	-.55	.11	-.73	.22
er6	4.57	1.93	-.53	.11	-.83	.22
er7	3.93	1.98	-.06	.11	-1.21	.22
er8	4.01	1.91	-.10	.11	-1.05	.22
er9	4.48	2.02	-.38	.11	-1.05	.22
er10	3.57	2.04	.15	.11	-1.29	.22
sd1	5.58	1.78	-1.25	.11	.52	.22
sd2	5.10	1.91	-.82	.11	-.46	.22
sd3	5.26	1.68	-.89	.11	-.01	.22
sd4	5.17	1.74	-.94	.11	.11	.22
sd5	4.54	2.14	-.44	.11	-1.17	.22
sd6	4.32	2.20	-.24	.11	-1.36	.22
sd7	5.00	1.89	-.69	.11	-.64	.22
sd8	5.74	1.63	-1.39	.11	1.19	.22
sd9	4.63	2.04	-.50	.11	-.94	.22
sd10	5.43	1.68	-1.01	.11	.09	.22
sd11	4.41	2.17	-.33	.11	-1.27	.22
sd12	5.39	1.75	-1.02	.11	.08	.22
parint1	2.31	1.76	.45	.11	-.73	.22
parint2	2.11	1.38	.27	.11	-.65	.22
parint3	1.08	1.09	.69	.11	-.46	.22
pc1	5.50	1.45	-.07	.11	-.67	.22
pc2	5.44	1.55	-.11	.11	-.73	.22

Mean, Standard Deviation, Skewness, and Kurtosis Values for Items and Parcels in the Traditional Victimization Data

	M	*SD*	*Skewness*	*SE*	*Kurtosis*	*SE*
pc3	5.50	1.52	-.19	.11	-.49	.22
pc4	5.43	1.42	-.29	.11	-.31	.22
pc5	5.44	1.57	-.18	.11	-.64	.22
pc6	7.86	1.89	.01	.11	-.36	.22
pc7	7.52	2.01	.24	.11	-.29	.22
pc8	5.28	1.60	-.05	.11	-.69	.22
pc9	4.86	1.39	-.04	.11	-.02	.22
pc10	4.90	1.28	.09	.11	-.03	.22
pc11	4.76	1.37	.19	.11	-.09	.22
pc12	4.39	1.64	.42	.11	-.58	.22
pru1	7.79	2.26	.01	.11	-.58	.22
pru2	7.84	2.17	-.03	.11	-.62	.22
pru3	4.77	1.89	.21	.11	-1.03	.22
pru4	4.94	1.73	.18	.11	-.87	.22

Appendix L

Mean, Standard Deviation, Skewness, and Kurtosis Values for Items and Parcels in the Cyber Victimization Data

	M	*SD*	*Skewness*	*SE*	*Kurtosis*	*SE*
er1	4.59	1.73	-.60	.10	-.54	.21
er2	4.57	1.70	-.50	.10	-.59	.21
er3	4.68	1.69	-.53	.10	-.49	.21
er4	4.91	1.70	-.77	.10	-.22	.21
er5	4.55	1.77	-.54	.10	-.65	.21
er6	4.55	1.89	-.51	.10	-.82	.21
er7	3.90	1.99	.01	.10	-1.19	.21
er8	4.06	1.91	-.15	.10	-1.06	.21
er9	4.35	2.05	-.30	.10	-1.13	.21
er10	3.52	2.00	.19	.10	-1.25	.21
sd1	5.63	1.78	-1.34	.10	.73	.21
sd2	5.11	1.90	-.84	.10	-.44	.21
sd3	5.39	1.63	-1.02	.10	.23	.21
sd4	5.31	1.68	-1.06	.10	.44	.21
sd5	4.55	2.11	-.45	.10	-1.14	.21
sd6	4.40	2.21	-.28	.10	-1.36	.21
sd7	4.99	1.89	-.69	.10	-.65	.21
sd8	5.82	1.59	-1.48	.10	1.49	.21
sd9	4.72	2.00	-.57	.10	-.80	.21
sd10	5.39	1.73	-1.05	.10	.16	.21
sd11	4.52	2.14	-.40	.10	-1.18	.21
sd12	5.49	1.76	-1.13	.10	.29	.21
parint1	2.17	1.75	.49	.10	-.71	.21
parint2	1.96	1.44	.38	.10	-.60	.21
parint3	1.03	1.07	.77	.10	-.28	.21
pc1	5.48	1.45	-.09	.10	-.63	.21
pc2	5.50	1.52	-.16	.10	-.65	.21
pc3	5.47	1.51	-.11	.10	-.48	.21
pc4	5.41	1.39	-.24	.10	-.26	.21
pc5	5.47	1.53	-.16	.10	-.66	.21
pc6	7.81	1.87	-.04	.10	-.39	.21
pc7	7.51	2.03	.20	.10	-.32	.21
pc8	5.35	1.56	-.05	.10	-.69	.21

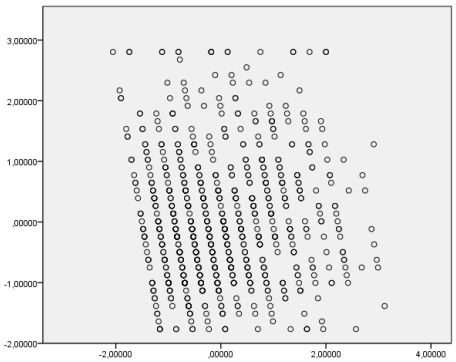
Mean, Standard Deviation, Skewness, and Kurtosis Values for Items and Parcels in the Cyber Victimization Data

	M	*SD*	*Skewness*	*SE*	*Kurtosis*	*SE*
pc9	4.89	1.38	-.06	.10	.04	.21
pc10	4.83	1.22	.10	.10	.02	.21
pc11	4.72	1.33	.33	.10	-.04	.21
pc12	4.35	1.61	.48	.10	-.45	.21
pcv1	3.09	1.28	1.41	.10	1.84	.21
pcv2	3.36	1.52	1.02	.10	.33	.21
pcv3	3.34	1.55	1.19	.10	.81	.21
pcv4	3.21	1.39	1.00	.10	.39	.21
pru1	7.68	2.26	.03	.10	-.55	.21
pru2	7.80	2.11	-.03	.10	-.59	.21
pru3	4.63	1.88	.28	.10	-.98	.21
pru4	4.93	1.69	.16	.10	-.83	.21

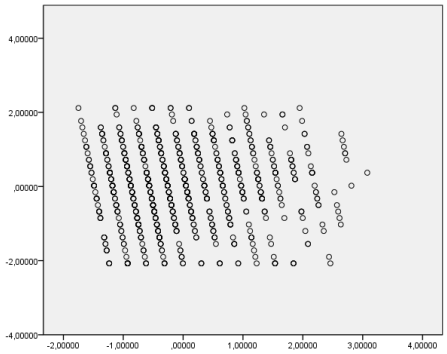
Appendix M

Residual plots

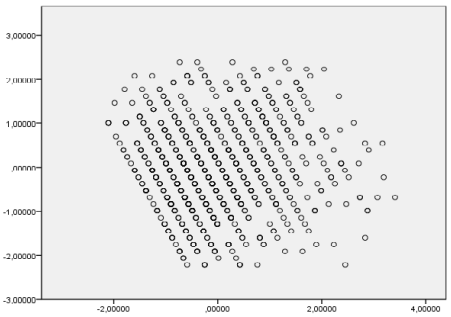
Reappraisal



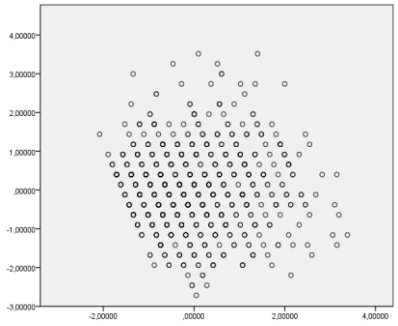
Suppression



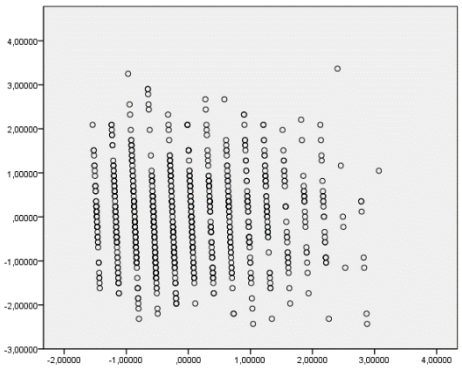
Rumianation



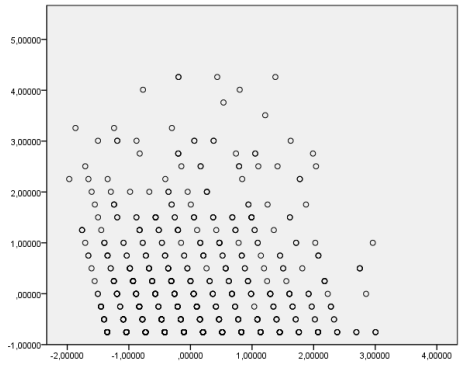
Maladaptive Coping



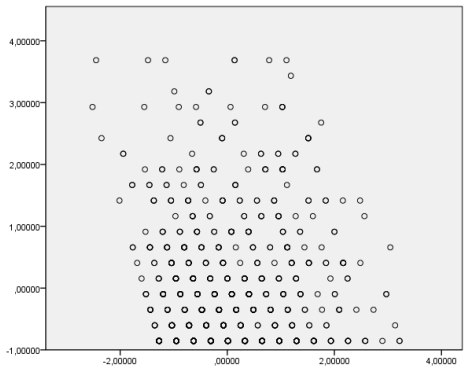
Adaptive Coping



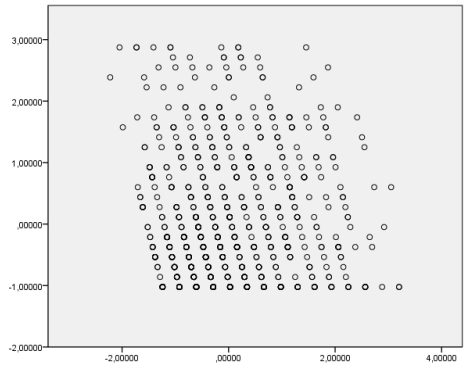
Cyber Victimization



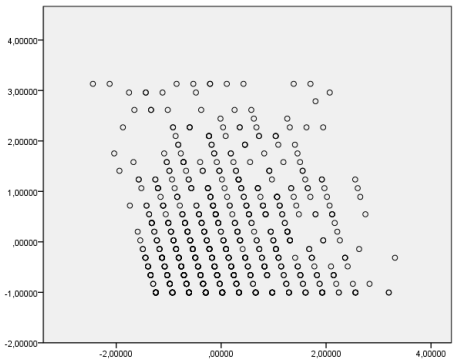
Traditional Victimization



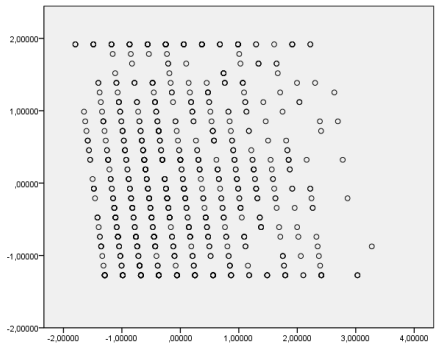
Family Support



Friend Support



Significant Other Support



Appendix N

Cronbach Alpha Coefficients for the Scales and Subscales with the Main Data

Scales	Cyber Victim Data	Traditional Victim Data
ROBVQ		
Bully	-	.74
Victim		.61
RCBI-II		
Bully	.74	-
Victim	.68	
Brief Cope		
Adaptive Coping	.78	.79
Maladaptive Coping	.60	.62
ERQ		
Reappraisal	.82	.83
Suppression	.68	.67
MSPSS		
Family	.87	.88
Friend	.89	.90
Significant Other	.89	.90
Rumination	.82	.83
Internalizing Behavior	.66	.66

Appendix O

Turkish Summary

1. GİRİŞ

Ergenlik bu süreci geçiren kişilerin bijolojik, bilişsel, duygusal, ve sosyal birçok değişimi deneyimlediği bir evredir (Coleman ve Hendry, 1999). Çocukluktan erken yetişkinliğe giden bu evre boyunca ergenler vücutlarında bazı biyoloijk değişiklikler yaşar, bilişsel ve duygusal olarak gelişirler bütün bunlara bağlı olarak da sosyal etkileşimleri çeşitlenir (Broderick ve Blewitt, 2010). Sosyal ilişkilerin çeşitlenmesi sonucu özellikle akran grubunun önemi artar ve akran grubunda popular olmak ergenler için oldukça önemli hale gelir (Brown ve Larson, 2009).

Ergenlik döneminde sosyal ilişkilerde ortaya çıkan sorunlardan biri de zorbalıktır. Olweus (1993, p. 197) zorbalığı "kendini koruyamayan bir öğrencinin diğerleri tarafından tekrarlı ve sürekli olarak negative bir muameleye maruz kalması" olarak tanımlanmıştır. Daha önceleri zorbalık türleri fiziksel, sözel ve ilişkisel olarak gruplanırken son yıllarda bilgi ve iletişim teknolojilerinin günlük hayatımızın bir parçası olması nedeniyle yeni bir tür zorbalık ortaya çıkmıştır. Siber zorbalık olarak adlandırılan bu yeni tür zorbalık "kendini koruyamayan bir kişinin farklı elektronik araçlar aracılığıyla bir veya birden fazla kişi tarafından tekrarlı ve sürekli olarak saldırıya uğramasıdır" (Smith, Mandavi, Carvalho, Fisher, Russell ve Tippett, 2008, p. 376).

Her ne kadar çocuk ve ergenlerin hayatına kolaylıklar getirse de, çevrimiçi ortamlar kimliğin gizlenmesine olanak sağladığı için, çocuk ve ergenlerin daha önceden yüz yüze ortamlarda birbirlerine yaptıkları zorbalık davranışları için yeni bir platform sağlamıştır. Çevrimiçi davranışı inceleyen teorilerin de belirttiği gibi insan davranışı yüz yüze ortamda ve çevrimiçi ortamda farklılaşabilir (Herring, 2004). Buradan hareketle, alanyazında siber zorbalık ve yüz yüze zorbalığın farklı

ortamlarda gerçekleşen aynı davranışlar mı yoksa birbirinden tamamen farklı özellikler gösteren iki ayrı tür zorbalık mı olduğu tartışılmaktadır. Zorbalık konusunda başı çeken araştırmacılardan olan Olweus (2012) yayınladığı bir makale ile siber zorbalığın yeni bir tür zorbalık olmadığını ve çocuk ve ergenler arasında rapor edildiği kadar da sık yaşanmadığını söylemiştir. Olweus'un bu makalesinin üzerine kendisiyle aynı fikirde olan ve karşıt fikirde olan bir grup araştırmacı da bu tartışmalı konuda görüş bildirmişlerdir (Hinduja ve Patchin, 2012; Menesini, 2012; Smith, 2012). Ampirik çalışma sonuçlarına göre siber zorbalık ve yüz yüze zorbalık arasında hem benzerlikler hem de farklılıklar vardır (Dempsey, Sulkowski, Nichols ve Storch, 2009; Sontag, Clemans, Graber ve Lyndon, 2011). Çoğunlukla, siber zorbalığın yüz yüze zorbalık ile benzerlikleri olmasına rağmen çevrimiçi ortamın getirdiği özelliklerinden dolayı ayrı bir zorbalık türü olarak incelenmesi önerilmektedir (Dooley, Gradinger, Strohmeier, Cross ve Spiel, 2010).

Zorbalık alan yazınına bakıldığında, öncelikle araştırmacıların siber zorbalığın doğasını ve yapısını anlamak üzere a) yaygınlığını (Li, 2005; Smith ve ark., 2005), b) cinsiyet, yaş ve sosyoekonomik durum gibi bazı demografik değişkenler ile ilişkisini (Finn, 2004; Kowalski ve Limber, 2007), c) yüz yüze zorbalık ile benzer ve farklı yönlerini (Greene, 2006; Erdur-Baker ve Kavşut, 2007; Strom ve Strom, 2004) inceledikleri görülmüştür.

İkinci olarak ise çocuk ve gençlerin siber zorbalık yapma nedenleri araştırılmıştır. Yapılan araştırmalara göre kişilerin zorbalık yapma amacı farklılaşmaktadır (Rafferty, 2011) çünkü saldırganlık için gerekli motivler birden fazladır (Runions, 2013). Bazen gerçekleşen yüz yüze zorbalık olayının intikamını alabilmek için siber zorbalık yapılır (König, Gollwitzer ve Steffgen, 2010) ve hedef olarak seçilen kişiye zarar vermek amaçlanırken (Slonje ve Smith, 2008) bazen siber zorbalığa hedef olacak kişiler rasgele seçilebilir (Topcu, Yıldırım ve Erdur-Baker, 2013).

Siber zorbalık nedenlerinin ardından, araştırmacılar odaklarını zorbalık mağduru çocuk ve ergenlere kaydırmıştır. Zorbalık olayına maruz kalan çocukların verdikleri tepkiler ile bu tepkilerin yüz yüze zorbalık sonrası mağdurların verdiği tepkilere benzerlikleri ve farklılıkları incelenmiştir. Yüz yüze zorbalık mağdurlarının içe yönelim bozuklukları (Ivarsson, Broberg, Arvidsson ve Gillberg, 2005), travma sonrası stress bozukluğu (Mynard, Joseph ve Alexandra, 2000), uykusuzluk, huzursuzluk, baş ağrısı, sırt ağrısı ve gerginlik gibi psikosomatik belirtiler (Natvig, Albrektsen ve Qvarnstrom, 2001), depresif belirtiler ve intihara yönelik düşünceler (Roland, 2002) gibi olumsuz sonuçlar deneyimlediği bilinmektedir. Siber zorbalık mağdurlarının da benzer sorunlar yaşadığı görülmektedir (Arıcak, 2009; Erdur- Baker ve Tanrıkulu, 2010; Hinduja ve Patchin, 2006; Ortega, Elipe, Mora-Merchan, Calmaestra ve Vega, 2009; Price ve Dalgleish, 2010; Sourander ve ark., 2010; Ybarra, Mitchell, Wolak ve Finkelhor, 2006). Siber zorbalık mağdurlarının bazıları herhangi bir sorun yaşamadığını söylerken (Ortega et al., 2009) bazıları düşük öz-güven, depresyon (Chang, Lee, Chiu, His, Huang ve Pan, 2013), kaygı (Şahin, Aydın ve Sarı, 2012), genel sağlık sorunları (Laftman, Modin ve Östberg, 2013), içe yöenlim bozuklukları (Bonanno ve Hymel, 2013) yaşadıklarını dile getirmişlerdir. Mağdurlar arasında intihar edenler bile vardır (Shariff, 2008). Bu nedenle, zorbalık mağduru olan çocuk ve ergenlerin olumsuz sonuçlar deneyimlemesiyle ilişkili faktörleri incelemek önemlidir.

Bu noktada araştırılması gereken hangi faktörlerin mağdur olan çocuğun olumsuz sonuçlar yaşamasıyla ilişkisinin olabileceğidir. Daha önce yapılan araştırmalara bakıldığında bazı bireysel faktörlerin incelendiği görülmektedir. Örneğin, kadın olmak, düşük sosyo ekonomik düzeyden gelmek ve yalnız hissetmek zorbalık mağduru olmanın olumsuz etkilerini arttıran risk faktörleri olarak raporlanmıştır (Ortega, Elipe ve Monks, 2012). Buradan yola çıkarak, içsel mekanizmaların mağdur kişinin olayı anlamlandırmasında etkisi olduğu ve zorbalık olayının değil mağdur kişinin olayı nasıl anlamlandırdığının olumsuz etkiler yaşamasıyla ilişkili

olduğu söylenebilir. Başka ne tür içsel mekanizmaların mağdurun olayı anlamlandırmasıyla ilişkili olabileceği incelenmelidir.

Lazarus'a (1966) göre kişinin yaşadığı bir durumu değerlendirme biçimi olay sonrasında problem yaşayıp yaşamamasını belirler. Buradan hareketle, zorbalık mağduru kişinin zorbalık olayını nasıl algıladığı ve değerlendirdiği de olay sonrasında problem yaşayıp yaşamamasında belirleyici olacaktır. Bugüne dek yapılan çalışmalarda yüz yüze zorbalık mağdurlarının kullandıkları baş etme stratejileri incleenmiştir (Hunter ve Boyle, 2004; Kochenderfer-Ladd ve Skinner, 2002). Bu araştırma sonuçlarına göre, mağdurların genellikle duygusal ve davranışsal sorunlara yol açabilecek fonksiyonel olmayan baş etme mekanizmaları (kaçınma, ruminasyon, boyun eğme) kullandıkları bulunmuştur (Hampel, Manhal ve Hayer, 2009). Yüz yüze zorbalık mağdurlarının kullandıklarını söyledikleri diğer baş etme yöntemleri bir arkadaş veya yetişkinden yardım istemek, olayı görmezden gelmek, sözel ya da fiziksel intikam almak (Cowie, 2000; Flanagan, Vanden Hoek, Shelton, Kelley, Morrison ve Young, 2013), uzaklaşmak (Kristensen ve Smith, 2003), kaçınma (Hunter ve Boyle, 2004), ve duygu düzenleme stratejileri kullanmaktır (Mahady-Wilton, Craig ve Pepler, 2000).

Siber zorbalık mağdurlarının baş etme yöntemleri ise genellikle başkalarından yardım istemek gibi davranışsal yöntemler olarak bulunmuştur (Sleglova ve Cerna, 2011; Paul, Smith ve Blumberg, 2012; Wachs, Wolf ve Pan, 2012). Az sayıda çalışmada davranışsal olmayan yöntemlerin de kullanıldığı gösterilmiştir. Bunlardan biri Lodge ve Frydenberg (2007) tarafından yürütülmüş çalışmadır ve sonuçlarına göre baş etme yöntemi olarak daha çok kaçınma temelli (sosyal destek arama, gerginlik azaltma, sosyalleşme ve kendini suçlama) veya aktif baş etme stratejilerinin (fiziksel aktivite ve rahatlama, problem çözmek için çok çalışmak) tercih edildiği görülmektedir.

Siber zorbalık mağdurlarının kullandıklarını söyledikleri baş etme stratejilerinin yanı sıra yüz yüze zorbalık alan yazınında da duygu düzenleme stratejileri

kullanımı gibi bazı içsel mekanizmaların zorbalığın olumsuz etkileriyle mücadele etmek için kullanıldığı görülmektedir. Gross ve Thompson (2007) bir sorunla baş etmek için duygu düzenleme stratejilerinin etkili rolünden bahsetmişlerdir. Duygu düzenleme dört ana aşamadan oluşmaktadır; duygunun farkında olmak, bu duyguyu ne zaman hissettiğinin farkında olmak, bu duyguyu nasıl hissettiğinin farkında olmak ve bu duyguyu nasıl ifade ettiğinin farkında olmak (Gross, 1998). Gross'a (1998) göre duygularını düzenlemekte başarısız olan kişiler fizyolojik sorunların yanı sıra sosyal hayatta da engeller yaşayacaklardır. Daha evvel yapılan çalışmalarda yüz yüze zorbalık mağdurlarının duygu düzenleme becerilerinin mağdur olmayanlara göre daha kötü olduğu bulunmuştur (Schwartz, 2000; Spence, De Young, Toon ve Bond, 2009). Birçok defa olduğu gibi bu konuda da henüz siber zorbalık mağdurlarıyla yapılmış bir araştırmaya rastlanmamıştır.

Ek olarak, baş etme sürecini bütünüyle ele alabilmek için bilişsel baş etme stratejilerinden sayılan ruminasyonun zorbalık mağduruları tarafından kullanılması da incelenmiştir. Ruminasyon çoğunlukla yas ve kayıp gibi travmatik tepkilerin sonrasında ne olduğunun anlaşılabilmesi için çalışılmıştır (Nolen-Hoeksema ve Davis, 1999). Zorbalık mağdurlarının da travma mağdurlarıyla benzer özellikler gösterdiğinden yola çıkan Erdur-Baker (2009), ruminasyonun yüz yüze zorbalık mağduriyeti ile depresif belirtiler arasında aracı rol oynadığını göstermiştir. Daha sonraları siber zorbalık mağdurları ile yapılan benzer bir çalışmada ise ruminasyonun siber zorbalık mağdurlarının da depresif belirtiler göstermesinde aracı rolü olduğu gösterilmiştir (Feinstein, Bhatia, ve Davilla, 2014).

Hem siber hem de yüz yüze zorbalık mağdurları için sosyal destek almak yaygın olarak önerilen baş etme stratejileri arasındadır (Cowie, 2000; Flanagan, Vanden Hoek, Shelton, Kelley, Morrison ve Young, 2013; Paul ve ark., 2012; Sleglova ve Cerna, 2011; Wachs, Wolf ve Pan, 2012). Dahası, teorik olarak yazılan makalelerde de yaşanan zorbalık olayının bir yetişkine bildirilmesi ve yardım aranması önerilmektedir (Mischna, Saini ve Solomon, 2009; Rothon, Head,

Klineberg ve Stansfeld, 2011). Bütün bunlara rağmen, sosyal desteğin varlığından çok kişinin sosyal desteğin varlığını gerçekten bir destek olarak mı algıladığı yoksa fonksiyonel baş etme stratejilerinin kullanımını mı zorlastırdığı dikkatli bir biçimde değerlendirilmelidir (Prati ve Pietrantoni, 2010; Rigby, 2000). Kendini yalnız olarak değerlendiren ve yeterli sosyal desteğe sahip olmadığını söyleyen ergenlerin diğerlerine göre daha fazla depresif belirtiler sergilediği bilinmektedir (Brage-Hudson, Elek ve Campbell-Grossman, 2000). Bu nedenle zorbalık mağdurlarının algıladıkları sosyal desteğin yaşadıkları olumsuz sonuçla nasıl bir ilişkisinin olduğu araştırılacaktır.

Özetle, kullanılan baş etme stratejileri, duygu düzenleme, ruminasyon ve algılanan sosyal desteğin zorbalık mağduru olan ergenlerin olumsuz sonuç yaşamalarıyla ilişkisi olabilir. Sayılan bu içsel mekanizmaların (baş etme stratejileri, duygu düzenleme stratejileri, ruminasyon ve algılanan sosyal destek) hem siber hem de yüz yüze zorbalık mağduriyeti sonucunda yaşanan olumsuz durumla ilişkisi ayrı ayrı çalışmalarda incelenmiştir. Fakat, her iki tür zorbalık mağduriyeti için de bütün bu içsel mekanizmaların bir model çerçevesinde incelenmesi yapılmamıştır. Sayılan bütün bu değişkenlerin zorbalık mağdurlarının içe yönelim davranışı deneyimlemesiyle olan ilişkilerinin daha iyi anlaşılabilmesi için bu çalışmada baş etme stratejileri, duygu düzenleme, ruminasyon ve algılanan sosyal desteğin siber ve yüz yüze zorbalık mağdurlarının içe yönelim davranışlarıyla ilişkileri bir modelleme çalışması ile incelenmiştir.

1.1. Çalışmanın amacı

Bu çalışmanın amacı baş etme stratejileri, duygu düzenleme, ruminasyon, ve algılanan sosyal desteğin yüz yüze ve siber zorbalık mağdurlarının içe yönelim davranışlarıyla ilişkilerinin modellenmesidir.

1. 2. Çalışmanın Önemi

Okullarda görülen şiddet olayları özellikle de akran zorbalığı Türkiye'deki okullarda da sıklıkla yaşanan ve gün geçtikçe medyanın da bu konuları haber

yapmasıyla ilginin arttığı konulardır. Türkiye'deki araştırmacılar da önceden beri yapılan zorbalık çalışmalarına siber zorbalıkla ilgili çalışmaları da ekleyerek devam etmektedirler. Bu çalışma da siber ve yüz yüze zorbalığın incelendiği çalışmalar arasındadır ve alanyazına birçok farklı yönden katkı sağlayacaktır. İlk olarak, bu çalışma, zorbalık sonrası yaşanan olumsuz sonuçlarla ilişkili olabilecek bazı içsel mekanizmaların incelendiği bir model önererek teorik olarak zorbalık alanyazınına katkıda bulunmaktadır. İkinci olarak, bu çalışmada elde edilen bulguların psikolojik danışma ve rehberlik alanında uygulanabilirliği olacaktır. Son olarak, bu çalışmada "Yenilenmiş Siber Zorbalık Envanteri" gözden geçirilmiştir ve alanyazında tartışmalı bir konu olan siber zorbalığın ölçümü konusuna katkı sağlanmıştır.

Öncelikle, bu çalışma zorbalık alanyazınına ve teorilerine özellikle mağdurların baş etme stratejilerinin incelenmesi yoluyla katkıda bulunacaktır. Siber ve yüz yüze zorbalık mağdurlarının hayal kırıklığı, yalnızlık, dışlanmışlık, öfke, çaresizlik, depresyon, kaygı, akran ve aile ile sorun yaşamak gibi ciddi bir takım psikolojik ve sosyal problemler yaşadıkları bilinmektedir (Hinduja ve Patchin, 2006; Juvonen ve Gross, 2008; Laftman, Modin ve Östberg, 2013). Mağdurların bireysel olarak problem yaşamasının yanı sıra zorbalık ve sonrasında yaşanan olumsuzluklar toplum için de büyük bir sorun olarak karşımıza çıkmaktadır (Price ve Dalgleish, 2010). Özellikle siber zorbalık sonucu gözlenen olumsuz sonuçlardan kurtulmanın yolu ne yazık ki bazı kişiler tarafından önerildiği gibi teknoloji kullanımının kısıtlanması ve yasaklanması değildir (Sticca, Ruggieri, Alsaker ve Perren, 2013). Bunun yerine, ergenlerin ve çocukların zorbalık olayından olumsuz etkilenmeleriyle ilişkisi olabilecek değişkenlerin incelenmesi ve mağdurların güçlendirilmesi gerekmektedir. Önleme çalışmaları genellikle müdahale programlarından daha etkilidir ve daha ucuzdur. Bu nedenle ailelerin, öğretmenlerin, okul psikolojik danışmanlarının amacı çocuk ve ergenlerin psikolojik olarak sağlam yetiştirilmesi olmalıdır (Frydenberg, Lewis, Bugalski, Cotta, McCarthy, Luscombe-Smith ve Poole, 2004). Bu çalışmada, zorbalık mağduru ergenlerin içe yönelim bozuklukları sergilemesiyle ilişkili olabilecek

içsel mekanizmalar incelenmiştir. Bu sayede yaşanan zorbalık olayının ardından olumsuz sonuçlar yaşamayla ilişkili olabilecek faktörler belirlenmiştir. Dolaylı olarak alanyazında süregelen siber zorbalık veya yüze zorbalık benzerliği ve farklılığı konusunda da veri elde edilmiştir.

Kuramsal makalelerde zorbalık mağduru çocuk ve ergenlerin güçlendirilmesi için ergen ve çocukların kendileri, aileleri, öğretmenleri ve okul rehber öğretmenleri tarafından uygulanabilecek birçok duygusal, bilişsel ve sosyal baş etme becerisi önerilmiştir (Price ve Dalgleish, 2010). Bu çalışmada, önerilen bu stratejilerinin bazıları verilerle ve hem siber hem de yüz yüze zorbalık mağdurları için bir model ile test edilmiştir. Elde edilen bulgular ışığında baş etme stratejilerinin, duygu düzenleme stratejilerinin, ruminasyonun ve algılanan sosyal desteğin zorbalık mağdurlarının içe yönelim bozuklukları sergilemesiyle ilişkisi hem siber hem de yüz yüz zorbalık için belirlenmiştir.

Son olarak, bu çalışmada kullanılan ve Yenilenmiş Siber Zorbalık Envanteri-II dışında kalan ölçekler orijinalinde İngilizce olarak geliştirilmiş ve Türkçe'ye uyarlamaları önceki çalışmalarda yapılmıştır. Bu çalışmada kullanımlarıyla bu ölçekler için geçerlik ve güvenirliklerine yönelik yeni kanıtlar sunulmuştur. Yenilenmiş Siber Zorbalık Envanteri-II ise Yenilenmiş Siber Zorbalık Envanteri'nin gözden geçirilmesiyle elde edilmiştir. Yenilenmiş Siber Zorbalık Envanteri Facebook, messenger, sohbet odası gibi bazı özel teknoloji isimleri içerdiği için hızla gelişen ve değişen teknolojinin takibini zorlaştırıyor ve eskide kalmış bazı teknolojilerin katılımcılar tarafından anlaşılmasını güçleştiriyordu. Ölçeğin özel teknoloji isimlerinden arındırılmasıyla daha genelgeçer bir form elde edilmiş ve Yenilenmiş Siber Zorbalık Envanteri-II siber zorbalığın ölçümü için alanyazına kazandırılmıştır.

2. YÖNTEM

2.1. Örneklem

Araştırmaya Ankara'daki devlet liselerinde öğrenim gören 1189 öğrenci katılmıştır. Kayıp verilerin miktarı ve dağılımı incelendikten sonra kayıp verilerin belirli bir özelliğe göre dağılım göstermediği görülmüş ve kayıp veri içeren katılımcı raporları veri setinden çıkarılmıştır. Elde edilen yeni veri setinde 853 katılımcıya (476 kız ve 377 erkek öğrenci) ait anket raporları vardır. Örneklemdeki katılımcıların yaşları 14 ve 18 arasında değişmektedir ve yaş ortalaması 16.18'dir (*SS* = 1.05).

Katılımcıların anne eğitim düzeylerine bakıldığında, 8'inin (0.9%) okuma yazma bilmediği, 3'ünün (0.4%) okuma yazma bildiği, 161'inin (18.9%) ilkokul, 143'ünün (16.8%) ortaokul , 279'unun (32.7%) lise, 33'ünün (3.9%) yüksekokul, 191'inin (22.4%) üniversite mezunu, 20'sinin (2.3%) yükseklisans, 7'sinin (0.8%) ise doktora derecesine sahip olduğu görülmektedir. Katılımcıların babalarının eğitim düzeyleri incelendiğinde ise 2'sinin (0.2%) okuma yazma bilmediği, 5'inin (0.6%) okuma yazma bildiği, 65'inin (7.6%) ilkokul, 94'ünün (11%) ortaokul, 259'unun (30.4%) lise, 47'sinin (5.5%) yüksekokul, 299'unun (35.1%) üniversite mezunu, 44'ünün (5.2%) yükseklisans, 24'ünün (2.8%) ise doktora derecesine sahip olduğu görülmektedir.

Katılımcıların bilgisayar ve cep telefonu kullanımı ile ilgili alışkanlıkları incelendiğinde, 819'unun (96%) cep telefonu olduğu, 733'ünün (89.5%) cep telefonunda İnternet paketi olduğu, 790'ının (96.5%) ise cep telefonu ile fotoğraf ve video çektiği görülmektedir. Ayrıca, katılımcıların 748'i (87.7%) evlerinde İnternet bağlantısı olduğunu rapor etmişlerdir. Ek olarak, katılımcıların 694'ü (81.4%) İnternete akıllı telefon ile, 512'si (60%) dizüstü bilgisayar ile, 479'u (56.2%) masaüstü bilgisayar ile, 332'si (38.9%) ise tablet ile bağlandığını söylemiştir. Katılımcıların haftalık ortalama İnternet kullanım sıklıklarını

değerlendirmeleri istenmiş ve örneklemin büyük çoğunluğu (21.1%) haftalık İnternet kullanım sıklıklarını 4 ila 7 saat olarak raporlamışlardır.

2.2. Veri Toplama Araçları

Bu çalışmada kullanılan veri toplama araçlarının geçerlik ve güvenirlik testlerini yapmak üzere tabakalı seçkisiz örnekleme yöntemi ile bir veri seti oluşturulmuş ve pilot çalışma yapılmıştır. Ankara'nın 7 merkez ilçesinde (Altındağ, Çankaya, Etimesgut, Keçiören, Mamak, Sincan, and Yenimahalle) bulunan devlet liseleri listelenmiş, random.org adresindeki tesadüfi sayı üreten program kullanılarak her ilçeden bir lise seçilmiştir. Seçilen bir ilçedeki okul müdürünün çalışmaya katılıma gönüllü olmaması yüzünden kalan 6 okulda pilot çalışma yürütülmüştür. Altı okulda her sınıf seviyesinden iki sınıf seçilmiş ve yaşları 14 ve 19 arasında değişen (yaş ortalaması = 15.89, *SS* = 1.07) 587 (341 kız ve 246 erkek) öğrenciden veri toplanmıştır. Katılımcıların, %39.7'si 9. sınıf, %30.8'i 10. sınıf, %16.9'u 11. sınıf, %12.6'sı ise 12. sınıf öğrencisidir. Kayıp verilerin miktarı ve dağılımı incelendikten sonra kayıp verilerin belirli bir özelliğe göre dağılım göstermediği görülmüş ve kayıp veri içeren katılımcı raporları veri setinden çıkarılmıştır. Pilot çalışma kapsamında ölçeklerin geçerlik ve güvenirlik analizleri yaş ortalaması 15.88 (*SS* = 1.07) olan 396 (238 kız, 158 erkek) katılımcı ile yapılmıştır.

Yenilenmiş Siber Zorbalık Envanteri-II, Erdur-Baker tarafından geliştirilen ve Erdur-Baker ve Kavşut (2007) tarafından ilk kez kullanılan Siber Zorbalık Envanterinin ikinci versiyonu olan Yenilenmiş Siber Zorbalık Envanteri'nin (Topcu ve Erdur-Baker, 2010) gözden geçirilip tekrar düzenlenmesiyle elde edilmiştir. Gözden geçirme çalışması çerçevesinde ölçek maddeleri yenilenen ve hızla değişen teknoloji isimlerinden arındırılmıştır. Düzenlenen maddeler, toplam on uzman tarafından incelenmiş ve ana çalışmadaki katılımcıların özelliklerine benzer özelliklere sahip olan 6 (3 kız ve 3 erkek) öğrencinin yer aldığı bir odak grubunda değerlendirilmiştir. İki paralel formda sunulan 10 maddeyi katılımcılar yaptıkları ve maruz kaldıkları siber zorbalık davranışlarını değerlendirmek için

4'lü derecelendirme (*1 = asla, 2 = bir kez, 3 = iki veya üç kez, 4 = üçten çok kez)* ile ikişer kez cevaplandırmaktadırlar. Alınan yüksek puan sık siber zorbalık yapmanın ya da sık siber zorbalık mağduru olmanın göstergesidir. Ölçeğin siber mağdur bölümünün tek faktörlü olduğunu göstermek için yapılan doğrulayıcı faktör analizi sonuçlarına göre $\chi^2(2) = 1.61$, $p = .44$, *CFI* = 1.00, *TLI* = 1.00, *RMSEA* = .00, *SRMR* = .01 bulunmuştur. Benzer biçimde tek faktörlü yapı siber zorba bölümü için de doğrulanmıştır $\chi^2(1) = 1.08$, $p = .30$, *CFI* = 1.00, *TLI* = 1.00, *RMSEA* = .01, *SRMR* = .01. Ölçeğin siber mağdur bölümü için iç tutarlılık kat sayısı .84, siber zorba bölümü için ise .69 olarak bulunmustur.

Yenilenmiş Olweus Zorba/Mağdur Ölçeği Olweus tarafından geliştirilmiş ve Dölek, (2002) tarafından Türkçe'ye adaptasyonu yapılmıştır. Toplam 40 maddeden oluşan ölçeğin, bu çalışmada yüz yüze zorbalık yapma ve yüz yüze yapılan zorbalık mağduru olma durumlarını ölçen 6 maddesi kullanılmıştır. Ölçeğin yüz yüze yapılan zorbalık mağduru bölümünün tek faktörlü olduğunu göstermek için yapılan doğrulayıcı faktör analizi sonuçlarına göre $\chi^2(8) = 30.04$, $p < .001$, *CFI* = .96, *TLI* = .93, *RMSEA* = .08, *SRMR* = .03 bulunmuştur. Benzer biçimde tek faktörlü yapı yüz yüze zorbalık yapma bölümü için de doğrulanmıştır $\chi^2(8) = 24.97$, $p < .001$, *CFI* = .97, *TLI* = .94, *RMSEA* = .07, *SRMR* = .03. Ölçeğin yüz yüze yapılan zorbalık mağduru bölümü için iç tutarlılık kat sayısı .79, yüz yüze zorbalık yapma bölümü için ise .76 olarak bulunmustur.

Başa Çıkma Stratejileri Ölçeği Kısa Formu Carver (1997) tarafından *Başa Çıkma Stratejileri Ölçeği* (Carver, Scheier, ve Weintraub, 1989) gözden geçirilmesiyle elde edilmiştir. Toplam 28 madde ve 14 boyuttan oluşan bu ölçek 4'lü derecelendirme ile cevaplanmaktadır (*1 = Bunu hiç yapmıyorum, 4 = Bunu çok yapıyorum*). Schnider, Elhai, ve Gray (2007) ölçeğin üç boyutlu (problem odaklı başa çıkma, aktif duygusal başa çıkma, kaçınarak duygusal başa çıkma) olarak kullanabileceğini önermiştir. Türkçe'ye adaptasyonu Tuna (2003) tarafından yapılan ölçeğin faktör yapısı bu çalışmada üç boyutlu olarak doğrulamıştır fakat problem odaklı başa çıkma ve aktif duygusal başa çıkma, boyutları arasındaki

çoklu değişmenin (multicollinearity) .85 olması nedeniyle bu iki faktör birleştirilmiştir. Elde edilen indekslere göre iki faktörlü yapı doğrulanmış $\chi^2(49) = 117.14$, $p < .001$, *CFI* = .95, *TLI* = .93, *RMSEA* = .06, *SRMR* = .05 ve faktörler fonksiyonel başa çıkma ve fonksiyonel olmayan başa çıkma şeklinde adlandırılmıştır. Fonksiyonel başa çıkma boyutunun iç tutarlılık katsayısı .82, fonksiyonel olmayan başa çıkma boyutunun iç tutarlılık katsayısı ise .65 olarak bulunmuştur.

Duygu Düzenleme Ölçeği Gross ve John (2003) tarafından geliştirilmiştir ve 7'li derecelendirme (*1 = kesinlikle katılmıyorum, 7 = kesinlikle katılıyorum*) ile değerlendirilen 10 maddeden ve iki boyuttan (bastırma ve yeniden ele alma) oluşmaktadır. Türkçe'ye adaptasyonu Yurtsever (2004) tarafından yapılan ölçeğin iki boyutlu faktör yapısı bu çalışmada da doğrulanmıştır $\chi^2(33) = 84.8$, $p < .001$, *CFI* = .96, *TLI* = .95, *RMSEA* = .06, *SRMR* = .05. Bastırma boyutunun iç tutarlılık katsayısı .65, yeniden ifade etme boyutunun iç tutarlılık katsayısı ise .85 olarak bulunmuştur.

Ruminasyon Ölçeği Kısa Formu (Treynor ve ark., 2003) 4'lü derecelendirme (*1 = neredeyse hiçbir zaman 4 = neredeyse her zaman*) ile değerlendirilen 10 maddeden oluşmaktadır. Türkçe'ye adaptasyonu Erdur-Baker ve Bugay (2012) tarafından yapılan ölçeğin faktör yapısı bu çalışmada da doğrulanmıştır $\chi^2(2) = 4.93$, $p = .08$, *CFI* = .99, *TLI* = .98, *RMSEA* = .06, *SRMR* = .02. İç tutarlılık katsayısı .81 olarak bulunmuştur.

Çok Boyutlu Algılanan Sosyal Destek Ölçeği (Zimet ve ark., 1988) 7'li derecelendirme (*1 = kesinlikle katılmıyorum, 7 = kesinlikle katılıyorum*) ile değerlendirilen 12 madde ve 3 boyuttan (aileden alınan sosyal destek, arkadaştan alınan sosyal destek ve önemli birinden alınan sosyal destek) oluşmaktadır. Türkçe'ye adaptasyonu Eker ve ark. (2001) tarafından yapılan ölçeğin üç boyutlu faktör yapısı bu çalışmada da doğrulanmıştır $\chi^2(50) = 174.69$, $p < .001$, *CFI* = .95, *TLI* = .94, *RMSEA* = .07, *SRMR* = .04. Aileden alınan sosyal destek boyutunun iç tutarlılık katsayısı .85, arkadaştan alınan sosyal destek boyutunun iç tutarlılık

katsayısı .86 ve önemli birinden alınan sosyal destek boyutunun iç tutarlılık katsayısı .90 olarak bulunmuştur.

Güçler ve Güçlükler Ölçeği (Goodman, 1997; Goodman, Meltzer ve Bailey, 1998) 3'lü derecelendirme (*0=doğru değil 2=kesinlikle doğru*) ile değerlendirilen 25 madde ve 3 boyuttan (içe yönelim bozuklukları, dışa yönelim bozuklukları ve prososyal davranış) oluşmaktadır. Türkçe'ye adaptasyonu Güvenir, Özbek, Baykara, Arkar, Şentürk, ve İncekaş (2008) tarafından yapılan ölçeğin üç boyutlu faktör yapısı yapılan modifikasyonlar sonrasında bu çalışmada da doğrulanmıştır $\chi^2(16) = 61.22$, $p < .001$, *CFI* = .90, *TLI* = .83, *RMSEA* = .08, *SRMR* = .05. İçe yönelim bozuklukları boyutunun iç tutarlılık katsayısı .67, dışa yönelim bozuklukları boyutunun iç tutarlılık katsayısı .51 ve prososyal davranış boyutunun iç tutarlılık katsayısı .70 olarak bulunmuştur.

Bu çalışmada kullanılan *Demografik Bilgi Formu*'nda cinsiyet, yaş, anne eğitim düzeyi, baba eğitim düzeyi, cep telefonu ve İnternet kullanım sıklıklarına yönelik sorular sorulmuştur. Ayrıca, katılımcılara siber zorbalık tanımı verilerek "Hiç siber zorbalık yaptınız mı?" ve "Hiç siber zorbalık mağduru oldunuz mu?" soruları sorulmuştur. Ek olarak, katılımcılara yüz yüze zorbalık mağduru olup olmadıkları da sorulmuştur. Son bölümde ise zorbalık mağduru olduğunu söyleyen katılımcılara olay sonrasında yardım alıp almadıkları ve eğer yardım aldılarsa kimden yardım istedikleri sorulmuştur.

2.3. İşlem

İlk olarak Orta Doğu Teknik Üniversitesi Etik Kurul'undan ve araştırma kapsamında lise öğrencilerinden veri toplayabilmek için Ankara İl Milli Eğitim Müdürlüğünden gereki izinler alınmıştır. Uygulamalar 2013-2014 bahar yarıyılında gerçekleştirilmiştir. Araştırmacı tarafından okullar ziyaret edilerek çalışmanın amacı açıklanmış, okul müdürleri, müdür yardımcıları ve rehber öğretmenlerinin yardımı ile sınıflara girilerek öğrencilere gerekli açıklamalar yapılmıştır. Öğrencilerin anketi doldurması yaklaşık 40 dakika sürmüştür.

2.4. Verilerin Analizi

Araştırma kapsamında toplanan verilerin analizi iki basamakta gerçekleştirilmiştir. İlk basamakta betimsel analizler aracılığıyla, hem siber hem de fiziksel ortamda zorba ve mağdur olan katılımcıların oranı belirlenmiştir. İkinci basamakta ise her iki alanda da zorbalık mağduru olduğunu ifade eden katılımcıların içe yönelim bozuklukları gösterme durumu incelenmiştir. Bulunan ilişkinin üzerine, her iki alanda da zorbalık mağduru olduğunu ifade eden katılımcıların içe yönelim bozuklukları gösterme durumuyla ilişkili olabilecek değişkenleri içeren bir model, Yapısal Eşitlik Modeli (YEM) analizi kullanılarak AMOS 18 (Arbuckle, 2009) ile test edilmiştir.

3. BULGULAR

Araştırmada ilk olarak betimsel analizler yoluyla siber (Tablo 14) ve fiziksel alanda (Tablo 15) zorba, mağdur, zorba/mağdur ve ne zorba ne de mağdur olan katılımcıların oranı belirlenmiştir. Daha sonra hangi grupların içe yönelim bozukluklarını daha fazla sergilediklerini görebilmek için ANOVA yapılmıştır. ANOVA sonuçlarına göre hem siber ($F(3, 849) = 4.79$, $p < .01$) hem de fiziksel ortamda ($F(3, 849) = 16.97$, $p < .001$) zorbalık rolünün içe yönelim davranışı yaşamayla ilişkili olduğu görülmektedir. Buna göre, siber zorbalık mağdurları ($M = 5.31$) ve siber zorba/mağdurlar ($M = 5.13$) siber zorbalardan ($M = 4.24$) ve ne siber zorba ne de mağdur olanlardan ($M = 4.35$) daha fazla içe yönelim bozukluğu göstermektedirler. Benzer biçimde yüz yüze zorbalık mağdurları ($M = 5.63$) ve yüz yüze oratamdaki zorba/mağdurlar ($M = 5.45$) hem yüz yüze ortamda zorbalık yapanlardan ($M = 3.67$) hem de yüz yüze ortamda ne zorba ne de mağdur olanlardan ($M = 4.06$) daha fazla içe yönelim bozukluğu göstermektedirler.

Her iki ortamda da mağdur ve zorba/mağdur olan katılımıcıların benzer özellikler göstermesinden yola çıkarak, bu iki grubun araştırmada ele alınan değişkenler açısından farklılaşıp farklılaşmadığı kontrol edilmiştir. Siber mağdur ve siber zorba/mağdurların yaş ($F(3, 849) = 1.38$, $p = .25$), ruminasyon ($F(3, 849) = 5.09$,

p = .30), yeniden ele alma (*F*(3, 849) = 63.54, *p* = .38), bastırma (*F*(3, 849) = .13, *p* = .94), fonksiyonel olmayan baş etme yöntemleri (*F*(3, 849) = 3.65, *p* = .99), fonksiyonel baş etme yöntemleri (*F*(3, 849) = 1.10, *p* = .35), aileden alınan algılanan sosyal destek (*F*(3, 849) = 5.04, *p* = .21), arkadaştan alınan algılanan sosyal destek (*F*(3, 849) = .97, *p* = .41) ve önemli birinden alınan algılanan sosyal destek (*F*(3, 849) = .63, *p* = .60) puanlarının istatistiksel olarak farklılaşmadığı görülmektedir. Benzer olarak, yüz yüze alanda yapılan zorbalık mağdurlarının ve zorba/mağdurların yaş (*F*(3, 849) = 1.43, *p* = .23), ruminasyon (*F*(3, 849) = 7.75, *p* = .99), yeniden ele alma (*F*(3, 849) = 2.26, *p* = .08), bastırma (*F*(3, 849) = 2.96, *p* = .79), fonksiyonel olmayan baş etme yöntemleri (*F*(3, 849) = 6.63, *p* = .39), fonksiyonel baş etme yöntemleri (*F*(3, 849) = .81, *p* = .49), aileden alınan algılanan sosyal destek (*F*(3, 849) = 5.27, *p* = .16), arkadaştan alınan algılanan sosyal destek (*F*(3, 849) = 5.38, *p* = .16) ve önemli birinden alınan algılanan sosyal destek (*F*(3, 849) = .1.97, *p* = .12) puanlarının istatistiksel olarak farklılaşmadığı görülmektedir.

Bu çalışmanın amacı her iki alanda da zorbalık mağduru olan katılımcıların içe yönelim bozuklukları göstermesinde rolü olabilecek bazı içsel mekanizmaların incelenebilmesi için bir model test etmektir. Bu nedenle, ikinci adıma geçmeden önce veri setinden sadece zorba olan ve ne zorba ne de mağdur olan katılımcılar çıkarılmıştır. Hem zorba hem de mağdur olan katılımcılar ile sadece mağdur olan katılılımcıların da çalışmada incelenen değişkenler açısından farklılaşmadığı için bu iki grup hem siber hem de yüz yüze zorbalık için birleştirilmiştir.

Önerilen modele göre hem siber alanda hem de yüz yüze ortamda zorbalık mağduru olan ergenler içe yönelim bozuklukları göstermektedir. Mağdur ergenlerin içe yönelim bozuklukları sergilemesi bazı aracı içsel mekanizmalar tarafından düzenlenmektedir. Bu içsel mekanizmalar baş etme stratejileri, duygu düzenleme, ruminasyon ve algılanan sosyal destek olarak belirlenmiştir. Bu model hem siber zorbalık mağdurlarıyla hem de yüz yüze zorbalık mağdurlarıyla YEM analizi kullanılarak test edilmiştir.

YEM analizi sonuçlarına göre her iki modelin de uyum iyiliği indeksleri kabul edilebilir sınırlardadır. Siber zorbalık mağdurları ile test edilen modelin uyum iyiliği indeksleri şu şekildedir; ($\chi^2(908) = 1771.40$, $p < .001$), $\chi^2/df = 1.95$, *CFI* = .91, *TLI* = .90, *RMSEA* = .04 (90% *CI* = .04-.05) ve SRMR= .06. Önerilen modelde teorik olarak bağlantılı olması beklenen bütün yollar istatistiksel olarak anlamlı bulunmamıştır. Bu nedenle modelde istatistiksel olarak anlamlı bulunmayan yollar modelden çıkarılarak yeni model tekrar test edilmiştir. Önerilen modele benzer şekilde yeni elde edilen modelin de uyum iyiliği indeksleri de kabul edilebilir aralıktadır ($\chi^2(922) = 1793.81$, $p < .001$, $\chi^2/df = 1.94$, *CFI* = .90, *TLI* = .90, *RMSEA* = .04 (90% *CI* = .04-.05), *SRMR* = .06). Yeni modele göre siber zorbalık mağduru olan katılımcıların fonksiyonel olmayan baş etme stratejileri kullandıkları ve ailelerinden sosyal destek almadıklarını düşündükleri görülmektedir. Ayrıca aileden, arkadaştan ve önemli birinden sosyal destek aldığını söyleyen katılımcıların fonksiyonel baş etme stratejileri kullandıklarını söyledikleri görülmektedir. Ek olarak, aileden sosyal destek alan katılımcılar aynı zamanda duygu düzenleme stratejilerinden yeniden ele almayı kullanmaktadırlar. Fonksiyonel baş etme stratejileri kullananlar ise duygu düzenleme stratejilerinden yeniden ele almayı kullanmakta ve daha az içe yönelim bozukluğu sergilemektedirler. Fonksiyonel olmayan baş etme stratejileri kullanan katılımcıların ruminasyon yaptıkları ve içe yönelim bozuklukları sergiledikleri bulunmuştur. Son olarak, duygu düzenleme stratejilerinden bastırmayı kullananların içe yönelim bozuklukları yaşadıkları, yeniden ele almayı kullananların ise daha az içe yönelim bozuklukları yaşadıkları bilgisi elde edilmiştir.

Benzer biçimde, yüz yüze zorbalık mağduru olanlar ile test edilen modelin uyum iyiliği indeksleri de kabul edilebilir değerlerdir ve önerilen model yüz yüze zorbalık mağdurları ile de doğrulanmıştır ($\chi^2(997) = 1764.85$, $p < .001$, $\chi^2/df = 1.77$, *CFI* = .91, *TLI* = .91, *RMSEA* = .04 (90% *CI* = .04-.04), *SRMR* = .06). Önerilen modelde teorik olarak bağlantılı olması beklenen bütün yollar istatistiksel olarak anlamlı bulunmamıştır. Bu nedenle modelde istatistiksel olarak

anlamlı bulunmayan yollar modelden çıkarılarak yeni model tekrar test edilmiştir. Önerilen modele benzer şekilde yeni elde edilen modelin de uyum iyiliği indeksleri de kabul edilebilir aralıktadır ($\chi^2(1011) = 1787.56$, $p < .001$, $\chi^2/df = 1.78$. *CFI* = .91, *TLI* = .90, *RMSEA* = .04 (90% *CI* = .04-.04), *SRMR* = .06). Yüz yüze zorbalık mağduru olan katılımcıların fonksiyonel olmayan baş etme stratejileri kullandıkları ve ailelerinden sosyal destek almadıklarını düşündükleri görülmektedir. Ayrıca aileden, arkadaştan ve önemli birinden sosyal destek aldığını söyleyen katılımcıların fonksiyonel baş etme stratejileri kullandıklarını söyledikleri görülmektedir. Arkadaşlarından sosyal destek aldıklarını söyleyenlerin daha az içe yönelim bozuklukları yaşadıkları fakat önemli birinden destek aldıklarını söyleyenlerin daha fazla içe yönelim bozuklukları yaşadıkları görülmüştür. Ek olarak, aileden sosyal destek alan katılımcılar aynı zamanda duygu düzenleme stratejilerinden yeniden ele almayı kullanmaktadırlar. Fonksiyonel olmayan baş etme stratejileri kullanan katılımcıların ruminasyon yaptıkları ve içe yönelim bozuklukları sergiledikleri bulunmuştur. Ayrıca, duygu düzenleme stratejilerinden bastırmayı kullananların içe yönelim bozuklukları yaşadıkları görülmektedir. Duygu düzenleme stratejilerinden yeniden ele almayı kullananların daha az içe yönelim bozuklukları sergiledikleri fakat ruminasyon yapanların daha fazla içe yönelim bozuklukları yaşadıkları bulunmuştur.

4. TARTIŞMA

Bu çalışmanın amacı baş etme stratejileri, duygu düzenleme, ruminasyon, ve algılanan sosyal desteğin yüz yüze ve siber zorbalık mağdurlarının içe yönelim davranışlarıyla ilişkilerinin YEM analizi kullanılarak modellenmesidir.

Araştırma sonuçlarına göre daha önce yapılan çalışmalara (Aoyama, Saxon ve Fearon, 2011; Chang, Lee, Chiu, His, Huang ve Pan, 2013; Patchin ve Hinduja, 2010; Hinduja ve Patchin, 2010; Ivarsson, Broberg, Arvidsson ve Gillberg, 2005; Nordahl, Beran ve Dittrick, 2013) benzer şekilde hem siber hem de yüz yüze akran zorbalığı mağdurlarının her iki ortamda da zorbalık yapan ya da ne zorba ne de mağdur olan katılımcılara göre daha fazla içe yönelim bozukluğu gösterdiği

bulunmuştur. Bu nedenle, araştırmada ilk olarak siber zorbalık ve yüz yüze zorbalık mağduru olan katılımcılar belirlenmiş ve önerilen model bu gruplarla test edilmiştir.

Hem siber hem de yüz yüze zorbalık mağdurlarıyla test edilen modellerin uyum iyiliği indeksleri kabul edilebilir aralıktadır fakat her iki grupta da önerilen modelin bazı yolları istatistiksel olarak anlamlı bulunmamıştır. Bu nedenle iki modelde de istatistiksel olarak anlamlı olmayan yollar modelden çıkarılarak tekrar test edilmiştir. Yeni modellerin de uyum iyiliği indeksleri kabul edilebilir aralıklardadır. Hem siber hem de yüz yüze zorbalık mağdurları için test edilen model benzer biçimde sonuçlanmıştır ve birlikte tartışılacak, gerektiği yerde farklılıklar açıklanacaktır.

Model testi sonuçlarına göre zorbalık mağdurlarının içe yönelim bozuklukları sergilemesinde rol oynayan iki ana aracı değişken baş etme stratejileri ve aileden alınan algılanan sosyal destek olarak belirlenmiştir. Ruminasyon ve duygu düzenleme stratejilerinin bu ilişkide direk bir rolü olmadığı görülmüştür. Hem siber hem de yüz yüze zorbalık mağdurlarının fonksiyonel olmayan baş etme stratejilerini kullandıklarını raporladıkları görülmüştür. Bu bulgu Palladino ve ark.'nın (2012) da söylediği gibi içe yönelim bozukluğu sergilemeleri için mağdurlar üzerinde bir risk faktör olarak yorumlanabilir. Völlink ve ark. (2013) ve Skrzypiec ve ark.'yla (2011) paralel olarak zorbalık mağduru olmak fonksyonel baş etme stratejileri kullanmakla pozitif ya da negative yönde direk ilişkili bulunmamıştır. İki model arasındaki farklardan ilki Völlink ve ark.'nın (2013) da raporladığı gibi fonksiyonel baş etme stratejileri kullanmanın yüz yüze zorbalık için koruyucu bir faktör olarak bulunmamasıdır.

İlginç bir biçimde her iki modelde de ruminasyon ve duygu düzenleme stratejileri her iki tip zorbalık mağduru olmakla da doğrudan ilişkili olarak bulunmamıştır. Fakat, ruminasyon yapmanın fonksiyonel olmayan baş etme stratejileri aracılığıyla zorbalık mağdurlarının içe yönelim bozuklukları göstermelerinde dolaylı olarak rolü vardır. Ruminasyonun kişiler üzerindeki bilinen negative

etkisi (McLaughlin ve Nolen-Hoeksema, 2012; Wilkinson, Croudace ve Goodyer, 2013) siber zorbalık mağdurları için bulunamazken yüz yüze akran zorbalığı mağdurları için görülmektedir. Bu farkın siber ortam ve yüz yüze ortamın yarattığı farklardan kaynaklandığı düşünülmektedir.

Spence ve ark.'nın (2009) aksine her iki tür duygu düzenleme stratejisi de zorbalık mağduru olmakla direk ilişkili bulunmamıştır. Bastırma Larsen ve ark.'na (2012) benzer olarak her iki tür zorbalık mağduriyeti ile ilişkili bulunmamıştır. Bastırma araştırmada ele alınan hiçbir değişken ile ilişkili bulunmamış, sadece bastırmayı bir duygu düzenleme stratejisi olarak kullanan kişilerin daha fazla içe yönelim bozukluğu sergilediği görülmektedir.

Son grup değişken ise farklı kaynaklardan alınan algılanan sosyal destektir. Zorbalık mağduru olan katılımcıların ailelerinden destek almadıklarını söyledikleri görülmektedir. Modele göre aileden sosyal destek alan ergenlerin duygu düzenleme stratejilerinden yeniden ele almayı ve fonksiyonel baş etme yöntemlerini daha fazla kullandıkları ve daha az içe yönelim bozuklukları sergiledikleri görülmektedir. Aileden alınan desteğin koruyucu olduğu görülmesine rağmen bu çalışmada zorbalık mağduru olduğunu söyleyen ergenlerin yardım istedikleri ilk kaynak arkadaşlarıdır. Fakat arkadaştan alınan sosyal destek sadece fonksiyonel baş etme stratejileri kullanımı ile ilişkilidir ama aileden alınan sosyal desteğin aksine duygu düzenleme stratejilerinden yeniden ele alma ile ilişkili değildir.

Genel olarak değerlendirildiğinde, önerilen modeldeki en önemli iki değişkenin fonksiyonel olmayan baş etme stratejileri ve aileden alınan algılanan sosyal destek olduğu görülmektedir. Ruminasyon, yeniden ele alma ve fonksiyonel baş etme yöntemlerinin ise zorbalık mağdurlarının içe yönelim bozuklukları yaşamasıyla dolaylı ilişkileri olduğu bulunmuştur. Ayrıca bazı küçük farklılıklara rağmen hem siber hem de yüz yüze zorbalık mağdurları için aynı modelin çalıştığı bulunmuştur ve bu bulgu alan yazında önemli bir tartışma olan iki tip zorbalığın

benzer ya da farklı olduğunu tartışan gruptan iki tip zorbalığın benzer olduğunu savunan grubu destekler niteliktedir.

4.1. Uygulamaya Yönelik Öneriler

Bu çalışmada ilk kez zorbalık mağduru olan ergenlerin içe yönelim bozuklukları sergilemesinde rolü olabilecek bazı içsel mekanizmaların bir arada ilişkisi test edilmiştir. Hem siber hem de yüz yüze zorbalık mağdurları için benzer şekilde sonuçlanan analizler her iki grup için de benzer uygulamaların yapılabileceğine işaret etmektedir. Her ne kadar benzer uygulamalar önerilse de siber ortamın farklılıkları göz önünde bulundurulmalıdır. Siber zorbalık ile mücadele ederken kullanılabilecek cep telefonu uygulamaları ve web siteleri öğretmenler, aileler ve okul psikolojik danışmanları tarafından kullanılabilir. Siber zorbalık çok boyutlu bir problem olduğu için uygulamalar yapılırken öğrenciler, aileler, öğretmenler ve okul rehber öğretmenleri çözüme dahil edilmelidir, aksi takdirde problemin çözümü mümkün olmayacaktır (Cowie, 2009).

Bu çalışmanın bulgularından yola çıkarak öğrencinin merkeze alınarak, çevresel katmanların onu daha dayanıklı hale getirmek için çalıştığı bir önleme ve müdahale modeli önerilebilir. Zorbalıkla baş etme sırasında kullanılacak çözüm yollarına mağdurlar tarafından kullanılan baş etme stratejileri ve sosyal destek mutlaka eklenmelidir. Ergenlerin fonksiyonel baş etme stratejileri kullanımını arttıran programların etkililiğini gösteren çalışmalar vardır (Chi ve Frydenberg, 2009; Palladino, Nocentini ve Menesini, 2012). Siber zorbalığın ve yüz yüze zorbalığın Türkiye'de de yaygın olarak görüldüğü göz önünde bulundurulursa, bahsi geçen programlara Türkiye'de de ihtiyaç olduğu görülmektedir. Yukarıda açıklanan programların Türkçe'ye ve Türk kültürüne adaptasyonu veya benzer programların geliştirilmesi gerekmektedir. Geliştirilecek programlar grup veya bireysel olarak uygulanabilecek nitelikte olmalıdır.

Bu çalışmanın bir diğer önemli bulgusu ise zorbalık mağduru katılımcıların çoğunun ailelerinden destek almadıklarını rapor etmeleri ve yardım almak için

etkisiz bir grup olan arkadaşlarına gitmeleridir. İlk olarak, ailelerinden sosyal destek aldıklarını söyleyen katılımcıların duygu düzenleme stratejilerinden yeniden ele almayı ve fonksiyonel baş etme yöntemlerini kullanarak daha az içe yönelim bozuklukları sergiledikleri göz önünde bulundurulduğunda ailelerin çocuklarına destek olmaları için bilgilendirilmesi ve eğitilmesi gerekmektedir. Bu eğitimler okul rehber öğretmenleri aracılığıyla verilebilir. İkinci olarak ise, zorbalık mağduru olan çocukların yardım istediği kaynak olan arkadaşlarının yardım sağlama konusunda eğitilmesi gerekmektedir. Zorba ve mağdurların çevresindeki akran gruplarıyla çalışarak bu çocukların zorbalığa müdahale edebileceklerine dair öz-yeterliklerinin, empati ve problem çözme becerilerinin geliştirilmesi gerekmektedir.

4.2. Gelecek Çalışmalar için Öneriler

Bu çalışmanın bulguları gelecekte yapılacak olan çalışmalara da yol gösterici olacaktır. Hem siber hem de yüz yüze zorbalık mağdurlarının içe yönelim bozuklukları sergilemelerinde en önemli aracı değişkenler fonksiyonel olmayan baş etme stratejileri kullanımı ve aileden alınan sosyal desteğin az algılanması olarak bulunmuştur. Gelecekte yapılacak çalışmalarda boylamsal araştırma deseni kullanarak aynı modelin tekrar test edilmesi değişkenler arasındaki belirleyicilik ilkesinin doğru bir biçimde ortaya çıkmasına olanak sağlayacaktır. Boylamsal araştırma deseni kullanmanın yanı sıra deneysel yöntemler kullanarak baş etme stratejileri kullanımı manipüle edilerek bu değişkenlerin içe yönelim bozuklukları göstermeye bir etkisinin olup olmadığı incelenmelidir.

Ayrıca, bu çalışmada aracı değişken olarak dört ana faktör (baş etme stratejileri, duygu düzenleme stratejileri, ruminasyon ve algılanan sosyal destek) belirlenmiştir. Bu değişkenlerin yanı sıra zorbalık mağdurlarının içe yönelim bozuklukları göstermesiyle ilişkili olabilecek farklı bireysel, ailevi, okulla ilgili veya çevresel değişkenler olabilir. İleride bu alanda çalışma yapmak isteyen araştırmacılara farklı değişkenlerin bu modeldeki yerini incelemesi önerilmektedir.

Bu çalışmada katılımcı ergenlerin dağıtılan anketlere verdikleri cevaplar veri olarak kullanılmıştır. Özellikle zorbalık ve zorbalık mağduru olmak raporlaması zor ve hassas durumlar olduğu için zorbalık çalışmalarında akran derecelendirme (peer nomination) yöntemi de yaygın olarak kullanılmaktadır. Gelecekte yapılacak araştırmalarda kişinin kendi değerlendirmesinin yanı sıra akran, öğretmen ve aile değerlendirmelerini de ölçmek, elde edilen verilere zenginlik katacaktır.

Bir başka öneri ise özel bir ihtiyacı olan çocukların ve farklı engel gruplarından çocukların zorbalık ve mağduriyet koşullarının araştırılmasına yöneliktir. Bu çocukların incelenmesi sonucu onların özel ihtiyaçlarını da kapsayan çözüm önerilerinin üretilmesi gerekmektedir.

Ek olarak, bu çalışmada zorbalık mağduru çocukların içe yönelim bozuklukları sergilemesiyle ilişkili bulunan fonksiyonel olmayan baş etme yöntemleri kullanımını azalttığı ve ergen ve çocuklara fonksiyonel baş etme yöntemleri kullanımını öğretmekte etkili olduğu bilinen programların (CST, KiVa, *Noncadiamointrappola*) Türkçe'ye ve Türk kültürüne uyarlanması ve etkililiğinin test edilmesi gerekmektedir. Bu programların yanı sıra fonksiyonel baş etme stratejilerinin kullanımını öğretecek ve pekiştirecek yeni ve yaratıcı metotlar geliştirilmelidir.

Son olarak, zorbalık ve zorbalık mağdurriyeti sadece bu çalışmanın katılımcılarına ulaşılan Ankara'da değil Türkiye'nin diğer illerinde de önemli bir sorundur ve ileride yapılacak çalışmalarda farklı şehirlerde yaşayan katılımcılarla bu çalışmada test edilen model tekrar test edilmelidir.

Appendix P

Curriculum Vitae

Çiğdem Topcu

cigdemtopcu@gmail.com

EDUCATION

Degree	Institution	Year of Graduation
MS	METU Educational Sciences	2008
BS	METU Psychology	2006

WORK EXPERIENCE

Year	Place	Enrollment
2010-Present	METU Department of Educational Sciences	Research Assistant

PUBLICATIONS

INTERNATIONAL

JOURNAL PAPER

Full paper published in a peer reviewed journal covered by SCI, SSCI or AHCI core list

Topcu, C., Yildirim, A., & Erdur-Baker, O. (2013). Cyber bullying @ schools: What do Turkish adolescents think? International Journal for the Advancement of Counselling, 35 (2), 139-151.

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Topcu, Ç., Erdur-Baker, Ö., & Çapa-Aydın, Y. (2008). Examination of cyber bullying among Turkish students from different school types, *CyberPsychology and Behavior*, 11, 643-648. (SSCI)

Proceedings published in a peer reviewed journal

Mura, G., Topcu, Ç., Erdur-Baker, Ö., & Diamantini, D. (2011). An international study of cyber bullying perception and diffusion among adolescents. *Procedia Social and Behavioral Sciences, 15,* 3805-3809.

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CONFERENCE PAPERS

Abstract presented at a refereed conference regularly held by an international organization

Topcu, Ç., Erikson, D., Card, N., Bauman, S., & Erdur-Baker, Ö. (2014, September). *Parental monitoring of online activity among Turkish and American adolescents.* Paper presented at 14th Biennial Conference of the European Association for Research on Adolescence, Çeşma, İzmir, Turkey.

Topcu, Ç., Bauman, S., & Card, N. (2014, March). *Cyber victimization: predictors of asking for help from an adult or dealing with the case aggressively.* Paper presented at 15th SRA Biennial Meeting, Austin, Texas, USA.

Topcu, Ç., Card, N., Bauman, S., & Erickson, D. (2013, April). *Self-other discrepancies in reports of cyberaggression and cybervictimization.* Paper presented at Society for Research in Child Development 2013 Biennial Meeting, Seattle, Washington, USA.

Erdur-Baker, Ö., & Topcu, Ç. (2010, November). *The dark side of technology: Cyber victimization and its relation to perceived social support and depression.* International Conference of Education, Research and Innovation, Madrid, Spain.

Topcu, Ç., & Erdur-Baker, Ö. (2010, November). *Pre-service teachers' perception of cyber bullying: A qualitative analysis.* International Conference of Education, Research and Innovation, Madrid, Spain.

Topcu, Ç., Yıldırım, A., & Erdur-Baker, Ö. (2010, August). *Turkish High School Students' Perception of Cyber Bullying: A Qualitative Study.* The European Conference on Educational Research, Helsinki, Finland.

Full paper presented at a refereed conference regularly held by an international organization

Mura, G., Topcu, Ç., Erdur-Baker, Ö., & Diamantini, D. (2011, February). *An international study of cyber bullying perception and diffusion among adolescents.* World Conference on Educational Sciences, İstanbul, Turkey.

Topcu, Ç., & Erdur-Baker, Ö. (2010, May). *The revised cyber bullying inventory (RCBI): Validity and reliability studies. World Conference on Psychology, Counseling and Guidance,* Antalya, Turkey.

Topcu, Ç. & Erdur-Baker, Ö. (2009, September). *Age and gender differences in cyber and traditional bullying experiences of Turkish adolescents.* The European Conference on Educational Research, Vienna, Austria.

Aydemir, D., Hatipoğlu-Sümer, Z., & Topcu, Ç. (2009, May). *Predictors of social support among visually impaired adolescents.* The First International Congress of Educational Research in Turkey, Çanakkale, Turkey.

Topcu, Ç., Erdur-Baker, Ö., & Çapa-Aydın, Y. (2009, May). *Turkish adaptation of basic empathy scale (BES).* The First International Congress of Educational Research in Turkey, Çanakkale, Turkey.

POSTER PRESENTATION

Topcu, Ç. & Erdur-Baker, Ö. (2011, February). *Cyber bullying and gender: Mediator and moderator role of empathy.* 1st EERA Spring School on Advanced Method in Educational Research, Dortmund, Germany.

NATIONAL

JOURNAL PAPER

Full paper published in a peer reviewed journal

Topcu, Ç. & Tezer, E. (2013). Fedakarlıkta Algılanan Zarar Ölçeği ve Fedakarlık Doyum Ölçeği'nin Türkçe'ye adaptasyonu. *Türk Psikolojik Danışma ve Rehberlik Dergisi [Journal of Turkish Psychological Counseling and Guidance Association], 5*(40), 176-185.

Topcu, Ç., Erdur-Baker, Ö., & Çapa-Aydın, Y. (2008). Temel empati ölçeği Türkçe uyarlaması: Geçerlik ve güvenirlik çalışması [Turkish adaptation of Basic Empathy Scale: Validity and reliability study]. *Türk Psikolojik Danışma ve Rehberlik Dergisi [Journal of Turkish Psychological Counseling and Guidance Association], 4*, 174-182.

CHAPTER IN BOOK

Erdur-Baker, Ö. & Topcu, Ç. (2013). Siber zorbalık. M. Kalkan ve C. Kaygusuz(Eds). *İnternet Bağımlılığı Sorun ve Çözümler* (51-73). Ankara: Anı Yayıncılık

Erdur-Baker, Ö. & Topcu, Ç. (2008). Siber zorbalık [Cyber bullying]. In D. Deryakulu (Ed.), *Bilişim Teknolojileri Öğretiminde Sosyo-Psikolojik Değişkenler [Psycho-social Factors in Teaching Informatics Technology]*. (pp. 105-123). Ankara: Maya Akademi.

CONFERENCE PAPERS

Full paper presented at and published in a refereed, regularly held conference

Topcu, Ç., Erdur-Baker, Ö., & Çapa-Aydın, Y. (2007, October). *Lise öğrencilerinin siber zorbalık deneyimlerinin gelir düzeyine bağlı olarak incelenmesi [Examination of cyber bullying experiences of high school students with regard to socioeconomic status]*. IX. National Psychological Counseling Congress, İzmir, Turkey.

Topcu, Ç. & Erdur-Baker, Ö. (2007, September). *Geleneksel akran zorbalığının, siber zorbalığın ve bu iki tip zorbalık türü arasındaki ilişkinin toplumsal cinsiyet açısından incelenmesi [Gender differences in the traditional bullying, cyber bullying, and the relationship between these two types of bullying]*. XVI. *Congress of Educational Sciences*, Tokat, Turkey.

Appendix R

Tez Fotokopisi İzin Formu

ENSTİTÜ

Fen Bilimleri Enstitüsü	
Sosyal Bilimler Enstitüsü	X
Uygulamalı Matematik Enstitüsü	
Enformatik Enstitüsü	
Deniz Bilimleri Enstitüsü	

YAZARIN

Soyadı : TOPCU

Adı : ÇİĞDEM

Bölümü : EĞİTİM BİLİMLERİ

TEZİN ADI (İngilizce) : MODELING THE RELATIONSHIPS AMONG COPING STRATEGIES, EMOTION REGULATION, RUMINATION, AND PERCEIVED SOCIAL SUPPORT IN VICTIMS OF CYBER AND TRADITIONAL BULLYING

TEZİN TÜRÜ : Yüksek Lisans [ ] Doktora [X]

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. [ ]
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. [ ]
3. Tezimden bir (1) yıl süreyle fotokopi alınamaz. [X]

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: