

STUDENT AND SCHOOL LEVEL FACTORS IN VICTIMIZATION OF
MIDDLE SCHOOL STUDENTS: AN ECOLOGICAL PERSPECTIVE

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ABSTRACT

STUDENT AND SCHOOL LEVEL FACTORS IN VICTIMIZATION OF MIDDLE SCHOOL STUDENTS: AN ECOLOGICAL PERSPECTIVE

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This study aimed to investigate the role of student- and school-level factors that contribute to the likelihood of being peer victim and bully victim by comparing them with non-victim. The sample of the study consisted of 1557 (832 males, 725 females) middle school students from 16 different schools in Ankara. The data collection instruments of the study were; Demographic Data Form, California Bully Victimization Scale (CBVS; Felix, Sharkey, Green, Furlong, & Tanigawa, 2011), School Climate Survey (SCS; Emmons, Haynes, & Comer, 2002), and Self-Efficacy Questionnaire for Children (SEQ-C; Muris, 2001).

The results of hierarchical generalized linear modeling indicated a significant variation between the schools in the log-odds of peer victim and bully victim (relative to non-victim). The student-level variables predicted significantly the likelihood of being in peer victim and bully victim. Both peer victims and bully victims reported lower emotional self-efficacy, fairness, order and discipline. On the other hand, bully victims also reported lower sharing of resources and

student interpersonal relations. After controlling the student-level variables (as covariates), the school-level variables did not statistically and significantly predict variation across the schools in the log-odds of peer victim. However, these variables statistically and significantly predicted variation across the schools in the log-odds of bully victim, but there was no significant predictor in the model.

Consequently, findings suggested that most of the variation across the schools in victimization was explained by the characteristics of the students. The findings might underline the importance of attending emotional self-efficacy beliefs and school climate perceptions of the students' while developing a school-specific bullying intervention.

Keywords: Bullying victimization, individual-level factors, school-level factors, ecological perspective, hierarchical generalized linear modeling.

ÖZ

ORTAOKUL ÖĞRENCİLERİNİN MAĞDURİYETİNİ ETKİLEYEN ÖĞRENCİ VE OKUL DÜZEYİ FAKTÖRLERİ: EKOLOJİK BİR BAKIŞ

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Bu çalışma akran ve zorba mağdurlarını, mağdur olmayan öğrencilerle karşılaştırarak mağdur olma olasılığına etki eden öğrenci ve okul düzeyindeki faktörlerin rolünü incelemeyi amaçlamıştır. Çalışmanın örneklemini, Ankara'daki 16 farklı okuldan 1557 (832 erkek ve 725 kız) ortaokul öğrencisi oluşturmuştur. Bu çalışmada veri toplama aracı olarak; Demografik Veri Formu, California Zorba Mağduriyet Ölçeği (CZMÖ; Felix, Sharkey, Green, Furlong, & Tanigawa, 2011), Okul İklimi Ölçeği (OIÖ; Emmons, Haynes, & Comer, 2002) ve Çocuklar İçin Öz-Yeterlik Ölçeği (ÇÖÖ; Muris, 2001) kullanılmıştır.

Aşamalı genelleştirilmiş doğrusal modelleme sonuçları, akran ve zorba mağduru olma olasılıklarında (mağdur olmayanlarınkine göre) okullar arası anlamlı bir farklılaşmanın olduğunu göstermektedir. Öğrenci düzeyi değişkenleri akran ve zorba mağduru olma olasılığını anlamlı bir şekilde yordamıştır. Akran ve zorba mağdurları duygusal öz-yeterlik, adalet, düzen ve

disiplin deęiřkenlerinde dūřuk puanlara sahiptir. Zorba maędurlar ayrıca kaynakların paylaşımı ve oęrencilerle olan kiřilerarası iliřkilerde dūřuk puanlara sahiptir. Oęrenci dūzeyi deęiřkenleri kontrol edildięinde, okul dūzeyi deęiřkenleri akran maęduru olma olasılıęındaki okullar arası farklılařmayı istatistiksel ve anlamlı bir řekilde yordamazken, zorba maęduru olma olasılıęındaki okullar arası farklılařmayı istatistiksel ve anlamlı bir řekilde yordamıřtır. Ancak, modelde anlamlı herhangi bir yordayıcı deęiřken bulunmamaktadır.

Sonuç olarak, bulgular maęduriyetteki okullar arası farklılařmanın būyūk bir çoęunluęunun oęrenci özellikleri tarafından açıklandığını göstermektedir. Bulgular, okula özęü zorbalık mūdahaleleri geliřtirirken oęrencilerin duygusal öz-yeterlik inançlarına ve okul iklimi algılarına odaklanmanın öneminin altını çizmektedir.

Anahtar Kelimeler: Zorbalık maęduriyeti, birey dūzeyindeki faktörler, okul dūzeyindeki faktörler, ekolojik bakıř açısı, ařamalı genelleřtirilmiř doęrusal modelleme.

To all school children to feel safe at their school

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CHAPTER I

INTRODUCTION

1.1 Background of the Study

Bullying is an old phenomenon that could be considered as a part of cruel aspect of humanity. It is possible to find ample of examples for this cruelty in the history books and the literature. However, systemic work about bullying started in early 1970s, in the Scandinavian countries (Olweus, 1993). In 1982, the suicide attempts of some school-aged children in Norway as a consequence of bullying triggered the media and public reactions, and the start of a nationwide campaign to stop bullying in Norwegian schools. During 1980s and 1990s, studies in bullying were emerged in other countries such as Japan, Holland, England, Canada, the USA, and Australia (Olweus, 1993).

Since 1970s, a strong societal and research interest about bullying has been still continuing (Little, Akin-Little, & Lloyd, 2011). In recent years, data stream provided by the global efforts has been also indicating the extend of the widespread problem and contributing to collective understanding of the phenomenon (Jimerson, Swearer, & Espelage, 2009).

The phenomenon of bullying was initially called as “mobbing” or “mobbnng” in Scandinavian countries (Olweus, 1993, p. 8). Dan Olweus, pioneering and leading authority on bullying, considered that these words were not adequate

to explain the situation and suggested using the words of *bullying*, *victimization*, and *bully/victim problems* (Olweus, 1993). Today, the word of *bullying* is accepted among researchers all over the world (Harris & Petrie, 2003). Olweus (1993) defined bullying or victimization as “a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students” (p. 9). In this definition, negative actions include physical contact, words, making faces or dirty gestures, and intentional exclusion from a group. This definition has been extensively used in bullying literature. However, a more careful review of the literature suggests that there is no universally agreed definition (Smith et al., 2002). Thus, the term is conceptualized with different emphasis. For instance, Farrington (1993, as cited in Baldry & Farrington, 2000) defined it as a physical, verbal or psychological attack or intimidation that is intended to cause fear, distress or harm to the victim, with a more powerful person oppressing a less powerful one. W. M. Craig and Pepler (2003) conceptualized it as an assertion of interpersonal power through aggression that is a relationship problem which underlies many problems related to interpersonal violence across the lifespan. Although there have been various definitions of bullying, the criteria for bullying commonly agreed upon among researchers, include a strength imbalance (bully is stronger than victim), repeated aggressive attacks of bully to the same victim over a substantial time period, and the position where the victim could not defend him/herself (Olweus, 1993). The first two criteria distinguish bullying from the concept of aggression (Smith et al., 2002).

The international and national estimates of bullying demonstrate that it is a pervasive problem at schools. For instance, a multilevel study (Due et al., 2009) investigating bullying among 162,305 students whose ages range from 11 to 15,

in 35 countries in Europe and North America found out that 21.9 percent of the entire sample was exposed to bullying at least twice during the last couple of months. This study revealed that the proportion of bullying significantly varied across the countries (Due et al., 2009).

Other studies also showed varying degrees of bullying in different countries. For example, Nansel et al. (2001) investigated the prevalence of bullying among 15,686 US students in grades 6-10 and reported that 10.6 percent of the students were victims, 13 percent were bullies, and 6.3 percent were bully/victims. Solberg and Olweus (2003) found that 10.1 percent of students were involved in bullying as a victim, 6.5 percent as a bully, and 1.6 percent as a bully/victim, using a sample consisting of 5,171 Norwegian students in grades of 5-9. Vaillancourt et al. (2010), in a sample of 11,152 Canadian students in grades 4-12, found that 12.3 percent of the students were victim, 5.3 percent were bully, and 4 percent of them were both bully and victim. Von Marées and Petermann (2010) examined the prevalence of bullying among German primary students, finding that 10 percent of students bullied other students, 17.4 percent were being victimized by other students, and 16.5 percent were both bullied and being bullied. Cross et al. (2011) also addressed the prevalence of bullying problems among 7,418 Australian students whose ages were between 9 and 14. They found that 8.8 percent of students reported bullying other students, 26.7 percent reported being bullied, and 16.4 percent both being bullied and bullying other students. H. Wang et al. (2012) explored the involvement of 8,342 Chinese middle school students in bullying which revealed that 8.6 percent were bullies, 19 percent were victims, and 6.7 percent were bully/victims. A study investigating bullying problems among 1,154 Turkish primary and middle school students indicated that 6.2 percent was categorized as bullies, 35.1

percent as victims, and 30.2 percent as bully/victims (Pişkin, 2010). Briefly, these rates indicate that bullying is a prevalent problem in schools concerning most of countries around the world.

In spite of its pervasiveness, the negative impacts of bullying on students are often ignored by the educators (Cowie & Jennifer, 2008). Bullying has numerous detrimental effects on physical, mental, social, and emotional development of children (Alikasifoglu, Erginoz, Ercan, Uysal, & Albayrak-Kaymak, 2007; Arslan, Hallett, Akkas, & Akkas, 2012). These negative consequences can demonstrate themselves as immediate or long-term ones. Bullying victimization, in the immediate term, increases the risk of involvement in delinquent behavior, using drugs, being a member of a gang (Carbone-Lopez, Esbensen, & Brick, 2010), and alcohol use (Peleg-Oren, Cardenas, Comerford, & Galea, 2012). It is also related to the lower self-esteem (Esbensen & Carson, 2009; Pişkin & Ayas, 2005), self-efficacy (Esbensen & Carson, 2009), and severe mental health problems such as harming body on purpose, aggressive behaviors and psychotic symptoms (Arseneault, Bowes, & Shakoor, 2010), depression and anxiety (Kapıcı, 2004). Bully/victims and victims are more likely to report internalizing problems (Özdemir & Stattin, 2011). As a meta-analytic study showed involvement in bullying (as bully, victim, or bully/victim) increases the risks for psychosomatic symptoms (Gini & Pozzoli, 2009).

Being exposed to bullying during school years could also be a risk factor for individuals in their later life as well. A meta-analytic research pointed out that bullying victimization increases the risk of violence involvement in later life (Ttofi, Farrington, & Lösel, 2012). A longitudinal study, using parents' reports, collected from a sample of 1,265 parents in New Zealand, revealed that bullying

victimization during childhood increased mental health and adjustment problems in late adolescence and adulthood (Gibb, Horwood, & Fergusson, 2011). For instance, exposing bullying during school years also increases the risk of later depression. Lund et al. (2009) investigated the association between exposing bullying in schools during childhood and later depression. They sampled 6,292 Danish males born in 1953. The results of the study showed that exposure to bullying increased the likelihood of later depression between the ages of 35-51. Similarly, another study exploring the impacts of bullying at the age of eight for later depression and suicidal ideation indicated that Finnish males who involved in bullying as bully or bully/victim were more likely to report depression at the age of 18 (Klomek et al., 2008).

The fact that being exposed to bullying is likely to result in negative consequences raises some legal issues because every individual in the process of formal education has the right to maintain their education in a safe school environment. This right is guaranteed by international and national legislations. The Universal Declaration of Human Rights (1948) and the Convention on the Rights of the Child (1989) are the international legislations of child protection. In the Convention on the Rights of the Child, *the article 19* states that all governments “shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse, while in the care of parent(s), legal guardian(s) or any other person who has the care of the child”. In Turkey, in addition to these international regulations, the rights of children are secured by the Constitution of Republic of Turkey (Resmi Gazete, 1982) with the article of 42nd (Right to Education Paper) and 58th (Youth Protection). In addition, the

Child Protection Act (Resmi Gazete, 2005) aims to secure protection, rights, and well-being of children who are in need of protection or driven to crime. 2006/17 Circular Letter of Prime Ministry (Resmi Gazete, 2006) identifies the measures to be taken to prevent acts of violence against children and women.

In Turkey, parallel to these international and national legislations, some preventive interventions have also been developed. Due to a concerning level of violence in primary and secondary education, the Ministry of National Education (MEB) prepared a strategy and action plan for the prevention and reduction of violence in educational environments covering the periods of 2006 and 2011+ (MEB, 2006). The Grand National Assembly of Turkey (Parliament) (TBMM) established a commission in 2006, to investigate growing violence among children and young people at schools and to determine the necessary measures for prevention (TBMM, 2007). The report of this commission indicated that violent incidents at schools are at an alarming level. On the basis of the relevant legal regulations and reports of the commission, a protocol was signed between the Ministry of Interior and the Ministry of National Education in 2007 (MEB, 2007). This protocol, entered into force in 2009, was related to protective and preventive measures to be taken at schools to provide a safe environment. Under this protocol, a *School Police Project* was implemented at schools, which has still been continuing.

The prevention and reduction of bullying problems at schools requires an understanding of legal context within international and national spheres as well as an investigation of various contributing level factors. A growing body of research into bullying indicated, this phenomenon is influenced by many factors organized hierarchically at many levels (H. Huang, Hong, & Espelage,

2012; Khoury-Kassabri, 2011; C.-H. Lee, 2011). Thus, researchers (e.g. Swearer & Espelage, 2004) suggested a multi-methodology, multi-information source, and multi-level assessment for accurate understanding of bullying and effective bullying programs. However, in the literature of bullying and violence, there has been some recommendations for further research to change the focus from the individual level factors to the contextual factors (Astor, Benbenishty, & Marachi, 2006; Benbenishty & Astor, 2005; Cook, Williams, Guerra, Kim, & Sadek, 2010).

The bullying incidents at schools are associated with the factors pertained not only to individual (both/or biological and psychological) but also school, familial, neighborhood or broader social contexts. Their interactive effects would also produce some problems. The multifaceted problem of bullying requires a comprehensive theoretical understanding. Thus, ecological perspective (Bronfenbrenner, 1979) provides a useful framework for understanding the protective and risk factors which surround children's life. Individuals are nested in broader educational and social contexts. Each level of context includes a number of risk and protective factors. These factors interact with each other. The proximal processes — reciprocal interactions between individual characteristics and close environment — and distal processes — reciprocal interactions between individual characteristics and broader community characteristics — influence human development (Ceci, Rosenblum, de Bruyn, & Lee, 1997). While individual characteristics may increase the risk of being victimization, they may also play a protective role in resisting to bullying victimization. Moreover, gender of the person may mediate with other systems. Individual is nested within a family. In this respect, the relations within a family will influence the involvement in bullying. Individual takes a place with his/her

peers within a school system. All peer relations within a school system and quality of school climate will determine involvement in bullying. Outside the school system, individual faces wider ecological systems. Social and cultural characteristics will similarly shape this process as other systems do (Swearer & Espelage, 2004). Normalization of violence by the society will influence teachers' training methods as well as the way parents raise child. As a result, ecological systems have direct or indirect impact on individuals.

1.2 Purpose of the Study

Multiple factors contribute to the development of bullying problems at schools. Therefore, this study aimed to investigate the role of student-level (gender, age, academic achievement, academic self-efficacy, social self-efficacy, emotional self-efficacy, fairness, order and discipline, parental involvement, sharing of resources, student interpersonal relations, and student-teacher relations) and school-level factors (school climate, school size, student-teacher ratio, employing a private security personnel at the school, school absenteeism, school disciplinary punishment, school income, and school academic achievement) that contribute to the likelihood of involvement of middle school students in victimization (as peer victims and bully victims) by comparing them with non-victims.

1.3 Research Questions

Specifically, the study sought answers to the following research questions:

1. Are there any significant variations between schools in the log-odds of peer victim and bully victim (relative to non-victims)?
2. Do student-level variables (gender, age, academic achievement, academic self-efficacy, social self-efficacy, emotional self-efficacy, fairness, order and discipline, parental involvement, sharing of resources, student interpersonal relations, and student-teacher relations) significantly predict the likelihood of being peer victim and bully victim (relative to non-victims)?
3. Do school-level variables (school climate, school size, student-teacher ratio, employing a private security personnel at the school, school absenteeism, school disciplinary punishment, school income, and school academic achievement) predict the likelihood of being peer victim and bully victim (relative to non-victim) after controlling student-level variables (emotional self-efficacy, fairness, order and discipline, sharing of resources, and student interpersonal relations)?

1.4 Hypotheses

Hypotheses were determined for each level. Hypotheses were as in the followings:

1. There is a significant variation between schools in the log-odds of peer victim and bully victim (relative to non-victim).

2. Student-level variables predict significantly the likelihood of being peer victim and bully victim (relative to non-victim).

Student-level hypotheses were as in the followings:

- 2a. Being a male increases the likelihood of being peer victim and bully victim (relative to non-victims).
 - 2b. The increase in ages of students decreases the likelihood of being peer victim and bully victim (relative to non-victims).
 - 2c. Higher academic achievement decreases the likelihood of being peer victim and bully victim (relative to non-victims).
 - 2d. Higher academic, social, and emotional self-efficacy decreases the likelihood of being peer victim and bully victim (relative to non-victims).
 - 2e. As perceptions of positive school climate increase (higher scores in fairness, order and discipline, parental involvement, sharing of resources, student interpersonal relations, and student-teacher relations), the likelihood of being peer victim and bully victim (relative to non-victims) decreases.
3. School-level variables, except for employing a private security personnel at the school, predict the likelihood of being peer victim and bully victim (relative to non-victims) after controlling student-level variables.

School-level hypotheses were as in the following:

- 3a. As perceptions of positive school climate increase, the likelihood of being peer victim and bully victim (relative to non-victims) decreases.
- 3b. Small school size decreases the likelihood of being peer victim and bully victim (relative to non-victims).
- 3c. Increased student-teacher ratio increases the likelihood of being peer victim and bully victim (relative to non-victims).
- 3d. The presence of private security personnel at the school environment does not significantly predict the likelihood of being peer victim and bully victim (relative to non-victims).
- 3e. Higher ratio at school absenteeism increases the likelihood of being peer victim and bully victim (relative to non-victims).
- 3f. As the number of school disciplinary punishments increases, the likelihood of being peer victim and bully victim (relative to non-victims) increases.
- 3g. As school income increases, the likelihood of being peer victim and bully victim (relative to non-victims) decreases.

3h. As school academic achievement increases, the likelihood of being peer victim and bully victim (relative to non-victims) decreases.

1.5 Significance of the Study

The process of bullying and victimization is a phenomenon which occurs as a result of the complex interaction between individual and interpersonal factors (Swearer & Doll, 2001). It is also conceptualized as a systemic problem (W. M. Craig & Pepler, 2003) or a dyadic interactional process between bully, victim, and social context (Atlas & Pepler, 1998). Individual characteristics have a profound impact on human behavior. However, not taking into account the role of contextual factors would hinder the multilevel assessment of bullying that might blur the view of the researchers about possible causes of bullying (Hong & Espelage, 2012). The development of effective bullying prevention and intervention programs is also associated with how much the social context is understood (Swearer & Espelage, 2004). Thus, due to the complex nature of bullying and victimization, researchers need to understand how various factors nested in different ecological systems interact in this process.

In recent years, there have been some efforts to understand the effects of some ecological factors on bullying behaviors among school-aged children (Khoury-Kassabri, 2011; C.-H. Lee, 2011). Even though there has been an increased global attention to examine bullying in such a multilevel context, this kind of investigation has been often ignored in victimization research in Turkey. As a result, majority of the studies examined one-level factors, usually the student factors. Parallel to the recent literature, this study took ecological perspective as a theoretical framework and provided a prominent contribution to the previous

studies in terms of understanding the role of student- and school-level factors affecting the involvement of Turkish middle school students in victimization incidents.

Exploring the influences of contextual factors on victimization has also been expected to contribute to the global efforts revealing cultural aspects of bullying. Swearer and Espelage (2004) claimed that most of the bullying researches in the literature were carried out in Europe, Australia, and Canada. Given that most of research data were gathered in Western countries, the present study aimed to contribute to the existing literature through examining the role of various multilevel contributing factors of bullying in another culture.

Another significant aspect of this study was to include many school-level factors regarding school structure and context that could influence victimization. Although, previous studies focused only some of these factors such as school discipline (Gregory et al., 2010), school climate (Klein, Cornell, & Konold, 2012), school organizational factors (school size, student-teacher ratio) (Wei, Williams, Chen, & Chang, 2010) etc., the present research is unique in the sense that it involves majority of the school-level factors that could be related to victimization. In addition, school climate was mostly used as a school-level factor in previous studies (e.g. Zaykowski & Gunter, 2012). However, this study used school climate at the school-level as well as at the student-level with its sub-dimensions. Rather than talking about a general school climate (e.g. Gendron, Williams, & Guerra, 2011), the present study aimed to enlighten the relationships among these variables. It is hoped that findings regarding how students-teacher relations or perceived order and discipline affect bullying

incidents among students might guide future researches regarding school level prevention and intervention strategies of bullying.

Given the considerable influence of social context on students' behaviors and relations, advanced statistical analyses are required to investigate these interactions. Hierarchical linear models, hierarchical generalized linear models, or multilevel models are some examples for these analyses, which are rarely used in social sciences in Turkey. In the past, researchers were not able to assess complex patterns of human behaviors due to the lack of such kinds of statistical procedures (Luke, 2004). However, today, these methods are possible and more investigations considering these complexities are required. Therefore, this study aimed at filling this niche and providing more insights into bullying victimization through the use of hierarchical generalized linear modeling.

In recent years, besides evaluating bullying within the framework of ecological perspective, accurate assessment of the phenomena has been underlined (Furlong, Sharkey, Felix, Tanigawa, & Greif-Green, 2010). Bullying incidents that took place among students have been assessed in many ways such as observations of and interviews with students, students' self-reports, and peer and teacher reports. As Furlong et al. (2010) stated, the most commonly used method is the self-report instruments. However, in the literature, due to addressing and defining the concept of bullying in various ways, there are many self-report instruments (Greif & Furlong, 2006).

An accurate understanding of school bullying is pertained to how efficiently these events are assessed. In this respect, an accurate assessment of bullying contributes to the development of effective intervention and prevention

strategies as well as a baseline agreed-upon among researchers to compare the results of bullying studies (Greif & Furlong, 2006). The variation in self-report instruments of bullying and prevalence rates of bullying victimization in countries has led to some concerns about assessment of bullying via self-reports. These concerns are variation in operational definition of bullying, utilizing a priori definition of bullying and the term of "bullying" in the scale, considering the conceptual component of bullying (repeated incidents, intentionality, and power imbalance), covering various types of bullying, and lastly having norm studies across developmental levels. Considering all these concerns, several studies (Furlong et al., 2010; Greif & Furlong, 2006; Griffin & Gross, 2004) evaluated self-report instruments available for measuring bullying in Western countries. Atik (2011) performed this evaluation for Turkish instruments. These evaluations pointed out that the current self-report instruments are not capable for the evaluation of the conceptual elements of and the dynamic of bullying victimization. Most of these instruments generally measures peer victimization rather than bullying victimization (Atik, 2011; Furlong et al., 2010). In order to fill the gap in the measurement of bullying victimization; Felix, Sharkey, Green, Furlong, and Tanigawa (2011) developed the *California Bullying Victimization Scale* which distinguishes peer victim and bully victim considering the main concerns. This instrument had an important contribution to the development of effective intervention and prevention strategies regarding identifying the risk groups. Moreover, in most of the multilevel studies, measurement of bullying experiences of students was based on one item, which hinders the accurate assessment of bullying (e.g. Larochette, Murphy, & Craig, 2010). However, the CBVS consists of more items pertained to various forms of bullying victimization. Thus, one of the significant

contributions of the present study was the adaptation of CBVS into Turkish for the purpose of more accurate assessment of bullying victimization.

Bullying and victimization at schools is a growing concern for educators, parents, and mental health professionals. High prevalence of bullying and victimization at schools (Due et al., 2009; Nansel et al., 2001; Pişkin, 2010), and the detrimental effects on mental health (Turner, Exum, Brame, & Holt, 2013) and well-being of children (Rigby, 2003) increase this concern. Bullying has been frequently observed during the period of early adolescence (Gendron et al., 2011) or middle-school years. This period is the transition from childhood to adolescence or from primary to middle school which is likely to result in a number of biological and social changes associated with bullying (Pellegrini & Bartini, 2000). At schools, counselors have an important role in the delivery of counseling and guidance services to the students, school staff, and parents to prevent and cope with bullying and victimization. Ray, Lambie, and Curry (2007) underlined the roles of school counselors as leading, facilitating, and encouraging in creation of a safe school environment. Therefore, the findings of this study may provide valuable information regarding the multilevel contributing factors of bullying which might guide school counselors efforts in developing and revising programs for the prevention of bullying and victimization at schools. More specifically, the findings of the present study might increase school counselors awareness about which individual- and school-level factors or social context need to be taken into account while tailoring the counseling and guidance services at their schools or in order to develop effective intervention strategies.

1.6 Definitions of the Terms

Bullying: Bullying can be defined as a specific form of peer victimization which characterized with a nature including a negative intention to hurt someone in a mean way, repeated incidents, and power imbalance among bully and victim (Greif & Furlong, 2006).

Peer Victim: Peer victim is the student who experiences at least one victimization behavior of any frequency, but reporting no power differentiation (Felix et al., 2011).

Bully Victim: Bully victim is the student who experiences at least one victimization behavior at least 2-3 times per month, at least one form of power imbalance (Felix et al., 2011).

Non-victim: Non-victim is the student reporting no victimization experiences (Felix et al., 2011).

Self-Efficacy: Self-efficacy refers to “the beliefs in one’s capabilities to organize and execute the course of action required to produce given attainment”(Bandura, 1997, p. 3).

Academic Self-Efficacy: Academic self-efficacy refers to children’s beliefs in their capabilities for organization of their learning behaviors, enhancement of academic subjects, and meeting academic expectations (Muris, 2001).

Emotional Self-Efficacy: Emotional self-efficacy is defined as children's beliefs in their capabilities for dealing with negative feelings (Muris, 2001).

Social Self-Efficacy: Social self-efficacy can be defined as children's beliefs in their capabilities for their relations with other children and their assertiveness in these relations (Muris, 2001).

School Climate: School climate is defined as "the quality and consistency of interpersonal interactions within the school community that influences children's cognitive, social, and psychological development" (Haynes, Emmons, & Ben-Avie, 1997, p. 322).

Hierarchical Generalized Linear Models (HGLM): HGLM is defined as special form of hierarchical linear models, which is used when the outcome variable is ordinal, binary, multinomial, or count data (S. W. Raudenbush & Bryk, 2002). HGLM, in the literature, is known as "generalized linear mixed models", "generalized linear models with random effects" (S. W. Raudenbush & Bryk, 2002, p. 292), or "generalized multilevel modeling" (Luke, 2004, p. 53).

1.7 Limitations of the Study

This study had several limitations. First, since the data was collected from 6th, 7th, and 8th grade students in Ankara, generalization of the research findings was limited to those who display similar characteristics to the research sample. Second, this study included a cross-sectional data that limits drawing causal inferences. Third, data was entirely based on students' self-reports, which were under the influence of students' understanding and honesty. Fourth, the

information on the indicator of school income was obtained from the reports of students about their family income. Therefore, this information was limited to the report of the students'. Last, the current investigation focused on student- and school-level factors that had prominent role in the prediction of bullying victimization. However, considering more systems introduced in ecological perspective, it might be insightful to insert more factors into the models related to teachers, parents, peers etc.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter which includes five main sections documented the review of the literature relevant to the aims of the study. The first section handled with theoretical perspectives for bullying and victimization. The second section discussed ecological systems theory. The third section dealt with the individual level factors related to bullying and victimization such as gender, age, academic achievement, and self-efficacy. The fourth section explained school-level factors related to bullying and victimization such as school climate, school structure variables (school size, student-teacher ratio, and employing a private security personnel in the school), school absenteeism, school disciplinary punishments, and school socioeconomic status. The last section briefly summarized the chapter.

2.1 Theoretical Approaches for Bullying and Victimization

The earlier studies on bullying were mostly descriptive and aimed at determining the nature, prevalence, types, mechanisms and associated factors of bullying. Regarding theoretical explanations, there is a dearth of specific explanations for bullying and victimization, and the general tendency in the literature is to apply theoretical explanations for the aggression on bullying. For example, Camodeca, Goossens, Schuengel, and Terwogt (2003) claimed that social information processing mostly studied on aggressive children, but it was

strongly recommended to use it on bullying. Theoretical approaches commonly used for bullying are biological-genetic explanations, attachment theory, social information-processing and cognitive social learning theories, and ecological systems theory (Salmivalli & Peets, 2011).

Behavioral geneticists claim that a large proportion of our behaviors is shaped by genetics. More than half of the individual differences in personality characteristics is genetically originated. Likewise, aggression is most likely inherited. Some of the personality characteristics associated with bullying others or being bullied, to some degree, have genetic disposition. Introversion-extraversion, anxiety, social skills, self-esteem, and impulsivity may be counted among these genetically inherited characteristics (Rigby, 2002). In addition, this perspective emphasizes that the effects of genetics are shaped by the environment such as age, characteristics of social settings, etc. (Salmivalli & Peets, 2011).

Attachment theorists (*see* Bowlby, 1969, for a review) focus on the relationship in the first years of life of individual established with mother or caretaker. The close relationship between mother (or caretaker) and infant is very important. The nature of attachment established during beginning years of life will determine the child's relations with his/her peers in the following years. The unsatisfactory relationship between child and mother (or caretaker) will be a reason for unsatisfactory relationships of child with his/her peers. According to the attachment theorists, bullying and victimization are regarded as a function of insecure attachment (Rigby, 2002; Salmivalli & Peets, 2011).

Researchers working on social information-processing model explain how cognitive and emotional processes function in the display of aggressive behaviors in a social environment (Crick & Dodge, 1994; Dodge, Coie, & Lynam, 2006). The model focused on storing and retrieving information, distribution process, and problem solving. The process begins with encoding of the cues. The deficits in the coding, for instance the selective attention to the hostile points of behaviors displayed by others, could lead to aggressive behaviors. The next step is that the meaning of cues has some mental representations. Biases and errors in mental representations could increase the likelihood of responding aggressively. The next step, to reach possible behavioral responses in the memory and to decide appropriate response. The last step, the selected response is transformed into the behavior. This process requires motor and verbal skills. Skill deficits could lead the person to react aggressively. This model claims that every individual has his/her own style at each step of information processing (Dodge et al., 2006).

Like social information processing, cognitive social learning theory clarifies the role of social cognitions in aggression (Perry, Perry, & Rasmussen, 1986). This perspective applies Bandura's social learning theory into aggression, specifically two concepts, perceptions of self-efficacy and response-outcome expectancies. One's perceptions about his/her ability to display the behavior and his/her expectations for the consequences of performing the behavior control and regulate the actions. Perry et al. (1986) hypothesized that aggressive individuals are more confident in their abilities to respond aggressively and have difficulties in prevention of intentional aggression compared to nonaggressive individuals. In addition, aggressive individuals enact aggressive responses because they don't feel confident in their abilities to use social skills to persuade

someone. In other words, aggression is used as an instrument to reach goals (Perry et al., 1986).

Theoretical approaches explain the foundation of aggressive behavior performed by aggressive children, and mostly focus on individual dynamics or factors; however, they do not consider the social context in bullying process. Bullying is a dyadic interactional process including personal characteristics of bully and victim, the existence of students and teachers, and the social context of school. Not only individual characteristics of students but also dyadic interactions between bully and victim and social context of school environment have a crucial impact on bullying behaviors (Atlas & Pepler, 1998). Thus, to consider bullying as a genetic or behavioral inclination or as a relationship problem among two children will restrain the accurate understanding. In addition, bullying includes repeated incidents between bully and victim over a considerable time period, which is an indication of the effect of time on human behavior that also interacts with other ecological systems (Barboza et al., 2009). It is very important to understand these dynamic interactions within broader social context and time frame. Ecological perspective contributes a lot more in this respect than the other approaches do.

2.2 Ecological Systems Theory

Urie Bronfenbrenner put forward the basic ideas of this theory around 1940s. In his previous studies, he claimed that the ecological system in which the child grows needs to be understood. However, in his later studies additional to the social ecological system, he acknowledged and emphasized the importance of

biological and genetic dimensions in human development more than he did in his previous works (Bronfenbrenner, 2005b).

Bronfenbrenner (2005a) defines development as a continuity and change in the characteristics of human beings both as an individual and a group. One of the major components of the ecological model is experience. The features of environment which is necessary for human development contain not only the objective features of the environment but also the subjective experience of an individual who lives within this environment. In this experience, the objective point of view and the existential philosophical foundations are emphasized together. Both objective and subjective dimensions are required for human development. These two dimensions do not always operate in the same direction. Hence, it is crucial to understand both dynamic powers. The process of how the environment is perceived and changed by the individual from infancy to old age must be understood. This points to the phenomenological or experiential aspect of the process. The experience is associated with the fact of subjective emotions. For example, hopes, personal beliefs which begin in the early childhood, are developed via contact with the self and others throughout the life span, and are characterized by both stability and change (Bronfenbrenner, 2005a).

Human development is a complex process (Bronfenbrenner, 2005a) involving mutual interaction of human organism which is constantly changing and the people, objects, and symbols which are within the close environment of individual. The interactions with the close environment refers to the proximal processes, which is a priority engine for the development. Proximal processes are influenced by the characteristics of individuals including biological and

genetic structure, the properties of environment, the nature of developmental outcomes, and the time individual has lived. These factors have joint function on the development of a person. The development of a child requires an active involvement in more complex activities and a strong, mutual emotional ties which further provides a base to internalize those activities and feelings. In the next step of development, with the involvement of another adult(s) in the life of the child, the early established patterns between parent and child maintain or change (Bronfenbrenner, 2005a).

The ecological perspective considers the interferences and opportunities that are offered by the environment in a scientific way. As the definitions of the ecology of human development are investigated, the individual is far from an empty plate, and has a constantly re-building world due to the effect of the environment and the dynamic and growing structure of human. Individual does not have a one way interaction with the environment. This interaction occurs in a reciprocal determinism and the environment mentioned does not cover especially one environment, it also includes associations between the environments. Transitions between ecological environments could be possible, which is, in fact, a requirement of development (Bronfenbrenner, 1979).

Bronfenbrenner (1979) explains human development in a social context or nested structures which are like concentric circles. The theory allows to examine simultaneous influences of individual, interpersonal, and contextual factors on human behavior. In the center of context, individual takes a place. The context consists of four systems of interaction; namely microsystem, mesosystem, exosystem, macrosystem. These systems influence human development and interact with each other. *Microsystem* refers to the immediate context (physical,

social, and psychological environment) of individual, like roles and relations with the close environment (family, peers, etc). *Mesosystem* includes the connection of two or more systems that influence child development. Environments for children are home, school, and peer groups; whereas for adults they are family, job, and social environment. Mesosystem is the interactive state of microsystem. *Exosystem* is another context that we experience indirectly, but they influence us directly (for example, to be exposed to our parents' anger because of their heavy work loading and job stress). *Macrosystem* is a larger system which includes cultural beliefs, societal values and norms, political trends, ideology, systems of public education, etc. Later, a new system – *chronosystem* – which refers to the dimension of time was added to the ecological system by Bronfenbrenner (1989).

In the process of development, individual grows, matures, and changes. At the same time, in this process; societies, communities, families, and interpersonal relationships also change. Researchers have to determine the developmental changes both among individuals and the social context which occur simultaneously and mutual relations between these changes (Cairns & Cairns, 2005). Bronfenbrenner (1944) stated "Piecemeal analysis, fixed in time and space, of isolated aspects and attributes is insufficient and even misleading" (p. 75). Unfortunately, variable-oriented research studies have been still continuing in major developmental journals. Integrative studies were carried out more in the 1940s than in the 1990s (Cairns & Cairns, 2005).

In the recent years, the importance of social context in bullying behaviors has been attracted the attention of researchers (Espelage & Swearer, 2010; Hong & Espelage, 2012; Hong & Garbarino, 2012; H. Huang et al., 2012). Therefore,

empirical studies have been carried out to comprehend complex networks of bullying problems at schools. These research findings remarked that ecological multilevel models accounted for a great amount of variation within bullying behaviors (C.-H. Lee, 2009, 2011). Among these studies, H. Huang et al. (2012) reviewed correlated ecological factors with bullying and victimization among Chinese students. In this review, the associations of individual- (age, gender, behavioral/mental health problems), micro- (parents, peers, and teachers), meso- (parent involvement), exo- (mass media), and macro-level factors (academic achievement, collectivism-individualism) with bullying and victimization were explained. In another study, C.-H. Lee (2011) explored the factors that affects bullying behaviors at middle and high schools in the United States using a sample consisted of 485 students. Using ecological systems theory, the researcher investigated the role of individual traits (prior bullying victimization, dominance, impulsivity, attitude toward aggression, and fun-seeking tendency), microsystem factors (interaction with family, teachers, and peers, and life at schools), mesosystem factors (parental communication with teachers and peers), and macrosystem factors (collectivism/individualism, social disorganization, and peer group collectivism). The results of this study showed that all these systems had direct or indirect effects on bullying behavior.

Barboza et al. (2009) interrogated the effects of individual and contextual risk factors on bullying behavior using an ecological perspective. The sample of this study consisted of 9,816 students aged 11-14 in the United States. The study variables were specified considering the ecological systems. Individual factors were age, gender, ethnicity, self-confidence, helplessness, and feelings of being left out. Microsystem variables were emotional support from parents and friends, the number of friends, and teacher apathy. Mesosystem variables were

parental support at school, and school-related stressors. Exosystem variables, on the other hand, were school atmosphere and peer group relationships. Lastly, macrosystem variables were media effects and urbanicity. The results indicated that the likelihood of bullying was high among children who frequently watched television, but did not have teacher support, were bullied, had education in poor school environments, had emotional support from their peers, and had parents and teachers who did not put high expectation on students' academic performance.

Given the importance of ecological systems on bullying behaviors, the current investigation aimed to provide a more comprehensive understanding of bullying victimization among Turkish middle school students. In this study, the individual factors were gender, age, academic achievement, self-efficacy beliefs, perceived school climate factor. School-related variables were school context factors (school size, student-teacher ratio, employing a private security personnel at the school), rates of school absenteeism, rates of school disciplinary punishments, school income, and school success. These school-level variables could also be evaluated as exosystem factors that have indirect but important consequences on students' behaviors.

2.3 Individual-Level Factors Related to Bullying and Victimization

Research on bullying and victimization indicated that several factors at different levels have been associated with this problem. One of these factors is related to the individual-level factors such as gender (Pouwelse, Bolman, Lodewijkx, & Spaa, 2011), age (von Marées & Petermann, 2010), personality characteristics (Menesini, Camodeca, & Nocentini, 2010), emotional intelligence, empathy

(Kokkinos & Kipritsi, 2012), depression, anxiety, self-worth (Bouman et al., 2012), hopelessness (Siyahhan, Aricak, & Cayirdag-Acar, 2012), loneliness (Catterson & Hunter, 2010; Pekel-Uludağlı & Uçanok, 2005), self-esteem (Atik & Yerin Güneri, 2013; Çetinkaya, Nur, Ayvaz, Özdemir, & Kavakcı, 2009), self-concept clarity (Aşıcı & Aslan, 2010), affectivity, coping, somatization (Hansen, Steenberg, Palic, & Elklit, 2012), social problem solving (Cook et al., 2010), attachment (Nikiforou, Georgiou, & Stavrinides, 2013; Özen & Aktan, 2010), social skills (Crawford & Manassis, 2011; Hilooğlu & Cenkseven-Önder, 2010), social competency (Bayraktar, 2012), and chronic conditions (psychiatric diagnoses, learning difficulties, speech and language impairments, physical and motor impairment, chronic diseases, underweight and overweight) (Sentenac et al., 2012). In this study, gender, age, academic achievement, and self-efficacy beliefs were taken as individual-level factors and in the following section their relations to bullying and victimization were explained in detail.

2.3.1 Gender

A growing body of research has provided a foundation to understand gender differences in experiences of bullying victimization. Rodkin and Berger (2008) evaluated bullying as a gendered phenomenon. Males were more likely than females to be involved in bullying victimization as bullies, victims, or bully-victims (Boulton & Smith, 2011; Espelage & Holt, 2007; Gendron et al., 2011; von Marées & Petermann, 2010). The fact that bullying is a gendered phenomenon could be explained with that males and females are involved in different social processes or have different roles in bullying (Underwood & Rosen, 2011).

Research findings also revealed that the forms of bullying victimization differs according to gender (Boulton & Smith, 2011; Khoury-Kassabri, 2011; J. Wang, Iannotti, & Nansel, 2009). Males reported more direct, physical, and verbal victimization than the females did (Attar-Schwartz & Khoury-Kassabri, 2008; Khoury-Kassabri, 2011). Boulton and Smith (2011) found that name-calling, social exclusion, and spreading nasty rumors were used by females more than males. Vieno, Gini, and Santinello (2011) found that males reported more physical bullying and were more involved as bullies in verbal, sexual, cyber, and racist bullying when compared to females. Females reported higher verbal, relational, sexual, and cyber victimization than males did. Larochette et al. (2010) revealed that male students were more likely to engage in racial bullying and victimization than the female students. In sum, it appears that males engage in more overt forms of bullying victimization, whereas females engage in more subtle forms of bullying victimization.

Even though most of the studies indicated gender differences regarding involvement in bullying victimization and utilization of different type of bullying victimization, some studies pointed out no gender differences or contrast findings to the expectations. For instance, Mishna, Khoury-Kassabri, Gadalla, and Daciuk (2012) found no gender differences in online bullying and victimization. Özer, Totan, and Atik (2011) revealed that females tended to be victims compared to males. Ayas and Pişkin (2011) found that boys were more involved in physical, sexual, and indirect (rumor spreading and isolation) forms of victimization than girls, while girls were more involved in verbal victimization than boys. They also revealed that boys were more involved in physical, sexual, verbal, and indirect (rumor spreading) forms of bullying than girls. Boulton and Smith (2011) found that being victimized did not differ

according to gender. Another study (von Marées & Petermann, 2010), investigating gender differences, age trends, and the role of some psychosocial factors on bullying and victimization in German primary schools, found no gender differences in terms of overall bullying status (as bully, victim, or bully-victim) based on students' self-reports. The mixed results for gender suggested further investigations. Therefore, in this study, gender was considered as a crucial factor to predict being exposed to bullying victimization. It was entered into the models as a student-level variable.

2.3.2 Age

As is often supposed for gender, the involvement in bullying victimization is likely to differ due to the students' developmental level. Many studies have investigated possible age differences in the ways students are involved in bullying victimization. These studies suggested that bullying demonstrates a tendency to increase during middle school years and to decrease with the increasing age (von Marées & Petermann, 2010; J. Wang et al., 2009). In addition, rates of victimization decrease as children grow older (W. Craig et al., 2009; J. Wang et al., 2009). In their study, von Marées and Petermann (2010) found a positive correlation between age and bullying, in which bullying incidents increased with the increasing age of the students'. However, they found a negative association between age and victimization. Victimization decreased with the increasing age of the students'. They explained these results with that younger children were more likely to be at the risk of victimization by older students, and inadequate social skills of younger children (von Marées & Petermann, 2010). J. Wang et al. (2009) revealed that seventh- and eighth-grade students reported less victimization than sixth-grade students did. Ninth- and

tenth-grade students reported less bullying and victimization than lower-grade students did. A similar trend in the decrease of bullying by age was also found by Vieno et al. (2011), showing that tenth-grade students reported high ratio of not involving in bullying, and less ratio of victimization and physical bullying when compared to eighth-grade students.

With the increase in age, the forms of bullying could also change (Fitzpatrick & Bussey, 2010; Russell, Kraus, & Ceccherini, 2010; Sapouna, 2008). Physical bullying is more prevalent among younger children, while verbal and relational bullying are more common among older children (Scheithauer, Hayer, Petermann, & Jugert, 2006). Fitzpatrick and Bussey (2010) found that older students were more likely to involve in and experience social bullying than younger students. Lastly, Sapouna (2008) reported that males engage in more verbal bullying, while females engage in more relational bullying via spreading rumors as they grow older.

There is a little research evidence regarding no significant age difference in bullying and victimization (Bauman, 2008; Cheng et al., 2010). As an example for these studies, Cheng et al. (2010) explored the prevalence of bullying and its association with some indicators of psychosocial adjustment on 9,015 Chinese students from the grades six to ten. However, they found no significant differences.

As supported by most of the research findings, the extent of engagement in and the types of bullying and victimization vary as a function of age or developmental transitions. In this study, age was considered as a student-level

factor and entered as a continuous variable. It was expected that the likelihood of being peer victim or bully victim will decrease with the increase in age.

2.3.3 Academic Achievement

Student's academic performance is accepted as an indicator of the quality of their experience of school and influenced by many factors. The academic, social, and emotional dimensions of student's life at school are related to each other. A problem in one of these dimensions affects all the other dimensions (Murray-Harvey, 2010). Bullying victimization is a phenomenon occurring in peer relations and social life of the students'. Therefore, it has inevitably negative effects on students academic performance, or poor academic performance puts students under the risk of bullying and victimization (Nakamoto & Schwartz, 2010). Many research findings provide substantial evidence supporting this association (Erginoz et al., 2013; Hammig & Jozkowski, 2013; Strøm, Thoresen, Wentzel-Larsena, & Dyb, 2013). Erginoz et al. (2013) examined the association of school, family, and peer factors with involvement in bullying in a group of 1,668 students from ninth- and tenth-grade students using the Turkish Health Behavior in School-aged Children (HBSC) 2005/2006 survey. The results of the study revealed that poor academic achievement and not liking school were to be risk factors for being a victim. In another study, L. Huang and Mossige (2012) investigated the impact of early victimization experiences on later academic achievement using a sample of 6,979 Norwegian secondary school students. The results showed that exposure to violence before the age of 13 by peers has strong negative effects on later achievement. Juvonen, Wang, and Espinoza (2011), using multilevel models, explored what the role of bullying experiences is in academic performance of middle school students. They sampled an

ethnically diverse group from 2,300 sixth graders from 11 urban middle schools. The results of the study demonstrated that increased level of bullying by peers was associated with academic disengagement and lower grades. Özer et al. (2011) investigated the association between the involvement in bullying (as bully, victim, bully-victim), gender, academic achievement, and self-efficacy on 721 Turkish middle school students. The results indicated that low academic achievement was significantly related to being a victim and a bully-victim. Iyer, Kochenderfer-Ladd, Eisenberg, and Thompson (2010) documented that the relationships among peer victimization, effortful control, school engagement, and academic achievement. The findings indicated that peer victimization was related to school disengagement and poor academic achievement. Lastly, L. Ma, Phelps, Lerner, and Lerner (2009) examined the association between bullying and academic performance on fifth-, sixth-, and seventh-grade students in the United States, which is a longitudinal data. They found that being a bully and being a victims negatively predicted academic performance of the students.

In a meta-analytic study (Nakamoto & Schwartz, 2010), it was reported that although research findings demonstrated a substantial association between victimization and academic achievement, some of them produced inconsistent pattern of findings, indicating small associations. Nakamoto and Schwartz (2010) pointed out the variability in effect sizes of the studies investigating the connection between peer victimization and academic achievement. This variability requires further investigation. Therefore, in this study, academic achievement scores of students were entered into the models, expecting that lower academic achievement scores will significantly predict the likelihood of being a peer victim and bully victim. In addition, in this study, students' academic achievement scores were also aggregated for each school, and then,

this aggregated scores were entered into the analyses at the school-level. The rationale for this choice is related to the assumption that academic achievement may have different effects at different levels. Supporting that assumption, Ahlström (2010) examined the association between students participation, school academic achievement, and bullying; suggesting that students at schools where the participation and grades were high report less level of bullying compared to those at schools with low student participation and grades. Given that a variable may have different effects at different levels, it is expected that this study will contribute to our understanding of the role of academic achievement in bullying victimization among Turkish middle school students.

2.3.4 Self-Efficacy

Bandura (1986), in his social cognitive theory, proposed that human functioning is shaped by individual (cognition, affect, biological events), behavioral, and environmental factors in a reciprocal determinism. Self-efficacy beliefs have an important role in this functioning. Bandura defined self-efficacy beliefs as ‘the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations’ (1995, p. 2).

Researchers have made remarkable contributions to the understanding of the relation of self-efficacy beliefs with bullying and victimization. The existing research findings pointed out a negative association between bullying victimization and self-efficacy (Kokkinos & Kipritsi, 2012; Özer et al., 2011; Ruderman & Jimerson, 2012). Lo, Cheng, Wong, Rochelle, and Kwok (2011), for example, described the relationship of bullying/vandalism with self-esteem and self-efficacy with a non-linear but U-shape trend, which states that engaging in

bullying/vandalism decreases students' self-esteem and self-efficacy, and then occasional engagement in bullying/vandalism put them at the lowest level, and then more regular engagement in these behaviors leads to an increase in the level of self-esteem and self-efficacy beliefs. Ruderman and Jimerson (2012) also reported that victims had the lowest self-efficacy scores than bully, defender of the victim, and outsider. Kokkinos and Kipritsi (2012) studied the relations among bullying, victimization, trait emotional intelligence, empathy and self-efficacy using a sample of 206 sixth-grade students in Greece. They found that bullying was negatively related to overall and academic self-efficacy. Moreover, victimization was negatively associated with the overall self-efficacy, and all other dimensions (academic, social, and emotional). Bayraktar (2012) tested a multifactor model of bullying including individual-, peer-, parental-, teacher-, and school-related factors, using a sample of 1,052 Turkish and Cypriot students. This study found that the deficiency in academic self-efficacy was related to bullying. A study (Özer et al., 2011), sampling 721 Turkish middle school students, documented the association among involvement in bullying as bully, victim, bully-victim, and not involving, and gender, academic achievement, and self-efficacy beliefs (as academic, social, and emotional). The results of multiple correspondence analysis indicated that low self-efficacy was associated with being a bully and bully-victim. Students involved in bullying as bully, victim, or bully-victim reported lower levels of social and emotional self-efficacies than those who were not involved in bullying. In addition, bullies reported higher self-efficacies in academic, social, and emotional dimensions than the victims. Considering the empirical results, in the present study, it was hypothesized that lower academic, social, and emotional self-efficacies will predict the likelihood of being a peer victim and bully victim. The academic,

social, and emotional self-efficacies were entered into models at the student-level.

2.4 School-Level Factors Related to Bullying and Victimization

Bullying and victimization are related to several school-level factors such as teacher's bullying-related attitudes (Saarento, Kärnä, Hodges, & Salmivalli, 2013), school-based bullying interventions, anti-bullying interventions (Ayers, Wagaman, Geiger, Bermudez-Parsai, & Hedberg, 2012), school size, perception of safety at school (Richard, Schneider, & Mallet, 2012), school bonding (Bayraktar, 2012; Richard et al., 2012), characteristics of school climate, school staff awareness of and response to victimization, cultural variations (Stone, Astor, & Benbenishty, 2009), student-teacher relationships, academic competition and pressure (Bibou-Nakou, Tsiantis, Assimopoulos, Chatzilambou, & Giannakopoulou, 2012), school's socioeconomic disparity (Due et al., 2009), school-wide positive behavioral interventions, student-teacher ratio, faculty turnover rate (Waasdorp, Bradshaw, & Leaf, 2012), and adult monitoring at school (Totura et al., 2009). In this study, the contribution of some school-level factors in bullying victimization were investigated. Therefore, the literature review which was associated with school climate, school structure variables (school size, student-teacher ratio, and employing a private security personnel in the school), school absenteeism, school disciplinary punishments, and school socioeconomic status was presented as in the following.

2.4.1 School Climate

Although the importance of school climate has been recognized for 100 years, it has been studied systemically since 1950s (Cohen, McCabe, Michelli, & Pickeral, 2009). It has many definitions, which means that there is no universally agreed-upon definition. However, in a general perspective, it refers to the quality and characteristics of social relationships at school, which also includes rules, norms, values, interpersonal relations, practices of teaching and learning, and organizational structures. It is more than personal experience. Each school has its own climate that is shaped by a broad range of internal and external factors. Furthermore, each individual at the school contributes to this system (Cohen et al., 2009).

A positive school climate has a profound impact on students development and learning at the school as it is sustainable (Cohen et al., 2009). It has positive impact on students' health as well (Modin & Östberg, 2009). Modin and Östberg (2009) investigated the association between various aspects of school climate with psychosomatic health of Swedish ninth-grade students through multilevel modeling. The sample of this study consisted of 18,571 students, 1,026 classes, and 284 schools in Stockholm. The results of this study showed that better health conditions were mostly reported by the students whose opinions were taken seriously, who were praised by teachers, got assistance from teachers when they needed, and found teaching interesting. Students from the classes where harassment was common reported worse health conditions (Modin & Östberg, 2009).

A positive school climate is also a protective factor against engagement of students in risky behaviors (Klein et al., 2012). Bullying is considered as one of these risky behaviors, which is nurtured from the quality of school climate (Klein et al., 2012). Much of the research has highlighted the association of victimization with negative school climate (Gendron et al., 2011; Waasdorp, Pas, O'Brennan, & Bradshaw, 2011; Zaykowski & Gunter, 2012). The students who reported being victim of bullying were less likely to report of belongingness and safety at schools (Waasdorp et al., 2011). C.-H. Lee and Song (2012) explored the impacts of parental involvement and school climate on bullying behavior using an ecological systems theory. The sample of this study composed of 1,238 Korean middle school students. The results demonstrated that negative school climate was positively associated with bullying behaviors.

Zaykowski and Gunter (2012) examined the association between school climate, victimization, and deviant lifestyles utilizing a multilevel modeling. The total of 5,037 eleventh-grade students from 33 schools participated in this study. Findings underlined the importance of school climate, especially social cohesion of schools, on lessening serious violent victimization risk at schools. Gendron et al. (2011) investigated the association between self-esteem, normative beliefs about bullying, school climate, and bullying, using a sample consisting of 7,299 students from 5th, 8th, and 11th grades at 78 schools or community in the USA. The results of the study indicated that a negative association between school climate and bullying perpetration. Students who perceived school climate as negative reported more frequency of bullying. In this study, an interaction effect was also found between school climate and self-esteem, indicating that the students with high self-esteem within schools regarded as supportive were less likely to report bullying behavior (Gendron et al., 2011). Gregory et al. (2010)

studied two complimentary dimensions of school climate; namely, structure and support. The sample composed of 7,318 high school students and 2,922 teachers in the USA. In this study, school structure refers to students' perceptions about the school rules whether they are enforced fairly and consistently. Support refers to students' perceptions of their teachers as caring and supportive. Findings of the study underlined that both dimensions of school climate contributed to school safety and were related to less bullying and victimization. Çetinkaya Yıldız and Hatipoğlu Sümer (2010) investigated the role of perceived neighborhood risk and safety, and school climate in predicting aggressive behaviors of 400 middle school students in Ankara, Turkey. The variable of school climate was found to be the most powerful predictor of aggressive behaviors. The students who perceived their schools as positive and supportive reported less frequent aggressive behaviors.

Bonnet, Goossens, Willemsen, and Schuengel (2009) examined the role of factors related to school and neighborhood on a sample including 2,003 four- to five-year-old Dutch children from 98 classrooms in 23 elementary schools. Results of multilevel analyses pointed out that social climate of the school was related to victimization. Peer victimization was less reported at schools with a good social climate. X. Ma (2002) studied the effects of individual and school factors on bullies and victims, with a sample including 13,751 sixth- and eighth-grade students and 240 schools in Canada. The results showed that disciplinary climate at school had an effect on victimization, which means, the students having education at schools with good disciplinary climate reported less bullying and victimization. Çalık, Özbay, Özer, Kurt, and Kandemir (2009) examined the relationship between bullying categories and school climate, pro-social behaviors, basic needs, and gender using a sample consisted of 456

middle school students in Istanbul, Turkey. This study found a negative relationship between positive school climate and bullying. In addition, positive school climate decreased the likelihood of being bully. Bayraktar (2012) found that the psychological climate of the school was the strongest predictor of bullying. Bayraktar (2012) emphasized that having democratic systems at schools, increasing school bonding, and supporting the utilization of authoritative disciplinary techniques at schools are the significant agents for an effective anti-bullying intervention.

Prior studies showed that many students in various school levels were reluctant to inform teachers, school staff or adults when they were victimized (Eliot, Cornell, Gregory, & Fan, 2010; Kartal & Bilgin, 2009; Oliver & Candappa, 2007). This is a consequence that changes according to the quality of relationship between students and adults at schools. The perceptions of students about whether their teachers and school staff are concerned with their problems, influence their attitudes toward help-seeking for bullying and violence. Eliot et al. (2010) studied the association between school climate characteristics and willingness to help-seeking for bullying and violence among 7,318 ninth-grade students in the USA. Findings showed that students reported less positive help-seeking attitudes for bullying and threats of violence when they regarded their teachers and school staff as less supportive (Eliot et al., 2010). Informing an adult is recommended as a coping strategy for students while they are experiencing a bullying problem (Rigby, 2007). Therefore, the quality of student-teacher relations would be an agent in reducing bullying problems at schools.

In contrast to the studies finding significant relationship between school climate and students' victimization at some levels, some studies found no significant association between these variables (Khoury-Kassabri, 2011; Larochette et al., 2010; Pernice-Duca, Taiariol, & Yoon, 2010). Khoury-Kassabri (2011) investigated the individual, class and school-level factors influencing the levels of victimization by peers among fourth- through sixth- grade Jewish and Arab students. The sample consisted of 3,375 students, 120 homeroom teachers, and 47 schools. In this study, school climate was taken at the individual and teacher-class level. However, the results of the study showed that it was not a significant predictor at both level. Khoury-Kassabri (2011) provided an explanation regarding why it was contrary to the expected results, which may stem from group characteristics. Larochette et al. (2010) examined the association of racial bullying and victimization with individual- and school-level factors in Canadian students from the grades 6-10. The sample composed of 3,684 students and 116 principals. School climate characteristics were handled at the school-level, but the results revealed that it didn't explain the observed differences across schools on racial bullying and victimization. Wilson (2004) explored the interaction effects of school climate and school connectedness on aggression and victimization through surveying middle and high school students. Results showed that regardless of the nature of school climate (whether positive or negative climates), high connection or commitment to school yielded less report on perpetration and victimization. This result suggested that a positive school climate doesn't always decrease perpetration and victimization at a school. In addition, a negative school doesn't always create a risk factor for students (Wilson, 2004). This suggestion indicates the existence of some other variables in explaining victimization at schools.

Consequently, despite the fact that the literature demonstrated a strong evidence for the relationship between victimization and school climate, some of studies found no relationship. The mixed results may stem from methodological procedures, characteristics of samples, or measurement of variables. In this study, it was expected that the likelihood of being in peer victim and bully victim categories will decreased at schools with a positive school climate. Unlike previous studies examining the association between victimization and school climate, in the present study, the dimension of school climate; namely, fairness, order and discipline, parent involvement, sharing of resources, student interpersonal relations, and student-teacher relations, were inserted into the analysis to obtain more information about how different aspects of school climate play a role in victimization. Since school climate scores were based on students' self-reports, its subscale scores were taken at the student-level. The aggregated school climate was entered at the school-level.

2.4.2 School Structure Variables

In this study, school size that refers to the actual number of students enrolled at a school, student-teacher ratio, and the presence of private security personnel were considered as school structure variables.

2.4.2.1 School Size

School size is one of the schooling variables becoming of the greatest interest to researchers and educators. It seems to be related to various factors such as social and economic developments, the developmental level of the educational sector in a country, and the ideas of school policy makers (Karakütük et al., 2011). The

research on school size indicated that the growing tendency of schools has been decreased in recent years. There is not a clear vision about the ideal size of the schools, and limited legal regulations setting the numbers of students for a school. The establishment of schools is only determined by the National Education Basic Law (No. 1739, article 14). However, there is no statement about the ideal size of the schools. (Karakütük et al., 2011). Odden and Picus (2008; as cited in Karakütük et al., 2011) suggested that the most effective and ideal size for elementary schools should be between 500 and 600, while for high schools between 500 and 1000. According to the statistics of Turkish Ministry of National Education (MEB, 2012), the general average school size for the state elementary schools is 323, for the private elementary schools is 308. When the city differences are investigated, there are some variations in the sizes of schools among cities. For example, the average school size for the elementary schools in Ankara is 611.

School size has been considerably studied in the educational literature and recognized as a potential factor contributing to the positive school and student outcomes (Leithwood & Jantzi, 2009). Small size has a positive impact on school engagement (Weiss, Carolan, & Baker-Smith, 2010), student achievement (Kuziemko, 2006), school crime (Nickerson & Martens, 2008), problem behaviors (Chen & Vazsonyi, 2013), belongingness, human relations and communications, and school discipline (Karakütük et al., 2011). For example, in a previous study (X. Ma, 2002), school size was taken as a school-level variable, and with the suggestion that it could be used as a hierarchical variable in further studies. A significant increase in the utilization of multilevel analysis or hierarchical linear modeling in the bullying studies has led to the use of school size variable as a school-level. When the literature on the role of school size and

class size in victimization problems at schools was searched, it presents inconsistent findings, which needs further examination. Several studies found significant relationship between school size bullying and victimization (Bonnet et al., 2009; Bowes et al., 2009; Zaykowski & Gunter, 2012). Zaykowski and Gunter (2012) found that students from larger schools reported less victimization even though the predictive power of school size on victimization was low. Bonnet et al. (2009) found less victimization in medium-sized schools in comparison to large-size schools. Gottfredson and DiPietro (2011) argued that small schools have some advantages that have an opportunity to establish close relationships between students and teachers and mutual expectations for school rules. They also stated that managing school discipline is a greater challenge for large schools which could be a handicap for encountering victimization at schools.

Surprisingly, some studies found a reverse association between school size and victimization; in other words, the larger the schools are, the less the victimization is. Supporting that, Gottfredson and DiPietro (2011) investigated the impacts of school organization factors on the property and personal victimization in the USA on a sample that composed of 13,597 students and 253 schools. They found that students in larger schools reported less level of property and personal victimization.

However, most of the studies tend to find no significant relationship between school size and bullying and victimization (Attar-Schwartz & Khoury-Kassabri, 2008; Klein & Cornell, 2010; Wei et al., 2010). Olweus (1996a) reported that there was not any significant association between the size of schools and classes and bullying problems based on Norwegian survey data including over 700 schools

and several thousand classes. Klein and Cornell (2010) specifically investigated the link between school size and victimization on a sample of 7,431 ninth-grade students, 2,353 teachers, and 290 schools in Virginia, in the USA. Findings indicated that students reported being victimized was not related to school size. Wei et al. (2010) examined the impacts of student-level factors (gender, depression, delinquency, teacher support, and teacher maltreatment) and school-level factors (school size and student/teacher ratio) on verbal and physical bullying behaviors, using a sample of 1172 students from 12 middle schools in Taiwan. In this study, school size didn't significantly contribute to the explanation of bullying behaviors. Attar-Schwartz and Khoury-Kassabri (2008) examined student- and school-level correlates of peer victimization on 16,604 Jewish and Arab students from seventh through eleventh grades in 324 schools. The associations were explored using a hierarchical linear modeling with findings that no significant association between school size and victimization. Khoury-Kassabri, Benbenishty, and Astor (2005) studied the association between school-level factors (schools' neighborhood SES, school and class size, school level, school climate) and victimization experiences of seventh- through eleventh-grade Jewish and Arab students in Israel. Totally, 10,400 students and 162 schools participated in this study. The results of this study indicated that there is no significant association between school size and victimization. Lastly, X. Ma (2002) found that the predictor of school size was not significant at the school-level for victims. Bonnet et al. (2009) provided a rationale why school size and victimization could be unrelated that individual-level factors may have higher effects on victimization than school size, or it could be more relevant for some schools than some others.

In summary, some studies found a relationship between school size and victimization experiences of students, whereas most of them reported no significant association. These studies revealed mixed results in terms of the role of size of the schools in experiences of victimization at schools. Parallel to the most of research finding, in this study, it was expected to find no significant relations between school size and victimization because it was assumed that student-level factors will have greater effects than school-level factors.

2.4.2.2 Student-Teacher Ratio

Student-teacher ratio refers to the average number of students per teacher for each school. When the statistics of Turkish Ministry of National Education are investigated (MEB, 2012), student-teacher ratio for the state elementary schools is 21, for the private elementary schools is 9. However, these ratios vary from city to city. For example, the ratio for the state elementary schools in Ankara is 19.

Student-teacher ratio has been considered among one of the schooling factors. In the literature of victimization, however, it was studied in a limited number of studies (Bradshaw, Sawyer, & O'Brennan, 2009; Waasdorp et al., 2011; Wei et al., 2010). A few studies reported a significant association between student-teacher ratio and victimization (Bradshaw et al., 2009; Waasdorp et al., 2011). For instance, Waasdorp et al. (2011) investigated the relations between school-level indicators of disorders, norms, and perceptions of safety, belonging, and witnessing bullying using a multilevel data including 11,674 students, 960 parents, and 1,027 school staffs at 44 schools. In this study, student-teacher ratio (with the mean of 20.2 and the standard deviation of 2.5) was taken as school-

level factor, and it was found that higher ratios of students to teachers were related to a greater likelihood of witnessing bullying. Bradshaw et al. (2009) studied the effects of school-level indicators of disorders such as student-teacher ratio, student poverty and mobility, and rate of suspension on bullying-related attitudes and experiences. The sample of this study composed of 22,178 students from 76 elementary schools and 19 middle schools in Maryland, in the USA. Results suggested that as the student-teacher ratio ($M = 23.9$, $SD = 3.6$ for elementary schools; $M = 19.3$, $SD = 1.7$ for middle schools) increased, the risk for victimization increased. On the other hand, several studies reported no significant association between ratio of student-teacher and victimization (Bachman, Gunter, & Bakken, 2011; Wei et al., 2010). Bachman et al. (2011) explored the role of individual- and contextual-factors in the prediction of feelings of school safety. The sample was consisted of 20,138 fifth-, eighth-, and eleventh-grade students within the state of Delaware in the USA. Results revealed no significant association between student-teacher ratio ($M = 15.8$, $SD = 1.7$ for 5th grades; $M = 16.6$, $SD = 2.1$ for 8th grades; $M = 15.9$, $SD = 2.0$ for 11th grades) and feelings of school safety. In another study, similarly, Wei et al. (2010) found that student-teacher ratio was not a significant predictor of bullying behavior.

It is apparent that limited research studies for student-teacher ratio has produced mixed results, which needs further investigations. In this study, student-teacher ratio was calculated dividing the number of students enrolled in 6th, 7th, and 8th grades in a school by the number of teachers at this school. Therefore, this ratio is different than the general ratio for elementary schools in Turkey. It was expected that high student-teacher ratio was associated with an increase in the odds of being peer victim or bully victim.

2.4.2.3 Employing a Private Security Personnel in the School

Schools have some strategies to prevent and reduce violence using school safety measures, such as hiring law enforcement officers and to install security devices (security cameras, metal detectors, etc.) in school settings. This is particularly a common practice in most of states in the USA. Limited number of studies regarding the effectiveness of law enforcement and school safety measures revealed mixed results (Jennings, Khey, Maskaly, & Donner, 2011), but it appears that school security measures were not deterrent for school violence. Recently, Jennings et al. (2011) explored the association between school safety measurement and school violence, on a national sample composed of school administrators from 954 high schools. The results revealed that the presence of security guards increased the probability of school crime. Similarly, in another study, Nickerson and Martens (2008) found that the strategies of using security or enforcement was related more school crime incidents and disruption. These results could be explained with that the presence of security guards or security measurements may encourage students to involve in risky behaviors (Jennings et al., 2011).

The provision of private security services in Turkey is held by Law No. 5188 which was accepted in 2004 (Resmi Gazete, 2004). This law describes all legal framework related to private security services. Schools are one of the working places for private security workers. If schools need more security, they can hire these people and pay their salaries. A private security personnel at a school has some duties; to control and monitor the main entrance of school and foreigners who wants to enter into school settings, to inform teachers on duty or school principals if a student wants to go out without permission, to assist teachers on

duty during breaks for monitoring students wandering and playing in the school garden, etc.

It is obvious that there was a scarcity in the studies that examined the association between employing a security officer and victimization experiences of the students. The studies mentioned above explored how these security measures play a role in reducing school violence. Therefore, a further investigation was needed to find out the association between security measures and victimization at schools. This study expected no longer an association between these variables because it was well documented that most of victimizations occurs within the classrooms when a teacher is not present (Kepenekci & Çinkır, 2006; Lemstra, Rogers, Redgate, Garner, & Moraros, 2011). Thus, a private security personnel couldn't be able to intervene in these happenings since they are mainly responsible for the security of the school buildings.

2.4.3 School Absenteeism

School absenteeism refers to excused or unexcused absences from school. The school attendance is regulated by the Ministry of Education, the Regulation on Primary Education Institution (Resmi Gazete, 2003). This regulation states that every students have to attend to school. However, in some circumstances (e.g. illness, natural disaster, etc.), students may not be able to come to school, and in this situation they are considered as excused absents. In case of unexcused absences, parents have to be informed.

The history of non-attendance for many students begin during the primary school years (Reid, 2012). Absenteeism from school in further leads to various adverse consequences. It contributes to poor academic achievement (Baxter, Royer, Hardin, Guinn, & Devlin, 2011; Gottfried, 2009), school drop-out (Cabus & De Witte, 2012; Kearney, 2008a), school refusal behavior (Dube & Orpinas, 2009), and psychiatric problems (Kearney, 2008b). Reid (2012) claimed that students who were persistently absent had poor self-esteem and academic self-concept than their counterparts.

Research on school absenteeism mostly focused on the reasons and consequences of unexcused absences for students. School absenteeism may happen for many reasons. The factors related to family (e.g. poor family socioeconomic status), student (e.g. school fear), friends (e.g. the quality of friendship), school (e.g. poor school climate), classroom (e.g. poor student-teacher or student-student relations), and natural conditions (e.g. adverse weather conditions) could be considered among these reasons (Özbaş, 2010).

Bullying incidents have occurred in the context of school, classrooms, or student relations. Therefore, exposure to victimization at the school would increase the likelihood of school absenteeism. Actually, school absenteeism would be an immediate and apparent result of victimization (Ramirez et al., 2012).

There is a scarcity in the studies investigating the association between victimization and unexcused school absenteeism. Little research findings indicated that victimization was associated with poor school attendance. For instance, Ramirez et al. (2012) investigated the correlation between youth violence and school absenteeism and suspension using a sample consisted of

28,882 sixth-grade students in the USA. Findings showed that victims (and also those who were involved in bullying as a witness, perpetrator, or victim-perpetrator) reported high unexcused school absenteeism. Similarly, Dube and Orpinas (2009) reported that excessive absenteeism was related to higher frequency of victimization.

The research on excused and unexcused absences from school showed that both absent modes differed from each other in terms of affects on students. Gottfried (2009) underlined the importance of distinguishing between excused and unexcused absences in order to see the picture more accurately. In his study, Gottfried (2009) revealed that students who had higher excused absences reported higher achievement in math and reading scores than those who had higher unexcused absences. This result conclude that unexcused absences increase the likelihood of academic risks for students. Given negative effects of unexcused absences on students, the current study explored the role of unexcused school absenteeism that entered model at the school-level in victimization of students.

2.4.4 School Disciplinary Punishments

The disciplinary actions for middle school students in Turkey are determined according to the Regulations for Primary Education Institutions (Resmi Gazete, 2003). Three main types of disciplinary actions were decided in the regulation in case of violations of school rules. These are warning, censuring, and suspension (Resmi Gazete, 2003).

School disciplinary procedures have some advantages regarding alleviating the frustration between students, teachers, and administrators, and keeping order at school. However, these procedures may increase the likelihood of some possible problems such as school drop-out, poor academic achievement, less supervision at home, involving physical fights, substance abuse etc. (Dupper, Theriot, & Craun, 2009). In another point, Bachman et al. (2011) remarked that students at schools with high reports of expulsion and suspension reported more fear than those at schools with low reports of these punishments. This concludes that rates of punishments at a school also influence safety feeling of the students.

In addition, higher victimization incidents at school would increase the number of discipline punishments. Consistent with this assumption; Branson and Cornell (2009) revealed that bullies received more disciplinary referrals and suspensions than non-bullies based on their self-reports and peer reports. In another study, Cole, Cornell, and Sheras (2006) suggested that discipline referrals could be an indicator for the identification of bullies for school counselor. In their study, they found that bullies had more disciplinary violations than non-bullies. Parallel with this study, Cornell and Brockenbrough (2004) found that peer and teacher nominations of bullying were significantly related to student discipline referrals, detentions, and suspensions. Moreover, victims had some disciplinary problems such as school referrals and detention according to the teachers' reports. In this study, the total number of school disciplinary punishments was used without considering the distinction between types of punishments as warning, censuring, and suspension. For this, school discipline records were used. The main idea to include the total number of school disciplinary punishments in the current investigation was that high

prevalence of violations of school rules would increase the likelihood of victimization.

2.4.5 School Socioeconomic Status

The research on association between socioeconomic status (SES) of schools and victimization incidents demonstrated mixed results. Some researchers claimed a significant association between these variables that lower socioeconomic status for schools increased the likelihood of bullying and victimization at schools (Attar-Schwartz & Khoury-Kassabri, 2008; Jansen et al., 2012). In a recent study, Jansen et al. (2012) investigated socioeconomic differences in bullying behaviors among young elementary school children in Netherlands. The results of this study indicated that poor family and school neighborhood SES were related to the risk of being a bully and bully-victim. Attar-Schwartz and Khoury-Kassabri (2008) investigated the correlated factors in relation to indirect and verbal peer victimization in a group of 16,604 seventh- through eleventh-grade students from 324 schools in Israel. Findings demonstrated that students attending schools which have high proportions of low-SES families reported more indirect victimization. Lastly, Khoury-Kassabri, Benbenishty, Astor, and Zeira (2004) found that high level of victimization was associated with low SES of family and school neighborhood.

Besides studies finding a negative association between school SES and bullying victimization, some of them have produced equivocal findings that indicates inconsistencies and requires a further investigation. Olweus (1996a) pointed out that bullying was not related to socioeconomic status of families. Larochette et al. (2010) investigated the role of SES at the individual level, finding no

association with racial bullying and victimization. Another study (Bonnet et al., 2009) interrogating the rates of victimization at schools which were located in lower-SES neighborhoods found no contribution of the neighborhood SES to victimization experiences of the students. However, this study revealed an interaction effect of neighborhood SES and social skills training program in prediction of victimization, suggesting that students at schools located in low-SES neighborhood and implementing a school-wide social skills training program reported less victimization. Pişkin (2010) found that the students from high SES schools reported more bullying than those from middle and low SES schools. X. Ma (2002), as a consequence, found that sixth-grade students from high SES families reported more victimization than sixth-grade students from low SES, even though the effect size of SES was small. However, at the school level, school mean SES did not significantly contribute to the explanation of victimization among students in both sixth- and eighth-grades

In this study, the information on the indicator of school socioeconomic status was obtained from the reports of students about their family income. The aggregated students' family income was used. It was expected that lower school income will increase the likelihood of being a peer victim and a bully victim.

2.5 Summary of the Review of Literature

In this chapter, the review of the literature including theoretical perspectives, individual- and school-level factors related to bullying and victimization were presented. Among the theoretical perspectives, the ecological theory underlines the importance of investigating various ecological systems which have a profound influence on human development. When the relationships of both

student- and school-level variables with bullying and victimization are reviewed, there are some mixed research findings that underline the necessity for further studies that would contribute to the understanding of how these variables are associated.

CHAPTER III

METHOD

This chapter included the methodological procedures of the study. The chapter initially began with the research design. Secondly, the sample selection procedure and sample characteristics were described. Thirdly, the instruments section provided details about the data collection tools. Fourthly, the procedure section included explanations about the actual steps taken in the study to obtain data and the ethical procedures. Finally, in the data analysis section, hierarchical generalized linear modeling (HGLM) statistical technique used in the study along with the explanations of its basic terms and fundamental issues were presented.

3.1 Research Design

This study used a correlational research design to investigate the relationship between student-level factors (gender, age, academic achievement, self-efficacy beliefs — academic, social, and emotional —, perceived school climate — fairness, order and discipline, parent involvement, sharing of resources, student interpersonal relations, and student-teacher relations —) and school-level factors (school size, school GPA, number of disciplinary punishment in the school, the presence of private security personnel, ratio of unexcused absences, ratio of student-teacher, mean of school income, and mean of general school

climate) on bullying victimization. Correlational research examines the relationships between two or more variables without any attempt to affect them. It also provides information about the magnitude and direction of the association among variables (Bordens & Abbott, 2008; Jackson, 2011). Correlational research that explains an important phenomenon through describing associations between variables and predicts likely outcomes (Bordens & Abbott, 2008) requires more complex correlational techniques such as structural equation modeling (SEM), hierarchical linear modeling (HLM), and hierarchical generalized linear modeling (HGLM). Thus, in the present study HGLM was used as a data analysis method.

3.2 Sample

In this study, a multistage cluster random sampling procedure was utilized. Firstly, five districts were randomly selected among the 25 districts located in Ankara (first stage). Then, two elementary schools were randomly chosen from each selected district (second stage). Lastly, two classes for each grade level (6th, 7th, and 8th) were randomly chosen from within each selected school (third stage). In total, ten elementary schools were participated in this study, but, due to dual education at six schools, the number of schools increased to 16. In dual education, all students enrolled in a school divided into two groups. One part of students receive the education from morning till afternoon, the other part receives it from afternoon to evening.

The sample consisted of 1557 middle school students from the five districts of Ankara, Turkey (*see* Table 3.1). Of the total participants, 832 (53.5%) were male and 725 (46.5%) were female. Age of the participants ranged between 10 and 16

($M = 13.03$, $SD = .95$). Table 3.1 illustrated the distribution of the sample characteristics regarding grade level, district, and parents' employment status. As shown in the Table, 527 (33.9%) of the sample were sixth graders, 530 (34.1%) were seventh graders, and 497 (32.0%) were eighth graders. Majority of the fathers were employed (93.5%) whereas most of the participants' mothers were housewives (77.6%).

Table 3.1

Distribution of Participants by District, Grade Level and Gender (n = 1557)

Variables	Gender				Total	
	Male		Female			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
District						
Altındağ	153	9.8	131	8.4	284	18.2
Çankaya	157	10.1	106	6.8	263	16.9
Keçiören	201	12.9	147	9.4	348	22.4
Polatlı	152	9.8	177	11.4	329	21.1
Yenimahalle	169	10.9	164	10.5	333	21.4
Total	832	53.5	725	46.5	1557	100.0
Grade						
6. grade	284	18.3	243	15.6	527	33.9
7. grade	276	17.8	254	16.3	530	34.1
8. grade	270	17.4	227	14.6	497	32.0
Total	830	53.5	724	46.5	1554	100.0
Employment Status of Fathers						
Employed	761	50.1	659	43.4	1420	93.5
Unemployed	4	.3	6	.4	10	.7
Retired	50	3.3	38	2.5	88	5.8
Total	815	53.7	703	46.3	1518	100.0
Employment Status of Mothers						
Employed	190	12.5	134	8.8	324	21.3
Housewife	618	40.7	561	36.9	1179	77.6
Retired	5	.3	12	.8	17	1.1
Total	813	53.5	707	46.5	1520	100.0

3.3 Instruments

In this study, four instruments; Demographic Data Form, California Bully Victimization Scale (CBVS; Felix et al., 2011), School Climate Survey (SCS; Emmons, Haynes, & Comer, 2002), and Self-Efficacy Questionnaire for Children (SEQ-C; Muris, 2001) were used as data collection instruments. Since CBVS and SCS were originally developed in the United States of America, they were translated into Turkish and adapted for use with Turkish middle school students by the researcher.

3.3.1 Demographic Data Forms

The demographic data form aimed to gather information about student and school demographics (*see* Appendix F for the demographic data form).

3.3.1.1 Student Demographics Form

This form included seven questions regarding gender, age, grade level, family income, and parents' occupation. In order to assess family income, students were asked to report their total family income per year.

In order to obtain an academic achievement score, as measured in previous studies (Juvonen et al., 2011; Strøm et al., 2013), students were asked to report their grades in Mathematics, Science, Turkish, and Social Studies courses in the semester when the data was collected. They responded on a five-point scale, from 1 (0-44) to 5 (85-100). According to the grading system; 5 exceeds standards, 4 meets standards, 3 marginally meets standards, 2 is below

standards, and 1 is unsatisfactory. Students' grades from four courses were added and divided by four to obtain an average academic achievement score for each student.

3.3.1.2 School Demographics Form

School size, school cumulative grade point average (GPA), number of disciplinary punishment in the school, the presence of private security personnel, ratio of unexcused absences, student-teacher ratio, mean of school income, and mean of general school climate were the variables related to school factors. School size indicates the total student enrollment of the school. School GPA refers to the cumulative grade point average of all 6th, 7th, and 8th grade students in a school. Disciplinary punishment is agreed upon as a result of a breach of disciplinary rules and officially recorded. In this study, the number of disciplinary punishment for each school was used. The private security personnel indicates whether a school employs a private security personnel in the school setting. Unexcused absences happen without the knowledge of the school administration. The ratio of unexcused absences were obtained through dividing the total unexcused absences by the total number of students in 6th, 7th, and 8th grades for each school. Student-teacher ratio is the number of students enrolled in 6th, 7th, and 8th grades in a school divided by the number of teachers in this school. School income is the mean of students' family income for each school. Lastly, mean of general school climate was obtained through calculating the mean of total scores of school climate for each school. The information about the school demographics was obtained with the assistance of school administrators. The information was provided by e-School Management Information System, which allows school administrators to access student and

school information online. The questions about the school demographics were asked to school administrators by the researcher, and the answers were noted.

3.3.2 California Bully Victimization Scale (CBVS)

California Bully Victimization Scale (Felix et al., 2011) is a self-report measure used to assess bullying victimization among middle school students (*see Appendix G for the scale*). The CBVS includes various forms of bullying victimization without using the term of bullying and its definition. This measure distinguishes bullying victimization from peer victimization considering core elements of bullying that are being intentional, power imbalance, and repeated incidents at a time period. The CBVS composed of 12 items assessing victimization, gender of the bully person, power imbalance, the location and time of the bullying during the school day, and with whom they talked about their victimization.

The CBVS consists of seven forms of victimization, such as being teased or called names; had rumors or gossip spread behind someone's back; left out of a group or ignored; hit, pushed, or physically hurt; threatened; had your things stolen or damaged; and had sexual comments, jokes, or gestures made to them. Students are asked to rate how often these experiences (e.g. "Been teased or called names in a mean or hurtful way by another student at school") happened to them and how often they saw them happen to someone else at school, on a five-point scale (0 = *Never*, 1 = *Once in the past month*, 2 = *2 or 3 times in the past month*, 3 = *About once a week*, and 4 = *Several times a week*). Next, in order to determine power imbalance, students are asked to rate on a three-point scale (*less than me*, *same as me*, *more than me*) how popular, smart, and physically

strong the main person bullying them than they are. Moreover, in the next questions, students are asked to report the location and time of bullying during the school day, and who they talked with about bullying. In the classification of students into bully categories, the frequency criteria are set at *2-3 times per month or more*, which is similar to the classification system developed by Solberg and Olweus (2003). *Non-victims* are students reporting no victimization experiences. *Peer victims* are students who experience at least one victimization behavior of any frequency, but reporting no power differentiation. *Bully victims* are students who experience at least one victimization behavior at least *2-3 times per month*, at least one form of power imbalance (Felix et al., 2011).

The test-retest reliability of the scale, over a two-week period, was analyzed with different methods such as correlations between the total scores of CBVS across two time points ($r = .80$ for 5-6th grades, $r = .83$ for 7-8th grades), Cohen's Kappa coefficients for each item (ranging from .46 to .64) and percentage agreement and Cohen's Kappa coefficient for the classification of students as non-bullied and bullied across two time points (percent agreement = 89.6, kappa = .71). The total CBVS scores was found to be correlated significantly, positively with the scores of Swearer Bullying Scale and negatively with the scores of Students' Life Satisfaction Scale, School Connectedness Scale, and Children's Hope Scale (Felix et al., 2011).

Since the CBVS is originally developed in English, it was translated into Turkish, and then its psychometric properties were examined for using it with Turkish middle school students. All the steps of this adaptation procedure were explained in the following parts.

3.3.2.1 Translation and Adaptation of the CBVS

In order to translate and adapt the CBVS into Turkish, the permission was taken from Professor Michael Furlong, one of the developers of the scale (*see* Appendix C for the permission letter). After obtaining the permission, the scale was given to four doctoral students (three of them were in Psychological Counseling and Guidance; one of them was in Counseling and Educational Development) and one Assistant Professor of Educational Psychology for translation. All translators had a proficiency in Turkish and English. Following the translation process, the best fitted translation of items was selected by the researcher and Turkish version of the CBVS was formed. Afterwards, the Turkish CBVS was evaluated by two experts (one Associate Professor of Psychological Counseling and Guidance, and one Assistant Professor of Educational Psychology) regarding the accuracy and cultural relevance of the translated items. The final form was developed taking into account the recommendations of the experts (e.g. accuracy of the translated items) on Turkish version of the CBVS.

3.3.2.2 Validity and Reliability Study of Turkish CBVS

The validity and reliability study of Turkish CBVS was carried out on a sample of 313 middle school students in Ankara. Of the students, 150 (47.9%) were males and 163 (52.1%) were females. Participants were from 6th grade (63.8%), 7th grade (18.1%), and 8th grade (18.1%). The mean age of the participants was 12.6 ($SD = .98$).

3.3.2.2.1 Concurrent Validity of Turkish CBVS

Concurrent validity of the CBVS was examined through Olweus Bully/Victim Questionnaire (OBVQ; Olweus, 1996b), which is a common and definition-based bullying instrument. The total scores of victimization items were calculated for each instrument. The Pearson correlation coefficient between the scores was indicating a high positive correlation ($n = 92$, $r = .73$, $p < .001$). In addition, the consistency of classification of victimization (as non-victimized and being victimized) by two instruments was evaluated. The result yielded differences in classification of participants (percentage agreement = .63; $\kappa = .22$; $\chi^2 = 6.7$, $p < .05$), which provides an evidence for that the diversity in measurement of victimization produces various categorization system which leads to different results (Felix et al., 2011).

3.3.2.2.2 Predictive Validity of Turkish CBVS

Parallel to the original study (Felix et al., 2011), the predictive validity was assessed through exploring the relationship between the CBVS and the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson, Huebner, & Valois, 2003) and the Children's Hope Scale (CHS; Snyder et al., 1997). The results indicated that there was a significant and negative correlation between the total scores of victimization and life satisfaction ($r = -.29$, $p < .05$), and a negative but non-significant correlation between the total scores of victimization and hope ($r = -.13$, $p > .05$). In this study, the group differences (non-victims, peer victims, and bully victims) in the total scores of life satisfaction and hope were also investigated through analysis of variance. Results showed that peer and bully victims had lower life satisfaction [$F(2, 95) = 5.54$, $p < .01$] and hopes

scores [$F(2, 95) = 8.28, p < .001$] than non-victims. No statistically significant differences between peer and bully victims in the total scores of life satisfaction and hope were found. It was expected that victimization is associated with lower levels of life satisfaction and hope. Also, it was expected that bully victims will report lower levels of life satisfaction and hope than peer victims did, but no significant differences was found.

3.3.2.2.3 Internal Consistency and Test-Retest Stability of Turkish CBVS

A Cronbach's alpha coefficient was calculated for the internal consistency of Turkish CBVS including seven victimization items. The Cronbach's alpha was .72 ($n = 313$). The test-retest reliability of Turkish CBVS was tested with a two-week interval. The total scores of victimization items were used. Pearson correlation coefficients between two measurements was .82 ($n = 66, p < .001$). Besides that testing the correlation between two measurements, the consistency of classification of victimization (as non-victimized and being victimized) in middle school students was assessed across two measurements, resulting in percentage agreement = .85; $\kappa = .46$; $\chi^2: 14.22, p < .001$.

3.3.2.2.4 Internal Consistency of Turkish CBVS on the Main Study Sample

A Cronbach's alpha coefficient was also calculated for the internal consistency of Turkish CBVS including seven victimization items. The Cronbach's alpha was .75 ($n = 1448$).

3.3.3 School Climate Survey (SCS)

The revised elementary and middle school student version of School Climate Survey developed by Emmons et al. (2002) was used to measure the general tone of the schools and the quality of the relationships among students and adults in the school setting (*see Appendix H for the scale*). The SCS contains 37 items about school conditions. These statements are responded on a three-point scale (3 = *Agree*, 2 = *Not sure*, and 1 = *Disagree*). The scale consists of six dimensions, namely fairness (5 items) (e.g. “Everyone is treated equally well at my school”), order and discipline (7 items) (e.g. “My school is usually very noisy”), parent involvement (5 items) (e.g. “My parent(s) visits my school often”), sharing of resources (4 items) (e.g. “When we have fun games at my school, the same children are always put in charge”), student interpersonal relations (7 items) (e.g. “Children at my school call each other bad names”), and student-teacher relations (9 items) (e.g. “Teachers at my school help us children with our problems”). While scoring the original scale, ten items are reversed scored (items 1, 6, 9, 12, 14, 20, 21, 23, 24, and 33). Higher scores obtained from the scale indicate greater or more positive perceived school climate. Fairness refers to the equal treatment of students regardless of gender, race, and socioeconomic status. The dimension of order and discipline includes the items related to appropriateness of student behavior in the school setting. Parent involvement addresses to the frequency of parents participation in school activities. Sharing of resources refers to equal student opportunity to participate in school activities and to use of school materials and equipment. Student interpersonal relations means the levels of caring, respect, and trust that exists among students in the school. The last dimension, student-teacher relations,

refers to the level of caring, respect, and trust that exists between students and teacher in the school (Emmons et al., 2002).

Emmons et al. (2002) reported the reliability coefficients for the subscales of the SCS, range between .68 and .87. The reliability coefficient for fairness .83, order and discipline .75, parent involvement .68, sharing of resources .75, student interpersonal relations .84, and student-teacher relations .87. A confirmatory factor analysis was conducted for this revised version of the SCS by Ware (2003) with 2,746 cases and using maximum likelihood estimation. The results indicated that the overall assessment of the model was mixed [$\chi^2(614, n = 2,749) = 3832.21, p < .001$; NNFI = .90; CFI = .91; GFI = .92; SRMR = .05; RMSEA = .04].

In the present study, the psychometric evidence was explored for the SCS to use it with Turkish middle school students. Before that, the permission for translation and adaptation of the SCS into Turkish was obtained from Dr. Christine L. Emmons who is an associate research scientist and scholar in Yale University Child Study Center (*see* Appendix D for the permission emailing). The psychometric properties of the scale were explained in the following sections.

3.3.3.1 Translation and Adaptation of the SCS

The SCS was initially given to four advanced doctoral students in counseling and one Assistant Professor of Educational Psychology. All judges had proficiency in Turkish and English. After receiving the translated forms, the best fitted items to the original items were selected by the researcher. After that, the Turkish form SCS was evaluated by two experts (one Associate Professor of

Psychological Counseling and Guidance, and one Assistant Professor of Educational Psychology) in terms of layout of the items, wording and relevance of the items to Turkish culture. These experts suggested some changes in the wording of 5 items and omitting the item of 13 (At my school, children of all races are treated the same) from the scale due to item not being relevant to Turkish culture. In line with these feedback, wording changes were done in 5 items and the 13th item was removed from the scale. Final Turkish version of the SCS included 36 items. Parallel to the original form, the reverse items of Turkish form are 1, 6, 9, 12, 13, 19, 20, 22, 23, and 32.

3.3.3.2 Validity and Reliability Study of Turkish SCS

The Turkish SCS was piloted with 314 middle school students in Ankara. Of the students, 140 (44.4%) were males and 175 (55.6%) were females. Participants were from 6th grade ($n = 109$, 34.6%), 7th grade ($n = 122$, 38.7%), and 8th grade ($n = 85$, 26.7%). The mean age of participants was 13.01 ($SD = .94$). The psychometric properties of the scale was presented below.

3.3.3.2.1 Confirmatory Factor Analysis (CFA) of Turkish SCS

The CFA was chosen as the procedure to test the factor structure of the original form of SCS which would be maintained in Turkish form of the SCS. The purpose of conducting the CFA is that it provides many analytic possibilities (e.g., assessment of method effects, investigation of the stability or invariance of the factor model over informants) that are not possible to obtain with exploratory factor analysis (EFA) (Brown, 2006). A six-factor school climate model was tested using CFA in LISREL 8.71, a software package for structural

equation modeling (Joreskog & Sorbom, 2004). Prior to the analyses, several assumptions for CFA were examined: accuracy of data entry, sample size, missing values, outliers, normality, linearity, and multicollinearity (Ullman, 2001). These assumption checks were discussed below.

3.3.3.2.1.1 Evaluation of Assumptions for the CFA of Turkish SCS

Since the data was entered manually by the researcher, accuracy of data entry was checked. Accurate data entry was achieved through inspection of minimum and maximum values, mean and standard deviations for each observed variables. As a result no mis-entered data was found.

Following accuracy of data entry, sample size of the study was evaluated. Since CFA is based on covariances, parameter estimates and chi-square test of fit are very sensitive to sample size (Ullman, 2001). In this study, there were 36 observed variables and 314 participants. Totally, 87 free parameters would have been estimated; 36 for the factor loadings, 36 for the covariance errors, and 15 for the correlations among the latent factors. In that case, the ratio of cases to estimated parameters 3.6:1, which is below the ratio suggested by R. B. Kline (2005) as 20:1 or 10:1. However, there are various views on minimum sample size for the CFA. While some of them (R. B. Kline, 2005; Ullman, 2001) suggest a critical ratio of sample size, some of them suggest to use absolute minimum number of subjects, as at least $n = 200$ (e.g. Anderson & Gerbing, 1984). In contrast to these common trends, Gagne and Hancock (2006) discussed that a view shift from an absolute n or a critical ratio of sample size toward consideration of model quality. They found that larger samples, more indicators per factor, and stronger factor loading improved model convergence and

parameter estimation. Considering all these discussions, analysis was performed with current sample size.

Some variables in the data set had some missing values, which did not exceed 2 percent. R. B. Kline (2005) addressed some conventional procedures for handling with missing values, which are deleting cases with missing values (listwise deletion, pairwise deletion), imputing the missing values through single imputation methods (mean substitution, regression-based substitution, pattern matching, and random hot-deck imputation) or model-based imputation methods (expectation-maximization (EM) algorithm) or some special multivariate estimation methods. Deletion of cases with missing values and most of imputation methods except for EM have some drawbacks (R. B. Kline, 2005). Therefore, EM algorithm more sophisticated than any of the methods is mostly preferred in CFA (R. B. Kline, 2005; Schumacker & Lomax, 2004). In this study, the data was analyzed with missing cases (model 1) and imputing EM algorithm (model 2) to test the possible effects of missing values on the analysis. Results indicated that model goodness of fit indices (χ^2 , df , RMSEA, CFI, AIC, and SRMR) of the second model ($\chi^2 = 969.13$, $df = 579$, RMSEA = .046, CFI = .96, AIC = 1143.13, SRMR = .07) slightly improved over the first model ($\chi^2 = 1011.13$, $df = 579$, RMSEA = .046, CFI = .95, AIC = 1185.13, SRMR = .07). Therefore, it was decided to continue analysis with the data including EM imputation.

Another assumption for the CFA is univariate and multivariate outliers that indicate cases with scores which are very different from the rest (R. B. Kline, 2005). To find out univariate outliers, standardized z scores exceeding the range between +3.29 and -3.29 were checked for each of the z scores of the observed

variables (Tabachnick & Fidell, 2001). No univariate outliers were found exceeding z scores from the data set. For multivariate outliers testing Mahalanobis distances were calculated and no outlier was detected greater than $\chi^2(36) = 67.99$, ($p < .001$) in the data set. Therefore, the data analyses were conducted with 314 cases in this study.

Univariate and multivariate normality assumptions that assume normal distributions for continuous variables (R. B. Kline, 2005) were also checked using LISREL 8.71 (Joreskog & Sorbom, 2004). Univariate normality was checked through examining skewness and kurtosis indexes (Mardia, 1975). Summary statistics (means, standard deviations, skewness, and kurtosis) were presented in the Table 3.2. All of the observed variables was significantly skewed and kurtotic that means all of them showed significant deviations from univariate normality. Indexes ranged from -1.49 to .95 for skewness, and -1.57 to .66 for kurtosis.

Multivariate normality is crucial for a multivariate analysis. Test of multivariate normality showed significant deviations from multivariate normality (Skewness $z = 11.99$, $p < .001$; Kurtosis $z = 8.45$, $p < .001$; Skewness and Kurtosis $\chi^2 = 215.26$, $p < .001$). A transformation was attempted for each item, but failed to normalize the data. Ullman (2006) pointed out that transformation of non-normal data causes some difficulties in interpretation. Therefore Ullman suggests some estimation methods for non-normality instead of transformation. When non-normality is a case for continuous variables, the two most commonly estimation methods are recommended. The first one is robust maximum likelihood (ML) (Bentler, 1995; Satorra & Bentler, 1994). Another procedure is weighted least squares (WLS) (Browne, 1984).

Table 3.2

Descriptive Statistics for 36 Items of Turkish SCS: Means, Standard Deviations, Skewness, and Kurtosis

Item	Item Mean	Item SD	Univariate Skewness	Univariate Kurtosis
SCS 1 (Order and discipline)	1.52	0.75	0.88*	-0.87*
SCS 2 (Student interpersonal relations)	1.82	0.67	0.20*	-0.82*
SCS 3 (Fairness)	2.52	0.74	-0.99*	-0.70*
SCS 4 (Parent involvement)	2.52	0.74	0.34*	-1.17*
SCS 5 (Student interpersonal relations)	2.04	0.73	-0.04*	-1.10*
SCS 6 (Order and discipline)	2.00	0.77	-0.00*	-1.32*
SCS 7 (Fairness)	2.15	0.82	-0.24*	-1.50*
SCS 8 (Parent involvement)	2.70	0.59	-1.49*	0.66*
SCS 9 (Order and discipline)	1.82	0.80	0.18*	-1.07*
SCS 10 (Student-teacher relations)	2.60	0.69	-1.20*	-0.20*
SCS 11 (Student-teacher relations)	2.54	0.68	0.95*	-0.60*
SCS 12 (Sharing of resources)	1.98	0.83	0.02*	-1.53*
SCS 13 (Sharing of resources)	1.93	0.82	0.19*	-1.20*
SCS 14 (Student interpersonal relations)	2.03	0.71	-0.04*	-0.98*
SCS 15 (Student interpersonal relations)	2.06	0.68	-0.07*	-0.84*
SCS 16 (Student-teacher relations)	2.34	0.77	-0.54*	-1.23*
SCS 17 (Order and discipline)	1.97	0.82	0.05*	-1.51*
SCS 18 (Student-teacher relations)	2.47	0.68	-0.74*	-0.82*
SCS 19 (Order and discipline)	2.27	0.78	-0.42*	-1.33*
SCS 20 (Sharing of resources)	2.25	0.78	-0.39*	-1.32*
SCS 21 (Student interpersonal relations)	2.18	0.76	-0.25*	-1.27*
SCS 22 (Sharing of resources)	1.99	0.77	-0.07*	-1.02*
SCS 23 (Order and discipline)	1.69	0.74	0.46*	-1.16*
SCS 24 (Student interpersonal relations)	2.20	0.75	-0.17*	-0.91*
SCS 25 (Student-teacher relations)	2.36	0.78	-0.60*	-1.23*
SCS 26 (Parent involvement)	2.04	0.81	-0.06*	-1.48*
SCS 27 (Student-teacher relations)	2.56	0.68	-1.02*	-0.50*
SCS 28 (Parent involvement)	1.93	0.76	0.10*	-1.26*
SCS 29 (Student-teacher relations)	2.46	0.72	-0.78*	-0.90*
SCS 30 (Fairness)	2.33	0.83	-0.57*	-1.38*
SCS 31 (Fairness)	2.09	0.84	-0.15*	-1.57*
SCS 32 (Order and discipline)	1.74	0.77	0.40*	-1.27*
SCS 33 (Student interpersonal relations)	1.91	0.75	0.12*	-1.24*
SCS 34 (Student-teacher relations)	2.21	0.83	-0.34*	-1.50*
SCS 35 (Parent involvement)	2.15	0.79	0.21*	-1.37*
SCS 36 (Student-teacher relations)	2.40	0.82	-0.74*	-1.20*
Multivariate kurtosis =				1.042*

Note. * $p < .001$

Since WLS requires large samples (Jaccard & Wan, 1996) and the pilot sample was small ($n = 314$), the estimation method of robust ML was used. The robust ML estimation method produces a mean-adjusted χ^2 test statistic that refers to Satorra-Bentler scaled χ^2 (Satorra & Bentler, 1994). This statistic provides an adjustment for non-normality (Chou & Bentler, 1995).

The assumption of linearity was inspected by plotting the data on scatterplots (Schumacker & Lomax, 2004; Ullman, 2001) in PASW Statistics 18 (IBM, 2009). Due to large number of variables, several scatterplots were randomly selected to examine linearity. These scatterplots showed that bivariate relationships between the variables didn't depart from linearity.

Another assumption of the CFA is multicollinearity that indicates high correlations among some variables (e.g., $r > .85$) (R. B. Kline, 2005). Multicollinearity occurs when there are high associations among three or more independent variables. As it increased, the interpretation of the relationships will be difficult because it is hardly possible to determine the effect of any single construct due to their interrelationships (Hair, Black, Babin, Anderson, & Tatham, 2006).

Intercorrelations among the variables were examined through correlation matrix. Correlation matrix indicated that there was no values exceeding the value of .85. In addition to correlation matrix, the variance inflation factor (VIF) and tolerance values for the variables were examined. The results indicated that VIF values ranged between 1.247 and 2.100, and tolerance values ranged between .476 and .802. These values indicated that the assumption of

multicollinearity wasn't violated. All the necessary assumptions checks indicated that the data was ready for confirmatory factor analysis.

3.3.3.2.1.2 Model Estimation for the Turkish SCS

To evaluate the fit of six-factor structure to the data, several fit indices were used. R. B. Kline (2005) suggested a minimal set of fit indexes while reporting and interpreting the results of CFA. These indexes are the model chi-square, root mean square error of approximation (RMSEA), comparative fit index (CFI), and standardized root mean square residual (SRMR). Brown (2006) classified these indices into three categories namely absolute fit (i.e., χ^2 and SRMR), fit adjusting for model parsimony (i.e., RMSEA), and comparative or incremental fit (i.e., CFI, Tucker-Lewis index (TLI)).

Absolute fit indices don't employ an alternative model as a baseline for comparison (Tanaka, 1993). The model chi-square (χ^2) is an example for absolute fit index. If model chi-square equals to zero, it indicates a perfect fit. As this value increases, the fit of the model becomes worse. To rely on model chi-square solely may deceive the researcher because it is affected by many factors such as the size of the correlations and sample size. To deal with the sensitivity of chi-square to sample size, generally the value of normed-chi-square, obtained by dividing χ^2 by the degree of freedom, is used (R. B. Kline, 2005). R. B. Kline (1998) suggested a favorable value of χ^2/df ratio which is less than 3.

Another example for absolute fit index is standardized root mean square residual (SRMR). The SRMR indicates the differences between the observed and predicted correlations. It has a range fall between 0.0 and 1.0 and approximation

to 0.0 show a perfect fit (Brown, 2006). Hu and Bentler (1999) suggested a cut off value close to .08 or below for SRMR for a good fit.

Brown (2006) differentiate the fit indices adjusting for model parsimony from the category of absolute fit. One of the index can be used from this category is RMSEA, which is based on non-centrality parameters and evaluates how a model fits reasonably well to the population (Brown, 2006). According to Browne and Cudeck (1993), RMSEA which is $\leq .05$ shows close approximate fit, values between .05 and .08 indicate reasonable error of approximation, and values $\geq .10$ suggest poor fit. MacCallum, Browne, and Sugawara (1996) pointed out that the value range of .08 to .10 for RMSEA shows mediocre fit. Hu and Bentler (1999) suggested a cut-off value close to .06 or below for RMSEA for good fit.

Comparative or incremental fit indices evaluate the fit of the proposed model compared with a baseline model (also called as null or independence model) (Brown, 2006). An example for this index is comparative fit index (CFI; Bentler, 1990). It has a range values between 0.0 and 1.0, and with values closer to 1.0 indicates good fit (Brown, 2006). Hu and Bentler (1999) suggested a cut-off value close to .95 or greater for CFI for a good fit.

Another popular comparative or incremental fit index is Tucker-Lewis index (TLI), also known as non-normed fit index (NNFI) in some programs. The TLI has a penalty function for adding parameters that do not change the fit of the model. The TLI values are interpreted as CFI that an approximation to 1.0 indicates a good fit (Brown, 2006). Hu and Bentler (1999) recommended a cut-off value close to .95 for TLI.

In this study, the following criteria were selected to determine good model fit: an RMSEA less than .05 (Browne & Cudeck, 1993), a relative χ^2/df ratio less than 3 (R. B. Kline, 1998), an SRMR less than .08, a TLI greater than .95, and a CFI greater than .95 (Hu & Bentler, 1999). The goodness-of-fit indices of the model is only one facet of model assessment. It is also prominent to look at the interpretability and strength of the resulting parameter through standardized residuals (Brown, 2006).

3.3.3.2.1.3 The CFA Results of the Turkish SCS

Six-factor model for Turkish SCS was based on the covariance matrix and the model parameters were estimated using a robust ML estimation. The model chi-square goodness-of-fit statistic was statistically significant ($p < .01$), indicating that the model didn't fit the data. As mentioned previously, since the model chi-square is sensitive to sample size, it is suggested to examine the other fit indices (R. B. Kline, 2005). The Satorra-Bentler scaled chi-square value was 969.13 with 579 degrees of freedom, making the chi-square over degrees of freedom (χ^2/df ratio) 1.67 which lower than the suggested 3 (R. B. Kline, 1998). The root mean-square error of approximation (RMSEA) value was .046, lower than the suggested value of .05 (Browne & Cudeck, 1993). The standardized root mean square residual (SRMR) was .040, lower than the recommended of .08 (Hu & Bentler, 1999). The Tucker-Lewis index (TLI, also known as NNFI) was .96, greater than recommendation of $\geq .95$ (Hu & Bentler, 1999). The comparative fit index (CFI) was .96, greater than the suggestion of $\geq .95$ (Hu & Bentler, 1999). The overall fit indices would have suggested that the model fit the data adequately.

The standardized error terms and coefficients for 36 indicators were presented in Table 3.3. All items had significant loadings on their corresponding factors.

Tale 3.3

Unstandardized and Standardized Parameter Estimates for Turkish SCS

Construct	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	SE	<i>t</i>	<i>R</i> ²
Fairness	SCS 3	.32	.43	.05	6.81	.18
	SCS 7	.55	.67	.04	13.24	.46
	SCS 30	.56	.68	.04	14.03	.46
	SCS 31	.53	.63	.04	12.30	.39
Order and discipline	SCS 1	.32	.42	.05	7.10	.18
	SCS 6	.37	.48	.04	8.96	.23
	SCS 9	.36	.45	.05	7.84	.20
	SCS 17	.34	.42	.04	7.77	.17
	SCS 19	.38	.49	.04	9.77	.24
	SCS 23	.48	.65	.04	12.35	.42
	SCS 32	.44	.58	.04	11.53	.33
Parent involvement	SCS 4	.13	.18	.05	2.95	.03
	SCS 8	.15	.25	.04	3.71	.06
	SCS 26	.63	.78	.05	12.59	.61
	SCS 28	.21	.28	.05	4.58	.08
	SCS 35	.63	.81	.06	11.37	.65
Sharing of resources	SCS 12	.57	.69	.04	14.89	.48
	SCS 13	.50	.61	.04	11.80	.38
	SCS 20	.32	.41	.05	6.88	.17
	SCS 22	.45	.58	.04	10.89	.34
Student interpersonal relations	SCS 2	.34	.50	.04	9.37	.25
	SCS 5	.43	.59	.04	12.14	.35
	SCS 14	.50	.71	.03	15.46	.50
	SCS 15	.40	.59	.04	11.37	.35
	SCS 21	.52	.69	.03	15.83	.47
	SCS 24	.43	.58	.04	11.22	.33
	SCS 33	.51	.68	.03	15.59	.47
Student-teacher relations	SCS 10	.45	.66	.04	10.84	.44
	SCS 11	.48	.72	.04	13.57	.51
	SCS 16	.42	.55	.04	10.71	.30
	SCS 18	.46	.68	.04	12.79	.47
	SCS 25	.49	.63	.04	12.89	.39
	SCS 27	.42	.63	.04	10.30	.39
	SCS 29	.49	.69	.03	14.44	.47
	SCS 34	.47	.56	.04	11.85	.32
	SCS 36	.59	.73	.03	17.22	.53

Note. All *t*-values were significant, $p < .001$.

Factor pattern coefficients for the items of fairness dimension ranged from .43 to .68, those for items of order and discipline dimension from .42 to .65, those for items of parent involvement dimension from .18 to .81, those for items of sharing of resources dimension from .41 to .69, those for items of student interpersonal relations dimension from .50 to .71, and those for items of students-teacher relations dimension from .55 to .73. However, as shown in the figure, the standardized coefficients for the items of 4 and 28 were low in magnitude compared to the others.

R^2 refers to the proportion of variance accounted for in each item by its corresponding item. R^2 is mostly expected to be greater than .50 and/or t -value for each indicator is expected to be significant (Bollen, 1989). R^2 for items of fairness dimension ranged from .18 to .46, those for items of order and discipline dimension from .17 to .42, those for items of parent involvement dimension from .03 to .65, those for items of sharing of resources dimension from .17 to .48, those for items of student interpersonal relations dimension from .25 to .50, and those for items of students-teacher relations dimension from .30 to .53.

Since the presentation of correlation among constructs wasn't convenient in the path diagram, they were given in Table 3.4. As shown in the table, all correlations among latent constructs were significant except for correlation between sharing of resources and parent involvement ($r = -.01$).

Table 3.4

Correlation Among Latent Constructs for Six-Factor Model of Turkish SCS

Construct	1	2	3	4	5	6
1. Fairness	1.00					
2. Order and discipline	.54*	1.00				
3. Parent involvement	.16*	.14*	1.00			
4. Sharing of resources	.56*	.71*	-.01	1.00		
5. Student interpersonal relations	.58*	.72*	.22*	.36*	1.00	
6. Student-teacher relations	.75*	.41*	.19*	.41*	.53*	1.00

Note. $n = 314$, * $p < .01$

3.3.3.2.2 Internal Consistency and Test-Retest Stability of the Turkish SCS

Cronbach's alpha coefficients, a measure of internal consistency, were calculated for the overall scale and subscales of the scale. Coefficient of internal consistency for the entire scale was found .90, which indicates an excellent internal consistency reliability (Cicchetti, 1994; P. Kline, 2000). Cronbach's alpha coefficients varied between .56 and .86 for the subscales (fairness .69, order and discipline .69, parent involvement .56, sharing of resources .66, student interpersonal relations .81, and student-teacher relations .86). Cronbach's alpha coefficients of some of the subscales were greater than the suggested cut-off value .70 for acceptable reliability (P. Kline, 2000). However, some of them were below this cutoff value.

Sixty five of the 314 participants were retested two weeks after initially completing the instruments. The test-retest reliability for the overall scale was .67 ($p < .01$). The test-retest reliabilities for the subscales ranged between .50 and .73 ($p < .01$) (fairness .51, order and discipline .62, parent involvement .50,

sharing of resources .67, student interpersonal relations .73, and student-teacher relations .61).

3.3.3.3 Validity and Reliability Study of Turkish SCS on the Main Study Sample

The validity and reliability evidences for the Turkish SCS were investigated not only on the pilot sample but also on the main study sample. All steps were explained in the followings parts.

3.3.3.3.1 CFA of Turkish SCS on the Main Study Sample

A six-factor model for Turkish SCS on the main study's sample was tested through a CFA in LISREL 8.71 (Joreskog & Sorbom, 2004). The assumption checks of the CFA were explained in the following section.

3.3.3.3.1.1 Evaluation of Assumptions for the CFA of Turkish SCS on the Main Study Sample

The minimum and maximum values, means, and standard deviations for each observed variables indicated that the data entry was accurate. No missing values were found in the data set. The sample size was adequate for conducting the CFA ($n > 200$; Anderson & Gerbing, 1984). No univariate outliers (exceeding the standardized z scores of ± 3.29) and multivariate outliers (greater than $\chi^2(36) = 67.99$, $p < .001$) were found. Regarding univariate normality, most of the observed variables were significantly skewed and kurtotic. Indexes ranged from $-.75$ to 1.11 for skewness, and -1.45 to $-.21$ for kurtosis. Test of multivariate

normality showed significant deviations from multivariate normality (Skewness $z = 32.09$, $p < .001$; Kurtosis $z = 28.00$, $p < .001$; Skewness and Kurtosis $\chi^2 = 1814.79$, $p < .001$). Due to the deviations from univariate and multivariate normality, the estimation method of robust ML was selected. In terms of the assumption of linearity, several scatterplots randomly selected indicated that bivariate relationships between the variables didn't depart from linearity. The assumption of multicollinearity was tested via correlation matrix, the variance inflation factor, and tolerance values. Correlation matrix indicated that there were no values exceeding the value of .85 (R. B. Kline, 2005). The VIF values ranged between 1.214 and 1.951, and tolerance values ranged between .513 and .824. These values indicated that the assumption of multicollinearity wasn't violated. All assumptions checks showed that the data was ready for the CFA. The model estimation and the CFA results of Turkish SCS were presented in the following sections.

3.3.3.3.1.2 Model Estimation for the Turkish SCS on the Main Study Sample

The fit of six-factor structure of Turkish SCS to the main study data was assessed with several fit indices. These fit indices are the model chi-square, χ^2/df ratio, root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI; also known as non-normed fit index (NNFI)), and standardized root mean square residual (SRMR). The following criteria were selected to determine good model fit: an RMSEA less than .05 (Browne & Cudeck, 1993), a relative χ^2/df ratio less than 3 (R. B. Kline, 1998), an SRMR close to .08, a TLI greater than .95, and a CFI greater than .95 (Hu & Bentler, 1999).

3.3.3.3.1.3 The Results of Turkish SCS on the Main Study Sample

Six-factor model for Turkish SCS was tested based on the covariance matrix through using a robust ML estimation. Since the model chi-square goodness-of-fit statistic was statistically significant ($p < .01$), other fit indices were also investigated (R. B. Kline, 2005). The Satorra-Bentler scaled chi-square value was 2219.65 with 579 degrees of freedom. The χ^2/df ratio was 3.83 which was close to the recommended value of 3 (R. B. Kline, 1998). The root mean-square error of approximation (RMSEA) value was .047, indicating a close approximate fit (Browne & Cudeck, 1993). The standardized root mean square residual (SRMR) was .064, below the value recommended as $\leq .08$ (Hu & Bentler, 1999). The Tucker-Lewis index (TLI, also known as NNFI) was .96, a value higher than the recommended value of .95 (Hu & Bentler, 1999). The comparative fit index (CFI) was .96, a value correspond to the recommended value of $\geq .95$ (Hu & Bentler, 1999).

Factor pattern coefficients for the items of fairness dimension ranged from .46 to .67, those for items of order and discipline dimension from .22 to .69, those for items of parent involvement dimension from .33 to .76, those for items of sharing of resources dimension from .55 to .65, those for items of student interpersonal relations dimension from .45 to .68, and those for items of students-teacher relations dimension from .55 to .71. R^2 for items of fairness dimension ranged from .21 to .44, those for items of order and discipline dimension from .05 to .48, those for items of parent involvement dimension from .11 to .57, those for items of sharing of resources dimension from .30 to .42, those for items of student interpersonal relations dimension from .20 to .46, and

those for items of students-teacher relations dimension from .30 to .50. All correlations among latent constructs were significant ($p < .05$).

3.3.3.3.2 Internal Consistency of the Turkish SCS on the Main Study Sample

Coefficient of internal consistency for the entire scale was found .89. Cronbach's alpha coefficients varied between .65 and .85 for the subscales (fairness .65, order and discipline .66, parent involvement .66, sharing of resources .70, student interpersonal relations .80, and student-teacher relations .85). When the internal consistency coefficients of Turkish SCS on the main study were compared to the coefficients obtained from the pilot study, there were increases in the internal consistency coefficient of parent involvement (.56 in the pilot study) and sharing of resources (.66 in the pilot study). However, some of dimensions (fairness, order and discipline, and parent involvement) had low coefficients below the cutoff value of .70. Given the low internal consistency coefficients for fairness, parent involvement, and sharing of resources could be explained with a smaller number of items for these dimensions. Although the internal consistency of some dimensions for the pilot and main studies were below the cutoff value of .70, the test-retest reliabilities for all dimensions obtained in the pilot study provided adequate evidence to use these dimensions in the analysis of HGLM.

3.3.4 Self-Efficacy Questionnaire for Children (SEQ-C)

In the present study, the Self-Efficacy Questionnaire for Children developed by Muris (2001) was used to assess students' self-efficacy beliefs (*see* Appendix I for

the scale). The original questionnaire contains 24 items, responded on a five-point scale (1 = *Not at all* to 5 = *Very well*). The SEQ-C evaluates three domains of self-efficacy; namely, academic self-efficacy, social self-efficacy, and emotional self-efficacy. The academic self-efficacy measures the perceived capability to control learning behavior, to be skilled or proficient on academic subjects, and to carry out academic expectations (e.g. "How well can you get teachers to help you when you get stuck on schoolwork?"). The domain of social self-efficacy refers to the perceived capacity for peer relationships and assertiveness (e.g. "How well can you express your opinions when other classmates disagree with you?"). The last dimension, emotional self-efficacy, evaluates the perceived capability to deal with negative emotions (e.g. "How well do you succeed in suppressing unpleasant thoughts?"). Each subscales consists of eight items. Higher scores obtained from the scale indicates high level of self-efficacy. Cronbach's alpha coefficients were .88 for the total self-efficacy score, .88 for the total academic self-efficacy score, .85 for the total social self-efficacy score, and .86 for the total emotional self-efficacy score. The academic and emotional self-efficacies were significantly and negatively correlated with depression (Muris, 2001).

The SEQ-C was adapted for use with Turkish adolescents by Çelikkaleli, Gündoğdu, and Kıran Esen (2006). In the adaptation study, the original factor structure of the SEQ-C was obtained. However, one item of the scale (item 24th) was omitted by the researchers because of low item loading. In addition, one item (item 18th) which took a place in emotional self-efficacy dimension of the original form loaded on social self-efficacy dimension in the adaptation study. Again, one item (item 23th) which loaded on social self-efficacy factor in the original form loaded on emotional self-efficacy dimension in adaptation study.

Turkish version of the SEQ-C was finalized with 23 items, and 3 sub-dimensions as academic (items: 1, 4, 7, 10, 13, 16, 19, and 22), social (items: 2, 6, 8, 11, 14, 17, 18, and 20), and emotional self-efficacy (items: 3, 5, 9, 12, 15, 21, and 23). The internal consistency reliabilities of Turkish SEQ-C were found to be .78 for the total self-efficacy score and between .64 and .71 for the subscale scores. The test-retest reliabilities with a three-week interval were found to be .85 for the total self-efficacy score and between .65 and .77 for the subscale scores. The results of the validity study indicated that the total self-efficacy, academic and social self-efficacy were significantly and negatively related to depression (Çelikkaleli et al., 2006).

A permission was obtained from Dr. Öner Çelikkaleli to use this scale in the current study (*see* Appendix E for the permission emailing). Since the adaptation study was carried on Turkish high school students, in this study, it was aimed to examine the factor structure of original and adapted form of SEQ-C on Turkish middle school students.

3.3.4.1 Validity and Reliability Study of Turkish SEQ-C

The participants of validity and reliability study of Turkish SEQ-C were composed of 329 middle school students randomly selected from the sample of the main study. Of the total 329 students, 151 (45.9%) were males and 178 (54.1%) were females. Participants were from 6th grade ($n = 132$, 40.1%), 7th grade ($n = 108$, 32.8%), and 8th grade ($n = 89$, 27.1%). The ages of participants ranged between 10 and 16, with the mean of 12.90 ($SD = .96$).

3.3.4.1.1 Confirmatory Factor Analysis of Turkish SEQ-C

A three-factor model for Turkish SEQ-C was tested through a CFA in LISREL 8.71 (Joreskog & Sorbom, 2004). Before that, the assumptions of CFA; namely, accuracy of data entry, sample size, missing values, outliers, normality, linearity, and multicollinearity were checked. These assumption checks were explained in the following section.

3.3.4.1.1.1 Evaluation of Assumptions for the CFA of Turkish SEQ-C

The minimum and maximum values, means, and standard deviations for each observed variables indicated that the data entry was accurate. No missing values were found in the data set. The sample size was adequate for conducting the CFA ($n > 200$; Anderson & Gerbing, 1984). No univariate outliers (exceeding the standardized z scores of ± 3.29) and multivariate outliers (greater than $\chi^2(23) = 54.05$, $p < .001$) were found. Regarding univariate normality, most of the observed variables were significantly skewed and kurtotic. Indexes ranged from $-.77$ to $.32$ for skewness, and -1.24 to $-.62$ for kurtosis. Test of multivariate normality showed significant deviations from multivariate normality (Skewness $z = 13.15$, $p < .001$; Kurtosis $z = 12.30$, $p < .001$; Skewness and Kurtosis $\chi^2 = 324.03$, $p < .001$). Due to the deviations from univariate and multivariate normality, the estimation method of robust ML was selected. In terms of the assumption of linearity, several scatterplots randomly selected indicated that bivariate relationships between the variables didn't depart from linearity. The assumption of multicollinearity was tested via correlation matrix, the variance inflation factor, and tolerance values. Correlation matrix indicated that there were no values exceeding the value of $.85$ (R. B. Kline, 2005). The VIF values

ranged between 1.254 and 2.066, and tolerance values ranged between .484 and .798. These values indicated that the assumption of multicollinearity wasn't violated. All assumptions checks showed that the data was ready for the CFA. The model estimation and the CFA results of Turkish SCS were presented in the following sections.

3.3.4.1.1.2 Model Estimation for Turkish SEQ-C

The fit of three-factor structure of Turkish SEQ-C to the data was assessed with several fit indices. These fit indices are the model chi-square, χ^2/df ratio, root mean square error of approximation (RMSEA), comparative fit index (CFI), Tucker-Lewis index (TLI; also known as non-normed fit index (NNFI)), and standardized root mean square residual (SRMR). The following criteria were selected to determine good model fit: an RMSEA less than .05 (Browne & Cudeck, 1993), a relative χ^2/df ratio less than 3 (R. B. Kline, 1998), an SRMR close to .08, a TLI greater than .95, and a CFI greater than .95 (Hu & Bentler, 1999).

3.3.4.1.1.3 The CFA Results of Turkish SEQ-C

Three-factor model for Turkish SEQ-C was tested based on the covariance matrix through using a robust ML estimation. Since the model chi-square goodness-of-fit statistic was statistically significant ($p < .01$), other fit indices were also investigated (R. B. Kline, 2005). The Satorra-Bentler scaled chi-square value was 882.39 with 227 degrees of freedom. The χ^2/df ratio was 3.89 which was close to the recommended value of 3 (R. B. Kline, 1998). The root mean-square error of approximation (RMSEA) value was .09, indicating a poor fit

(Browne & Cudeck, 1993). The standardized root mean square residual (SRMR) was .08, equal to the value recommended as $\leq .08$ (Hu & Bentler, 1999). The Tucker-Lewis index (TLI, also known as NNFI) was .90, a value close to .95 (Hu & Bentler, 1999). The comparative fit index (CFI) was .91, close to the suggestion of $\geq .95$ (Hu & Bentler, 1999). Besides goodness-of-fit indices of the model, the parameter estimates were also examined. The standardized error terms and coefficients of 23 indicators were presented in Table 3.5.

Table 3.5
Unstandardized and Standardized Parameter Estimates for Turkish SEQ-C

Construct	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	SE	<i>t</i>	<i>R</i> ²
Academic self-efficacy	SEQ1	.76	.55	.07	10.78	.30
	SEQ4	.71	.53	.08	9.37	.28
	SEQ7	.69	.48	.07	9.46	.23
	SEQ10	.84	.60	.06	13.37	.36
	SEQ13	.71	.49	.07	10.44	.24
	SEQ16	.69	.47	.08	9.01	.22
	SEQ19	.86	.72	.06	15.68	.52
	SEQ22	.35	.23	.09	2.83	.05
Social self-efficacy	SEQ2	.67	.46	.07	9.37	.21
	SEQ6	.77	.64	.06	13.11	.41
	SEQ8	.82	.66	.06	13.86	.44
	SEQ11	.69	.49	.07	9.77	.24
	SEQ14	.84	.62	.06	14.28	.39
	SEQ17	.55	.43	.08	7.26	.18
	SEQ18	.75	.54	.07	10.88	.30
	SEQ20	.81	.68	.05	14.94	.46
Emotional self-efficacy	SEQ3	.68	.54	.07	10.01	.29
	SEQ5	.75	.56	.07	11.21	.31
	SEQ9	.77	.65	.06	12.59	.43
	SEQ12	.53	.38	.08	6.71	.14
	SEQ15	.67	.49	.08	8.84	.24
	SEQ21	.79	.70	.05	14.91	.49
	SEQ23	.58	.40	.08	7.64	.16

Note. All *t*-values were significant, $p < .001$.

All items significantly loaded on their corresponding factors. Factor pattern coefficients for the items of academic self-efficacy dimension ranged from .23 to .72, social self-efficacy from .43 to .68, and emotional self-efficacy from .38 to .70. For the items of academic self-efficacy dimension, R^2 ranged from .05 to .52, for the items of social self-efficacy dimension from .18 to .46, and for the items of emotional self-efficacy dimension from .14 to .49. Consequently, the overall fit indices of the model and the parameter estimates indicated an adequate fit. The correlations among latent constructs were presented in Table 3.6, which were all significant.

Table 3.6

Correlation Among Latent Constructs for Three-Factor Model of Turkish SEQ-C

Construct	1	2	3
1. Academic self-efficacy	1.00		
2. Social self-efficacy	.92*	1.00	
3. Emotional self-efficacy	.92*	.95*	1.00

Note. $n = 329$, $*p < .01$

3.3.4.1.2 Internal Consistency of Turkish SEQ-C

The internal consistencies of Turkish SEQ-C were investigated through Cronbach's alpha coefficients. They were as .90 for the total self-efficacy score, .86 for the total academic self-efficacy score, .77 for the total social self-efficacy score, and .77 for the total emotional self-efficacy score. It was apparent that there were increases in the reliability coefficients when compared to the values (.78 for the total self-efficacy score and between .64 and .71 for the subscale scores) obtained in the study of Çelikkaleli et al. (2006).

3.4 Data Collection Procedure

As this study required the participation of middle school students, the approvals of Human Subjects Ethics Committee of Middle East Technical University (*see* Appendix A for the approval letter) and Ankara Provincial Directorate of National Education (*see* Appendix B for the approval letter) were obtained, which was a compulsory process. After obtaining the approvals, the researcher made a visit to the selected middle schools. The administrators of these schools were informed about the aims and purpose of the study, and their assistance was asked by the researcher in order to administer the scales in the classrooms. The researcher took an active role during the whole process of data collection, which meant that he prepared all materials, organized the schools, and administered the instruments to the students. Some school administrators were really helpful during this process, especially planning the class times and arrangement of the classrooms for the administration. At some schools, the data were collected through the collaboration with school counseling services. School counselors arranged the classrooms and motivated students for administration.

To collect data, a set of instruments consisting of a demographic data form and three scales (CBVS, SEQ-C, and SCS) were prepared. The data were collected in the classrooms. The administration was completed in 30-40 minutes. Data were collected during the spring semester of 2011-2012 educational academic year. The data collection began in the mid-March 2012 and took eight weeks.

During the research process some ethical issues were also considered such as informed consent and confidentiality. The researcher explained students the purpose of the study and the importance of their participation in the study. It

was ensured that participation is voluntary and they can discontinue participation at any time without consequence. The privacy of the participants was ensured not asking personal information (name and student ID number) on measures. In order to obtain the data for test-retest reliabilities, the participants were asked to write a nickname. It was emphasized that all of their answers will be kept confidential, which means the researcher won't tell anybody else about what they wrote or show their answer anyone else. The data will only be used for research purposes.

3.5 Analysis of Data

To test a comprehensive model of student- and school-level effects, a statistical model, hierarchical generalized linear modeling (HGLM), was conducted. The analyses were done through a statistical program of HLM 7 (S. Raudenbush, Bryk, & Congdon, 2010). Hierarchical linear models (HLM) are appropriate when the outcome is continuous; however, HGLM is applied to the individual outcome which is ordinal, nominal, or categorical. In this study, since the outcome variable was multinomial (non-victim, peer victim, and bully victim) a two-level HGLM was estimated. The HGLM allows simultaneous investigations of relationships within a particular hierarchical level, as well as relationships between or across hierarchical levels (S. W. Raudenbush & Bryk, 2002).

3.5.1 Student- and School-Level Variables

Student-level variables included victimization (with “non-involved” students as the reference group), gender (with “females” as the reference group), age, academic achievement, academic self-efficacy, social self-efficacy, emotional

self-efficacy, fairness, order and discipline, parent involvement, sharing of resources, student interpersonal relations, and student-teacher relations. Since school climate scores were based on students' self-reports, its subscale scores were taken at the student-level. The aggregated school climate was entered at the school-level.

School-level variables which entered into the model as follows: school size, school GPA, number of disciplinary punishment in the school, the presence of private security personnel (with "no" as the reference group), ratio of unexcused absences, ratio of student-teacher, and aggregate school income and school climate. The operational definitions of the study variables were presented in Table 3.7.

3.5.2 Model Specifications

To address the research question of this study, several steps for hierarchical generalized linear models were estimated. Model formulations for these steps were described as follows:

3.5.2.1 Unconditional Model

As a first step, an unconditional model (random intercept model) was tested to determine the log-odds of peer victim and bully victim vary across the 16 schools. Unconditional model provides an baseline of comparison to determine student- and school-level variations in victimization (S. W. Raudenbush & Bryk, 2002).

Table 3.7

Operational Definitions of the Study Variables

Variable	Scale Range
Dependent Variable	
Victimization	1 = Peer Victim, 2 = Bully Victim, 3 = Non-victim
Student-Level Variables	
Gender	0 = Female, 1 = Male
Age	Continuous, min = 10.00, max = 16.00
Academic Achievement	Continuous, min = 1.00, max = 5.00
Academic Self-Efficacy	Continuous, min = 8.00, max = 40.00
Social Self-Efficacy	Continuous, min = 8.00, max = 40.00
Emotional Self-Efficacy	Continuous, min = 7.00, max = 35.00
Fairness	Continuous, min = 4.00, max = 12.53
Order and Discipline	Continuous, min = 7.00, max = 21.00
Parent Involvement	Continuous, min = 5.00, max = 15.25
Sharing of Resources	Continuous, min = 4.00, max = 12.94
Student Interpersonal Relations	Continuous, min = 7.00, max = 21.00
Teacher-Student Relations	Continuous, min = 9.00, max = 27.64
School-Level Variables	
School Size	Continuous, min = 219, max = 1098
School GPA (Mean)	Continuous, min = 65.46, max = 81.61
School Disciplinary Punishment	Continuous, min = 0.00, max = 2.00
School Security Personnel	0 = No, 1 = Yes
School Unexcused Absence Ratio	Continuous, min = 3.10, max = 5.92
Student-Teacher Ratio	Continuous, min = 7.41, max = 11.50
School Income (Mean)	Continuous, min = 15,919 TL, max = 48,963 TL
School Climate (Mean)	Continuous, min = 73.66, max = 84.05

3.5.2.2 Conditional Level-1 Model

Next step was to test to what extent student-level variables predict the likelihood of being peer victim and bully victim. Therefore, student-level variables was added into model. They were fixed. For the centering; gender, age, and academic achievement were left uncentered. On the other hand, other student-level variables namely academic self-efficacy, social self-efficacy,

emotional self-efficacy, fairness, order and discipline, parent involvement, sharing of resources, student interpersonal relations, and student-teacher relations were centered around the group mean. Centering issue refers to choosing the location of predictor variables (S. W. Raudenbush & Bryk, 2002). S. W. Raudenbush and Bryk (2002) suggested four centering options: raw metric scaling where no centering, grand-mean centering ($X_{ij} - \bar{X}_{..}$), group-mean centering ($X_{ij} - \bar{X}_{.j}$), and special choices of location for X . Centering of X_{ij} has a prominent role while interpreting the results (S. W. Raudenbush & Bryk, 2002).

After obtaining the conditional level-1 model, significant predictors were selected and the model was repeated with these significant predictors (emotional self-efficacy, fairness, order and discipline, sharing of resources, and student interpersonal relations). After that, the next step of conditional level-2 model was tested.

3.5.2.3 Conditional Level-2 Model

Conditional level-2 model tested to what extent school variables predict the likelihood of being peer victim and bully victim after controlling student-level variables. In this model, significant predictors in the earlier model were added into level-1 and additionally school-level variables were entered into the model at level-2. For the centering, student-level predictors were centered around the group mean. School-level variables, such as school size, school disciplinary punishment, school private security personnel, unexcused absences, and student-teacher ratio were left uncentered, while school GPA, school income, and school climate were centered around the grand mean.

CHAPTER IV

RESULTS

The results of the study were demonstrated in six steps. Initially, the distribution of the participants by gender and victimization categories were presented. The second step illustrated the descriptive statistics of the variables, such as means, standard deviations, minimum and maximum values. The third step explained the first phase for model demonstration, which was an unconditional model. The fourth step presented the level-1 conditional model. Based on this model, potential significant predictors in level-1 were determined and the results of retested model were demonstrated. The fifth step illustrated the level-2 conditional model including level-1 and level-2 predictors. The last step summarized the results of the study.

4.1 The Distribution of the Participants by Gender and Victimization Categories

The distribution of the participants by gender and victimization categories (non-victims, peer victims, and bully victims) was presented in Table 4.1. Of the total 1555 students, 22.6% ($n = 351$) were classified as non-victims, 46.8% ($n = 728$) peer victims, and 30.6% ($n = 476$) bully victims. As seen in the table, most of the participants were identified as peer victims.

Table 4.1

Distribution of the Participants by Gender and Victimization Categories

Victimization Categories	Gender				Total	
	Male		Female			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Non-victims	174	11.2	177	11.4	351	22.6
Peer victims	414	26.6	314	20.2	728	46.8
Bully victims	242	15.6	234	15.0	476	30.6
Total	830	53.4	725	46.6	1555	100.0

4.2 Descriptive Statistics for the Study Variables

The summary of the descriptive statistics (means, standard deviations, minimum and maximum values) for dependent, students-level, and school-level variables were presented in Table 4.2. The dependent variable “victimization” has three categories; namely, non-victims, peer victims, and bully victims. It has a standard deviation of .8, min. of 1, and max. of 3. In the student-level model, the predictor of “gender” is a dichotomous variable, and had a standard deviation of .5, minimum of .00, and maximum of 1.00. The mean of .53 for male indicates the proportion of males to the total population. In the school-level model, “school security personnel” derived from whether a school employs a private security personnel. This dichotomous variable has mean, standard deviation, minimum and maximum values as .25, .45, .00, and 1.00 respectively. The proportion of having a private security personnel to the total population is .25. Other predictors at the student- and school-levels are continuous, and their mean, standard deviation, minimum and maximum values were displayed in the table.

Table 4.2

Descriptive Statistics of the Study Variables

Variable	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>Min.</i>	<i>Max.</i>
Dependent Variable					
Victimization	1519	1.76	0.80	1.00	3.00
Student-Level Variables					
Gender (Male)	1521	0.53	0.50	0.00	1.00
Age	1521	13.03	0.95	10.00	16.00
Academic Achievement	1415	3.54	1.02	1.00	5.00
Academic Self-Efficacy	1521	28.82	6.65	8.00	40.00
Social Self-Efficacy	1521	29.32	6.23	8.00	40.00
Emotional Self-Efficacy	1521	22.22	6.17	7.00	35.00
Fairness	1521	9.01	2.24	4.00	12.53
Order and Discipline	1521	13.31	3.03	7.00	21.00
Parent Involvement	1521	10.61	2.41	5.00	15.25
Sharing of Resources	1521	8.16	2.30	4.00	12.94
Student Interpersonal Relations	1521	14.45	3.40	7.00	21.00
Teacher-Student Relations	1521	21.40	4.61	9.00	27.64
School-Level Variables					
School Size	16	652.13	267.32	219.00	1098.00
School GPA	16	72.10	4.06	65.46	81.61
School Disciplinary Punishment	16	0.25	0.68	0.00	2.00
School Security Personnel (Yes)	16	0.25	0.45	0.00	1.00
School Unexcused Absence Ratio	16	4.21	0.80	3.10	5.92
Student-Teacher Ratio	16	9.22	1.33	7.41	11.50
School Income (Mean)	16	24325.69	7947.61	15919.00	48963.00
School Climate (Mean)	16	77.29	2.67	73.66	84.05

The results from the HGLM analyses were presented in Table 4.3. In this table, parallel with the research questions of the study, initially One-way ANOVA with random effects (Model 1), random coefficients (Model 2), and intercept- and slope-as-outcome model (Model 3) were tested.

Table 4.3
Multinomial Logit Models Comparison for Victimization

Fixed Effect		Model 1	Model 2	Model 3	Model 4
Peer Victim Category					
Intercept, $\beta_{0(1)}$	Intercept, $\gamma_{00(1)}$	.72 **	1.86	.84 **	.51
	School Size, $\gamma_{01(1)}$				.00
	School GPA, $\gamma_{02(1)}^b$				.01
	School Punishment, $\gamma_{03(1)}$				-.29
	School Security (Yes), $\gamma_{04(1)}$				-.59
	Unexcused Absences, $\gamma_{05(1)}$				.40
	Student-Teacher Ratio, $\gamma_{06(1)}$				-.17
	School Income (Mean), $\gamma_{07(1)}^b$				.00
	School Climate (Mean), $\gamma_{08(1)}^b$				.01
Gender (Male) slope, $\beta_{1(1)}$	$\gamma_{10(1)}$		.17		
Age slope, $\beta_{2(1)}$	$\gamma_{20(1)}$		-.07		
Academic Achievement slope, $\beta_{3(1)}$	$\gamma_{30(1)}$		-.04		
Academic Self-Efficacy slope, $\beta_{4(1)}^a$	$\gamma_{40(1)}$		-.02		
Social Self-Efficacy slope, $\beta_{5(1)}^a$	$\gamma_{50(1)}$		.01		
Emotional Self-Efficacy slope, $\beta_{6(1)}^a$	$\gamma_{60(1)}$		-.03 *	-.04 **	-.04 **
Fairness slope, $\beta_{7(1)}^a$	$\gamma_{70(1)}$		-.07	-.09 *	-.09 *
Order and Discipline slope, $\beta_{8(1)}^a$	$\gamma_{80(1)}$		-.09 **	-.10 **	-.10 **
Parent Involvement slope, $\beta_{9(1)}^a$	$\gamma_{90(1)}$		-.02		
Sharing of Resources slope, $\beta_{10(1)}^a$	$\gamma_{100(1)}$		-.02		
Student Interpersonal Rel. slope, $\beta_{11(1)}^a$	$\gamma_{110(1)}$		-.02		
Student-Teacher Relations slope, $\beta_{12(1)}^a$	$\gamma_{120(1)}$		-.00		
Bully Victim Category					
Intercept, $\beta_{0(2)}$	Intercept $\gamma_{00(2)}$	.28 *	2.83 *	.34 *	.80
	School Size, $\gamma_{01(2)}$				.00
	School GPA, $\gamma_{02(2)}^b$				-.02
	School Punishment, $\gamma_{03(2)}$				-.34
	School Security (Yes), $\gamma_{04(2)}$				-.66
	Unexcused Absences, $\gamma_{05(2)}$				.37
	Student-Teacher Ratio, $\gamma_{06(2)}$				-.20
	School Income (Mean), $\gamma_{07(2)}^b$				.00
	School Climate (Mean), $\gamma_{08(2)}^b$				.01
Gender (Male) slope, $\beta_{1(2)}$	$\gamma_{10(2)}$		-.11		
Age slope, $\beta_{2(2)}$	$\gamma_{20(2)}$		-.15		
Academic Achievement slope, $\beta_{3(2)}$	$\gamma_{30(2)}$		-.15		
Academic Self-Efficacy slope, $\beta_{4(2)}^a$	$\gamma_{40(2)}$		-.02		
Social Self-Efficacy slope, $\beta_{5(2)}^a$	$\gamma_{50(2)}$		.00		
Emotional Self-Efficacy slope, $\beta_{6(2)}^a$	$\gamma_{60(2)}$		-.04 *	-.05 **	-.06 **
Fairness slope, $\beta_{7(2)}^a$	$\gamma_{70(2)}$		-.12 *	-.12 **	-.12 **
Order and Discipline slope, $\beta_{8(2)}^a$	$\gamma_{80(2)}$		-.14 **	-.14 **	-.14 **
Parent Involvement slope, $\beta_{9(2)}^a$	$\gamma_{90(2)}$		-.04		
Sharing of Resources slope, $\beta_{10(2)}^a$	$\gamma_{100(2)}$		-.08 *	-.08 *	-.08 *
Student Interpersonal Rel. slope, $\beta_{11(2)}^a$	$\gamma_{110(2)}$		-.08 *	-.06 *	-.06 *
Student-Teacher Relations slope, $\beta_{12(2)}^a$	$\gamma_{120(2)}$		.02		
Variances and Covariances					
Variances	$\tau_{00(1)00(1)}$	.05 *	.09 **	.06 *	.04
	$\tau_{00(2)00(2)}$	.12 **	.24 **	.15 **	.18 **
Covariances	$\tau_{00(1)00(2)}$	.89	.93	.94	.75

Note: a Level-1 predictor was centered around its group mean.

b Level-2 predictor was centered around its grand mean.

* $p < .05$ ** $p < .01$

4.3 Unconditional Model

This step aimed to estimate the intercept in a level-1 unconditional model, that provides evidences for the first research question of this study, “Are there any significant variations between schools in the log-odds of peer victim (n_{1ij}) and bully victim (n_{2ij}) (relative to non-victims)?”

As seen in Table 4.3, in the unconditional model (Model 1), the log-odds of peer victim were higher than the log-odds of non-victim ($\gamma_{00(1)} = .72$, $t_{15} = 8.38$, $p = .00$) for students in the “typical school” ($U_{0j} = 0$) (S. W. Raudenbush & Bryk, 2002, p. 328). This corresponded to an odds of $\exp\{.72\} = 2.05$, and a probability of $1/(1+\exp\{.72\}) = .33$. Similarly, the log-odds of bully victim were higher than the log-odds of non-victim ($\gamma_{00(2)} = .28$, $t_{15} = 2.53$, $p = .02$). This corresponded to an odds of $\exp\{.28\} = 1.32$, and a probability of $1/(1+\exp\{.28\}) = .43$.

There was a significant variation between schools in the log-odds of peer victim ($\tau_{00(1)00(1)} = .05$; $\chi^2_{15} = 26.33$; $p = .03$) and bully victim ($\tau_{00(2)00(2)} = .12$; $\chi^2_{15} = 37.23$; $p = .00$) relative to non-victims. When the log-odds of peer victim was assumed normally distributed with the mean of .72 and the variance of .05, 95% of the schools had a probability of being peer victim were between $.72 \pm 1.96 * \sqrt{.05} = (.28, 1.16)$. This meant that the likelihood of being classified as peer victim in some schools (relative non-victims) was 4.14 times higher than at other schools. For bully victim, converting the log-odds to probabilities, 95% of the school lied between .04 and .96, which indicated the likelihood of being classified as bully victim in some schools (relative non-victim) was 24 times higher than at other schools.

In brief, the log-odds of student-level (level-1) and the intercepts of school-level (level-2) were formulated as follows:

$$\text{Level-1: } n_{1ij} = .72$$

$$n_{2ij} = .28$$

$$\text{Level-2: } \beta_{0j(1)} = .72 + .05$$

$$\beta_{0j(2)} = .28 + .12$$

4.4 Conditional Level-1 Model

In this step, in order to test to what extent the variables at the student-level predicts the likelihood of being peer victim and bully victim, conditional level-1 and unconditional level-2 models were formulated. This step provides evidences for the second question, “Do student-level variables namely gender, age, academic achievement, academic self-efficacy, social self-efficacy, emotional self-efficacy, fairness, order and discipline, parental involvement, sharing of resources, student interpersonal relations, and student-teacher relations predict significantly the likelihood of being in peer victim and bully victim?”

In this step, after adding the student-level variables into the model and they were fixed to describe associations and to obtain reduced number of equations. The results of this analysis were presented in Table 4.3, under the column of Model 2. As shown in this model; high perceived emotional self-efficacy and high perceived order and discipline at a school decreased the log-odds of being in peer victim (relative to non-victims), while additional to these variables, high

perceived fairness, sharing of resources, and student interpersonal relations at a school decreased the log-odds of being bully victim (relative to non-victims). During this phase, the variables (gender, age, academic achievement, academic self-efficacy, social self-efficacy, parent involvement, and student-teacher relations) which did not significantly predict the likelihood of being in peer victim or bully victim were omitted from the model and analyses for this model were repeated. The results were shown in Model 3. As it was in Model 2, same variables predicted the likelihood of being in peer victim and bully victim in this model. Unlike from Model 2, high perceived fairness at school decreased the log-odds of being in peer victim. The increase in the effects of predictors in Model 3 could be explained with associations between the variables and taking the variables related to each other into the model.

In brief, in the second step, peer victims reported lower emotional self-efficacy, fairness, and order and discipline, whereas bully victims reported lower emotional self-efficacy, fairness, order and discipline, sharing of resources, and student interpersonal relations. The likelihood of being classified as peer victim and bully victim varied across the schools. Therefore, which school variables led to these variations was examined in the last step of analyses.

4.5 Conditional Level-2 Model

The likelihood of being categorized as peer victim and bully victim differed across the schools. To determine the source of this variation, the variables at the school-level were added into the model in the last step. This step also answered the last research question of this study that “Do school-level variables (school size, school GPA, school disciplinary punishment, the presence of private

security personnel, the ratio of unexcused absences, the ratio of student-teacher, school income, and school climate) predict the likelihood of being peer victim and bully victim after controlling student-level variables (emotional self-efficacy, fairness, order and discipline, sharing of resources, and student interpersonal relations)?”

The results were given in Table 4.3, in Model 4. As seen in Model 4, after controlling student-level variables (as covariates), school-level variables did not statistically and significantly predict variation across the schools in the log-odds of peer victim ($\tau_{00(1)00(1)} = .04$; $\chi^2_7 = 11.45$; $p = .12$) even though the signs of the variables were expected direction. This pointed out that the level-2 variables entered into the model were not adequate in explaining the variation across the school in the classification of a student as peer victim. However, these variables statistically and significantly predicted variation across the schools in the log-odds of bully victim ($\tau_{00(2)00(2)} = .18$; $\chi^2_7 = 19.86$; $p = .00$), but there was no significant predictor in the model. In Model 4, student-level effects (emotional self-efficacy, fairness, and order and discipline) decreased the log-odds of peer victim and bully victim relative to non-victims.

In this step, comparisons of corresponding coefficients in the separate equation were also checked utilizing the multivariate hypothesis testing tools of HLM 7 (S. Raudenbush et al., 2010; S. W. Raudenbush & Bryk, 2002). The log-odds of peer victim, relative to bully victim, were .99 times lower for emotional self-efficacy $(-.05 - (-.04) = -.01$; $\chi^2_1 = 16.75$; $p = .00$), .97 times lower for fairness $(-.12 - (-.09) = -.03$; $\chi^2_1 = 7.55$; $p = .00$), and .96 times lower for order and discipline $(-.14 - (-.10) = -.04$; $\chi^2_1 = 20.87$; $p = .00$).

4.6 Summary of the Results

The results of the study indicated significant variations across the schools in the log-odds of peer victim and bully victim (relative to non-victims). When the student-level variables were added into the model, emotional self-efficacy, fairness, and order and discipline were significantly predicted the likelihood of being peer victim and bully victim (relative to non-victims). In addition to these variables, sharing of resources and student interpersonal relations significantly predicted the likelihood of being bully victim. These results showed that peer victims and bully victims reported lower levels of emotional self-efficacy, fairness, and order and discipline relative to non-victims. Moreover, bully victims reported lower levels of sharing of resources and student interpersonal relations relative to non-victims. After testing the role of student-level factors on victimization, school-level variables were added into the model to investigate which school variables led to variations across the schools. The effects of student-level variables on victimization were controlled. Results showed that the school-level variables did not statistically and significantly predict variation across the schools in the log-odds of peer victim. However, these variables statistically and significantly predicted variation across the schools in the log-odds of bully victim, but none of the school-level variables predicted the likelihood of being bully victim.

CHAPTER V

DISCUSSION

This chapter consisted of three sections. The first section discussed the findings of the study considering the relevant literature. The second section discussed the implications of the findings to the schools, specifically to the practices of school counselors. The last section focused on the suggestions for the further research.

5.1 Discussion of the Findings

This study investigated the role of student- (gender, age, academic achievement, academic self-efficacy, social self-efficacy, emotional self-efficacy, fairness, order and discipline, parental involvement, sharing of resources, student interpersonal relations, and student-teacher relations) and school-level factors (school climate, school size, student-teacher ratio, employing a private security personnel at the school, school absenteeism, school disciplinary punishment, school income, and school academic achievement) contributing to the likelihood of involvement in victimization as peer victims and bully victims by comparing them with non-victims.

In the present study, initially, the variation between schools in the log-odds of peer victim and bully victim (relative to non-victims) was explored. The results indicated a support for the first hypothesis regarding significant variation

between the schools in the log-odds of peer victim and bully victim (relative to non-victim). This result meant that the probability of being a peer victim or a bully victim was higher than the probability of being a non-victim at some schools. In other words, the risk of victimization in some schools was higher than in other schools. This risk is related to the characteristics of students and schools.

Secondly, the role of student-level variables in predicting the likelihood of being peer victim and bully victim (relative to non-victims) was examined. As expected, this study found that student-level factors, particularly emotional self-efficacy and dimensions of school climate (fairness, order and discipline, sharing of resources, and student interpersonal relations) had important impact on victimization. In this respect, the sub-hypotheses of the second main hypothesis were partially confirmed. Regarding the influence of self-efficacy, a significant association between one dimension of self-efficacy — emotional self-efficacy — and victimization was found. Specifically, results suggested that peer and bully victims had lower emotional self-efficacy or beliefs about their capability to deal with negative feelings than non-victims. This finding was consistent with the previous research results indicating a negative relationship between victimization and emotional self-efficacy (Kokkinos & Kipritsi, 2012; Özer et al., 2011). Supporting this finding, a meta-analytic study (Gini & Pozzoli, 2009) revealed that the students who were being victimized tend to display more psychosomatic problems such as poor emotional adjustment and relations with their classmates. In addition, some researchers pointed out that the deficits in emotional skills were a risk factor for victimization (Mahady Wilton & Craig, 2000), whereas some of them claimed that being victimized led to some emotional problems (Bond, Carlin, Thomas, Rubin, & Patton, 2001;

Sugden et al., 2010) that may decrease the perceived capability to be able to cope with negative emotions.

School climate indicates the quality and characteristics of social relationships at school including rules, norms, values, interpersonal relations, practices of teaching and learning, and organizational structures (Cohen, McCabe, Michelli, & Pickeral, 2009). The characteristics of school climate — fairness, order and discipline, sharing of resources, and student interpersonal relations — were the significant predictors of peer and bullying victimization at the student-level. In contrast to the previous studies examining the particular aspects of school climate (e.g. Agirdag, Demanet, Van Houtte, & Van Avermaet, 2011) or the general perception of school climate (e.g. Gendron et al., 2011), this study revealed the effects of various aspects of school climate on victimization. Consistent with the expectations, peer and bully victims perceived their schools as not having an equal treatment of students, order and discipline. Additionally, bully victims' perceptions about their school were that students at their schools did not have equal opportunity to participate in school activities and to use school materials and equipment, and student interpersonal relations at their schools were less caring, respectful and trustful. These findings were in line with those of previous studies. In terms of equal treatment to students, order and discipline; Ekinici and Burgaz's (2009) study indicated that some of the teachers' behaviors led to the emergence of misbehaviors of students. To distinguish among students (as successful, well-behaved, etc.) and to implement classroom rules in a way not being decisive, consistent, and regular are among some of these teachers' behaviors. In this study, the school factors having a role in students' misbehaviors were reported as inconsistent school disciplinary practices, the mentality of school disciplinary practices which is based on

punishment and oppression, not taking into account the positive expectations or requests of students, inconsistency between the managerial practices of school administration and the practices of classroom teachers (Ekinçi & Burgaz, 2009). Morrison, Redding, Fisher, and Peterson (2006) stated that school order is a foundation to ensure a productive learning environment and an important tool for the creation of successful schools, because execution of an effective school-wide disciplinary system contribute to the safety and order of the school. Gregory et al. (2010) found that bullying and victimization are less reported at the schools where the school rules are fair and consistently implemented to certain circumstances such as smoking cigarettes, fighting etc. Regarding the role of sharing of resources and peer interactions; Suldo, McMahan, Chappel, and Loker (2012) found that inequality in sharing school resources and poor peer interpersonal relations at schools increased the likelihood of externalizing and internalizing problems of the students. Harel-Fisch et al. (2011) found a significant negative association between peer interpersonal relations and victimization. They reported that negative peer relations were the most critical factor for victimization. Yıldırım, Tezer, and Çileli (2005) investigated the behavioral characteristics and likeability of the students involved in bullying as bully, bully/victim, and victim through peer nominations. They found that bullies and bully/victims were perceived as uncooperative, disruptive, and fighters. They were also nominated as the least liked persons in their schools by their peers.

Some of the student-level variables such as gender, age, academic achievement, academic self-efficacy, emotional self-efficacy, and some dimension of school climate (parent involvement and teacher-student relations) were not significant predictors of being a peer victim or a bully victim. As discussed in the literature

review, most of the research findings for the student-level variables indicate mixed results. For example, there are some the studies finding no gender (Boulton & Smith, 2011; von Marées & Petermann, 2010) and age differences (Bauman, 2008; Cheng et al., 2010) in victimization. Similarly, some of studies found no significant association between academic achievement and victimization (Kokkinos & Panayiotou, 2004; Stein, Dukes, & Warren, 2007). The variation in these findings could be related to many factors such as sample characteristics, statistical procedures, instrumentation, etc.

Thirdly, the influence of school-level factors on the likelihood of being peer victim and bully victim (relative to non-victim) was tested. After controlling student-level factors, a significant variation between the schools was only found in bully victim category. However, in contrast to the expectations, there were no significant associations between school-level variables and bully victimization. None of the sub-hypotheses in the third main hypothesis were confirmed. This result can be explained with that the interaction effect of predictors rather than their individual effects may contribute to the variation across the schools in bully victim category. In addition, some variables at the school-level may act as a suppressor. In this case, some of variables may suppress the prediction value of other variables. In this study, which variable played the role of suppressor wasn't investigated, but it may need further investigation. It was apparent that the school-level variables in this study were not adequate in explaining of victimization and the vast majority of the differences were found across the students nested at school rather than between the schools. Although, the results were in contrast to the expectations of the study, they were consistent with the results of some earlier studies, which examined the impact of school-level factors on bullying and victimization and found that most of the variability in

victimization was explained by the characteristics of students (Larochette et al., 2010; X. Ma, 2002).

Fourthly, one promising finding of this study was that although there were common factors in the prediction of the probability of being a peer victim and bully victim, there were different predictive factors for bully victim category which does not exist in the peer victim category. Furthermore, when the strength of log-odds of common factors for both peer victim and bully victim was investigated, the probability of being bully victim was higher than being peer victim. These results seem to add empirical evidence for the success California Bully Victimization Scale developed by Felix et al. (2011) in differentiating peer victim and bully victim. As stated by Greif and Furlong (2006), many instruments in bullying literature did not adequately assess bullying victimization. In this regard, Felix et al.'s (2011) instrument that differentiate peer victimization and bullying victimization has a great importance in terms of identifying risk groups.

Consequently, the results of the present study carried out on Turkish middle school students display similarities with the previous research findings mostly obtained in Europe, North America, Australia, and Canada. The study data was collected through the instruments developed in Western countries. Therefore, the findings of this study could be considered as comparable to the Western literature.

5.2 Implications for Practice

Bullying and victimization among students continues to plague for all educators, parents, and mental health professionals who strive to reduce the problem. The primary objective of this study was to contribute to these efforts. In this regard, this study investigated the contribution of student- and school-level factors to victimization and provided some findings that could be helpful to school counselors while designing and revising their interventions to prevent bullying. All stakeholders (e.g. teachers, principals etc.) at the school have a role for creating a safer school environment, but school counselors have a leadership role for all stakeholders and a facilitator role for collaboration between these stakeholders (Ray et al., 2007).

Schools serve as a center for providing mental health services for students with emotional and behavioral problems. Schools, in fact, are the micro-system of students. School environment has an important impact on students. The multiple interventions to the environment of schools would produce desired results. Some factors or variables are directly affected by these interventions, but some of them indirectly. In this respect, the services are important to have an ecological point of view (Farmer & Farmer, 1999). The results of the present study provided empirical evidence supporting this perspective.

A significant finding of this study was to reveal the variation across the schools in students' reports of victimization. This result suggested that the levels of victimization at schools vary according to the various characteristics of students and schools. In this respect, each school has its own specific dynamics which are shaped by various ecological systems. Therefore, school counselors have to

better understand the dynamics of their schools in order to develop effective methods for bullying and victimization. In Turkey, in the studies for prevention of violence at schools, it was assumed that the problem was the case for all schools and similar preventive strategies (for instance, group guidance activities, information giving, integrating guidance with curriculum etc.) had been made mandatory for all schools (Kılıç, 2007). However, in the light of the findings of this study, the problem of bullying and victimization should not be considered as occurring in the same way at all schools, as happened in the school violence. Thus, it is very important to investigate the risk and protective factors or ecological system of the school and tailor the services of psychological counseling and guidance based on these factors against bullying and victimization. Swearer and Espelage (2004) reported that there are many preventive programs (over 300) for bullying and violence, but professionals need to tailor these programs considering the ecology of their schools through carrying out a multi-methodology, multi-informers, and multi-contextual evaluation.

Another important finding of this study was that emotional self-efficacy played an important role in victimization. The result of this study suggested that the students involved in victimization had problems in coping with negative emotions. This finding might help school counselors in certain ways. First, counseling and guidance services could be provided at different systemic levels of schools such as at the individual-level, classroom-level, and school-level. At the individual-level, school counselors can provide individual and group counseling for the students who had deficits in emotional regulation. Support and psycho-educational groups can be arranged for the control of negative emotions. Green, Dunn, Johnson, and Molnar (2011) indicated that in order to

reduce bullying at schools, more attention should be paid to the emotional well-being of the students'. The identification of and intervention to emotional problems in the early stages can be one of the effective methods. Rosen, Milich, and Harris (2009) claimed that the victims who have difficulties in regulation of emotions are unable to control emotional tensions, set an objective, process social information and cope with conflict effectively. This process increases the risk of being victimized. Social skills and conflict resolution trainings may also be helpful in terms of regulating emotional problems in social interactions. In addition to the interventions for the students at risk, a number of preventive and developmental strategies may also be helpful at the classroom- and school-levels. In this sense, the Bullying Prevention Program developed by Olweus (2004) may have some positive effects. This program aims to provide some preventive interventions (e.g. giving information about bullying and victimization, group discussions) to students, classrooms, and schools to reduce bullying. In this regard, it moves from the ecological perspective. However, taking into account the finding of this study, the training of emotional regulation skills, social skills, and conflict resolution could be incorporated into the program. These training could be delivered through classroom discussions, group guidance methods, and school seminars. The program needs to be implemented to not only students but also teachers, school principals and staff, and parents. Encouraging the adult role models in the school setting may have an indirect effect on the behaviors of the students.

The results of this study suggested that positive school climate had an important role in diminishing the likelihood of victimization. More specifically, peer victims reported less equal treatment, order and discipline at their schools whereas bully victims, additional to the reports of peer victims, perceived their

schools as not providing equal opportunity to share school resources and not good at the students interpersonal relations. Ray et al. (2007) claimed that school counselors have a significant integrative role in the creation of a positive school climate. School counselors can provide assistance to students, teachers, and school staff in terms of creating a caring school that requires some elements such as encouraging positive relations between school community, facilitating collaboration between school community, providing leadership and psycho-education (Ray et al., 2007). Specifically, to increase positive school climate, school counselors may work collaboratively with students and school staff in determining or revising school rules that may refer to the behavioral expectations. School counselors can provide psycho-educational groups (such as communication skills training, conflict resolution, coping with anger and stress, dealing with bullying, skills of parenting, etc.) for students, families, and school staff for creating a caring school (Ray et al., 2007).

In order to prevent and reduce bullying and victimization in school settings, it is essential to design and implement a whole school approach (Khoury-Kassabri, 2011). Prevention programs should aim to create a positive school climate and support the self-efficacy beliefs of students. In recent years, the use of school-wide positive behavioral interventions and support has been recommended to increase positive school climate and to reduce discipline problems (Waasdorp et al., 2012). This type of intervention that considers the social-ecological model aims to change the conditions surrounding the schools “by creating improved systems (e.g., discipline and data management) and procedures (e.g., office referral, behavioral reinforcement) that promote positive changes in staff and student behaviors” (Waasdorp et al., 2012, p. 150). The interventions and preventive strategies considering the characteristics of

students and the close ecological systems surrounding them will produce more fruitful outcomes. The results of this investigation showed that the student-level variables had more influences than the school-level variables. Therefore, keeping the focus of interventions and preventive strategies on the individual-level factors more than other-level factors may contribute to the effectiveness of anti-bullying programs.

Lastly, one of the contribution of the present study to the practices of school counselors is adaptation of the California Bully Victimization Scale (Felix et al., 2011) to Turkish. Some concerns about the instruments of bullying and victimization, to what extent they accurately identify the risk groups (e.g. Furlong et al., 2010), were discussed in the literature. In this respect, this instrument has a key strength to distinguish peer and bully victims. As seen in the findings of this study, bully victims are at greater risk than the peer victims. Therefore, the accurate identification of the victims of bullying would increase the effectiveness of interventions. Additionally, an accurate understanding of bullying is associated with how accurately these incidents are measured (Greif & Furlong, 2006).

5.3 Recommendations for Future Studies

On the basis of the present study, it is possible to make some suggestions for further studies. First, this study only explored the influence of individual- and school-level factors on victimization. However, more systems, for instance classroom- (e.g. classroom norms, class size, classroom climate), peer- (e.g. friendship, peer support, number of friends), and familial-level factors (e.g. family support, parents' involvement and monitoring) may be included in

future studies. Supporting this, Barboza et al. (2009) claimed that if parents behave aggressively or bully their child at home, or encourage the child to solve his/her problems through violence, the individual- and school-level interventions may not be sufficient. This requires including more ecological systems into the research design. Second, this study investigated the direct effects of the student- and school-level factors on the likelihood of being peer victims and bully victims. However, future studies should examine the indirect and interaction effects of different levels of the ecological system on bullying victimization. Third, to explore the cross-level interactions and to increase the statistical power, more groups, at least 20, are required for level 2 (Kreft & de Leeuw, 1998). Hence, further studies should increase the group sizes at the level 2. Lastly, school-level variables used in this study didn't account for the likelihood of being peer victim and bully victim, which may necessitate more variables at the school-level. Further studies, therefore, should include more school variables such as school-wide bullying policies at school, teacher's bullying-related attitudes, anti-bullying interventions, school systems supporting parent involvement, teacher monitoring during breaks and playtimes, teacher turnover, school norms, perception of safety at school, school connectedness, whether the school is public or private, etc.

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APPENDICES

Appendix A: Middle East Technical University Human Subjects Ethics Committee Approval Letter



1956

Orta Doğu Teknik Üniversitesi
Middle East Technical University
Fen Bilimleri Enstitüsü
Graduate School of
Natural and Applied Sciences
06531 Ankara, Türkiye
Phone: +90 (312) 2102292
Fax: +90 (312) 2107959
www.fbe.metu.edu.tr

Sayı: B.30.2.ODT.0.AH.00.00/126/88-692

23 Mayıs 2011

Gönderilen: Doç. Dr. Oya Yerin Güneri
Eğitim Bilimleri Bölümü
Gönderen : Prof. Dr. Canan Özgen
IAK Başkan Yardımcısı
İlgi : Etik Onayı

Danışmanlığını yapmış olduğunuz Eğitim Bilimleri bölümü doktora programı öğrencisi Gökhan Atik'in " An Investigation of Protective Factors in Bullying Victimization: An Ecological Perspective " isimli araştırması "İnsan Araştırmaları Komitesi" tarafından uygun görülerek gerekli onay verilmiştir.

Bilgilerinize saygılarımla sunarım.

Etik Komite Onayı

Uygundur

23/05/2011

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

Appendix B: Ankara Provincial Directorate of National Education Approval

Letter

T.C.
ANKARA VALİLİĞİ
Milli Eğitim Müdürlüğü

SAYI : B.08.4.MEM.0.06.20.01-60599/21368
KONU : Araştırma İzni
Gökhan ATİK

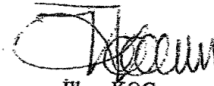
15/03/2012

..... İLÇE MİLLİ EĞİTİM MÜDÜRLÜĞÜNE

- İlgi: a) M.E.B. Bağlı Okul ve Kurumlarda Yapılacak Araştırma ve Araştırma Desteğine
Yönelik İzni ve Uygulama Yönergesi.
b) MEB EARGED' in araştırma izinlerine ilişkin 11/04/2007 tarih ve 1950 sayılı yazısı.
c) 23/02/2012 tarih ve 15296 sayılı Valilik Onayı
d) Orta Doğu Teknik Üniversitesi Öğrenci İşleri Daire Başkanlığının 02/03/2012 tarih ve 400-1165 sayılı yazısı.

Orta Doğu Teknik Üniversitesi Rehberlik ve Psikolojik Danışmanlık Anabilim Dalı doktora öğrencisi Gökhan ATİK'in "Zorbalık mağduriyetinde koruyucu faktörlerin ekolojik yaklaşım ile incelenmesi" konulu tezi ile ilgili anket örnekleri, ek listedeki ilçeniz okullarında uygulama yapılması Müdürlüğümüzce uygun görülmüştür.

Mühürlü anket örnekleri (7 sayfadan oluşan) araştırmacıya ulaştırılmış olup, uygulama yapılacak sayıda araştırmacı tarafından çoğaltılarak, araştırmanın ilgi (a) yönerge çerçevesinde okul ve kurum yöneticileri tarafından gönüllülük esasına göre uygulanmasını rica ederim.



İlhan KOÇ
Müdür a.
Şube Müdürü

EKLER :
1-Okul Listesi (1 Sayfa)

İl Milli Eğitim Müdürlüğü - Beşevler
Bilgi için: Nermin ÇELENK

Tel : 221 02 17 – 134 / 135
Faks: 223 75 22
istatistik06@meb.gov.tr

Appendix C: California Bully Victimization Scale Permission Letter



UNIVERSITY OF CALIFORNIA, SANTA BARBARA
Gevirtz Graduate School of Education

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO • SANTA BARBARA • SANTA CRUZ

Gevirtz Graduate School of Education
Department of Counseling, Clinical, School Psychology
Center for School-Based Youth Development
mfurlong@education.ucsb.edu

Santa Barbara, California 93106
805 893 3375 (messages) 805 893 3338 (fax)
<http://web.mcg.com/michaelfurlong>

February 1, 2012

To Whom it May Concern:

I hereby give permission for Gökhan Atik to use the California Bully Victim Questionnaire (Felix et al., 2011) as a measure in his dissertation study, entitled, "An Investigation of Protective Factors in Bullying Victimization: An Ecological Perspective." His use of a transaction ecological perspective to examine bullying protective factors will be a useful addition to the research literature in this area.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael Furlong".

Michael Furlong, Ph.D., NCSP, APA Fellow Division 16, AERA Fellow
Professor, Editor, *Journal of School Violence*
Director, Center for School-Based Youth Development

Appendix D: School Climate Survey – Elementary & Middle School Student Version (Revised) Permission Letter

From: Gokhan Atik [mailto:g_atik@uncg.edu]
Sent: Monday, August 23, 2010 2:41 AM
To: Emmons, Christine, christine.emmons@yale.edu
Subject: About: "School Climate Survey, Elementary & Middle School Student Version (Revised)"

Dear Dr. Christine Emmons,

I am a doctoral student and a research assistant in Turkey. At the beginning of this year, I came to the University of North Carolina at Greensboro as a visiting scholar to continue my PhD study. In my study, I am interested in school climate and its influences on students' behavior. I had a chance to examine your extensive works on School Climate Survey. The reason writing this email to you is that I am thinking utilizing "School Climate Survey, Elementary & Middle School Student Version (Revised)" in my PhD study. I am planning to use it for the students from the USA and Turkey. Therefore, I need to translate this instrument into Turkish. In order to do these, I would like to counsel you about obtaining the survey and taking the permission for administration and translation. If you help me about that, I really appreciate it.

Best regards,
Gokhan Atik

On Mon, Aug 23, 2010 at 10:10 AM, Emmons, Christine <christine.emmons@yale.edu> wrote:

Dear Mr. Atik:

I will ask my Assistant, Emily Solivan, to send you a copy of the "School Climate Survey, Elementary & Middle School Student Version (Revised)", along with relevant documentation, including directions for administration, that you will find useful.

Please send me a short summary of the research that you intend to pursue for your PhD and your address at UNCG where we may send a copy of the survey. We also request that you send us a copy of the Turkish version of the School Climate Survey for our records as soon as it is available.

Regards,
Christine L. Emmons, Ph.D.
Associate Research Scientist/Scholar
Yale University Child Study Center
Director of Program Evaluation

Appendix E: Self-Efficacy Questionnaire for Children Permission Letter

Kimden: Gökhan Atik <gokhanatik@gmail.com>

Tarih: 2011/11/24

Kime: Öner Çelikkaleli <celikkaleli@gmail.com>

Konu: "Ergenlerde Yetkinlik Beklentisi Ölçeği" Kullanma İzni Hk.

Sayın Dr. Öner Çelikkaleli,

Öncelikle merhaba. Ben Orta Doğu Teknik Üniversitesi Psikolojik Danışma ve Rehberlik programında doktora çalışmalarımı yürütüyorum. Aynı zamanda, Ankara Üniversitesi Rehberlik ve Psikolojik Danışmanlık Ana Bilim Dalı'nda araştırma görevlisiyim. Şu anda doktora tez çalışmamda, Muris (2001) tarafından geliştirilen ve sizler tarafından 2006'da Türkçe'ye uyarlaması yapılan "Ergenlerde Yetkinlik Beklentisi Ölçeği"ni kullanmayı planlıyorum.

Eğer uygun görürseniz, bu ölçeği tezimde kullanmaya yönelik sizden izin istiyorum. Bu izin süreci araştırma etiği kapsamında istenilen bir gereklilik olmakla birlikte, devlet okullarında uygulama yapılabilmesi için Milli Eğitim Bakanlığı'nın ilgili birimlerine de sunulması gerekmektedir.

Bu süreçte yardımcı olabilirsiniz çok sevinirim.

Saygılarımla.

Gökhan Atik

Kimden: Öner Çelikkaleli

Tarih: Perşembe, 24 Kasım, 2011, saat 1:51 PM

Kime: Gökhan Atik

Konu: Ynt: "Ergenlerde Yetkinlik Beklentisi Ölçeği" Kullanma İzni Hk.

Sayın Atik,

Size ekte hem ölçeği yolluyorum hem de ergenlerden yetkinliğin ortaya çıkışıyla ilgili bir kaç kitap bölümü, ben bu kitap bölümlerini bizzat yazarlarından istedim. Ayrıca Bandura'nın tüm makaleleri elimde var, yine kendisinden ve arkadaşlarından istedim yolladılar. İhtiyacınız olursa lütfen yine yazın.

Öner Çelikkaleli

Appendix F: Demographic Information Form

Yönerge: Bu çalışmadaki soruların amacı sizinle ilgili daha çok bilgi almak ve ayrıca okuldaki sosyal ilişkileriniz hakkında ne düşündüğünüzü öğrenmektir. Verdiğiniz tüm yanıtlar gizli tutulacaktır. Yani, verdiğiniz yanıtları kimse bilmeyecek ve görmeyecektir. Eğer soruları yanıtlamak istemezseniz, devam etmek zorunda değilsiniz. Verdiğiniz yanıtlar notla değerlendirilmeyecektir. Eğer sorularla ilgili bir rahatsızlık hissederseniz, istediğiniz zaman yanıtlamayı bırakabilirsiniz. Lütfen soruların başındaki yönergeleri dikkatlice okuyunuz. Her bir soruyu okuyup, içtenlikle yanıt vermeye çalışınız. Yanıtların doğrusu ya da yanlışı yoktur. Verdiğiniz tüm yanıtlar gizli tutulacaktır. Bunun için kağıtlara adınızı yazmanız gerekmemektedir.

Katılımınız için teşekkür ederim.

Gökhan Atik
Orta Doğu Teknik Üniversitesi
Eğitim Fakültesi
Eğitim Bilimleri Bölümü

KİŞİSEL BİLGİ FORMU

Cinsiyetiniz (belirtiniz) ☐ Erkek ☐ Kız

Sınıf düzeyiniz (belirtiniz) ☐ 6 ☐ 7 ☐ 8

Yaşınız (belirtiniz) ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

Şu anda aşağıdaki derslerdeki başarı notunuz nedir? (her bir ders için belirtiniz)

Matematik	<input type="checkbox"/> 0-44 (1)	Fen ve Teknoloji	<input type="checkbox"/> 0-44 (1)	Türkçe	<input type="checkbox"/> 0-44 (1)	Sosyal Bilgiler	<input type="checkbox"/> 0-44 (1)
	<input type="checkbox"/> 45-54 (2)		<input type="checkbox"/> 45-54 (2)		<input type="checkbox"/> 45-54 (2)		<input type="checkbox"/> 45-54 (2)
	<input type="checkbox"/> 55-69 (3)		<input type="checkbox"/> 55-69 (3)		<input type="checkbox"/> 55-69 (3)		<input type="checkbox"/> 55-69 (3)
	<input type="checkbox"/> 70-84 (4)		<input type="checkbox"/> 70-84 (4)		<input type="checkbox"/> 70-84 (4)		<input type="checkbox"/> 70-84 (4)
	<input type="checkbox"/> 85-100 (5)		<input type="checkbox"/> 85-100 (5)		<input type="checkbox"/> 85-100 (5)		<input type="checkbox"/> 85-100 (5)

Ailenizin yıllık geliri (yazınız)

Babanızın mesleği (yazınız)

Annenizin mesleği (yazınız)

Appendix G: California Bully Victimization Scale

(California Zorba Mağduriyeti Ölçeği)

Aşağıda, okulda meydana gelebilecek bazı durumlar verilmiştir. Lütfen ilk önce her bir durumun okulunuzda hangi sıklıkla başınıza geldiğini işaretleyiniz. Daha sonra da, bu durumun başka öğrencilerin başına ne sıklıkla geldiğine tanık olduğunuzu belirtiniz.

1. OKULDA başka bir öğrenci tarafından kaba ya da kırıcı bir şekilde alay edilmesi ya da lakap/isim takılması.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

2. OKULDA kaba ya da kırıcı bir şekilde söylenti ve dedikodu yayılması.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

3. OKULDA kaba ya da kırıcı bir şekilde bir gruptan dışlanma ya da kasıtlı olarak görmezden gelinme.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

4. OKULDA kaba ya da kırıcı bir şekilde vurulma itilme ya da fiziksel olarak yaralanma.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı

- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

5. OKULDA kaba ya da kırıcı bir şekilde tehdit edilme.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

6. OKULDA kaba ya da kırıcı bir şekilde cinsel içerikli (ayıp) sözler söylenmesi, şakalar ya da el-kol hareketleri yapılması.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

7. OKULDA kaba ve kırıcı bir şekilde öğrenciler tarafından, diğer öğrencilerin eşyalarının çalınması ya da eşyalarına zarar verilmesi.

Benim başıma geldi (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

Başkasının başına geldiğini gördüm (Birini işaretleyiniz)

- ① Son bir ay içinde hiç olmadı
- ② Son bir ay içinde 1 kez oldu
- ③ Bir ay içinde 2-3 kez oldu
- ④ Haftada 1 kez oldu
- ⑤ Haftada birkaç kez oldu

YUKARIDAKİ OLAYLAR BİR KİŞİ YA DA BİR GRUP TARAFINDAN YAPILMIŞ OLABİLİR. LÜTFEN SON BİR AY İÇİNDE SİZE BUNLARI EN ÇOK YAPAN KİŞİYİ DÜŞÜNÜN VE AŞAĞIDAKİ SORULARI BUNA GÖRE CEVAPLAYIN.

8. Sana bunu yapan kişi kız mı yoksa erkek miydi? (Birisini daire içine alınız)

- ① Erkek
- ② Kız
- ③ Bunlar benim başıma gelmedi.

9. Hakkında düşündüğün bu kişi kendinle karşılaştığında nasıl biri? (Birisini daire içine alınız)

- | | | | | |
|---|------------------|---------------|-------------------|----------------------|
| a. Bu öğrenci ne kadar popüler? | ① Benden daha az | ② Benim kadar | ③ Benden daha çok | ④ Hiç başıma gelmedi |
| b. Bu öğrenci, okulda ne kadar başarılı? | ① Benden daha az | ② Benim kadar | ③ Benden daha çok | ④ Hiç başıma gelmedi |
| c. Bu öğrenci fiziksel olarak ne kadar güçlü? | ① Benden daha az | ② Benim kadar | ③ Benden daha çok | ④ Hiç başıma gelmedi |

10. Bu olaylar okulda NEREDE başına geldi? (Seçeneği daire içine alınız)

- | | | | |
|--|---------|--------|----------------------|
| a. Sınıflarda | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| b. Koridorlarda | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| c. Yemekhane ya da kantinde | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| d. Oyun ya da spor alanlarında | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| e. Tuvaletlerde ya da soyunma odalarında | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| f. Okul servisinde ya da toplu taşıma aracında | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| g. Okula gidiş ya da okuldan dönüş yolunda | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| h. Başka bir yer (açıklayın): _____ | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |

11. Bu olaylar NE ZAMAN başına geldi? (Seçeneği daire içine alınız)

- | | | | |
|---|---------|--------|----------------------|
| a. Okuldan önce | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| b. Derste | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| c. Dersler arasında (sınıfları değiştirirken) | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| d. Teneffüslerde (ders arası ya da öğle arasında) | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| e. Okuldan sonra | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| f. Başka bir zaman (açıklayın): _____ | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |

12. Bu başına gelenlerle ilgili kiminle konuştun? (Seçeneği daire içine alınız)

- | | | | |
|---|---------|--------|----------------------|
| a. Bir arkadaşım ya da arkadaşlarımla | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| b. Okuldaki bir yetişkinle (okuldaki bir büyükle) | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| c. Evdeki bir yetişkinle | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| d. Diğer aile üyeleri ile (erkek kardeş, kız kardeş, kuzen gibi) | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| e. Bu olanlar hakkında kimse bir şey bilmiyor, kendimde sır olarak tutuyorum. | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |
| f. Başka birileri (açıklayın): _____ | ① Hayır | ② Evet | ③ Hiç başıma gelmedi |

Appendix H: School Climate Survey – Elementary & Middle School Student

Version (Revised)

(Okul İklimi Ölçeği)

Okula ilişkin duygularınızı öğrenmek istiyoruz. Lütfen aşağıdaki cümlelere katılıp katılmadığınızı işaretleyiniz. Her bir cümle için **yalnız bir** cevap veriniz. Lütfen cevaplamadan önce her bir cümleyi dikkatlice okuyunuz.

	Katılıyorum	Emin Değilim	Katılmıyorum
1. Okulumdaki bazı çocuklar sıklıkla diğerlerine vuracaklarını ya da onları döveceklerini söylerler.	()	()	()
2. Okulumdaki çocuklar iyi (terbiyeli) bir şekilde davranırlar.	()	()	()
3. Okulumdaki çocukların, anne-babalarının zengin ya da fakir olması bir şeyi değiştirmez, herkese aynı şekilde davranılır.	()	()	()
4. Okulumda, anne-babalar yardım etmek için sıklıkla sınıflara gelirler.	()	()	()
5. Okulumdaki çocuklar insanları önemserler.	()	()	()
6. Okulumdaki çocuklara okuldaki başka öğrenciler tarafından sıklıkla zarar verilir.	()	()	()
7. Okulumda herkese eşit davranılıyor.	()	()	()
8. Anne-babam sıklıkla okuldaki veli toplantılarına katılır.	()	()	()
9. Okulum genellikle çok gürültülü.	()	()	()
10. Öğretmenlerim sınavlarda başarılı olmam için ellerinden geleni yapıyorlar.	()	()	()
11. Okulumdaki öğretmenler sorunlarımızda biz çocuklara yardımcı olurlar.	()	()	()
12. Okulumda ne zaman eğlenceli oyunlar oynayacak olsak, hep aynı öğrencilere görev verilir.	()	()	()
13. Okulumda, hep aynı öğrenci öğretmenime yardım eder.	()	()	()
14. Okulumdaki çocuklar birbirlerini severler.	()	()	()
15. Okulumdaki çocuklar birbirlerine güvenirler.	()	()	()

- | | | | |
|---|-----|-----|-----|
| 16. Bu okulda başarılı olabileceğimi hissediyorum. | () | () | () |
| 17. Okulum çoğu zaman temiz ve düzenlidir. | () | () | () |
| 18. Öğretmenlerim beni önemserler. | () | () | () |
| 19. Okulumda bazı çocuklar silah ya da bıçak taşıyor. | () | () | () |
| 20. Faaliyetlerimizde veya oyunlarımızda bilgisayar, top ya da piyano gibi şeyleri her zaman aynı çocuklar kullanır. | () | () | () |
| 21. Okulumdaki, çocuklar birbirlerine yardım ederler. | () | () | () |
| 22. Okulumda, okuldan sonra yapılan etkinliklerde ya da kulüplerde (eğitsel kol) görev alması için hep aynı öğrenciler seçilir. | () | () | () |
| 23. Okulumdaki çocuklar çok fazla kavga ediyorlar. | () | () | () |
| 24. Okulumdaki çocuklar öğretmenlere saygı gösterirler. | () | () | () |
| 25. Bu okulda öğrenmekten keyif alıyorum. | () | () | () |
| 26. Anne-babam okulumu sıklıkla ziyaret eder. | () | () | () |
| 27. Öğretmenlerim okulda başarılı olabileceğime inanırlar. | () | () | () |
| 28. Okuldaki özel projelere destek vermek için veliler sık sık okula gelirler. | () | () | () |
| 29. Okulumdaki öğretmenler bizlere okulla ilgili problemlerimizde yardımcı olurlar. | () | () | () |
| 30. Okulumda, kızlara ve erkeklere eşit davranılır. | () | () | () |
| 31. Okulumda öğretmenler bütün öğrencilere adil davranıyorlar. | () | () | () |
| 32. Okulumdaki çocuklar birbirlerine kötü adlar takıyorlar. | () | () | () |
| 33. Okulumdaki çocuklar birbirlerine saygı gösterirler. | () | () | () |
| 34. Öğretmenlerimle sorunlarımı paylaşabiliyorum. | () | () | () |
| 35. Anne-babam öğretmenlerimle görüşmek için sık sık okuluma gelirler. | () | () | () |
| 36. Öğretmenim kendim hakkında iyi hissetmemi sağlar. | () | () | () |

Appendix I: Self-Efficacy Questionnaire For Children
(Çocuklar İçin Öz-Yeterlik Ölçeği)

Aşağıda günlük hayatınızda karşılaşabileceğiniz bazı durumlarla ilgili ifadeler vardır. Sizlerden bu durumlarda kendinize olan güveninizi derecelendirmeniz rica edilmektedir. Lütfen, **şu anda kendinize olan güveninizi düşünerek (X) biçiminde** işaretlemelerinizi yapınız. Lütfen *hiçbir maddeyi boş bırakmayınız*.

	Hiçbir zaman	Nadiren	Bazen	Genellikle	Her zaman
1. Ödevimi yapmakta zorlandığımda öğretmenlerimden yardım alabilirim.	()	()	()	()	()
2. Arkadaşlarım fikirlerimi paylaşmasa bile düşüncelerimi rahatça ifade edebilirim.	()	()	()	()	()
3. Hoş olmayan bir olay olduğunda kendi kendimi tekrar neşelendirebilirim.	()	()	()	()	()
4. Yapacak başka ilgi çekici şeyler olsa bile ders çalışabilirim.	()	()	()	()	()
5. Çok korktuğum bir durumda yeniden neşelenebilirim.	()	()	()	()	()
6. Başkalarıyla kolayca arkadaş olabilirim.	()	()	()	()	()
7. Sınavlara yeterince hazırlanabilirim.	()	()	()	()	()
8. Tanımadığım biriyle kolayca sohbet edebilirim.	()	()	()	()	()
9. Öfkelendiğimde kendimi kontrol edebilirim.	()	()	()	()	()
10. Bütün ödevlerimi zamanında (günü gününe) yapabilirim.	()	()	()	()	()
11. Sınıf arkadaşlarımla uyum içinde çalışabilirim.	()	()	()	()	()
12. Duygularımı (örn: öfke, stres, neşe vb.) kontrol edebilirim.	()	()	()	()	()
13. Hoşlanmadığım dersleri bile dikkatle dinleyebilirim.	()	()	()	()	()
14. Başkaları hoşlanmadığım bir şeyler yaptığında bunu onlara söyleyebilirim.	()	()	()	()	()
15. Kendimi kötü hissettiğimde moralimi düzelterek bir şeyler bulabilirim.	()	()	()	()	()

- | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 16. Bütün konuları eksiksiz bir biçimde (başarıyla) öğrenebilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 17. Bir arkadaş grubuna eğlenceli, komik bir şeyler (fıkra, anı vb.) anlatabilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 18. Kendimi iyi hissettiğimi herhangi bir arkadaşıma söyleyebilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19. Okuldaki başarımla ailemi hoşnut/mutlu edebilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20. Uzun süreli arkadaşlıklar kurabilirim (aşk, dostluk gibi). | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 21. Hoş olmayan düşüncelerimi (korku, kaygı, endişe vb.) kontrol edebilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 22. Hazırlandığım bütün sınavlarda başarılı olabilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 23. Diğer çocuklar bana sataşsa bile kavga çıkmasını engelleyebilirim. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Appendix K: Turkish Summary

ORTAOKUL ÖĞRENCİLERİNİN MAĞDURİYETİNDE ETKİLİ OLAN ÖĞRENCİ VE OKUL DÜZEYİ FAKTÖRLERİ: EKOLOJİK BİR BAKIŞ AÇISI

1. GİRİŞ

Zorbalık insanoğlunun acımasız yönlerinden birisi olarak düşünülebilir. Oldukça eski bir kavram olan zorbalığa ilişkin tarih kitaplarında ve edebi eserlerde birçok örneğe rastlamak mümkündür. Ancak, zorbalıkla ilgili ilk bilimsel ve sistematik çalışmalar 1970'li yılların başlarında İskandinav ülkelerinde başlamıştır (Olweus, 1993). 1982'de, Norveç'te okul çağındaki birkaç çocuğun zorbalık sonucu intihar girişiminde bulunması medyanın ve toplumun tepkisine yol açmış ve Norveç okullarında zorbalığın önlenmesi için toplumsal bir kampanya başlatılmıştır. 1980'li ve 1990'lı yıllarda, zorbalıkla ilgili çalışmalar diğer ülkelerde de (örneğin Japonya, Hollanda, İngiltere, Kanada, Amerika Birleşik Devletleri ve Avustralya) yaygınlaşmaya başlamıştır (Olweus, 1993). Son yıllarda, dünyanın birçok yerinde elde edilen araştırma verileri bu sorunun boyutlarını göstermekte ve kavramın anlaşılmasına katkı sağlamaktadır (Jimerson, Swearer, & Espelage, 2009).

İlk başlarda, İskandinav ülkelerindeki alan yazında, zorbalık için *mobbing* ve *mobbning* kavramlarının kullanıldığı dikkati çekmektedir (Olweus, 1993, s. 8). Ancak, zorbalık konusunda öncü ve yön verici bir otorite olan Dan Olweus, kullanılan bu kavramların durumu açıklamada yeterli olmadığını düşünmüş ve bunların yerine zorbalık, mağduriyet ve zorba/mağdur kavramlarını kullanmıştır (Olweus, 1993). Bugün, zorbalık kavramı dünyadaki birçok

araştırmacı tarafından kabul görmektedir (Harris & Petrie, 2003). Olweus'a (1993) göre "bir öğrenci bir ya da daha fazla öğrencinin olumsuz davranışlarına tekrarlayan bir şekilde ve belli bir süre maruz kaldığında zorbalığa uğramakta ya da mağdur olmaktadır" (s. 9). Bu tanımdaki olumsuz davranışlar fiziksel teması, sözcükleri, yüz ifadelerini ya da kaba jestleri ve kasıtlı bir şekilde gruptan dışlanmayı içermektedir. Ancak, alan yazında zorbalıkla ilgili tek ya da evrensel olarak üzerinde anlaşılan bir tanımın olmadığı görülmektedir (Smith ve ark., 2002). Bundan dolayı, kavram farklı şekillerde tanımlanmıştır. Örneğin, Farrington (1993, akt: Baldry & Farrington, 2000) zorbalığı, daha güçlü bir kişinin güçsüz bir kişiye baskı uygulayarak korkutmak, stres yaratmak ya da zarar vermek niyetiyle fiziksel, sözel ya da psikolojik saldırıda bulunma veya göz korkutma şeklinde tanımlamıştır. Craig ve Pepler'in (2003) tanımına göre zorbalık kişilerarası gücün saldırganlık yoluyla ifadesidir. Zorbalığın tanımlarında farklılıklar olmasına rağmen, araştırmacıların üzerinde hem fikir olduğu bir takım ortak kıstaslar bulunmaktadır. Bunlar; güç dengesizliği (zorba mağdurdan daha güçlüdür), zorbanın aynı mağdura belli bir zaman diliminde tekrarlayan saldırgan davranışlarda bulunması ve mağdurun kendisini savunamaması durumudur (Olweus, 1993). İlk iki kriter ayrıca zorbalığı saldırganlıktan ayırmaktadır (Smith ve ark., 2002).

Zorbalığın ulusal ve uluslararası düzeydeki yaygınlığına yönelik araştırmalar, zorbalığın okullarda sıklıkla karşılaşılan bir sorun olduğunu göstermektedir. Örneğin, Avrupa ve Kuzey Amerika'daki 35 ülkede, yaşları 11 ile 15 arasında değişen 162,305 öğrenci üzerinde yapılan bir çalışma (Due ve ark., 2009), örneklemin % 21,9'unun zorbalığa geçen birkaç ay içinde en az iki kere maruz kaldığını göstermiştir. Bu çalışmanın bir diğer bulgusu da, zorbalık oranlarının ülkeler arasında anlamlı düzeyde farklılık göstermesidir (Due ve ark., 2009).

Wang ve arkadaşları (2012) 8,342 Çinli ortaokul öğrencileri ile yürüttükleri bir çalışmada, öğrencilerin % 8,6'sının zorba, % 19'unun mağdur ve % 6,7'sinin zorba/mağdur olduğunu tespit etmiştir. Türkiye'de 1,154 ilköğretim öğrencisi üzerinde zorbalık sorununu inceleyen bir çalışmada, öğrencilerin % 6,2'si zorba, % 35,1'i mağdur ve % 30,2'si zorba/mağdur olarak sınıflandırılmıştır (Pişkin, 2010). Kısaca, bu oranlar okullarda yaşanan zorbalık olaylarının dünyanın birçok ülkesinde, yaygın bir sorun olduğunu göstermektedir.

Zorbalığın yaygınlığına karşın, bu sorunun öğrenciler üzerindeki olumsuz etkileri eğitimciler tarafından genellikle göz ardı edilmektedir (Cowie & Jennifer, 2008). Ancak, zorbalık çocukların fiziksel, zihinsel, sosyal ve duygusal gelişimleri üzerinde bazı yıkıcı etkilere sahiptir. Bu olumsuz sonuçlar kısa ya da uzun vadede ortaya çıkabilmektedir. Zorbalık mağduriyetinin kısa dönemde suça bulaşma, madde kullanma, çeteye dahil olma (Carbone-Lopez, Esbensen, & Brick, 2010) ve alkol kullanma (Peleg-Oren, Cardenas, Comerford, & Galea, 2012) riskini arttırmaktadır. Aynı zamanda, mağdur olma düşük benlik saygısı, öz-yeterlik (Esbensen & Carson, 2009) ve ağır ruhsal sağlık sorunları (örneğin; kasıtlı bir şekilde vücuduna zarar verme, saldırgan davranışlar ve psikotik semptomlar gibi) (Arseneault, Bowes, & Shakoor, 2010) ile ilişkilidir.

Zorbalığa okul yaşlarında maruz kalma, bireylerin sonraki yaşamları için de bir risk faktörü olabilmektedir. Meta-analitik bir çalışma (Ttofi, Farrington, & Lösel, 2012), zorbalık mağduriyetinin yaşamın sonraki dönemlerinde şiddete dahil olma riskini arttırdığına işaret etmektedir. Okul yıllarında zorbalığa maruz kalma aynı zamanda yaşamın sonraki aşamalarında depresyon riskini de arttırmaktadır. Lund ve arkadaşları (2009) çocukluk yıllarında okulda zorbalığa maruz kalma ile yaşamın ileri dönemlerindeki depresyon ile olan ilişkisini

inceledikleri boylamsal çalışmada okul yıllarında zorbalığa maruz kalmanın 35-51 yaşları arasında depresyon yaşama riskini arttırdığını ortaya koymuşlardır. Başka bir çalışmada ise, sekiz yaşında zorbalığa maruz kalmanın 18 yaşlarında intihar etme düşüncesi ile ilişkili olduğu bulunmuştur (Klomek et al., 2008).

Zorbalığa maruz kalmanın yarattığı birtakım olumsuz sonuçlar yasal konuları da gündeme getirmektedir. Formel eğitim sürecinde, her birey eğitimini güvenli bir ortam içerisinde sürdürme hakkına sahiptir. Bu hak ulusal ve uluslararası yasal düzenlemelerle güvence altına alınmıştır. Bu düzenlemelere paralel olarak, Türkiye’de bazı önleyici müdahaleler de geliştirilmiştir. İlköğretim ve orta öğretimdeki şiddetin kaygı verici düzeyde olmasından dolayı, Milli Eğitim Bakanlığı eğitim ortamlarında şiddetin önlenmesi ve azaltılması için, 2006 ve 2011+ dönemlerini kapsayan strateji ve eylem planı hazırlamıştır (MEB, 2006). Türkiye Büyük Millet Meclisi 2006’da, okullarda çocuklar ve gençler arasında artan şiddet olaylarını incelemek ve gerekli önlemleri almak için bir araştırma komisyonu oluşturmuştur (TBMM, 2007). Bu araştırma komisyonun raporu, okullarda şiddetin endişe verici düzeyde olduğunu göstermektedir. İlgili yasal düzenlemeler ve komisyon raporları doğrultusunda, İçişleri Bakanlığı ile Milli Eğitim Bakanlığı arasında 2007’de bir protokol imzalanmıştır (MEB, 2007). Bu protokol, 2009’da yürürlüğe girmiştir. Protokol, okullarda güvenli bir ortamın sağlanması için alınması gereken koruyucu ve önleyici müdahaleler ile ilgilidir. Bu protokol kapsamında, okullarda Okul Polisliği Projesi başlamıştır ve proje halen devam etmektedir.

Okullarda zorbalığın önlenmesi ve azaltılması, ulusal ve uluslararası alanda yasal düzenlenmelerin anlaşılmasını gerekli kılmaktadır. Aynı zamanda, bu soruna farklı düzeylerde etki eden faktörlerin incelenmesi de bir zorunluluk

olarak ortaya çıkmaktadır. Zorbalıkla ilgili yapılan çalışmalar, bu sorunun birçok ekolojik düzeyde çeşitli faktörlerden etkilendiğini ortaya koymaktadır (Huang, Hong, & Espelage, 2012; Khoury-Kassabri, 2011; Lee, 2011). Bundan dolayı, araştırmacılar (örneğin, Swearer & Espelage, 2004) zorbalığın doğru bir şekilde anlaşılabilmesi ve etkili zorbalık programlarının geliştirilebilmesi için birçok yöntemin ve bilgi kaynağının kullanıldığı, çok düzeyli değerlendirmelere ihtiyaç olduğunu vurgulamaktadır. Ancak, zorbalıkla ilgili alan yazın daha çok bireysel faktörler düzeyine odaklanmıştır.

Zorbalık ve mağduriyet sürecinin anlaşılmasına yönelik bazı kuramsal açıklamalar da mevcuttur. Biyolojik-genetik açıklamalar, bağlanma kuramı, sosyal bilgi işleme kuramı, bilişsel sosyal öğrenme kuramları ve ekolojik sistemler kuramı en yaygın kullanılan kuramsal açıklamalar içerisinde yer almaktadırlar. Ancak, ekolojik bakış açısının dışındaki kuramsal yaklaşımlar daha çok bireysel dinamiklere odaklanmakta ve zorbalık sürecindeki sosyal ortamı göz ardı etmektedirler. Ancak, zorbalık karşılıklı ilişkisel süreçleri içermektedir. Bu süreç içerisinde, zorba ve mağdurun kişisel özellikleri, öğretmenlerin ve diğer öğrencilerin varlığı ve okulun sosyal ortamı karşılıklı bir etkileşim içindedir. Bundan dolayı zorbalığı, genetik ve davranışsal bir eğilim ya da iki çocuk arasındaki bir ilişki sorunu olarak görmek, bu sorunun doğru anlaşılmasını olumsuz etkileyebilmektedir. Zorbalık ve mağduriyet sürecindeki dinamikler arasındaki etkileşimlerin daha geniş bir sosyal çevrede ve belli zaman dilimi içerisinde incelenmesi gerekmektedir. Ekolojik bakış açısı diğer kuramsal yaklaşımlara göre bu konuda önemli bir katkı sağlayabilir.

Okullardaki zorbalık olayları birçok etkenle ilişkilidir. Sadece bireysel (biyolojik ve/veya psikolojik) değil, aynı zamanda okul, aile, mahalle ve daha geniş sosyal

ortam koşullarını içeren faktörler zorbalık üzerinde etkilidir. Bu faktörlerin karşılıklı etkileşimleri de bazı sorunların ortaya çıkmasına yol açabilir. Zorbalığın çok boyutlu bir sorun olması kuramsal olarak daha kapsamlı bir bakış açısını gerektirmektedir. Bundan dolayı, çocukların yaşamını saran koruyucu ve risk faktörlerinin anlaşılması için kullanışlı bir kuramsal çerçeve sağlayan ekolojik bakış açısı (Bronfenbrenner, 1979) zorbalık çalışmalarına ışık tutmaktadır. Ekolojik sistem yaklaşımı bireyi sistemin merkezine koymaktadır. Bireyin etrafında onu etkileyen birçok yakın ve uzak sistem yer almaktadır. Bireysel özellikler mağdur olma riskini attırabilirken, aynı zamanda zorbalık mağduriyetiyle baş etmede bir koruyucu rol üstlenebilir. Kişinin cinsiyeti diğer sistemlere aracılık yapabilir. Birey bir aile sistemi içinde yer almaktadır. Bu açıdan, aile içerisindeki ilişkiler kişinin zorbalığa katılımını etkileyecektir. Birey akranlarıyla birlikte bir okul sistemi içerisinde yer almaktadır. Okul sistemi içerisindeki akran ilişkileri ve okul ikliminin niteliğini zorbalığa katılımı belirleyecektir. Okul sistemi dışında, birey daha geniş ekolojik sistemlerle karşı karşıya gelmektedir. Sosyal ve kültürel özellikler benzer şekilde diğer sistemlerde olduğu gibi süreci şekillendirecektir (Swearer & Espelage, 2004). Zorbalığın toplum tarafından normalleştirilmesi öğretmenlerin eğitim yöntemlerini ve ailelerin çocuk yetiştirme tarzlarını da şekillendirecektir. Bunun bir sonucu olarak, ekolojik sistemler birey üzerinde doğrudan ve dolaylı etkilere sahip olacaktır.

1.1 Araştırmanın Amacı

Bu çalışmada, ilköğretim öğrencilerinin akran mağduru ve zorba mağduru olma olasılıklarına etki eden öğrenci (cinsiyet, yaş, akademik başarı, akademik öz-yeterlik, sosyal öz-yeterlik, duygusal öz-yeterlik, adalet, düzen ve disiplin,

veli katılımı, kaynakların paylaşımı, öğrencilerin kişilerarası ilişkileri, öğrenci-öğretmen ilişkileri) ve okul düzeyi değişkenlerinin (okul iklimi, okul büyüklüğü, öğrenci-öğretmen oranı, okulda özel güvenlik personelinin varlığı, okuldaki mazeretsiz devamsızlık oranı, okuldaki disiplin cezası sayısı, okulun gelir ortalaması ve okulun akademik başarısı) rolünü incelemek amaçlanmıştır.

1.2 Araştırma Soruları

Bu çalışmada aşağıdaki sorulara yanıt bulmaya çalışılmıştır:

1. Akran mağduru ve zorba mağduru log-odds'larında (mağdur olmayanlara göre) okullar arasında anlamlı bir farklılaşma var mıdır?
2. Öğrenci düzeyi değişkenleri (cinsiyet, yaş, akademik başarı, akademik öz-yeterlik, sosyal öz-yeterlik, duygusal öz-yeterlik, adalet, düzen ve disiplin, veli katılımı, kaynakların paylaşımı, öğrencilerin kişilerarası ilişkileri, öğrenci-öğretmen ilişkileri) akran mağduru ve zorba mağduru olma olasılığını (mağdur olmayanlara göre) anlamlı bir şekilde yordamakta mıdır?
3. Okul düzeyi değişkenleri (okul iklimi, okul büyüklüğü, öğrenci-öğretmen oranı, okulda özel güvenlik personelinin varlığı, okuldaki mazeretsiz devamsızlık oranı, okuldaki disiplin cezası sayısı, okulun gelir ortalaması ve okulun akademik başarısı), öğrenci düzeyi değişkenlerini (duygusal öz-yeterlik, adalet, düzen ve disiplin, kaynakların paylaşımı ve öğrencilerin kişilerarası ilişkileri) kontrol

ettikten sonra, akran mağduru ve zorba mağduru olma olasılığını (mağdur olmayanlara göre) anlamlı bir şekilde yordamakta mıdır?

1.2 Araştırmanın Önemi

Zorbalık ve mağduriyet süreci, kişisel ve kişilerarası faktörlerin ortak karmaşık etkileri sonucunda oluşmaktadır (Swearer & Doll, 2001). Aynı zamanda, zorbalık ve mağduriyet sistemik bir sorun (Craig & Pepler, 2003) ya da zorba, mağdur ve sosyal çevre arasındaki karşılıklı ilişki (Atlas & Pepler, 1998) olarak da tanımlanmaktadır. İnsan davranışı üzerinde bireysel özellikler önemli bir etkiye sahiptir. Ancak, çevresel faktörlerin rolünün dikkate alınmaması zorbalığın çok düzeyli bir açıdan değerlendirilmesini engelleyebilir ve bunun sonucunda araştırmacılar zorbalığın olası nedenlerini yeteri kadar anlayamayabilirler (Hong & Espelage, 2012). Zorbalığa yönelik etkili müdahale ve önleyici programlarının geliştirilmesi de, bu sosyal çevrenin ne kadar anlaşıldığı ile ilişkilidir (Swearer & Espelage, 2004). Zorbalık ve mağduriyetin karmaşık yapısından dolayı, araştırmacıların farklı ekolojik sistemler içerisinde yer alan çeşitli faktörlerin bu süreç üzerindeki etkilerini anlaması gerekmektedir.

Son yıllarda, okul çağı çocukları arasındaki zorbalık davranışları üzerinde bazı ekolojik faktörlerin etkilerini anlamaya yönelik çabalar söz konusudur (Khoury-Kassabri, 2011; Lee, 2011). Zorbalık ve mağduriyetin çok düzeyli bağlamlar içerisinde değerlendirilmesine yönelik dünya çapında artan bir ilgi olmasına rağmen, bu tür araştırmalar Türkiye'deki zorbalık alan yazınında sıklıkla göz ardı edilmiş ve var olan çalışmaların büyük bir çoğunluğu öğrenci düzeyindeki faktörler üzerine odaklanmıştır. Alan yazınla paralel olarak, bu çalışmada

ekolojik yaklaşım kuramsal bir bakış açısı olarak ele alınmış ve Türkiye’deki ortaokul öğrencileri arasındaki mağduriyet olaylarında etkili olan öğrenci ve okul düzeyi faktörlerinin anlaşılması açısından önceki çalışmalara önemli bir katkı sağlaması amaçlanmıştır.

Mağduriyet üzerinde çevresel faktörlerin etkilerinin araştırılması, zorbalığın kültürel boyutlarını ortaya çıkararak, dünya çapında yapılan çalışmalara katkı sağlamaktadır. Swearer ve Espelage (2004) alan yazındaki zorbalık araştırmalarının çoğunun Avrupa, Avustralya ve Kanada’da yapıldığını belirtmektedir. Araştırma verilerinin çoğunun Batı ülkelerinde toplanmış olması, diğer kültürlerde zorbalığa etki eden çeşitli faktörlerin çok düzeyli araştırmalarla incelenmesini gerektirmektedir.

Bu çalışmanın önemli noktalarından bir tanesi, okul düzeyinde zorbalık mağduriyetine etki eden birçok faktörü bir araya getirmesidir. Önceki çalışmalarda bu faktörlerden bazılarına (okul iklimi, okul organizasyon faktörleri gibi) odaklanılsa da, bu çalışmada söz konusu değişkenlerin birçoğu bir arada ele alınmıştır. Ayrıca, okul iklimi değişkeni daha önceki çalışmalarda okul düzeyinde bir değişken olarak ele alınmıştır. Bu çalışmada, okul iklimi değişkeni hem öğrenci hem de okul düzeyinde analizlere dahil edilmiştir. Özellikle, zorbalık mağduriyeti ile ilişkili olan okul iklimi boyutlarının öğrenci düzeyinde belirlenmesi ilgili alan yazına önemli bir katkı sağlayacaktır. Genel bir okul iklimi hakkında konuşmak yerine, bu değişkenler arasındaki ilişkileri açıklığa kavuşturmak, önleme ve müdahale stratejilerinin daha etkili olmasına yardımcı olacaktır.

Sosyal çevrenin öğrenci davranışları ve ilişkileri üzerindeki önemli etkisi, bu etkilerin araştırılabilmesi anlamında daha ileri düzey istatistiksel analizleri gerektirmektedir. Aşamalı doğrusal modeller, aşamalı genelleştirilmiş doğrusal modeller ya da çok düzeyli modeller bu modellere örnek bazı analizlerdir ve Türkiye’de sosyal bilimler alanında genellikle az kullanılmaktadır. Daha önceki çalışmalarda, araştırmacılar, bu tür istatistiksel yöntemler olmadığı için insan davranışlarının karmaşık yapısını inceleyememişlerdir (Luke, 2004). Ancak, günümüzde, mevcut sosyal olayların ve insan davranışının karmaşıklığını göz önünde bulunduran ve bunları araştıran daha çok çalışmaya ihtiyaç duyulmaktadır. Bu bağlamda, bu çalışma bu boşluğu doldurmayı ve aşamalı genelleştirilmiş doğrusal modellemeyi kullanarak zorbalık mağduriyeti hakkında daha çok iç görüş sağlamayı amaçlamaktadır.

Öğrenciler arasında gerçekleşen zorbalık olayları çeşitli şekillerde değerlendirilmektedir. Zorbalık davranışlarını değerlendirmede sıklıkla gözlem, öğrencilerle görüşme ve öğrencinin kendi bildirimi kullanılmaktadır. Bunlar arasında en yaygın kullanılan ise, kendi bildirim yöntemidir (Furlong et al., 2010). Alan yazında, zorbalığın farklı şekillerde ele alınması ve tanımlanmasından dolayı birçok kendi bildirim ölçme aracı bulunmaktadır.

Okul zorbalığının doğru bir şekilde anlaşılması bu olayların ne kadar etkili bir şekilde değerlendirildiği ile ilişkilidir. Bu anlamda, zorbalığın doğru bir şekilde değerlendirilmesi etkili müdahale ve önleyici programların hazırlanmasına katkı sağlayacak, aynı zamanda, zorbalık çalışmalarının sonuçlarının karşılaştırılması için araştırmacılar arasında ortak bir temel oluşturacaktır (Greif & Furlong, 2006). Zorbalıkla ilgili kendini bildirim ölçeklerindeki farklılaşma ve ülkelerdeki zorbalık mağduriyetindeki yaygınlık oranlarının değişmesi,

zorbalığın kendi bildirim ölçümleri ile değerlendirilmesi konusunda bir takım endişelerin oluşmasına yol açmaktadır.

Uygulamacılar açısından da, bu çalışmanın önemli katkıları olabilir. Bu çalışmanın bulguları, özellikle, okul psikolojik danışmanlarının okullarda psikolojik danışma ve rehberlik hizmetlerini planlarken, bireysel ve okul değişkenlerinden hangilerini dikkate alabilecekleri konusunda bir farkındalık sağlayabilir. Bu farkındalık, zorbalığı azaltmaya yönelik etkili önleyici programların ve müdahale yöntemlerinin geliştirilmesine katkı sağlayabilir.

2. YÖNTEM

Bu bölümde araştırmanın yöntemsel süreçleri ele alınmıştır. Bu kapsamda; araştırma deseni, örneklem, ölçme araçları, veri toplama süreci ve veri analizi süreçleri hakkında bilgi verilmiştir.

2.1 Araştırmanın Deseni

Bu araştırma, mağduriyet sürecinde etkili olan öğrenci düzeyi faktörler ile okul düzeyi faktörleri arasındaki ilişkileri inceleyen ilişkisel bir araştırma desenine sahiptir. İlişkisel araştırma deseni, iki ya da daha fazla değişken arasındaki ilişkileri, bu değişkenleri etkilemeden incelemeyi amaçlamaktadır. Ayrıca bu tür desenler değişkenler arasındaki ilişkilerin gücü ve yönü hakkında da bilgi verir (Bordens & Abbott, 2008; Jackson, 2011). İlişkisel araştırmalar, değişkenler arasındaki ilişkileri tanımlayarak önemli bir durumu açıklarlar (Bordens & Abbott, 2008) ve bu ilişkileri tanımlama süreci çok daha karmaşık ilişkisel

tekniklerin (yapısal eşitlik, aşamalı doğrusal modeller gibi) kullanılmasını gerekli kılmaktadır.

2.2 Örneklem

Bu çalışmada, çok aşamalı küme örnekleme kullanılmıştır. Öncelikle, Ankara'daki 25 ilçeden 5'i rastlantısal olarak seçilmiştir. Sonrasında, her ilçeden ikişer ortaokul seçilmiştir. Seçilen her ortaokulda bulunan her sınıf düzeyinden de ikişer sınıf seçilmiştir. Araştırmaya toplamda 16 okul katılmıştır.

Araştırma örneklemi toplamda 1557 ortaokul öğrencisinden oluşmaktadır. Katılımcıların 832 (% 53,5)'si erkek, 725 (% 46,5)'i kız öğrencidir. Katılımcıların yaşları 10 ile 16 (*Ort.* = 13.03, *Ss* = .95) arasında değişmektedir. Sınıf düzeylerine göre dağılım incelendiğinde, 527 (% 33,9)'sinin altıncı sınıf, 530 (% 34,1)'unun yedinci sınıf ve 497 (% 32,0)'sinin sekizinci sınıf düzeyinde olduğu görülmektedir.

2.3 Ölçme Araçları

Bu çalışmada; Kişisel Bilgi Formu, California Zorba Mağduriyeti Ölçeği (CZMÖ; Felix, Sharkey, Green, Furlong, & Tanigawa, 2011), Okul İklimi Ölçeği (OIÖ; Emmons, Haynes, & Comer, 2002) ve Çocuklar İçin Öz-Yeterlik Ölçeği (ÇÖÖ; Muris, 2001) ölçme aracı olarak kullanılmıştır.

2.3.1 Kişisel Bilgi Formu

Kişisel Bilgi Formu ile öğrenci ve okul düzeyindeki değişkenler hakkında bilgi elde etmek amaçlanmıştır. Öğrenci düzeyindeki değişkenlerle ilişkili olarak; öğrencilere cinsiyetleri, yaşları, sınıf düzeyleri, ailelerinin ekonomik gelirleri, anne-babalarının mesleklerinin ne olduğu ve akademik başarılarına yönelik sorular sorulmuştur. Okul düzeyindeki değişkenlerle ilgili olarak; okul idarecilerine okullarının büyüklüğü, akademik başarısı, disiplin cezası sayısı, özel güvenlik personelinin çalıştırılıp çalıştırılmadığı, okullarındaki mazeretsiz devamsızlık oranları ve öğrenci-öğretmen oranlarına yönelik sorular yöneltilmiştir.

2.3.2 California Zorba Mağduriyeti Ölçeği (CZMÖ)

California Zorba Mağduriyeti Ölçeği (Felix ve ark., 2011) (ölçek için bkz Appendix G) ortaokul öğrencileri arasındaki zorbalık mağduriyetini belirlemek amacıyla kullanılan bir ölçme aracıdır. Bu ölçme aracı, herhangi bir zorbalık kavramı ve tanımı kullanmadan, zorbalık mağduriyetinin birçok boyutunu ölçmektedir. Ölçek, zorbalığın temel bileşenlerini (zarar verme niyetinde olmak, güç dengesizliği ve bir zaman dilimi içerisinde tekrar eden olaylar) göz önünde bulundurarak, zorbalık mağduriyetini akran mağduriyetinden ayırt eder. Ölçek yedi mağduriyet maddesi ile mağduriyet yaşantılarını hakkında bilgi almaya yönelik bazı ek sorulardan oluşmaktadır. Katılımcılara, mağduriyet maddelerinde yer alan zorbalık olaylarının ne sıklıkta başlarına geldiği beşli derecelendirme (0 = *Son bir ay içinde hiç olmadı*, 1 = *Son bir ay içinde bir kez oldu*, 2 = *Bir ay içinde 2-3 kez oldu*, 3 = *Haftada bir kez oldu* ve 4 = *Haftada birkaç kez oldu*) üzerinden sorulur. Yedi maddeden sonra, güç dengesizliğini belirlemek için,

katılımcılara zorbalık yapan kişinin kendilerinden ne derece daha popüler, zeki ve fiziksel olarak güçlü olduğuna dair üçlü derecelendirme üzerinde bir soru sorulur. Mağduriyet kategorilerinin belirlenmesinde, daha önceden Solberg ve Olweus (2003) tarafından belirlenen sınıflamaya yakın bir sistem kullanılmaktadır. Hiçbir mağduriyet yaşantısı olmayan kişiler “mağdur olmayan”, zorbalık ifadelerinden en az birine “bir ay içinde 2-3 kez oldu” diyen ve herhangi bir güç dengesizliği belirtmeyen kişiler “akran mağduru”, benzer şekilde zorbalık ifadelerinden en az birine “bir ay içinde 2-3 kez oldu” diyen ancak herhangi bir güç dengesizliği belirten kişiler “zorba mağdur” olarak sınıflanmaktadır.

Ölçeğin orijinal formunun iki hafta arayla test-tekrar-test güvenilirliği çeşitli yöntemlerle hesaplanmıştır. Ölçeğin toplam puanları arasındaki korelasyonlar beşinci ve altıncı sınıflar için .80, yedinci ve sekizinci sınıflar için .83’tür. Her bir madde için Cohen’in Kappa katsayıları .46 ile .64 arasında değişmektedir. Öğrencilerin sınıflandırılmasına ilişkin Cohen’in Kappa katsayısı ise, yüzdelik uyumu = 89.6, kappa = .71’dir. Orijinal formdan elde edilen puanlar, Swearer Zorba Ölçeği puanlarıyla pozitif yönde anlamlı ilişkiyken; Öğrenci Yaşam Doyumu Ölçeği, Okula Bağlılık Ölçeği ve Çocuklarda Umut Ölçeği puanlarıyla negatif yönde anlamlı ilişkilidir (Felix ve ark., 2011).

Orijinal ölçme aracı Amerika Birleşik Devletleri’ndeki ilköğretim öğrencileri üzerinde geliştirilmiştir. Bu nedenle ölçeği Türkiye’deki ortaokul öğrencileri üzerinde kullanabilmek için geçerlik ve güvenirlik çalışması yapılmıştır. Ölçeğin uyarlama çalışmasına, 313 (163 (% 52,1) kız, 150 (% 47,9) erkek) ortaokul öğrencisi katılmıştır. Katılımcıların yaş ortalaması 12.6 ($S_s = .98$)’dır. Ölçeğin benzer ölçek geçerliği Olweus Zorba/Mağdur Anketi (OZMA; Olweus,

1996) ile incelemiştir. Buna göre, her iki ölçeğin arasında pozitif yönlü yüksek bir ilişki ($n = 92$, $r = .73$, $p < .001$) bulunmuştur. Her iki ölçme aracının mağduriyeti sınıflama tutarlıkları da incelemiştir. Sonuçlar, katılımcıların sınıflandırılmasında ölçme araçlarının birbirlerinden farklılaştığını ortaya koymaktadır (yüzdelik uyumu = .63; $\kappa = .22$; $\chi^2 = 6.7$, $p < .05$). Bu bulgu, mağduriyetin ölçümündeki farklılıkların farklı bulgulara yol açtığına (Felix ve ark., 2011) ilişkin bir kanıttır. Ölçeğin yordama geçerliği için, Kısa Çok Boyutlu Öğrenci Yaşam Doyum Ölçeği (Seligson ve ark., 2003) ve Çocuklarda Umut Ölçeği (Snyder ve ark., 1997) kullanılmıştır. Sonuçlara göre, mağduriyet toplam puanları ile yaşam doyumu puanları arasında anlamlı ve negatif bir ilişki ($r = -.29$, $p < .05$) bulunurken, mağduriyet toplam puanları ile umut puanları arasında anlamlı olmayan negatif yönlü bir ilişki bulunmuştur ($r = -.13$, $p > .05$). Yaşam doyumu ve umut puanlarının gruplara (mağdur olmayan, akran mağduru ve zorba mağdur) göre değişip değişmediği de incelenmiştir. Buna göre, akran ve zorba mağdurları mağdur olmayanlara göre daha düşük yaşam doyumuna [$F(2, 95) = 5.54$, $p < .01$] ve umut puanlarına [$F(2, 95) = 8.28$, $p < .001$] sahiptir. Akran mağdurları ile zorba mağdurları arasında yaşam doyumu ve umut puanları açısından anlamlı bir farklılaşma yoktur. Ölçeğin Cronbach alfa iç-tutarlık güvenirlik katsayısı tüm ölçek için .72 ($n = 313$)'dir. İki hafta arayla test-tekrar-test güvenirlik katsayısı ise .82 ($n = 66$, $p < .001$)'dir. Kategoriler arasındaki tutarlık ise yüzdelik uyumu = .85; $\kappa = .46$; χ^2 : 14.22, $p < .001$ 'dir.

2.3.3 Okul İklimi Ölçeği (OIÖ)

İlköğretim öğrencileri için revize edilmiş Okul İklimi Ölçeği (Emmons ve ark., 2002) (ölçek için bkz Appendix H) okulun genel iklimini ve okul ortamındaki yetişkinler ile öğrenciler arasındaki ilişkilerin niteliğini ölçmek için

geliştirilmiştir. Ölçek 37 maddeden oluşmakta, üçlü derecelendirme (3 = *Katılıyorum*, 2 = *Emin değilim* ve 1 = *Katılmıyorum*) üzerinden yanıtlanmaktadır. Ölçek toplamda altı alt boyuttan oluşmaktadır. Bu boyutlar; adalet (5 madde), düzen ve disiplin (7 madde), veli katılımı (5 madde), kaynakların paylaşımı (4 madde), öğrencilerin kişilerarası ilişkileri (7 madde) ve öğrenci-öğretmen ilişkileri (4 madde) şeklindedir. Ölçeğin orijinal formunun puanları hesaplanırken öncelikle bazı maddeler tersten kodlanır (maddeler: 1, 6, 9, 12, 14, 20, 21, 23, 24 ve 33). Ölçekten elde edilen yüksek puanlar daha fazla olumlu okul iklimine işaret etmektedir. Ölçeğin alt boyutları için Cronbach alfa iç-tutarlık güvenirlik katsayıları .68 ile .87 arasında değişmektedir (Emmons ve ark., 2002). Ölçeğin doğrulayıcı faktör analizi 2,746 öğrenci üzerinde yapılmış (Ware, 2003) ve model uyum iyiliği indeksleri şu şekildedir: [$\chi^2(614, n = 2,749) = 3832.21, p < .001$; NNFI = .90; CFI = .91; GFI = .92; SRMR = .05; RMSEA = .04].

Amerika Birleşik Devletleri'ndeki ilköğretim öğrencileri üzerinde geliştirilen ölçeğin Türkiye'deki kullanımı için geçerlik ve güvenirlik çalışmaları yapılmıştır. Uyarlama çalışması, 314 (140 (% 44,4) erkek ve 175 (% 55,6) kız) ortaokul öğrencisiyle yapılmıştır. Katılımcıların yaş ortalaması 13 ($Ss = .94$)'tür. Ölçeğin altı faktörlü yapısının, çalışma örneklemini üzerinde geçerli olup olmadığını test etmek için doğrulayıcı faktör analizi yapılmıştır. Analiz sonuçlarına göre, ölçeğin altı faktörlü yapısı yeterli uyum iyiliği indekslerine sahiptir [$\chi^2(579, n = 314) = 969.13, p < .001$; NNFI = .96; CFI = .96; SRMR = .04; RMSEA = .046]. Ölçeğin Cronbach alfa iç-tutarlık katsayısı tüm ölçek için .90 bulunurken, bu katsayılar alt boyutlar için .56 ile .86 arasında değişmektedir. Ölçeğin iki hafta arayla elde edilen test-tekrar-test güvenirlik katsayıları tüm ölçek için .67, alt boyutlar için .50 ile .73 arasında değişmektedir.

2.3.4 Çocuklar İçin Öz-Yeterlik Ölçeği (ÇÖÖ)

Çocuklar için Öz-Yeterlik Ölçeği (Muris, 2001) (ölçek için *bkz* Appendix I) öğrencilerin öz-yeterlik inançlarını değerlendirmek amacıyla kullanılmaktadır. Ölçeğin orijinal formu 24 maddeden oluşmakta ve beşli derecelendirme (1 = *Hiçbir zaman*'dan 5 = *Her zamana* kadar) üzerinden yanıtlanmaktadır. Ölçek üç alt boyuttan oluşmaktadır. Bunlar; akademik öz-yeterlik, sosyal öz-yeterlik ve duygusal öz-yeterlik boyutlarıdır. Her boyut sekiz maddeden oluşmaktadır. Ölçekten alınan yüksek puanlar yüksek öz-yeterlik inancına işaret etmektedir. Cronbach alfa iç-tutarlık güvenirlik katsayısı tüm ölçek puanı için .88, alt boyutlar için ise .85 ile .88 arasında değişmektedir.

Ölçeğin Türkçe'ye uyarlaması ise Çelikkaleli, Gündoğdu ve Kıran Esen (2006) tarafından lise öğrencileri üzerinde yapılmıştır. Uyarlama çalışmasında orijinal faktör yapısı elde edilmiştir. Ancak ölçekteki bir madde (madde 24) düşük faktör yüküne sahip olduğu için araştırmacılar tarafından ölçekten çıkarılmıştır. Bunun yanı sıra, orijinal ölçekte duygusal öz-yeterlik boyutunda yer alan bir madde (madde 18) sosyal öz-yeterlik boyutuna yüklenmiştir. Benzer şekilde, orijinal ölçekte sosyal öz-yeterlik boyutunda yer alan bir madde (madde 23) duygusal öz-yeterlik boyutuna yüklenmiştir. Ölçeğin Türkçe formu 23 maddeden ve 3 alt boyuttan oluşmaktadır. Ölçeğin Cronbach alfa iç-tutarlık güvenirlik katsayısı toplam ölçek puanı için .78, alt boyutlar için ise .64 ile .71 arasında değişmektedir. Yapılan ek geçerlik çalışmasında ise, ölçeğin alt boyutlarının puanları depresyon ile negatif yönde anlamlı ilişkili bulunmuştur (Çelikkaleli ve ark., 2006).

Ölçeğin Türkçe'ye uyarlama çalışmasının lise öğrencileri üzerinde yapılmasından dolayı, bu çalışma kapsamında ölçeğin yapısının ortaokul öğrencileri üzerinde nasıl işlediğini görmek için geçerlik ve güvenirlik çalışmaları yapılmıştır. Çalışmaya, 329 (151 (% 45,9) erkek, 178 (% 54,1) kız) ortaokul öğrencisi katılmıştır. Bu öğrenciler rastlantısal bir şekilde ana çalışmanın örnekleminde seçilmiştir. Katılımcıların yaşları 10 ile 16 arasında değişmektedir. Yaş ortalaması 12.90 ($S_s = .96$)'dır. Orijinal ve uyarlama formunda elde edilen üç faktörlü yapının, ortaokul öğrencileri üzerinde geçerli olup olmadığını test etmek için doğrulayıcı faktör analizi yapılmıştır. Analiz sonuçlarına göre, ölçeğin üç faktörlü yapısı yeterli uyum iyiliği indekslerine sahiptir [$\chi^2(227, n = 329) = 882.39, p < .001$; NNFI = .91; CFI = .91; SRMR = .08; RMSEA = .09]. Ölçeğin Cronbach alfa iç-tutarlık katsayısı tüm ölçek için .90 bulunurken, bu katsayılar alt boyutlar için .77 ile .86 arasında değişmektedir. Elde edilen güvenirlik katsayılarının uyarlama çalışmasında rapor edilen katsayılara göre daha yüksek ve yeterli olduğu görülmektedir.

2.4 Veri Toplam Süreci

Bu çalışma ortaokul öğrencilerinin katılımını gerektirdiği için, öncelikle Orta Doğu Teknik Üniversitesi'nin Etik Kurul onayı (onay mektubu için *bknz* Appendix A) ve Ankara İl Milli Eğitim Müdürlüğü'nün onayı (onay mektubu için *bknz* Appendix B) alınmıştır. Resmi onaylar alındıktan sonra okullar ziyaret edilmiş ve araştırmanın amacı açıklanmıştır. Okul yöneticilerinin yardımı ile sınıflara girilerek uygulamalar gerçekleştirilmiştir. Uygulamalar, öğrencilerin ölçekleri doldurma hızlarına bağlı olarak, yaklaşık olarak 30-40 dakika kadar sürmüştür. Uygulamalar 2011-2012 eğitim-öğretim yılında Ankara'da gerçekleştirilmiştir. Veri toplama süreci ilk dönemin ortasında başlamış ve

dönem bitmeden bir ay öncesinde uygulamalar tamamlanmıştır. Veri toplama sürecinde etik konulara (bilgilendirilmiş onay, gönüllülük, gizlilik) özellikle dikkat edilmiştir.

2.5 Veri Analizi

Öğrenci ve okul düzeyi etkilerinin yer aldığı kapsamlı bir modeli test etmek için aşamalı genelleştirilmiş doğrusal modelleme (AGDM) yapılmıştır. Analizler HLM 7 (S. Raudenbush, Bryk, & Congdon, 2010) istatistik programı ile yapılmıştır. Aşamalı doğrusal modeller bağımlı değişken sürekli puan veren bir değişken olduğunda uygulanırken, aşamalı genelleştirilmiş doğrusal modeller ise bağımlı değişken sıralama veya sınıflama ölçeği gibi türlerde olduğunda tercih edilmektedir. Bu çalışmada bağımlı değişken çoklu kategorili (mağdur olmayan, akran mağdur ve zorba mağdur) olduğu için iki düzeyli AGDM yapılmıştır.

Öğrenci düzeyinde yer alan değişkenler; mağdur olma (“dahil olmayan” referans grup), cinsiyet (“kızlar” referans grup), yaş, akademik başarı, akademik öz-yeterlik, sosyal öz-yeterlik, duygusal öz-yeterlik, adalet, düzen ve disiplin, veli katılımı, kaynakların paylaşımı, öğrencilerin kişilerarası ilişkileri, öğrenci-öğretmen ilişkileridir. Okul düzeyinde yer alan değişkenler ise; okul büyüklüğü, okulun akademik ortalaması, okuldaki disiplin cezası sayısı, okulda özel güvenlik personelinin varlığı (“hayır” referans grup), mazeretsiz devamsızlık oranı, öğrenci-öğretmen oranı, okulun gelir ortalaması ve okul iklimi ortalamasıdır.

Bu çalışmadaki araştırma sorularına yanıt aranırken, AGDM sürecinde belli aşamalardan geçilmiştir. Öncelikle, okullar arasında akran ve zorba mağdurlarının log odds'larının (log-bahis ya da bahislerin logaritmasının) farklılaşıp farklılaşmadığını araştırmak için koşulsuz model test edilmiştir. Sonrasında, öğrenci düzeyindeki değişkenlerin akran ve zorba mağduru olma olasılığını ne derece yordadığını belirlemek için koşullu düzey-1 modeli test edilmiştir. Elde edilen sonuçlara göre, anlamlı olmayan değişkenler modelden çıkarılarak analiz tekrarlanmıştır. Son olarak, öğrenci düzeyi değişkenlerinin etkilerini kontrol ederek, okul düzeyindeki değişkenlerin akran ve zorba mağduru olma olasılığını ne derece yordadığını belirlemek için koşullu düzey-2 modeli test edilmiştir.

3. BULGULAR

Araştırma alt amaçlarına uygun olarak sırasıyla tesadüfi etkili tek yönlü ANOVA (model 1), tesadüfü katsayılar (model 2), kesişim ve eğimin kriter olarak tanımlandığı model (model 3) test edilmiştir.

3.1 Koşulsuz Model

Bu aşamada, "Akran ve zorba mağdur log-odds'larında (n_{1ij} ve n_{2ij}) okullar arasında istatistiksel olarak önemli bir farklılık var mıdır?" sorusuna kanıt sağlamak için düzey-1 koşulsuz modelin kesişim varsayımının sınanması amaçlanmıştır.

Model 1'e (koşulsuz model) göre, ortalama bir okuldaki ($U_{0j} = 0$) öğrenciler için akran mağduru kategorisinde bulunma log-odds'u, katılmayanların log-

odds'larından daha büyüktür, $\gamma_{00(1)} = .72$; $t_{15} = 8.38$; $p = .00$. Bu da, $\exp\{.72\} = 2.05$ 'lik odds'a, bu odds da $1/1+\exp\{.72\} = \% 33$ 'lük bir olasılığa karşılık gelmektedir. Benzer şekilde, zorba-mağdur kategorisinde bulunma log-odds'u, katılmayanların log-odds'undan daha yüksektir, $\gamma_{00(2)} = .28$; $t_{15} = 2.53$; $p = .00$. Bu da, $\exp\{.28\} = 1.32$ 'lik odds'a, bu odds da $1/1+\exp\{.28\} = \% 43$ 'lük bir olasılığa karşılık gelmektedir.

Ayrıca akran mağduru ($\tau_{00(1)00(1)} = .05$; $\chi^2_{15} = 26.33$; $p = .03$) ve zorba mağduru ($\tau_{00(2)00(2)} = .12$; $\chi^2_{15} = 37.23$; $p = .00$) log-odds'larında (katılmayanlara göre) okullar arasında istatistiksel açıdan önemli bir farklılıklar bulunmaktadır. Akran mağduru log-odds'larının .72 ortalama (.05 varyanslı) etrafında normal dağıldıkları varsayıldığında, okulların % 95'inin $.72 \pm 1.96 * \sqrt{.05} = .28$ ile 1.16 arasında akran mağduru olma olasılığına sahip oldukları görülmektedir. Bu sonuca göre, bir öğrencinin katılmayan kategorisinden çok akran mağduru kategorisinde sınıflandırılma olasılığı, bazı okullarda diğerlerinden yaklaşık olarak 4.14 kat daha fazladır.

Özetle, öğrenci düzeyindeki log-odds'lar (düzey 1) ve okul düzeyinde kesişimler (düzey 2) şöyledir:

$$\begin{aligned} \text{Düzey-1: } n_{1ij} &= .72 \\ n_{2ij} &= .28 \end{aligned}$$

$$\begin{aligned} \text{Düzey-2: } \beta_{0j(1)} &= .72 + .05 \\ \beta_{0j(2)} &= .28 + .12 \end{aligned}$$

3.2 Koşullu Düzey-1 Model

Bu aşamada, öğrenci düzeyindeki değişkenlerin (cinsiyet, yaş, akademik başarı, akademik öz-yeterlik, sosyal öz-yeterlik, duygusal öz-yeterlik, adalet, düzen ve disiplin, veli katılımı, kaynakların paylaşımı, öğrencilerin kişilerarası ilişkileri ve öğrenci-öğretmen ilişkileri) mağduriyet kategorilerinden birinde bulunma olasılıklarını ne derece yordadığını belirlemek için, koşullu düzey-1 model ve koşulsuz düzey-2 model formüle edilmiştir.

Öğrenci düzeyindeki değişkenler modele eklendikten sonra, daha az sayıda denklemle değişkenler arasındaki ilişkileri ortaya koyabilmek için öğrenci düzeyindeki bu değişkenler sabit olarak tanımlanmıştır. Sonuçlara göre, yüksek duygusal öz-yeterliğe sahip olma ve okulu düzenli ve disiplinli bir yer olarak algılama mağdur olmayanların log-odds'larına göre akran mağduru log-odds'larını daha çok azaltırken; adalet, kaynakların paylaşımı ve öğrencilerin kişilerarası ilişkilerinde alınan yüksek puanlar zorba mağdurların log-odds'larını mağdur olmayanlara göre daha fazla azaltmaktadır. Bu aşamada, mağduriyet kategorilerinden birinde bulunma olasılığını istatistiksel bakımdan önemli düzeyde yordamayan değişkenler modelden çıkarılarak analiz tekrarlanmıştır. Bu sonuçlara göre, aynı değişkenler akran ve zorba mağduru olma olasılığını yordarken, diğer modelden farklı olarak, okulu adaletli bir yer olarak algılama akran mağduru log-odds'larını azaltmaktadır.

Özetle, ikinci aşamada, akran mağduru olma olasılığını düşük duygusal öz-yeterlik ve okuldaki adalet, düzen ve disiplinin daha düşük düzeyde olması arttırırken; zorba mağdur olma olasılığını ise, bu değişkenlerin yanı sıra okulda kaynakların paylaşımının az olması ve öğrenciler arasında kişilerarası ilişkilerin

iyi olmaması da arttırmaktadır. Ek olarak, akran mağduru ve zorba mağduru olarak sınıflanma olasılığı okullar arasında da farklılık göstermektedir. Bundan dolayı, analiz sürecinin son aşamasında hangi okul değişkenlerinin bu farklılığa yol açtığı incelenmiştir.

3.3 Koşullu Düzey-2 Model

Bir önceki modelde, akran ve zorba mağduru olarak sınıflandırılma olasılığının bir okuldan diğerine farklılık gösterdiği bulunmuştur. Bunun üzerine, bu farklılığın kaynağını belirlemek amacıyla analiz sürecinin son basamağında modele okul düzeyi değişkenleri (okulun büyüklüğü, okulun başarısı, okul disiplin cezası, okulda özel güvenlik personelinin bulunup bulunmadığı, mazeretsiz devamsızlık sayısı, öğretmen-öğrenci oranı, okul gelir ortalaması ve okul iklimi) eklenmiştir. Bu sonuçlara göre, öğrenci düzeyinde değişkenler kontrol edildiğinde, okul düzeyindeki değişkenler akran mağduru log-odds'undaki okullar arası farklılaşmayı istatistiksel olarak anlamlı bir şekilde yordamazken ($\tau_{00(1)00(1)} = .04$; $x^2_7 = 11.45$; $p = .12$), zorba mağduru log-odds'undaki okullar arası farklılaşmayı istatistiksel olarak anlamlı bir şekilde yordamıştır ($\tau_{00(2)00(2)} = .18$; $x^2_7 = 19.86$; $p = .00$). Modelde herhangi bir yordayıcı okul değişkeni bulunmamaktadır. Bu modeldeki, öğrenci düzeyi etkileri (duygusal öz-yeterlik, adalet, düzen ve disiplin) akran mağduru ve zorba mağduru olma log-odds'larını mağdur olmayanlara göre düşürmüştür. Bu değişkenlerde, akran mağdurlarının log-odds'ları zorba mağdurlarının log-odds'larına göre daha düşüktür.

4. TARTIŞMA

Bu bölümde, araştırma bulguları ilgili alan yazın çerçevesinde tartışılmış, bulgulardan yola çıkılarak okul psikolojik danışmanlarının uygulamalarına katkı sağlayacak bazı öneriler sunulmuştur. Ayrıca, bu konu ile ilgili ileride yapılacak çalışmalara yön vermesi açısından araştırmacılara da önerilerde bulunulmuştur.

4.1 Araştırma Bulgularının Tartışılması

Bu çalışmada, öğrenci (cinsiyet, yaş, akademik başarı, akademik öz-yeterlik, sosyal öz-yeterlik, duygusal öz-yeterlik, adalet, düzen ve disiplin, veli katılımı, kaynakların paylaşımı, öğrencilerin kişilerarası ilişkileri, öğrenci-öğretmen ilişkileri) ve okul düzeyindeki faktörlerin (okul iklimi, okul büyüklüğü, öğrenci-öğretmen oranı, okulda özel güvenlik personelinin varlığı, okuldaki mazeretsiz devamsızlık oranı, okuldaki disiplin cezası sayısı, okulun gelir ortalaması ve okulun akademik başarısı) öğrencilerin akran mağduru ve zorba mağduru olma olasılıkları üzerindeki etkisi araştırılmıştır.

Araştırmada öncelikle, akran mağduru ve zorba mağduru log-odds'larındaki (dahil olmayanlarınkine göre) okullar arası farklılaşma incelenmiştir. Bulgular araştırmanın birinci hipotezini ("Akran mağduru ve zorba mağdur log-odds'larında okullar arası anlamı bir farklılaşma vardır") desteklemektedir. Diğer bir deyişle, bazı okullarda mağdur olma riski diğer okullara göre fazladır. Bu risk öğrencilerin ve okulların sahip olduğu özelliklerle ilişkilidir.

Araştırmada, öğrenci düzeyi değişkenlerinin akran mağduru ve zorba mağduru olma olasılığını yordamadaki rolü de incelenmiştir. Beklenildiği gibi, araştırma öğrenci düzeyi değişkenlerinin, özellikle duygusal öz-yeterliğin ve okul iklimi ölçeği boyutlarının (adalet, düzen ve disiplin, kaynakların paylaşımı ve öğrencilerin kişilerarası), mağduriyet üzerinde önemli bir etkisinin olduğunu ortaya koymuştur. Bu açıdan, araştırmanın ikinci ana hipotezinin alt hipotezleri kısmi olarak doğrulanmıştır. Öz-yeterliğin etkisi açısından, öz-yeterliğin bir alt boyutu — duygusal öz-yeterlik — ile mağduriyet arasında anlamlı bir ilişki bulunmuştur. Buna göre, akran ve zorba mağdurları mağdur olmayanlara göre daha düşük duygusal öz-yeterliğe sahiptir. Bu bulgu, mağduriyet ile duygusal öz-yeterlik arasında negatif bir ilişki bulan önceki araştırmalarla (Kokkinos & Kipritsi, 2012; Özer, Totan, & Atik, 2011) tutarlık göstermektedir. Bu araştırma bulgusunu destekleyen bir meta-analitik çalışma (Gini & Pozzoli, 2009), mağdur olan öğrencilerin daha çok psikosomatik sorun (düşük düzey duygusal uyum, sınıf arkadaşları ile ilişki sorunları gibi) yaşadığını ortaya koymuştur. Aynı zamanda, bazı araştırmacılar duygusal becerilerdeki yetersizliklerin mağduriyet için bir risk faktörü olduğunu belirtirken (Mahady Wilton & Craig, 2000), bazıları da mağdur olmanın öğrencilerde bazı duygusal sorunları ortaya çıkardığını savunmuştur (Bond, Carlin, Thomas, Rubin, & Patton, 2001; Sugden et al., 2010).

Okul iklimi, okuldaki sosyal ilişkilerin niteliğini ve karakterini yansıtmaktadır. Bu yapı okuldaki kuralları, normları, değerleri, kişilerarası ilişkileri, eğitim-öğretim uygulamaları ve organizasyonla ilgili yapıları içermektedir (Cohen, McCabe, Michelli, & Pickeral, 2009). Okul ikliminin boyutları içerisinde yer alan adalet, düzen ve disiplin, kaynakların paylaşımı ve öğrencilerin kişilerarası ilişkileri öğrenci düzeyinde akran ve zorba mağduriyetini açıklayan anlamlı

yordayıcılarıdır. Hipotezlerle tutarlı olarak, akran ve zorba mağdurları okullarını öğrencilere eşit yaklaşımın, düzen ve disiplinin olmadığı yerler olarak algılamışlardır. Zorba mağdurlar ek olarak okullarında öğrencilerin okul aktivitelerine katılımı ve okul materyallerinin kullanımı açısından eşit imkanların olmadığını, öğrenciler arasındaki kişilerarası ilişkilerin ilgilenici, saygı gösterici ve güvenilir olmadığı belirtmişlerdir. Bu bulgular, daha önceki araştırma bulgularıyla tutarlık göstermektedir. Örneğin öğrencilere eşit yaklaşım, düzen ve disiplin açısından; Ekinci ve Burgaz'ın (2009) yaptığı çalışmada, bazı öğretmen davranışlarının öğrencilerde istenmeyen davranışların ortaya çıkmasında etkili olduğu belirtilmiştir. Olumsuz öğretmen davranışlarına örnek olarak öğrenciler arasında ayırım yapılması, sınıf kurallarının kararlı, tutarlı ve düzenli bir şekilde uygulanmaması gösterilmiştir. Bu çalışmada, ayrıca, öğrencilerin istenmeyen davranışlarında etkili olan okul faktörleri de belirtilmiştir. Bu faktörlere örnek olarak, okul disiplin uygulamalarındaki tutarsızlık, okul disiplin uygulamalarının mantığının ceza ve baskıya dayalı olması, öğrencilerin olumlu isteklerinin dikkate alınmaması, okul yönetimi uygulamaları ile sınıf öğretmenlerinin uygulamaları arasındaki tutarsızlıklar gösterilmiştir (Ekinci & Burgaz, 2009). Morrison, Redding, Fisher ve Peterson (2006), okul düzeninin verimli bir öğrenme ortamının temelini oluşturduğunu ve başarılı okulların oluşturulması için de önemli bir araç olduğunu belirtmişlerdir. Okul çapında etkili bir disiplin sisteminin oluşturulması okul güvenliğine ve düzenine katkı sağlayacaktır. Gregory ve arkadaşları (2010) zorbalık ve mağduriyetin, kurallarının adil olduğu ve belli durumlarda (örneğin sigara içme, şiddet gibi) tutarlı bir şekilde uygulandığı okullarda çok az rapor edildiğini bulmuştur. Kaynakların adil paylaşımı ve akran ilişkilerinin mağduriyetteki rolü açısından; Suldo ve arkadaşları (2012) okul kaynaklarının paylaşımındaki eşitsizlik ve zayıf akran ilişkilerinin,

öğrencilerin dışsallaştırılmış ve içselleştirilmiş sorunlarının ortaya çıkma olasılıklarını arttırdığını belirtmişlerdir. Harel-Fisch ve arkadaşları (2011) mağduriyet ile akran ilişkileri arasında negatif yönde anlamlı bir ilişki bulmuşlardır. Araştırmacılar olumsuz akran ilişkilerinin mağduriyet için en önemli yordayıcı olduğunu belirtmişlerdir.

Çalışmadaki bazı öğrenci düzeyi değişkenleri (cinsiyet, yaş, akademik başarı, akademik öz-yeterlik, duygusal öz-yeterlik ve okul ikliminin veli katılımı ve öğrenci-öğretmen ilişkileri boyutları) akran mağduru ya da zorba mağduru olma olasılığını anlamlı bir şekilde yordamamıştır. Alan yazın taramasında belirtildiği gibi, öğrenci düzeyindeki değişkenlerle ilgili araştırma bulguları karışık sonuçlar ortaya koymaktadır. Örneğin, cinsiyet (Boulton & Smith, 2011; von Marées & Petermann, 2010) ve yaş farklılıklarının (Bauman, 2008; Cheng ve ark., 2010) bulunmadığı bazı araştırmalar mevcuttur. Benzer şekilde, bazı araştırmalarda, akademik başarı ile mağdur olma arasında anlamlı bir ilişki bulunmamıştır (Kokkinos & Panayiotou, 2004; Stein, Dukes, & Warren, 2007). Bu bulgulardaki farklılaşma birçok faktörle (örneğin; katılımcıların özellikleri, istatistiksel yöntemler, ölçme araçları gibi) ilişkili olabilir.

Araştırmanın diğer bir aşamasında, okul düzeyi değişkenlerinin akran ve zorba mağduru olma olasılıkları üzerinde etkisi incelenmiştir. Öğrenci düzeyindeki değişkenler kontrol edildiğinde, okullar arasında anlamlı bir farklılaşma sadece zorba mağdur kategorisinde bulunmuştur. Ancak, hipotezlerin aksine, okul düzeyi değişkenleri ile zorbalık mağduriyeti arasında herhangi bir anlamlı ilişki bulunamamıştır. Üçüncü ana hipotezin alt hipotezlerinden hiçbirisi doğrulanmamıştır. Zorba mağdur kategorisinde okullar arası farklılaşmanın elde edilmesi ancak herhangi bir değişkeninin anlamlı yordayıcı olmaması,

yordayıcıların bireysel etkilerinden daha çok etkileşimsel etkilerinin yarattığı bir durum olarak açıklanabilir. Ayrıca, okul düzeyindeki bazı değişkenler baskılayıcı değişken olabilir. Bu durumda, bazı değişkenler diğer değişkenlerin yordayıcı değerini baskılamış olabilir. Bu çalışmada, hangi değişkenin baskılayıcı bir rol oynadığı incelenmemiş, ancak sonraki çalışmalarda bu ilişkinin incelenmesi etkili olabilir. Bu bulgular, çalışmadaki okul düzeyi değişkenlerinin mağduriyeti açıklamada yeterli olmadığını ve okullar arası farklılaşmanın daha çok öğrenciler arasında olduğunu ortaya koymaktadır. Bu bulgular araştırmanın hipotezleri ile tutarlı olmamasına rağmen, okul düzeyi değişkenlerinin zorbalık ve mağduriyet üzerindeki etkilerini inceleyen ve mağduriyetteki farklılaşmanın büyük bir çoğunluğunun öğrencilerin özellikleri ile açıklandığı önceki birtakım araştırmalarla (Larochette, Murphy, & Craig, 2010; Ma, 2002) tutarlık göstermektedir.

Bu çalışmanın önemli katkılarından bir tanesi, akran ve zorba mağduru olma olasılığını yordayan ortak faktörler olmasına rağmen, sadece zorba mağdur kategorisi için yordayıcı olan farklı değişkenlerin söz konusu olmasıdır. Ayrıca, akran ve zorba mağduriyeti için ortak olan faktörlerin log-odds güçleri incelendiğinde, zorba mağduru olma olasılığı akran mağduru olma olasılığına göre daha yüksektir. Bu bulgu, Felix ve arkadaşları (2011) tarafından geliştirilen California Zorba Mağdur Ölçeği'nin akran ve zorba mağduru başarıyla bir şekilde ayırdığına dair ampirik bir kanıttır. Bu da, risk gruplarının doğru bir şekilde tanımlanması açısından büyük bir önem taşımaktadır.

Sonuç olarak, Türkiye'deki ortaokul öğrencileri üzerinde yapılan bu çalışmanın bulguları, Avrupa, Kuzey Amerika, Avustralya ve Kanada'da elde edilmiş daha önceki araştırma bulguları ile benzerlik göstermektedir. Bu çalışmanın verileri

Batı ülkelerinde geliştirilmiş olan ölçme araçları ile toplanmıştır. Bundan dolayı, bu çalışmanın bulgularının Batı alan yazını ile karşılaştırılması düşünülebilir.

4.2 Uygulama İçin Öneriler

Öğrenciler arasındaki zorbalık ve mağduriyet olayları eğitimciler, anne-babalar ve ruh sağlığı uzmanları için bir sorun teşkil etmeye devam etmektedir. Sorunun azaltılması için mücadele edilmekte, ancak bu süreçte daha çok çabanın gösterilmesi gerekmektedir. Çalışmanın öncelikli amacı bu çabalara katkı sağlamaktır. Bu açıdan, araştırmada öğrenci ve okul düzeyinde yer alan bazı değişkenlerin mağduriyet üzerindeki etkilerini incelenmiş ve okul psikolojik danışmanlarının çalışmalarına katkı sağlayacak bazı kanıtlar sunulmuştur. Okuldaki tüm paydaşların (örneğin öğretmen, yöneticiler gibi) güvenli bir okul ortamının oluşturulmasında rolleri bulunmakla birlikte, tüm paydaşlar arasındaki işbirliğinin sağlanması ve liderlik rolü açısından okul psikolojik danışmanlarının öncelikli bir görevi bulunmaktadır (Ray, Lambie, & Curry, 2007).

Okullar, duygusal ve davranışsal problemi olan öğrencilere ruh sağlığı hizmetlerinin sunulmasında bir merkez işlevi görmektedir. Okullar aslında, öğrencilerin mikro sistemini oluşturmaktadır. Okulun çevresi öğrenci üzerinde büyük bir etkiye sahiptir. Okul çevresine yönelik çoklu müdahaleler istenilen sonuçların ortaya çıkmasını sağlayabilir. Birtakım faktörler ya da değişkenler bu müdahalelerden doğrudan etkilenirken, bazıları da dolaylı olarak etkilenmektedir. Bu açıdan, hizmetlerin ve müdahalelerin ekolojik bakış içerisinde sunulması çok önemlidir (Farmer & Farmer, 1999). Bu araştırmanın bulguları da bu bakış açısını destekleyen bulgular sunmaktadır.

Bu araştırmanın diğer bir önemli katkısı ise, öğrencilerin mağduriyetlerinde okullar arası farklılaşmayı ortaya çıkarmasıdır. Bu bulgu, okullardaki mağduriyet düzeylerinin öğrencilerin ve okulların sahip oldukları özelliklere göre değişebileceğini göstermektedir. Bu anlamda, her bir okulun çeşitli ekolojik sistemler tarafından şekillenen kendi özel dinamikleri bulunmaktadır. Bundan dolayı, okul psikolojik danışmanlarının zorbalık ve mağduriyetle ilgili etkili yöntemler geliştirebilmeleri için okullarının dinamiklerini iyi anlamaları gerekmektedir. Türkiye’de, okullarda şiddetin önlenmesine yönelik önleyici çalışmalarda, bu sorunun tüm okullar için geçerli olduğu varsayılmış ve benzer önleyici yöntemler tüm okullar için zorunlu hale getirilmiştir (Kılıç, 2007). Ancak, bu çalışmaların bulguları ışığında söylenebilir ki, zorbalık ve mağduriyet sorunu tüm okullarda aynı şekillerde meydana gelen bir sorun değildir. Daha öncesinde belirtildiği gibi, okulların ekolojik sistemlerinin ya da risk ve koruyucu faktörlerinin araştırılması çok önemlidir. Elde edilen bulgulara göre, psikolojik danışma ve rehberlik hizmetlerinin şekillendirilmesi önem taşımaktadır.

Bu çalışmanın önemli bulgularından birisi, duygusal öz-yeterliğin öğrencilerin mağduriyetinde önemli bir rol oynamasıdır. Mağdur olan öğrenciler olumsuz duygularla baş etmede sorun yaşadıklarını belirtmişlerdir. Bu bulgu belli açılardan okul psikolojik danışmanlarına yol gösterici olabilir. Psikolojik danışma ve rehberlik hizmetleri bireysel, sınıf ve okul düzeyinde sunulabilir. Bireysel düzeyde yapılacak çalışmalarda, psikolojik danışmanlar duygu düzenlemesi konusunda sorun yaşayan öğrencilere bireysel ve grupla psikolojik danışma hizmeti verebilirler. Olumsuz duyguların kontrol edilmesi ile ilgili destek ve psiko-eğitim grupları da düzenlenebilir. Green, Dunn, Johnson ve Molnar (2011) okullarda zorbalığı azaltmak için, öğrencilerin

duygusal iyi oluşlarına daha çok dikkat edilmesi gerektiğini belirtmektedir. Duygusal sorunların erken aşamalarda tanımlanması ve önlenmesi gerekmektedir. Rosen, Milich ve Harris (2009) duygu düzenlemesi konusunda güçlük yaşayan mağdurların duygusal gerginliklerini kontrol edemediklerini, amaç belirleyemediklerini, sosyal bilgiyi etkili bir şekilde işleyemediklerini ve çatışmayla etkili bir şekilde baş edemediklerini belirtmektedir. Bu süreç mağdur olma riskini de arttıran bir unsur haline gelmektedir. Sosyal beceri ve çatışma çözme becerisi eğitimleri, sosyal ilişkilerde duygusal sorunların düzenlenmesi konusunda güçlük yaşayan mağdurlara yardımcı olabilir. Risk altında olan öğrencilere yönelik müdahalelerin yanı sıra, bu süreçte, sınıf ve okul düzeyinde bazı önleyici ve gelişimsel stratejilerin uygulanması da yardımcı olabilir. Bu anlamda, Olweus (2004) tarafından geliştirilen Zorbalık Önleme Programı olumlu etkilere sahiptir. Bu program öğrencilere, sınıflara ve okullara yönelik önleyici müdahalelerin (örneğin, zorbalık ve mağduriyet hakkında bilgi verme, grup tartışmaları gibi) yapılmasını amaçlamaktadır. Program ekolojik bakış açısından hareket etmektedir. Ancak, bu çalışmanın bulguları da dikkate alındığında, duygu düzenleme, sosyal beceri ve çatışma çözme eğitimleri programa entegre edilebilir. Bu eğitimler; sınıf tartışmaları, grup rehberliği ve okul seminerleri aracılığıyla yapılabilir. Program sadece öğrencilere değil, aynı zamanda öğretmenlere, okul yöneticilerine, okul personeline ve anne-babalara yönelik olmalıdır. Okul ortamında rol modellerinin desteklenmesi öğrenciler üzerinde dolaylı ancak etkili bir etkiye sahip olacaktır.

Bu araştırmanın bulguları olumlu okul ikliminin mağduriyetin azaltılmasında önemli bir rolü olduğunu göstermektedir. Okul psikolojik danışmanları olumlu okul ikliminin oluşturulmasında birleştirici bir role sahiptirler (Ray ve ark., 2007). Okul psikolojik danışmanları öğrencilere, öğretmenlere, okul yöneticileri

ve personeline ilgilenici bir okul ortamını oluřturulması konusunda yardımcı olabilirler. Bunun için okuldaki farklı rollerdeki bireyler arasındaki olumlu iliřkilerin cesaretlendirilmesi, iřbirlięinin arttırılması, liderlik yapılması ve psiko-eęitim gruplarının dzenlenmesi gerekmektedir. Olumlu okul iklimini arttırmak için, özellikle, okul psikolojik danıřmanları öğrenciler ve okul çalışanları tarafından ortaklařa belirlenmiř okul kurallarının oluřturulmasına yardımcı olabilirler. Bu kurallar davranıřsal beklentilere iřaret etmelidir. Okul psikolojik danıřmaları, ayrıca öğrencilere, ailelere ve okul personeline yönelik psiko-eęitim programları (iletiřim becerileri, çatıřma çözme, öfke ve stresle bař etme, zorbalıkla bař etme ve anne-babalık becerileri eęitimleri gibi) dzenleyebilirler (Ray ve ark., 2007).

Okul ortamlarında zorbalık ve maęduriyetin önlenmesi için bütüncül bir okul yaklařımının tasarlanması ve uygulanması gerekmektedir (Khoury-Kassabri, 2011). Önleyici programlar pozitif okul iklimini oluřturmayı ve öğrencilerin öz-yeterlik inançlarını desteklemeyi amaçlamalıdır. Son yıllarda, pozitif okul ikliminin arttırılması ve disiplin sorunlarının düşürülmesi için okul çapında pozitif davranıřsal müdahalelerin ve desteklerin sunulması önerilmektedir (Waasdorp, Bradshaw, & Leaf, 2012). Bu müdahale sosyal ekolojik modeli dikkate almaktadır. Müdahalenin amacı, geliřtirici sistemler (örneğin, disiplin ve veri yönetimi) ve süreçler (örneğin, davranıřsal pekiřtirmeler) oluřturarak okulu çevreleyen kořulları iyileřtirmektir (Waasdorp ve ark., 2012). Öğrencileri ve onları çevreleyen yakın ekolojik sistemlerin özelliklerini dikkate alarak geliřtirilecek müdahaleler ve önleyici stratejiler daha verimli sonuçların ortaya çıkmasını saęlayacaktır.

4.3 Gelecekteki Çalışmalar İçin Öneriler

Bu çalışmanın bulgularından yola çıkarak gelecekte yapılacak çalışmalara bazı önerilerde bulunabilir. Birincisi, bu çalışma sadece öğrenci ve okul düzeyindeki faktörlerin mağduriyet üzerindeki etkisini incelemiştir. Ancak, daha çok sistem, örneğin sınıf (örneğin, sınıf normları, sınıf büyüklüğü, sınıf iklimi gibi), akran (örneğin, arkadaşlık, akran desteği, arkadaş sayısı gibi), aile (örneğin, aile desteği, anne-babalık stilleri, anne-babanın çocuğun yaşamına dahil olması ve çocuğu gözetimi gibi) düzeyindeki değişkenler gelecekte yapılacak çalışmalara dahil edilebilir. Bunu destekleyecek şekilde, Barboza ve arkadaşları (2009), eğer anne-baba çocuğuna saldırgan davranırsa ve zorbalık yaparsa, çocuğu sorunlarını şiddet yoluyla çözme konusunda teşvik etmiş olur ve bu da bireysel ve okul düzeyinde yapılacak müdahaleleri yeterli kılmayabilir görüşünü savunmuşlardır. Bu da, araştırma desenine daha geniş daha çok ekolojik sistemin dahil edilmesini gerekli kılmaktadır. İkincisi, bu çalışma, öğrenci ve okul düzeyindeki faktörlerin akran ve zorba mağduru olma olasılığı üzerindeki doğrudan etkisini incelemiştir. Ancak, gelecekteki çalışmalarda ekolojik sistemdeki farklı düzeylerin dolaylı ya da etkileşimsel etkileri incelenebilir. Bu tür etkileri araştırabilmek ve istatistiksel gücü arttırabilmek için, düzey 2’de daha fazla grubun olması (en az 20 grup) gerekmektedir (Kreft & de Leeuw, 1998). Son olarak, bu çalışmadaki okul düzeyi değişkenleri akran ve zorba mağduru olma olasılıklarını açıklamamıştır. Bu durum, okul düzeyinde daha fazla ya da farklı değişkenlerin eklenmesini gerektirmektedir. Bu nedenle, gelecekteki çalışmalarda, daha fazla okul değişkeninin (örneğin, okuldaki zorbalık politikaları, öğretmenlerin zorbalıkla ilişkili tutumları, zorbalık müdahale programları, anne-baba katılımını destekleyen okul sistemleri, teneffüslerde ve oyun zamanlarında öğretmen gözetimi, okuldaki öğretmen

değişimleri, okul normları, okulda güvenlik algısı, okul bağlılığı, okulun özel ya da devlet okulu olup olmaması gibi) araştırma modellerine dahil edilmesi önerilebilir.

Appendix L : Curriculum Vitae

PERSONAL INFORMATION

Surname, Name: Atik, Gökhan

Nationality: Turkish (TC)

Date and Place of Birth: December 1980, Izmir

Marital Status: Married

Phone: +90 312 363 33 50

Fax: +90 312 363 61 45

e-mail: gokhanatik@gmail.com

EDUCATION

Degree	Institution	Year of Graduation
M.Sc.	Middle East Technical University, Psychological Counseling and Guidance, Ankara	2006
B.S.	Hacettepe University, Psychological Counseling and Guidance, Ankara	2002
High School	Sıdıka Rodop High School, İzmir	1997-1998
	İzmir Atatürk High School, İzmir	1994-1997

WORK EXPERIENCE

Year	Place	Enrollment
2008 – <i>present</i>	Ankara University, Faculty of Educational Sciences, Department of Psychological Services in Education	Research Assistant
2003 -2007	Ministry of National Education, Ankara	School Counselor
2006 (April- June)	Adnan Saygun Music Preparation Elementary School, Bilkent University, Ankara	School Counselor

RELATED PROFESSIONAL EXPERIENCE

Year	Place	Enrollment
2010-2011	The University of North Carolina at Greensboro, Department of Counseling and Educational Development, NC, USA.	Visiting Scholar

FOREIGN LANGUAGES

Advanced English

PUBLICATIONS

1. Atik, G., & Yerin Güneri, O. (in press). Bullying and victimization: Predictive role of individual, parental, and academic factors. *School Psychology International*.
2. Atik, G., & Yerin Güneri, O. (2012). California Bullying Victimization Scale: Validity and reliability evidence for the Turkish middle school children. *Procedia Social and Behavioral Sciences*, 46, 1237-1241. doi: 10.1016/j.sbspro.2012.05.281
3. Kemer, G., & Atik, G. (2012). Hope and social support in high school students from urban and rural areas of Ankara – Turkey. *Journal of Happiness Studies*, 13(5), 901-911. doi: 10.1007/s10902-011-9297-z
4. Atik, G. (2012). Lisans düzeyindeki psikolojik danışman eğitiminde süpervizyon süreci: Ankara Üniversitesi örneği [Supervision process in the education of undergraduate students of counseling: A case of Ankara University]. *Türk Psikolojik Danışma ve Rehberlik Bülteni*, 3(23), 24-27.
5. Atik, G., Özmen, O., & Kemer, G. (2012). Bullying and submissive behavior. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 45(1), 191-208. doi: 10.1501/Egifak_0000001241
6. Özer, A., Totan, T., & Atik, G. (2011). Individual correlates of bullying behaviour. *Australian Journal of Guidance and Counselling*, 21(2), 186-202. doi: 10.1375/ajgc.21.2.186
7. Atik, G., & Yalçın, İ. (2011). Help-seeking attitudes of university students: The role of personality traits and demographic factors. *South African Journal of Psychology*, 41(3), 328-338.
8. Atik, G. (2011). Assessment of school bullying in Turkey: A critical review of self-report instruments. *Procedia Social and Behavioral Sciences*, 15, 3232-3238. doi: 10.1016/j.sbspro.2011.04.277

9. Özmen, O., & Atik, G. (2010). Attachment styles and marital adjustment of Turkish married individuals. *Procedia Social and Behavioral Sciences*, 5, 367-371. doi: 10.1016/j.sbspro.2010.07.106
10. Atik, G., & Yalçın, İ. (2010). Counseling needs of educational sciences students at Ankara University. *Procedia Social and Behavioral Sciences*, 2, 1520-1526. doi: 10.1016/j.sbspro.2010.03.228
11. Atik, G. (2009). Zorbalığı yordayıcı bir değişken olarak umut [Hope as a predictor of bullying]. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 42, 53-68. doi: 10.1501/Egifak_0000001137
12. Atik, G., & Kemer, G. (2009). Çocuklarda Umut Ölçeği'nin psikometrik özellikleri: Geçerlik ve güvenirlik çalışması [Psychometric properties of Children's Hope Scale: Validity and reliability study]. *Elementary Education Online*, 8, 379-390. Retrieved from <http://ilkogretim-online.org.tr/>.
13. Atik, G., & Kemer, G. (2008). İlköğretim ikinci kademe öğrencileri arasındaki zorbalığı yordamada problem çözme becerisi, sürekli öfke-öfke ifade tarzları ve fiziksel özyeterliliğin rolü [The role of problem solving skills, state-trait anger expression styles, and physical self-efficacy in predicting bullying among middle school students]. *Dokuz Eylül Üniversitesi Buca Eğitim Fakültesi Dergisi*, 23, 198-206.

PRESENTATIONS

1. Atik, G., & Yerin Güneri, O. (2012, February). Validity and reliability of the California Bullying Victimization Scale with Turkish middle school children. *Paper presented at the IV. World Conference on Educational Sciences*, University of Barcelona, Spain.
2. Pişkin, M., Öğülmüş, S., Atik, G., Çinkır, Ş., Çokluk, Ö., Babadoğan, C., Ayas, T., & Şahan, B. (2011, October). Liselerde öğrenciler arasındaki şiddetin saptanması [Determining school violence among high school students]. *Paper presented at XI. National Psychological Counseling and Guidance Congress*, Izmir, Turkey.
3. Pişkin, M., Çinkır, Ş., Kalafat, T., Öğülmüş, S., Atik, G., Babadoğan, C., Çokluk, Ö., Ayas, T., & Şahan, B. (2011, October). Öğretmenlerin ve okul yöneticilerinin okul şiddetine ilişkin görüşleri [The perceptions of teachers and

school principals related to school violence]. *Paper presented at XI. National Psychological Counseling and Guidance Congress, Izmir, Turkey.*

4. Atik, G. (2011, February). Assessment of school bullying in Turkey: A critical review of self-report instruments. *Paper presented at the III. World Conference on Educational Sciences, Bahçeşehir University, Istanbul.*

5. Özmen, O., & Atik, G. (2010, April). Attachment styles and marital adjustment of Turkish married individuals. *Paper presented at the World Conference on Psychology, Counselling, and Guidance, Antalya, Turkey.*

6. Atik, G., & Yalçın, İ. (2010, February). Counseling needs of educational sciences students at the Ankara University. *Paper presented at the II. World Conference on Educational Sciences, Bahçeşehir University, Istanbul, Turkey.*

7. Yalçın, İ., & Atik, G. (2010, February). The big five personality traits and psychological help seeking attitude of educational sciences students at the Ankara University. *Paper presented at the World Conference on Educational Sciences, Bahçeşehir University, Istanbul, Turkey.*

8. Yerin Güneri, O., Erdur Baker, Ö., Akbaba Altun, S., & Atik, G. (2009, October). Özel okul ilköğretim ikinci kademe öğrenci ve öğretmenlerinin okulda şiddete ilişkin algıları [The perceptions of students and teachers from a private secondary school related to school violence]. *Paper presented at X. National Psychological Counseling and Guidance Congress, Adana, Turkey.*

9. Pişkin, M., Öğülmüş, S., Bökeoğlu, Ö. Ç., Atik, G., Çinkır, Ş., & Babadoğan, C. (2009, October). Öğretmen şiddetini belirleme ölçeğinin geliştirilmesi [The development of teacher's violence scale]. *Paper presented at X. National Psychological Counseling and Guidance Congress, Adana, Turkey.*

10. Pişkin, M., Öğülmüş, S., Bökeoğlu, Ö. Ç., Atik, G., Çinkır, Ş., & Babadoğan, C. (2009, October). Akran şiddetini belirleme ölçeğinin geliştirilmesi – Lise formu [The development of peer violence scale]. *Paper presented at X. National Psychological Counseling and Guidance Congress, Adana, Turkey.*

11. Atik, G., Özmen, O., & Kemer, G. (2009, September). Bullying and submissive behaviors among Turkish adolescents. *Paper presented at the European Conference on Educational Research, Vienna, Austria.*

12. Atik, G., & Erkan, Z. (2009, September). Academic self-efficacy and problem solving as predictors of hope levels of Turkish high school students. *Paper presented at the European Conference on Educational Research*, Vienna, Austria.
13. Atik, G., Çayırdağ, N., Demirli, A., Kayacan, N., & Çapa Aydın, Y. (2008, October). Hope and perceived support as predictors of academic self-efficacy among graduate students. *Poster session presented at the 11th International Conference Further Education in the Balkan Countries*, Konya, Turkey.
14. Yerin Güneri, O., & Atik, G. (2008, April). Exposure to violence among Turkish middle school students. *Paper presented at the International Congress of Counseling*, Bahçeşehir University, Istanbul, Turkey.
15. Atik, G., Kemer, G., & Yerin Güneri, O. (2007, October). İlköğretim ikinci kademe öğrencileri arasındaki zorbalığı yordamada problem çözme becerisi, sürekli öfke-öfke ifade tarzları ve fiziksel özyeterliliğin rolü [The role of problem solving skills, state-trait anger expression styles, and physical self-efficacy in predicting bullying among middle school students]. *Paper presented at IX. National Psychological Counseling and Guidance Congress*. 9 Eylül University, Izmir, Turkey.
16. Atik, G., & Kemer, G. (2007, October). Çocuklarda umut ölçeğinin geçerlik ve güvenirlik çalışması [The validity and reliability study of the children's hope scale]. *Paper presented at IX. National Psychological Counseling and Guidance Congress*. Dokuz Eylül University, Izmir, Turkey.
17. Kemer, G., & Atik, G. (2005, September). Kırsal kesimde ve kent merkezinde okuyan lise öğrencilerinin umut düzeylerinin aileden algılanan sosyal destek düzeyine göre karşılaştırılması [The comparison of rural and urban area high school students' hope levels in terms of their perceived social support from family]. *Paper presented at VIII. National Psychological Counseling and Guidance Congress*. Marmara University, Istanbul, Turkey.
18. Atik, G., & Yerin Güneri, O. (2005, September). Çocuklarda şiddete maruz kalma ile okulda şiddet kullanma ve bazı demografik değişkenler arasındaki ilişki [The relationship between children's exposure to community violence, using violence in school, and some demographic variables]. *Paper presented at VIII. National Psychological Counseling and Guidance Congress*. Marmara University, Istanbul, Turkey.

19. Atik, G., & Öztürk, S. (2002). Üniversite gençliğinde HIV/AIDS'in önlenmesi hakkında bilinçlendirme projesi: Akran danışmanlığı uygulamalarına ilişkin izlenimler [A project for the prevention of HIV/AIDS among university students in Turkey: Impressions toward the peer education applications]. *Paper presented at the Hacettepe University I. Student Congress*. Youth Research and Application Center, Ankara, Turkey.

HOBBIES

Reading, football, basketball, swimming, running, shopping, outdoor activities (trekking, biking), freshwater aquarium, watching movies (fantasy and science fiction, documentary).

Appendix M: Tez Fotokopisi İzin Formu

ENSTİTÜ

Fen Bilimleri Enstitüsü

☐

Sosyal Bilimler Enstitüsü

☒

Uygulamalı Matematik Enstitüsü

☐

Enformatik Enstitüsü

☐

Deniz Bilimleri Enstitüsü

☐

YAZARIN

Soyadı : ATİK

Adı : GÖKHAN

Bölümü : EĞİTİM BİLİMLERİ

TEZİN ADI (İngilizce) : STUDENT AND SCHOOL LEVEL FACTORS IN VICTIMIZATION OF MIDDLE SCHOOL STUDENTS: AN ECOLOGICAL PERSPECTIVE

TEZİN TÜRÜ : Yüksek Lisans

☐

Doktora

☒

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 bir (1) yıl süreyle fotokopi alınamaz.

☐

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: