

HEALTH-BEHAVIOR
AMONG 10TH GRADE STUDENTS IN İSTANBUL
WITHIN CONTEXTS OF FAMILY, PEER, AND SCHOOL

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CHAPTER I

INTRODUCTION

Adolescence is defined as a period of distinctive changes and dramatic challenges, which biologically come to the surface with pubertal growth in the life of a person (Lerner, 2002). Adolescents try to adjust not only to the physiological changes and growth in their bodies but also to changes in the self, family, and peer groups (Kimmel & Weiner, 1995; Lerner, 2002). They have great awareness of and attention to their physical status and well-being (Scheidt, Overpeck, Wyatt & Aszmann, 2000). Being in a period of transition from childhood to adulthood also means that adolescents encounter changes in their social and psychological characteristics. Childhood experiences in family, at school, and in peer groups have significant influence on the adolescent's ability to adapt to the drastic changes in this new stage. So, the adolescent's perception about oneself and the external world is affected by changes in body and mind, by significant others including family members, peers, and school personnel.

As Lerner (2002) stated, an adolescent's development occurs in relation to social, cultural, and historical changes. In addition to biological and personal processes, social systems of family, peers, and school contribute to adolescent development (Orr & Dinur, 1995). It is important to regard the concept of health as not only including physical goodness but also appropriate psychological and social development. Even if the term "health" was used to imply the absence of disease and death in the past, it is presently known that it encompasses several factors affecting the person's quality of life (such as happiness, well-being, and social determinants) as well as physical well-being. So, current definitions include both physical and

mental dimensions of health (Demirsoy, 1999). It is crucial to study the health behavior of children and the factors that influence their healthy development. Information provided by research facilitates development of health-promotion programs and appropriate practices for children and adolescents.

Description of the Health-Behavior in School-aged Children (HBSC) Study

The Health-Behavior in School-aged Children (HBSC) study was initiated in 1982 by researchers from Finland, Norway, and England and then the project was adopted by the World Health Organization (WHO) as a collaborative study. This collaboration resulted in the WHO's influence on development of HBSC research study through its identification of important health issues that should be concern. Its focus on lifestyles of adolescents and health determinants fits WHO's policy framework. WHO has established the Collaborating Center with the aim of providing expertise and resources to HBSC (Currie, Samdal, Malece, & Smith, 2001).

Although HBSC is a European and North American research study in origin, it recently includes 41 participating countries and regions (stated on <http://www.hbsc.org>). Türkiye joined the HBSC Network in 2004. Surveys are conducted in each country in every four year using a common research protocol of HBSC. The most recent survey, which was conducted in 2001-2002, is the sixth one in the series. All participating countries use the international standard survey instrument and data from each country are compiled in the international data basis. Common data across all participating countries enable the quantification of key health behaviors and the comparisons among countries. The main categories of variables concerned in questions are stated as health-positive and health-negative

aspects of behavior and habits; personal characteristics; perceived environmental conditions (physical as well as social); self-reported health; and demographic variables (Currie et. al., 2001).

HBSC studies aim to gain new insight into school-aged children's health and well-being and to increase the understanding of their health-behavior and their social context. Findings from the surveys are used to inform and influence health promotion and health education policy and practice at national and international levels. Other objectives of the project include establishing and strengthening a multi-disciplinary international network of experts, as well as promoting and supporting the establishment of national expertise on health behavior in school-aged children.

HBSC studies consider young people's health in its broadest sense; they include physical, social and emotional well-being. They examine the context of health including family, school and peer settings. The local area and socioeconomic environment in which young people grow up are taken into consideration in order to understand fully the patterns of health and health behavior found in the adolescent population (see <http://www.hbsc.org> for further information). HBSC study has its disciplinary origins in behavioral and social sciences (Currie et. al., 2001). Health behaviors are said to be shaped by cultural, social, and psychological factors and contexts. So, family, peers, and school deserve great significance in studying health behaviors. Previous HBSC studies are published in journal articles, book chapters, and in the HBSC's own study reports (see <http://www.hbsc.org> for detailed information).

Although there are objective, concrete symptoms indicating diseased or the healthy states of body, perception of the person of his/her health conditions is an important source. In addition to the use of the biomedical model to examine healthy

and unhealthy states of being, a holistic view including emotional and social well-being and functioning is now used because the person has been regarded as the best source of information in assessing quality of life (Demirsoy, 1999). Measurement of health from the person's perspective, therefore, becomes significant. Psychosocial factors as well as individual change factors highly influence the health status of school-aged children all through adolescence.

Statement of the Problem

The main aim of this study was to examine family, peer, and school contexts as psychosocial factors in relation to development of health-related behaviors and attitudes among 10th grade students in İstanbul as a part of the general, nation-wide HBSC study in Türkiye. Variables in the study were grouped into three categories: first background or contextual variables (including home, peer, and school), second risk behaviors (including bully-victim groups), and finally outcome factors (including perceived academic achievement, general life satisfaction, self-rated mental health). Contextual variables were analyzed in relation to the risk behaviors and outcome factors, while examining the moderating effects of gender in these relations. The items from the optional package of HBSC study were used in addition to the mandatory questions. The optional questions were directed at 10th grade students only, as late adolescents, although the main study and mandatory questions were directed at 6th and 8th grade students as well. Use of optional items provided an opportunity to see the importance of family, peer, and school related factors in adolescents' behaviors, habits, and attitudes specifically and their health in general. These items provided us with information about the three main social bodies, which

play crucial role in adolescents' lives.

Selected contextual variables offer a great amount of information about the development of adolescents' lifestyles, in both negative and positive terms. Parental attitudes and intra-familial communication, peer group characteristics and attribution of great importance to peer group, and satisfaction with school were stated as important predictors of risk behavior (early sexual involvement, bullying, and fighting) among adolescents (Alikasıfoğlu & Ercan, 2002). Relationship between the variables of psychosocial contexts might affect the development of self in an adolescent. School-aged children's perception of their general mental health can also affect the way they see the life in general, as well as their involvement in certain behaviors, like leisure time activities, involvement with peers and family. In addition, how an adolescent perceives the mental health not only affects his/her behaviors but is also affected by certain external factors, such as family climate, school environment, peer relations, and economic welfare.

This study dealt with data collected from İstanbul and provided valuable information about the current status of 10th grade students in İstanbul, which had unique importance in Türkiye for several reasons. Türkiye is geographically divided into 7 general regions and "Marmara" is the most crowded western region where İstanbul is located. İstanbul receives immigrants from all different regions of Türkiye every year and it is the most crowded city of the country (over 10 million of population). İstanbul has big sized student population, and it is an appropriate setting to study different demographic characteristics (like SES, educational background, ethnic origin). It has the widest population of adolescents and children in school settings (http://ilsis.meb.gov.tr/home/apk_raporlar.asp). To include school-aged children with diverse characteristics, the sample has been drawn from different parts

of the city. General characteristics of students from different school settings represented different neighborhoods and socio-cultural familial background.

A study, which was conducted in İstanbul (Ercan, et. al., 2001) indicated high rates for prevalence of health risk behaviors among high school students and pointed out the need for and importance of prevention and intervention programs in health care and educational settings with priorities given to the issues of smoking, drinking, eating behaviors, accidents, and violence. As we witness in school settings and from the personal reports of children, violence problems and internalized problems of school-aged children, especially in high schools, are closely related with family, friends, and school related problems.

On the basis of information obtained from the current study, educational programs targeting students, educators, and parents can be developed with preventive purposes. To reach relevant audiences on the issue of health for children and adolescents, it seems crucial to use resources effectively in educational settings and to raise consciousness among people who are significant in the development of children, in both the psychological and physiological sense.

Research Questions

For the 10th grade male and female students;

A. Family context

1. Broad Outcomes

- 1a. How does parental monitoring relate to perceived academic achievement, general life satisfaction, and self-rated mental health?
- 1b. How does parental bonding relate to perceived academic achievement, general life satisfaction, and self-rated mental health?
- 1c. How does family wealth relate to perceived academic achievement, general life satisfaction, and self-rated mental health?
- 1d. How do different parental disciplinary styles (neglectful, permissive, authoritative, and authoritarian) relate to perceived academic achievement, general life satisfaction and self-rated mental health?
- 1e. How does school-related parental support relate to academic achievement?

2. Risk Behaviors

- 2a. Are there significant differences among neutral, victim, bully, and bully-victim students in parental monitoring, parental bonding, and family wealth?
- 2b. Are there significant differences among neutral, victim, bully, and bully-victim students in parental disciplinary styles (neglectful, permissive, authoritative, and authoritarian behaviors)?

B. Peer context

3. Broad Outcomes

- 3a. How does social competence relate to perceived academic achievement, general life satisfaction, and self-rated mental health?

3b. How does friendship quality relate to perceived academic achievement, general life satisfaction, and self-rated mental health?

3c. How does peer group approval (from other students, teenagers, parents, and teachers) relate to perceived academic achievement, general life satisfaction and self-rated mental health?

4. Risk Behaviors

4a. Are there significant differences among neutral, victim, bully, and bully-victim students in social competence and friendship quality?

4b. Are there significant differences among neutral, victim, bully, and bully-victim students in social approval of peer group by other students, other teenager groups, parents, and teachers?

C. School context

5. Broad Outcomes

5a. How does school-related stress relate to perceived academic achievement, general life satisfaction, and self-rated mental health?

5b. How does school-related satisfaction relate to perceived academic achievement, general life satisfaction, and self-rated mental health?

6. Risk Behaviors

6a. Are there significant differences among neutral, victim, bully, and bully-victim students in school-related stress and school-related satisfaction?

6b. Are there significant differences among neutral, victim, bully, and bully-victim students in perceived academic achievement, general life satisfaction, and self-rated mental health?

CHAPTER II

REVIEW OF LITERATURE

Everyone is born into a social environment that determines and continually affects physical and psychological development. Psychosocial context surrounding people includes a nuclear family as well as relatives and close friends. The role of cultural context is important in understanding parenting. In fact, child-rearing practices may differ among countries, depending on cultural variations and differences in family structure (Lerner, 2002). Turkish family socialization favors parental control and discipline combined with love, emotional closeness, protection, conformity, and interdependence. Although the Turkish family is generally warm in atmosphere with more signs of love than rejection (Vardar, 1994), it is also regarded as patriarchal and authoritarian. On one hand, Turkish parental disciplinary style has some authoritarian elements such as being coercive and strict, expectancy for absolute obedience and use of physical punishment. Compliance and dependency are among the top characteristics encouraged in children, especially in females. On the other hand, warmth and love are the key elements that define Turkish child-rearing style. However, what all societies and cultures share in common is the reality that children's perception of parents as being nurturing, loving, and supportive allows them to be healthy and happy (Kağıtçıbaşı, 1996; Lerner, 2002).

Kağıtçıbaşı (1996) stresses the significance of the child's perception of parental behaviors in the present socio-cultural context. Children may experience coercion, control, and punishment as discipline tools used by their loving parents for their own good. Parental warmth and support as well as the psychological availability

of parents are likely to play a crucial role in development of well-being in children and adolescents. Kağıtçıbaşı (1996) points out that parental love and warmth are universally needed by all children and their meanings are also universal, but concepts of control, dependence and independence are mostly subject to cultural differences. Non-western societies are mostly defined as being socio-centric or collectivist, where dependency and reliance on parents are emphasized more than western characteristics of “self” as autonomy, individualism, and separateness (Harter, 1999). Although Turkish culture is more likely to be regarded as collectivist rather than individualistic, especially in urban middle class child-rearing practices include encouragement of autonomy and emotional expression in addition to traditional values, such as emotional closeness, parental worry, and restriction of daughters (Sunar, 2002). So, seemingly conflicting characteristics of parenting practices should be taken into account when conducting cross-cultural research.

In addition to the role of parents and family as sources of social development, peers gain an increasing importance and have a dominant role in the adolescent’s life (Buysse, 1997; Maccabe & Ricciardelli, 2003; Settertobulte, 2000). In understanding the well-being and lifestyle behaviors of adolescents, the effect of school should not be underestimated. Experiences gained in school influence the development of self-esteem, perception of social competence and self-efficacy, and life satisfaction (Currie, Samdal, Malece & Smith, 2001). Within this psychosocial environment, school-related stress or support might lead to subjective health complaints like headache and pain (Torsheim & Wold, 2001).

To address the questions directed in this study, this review included brief information about the risk behaviors of bullying as well as mental health and life satisfaction. Then, family, peer, and school related factors were reviewed in relation

to the risk behaviors, mental health and life satisfaction with brief theoretical and empirical information.

Perceived Academic Achievement

Academic achievement, as a widely used construct in educational research, is measured with students' grade point average or composite achievement tests (Chamorro-Premuzic & Furnham, 2006; Crouter, MacDermid, McHale, & Perry-Jenkins, 1990; Nayman, 1973; Sirin, 2005). Grades are seen as basic indicators of a student's scholastic success and ability. However, In HBSC studies, perceived academic achievement is measured with a single item, which looks for children's perception about their own academic success. It is not objective and direct measure of academic achievement but a student's own evaluation of academic performance. The basic concern of the study is defined as "to identify how students perceive their own academic achievement and to see how this relates to their perception of the psychosocial school environment." (Currie et. al., 2001).

In 2001-2002 protocol (Currie et. al., 2001), it is emphasized that academic achievement is important for students in many ways. Academic achievement is said to have effects on students' self esteem and well-being. Moreover, students with higher levels of achievement tend to enjoy school more while academic failure might lead to alienation from school (Finn, 1989). Achievement in school may provide better career and job opportunities in the future.

As an important concept for school-aged children, academic achievement has been studied in relation to social competence (Wentzel, 1991a), familial factors (Crouter et. al., 1990; Fliegler, 1957, cited in Nayman, 1973; Güroğlu, 2002; Sirin,

2005), peer relations (Chen, Rubin, & Li, 1997; Schneider, 2000), and school context (Lerner, 2002). But, in these studies, achievement was measured by grade point average (GPA) instead of student perception. So, studying perception of academic achievement by the student himself/herself might be a new topic in research area.

Life Satisfaction and Mental Health

Life-satisfaction is defined by Veenhoven (1996) as “the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person likes the life he/she leads.” (pp. 16). Some stressors, unique to the period of adolescents, such as academic pressure or a need to be independent from parents are said to increase the likelihood of alienation and dissatisfaction (Gilman & Huebner, 2003). It is said that the majority of youth does not have psychological disorders and they become productive citizens, but that is different from happiness and satisfaction in life. A person might feel low life satisfaction even if s/he is mentally healthy. In other words, despite stress level and dissatisfaction, a great majority of youth succeeds in staying productive and psychologically well. In a later study of Gilman and Huebner (2006), characteristics of adolescents who report very high life satisfaction were examined. A sample of 484 adolescents filled out the Students' Life Satisfaction Scale together with self-reported measures of intrapersonal, interpersonal, and school-related functioning. On the basis of the study results, no adolescents in the high life satisfaction group demonstrated clinical levels of psychological symptoms, while 7% of the average group and 42% of the low satisfaction group reported clinical levels of symptoms. These findings suggest that

high life satisfaction is related with some mental health benefits that are not found among adolescents who report lower satisfaction levels.

In a study conducted by Vilhjalmsson (1994) as a part of health behavior study in Iceland, life satisfaction is stated as one of the dimensions of mental health. Psychophysiological symptoms, anxiety, and life satisfaction were given as three aspects of mental health.

Gilman and Huebner (2003) stated that internal mechanisms, such as the number of close friends, are more influential than objective conditions, like family income on one's subjective well-being. Here, subjective well-being is said to refer to how and why people experience their lives in positive ways. Additionally, subjective well-being is conceptualized with emotional component (such as sadness, happiness) and a cognitive component (life satisfaction). Life satisfaction significantly determines the person's level of subjective well-being when considered together with emotional conditions. So, life satisfaction, which is considered as a separate component from emotional and mood states, is behind the effects of immediate emotional changes and psychological well-being.

Mental health is accepted as a psychological state of well-being and it is characterized by sense of purpose in life, self esteem, and the person's acceptance of his/her self, and the capacity to manage life effectively. To be able to establish the balance between negative and positive emotions is regarded as a part of psychological well-being. As stated in the HBSC protocol (Currie et al., 2001), mental health is an important health outcome measure in promoting health in the population. When a person displays emotional extremes (always sad or always full of energy), that might be the sign of maladjustment.

There are many factors contributing to the development or destruction of mental health in a person. Adolescents' psychological well-being is affected by stress, family climate, peer environment, school responsibility, and economic problems, like poverty. In any research concerning mental health, it seems important to observe the social and environmental factors that contribute to one's psychological well-being.

Bullying

Bullying indicates an imbalance in social relationships. It is related to the use of verbal abuse, and physically violent acts against the other person (Alexander, Currie, Todd, & Smith, 2004a). It is a type of aggression that includes hitting, kicking, and threatening. Isolation of the person by peers, a threatening look, and name-calling are also the signs of bullying. As an aggressive and disruptive behavior, bullying is regarded as an externalizing behavior problem among adolescents (Lerner, 2002).

In the mandatory survey package of HBSC, before the presentation of related items, bullying is defined to students as, "a student is *being bullied* when another student, or a group of students, say or do nasty and unpleasant things to him or her. It is also bullying when a student is teased repeatedly in a way he or she does not like or when he or she is deliberately left out of things. But it is *not bullying* when two students of about the same strength or power argue or fight. It is also not bullying when a student is teased in a friendly and playful way." (2005-2006 international standard version of the mandatory questionnaire, pp. 31).

In bullying, threat and power assertion by a person on the victim is common. Some students are bullying while others face this threat as a victim, and

some others both bully and get bullied (victimized). In fighting, however, there is no power inequality among the sides but the act is still aggressive and disruptive.

Fighting, as well as bullying, are said to be related with familial factors (Barnes & Farrell, 1992; Dishion & McMahon, 1998; Smith & Krohn, 1995), and peer group influence (Barnes & Farrell, 1992).

Bullying and fighting are problems that are witnessed in all societies.

Previous HBSC studies indicated the presence of this problem among school-aged children (Alexander et al., 2004a; Forero, McLellan, Rissel, & Bauman, 1999; Morgan & Mulvihill, 2002). In the 2002 survey, reports of having been bullied at least two or three times a month over the past couple of months among all HBSC 15 year-old students, ranged from 2.4% to 31.8% across countries (Alexander et al., 2004a). In Scotland 4.9% of 15 year-old males and 6.3% of females, in England 34% of all students reported to being bullied in the past couple of months. In the same survey, 11.8% of 15 year-old, 14.3% of 13 year-old and 18.4% of 11 year-old males from HBSC countries reported fighting three or more times over the past year. The percentages are 4.8, 4.5, and 3.4 for females (11, 12, 15 year-olds respectively). As statistics indicate, occurrences of both bullying and fighting decrease with age, in HBSC countries.

Dölek (2002) reported high frequency of bullying and/or getting bullied behaviors among Turkish children. Her sample consisted of 659 students from 5, 7, and 9th grades. Half of the students stated that they have been bullied, at least a few times during a semester. About 8 % of students reported that they were bullied many times in a week. One third of them reported bullying other students personally or as a bullying group member. The most common bullying behavior was mocking among students. Compared to females, more males reported that they have bullied their

peers. There was no gender difference in terms of being bullied. Similarly with the HBSC studies results, there was a relationship between bullying behavior and age level. Bullying decreased as grade level increased.

A study, which was conducted with 701 5th and 6th grade students, has revealed that 23.3% of students were involved in bully-victim incidences (Pekel-Uludağı, & Uçanok, 2005). Among all, 7.6% of children were involved in bullying behavior, 9.3% were bullied by others, and 6.4% of them both bullied and were bullied by others. Males were found to be more likely to bully their peers. In addition, bullying behavior showed some gender differences. In other words, bullied females were reported to experience more relational kind of victimization and teasing, while males mostly face teasing, terror, overt and relational bullying. However, in the study of Shields and Cicchetti (2001), maltreatment of parents (physical or sexual abuse) was found to be the factor putting the children at risk of being bullied while gender was found to place no difference and moderating effects on this finding. Todd, Currie, Mellor, Johnstone, and Cowie (2004) state some reasons for female reports of less involvement in bullying behaviors when compared to males. One of these reasons is said to be the possibility of social desirability. That is, females might be reluctant to declare their involvement in this kind of acts because they are not socially desired and welcome behaviors. The second reason is that females are more likely to be in bullying as a member of group, and less likely to regard themselves as the real bully.

Role of Family in Adolescent Life

As the first source of the social world, family plays an important role in development of a child. Starting in a family environment, a child enters into the outside world through the provision of a secure base by parents, knowing that when s/he returns back into home, s/he will be welcome, supported physically and emotionally by the parents (Bowlby, 1988). It is important for a child to feel that the family, specifically parents, will comfort him/her when s/he is stressed or frightened or threatened.

According to attachment theory (Bowlby, 1988), people develop bonds with parents or caregiver, who provide protection, comfort, and emotional support. In adolescence and adulthood, these bonds persisted to the addition of new sources, peers or intimate person. So, secure attachment with parents opens the way for healthy relationship with peers, or significant others (Sherri, 1987).

As Bowlby (1988) stressed, play and varied activities with peers is another component of the attachment behavior. When an individual is securely attached to parents, s/he is more likely to be comfortable in exploring the outside world away from the attachment figure. Research has shown that a quality of parent-child relationship affects adolescent adjustment in later years (Doyle, Moretti, Brendgen, & Bukowski, 2000). In adolescence, we see the transition from a dependency relationship with parents to reciprocal relationship and involvement with parents, peers, and others. This does not mean detachment or distance from parents but the development of autonomy that is healthily developed from the close bonds with parents (Doyle et. al., 2000).

Maternal child-rearing style might have effect on development of self-concept, which in turn affects the quality of relationships with peers in adolescence.

Positive regard for the child and parental acceptance are regarded as important factors affecting the self evaluation of the child (Dekovic & Meeus, 1997). In contrast, the negative parent-child relationship might result in emotional and behavioral problems in the child. Even if there is separation between parents and adolescents and although peers are regarded as the most powerful source of development and adjustment in adolescence, parents are still the main determinants of health and the unhealthy behavior of adolescents (Currie et. al., 2001; Doyle et. al., 2000).

Parental bonding is well related to the communication in family. As Bowlby presented in his theory (1988), it helps the child or adolescent feel secure to know that his parents will be available when he needs their help and support. Parental communication is an important element in determining the quality of the parent-child relationship. Parents should support their adolescents by remaining psychologically available to them and also encouraging them to gain personal autonomy (Doyle et. al., 2000). Yet, it is crucial to note that how the adolescent perceives the quality of communication with parents might be affected by the feeling of adolescent's self-efficacy. Communication with parents might affect and be affected by the adolescent's feeling of competence, autonomy, and efficacy. In the research (Caprara, Pastorelli, Regalia, Scabini, & Bandura, 2005), it was found that the more adolescents perceived their self-efficacy, the more they reported open communication with their parents and they were more likely to accept their parents' monitoring of their activities outside the home.

Family Wealth

Socioeconomic status (SES) is defined in the HBSC protocol as a major social basis for inequalities across populations, which incorporates economic status, educational status, and work status (Malece, Parry-Langdon, Holstein, Richter, and Currie, 2005). Even if the concept of SES and what it represents are still debatable, it is universally accepted that children from a high SES level have greater access to resources needed for their development than those from lower SES (Bornstein & Bradley, 2003). A family's socioeconomic status has a significant effect on a young person's developing personality due to the economically underprivileged home environment. Miller (1991) stated that low socioeconomic status is a risk factor for emotional and physical problems, which may seriously affect the adolescents' life.

Macintyre, McKay, Der, and Hiscock (2003, cited in Malece et. al., 2005) introduce the three perspectives of SES as material, psychosocial, and sociological. According to material perspective, low income prevents a person from obtaining essential material standards, such as food, adequate heating, and housing. This is a threat against one's health through the lack of essential physical sources. The psychological perspective suggests that health disadvantages arise from stress associated with being poor, compared to one's neighbors. This stress causes direct physiological effects through mental and emotional illness. Or, a person might be involved in behavioral risks (such as smoking, drinking, over-eating) in order to relieve his/her stress. From the sociological point of view, differences related to social class and economic welfare do not only reflect material resources or variations in psychological stress, but basic differences in access to scarce goods, like education, career opportunities, and political influence.

Malece et. al. (2005) emphasized that young people are not asked about the conditions of their neighborhood so often, but they are aware of the quality of the area in which they live. As Malece et. al stated, perceptions of wealth might be as important as wealth itself, from a psychosocial perspective. Over the years, the HBSC has used a number of adolescent SES measures that focus on objective and subjective family wealth. In the current studies of HBSC, perceived wealth is still being used as an essential measure of social status. Perceived wealth is said to be useful for within-country analyses and explain variations in certain health outcomes and behaviors for children (Currie, 2001, cited in Malece et. al, 2005). The item of “how well off do you think your family is?” is directed to children as a measure of family wealth. Perception of family wealth by children is addressed in the HBSC studies as a “proxy for family income”, because it is often difficult to gain information from adolescents about family income levels (Malece et. al, 2005).

The family’s economic status and level of wealth are important factors that are likely to be related to adolescent health and psychological well-being. In England, students who perceived their family as not “well off” were more likely to report feeling down and being unhappy (Morgan & Mulvihill, 2002). Physical well-being and having less health complaints are related with having good nutrition, physical care and activity, all of which require a certain level of welfare and economic strength by the family. Parental welfare, indirectly, through providing necessary health resources to the child, reduces health complaints, and that increases the feeling of happiness and enjoyment in children and adolescents. In a study of perceived quality of life and correlates of life satisfaction for adolescents, individual differences in global life satisfaction were not associated with age, grade, or gender but were associated moderately with socioeconomic status (Dew & Huebner, 1994).

Yet, subjective conditions, such as quality of family relationships, number of close friends and supportive peer environment are more related to subjective well-being and life satisfaction than family income (Baker, Dilly, Aupperlee, & Patil, 2003). Luthar and Zigler (1991) claim that not all students who live in impoverished regions are faced with negative outcomes. Some of them might deal with problems using certain individual and situational factors, such as social support from significant others. It is suggested that perceived and/or received social support, as a protective factor, improve adolescents' adaptation to life. Support provides children with necessary resources, opportunities, facilities to meet their psychological and physical needs (Bowen and Chapman, 1996).

Socioeconomic status has been questioned in terms of its relation not only with well-being, but also with cognitive development and academic ability. Despite the idea that high SES provides access to better educational resources (Malece et. al, 2005), in the meta-analysis of White (1979) the relationship between SES and academic achievement was much weaker than many people have assumed. So, study findings are controversial and the relationship between socioeconomic status and academic achievement is open to investigation.

Parental Monitoring and Bonding

Parental monitoring or supervision, which is another familial factor that affects the development of healthy behavior in children, includes attention, care, and concern (Caprara et al., 2005). It is worth noting that supportive parental monitoring includes parental attachment and supervision, and it is not equal to coercion, overprotection, or overcontrol. So, it is closely linked to an authoritative style of child rearing (Pedersen et. al., 2001). It is related with parental communication and warmth,

which are facilitative in the development of self-esteem, cognitive capacities, and general psychological adjustment. Parental monitoring contributes to well-being of adolescents only when combined with the encouragement of psychological autonomy (Doyle et. al., 2000).

Poor parental monitoring is said to increase risky behavior in children, such as drug use, smoking, and delinquent behavior, and unhealthy peer relations (Svensson, 2003). To provide further guidance and support, parents need to know what activities adolescents are engaging in, their choice of friends outside the home, and with whom they spend most of their time (Caprara et. al., 2005). According to the Social Bonding Theory of Hirschi (1969, cited in Svensson, 2003), attached children are sensitive to the opinions of their parents and are less likely to commit delinquent acts. That is not because parents prohibit certain activities, but children voluntarily share their acts with their parents. Parents may not know where an adolescent is, but the adolescent feels that his/her parents are aware of where s/he is and what s/he is doing. In monitoring, what is measured is mostly the parents' knowledge about the child but not its source (Stattin & Kerr, 2000). Parents can get information from the voluntary disclosure of the child. So, an adolescent's perception and report about the parental monitoring seems significant.

Relations with Perceived Academic Achievement

As discussed earlier, parental variables, including monitoring, communication, support, bonding, and control, have great significance in the life of an adolescent, in terms of well-being, life satisfaction, and sense of competence. Academic achievement has a great impact on adolescent's feeling of efficacy and success.

Family and parental monitoring are important in determining one's academic achievement. Research indicated that less well-monitored males received lower grades than other children (Crouter et. al., 1990). Fliegler (1957; cited in Nayman, 1973) conducted a literature review to identify reasons for the low achievement of gifted children. Four patterns that were found to be predominant among children are indifferent parents, overanxious parents, neutral or uninterested parents, and inconsistent parents. These parental characteristics lead to a generalized negative attitude toward the learning situation by children and resulted in the lower level of educational success. Low parental monitoring and neglectful type of parental discipline have negative influence on educational achievement of adolescents.

Relations with Life Satisfaction and Mental Health

Literature indicates the importance of contextual factors in development of mental health in adolescents (Bolognini, Plancherel, Bettschart, & Halfon, 1996; Essau, 2004; Lerner, 2002; Morgan & Mulvihill, 2002). It should also be considered that adolescents are likely to experience depressive symptoms, negative feelings related with negative mood and other internalizing problems. The psychosocial context, in which an adolescent lives, is an important factor influencing the psychological well-being of adolescents as well as their physical health. The personal state of well-being is openly related to family, peer, and school context.

Familial factors, such as parental depression and parental bonding are considered to be related with adolescent's level of depression (Essau, 2004). Hopelessness and helplessness are the key elements in depression and they give rise to suicidal ideation and attempts (Harter, 1999). The person feels unable to control

his/her life or to change the circumstances. Canetti, Bachar, Galili-Weisstub, De Nour, and Shalev (1997) found strong relationship between parental bonding and adolescent psychopathology. Adolescents, who reported high care and low control, had a positive feeling of well-being and low level of stress. On the other hand, adolescents who reported high control but low care were more likely to have low level of psychological well-being.

Essau (2004) found that attachment to parents to be significantly lower among depressed adolescents. It is considered that level of attachment to parents might be leading to high level of attachment to peers, in which case the hope of gaining emotional closeness and affiliation become important motivational elements. Yet, low parental attachment with high peer attachment is found to be ineffective in decreasing depressive symptoms, since peer attachment could not compensate for the parental detachment. So, perceived level of attachment and emotional bonds with parents has greater effect on the adolescents' and children's well-being compared to peers (Essau, 2004).

Terzi-Ünsal and Kapcı (2005) aimed to test different suicide models for adolescents who reside in Batman, Türkiye. Data, collected from 605 adolescents coming from five different high schools suggested that support received from significant others, such as parents and peers predicts their self-worth, psychological health, and hopelessness. This, in turn predicts development of suicidal ideation, which might be followed by suicidal attempt. These findings indicated importance of significant close people in adolescents' lives in terms of psychological well-being and life satisfaction.

Relations with Risk Behaviors

Svensson (2003) studied gender differences in adolescent drug use in relation with parental monitoring and peer deviance. Results indicated that level of parental monitoring was higher for females as compared to males. Those, who reported low parental monitoring, were involved in deviant peer groups more than those with high parental monitoring. There was interaction between monitoring and adolescent drug use, with the mediating role of involvement in deviant peer groups. Interestingly, females, who reported poor parental monitoring, were more likely to have deviant peers than males. So the exposure to deviant peer group is more importantly related with drug use in females with low level of monitoring.

In another study, parental support and control were investigated as predictors of adolescent drinking (Barnes & Farrell, 1992). Construct of *control* included coercive parental actions as well as monitoring the adolescent's behaviors, and putting demands and setting rules for him/her. With a sample of 699 adolescents and their parents, interviews were carried out (with all family members and with adolescents alone), and parents also completed a self-administered questionnaire. It has been found that parental support and monitoring are important predictors of adolescent drinking and delinquency. Reports of adolescents have shown that the highest level of support provided by parents is related with the lowest level of regular drinking and illicit drug use. Mothers' reports on their own support showed the same pattern. In addition, a high level of monitoring was associated with a low incidence of drinking, drug use, and deviance. In contrast, a high level of coercive control was found to be related with a high incidence of drinking and drug use. Research consistently show that adolescents who report low level of parental monitoring,

warmth, and attachment are more likely to use illicit drugs, to demonstrate higher levels and frequency of use in addition to facing psychological problems, such as feeling guilty and lonely (Branstetter, 2001).

Family-related factors, such as living with a single parent, poverty or both are considered to be directly or indirectly leading to deviant behavior in children and adolescents (Smith & Krohn, 1995). Yet, the strength of influence of parental factors and family structure are said to depend on ethnicity and race since family processes are affected by cultural variations. Smith and Krohn (1995) evaluated the role of race, ethnic diversity, and family in adolescent delinquency. They included three different racial groups; Hispanics, white Americans, and African Americans. For Hispanics, the absence of father was a reason for adolescent problem since father was the source of family integration and control in their culture. The familial factor related to delinquency was family attachment for them. The degree of involvement in familial activities and attachment among family members were strongly related with adolescent conformity. So, family bonds and processes are important in preventing delinquency and deviant behavior. Compared to white Americans and African Americans, Hispanics were more affected by parental breakups, reduced attachment and involvement with family activities since cohesion and family “interdependence” were valued in their culture. On the other hand, for white Americans and African Americans, independence and autonomy of family members were significant. That leads to reduced influence of family life on children. Quality of discipline and control, personal autonomy, parental supervision and monitoring were more significant than family activities in order to decrease the rate of deviant behavior and delinquency among white and African Americans. Similarly, parental monitoring has been found to be an important factor in bullying in a 2001/2002 HBSC study. Bullies

most frequently reported that their mothers didn't really know where they were at night (Alexander, Currie, & Mellor, 2004b).

The Turkish context of family socialization favors parental control and discipline combined with love, emotional closeness, conformity, and interdependence (Kağıtçıbaşı, 1996) as seen in the case of Hispanics. Parental bonding, closeness to family, parental involvement in activities might affect child's well-being positively and negatively relate to delinquent behaviors in the school context and peer groups, especially in cases of bullying and fighting. Adolescents conform to the power and discipline of parents as long as they believe in the parents' psychological presence in their lives; believe in their love and care.

As children enter into adolescence, they spend most of their time with activities that are not supervised by parents. The decreases in parents' involvement and poor parental monitoring have both direct and indirect effect on anti-social and disruptive behavior. In a study by Patterson, conducted in 1982 (cited in Dishion & McMahon, 1998), poor parental monitoring was found to indirectly affect delinquent behavior by leading the adolescent to involvement with delinquent peers.

Parental Disciplinary Styles

The construct of parenting style is used to refer to the attempts of parents to control and socialize their children in normal variations (Baumrind; cited in Darling, 1997). As used in the HBSC protocol and in many other studies (Darling, 1999; Doyle et al., 2000), parenting style includes two important elements of parenting: parental responsiveness and parental demandingness (Maccoby & Martin, 1983). Deviant or abusive ways of parental disciplinary behaviors are also related to problem behavior and of sense of self in adolescents.

Erikson (1963) clearly demonstrated the importance of certainty and consistency in the way of prohibition and permission that parents use. It is equally significant to help the child be convinced about the meaning of what parents are doing as discipline. So, an effective and healthy style of child-rearing requires support and teaching in addition to control. Parental support, monitoring, and the demands of parents have an important role in the development of self-efficacy in adolescents.

Emotional autonomy, entering into a new social world separate from the family is a source of change in adolescence. With that, the world of peers gains importance. Yet, how the adolescent gains autonomy is important. If the adolescent feels detached from the family and stays away from parents for her/his own autonomy, that can result in delinquent behavior and unhealthy activity involvement with peers. The meaning of adolescent emotional autonomy may differ according to the quality of the parent-adolescent relationship. Lamborn and Steinberg, in 1993 (in Beyers & Goossens, 1999), found that emotionally autonomous adolescents who also perceived their parents as being unsupportive (labeled as detached adolescents), showed a negative pattern of adjustment and competence. On the other hand, those who perceived a high level of parental support and reported themselves to be emotionally autonomous showed a positive pattern of adjustment and competence. Those, who perceive themselves as emotionally autonomous and detached from parents might be involved in unhealthy peer relations, which in turn affect the quality of life.

Baumrind (1995) talks about warmth, reciprocity, and attachment under the responsiveness dimension of childrearing styles and coerciveness, confrontation, monitoring, inconsistent discipline, and corporal punishment under the

demandingness dimension. Warmth is defined by Baumrind as the, “parent’s emotional expression of love that motivates high-investment parenting and brings about cohesive family relationships” (1995, pp. 56). Warmth is not equal to unconditional acceptance; parents with warmth can also be disciplinarian. Warmth, together with consistent and clear discipline points to healthy parenting. Unconditional love, passive acceptance and warmth and overprotective parenting practices may lead to low level of competence in a child (Baumrind, 1995). As another important part of parental responsiveness, reciprocity, which refers to the child’s voluntary compliance to parental demands as long as parents also comply with the child’s demands and wishes.

Baumrind (1995) conceptualizes attachment and positive bonding between parents and children as components of parenting styles. She stresses the importance of cultural variations to consider while analyzing the presence or absence of healthy adult-child bonding style. What she demonstrates is that attachment types (secure, avoidant, or ambivalent) are derived from western cultural characteristics. However, child-rearing practices may show some differences among countries, depending on differences in culture and family structure (Lerner, 2002). Although the Turkish family is defined as patriarchal and authoritarian, it is also defined as warm. Loving behavior is witnessed more than rejection behaviors (Vardar, 1994). Compliance and dependency are still the characteristics encouraged in children, especially in females. However, what all societies and cultures share in common is that the child’s perception of parents as being nurturant, loving, and supportive allows him/her to be healthy and happy (Kağıtçıbaşı, 1996; Lerner, 2002).

An authoritative style of parenting includes warmth and support as well as the use of rules and reasoning to discipline the child. Authoritative parents use

nonphysical punishment and explain the reasons behind the rules they apply. There is consistency in applying rules and controlling invasion of rules. In contrast, authoritarian parents are characterized as being not-warm; putting strict rules and emphasizing their power over children, and not tolerating their autonomy. Harsh discipline makes children perceive their parents as less warm and more rejecting. However, Kağıtçıbaşı (1996) emphasizes the significance of how the child perceives parental behaviors in the socio-cultural context. Coercion, control, and punishment in child-rearing practices might be perceived by children as discipline tools used for their own goodness because parents love them. Parental warmth and support as well as the psychological availability of parents are likely to play crucial role in the development of well-being in children.

Kağıtçıbaşı (1996) points out that parental love and warmth are universally needed by all children and their meanings are also universal. On the other hand, concepts of control, dependency and independence are mostly subject to cultural differences. Non-western societies are mostly defined as being socio-centric or collectivist, where dependency and reliance on parents are emphasized more than western characteristics of “self” as autonomy, individualism, and separateness (Harter, 1999). Although the Turkish culture has been regarded as collectivist instead of individualistic, especially in urban middle class child-rearing practices include encouragement of autonomy and emotional expression in addition to traditional values, such as emotional closeness, parental worry, and restriction of daughters (Sunar & Fişek, 2005). So, it is likely that Turkish parenting practices include both western and non-western characteristics, which should be taken into account when conducting related research.

Adolescents, in most cultures need to be and feel autonomous, and parental authority, especially when combined with coercion, might result in problem behavior no matter what the adolescent knows whether s/he is been loved by his/her parents. The authoritative style of parenting, which is related with parental involvement, responsiveness, monitoring, encouragement of psychological autonomy, and demand for age-appropriate behaviors contribute to psychological adjustment, cognitive development, and academic success in adolescents (Doyle et. al., 2000).

Permissive parents neither put consistent rules nor consistently apply these rules. They neither put demands on children nor respond to what they are doing. They let children do whatever they want, without any limits or control on children. Maccoby and Martin (1983) divided permissive parenting style into two as indulgent and neglectful. Indulgent parents respond to children, give them whatever they want without any control and monitoring, while neglectful parents do not even know what their children want or need since they are not psychologically available.

Relations with Perceived Academic Achievement

Authoritative parents, who also monitor their children, tend to be more involved with them. This involvement might result in children's higher achievement and school participation (Güroğlu, 2002). Adolescents with authoritative parents are said to have more social competence and academic success, and less psychological and behavioral problems than youth with authoritarian, neglectful, and indulgent parents (Lamborn, Mounts, Steinberg, & Dornbush, 1991). Authoritative parenting, which improves a sense of autonomy and psychosocial maturity indirectly encourage children's orientation toward work. Autonomy and the role that the adolescent has in decision-making process within the home is significant, since it is related to power

distribution in the family and the decision making consensus. In the study that investigated non-intellective factors related with high school students' achievement, Nayman (1973) reported equal power distribution in the family and an adolescent's role in decision-making process as the predictors of academic achievement. She stated that when parents provide children with independence and an opportunity to express their opinions, children become more likely to move out of family to new social systems (with continuing family ties) and become successful.

School-Related Parental Support and Perceived Academic Achievement

As affecting the general well-being of adolescents in every stage of life, parents stand to be crucial in school achievement and satisfaction of adolescents. Parental support can be defined as parents' willingness to encourage the child's efforts to produce a change in the environment and make the child feel that the parent is available when s/he needs to take help or supervision (Efe, 2004). In contrast, the parents' negative reaction to the student's school performance without providing necessary support and help leads to poorer performance by the student (Lerner, 2002). Putting lots of demand on children and not providing support, having neither expectation nor any interest in the school of the adolescent forces the adolescent into stressful and undesired perception of school.

It is known that a positive family climate, parental support and parenting style have an impact on academic success of students (Güroğlu, 2002; Lerner, 2002). Çelenk (2003) also showed that children, whose parents are supportive in terms of education and school, have higher academic success. Parents' regular communication with the school seemed to be another factor contributing to success of students. The

level of parental knowledge about the curriculum and activities in school help parents provide the necessary support and supervision to children, which helps them overcome school related stress and become confident in school.

Relations with Life Satisfaction and Mental Health

Even if the adolescent is not involved in delinquent behavior and does not join risky peer groups, s/he might develop internalizing problems, which affect the person's mental and emotional functioning (Lerner, 2002). Depression, anxiety, feeling of loneliness, and low level of life satisfaction are problems that adolescents might face. Adolescents from authoritarian families tend to perform moderately well in school and are more likely to be obedient, to conform to authority, and to be uninvolved in problem-behavior, but they have poorer social skills, lower self-esteem, and higher levels of depression (Darling, 1999; Lerner, 2002).

Relations with Risk Behaviors

Conflicts with parents naturally increase in adolescence. A permissive or coercive parental style can multiply this increase and lead to dissatisfaction with family life. In addition, involvement in peer groups and time spent with friends increase in adolescence. Absence of family support, weak bonds with parents, reduced parental involvement with adolescent's activities, and lack of consistency in applying rules, together, place the adolescent at risk for negative peer influence (Buysse, 1997), and this in turn results in higher level of delinquency (Smith & Krohn, 1995).

A study on adolescents, who were selected from residential care, day treatment, and those with no professional care, found that high perceived conflict and low perceived support by parents may lead to feeling of loneliness, lower self-esteem and positive attitudes toward delinquent acts (Buysse, 1997). When an adolescent is unable to use effective coping style to deal with family risk factors and if s/he is involved in high-risk leisure time activities, s/he is likely to show a higher level of delinquent behavior. Peer group support, for these adolescents, becomes another risk factor, leading to externalizing, antisocial behaviors when combined with familial risk factors (high conflict, low communication and low support). This is how peer influence becomes a powerful source of adolescent substance use, premarital sexual activity, and poor school adjustment in adolescence (Mounts, 2002).

Similarly, Herken and his colleagues (1994) conducted a study with 1559 students between the ages of 12 and 21 in secondary schools and apprentice education centers in Konya to look at the effects of parental attitudes, and socio-cultural factors on smoking among Turkish adolescents. They found a positive relationship between an authoritarian style of parenting and smoking. They emphasized that engagement in deviant behavior, or use of substances, is the source of adolescent's being against the authority figure to ensure their and autonomy. In some cases, authoritarian style of parenting (physical punishment, coercion, and power assertion) results in decrease in self-esteem and hinders the health development of 'self' in children.

Role of Peer Relationships in Adolescent Life

As stated above, the function of family does not lose its effect and importance in the life of an adolescent. Yet, peer relations, independently or in interaction with family factors, increasingly contribute to the life of adolescents. Perceptions of adolescents are largely affected by their relations with peers. Belonging to a peer group, engaging in activities with friends, making friends, and having a best friend contribute to an individual's self-concept, and affect the value adolescents attach to themselves. Affective relationships with friends are important for the development of social competence in adolescents (Paterson, Pryor, & Field, 1995).

Family and peer group are two important factors that cannot be separately analyzed in the life of adolescents. Dekovic and Meeus (1997) suggested that quality of parent-child relationship affect the development of self-concept in child. Self-concept, as a mediating factor, has an impact on the quality of peer relations and how adolescents are integrated and approved in peer groups. Brown, Mounts, Lamborn, and Steinberg (1993) concluded from their study that there is positive influence of parenting on the adolescent's choice of peers and involvement with peers.

Peer relations are closely related to time spent in school. Adolescents create their peer groups within the school climate, and the existence of peers and classmate support again has an impact on the quality of adolescent life. Yet, involvement with peers is not always a way to be oneself and to gain autonomy at school. Adolescents with problematic family environment might be extremely oriented toward their peers and that might affect school performance as well as their perception about school. Peer contact frequency and amount of activities they are involved might be a sign of alienation from family and school.

Fuligni, Eccles, Barber, Bonnie, and Celements (2001) investigated the long-term effects of early adolescent peer orientation on adjustment to high school. It was proposed that those who sacrificed their talents, school performance, and parents' rules and oriented themselves toward their peers were engaged in greater problem behavior and had lower academic achievement. Those, who had problems in high school, were in deviant peer groups in early adolescence. But, those who sought advice from peers, more than they did from parents, did not show important signs of adjustment problems in high school.

Social Competence

It is important to understand the concept of *social competence* while examining peer relations and social behavior. Yet, there is no commonly accepted definition of social competence. Its definitions were developed from both trait and situational perspectives (Schneider, 2000). In trait approach, a socially competent person is equally competent in all situations. Being socially competent is regarded as personal characteristic. In general, children's behaviors, like approaching a group of peers at play, or their personal characteristics, like knowledge of social situations are seen as the primary determinants of social competence. In terms of personal goals, social competence is defined as a person's ability to attain relevant goals in a certain social context by using appropriate means and to get positive developmental outcomes (Ford, cited in Schneider, 2000). Rubin and Rose-Krasnor (1992) defines social competence as "the ability to achieve personal goals in social interaction while simultaneously maintaining positive relationships with others over time and across situations." (pp. 4).

Situational perspective suggests that we should analyze if the person's ability to function in socially appropriate ways is present in specific social contexts. For example, anxiety might inhibit the appropriate social behavior even if the person generally knows what to do (Greenspan, cited in Schneider, 2000).

Schneider (2000) defines social competence as one's ability to have developmentally appropriate behaviors in social relationships in ways that do not harm anyone. Aggression and social withdrawal are stated as two significant indicators of social incompetence. Shyness is another characteristic related with social competence. However, those, who are shy but happy on their own without feeling anxious about the lack of social bonds should not be regarded as socially incompetent (Schneider, 2000). On the other hand, if a shy person is sorry that his/her shyness hinders the personal goal of being accepted by others and creates anxiety, then this individual might be considered socially incompetent. Shyness, isolation, and anxiety in adolescence, which might be signs of social incompetence, are mostly related with depression, loneliness, and low life satisfaction (Parker & Asher, 1993).

As Schneider (2000) points out, groups as well as individuals can be socially competent or incompetent. In determining competence in groups, what should be considered are the behaviors group members hold in high esteem and the values they have. So, a certain group might be well accepted by other groups or individuals if it is perceived as socially competent. Some peer groups in school settings become popular in that sense. Socially skilled behavior can lead to peer acceptance and popularity. On the other hand, unskilled behavior can lead to peer rejection and unpopularity (Hartup, 1983).

Friendship Quality

The quality of friendship is as important as the one's social competence and peer group positive appraisal by others. In his theory of socioemotional development, Sullivan (1953) stated that friendship contributes to one's social development and adjustment. As this developmental perspective suggests, children develop reciprocal and equal relationships with their friend and these relations include mutual respect. Piaget (1932, cited in Clayton, 1999) also defined peer relationships as differing from relations with parents, in the sense that the latter is asymmetrical and characterized by parents' dominance. On the other hand, peer relations are more egalitarian and balanced. As friendship contributes to the child's social needs, it helps the child develop self-competence and psychological adjustment.

According to Sullivan (1953), the main social focus is parents between the ages of 2 and 6. Peer relations become important together with continuing parental effects in the period of 6-9 years. A need for intimacy and acceptance by peer increases in the preadolescent period, and it reaches the peak in adolescence when friendship and peer relations become the focus. So, children have different social needs in different periods and these needs are met by friends basically.

In adolescence, identity crisis is one of the main developmental problems students face (Erikson, 1963). Children lack stability in identity. They try to develop their unique identity but also want to be attached to a group. So, they might overidentify with peers. Peer group as well as closer, dyadic relationships with friends gain significance.

Peer-related problems (like rejection, isolation, lack of close friends) and their effects on an adolescent, such as delinquency, loneliness, and isolation have

been of concern in many studies (Berndt & Keefe, 1995; Forero, McLellan, Rissel, & Bauman, 1999, Lerner, 2002; Svensson, 2003), but it is important to study the developmental advantage of supportive close friendship and its positive effects (Clayton, 1999). As Hartup (1983) suggested, friends significantly contribute to socio-emotional development when adolescents are able to build positive, healthy close friendship.

Peer Group Structure and Social Approval

Adolescent peer groups include various social networks, such as best friend, close friends, large friendship groups, social crowds, and sometimes romantic partners (Lerner, 2002). Popularity and reputation are significant elements, which are gained mostly through peer interactions in adolescence, and contribute to self-concept and personality development of adolescents and to their psychological well-being in later years. As Lerner (2002) points out, reputation among peers as well as popularity and acceptance of a peer group by others are signs of peer group status. Types and categorization of individual peer reputation include *popular*, *rejected*, *neglected*, *controversial*, and *average* youth. It is also possible to label the peer group, instead of a single person, with one of these categories in terms of status for reputation. Status and level of approval for the group are signs of the adolescent's own behavioral characterization, attitudes, habits, and general well-being. Popular adolescents have a lot of positive nominations and few negative ones. It is just the opposite for rejected youth. Neglected adolescents have few of both positive and negative nominations while controversial adolescents have a lot of positive and

negative ones together. Average youth does not show extreme features of any particular.

Group status is strongly related to behaviors of group members and to their relationships with others (other students, teachers etc). Those, who are engaged in anti-social and disruptive behavior, are expected to have bad reputation. Reliance on peer support and the desire to be accepted by the peer group are forcing factors in bullying other students. Some students stay with the bullies as an assistant or as a reinforcer in bullying situations. Bullying enhances within-group popularity and also aggressive and popular anti-social males are likely to be seen as “cool” by others outside the peer group, the presence of peers gives them power and status (Espelage, Bosworth, & Simon, 2002). So, whether disruptive behavior and aggression among certain peer groups negatively affect the reputation in group is questionable. Indeed, the source of people who report a bad reputation is important to consider. For the same age people, like other students, aggressive group members might seem charismatic (other factors like physical appearance should be considered here), but teachers or administrators might regard certain student groups as deviant, disruptive, and problematic.

Peer Relations and Perceived Academic Achievement

Socio-emotional development, apart from cognitive development, is significant when considering academic success of the person, but is often underestimated (Hartup, 1996). For instance, mothers are regarded as important contributors to children’s cognitive development mostly with their knowledge about the world and by equipping children with it. But, as Hartup (1996) emphasized, attachment and

communication between mother and child is equally important in development of intellectual capacity. Positive communication promotes the use of social resources in problem solving. In addition, Hartup regards friends as other significant cognitive resources because they spend time together and share social environment.

Cooperation with friends affects the individual's cognitive development in terms of "task-mastery" and creativity in social contexts, including school, rather than in general perceptual and intellectual functioning. Being in a peer group, which can be identified with positive orientation and motivation toward school, can be important factor increasing student's school adjustment (Baker et. al, 2003).

Children's prosocial behavior is related to positive attitudes toward school, which in turn lead to academic involvement and success. Social competence is an important indicator of achievement, and social forces in the classroom affect the children's academic success (Schneider, 2000). But, it is also known that academic achievement can also facilitate social adjustment and competence. No matter which factor is the cause and which is the result, it is significant to see the relationship between achievement and social competence. Schneider (2000) stated that academic achievement and social competence are interactive and they mutually influence each other.

A longitudinal study, which was conducted with 10 and 12 year-old Chinese students emphasized these reciprocal influences (Chen, Rubin, & Li, 1997). They found that academic achievement of students was affected by the level of leadership, social competence, and acceptance by their peers. Equally, academic achievement predicted children's social competence and peer acceptance.

Peer Relations, Mental Health, and Life Satisfaction

Lacking important resources of people to share problems and secrets might push adolescent to feeling of loneliness. If an adolescent cannot get attached to peers adequately and faces difficulty in building close friendships, feelings of loneliness and unhappiness are likely to occur. That might result in isolation, reduced self-esteem and social competence. Self-esteem is subject to one's perception and appraisal of the social support in the environment (Bolognini et al., 1996) and support received from parents in terms of academic success and competence are important in development of self-esteem, while appraisal coming from peers about appearance and social competence is essential for psychological well-being and happiness (Harter, cited in Bolognini et al., 1996).

Lack of support and appraisal by parents and peers and inability to establish close relationships cause problems related with mental health, enhance the internalizing problems, such as depression and anxiety disorders, or even other serious mental health problems like psychotic disorders (Lerner, 2002). Sometimes, internalizing and externalizing problems are witnessed together in one person. There is a high comorbidity between these two kinds of problems, both of which are associated with contextual problems and deficiencies, and individual mental health problems. Depressive adolescents are at risk of substance use, conduct and anti-social problems (Lerner, 2002).

Peer Relations and Risk Behaviors

Peer relations and close friendship are important in adolescent development, and peer group status and popularity influence adolescents. Rejected adolescents are likely to

have poor academic records, to be engaged with deviant peers, and to be involved in aggressive acts (Lerner, 2002). Quality of friendship is as important as the presence of close friendship. Quality of time spent together, activities in which they are engaged deserve additional concentration. Considerable influence of close friendships comes in different forms, in either a positive or poor manner depending on the type of friendship and processes in these relationships (Newcomb & Bagwell, 1996). Peer groups might be the source of risk behaviors for adolescents. Friends' mutual influence and social effects on each other are considered in smoking and drinking, delinquency, and educational achievement (Hartup, 1993; cited in Newcomb & Bagwell, 1996).

Research, which has been conducted to examine peer effects on occurrence of delinquency and deviant behavior indicate that adolescents in deviant peer groups are likely to bully other students (Forero et. al., 1999), to be current smokers, and they spend more evenings and after-school time with their friends away from home. When a friend engages in deviant or disruptive behaviors, the adolescent becomes more likely to follow his/her way of behaving (Berndt & Keefe, 1995; Lerner, 2002; Svensson, 2003).

Laufer and Harel (2003) also investigated the role of family and peers in predicting youth violence involvement in a sample of 8,394 students from 6 – 10th grades. Violence was indicated by bullying, fighting, and weapon carrying. Lack of social integration and spending too many evenings out with friends were found to be peer-related factors that predict violence.

Role of School in Adolescent Life

In previous HBSC studies, several factors related to school context, such as student's academic achievement, school satisfaction, classmate support, and school-related stress have been surveyed. The HBSC report on the 1997-98 survey indicated that satisfaction with school is a subjective well-being construct and it contributes to well-being and quality of life among adolescents (Dür & Samdal, 2000). Satisfaction with school is related to happiness and enjoyment in school. Participation in the decision-making process to build school rules and having personal autonomy are other significant factors that might have impact on students' overall satisfaction at school. So, how students perceive the psychosocial school environment is important in determining the level of school satisfaction, perception of school success, and school-related stress.

HBSC survey protocol showed that perception of teacher support, school environment supportive of personal autonomy and having a say in decision-making process, and parental support are important.

Both teachers and parents put a lot of demand and expectations on students. This is stressful for students. So, support should accompany parental expectations. High school related stress and low level of support are found to be related with high level of health complaints among adolescents (Torsheim & Wold, 2001). In that sense, teacher and classmate support within school context help the students overcome stress and decrease the likelihood of occurrence for health complaints.

Growth in academic abilities is a key element to be achieved in schools. Academic achievement, as well as competence in social relations, is desired outcomes that students and parents expect from schools. Teacher care and support

help students gain motivation and reach a higher academic achievement (Lerner, 2002). Support eases the stress that pupils face because of course load and school demands.

Schools provide an environment where students share a place with others and develop their own social status away from parents. Classmates interact with one another and develop basic peer relations. This is where the non-academic importance of school lies in the lives of adolescents. Decrease in motivation toward school in the middle grades and negative attitudes and behavioral patterns toward school, in terms of academic involvement, are developed as children get older (Anderman & Maehr, 1994). So, positive support by classmates seems to be crucial for students' perception of schooling. Activities, in which students are engaged at school, classmate interaction, and support provide the adolescent with a sense of belonging and emotional bond to the class. Being a part of decision-making also contributes to the sense of belonging to the school as well as to perception of autonomy and power.

Schools, through their organization and curriculum, provide an important social context for development in adolescence. Even if school is said to lose its importance (Garnefski, 2000), it still remains as an important context. Relations with classmates and teachers significantly contribute to students' learning to deal with stress, feeling of belonging, and receiving/providing support in class. The psychosocial environment of school, how students perceive teachers, school rules, and classmates, determines the level of satisfaction and stress students experience.

In general, school connectedness as well as perceived support from parents, teachers, and peers affects the satisfaction one gets from school life. Baker et. al. (2003) stressed environmental factors of school climate, classroom practices, school organization, and peer contexts as significant determinants of school satisfaction for

students. They stated that supportive classroom environment and the quality of teacher-student relationship are associated with school satisfaction; a sense of connectedness and support contribute to children's psychological well-being and scholastic abilities. However, high grades are not always signs of school satisfaction; the quality of school environment might be more important than objective measure of achievement for students (Baker et. al, 2003).

School-related satisfaction, or stress, might lead to certain behavioral problems or influence psychological well-being. Torsheim and Wold (2001) emphasized the fact that stress perceived by adolescents in school might have individual or contextual basis. An individual's familial background and parental support for school, or psychological well-being can be regarded as among the personal reasons for stress. In terms of contextual variables, school climate and classroom environment gain importance. In an HBSC study investigating the relationship between school connectedness and smoking among Danish school children school connectedness was negatively related to daily smoking habits (Rasmussen, Damsgaard, Holstein, Poulsen, & Due, 2005). The influence of school life on students' smoking behavior, and their involvement in the school atmosphere is stressed in the study of Rasmussen and his colleagues.

Natvig, Albrektsen, and Qvarnstrom (2001) investigated the effect of school related stress on bullying among Norwegian adolescents, aged 13-15 years. Self-reports of participants revealed that increasing level of social alienation puts students at greater risk of bullying, while the high level of teacher and peer support decreased the risk.

As emphasized in HBSC international study report by Dür and Samdal (2000), involvement in school and perceived teacher support were stated by students

as the factors influential in school satisfaction. In turn, absence or lack of these psychosocial support sources might be a reason for stress. It was stressed that too many students reported feeling pressure and stress about school work among both females and males, and this increased by age. Another important finding was that classmate support perceived in school significantly contributed to adolescents' sense of belonging, and therefore having a stress-buffering role and increasing the quality of life or life satisfaction. School satisfaction was moderately associated with quality of life (strong association for 13 year-olds and for 11year-old females), smoking (only for 13 and 15 year-olds), and subjective perception of health in females.

Summary of Literature Review

Various factors, relating with one another, play an important role in lives of adolescents in terms of health issues and development of well-being. These factors, as briefly explained in the review of literature, are psychosocial context and social relations in adolescent life (namely family, peer, and school), quality of adolescent life in terms of life satisfaction, mental health, perception of achievement, and a risk behavior of bullying, which are likely to occur among adolescents.

Family, as the first and basic social tie, persists to take important role in one's life in adolescence no matter peers seem to have greater influence. As literature showed, parental behavior and objective wealth status of family affect children's psychological adjustment and life satisfaction. Specifically, parental bonding and attachment, monitoring, and disciplinary style have influence on children's mental health, development of autonomy and self-control. Authoritative parental behavior, together with high monitoring and positive bonding creates high quality parental

behavior, which in turn contributes to adolescents' lives. High quality parental behavior includes attention, care, and concern (Caprara et. al., 2005). As Güroğlu (2002) stated, positive family climate, parental support and parental style contribute to students' academic success. These students also tend to develop less behavioral problems and less internalizing psychological distress (Lerner, 2002).

Peer relations become more important in adolescence. In this period, one's behaviors and attitudes are affected largely by peers. Even if family does not lose its importance for adolescents, peers tend to shape the lifestyles and social world of them. Belonging to peer group, engaging in activities with friends, and close friendship are important in development of social competence and psychological well-being. One's involvement in risky activities, such as fighting, bullying, smoking, and drug use, is closely related to the characteristics of peer group. Risky peer group membership increases the likelihood of risk behaviors for adolescents. Yet, why a student prefers to be in risk group is mostly related to family environment and parental behavior. Brown et. al. (1993) stated that influence of parenting behavior affect the choice of adolescents for close friends and peer groups. So, interaction effect of family and peer environments determines quality of life and healthy psychological state for adolescents.

Friendship quality, social competence, and peer group's social approval by other social sources are peer-related variables that were considered in the current study. Social competence as a personal trait and friendship quality and group approval as social characteristics might determine the quality of one's peer environment. Popularity together with social competence and supportive close friendship affect mental health and life satisfaction in adolescents. Literature shows that academic success is affected by the level of leadership, development of self-

competence, and acceptance of peers (Chen et. al., 1997). But, it is also known that in adolescence school and academic success becomes less important. Even if a student is in risky peer group and does not have high academic achievement, he/she might perceive himself/herself competent and popular. So, peer group's acceptance and one's personal popularity seem to receive greater importance. Peer group effects might be more apparent in mental health and life satisfaction of adolescents than academic achievement.

School is the place that students spend most of their time outside home. So, relations they built in school with teachers and peers, as well as stress and satisfaction they get from school environment are important for general life satisfaction and mental health. As defined in the HBSC report, satisfaction with school is a subjective well-being construct and it contributes to well-being and quality of life among adolescents (Dür & Samdal, 2000). Satisfaction with school is related to happiness and enjoyment in school, which in turn might contribute to satisfaction with life, in general. In contrast, school-related stress might negatively relate to life satisfaction and psychological well-being in adolescence. In fact, it is known that students are likely to perceive school more stressful and less enjoying as they enter into adolescence. So, relationships of school stress and satisfaction with outcome factors and risk behaviors are still open to investigation.

CHAPTER III

METHOD

Participants

The entire HBSC study, conducted in Türkiye was the representative of adolescents from the general population of the country; different socioeconomic levels (SES), different school types, age levels and gender. For the first time, HBSC project was conducted in Türkiye to screen the characteristics of health behavior in school-aged children, and the descriptive data were provided to picture certain features of lifestyles and health conditions of Turkish students. This thesis study was based on the sample of İstanbul.

Sample selection procedure was applied as explained in the HBSC 2001/02 survey protocol. Three age groups of school-aged children, as 11, 13, and 15 were sampled in the main HBSC study, in a similar fashion as other HBSC countries used in their studies. Age as a moderating variable in HBSC refers to three different time periods in adolescence, which point out differential incidences among adolescents. Age 11 represents the onset of adolescence, age 13 points the enduring physical and emotional changes, and age 15 is described as including significant life and career decisions (Roberts, François & King, 2001). Only 10th grade students were considered in the analyses because only this group responded to optional items.

A stratified clustered sampling method was used, and the primary sampling unit was the class (or school). Both public and private schools were included in the study. If there was a preparatory class before the 9th grade in any school, 9th grades

instead of the 10th were selected, so that, age of the participants was close to one another. One or two classes from each school were randomly selected. In general, HBSC aimed to reach at the mean age of 15.5 for the 10th grades as stated in the survey protocol and those born in 1990 were in the target. Students, who were not born in 1990 and did not have the mean age of 15.5, were not included in the country-based HBSC study. But, for this current study, all students in randomly selected classes have been included. So, participants were not exactly at the age of 15. Participants were either from the 9th grade (if they had preparatory class) or 10th grade. With 95% confidence level, 80% of power value, and .01 error value, the population was divided into several strata and 10th grade students were stratified according to school type; as public, private, and vocational.

İstanbul is one of the 26 cities that were included in the study. Selection of the cities was based on the NUTS-1 with 12 regions, which was developed by the State Planning and State Statistics institutes (the country is divided into 12 regions instead of its classical 7 regions). Each region in Nuts-1 share common economic, social, and geographical characteristics. These 12 regions are named İstanbul, West Marmara, Aegean, East Marmara, Mediterranean, West Anatolia, Middle Anatolia, West Blacksea, East Blacksea, Northeast Anatolia, Middle East Anatolia, and Southeast Anatolia. In the regions except for the regions of İstanbul and West Anatolia, at least 2 cities have been chosen. The cities, which have heterogeneous demographic characteristics (with immigration rate of 25% or above) have been directly selected. Cities within close geographical proximities were not included unless they had unrepresented demographical characteristics.

In the country-based research, 165 schools (82 elementary and 83 high schools) participated in the study (180 classes from elementary and 88 classes from

high schools). In İstanbul, there were 50 schools selected, 20 of which were high schools. Schools have randomly been selected from the schools list of Ministry of National Education. Health schools, open primary and high schools, international schools, and schools that are not linked to Ministry of National Education have been discarded while determining sample. Sample size was around 1800 in 50 schools. In the analyses of the current study, 611 high school students were included.

Characteristics of the sample were presented according to year of birth and grade level for females and males separately. Table 1 shows the distribution of these characteristics. The sample consisted of 288 females (47.1 %) and 323 males (52.9 %), in total 611 adolescents between ages 15-19. The majority of students (79.4%) were born in 1990. Age range was 4 years. There were 158 9th grade (25.9%) and 452 10th grade (74.1%) students in the sample.

Table 1. *Sample Characteristics*

Characteristics	Female (n = 288)		Male (n = 323)		Total (N = 611)	
	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>	<u>f</u>	<u>%</u>
Year of birth						
1987	3	1	6	1.9	9	1.5
1988	9	3.1	9	2.8	18	2.9
1989	31	10.8	57	17.6	88	14.4
1990	239	83	246	76.2	485	79.4
1991	6	2.1	5	1.5	11	1.8
Grade Level						
9 th grade*	77	26.7	81	25.1	158	25.8
10 th grade	211	73.3	241	74.6	452	74.0
Missing data	-	-	1	.3	1	.2

* Those students passed the preparatory class before entering the ninth grade.

Table 2 shows the frequency of work types of parents. Economical inactivity of father was reported by 59 students (9.7 %). The mostly reported father work types

were manual white-collar jobs and skilled blue-collar jobs that was categorized as social class 4 (work types and social classes are explained in the instrument part in detail) in the HBSC protocol ($f = 116$, 19%). The next mostly reported category was Class 2 in the HBSC, which included manual white-collar jobs and small scale business owners.

The report of economical inactivity for mothers was very high (74.8%) in the sample. Only six students reported that their mothers had management control of big organizations or were owners of a large scale company (class 1 as defined in the HBSC protocol). Distribution for other work types among students is also stated in the Table 2.

Table 2. *Frequency of Work Types of Parents*

Paternal work type	Father		Mother	
	f	%	f	%
Economically inactive	59	9.7	457	74.8
Semi-skilled or unskilled workers	83	13.6	39	6.4
Manual white-collar jobs, skilled blue-collar workers	116	19	28	4.6
Non-manual white-collar jobs, small scale business owners	114	18.7	21	3.5
White-collar jobs requiring theoretical training, medium scale business owner	113	18.5	34	5.6
Management control of big organizations, owners of a large scale company	13	2.1	6	1
Missing data	113	18.5	26	4.2

Descriptive Results of the Study Variables and Outcomes

Table 3 displays the mean scores and standard deviations of the sample (females and males separately) from the measures of parental monitoring, parental

bonding, parental disciplinary style behaviors, school-related parental support, family wealth, friendship quality, social competence, peer group approval, school-related satisfaction, school-related stress, perceived academic achievement, general life satisfaction, and self-rated mental health. Additionally, *t* values are specified in order to see whether there is significant difference between the mean scores of females and males for each identified variable.

Table 3. Means (*M*) and Standard Deviations (*SD*) for the Study Measures and *t* values for Sex Differences

Sub-measures in HBSC survey package	Female (<i>n</i> =288)		Male (<i>n</i> =323)		Total (<i>N</i> =611)		Gender difference	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i> *
Mother monitoring	13.72	1.84	12.73	2.14	13.19	2.07	6.04	.000
Friendship quality	44.30	5.90	40.51	7.67	42.35	7.12	6.29	.000
Social competence	15.76	1.76	14.77	2.28	15.25	2.10	5.76	.000
Mot. Authoritativeness	3.49	1.39	2.98	1.38	3.21	1.41	4.42	.000
G.A. by students	2.52	.56	2.30	.64	2.41	.61	4.21	.000
G.A. by parents	2.63	.53	2.45	.67	2.53	.62	3.70	.000
Perceived A.C.	2.61	.74	2.37	.85	2.49	.80	3.68	.000
Fat. authoritarian behavior	1.35	.85	1.62	1.10	1.50	1.02	-3.26	.001
Fat. Permissiveness	3.56	1.36	3.20	1.44	3.37	1.42	3.05	.002
Mot. Permissiveness	3.81	1.33	3.47	1.38	3.63	1.37	3.01	.003
G.A. by teachers	2.36	.63	2.18	.73	2.27	.69	2.95	.003
Self-rated mental health	32.04	6.71	33.56	7.03	32.85	6.92	-2.66	.008
Family wealth	3.37	.72	3.21	.72	3.28	.72	2.59	.010
S.R. satisfaction	3.12	.85	2.97	.83	3.04	.84	2.20	.028
G.A. by teenager	2.31	.60	2.19	.68	2.25	.65	2.15	.032
Mot. Neglect	2.01	1.18	2.20	1.19	2.11	1.19	-1.98	.048
S.R.P.S.	20.45	4.23	19.85	4.03	20.16	4.18	1.77	.076
Father monitoring	11.78	2.65	11.42	2.65	11.58	2.65	1.63	.103
General life satisfaction	6.29	1.92	6.07	2.01	6.17	1.99	1.34	.179
Fat. Authoritativeness	3.33	1.46	3.05	1.44	3.18	1.45	2.32	.285
Father bonding	18.50	3.00	18.72	3.02	18.62	3.01	-.84	.400
S.R. stress	2.73	1.03	2.66	1.00	2.69	1.02	.76	.448
Mot authoritarian behavior	1.32	.81	1.37	.85	1.34	.83	-.74	.457
Mother bonding	19.12	2.94	18.97	2.70	19.04	2.81	.64	.524
Fat. Neglect	2.18	1.32	2.24	1.29	2.21	1.30	-.56	.572

Note: S.R. P.S. (School-related Parental support), G.A. (Group approval), S.R. (School-related), A.C. (Academic achievement).

* *p* < .05 (2-tailed).

As seen in Table 3, females and males differed from each other significantly in terms of mother monitoring ($t = 6.04, p = .000$), friendship quality ($t = 6.29, p = .000$), social competence ($t = 5.76, p = .000$), mother authoritativeness ($t = 4.42, p = .000$), social approval of peer group by other students ($t = 4.21, p = .000$), by parents ($t = 3.70, p = .000$), perceived academic achievement ($t = 3.68, p = .000$), father authoritarian behavior ($t = -3.26, p = .001$), father permissiveness ($t = 3.05, p = .002$), mother permissiveness ($t = 3.01, p = .003$), social approval by teachers ($t = 2.95, p = .000$), self-rated mental health ($t = -2.66, p = .008$), family wealth ($t = 2.59, p = .010$), school-related satisfaction ($t = 2.20, p = .028$), social approval by teenagers outside school ($t = 2.15, p = .032$), and mother neglect ($t = -1.98, p = .048$). For these variables, females had higher scores when compared to males, except father authoritarian behavior, mental health, and mother neglect. For other variables, there was no significant difference between males and females although females tended to get higher scores in every variable except father bonding, mother authoritarian behavior, and father neglect.

For father monitoring, mother bonding, father bonding, and school-related parental support, females' and males' mean scores were very close to each other. Among four parental disciplinary style behaviors, both females and males had the lowest mean score in the mother authoritarian behavior and they had the highest mean scores in mother's permissive style of behaving.

In friendship quality, mean scores were high for both females and males although females had a significantly higher mean score, indicating high degree of quality in close friend relations (44.30 for females and 40.51 for males). In terms of social approval of peer group, both females and males reported the lowest degree of

peer group approval by other teenager groups ($\underline{M} = 2.31$ and $\underline{M} = 2.19$ respectively) and teachers ($\underline{M} = 2.36$ and $\underline{M} = 2.18$ respectively).

Students were grouped into four categories as neutral, victim, bully, and bully-victims. If a student reported to bully others at least once in the last two months but was not bullied by others, s/he was put into bully group. If s/he neither bullied others nor was bullied by others, s/he was put into neutral category. If s/he did not bully others but was bullied, s/he was labeled as victim. The last group was made up of bully-victims, who both bullied others and were bullied by other students in the last two months. Table 4 displays the distribution of sample into bully-victim statuses. In total, 37 students were not included in any of these groups and reported as missing cases, since they did not respond to questions related to bullying and/or being bullied (they did not mark any case in a question or marked more than two cases).

Table 4. *Distribution of Bully-Victim Groups.*

Status of students	Females ($\underline{n}=288$)		Males ($\underline{n}=323$)		Total ($\underline{N}=611$)	
	$\underline{f}$	%	$\underline{f}$	%	$\underline{f}$	%
Neutral	157	54.7	133	41.3	290	47.5
Victim	42	15.3	60	18.7	102	16.7
Bully	27	9.9	46	14.5	73	11.9
Bully-victim	36	11.7	73	22.3	109	17.8
Missing data	26	8.4	11	3.2	37	6.1

Almost half of the sample was grouped into the neutral category (54.5 % of females and 41.2 % of males). Students in this group did not bully other students and were not the victims of bullying. The bully group, in which students were not bullied but bullied others, had the smallest size for both females ($\underline{n} = 27$, 9.4 %) and males ($\underline{n} =$

46, 14.2 %). As indicated in the table, males reported bullying others more than females did. A bully-victim group, in which students were bullied by other students and also bullied others, was also larger in male sample compared to females. This was the case for the victim group, too. Bully or bully-victim cases made up 22.6 % of the female group ($n = 63$), 36.8 % of the male group ($n = 119$), and 29.9 % of the whole sample ($n = 182$). For both males and females, bullying seems to be prevalent among the students.

Survey Instrument

The Original Version of the Instrument

The international 2005-2006 Standard HBSC Mandatory Questionnaire was used to survey the behavioral and contextual factors in school-aged children's health. This was a self-completion type of questionnaire. Mandatory questionnaire package was a standard survey instrument developed by the international research network of HBSC and used by all participating countries. There was another package called as the Optional Package. Certain variables selected from the optional package by the country can be used in addition to the mandatory items. In this study, for relational analyses certain variables were identified from both packages. The questions from both packages were compiled and the instrument for the 10th grade students has been constructed. In total, there were 63 items in the 10th grade form. Because HBSC instrument and none of its parts were allowed to be copied or released in any publication or study, the instrument is not attached as an appendix in this thesis. Instead, a list of study variables is presented in Appendix A.

Variables selected from the Mandatory Package, in order to use in relation with optional package variables, include physical fighting, bullying and being bullied, academic achievement, family wealth, general life satisfaction, school-related stress, and satisfaction with school. Variables selected from the Optional Package include mental health (with the use of Mental Health index from the Positive Health Optional Package), family culture, peer culture, and school. Optional package items were included only in the 10th grade form in Türkiye study.

HBSC categorizes the survey items into four groups of variables, as background factors (demographics and maturation, puberty, family structure, socio-economic status), individual and social resources (body image, family support, peers, school environment), health behaviors (physical activity, eating and dieting, violence and bullying, injuries, substance use, sexual health), and health outcomes (symptoms, life satisfaction, self-reported health, Body Mass Index). This study considered the mandatory items that were used in relation with optional items although the students responded to all items for the general Türkiye survey. Sexual health, substance use, and puberty (male item about spermatarche and ejaculation in the optional package) items could not be used in the study because the Ministry of National Education did not give necessary permission for the use of these items in the survey package. The international HBSC committee has been informed about this problem and items have been removed from the Turkish version of the instrument.

There are currently nine focus groups in the international project and these focus groups work on certain topic concerned in the study (Eating & Dieting, Physical activity, Risk behavior, Social inequality, Family culture, Peer culture, Violence and injuries prevention, Positive health, and School). The groups hold responsibility for all areas of work within their area. Study variables, score ranges,

rating scales (if any), and item numbers as indicated in the original HBSC mandatory and optional packages are shown below, in the Table 5.

Table 5. *Study Variables and Item Characteristics*

Variable name	Question order ^a	Item number	Score range	Rating scale
Mother monitoring	FC 1.1	5	5-15	1-4
Father monitoring	FC 1.2	5	5-15	1-4
Mother bonding	FC 1.3	8	8-24	1-4
Father bonding	FC 1.4	8	8-24	1-4
Parental disciplinary style	FC 2.1	4	1-5 ^b	1-5
School-related parental support	SC 2.1	5	5-25	1-5
Perceived family wealth	M Q51	1	1-5	—
Parental occupation	M Q46	2	—	—
Peer group approval	PC 1.4	4	1-3 ^b	1-3
Friendship quality	PC 3.2	10	10-50	1-5
Social competence	PC 3.3	6	6-18	1-3
School-related satisfaction	M Q43	1	1-4	—
School-related stress	M Q45	1	1-4	—
Bullying	M Q30	1	1-5	—
Being bullied	M Q31	1	1-5	—
Perceived academic achievement	M Q42	1	1-4	—
General life satisfaction	M Q41	1	0-10	—
Self-rated mental health	PH 1.1	10	10-50	1-5

^a Item reference to the manual (FC = Family Culture, SC=School Culture, MQ = Mandatory Question, PC = Peer Culture, PH =Positive Health)

^b Each item is scored in itself as a different variable.

Validity and reliability studies about the survey instrument have been done and are still being conducted. There has been no general validity and reliability study for the whole instrument.

From the subpackages used in this study, validity and/or reliability studies are available for bullying (Pickett & Craig, 2005), and Mental Health Index (Ravens-Sieberer et al., 2005). The mandatory bullying items were developed and evaluated by Dan Olweus over the past two decades with careful determination of validity and reliability (Olweus 1992, cited in Pickett & Craig, 2005). As reported in the 2005-06 protocol, bullying measures have shown high internal consistency reliabilities in the .80's or higher and in the .90's when the school is the natural unit of analysis. Self-

report of these items correlated with reliable measure of peer nominations of victimization in elementary schoolchildren in the range between .4 and .6.

The 10 item index of Mental Health is a non-clinical measure of children's mental health status and psychological well-being (Ravens-Sieberer et al., 2005). It consists of 10 items with 5-point answer-categories. The total score is the sum of points that students get from each item. The highest possible score is 50, the lowest is 10. The measure can be used with healthy or chronically ill children and adolescents from 8 to 18 years. The ten items of the index covers affective, cognitive, psycho-vegetative, and psychosocial aspects of mental health. The *construct validity* was demonstrated in many ways; construct-validation was completed in representative health surveys in 13 European countries (N=22000) by testing a priori specified hypothesis about the relationship with measures of mental health problems (SDQ: $r = .50$), psychosomatic complaints (HBSC-symptom checklist: $r = .52$) and by comparing adolescents with and without psychological disorders ("d" effect size = .67). The a priori hypotheses were confirmed. High correlations between the index and children's health status were reported (Ravens-Sieberer et al., 2005). This index has also good internal consistency reliability (Cronbach's Alpha = .82) and good test-retest reliability / stability ($r = .73$; ICC=.72).

Life satisfaction was measured with one-item scale developed by Cantril in 1969 (as cited in Ravens-Sieberer et al., 2005). The Cantril-ladder is said to be a valid measure of general life satisfaction and it is said to be time efficient. Minor wording change was conducted on the original item to facilitate use of the ladder among 11 year old children. This revised version was piloted in five countries in 2001. In all but one country the scale seemed to work well. Based on the pilot feedback, some design changes have been made to the presentation.

It is reported in the 2005-2006 research protocol that the wording of some items in peer culture package (such as peer group status) have been revised after the pilot results in order to ensure that they are understood in the expected ways. All items of the peer culture package were piloted in Spain and Macedonia in 2005, and the item on a special friend was piloted in Scotland (Tinoco et al., 2005). The item on close friendship (present or absent) was reported to have a good face validity in the 2005-06 protocol. The items on the quality of friendship was taken from the Inventory of Parent and Peer Attachment, and it was reported to be a valid and reliable self-report measure that was used for the attachment of adolescents (Tinoco et al., 2005). That measure has important dimensions of attachment: trust, communication and alienation. Scores correlate with several measures of psychological well-being, such as life satisfaction. In HBSC, only communication and trust dimensions were used. Items 1, 2, 6, 9 and 10 are measurements of communication with a close friend and the remaining items are measurements of trust. Test-retest reliability over three weeks was .86 for the peer subscale of the Inventory of Parent and Peer Attachment. It had internal consistency coefficients of .91 for trust, .87 and for communication as displayed in the protocol by Tinoco et al. (2005). In the current study, the total friendship quality score was calculated for students who reported to have a special close friend. There are 10 items in the scale. Each item can be rated from 1 to 5 (1 is not true, 5 is almost all true). The sum of scores, taken from each item, builds up the total friendship quality score, which ranges from 10 to 50.

Items 2, 3, and 4 in the Social Competence Scale were adapted from the Social Skills Rating Scale (SSRS). Item 6 (I make friends easily) was not taken from SSRS directly, but SSRS has a similar item in its sociability subscale. In HSBC, this

item has been modified in the format and was used as “I make friends easily” to attach it to the social competence scale and to unify the scale (Tinoco et. al., 2005). Item 1 and Item 5 were used to measure basic assertive behaviors. Social competence items have not been piloted within HBSC yet, but the scale from which they were derived was reported to be well validated and to have excellent psychometric properties (Tinoco et. al., 2005).

In several countries, correlations of parental monitoring (as reported by the children) with problem behavior in adolescence were found to be moderately high. Pilot results showed sufficient reliability of this measure in several countries (Pedersen et. al., 2001). The parental disciplinary style is assessed with questions (one for the mother and the next for the father) “Suppose you did something wrong, how does your mother/father react?” Each question has four items, which refers to four different disciplinary behaviors (neglect, permissive, authoritative, and authoritarian). Students get distinct scores from each item for neglect, permissiveness, authoritativeness, and authoritarian behavior scores. Pilot results from eight countries were not conclusive for this question. There was a too high correlation between the items of the questions. But several countries reported the item work well in the qualitative evaluation of the pilot study.

The scale measuring parental bonding is a shortened version of the Parental Bonding Inventory (PBI) developed by Parker and colleagues in 1979 (cited in Pedersen et. al., 2001). As stated by Safford, Alloy, and Pieracci (2007), The PBI has been used extensively with both non-clinical and clinical populations and demonstrated acceptable psychometric properties (retest reliability values of .87 and .94 for the care and overprotection subscales were found by Safford and his colleagues). The PBI has been suggested to be a valid measure of actual, rather than

perceived parenting styles. There were similarities in reports from siblings and from parent's self-reports of their own parenting style (Parker, 1983; cited in Safford et. al., 2007).

The question on parental occupation measures one composite of SES. According to information that students provide about parental job, they are categorized into social classes. There are five main categories of social class as explained in HBSC protocols. Class 1 includes jobs that require top level education, imply management control of big organizations, or owners of large scale company (such as dentist, professor, psychologist, industrialist). Class 2 includes white-collar jobs requiring theoretical training, white-collar jobs with management responsibilities for many subordinates, or owners of medium-scale companies (such as newspaper editor, captain, architect). Class 3 includes non-manual white-collar jobs demanding expertise and practical skills, management responsibilities for a few (less than 10) subordinates, self-employed with small scale business (such as bookkeeper, dental hygienist, farmer, physiotherapist). Occupational social class 4 includes manual white-collar jobs requiring some theoretical training (up to 1 year, non-university), skilled blue-collar workers with practical training and up to 1 year theoretical training, very small business owner, or blue-collar worker with some management responsibility (such as assistant, cook, gardener). Class 5 refers to jobs that require little theoretical and practical training, semiskilled, or unskilled workers (such as handyman, kitchen assistant, receptionist). There are three additional classes. If a parent is economically active but a child did not provide enough information about job, social class is coded as 6. If a parent is economically inactive (such as retired, ill, housewife), social class is coded as 7. If an answer is unclear, contradictory, or missing, social class is coded as 8.

In order to gain more insight into the validity of parental occupation items, six HBSC countries (Denmark, Germany, Hungary, Italy, Poland and Scotland) carried out a validation study in 2005. They used comparisons of children's and their parents' information about occupation (Kroelner et al., 2005, cited in Malece et. al., 2005). The study included only 11-year-old children where the difficulties in providing valid responses were thought to be most prevalent. There were 832 matched pairs of student-parent responses. Students answered questionnaires at school and parents at home. Parent-student agreement was assessed by percent agreement and Kappa-statistics. The student-parent agreement on father's economic activity (economically active or not) was 97% (Kappa=0.73, 95% CI 0.48-0.98). The corresponding figures for mother's economic activity were 91% (Kappa=0.71, 95% CI 0.69-0.82). The student-parent agreement on father's occupational social class (I-V) was 71% (Kappa=0.61, 95% CI 0.48-0.75). In relation to occupational social class, this study concluded that even among the youngest students of study, the majority were able to provide answers about parents' economic activity and job.

The item measuring the degree of school satisfaction was said to be included in the previous HBSC surveys and found to be a powerful correlate of health behaviors and health perceptions (Samdal, Wold & Torsheim, 1998), but no quantitative validity and reliability result was reported in the protocol. Likewise, there is no psychometric data reported on perceived academic achievement and school-related stress items.

The Turkish Version of the Instrument

For the Turkish version of the survey instrument, translations by three and back translations by four people, who were trained as specialists in adolescent behavior,

were made independently. After completion of translation, pilot study has been conducted with 116 students from two different public schools (44 10th grade students and 72 6th grade students). Then, focus groups with ten students from each school were done. From the feedbacks taken from the students, who participated in the focus groups, and discussions made in the sessions, some items (not-understood or misunderstood) were modified (in terms of wording) and the last version of the instrument was formed. Students reported most difficulty in understanding “food poverty, physical activity, school related stress, and family structure” items, and moderate difficulty in understanding “parental occupational status, life satisfaction, and owning of bedroom” items. With the suggestions of students, wording of some of these items was modified in order to make them understand questions more adequately. Yet, some items remained unchanged, because of no more appropriate way of translation. For example, the school related stress item of “how pressured do you feel by the schoolwork you have to do?” reported by many students as referring to pressure of teacher or parents on only homework. But, HBSC describes this item referring to “the global feeling of being pressured by schoolwork, which includes work at school and homework” and pressured means “feeling stressed or under strain, a sense of being over-burdened, having too many demands made of oneself” (2005-2006 international standard version of the mandatory questionnaire, pp. 43).

As stated before, parental disciplinary style question has four items in itself, referring to neglect, permissive, authoritative, and authoritarian mother/father behavior. In the current study, each item was used in the analyses as a separate question. Each student had separate neglect, permissiveness, authoritativeness, and authoritarian parent behavior scores. So, students were not put into one of four main

categories of parenting disciplinary style. Instead, they had score for each category, no matter one disciplinary type was dominant or not.

Despite many changes and clarifications with the use of underlines, the items of family structure and physical activity were remained questionable, and there were hesitations that students might not fully understand and respond to these items. For the family structure item, it was mostly because of asking too many family members to students, including parents, grandparents, stepmother and stepfather or father's girlfriend, mother's boyfriend, and siblings. Since the Turkish family structure does not consist of some of these units in the home (mother's boyfriend or father's girlfriend), students might face difficulty in understanding the question.

Design and Procedure

The main Türkiye study was a descriptive, cross-sectional research, in which three different age groups were sampled. As defined in the 2001/02 HBSC protocol, age levels represent different developmental time points in the period of adolescence, identified with different needs and characteristics of adolescents. The current study included only 10th grade students, as representing the period of late adolescence.

Data collection procedures, the content of the questionnaire packages, the way that the questionnaires are given to students, all instructions to provide for students, were the same in all parts of Türkiye. Instrument packages were posted to selected schools. There were envelopes and stamps in the packages, so that schools could post the filled instruments back to İstanbul Cerrahpaşa Medical Faculty, Child Health Department. Because of standard way of data collection procedures, the data collected from İstanbul could be integrated into the country-based data to be utilized

in national and cross-national analyses and comparisons.

Administration of the instrument took place in the school classrooms, during one-hour class session, and was carried out by the school counselors or teachers (when there is no school counselor). Confidentiality and objectivity were the key issues of concern during administration, so teachers who were responsible for collection of data in classrooms were provided with standard instructions on administration of the instrument (Appendix B) in order to ensure that testing was conducted in each school in the same way. Teachers also filled a school form, which provided demographic information about school and selected class (Appendix C).

There was information on the first page of the instrument package to inform the students about the content of the research, confidentiality and anonymity of their responses, and their right to volunteer to participate or decline. The survey was carried out in conformity with the current HBSC research protocol. Selection of sample, administration of instrument, data collection, data coding, and analysis procedure were completed according to the requirements stated by the HBSC protocol.

After data collection and the arrival of school packages to Cerrahpaşa, data were coded in SPSS by the research assistants in Cerrahpaşa and the researcher of this current study. Twenty forms among a hundred were checked by the team members of HBSC-Türkiye and by the research assistant at Boğaziçi University. If more than one instrument, in a package of twenty checked forms, was coded incorrectly (even one mistake in a single instrument), then the responsible assistant would code all of a hundred forms again.

Data Analysis

Data were analyzed by using SPSS 13.0 (Statistics Packages of Social Sciences) computer program. Descriptive information (frequencies, percentiles, means, and standard deviations whichever was appropriate for the level of measurement used) was provided within gender. Analyses regarding the research questions were conducted to examine the relations among the selected variables. Depending on the levels of measurement, appropriate methods of relational analyses were applied (Pearson Product-Moment correlation, t-test, multiple analyses of variance-MANOVA, and two-way analysis of variance-ANOVA). Group differences in continuous variables by more than two groups were examined by Tukey post hoc test.

CHAPTER IV

RESULTS

Results on Family Context Questions

Relations with Broad Outcomes

The aim of the first group of questions was to investigate the relationships between perceived academic achievement, general life satisfaction and self-rated mental health as outcome factors for late male and female adolescents, and some family-related variables (parental monitoring, parental bonding, parental disciplinary styles, family wealth, and school-related parental support). For that purpose, Pearson Product-Moment correlations (r) among family-related variables and broad outcomes were conducted for males and females separately. Since HBSC questionnaires provide broad indicators of variables, in the previous HBSC international reports (for 1997-98 and 2001-02 international data), the r value that was smaller than .15 was accepted as weak, between .15 and .25 was accepted as medium, and the value over .25 was regarded as showing high correlation. In the current study, correlation values have been considered accordingly.

- 1a. How does parental monitoring relate to perceived academic achievement, general life satisfaction, and self-rated mental health for late female and male adolescents?

As seen in Table 6, for females, mother monitoring was found to be

moderately and positively related to general life satisfaction ($r = .22, p=.000$) and self-rated mental health ($r = .26, p=.000$), but not to perceived academic achievement ($r = .07, p=.246$). Father monitoring was found to be moderately and positively related to perceived academic achievement ($r = .19, p=.002$), highly associated to general life satisfaction ($r = .31, p=.000$) and self-rated mental health ($r = .34, p=.000$). As it was the case for females, mother monitoring was found to be moderately and positively related to general life satisfaction ($r = .20, p=.000$) and it had high correlation with self-rated mental health ($r = .33, p=.000$) for males. There was no significant relationship between males' mother monitoring and perceived academic achievement ($r = .08, p=.123$), either. For males, father monitoring was positively and significantly correlated with all outcomes (moderate or high correlations). In other words, in both males and females, parental monitoring was in significant relations with, general life satisfaction, and self-rated mental health, but only father monitoring was in significant relation with perceived academic achievement also. Table 6 shows the summaries of results related with the first research question.

Table 6. *Correlations between Parental Monitoring and Broad outcomes*

Broad outcomes	Mother monitoring				Father monitoring			
	Female		Male		Female		Male	
	r	p	r	p	r	p	r	p
Perceived academic achievement	.07	.246	.09	.123	.19**	.002	.12*	.042
General life satisfaction	.22**	.000	.20**	.000	.31**	.000	.24**	.000
Self-rated mental health	.26**	.000	.33**	.000	.34**	.000	.28**	.000

**Correlation is significant at the .01 level (2-tailed).

*Correlation is significant at the .05 level (2-tailed).

1b. How does parental bonding relate to perceived academic achievement, general life satisfaction, and self-rated mental health for late female and male adolescents?

As displayed in Table 7, all outcome factors were significantly and positively related to mother bonding and father bonding among both females and males. The lowest (yet, still significant) correlation was between perceived academic achievement and father bonding for females ($r = .19$, $p = .003$). The strongest correlations were between self-rated mental health and mother bonding ($r = .42$, $p = .000$) and between self-rated mental health and father bonding ($r = .42$, $p = .000$) for females. In the male group, mother and father bonding highly correlated with mental health, too. Bonding was found to be a stronger correlate of outcome factors than monitoring.

Table 7. *Correlations between Parental Bonding and Broad outcomes*

Broad outcomes	Mother bonding				Father bonding			
	Female		Male		Female		Male	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Perceived academic achievement	.20*	.001	.23*	.000	.19*	.003	.25*	.000
General life satisfaction	.34*	.000	.29*	.000	.38*	.000	.30*	.000
Self-rated mental health	.42*	.000	.33*	.000	.42*	.000	.34*	.000

*Correlation is significant at the .01 level (2-tailed).

1c. How does family wealth relate to perceived academic achievement, general life satisfaction, and self-rated mental health for late female and male adolescents?

Family wealth was strongly correlated with life satisfaction in both females ($r = .35$, $p = .000$) and males ($r = .33$, $p = .000$). It was also moderately related to mental health in females ($r = .20$, $p = .002$) and strongly in males ($r = .32$, $p = .000$).

Yet, correlation of family wealth with perceived academic achievement of females or males did not have statistical significance.

Table 8. *Correlations between Family Wealth and Broad Outcomes*

Broad outcomes	Family Wealth			
	Female		Male	
	<u>r</u>	<u>p</u>	<u>r</u>	<u>p</u>
Perceived academic achievement	.11	.69	.11	.060
General life satisfaction	.35*	.000	.33*	.000
Self-rated mental health	.20*	.002	.32*	.000

* Correlation is significant at the .01 level (2-tailed).

1d. How do different parental disciplinary styles (neglectful, permissive, authoritative, and authoritarian) relate to perceived academic achievement, general life satisfaction and self-rated mental health for late female and male adolescents?

Table 9 displays the results regarding mother disciplinary behaviors and their correlations with perceived academic achievement, general life satisfaction, and self-rated mental health. Neglectful mother behavior indicated significant relationship with none of outcome factors in females and males. In females, permissive style of mother behavior was significantly related to all of outcome factors. Moderate but still significant association was found between permissive mother style and general life satisfaction ($r = .18$, $p = .003$), and self-rated mental health ($r = .16$, $p = .013$). For males, permissive mother style was not found to be related to any outcome factor. Authoritative mother behavior had moderate, positive correlation only with self-rated mental health in both females ($r = .16$, $p = .011$) and males ($r = .13$, $p = .024$). Authoritarian style indicated significant association with

none of outcome factors for females. In males, it had moderate negative correlation with mental health ($r = -.13$, $p = .021$).

Table 9. *Correlations between Mother Disciplinary Behaviors and Broad outcomes*

Broad outcomes	Neglectful		Permissive		Authoritative		Authoritarian	
	Female	Male	Female	Male	Female	Male	Female	Male
	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)	r (p)
Perceived academic achievement	.004 (.943)	.016 (.782)	.12* (.40)	.018 (.757)	.04 (.465)	.06 (.257)	-.09 (.137)	-.04 (.503)
General life satisfaction	.08 (.221)	.044 (.435)	.18** (.003)	.07 (.223)	.001 (.993)	.03 (.589)	-.04 (.534)	-.04 (.451)
Self-rated mental health	-.06 (.321)	-.035 (.543)	.16* (.013)	.11 (.058)	.16* (.011)	.13* (.024)	-.06 (.300)	-.13* (.021)

**Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

Table 10 displays the results regarding father disciplinary behaviors and their correlations with perceived academic achievement, general life satisfaction, and self-rated mental health. Like mother neglectful behavior, neglectful father behavior did not indicate significant relationship with any outcome factor in either gender. The permissive father style was significantly related to all outcomes in females. On the contrary, it was not related to any of outcome factors in males. Authoritative father behavior was positively and moderately correlated only with self-rated mental health in females ($r = .17$, $p = .009$) but it was not significantly related to any outcome variable in males. Authoritarian style indicated moderate association with only mental health ($r = -.18$, $p = .005$) for females. In males, it was moderately correlated with general life satisfaction ($r = -.14$, $p = .014$) and mental health ($r = -.19$, $p = .001$). In males, only the father authoritarian behaving style indicated a degree of significance while other three types had no significant relationship with any outcome

factor. Perceived academic success of students was related with none of the parental behavior, except permissiveness in female group.

Table 10. *Correlations between Father Disciplinary Behaviors and Broad outcomes*

Outcome Variables	Neglectful		Permissive		Authoritative		Authoritarian	
	Female r (p)	Male r (p)	Female r (p)	Male r (p)	Female r (p)	Male r (p)	Female r (p)	Male r (p)
Perceived academic achievement	-.04 (.498)	.03 (.565)	.14* (.029)	.068 (.242)	.08 (.180)	.04 (.454)	-.067 (.284)	.014 (.813)
General life satisfaction	-.06 (.318)	.03 (.604)	.19** (.002)	.05 (.349)	.02 (.814)	.004 (.946)	-.10 (.100)	-.14* (.014)
Self-rated mental health	-.11 (.076)	-.08 (.168)	.18** (.003)	.067 (.252)	.17** (.009)	.07 (.219)	-.18** (.005)	-.19** (.001)

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

1e. How does school-related parental support relate to perceived academic achievement for late female and male adolescents?

For both females and males, there was significant positive correlation between these measures (for females $r = .23$, $p = .000$, for males $r = .15$, $p = .007$). As parental support score increases, the reported level of achievement also tends to increase.

Correlation results are presented in Table 11.

Table 11. *Correlation between School-related Parental Support and Perceived Academic Achievement*

	School-related Parental support			
	Female		Male	
	r	p	r	p
Perceived academic achievement	.23*	.000	.15*	.007

* Correlation is significant at the .01 level (2-tailed).

In general, parental variables were found to correlate to outcome factors. Parental bonding was the variable, which had the strongest correlations with perceived academic achievement, general life satisfaction, and mental health. In terms of disciplinary behavior, both mother and father permissive behavior significantly correlated with outcomes in females, but other disciplinary behaviors showed weak correlations in both female and male groups. Academic achievement did not correlate with father monitoring, parental disciplinary behaviors (except permissiveness for females), and family wealth. Its strongest associations were with parental bonding, and it was moderately related to school-related parental support for both genders.

Relations with Risk Behaviors

The aim of the second research question was to see whether there were significant differences among risk groups, namely between neutral, victim, bully, and bully-victim students in terms of parental monitoring, bonding, and family wealth. In the second part of the second question, differences among bully-victim groups for parental disciplinary behaviors were investigated. To avoid Type I error and to test overall group difference for bully-victim groups on parental monitoring, bonding, and family wealth, a two-way multiple analysis of variance (MANOVA) was conducted (Table D1). Hotelling's test indicated overall differences between neutral, victim, bully, and bully-victim students ($F(\text{error df: } 1328.000) = 2.299; p = .003$) and between gender ($F(\text{error df: } 444.000) = 5.975; p = .000$), but there was no significant interaction between bully-victim groups and gender ($F(\text{error df: } 1328.000) = .822; p = .654$). Then, the univariate analysis of variance was conducted to examine whether risk groups differed in terms of parental variables and whether

bullying interacted with the sex variable. The results are reported for each variable separately.

2a. Are there significant differences among neutral, victim, bully, and bully-victim females and males in parental monitoring, parental bonding, and family wealth?

Descriptive statistics and F and p values of interaction (risk group by sex) are reported for each dependent variable separately. Table 12 summarizes the mean values and standard deviations of mother monitoring scores for female and male neutral, victim, bully, and bully-victim adolescents.

Table 12. *Descriptive Statistics of Mother Monitoring Scores of Adolescents by Bully-victim groups and Sex*

Bully-victim groups	Sex	n	M	SD
Neutral	Female	149	13.99	1.566
	Male	131	12.85	2.167
	Total	280	13.46	1.952
Victim	Female	42	13.43	1.915
	Male	56	12.75	2.376
	Total	98	13.04	2.206
Bully	Female	26	13.27	2.108
	Male	45	12.22	2.305
	Total	71	12.61	2.277
Bully-victim	Female	35	13.11	2.529
	Male	70	12.69	1.732
	Total	105	12.83	2.031

As seen in Table 12, males had lower mean scores in each category compared to females. The lowest score was in the male bully group (mean was 12.22) while the highest score was in female neutral group (mean was 13.99). It seems that females, who neither participated in bullying nor suffered from bullying behavior, reported their mothers to be monitoring higher than other groups. Lowest mother monitoring

scores were obtained by the bully group. Mother monitoring was significantly different among bully-victim risk groups ($F= 3.066$, $p = .028$). There was a significant difference in mother monitoring scores of females and males also, showing that females had significantly higher mother monitoring scores. However, no significant interaction effect was found.

Table 13. *Two-way analysis of Variance for Mother Monitoring by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	37.117	3	12.372	3.066	.028
Sex (B)	67.943	1	67.943	16.835	.000
A X B	10.623	3	3.541	.877	.453
Error	2203.545	546	4.036		
Total	98289.000	554			

The Tukey test showed that neutral group students had significantly higher scores compared to bully ($p = .008$) and bully-victim students ($p = .031$). Yet, their scores were not statistically different from victims' scores (Table 14).

Table 14. *Tukey Test for Bully-victim groups in Mother Monitoring*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
Mother monitoring	Neutral	Victim	.42	.236	.284
		Bully	.86	.267	.008
		Bully-victim	.63	.230	.031
	Victim	Neutral	-.42	.236	.284
		Bully	.44	.313	.506
		Bully-victim	.21	.282	.876
	Bully	Neutral	-.86	.267	.008
		Victim	-.44	.313	.506
		Bully-victim	-.22	.309	.888
	Bully-victim	Neutral	-.63	.230	.031
		Victim	-.21	.282	.876
		Bully	.22	.309	.888

Table 15 displays descriptive characteristics regarding bullying groups and their mean scores from the measures of father monitoring. As displayed, the lowest father monitoring mean score was among female bully students. Females had higher mean score compared to males only in neutral groups (12.35 versus 11.66). In other three groups, male mean scores were higher than females.

Table 15. *Descriptive Statistics of Father Monitoring Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	<u>SD</u>
Neutral	Female	141	12.35	2.464
	Male	125	11.66	2.569
	Total	266	12.02	2.533
Victim	Female	41	10.76	2.468
	Male	56	11.48	2.848
	Total	97	11.18	2.704
Bully	Female	24	10.67	2.745
	Male	39	10.85	2.710
	Total	63	10.78	2.703
Bully-victim	Female	31	11.06	3.076
	Male	71	11.17	2.473
	Total	102	11.14	2.655

Table 16 displays the two-way ANOVA results regarding father monitoring scores of bully-victim groups by sex. As seen, belonging to certain bully-victim group was significant in father monitoring ($F= 6.163$, $p=.000$). There was not main effect for sex. In other words, difference in father monitoring scores of females and males was non-significant. There was no significant interaction effect for independent variables (sex and bullying).

Table 16. *Two-way analysis of Variance for Father Monitoring by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	125.234	3	41.745	6.163	.000
Sex (B)	.593	1	.593	.088	.767
A X B	40.427	3	13.476	1.990	.115
Error	3521.976	520	6.773		
Total	74099.000	528			

The Tukey post hoc test was applied to see where existing group differences lied (Table 17). The Tukey test showed that only the neutral students had significantly higher scores compared to other three groups. They had significantly higher father monitoring scores compared to victim, bully, and bully-victim students.

Table 17. *Tukey Test for Bully-victim groups in Father Monitoring*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
Father monitoring	Neutral	Victim	.85	.309	.032
		Bully	1.24	.365	.004
		Bully-victim	.89	.303	.019
	Victim	Neutral	-.85	.309	.032
		Bully	.40	.421	.781
		Bully-victim	.04	.369	1.000
	Bully	Neutral	-1.24	.365	.004
		Victim	-.40	.421	.781
		Bully-victim	-.36	.417	.824
	Bully-victim	Neutral	-.89	.303	.019
		Victim	-.04	.369	1.000
		Bully	.36	.417	.824

Table 18 displays descriptive characteristics regarding bullying groups and their mean scores from the measures of mother bonding. As displayed, the lowest mother

bonding mean score was among male bully-victim students (18.37). The highest score was among neutral group for both males and females.

Table 18. *Descriptive Statistics of Mother Bonding Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	152	19.41	2.756
	Male	131	19.36	2.376
	Total	283	19.39	2.583
Victim	Female	42	18.71	3.431
	Male	56	18.82	2.973
	Total	98	18.78	3.161
Bully	Female	24	18.46	3.189
	Male	44	18.75	2.354
	Total	68	18.65	2.658
Bully-victim	Female	34	18.76	3.016
	Male	71	18.37	2.725
	Total	105	18.50	2.860

Two-way analysis of variance was conducted to test group differences for mother bonding scores. Results indicated significant group difference for mother bonding ($F = 2.986$, $p = .031$). As seen in father monitoring, there was no significant sex and interaction effect. Table 19 displays two-way ANOVA results for mother bonding.

Table 19. *Two-way analysis of Variance for Mother Bonding by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	72.795	3	24.265	2.986	.031
Sex (B)	.015	1	.015	.002	.966
A X B	5.188	3	1.729	.213	.888
Error	4436.438	546	8.125		
Total	204898.000	554			

Tukey post hoc test indicated that neutral students had significantly higher mother bonding scores than bully-victims ($p = .033$). Yet, their scores were no different than victims' or bully-victims' scores. Table 20 displays follow up results.

Table 20. *Tukey Test for Bully-victim groups in Mother Bonding*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
Mother Bonding	Neutral	Victim	.61	.334	.263
		Bully	.74	.385	.222
		Bully-victim	.89	.326	.033
	Victim	Neutral	-.61	.334	.263
		Bully	.13	.450	.992
		Bully-victim	.28	.400	.897
	Bully	Neutral	-.74	.385	.222
		Victim	-.13	.450	.992
		Bully-victim	.15	.444	.986
	Bully-victim	Neutral	-.89	.326	.033
		Victim	-.28	.400	.897
		Bully	.15	.444	.986

Table 21 displays descriptive characteristics regarding bullying groups and their mean scores from the measures of father bonding. The lowest father bonding mean score was among the bully-victim students as it was the case for mother bonding (17.99). The highest score was among victim males (19.29) while the second highest group was neutral males (18.92).

Table 21. *Descriptive Statistics of Father Bonding Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	144	18.83	3.200
	Male	121	18.92	3.021
	Total	265	18.87	3.114
Victim	Female	41	18.39	2.965
	Male	56	19.29	2.715
	Total	97	18.91	2.843

Continued with Table 21.

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Bully	Female	22	18.00	2.895
	Male	40	18.43	2.791
	Total	62	18.27	2.812
Bully-victim	Female	29	17.93	2.549
	Male	67	18.01	3.360
	Total	96	17.99	3.124

The two-way ANOVA indicated that there was not any significant group difference between neutral, victim, bully, and bully-victim students for father bonding mean scores ($F = 2.321$, $p = .074$), between males and females ($F = 1.367$, $p = .243$). There was not significant interaction effect, either (Table 22).

Table 22. Two-way analysis of Variance for Father Bonding by Bully-victim groups and Sex

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	64.243	3	21.414	2.321	.074
Sex (B)	12.610	1	12.610	1.367	.243
A X B	12.392	3	4.131	.448	.719
Error	4723.640	512	9.226		
Total	185534.000	520			

As seen in Table 23, the highest family wealth mean was among neutral students. In all family variables, except father bonding, students, who neither bullied other students nor were bullied, had the highest mean scores (no matter statistically significant or not). They reported highest levels of parental monitoring, mother bonding, and family wealth. On the other hand, bullies and bully-victims had the lowest scores.

Table 23. *Descriptive Statistics of Family Wealth Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	145	3.41	.712
	Male	120	3.35	.718
	Total	265	3.38	.714
Victim	Female	38	3.26	.685
	Male	55	3.07	.604
	Total	93	3.15	.642
Bully	Female	27	3.30	.953
	Male	44	3.14	.734
	Total	71	3.20	.821
Bully-victim	Female	31	3.42	.620
	Male	64	3.16	.718
	Total	95	3.24	.695

Table 24 summarizes two-way ANOVA results for family wealth scores of the sample. There was significant main effect for bullying but there was main effect for sex. Females had significantly higher family wealth scores in all groups compared to males ($F = 5.284$, $p = .022$). There was no significant interaction effect between bullying and sex, however.

Table 24. *Two-way analysis of Variance for Family Wealth by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	3.656	3	1.219	2.399	.067
Sex (B)	2.685	1	2.685	5.284	.022
A X B	.818	3	.273	.537	.657
Error	262.168	516	.508		
Total	5942.000	524			

In general, bully-victim risk groups were found to be different from one another in terms of parental monitoring and parental bonding. Except father bonding and family wealth, in all other family variables, neutral students were found to have highest scores and this group was found to be significantly different from other groups, as follow up tests also specified. Mother monitoring was lowest among bullies and bully-victims while father monitoring was low among victims also. Mother bonding was lowest among bully-victims. There was not interaction between bullying and sex in any variable. In other words, sex of students did not affect the relationship between family variables and belonging to certain bully-victim group.

2b. Are there significant differences among neutral, victim, bully, and bully-victim females and males in parental disciplinary styles (neglectful, permissive, authoritative, and authoritarian behaviors)?

To test overall group difference for bully-victim groups, on four mother and father disciplinary kinds of behaviors, namely neglect, permissive, authoritative, and authoritarian behaving scores, a two-way multiple analysis of variance (MANOVA) was conducted (Table D2). Since there was no significant overall difference in parental disciplinary behaviors of neutral, victim, bully, and bully-victim students (F (error df: 1469.000) = 1.425; $p = .084$), further univariate analyses of variance were not conducted. However, descriptive statistics (means and standard deviations) of each variable were calculated for females and males separately (Table E1 and Table E2).

Results on Peer Context Questions

Relations with Broad Outcomes

The aim of the third question was to investigate the relationships between perceived academic achievement, general life satisfaction and self-rated mental health as outcome factors for late male and female adolescents, and some peer-related variables (social competence, friendship quality, and peer group approval). For that purpose, Pearson Product-Moment correlations among peer-related variables and broad outcomes were conducted for males and females separately.

3a. How does social competence relate to perceived academic achievement, general life satisfaction, and self-rated mental health for late female and male adolescents?

As seen in Table 25, there was no significant relationship of social competence to perceived academic achievement in male ($r = .01$, $p = .834$) or female ($r = .02$, $p = .709$) groups. Likewise, there was no significant relationship between social competence and life satisfaction in male ($r = .11$, $p = .059$) or female ($r = .11$, $p = .083$) groups. There was moderately significant association of social competence with mental health, in both females and males ($r = .16$, $p = .010$ for females, $r = .14$, $p = .018$ for males). As students' scores for perceived social competence increased, the reported level of mental health also increased.

3b. How does friendship quality relate to perceived academic achievement, general life satisfaction, and self-rated mental health for late female and male adolescents?

In females, friendship quality was positively and moderately associated with general life satisfaction ($r = .15$, $p = .016$) and mental health ($r = .23$, $p = .000$), but not with perceived academic achievement ($r = .05$, $p = .386$). In males, friendship quality was significantly and positively correlated with mental health ($r = .20$, $p = .004$) only. Associations with life satisfaction and academic achievement scores of males were not significant. Table 25 displays correlations of broad outcomes to social competence and friendship quality.

Table 25. *Correlations of Social Competence and Friendship Quality to Broad outcomes*

Broad outcomes	Social Competence				Friendship Quality			
	Females		Males		Females		Males	
	r	p	r	p	r	p	r	p
Perceived academic achievement	.02	.709	.01	.834	.05	.386	-.05	.370
General life satisfaction	.11	.083	.11	.059	.15*	.016	.07	.256
Self-rated mental health	.16*	.010	.14*	.018	.23**	.000	.20**	.001

**Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

3c. How does social approval of peer group (by other students, teenagers, parents, and teachers) relate to perceived academic achievement, general life satisfaction and self-rated mental health for late female and male adolescents?

Correlation analyses revealed that social approval of peer group by other students, by parents, and by teachers, separately, was significantly and positively associated with all outcome factors in both male and female samples in general. The greater students felt approval coming from other students, their parents, or their teachers, the higher levels of academic achievement, mental health, and life satisfaction they reported.

Parental approval scores' correlation with academic achievement was .18 for females ($p = .004$) and .14 for males ($p = .018$). Correlation with life satisfaction was .24 for females ($p = .000$) and .21 for males ($p = .000$). Mental health correlation score was $r = .28$ for females ($p = .000$) and $r = .30$ for males ($p = .000$). In other words, parents' approval of one's peer group positively associated with all outcomes. Other students' approval and teacher approval scores' correlations with outcomes were ranged from moderate. As seen from the table below, peer group approval by teenagers outside school was not correlated with any outcome variable, in the female group. In the male group, it was moderately and positively correlated with general life satisfaction ($r = .16$, $p = .007$), and self-rated mental health ($r = .15$, $p = .013$), but not with academic achievement.

Table 26. *Correlations of Social Approval of Peer Group to Broad outcomes*

Broad outcomes	Approval by Other Students		Approval by Other Teenager Groups		Approval by Parents		Approval by Teachers	
	Females r (p)	Males r (p)	Females r (p)	Males r (p)	Females r (p)	Males r (p)	Females r (p)	Males r (p)
Perceived academic achievement	.16** (.009)	.14* (.015)	.11 (.090)	.02 (.690)	.18** (.004)	.14* (.018)	.21** (.002)	.17** (.006)
General life satisfaction	.15* (.015)	.20** (.001)	.07 (.271)	.16* (.007)	.24** (.000)	.21** (.000)	.25** (.000)	.16** (.009)
Self-rated mental health	.21** (.001)	.27** (.000)	.10 (.122)	.15* (.013)	.28** (.000)	.30** (.000)	.16* (.020)	.16* (.010)

**Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

In summary, most of correlation values indicated significant (moderate to high) relationships of peer-related factors (including individual's own social competence, close friendship, and more general social approval of peer group) with mental health.

Academic achievement was the variable, which revealed the least significant relationship with friendship quality and social competence. But, achievement was related to approval coming from different social sources in both male and female students (except teenager approval). Life satisfaction correlated with social approval scores in both females and males, and with friendship quality only in females.

Relations with Risk Behaviors

4a. Are there significant differences among neutral, victim, bully, and bully-victim females and males in social competence and friendship quality?

To test overall group difference for bully-victim groups, on social competence and friendship quality, a two-way multiple analysis of variance (MANOVA) was conducted (Table F1). There was significant overall difference among the scores of neutral, victim, bully, and bully-victim students ($F_{(error\ df: 924.000)} = 2.660; p = .015$). Thus, further univariate analyses of variance were conducted for social competence and friendship quality separately. Table 27 displays descriptive results related to social competence. The highest mean score was seen among neutral group, while the victim group had the lowest score.

Table 27. *Descriptive Statistics of Social Competence Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	147	15.88	1.603
	Male	119	15.20	2.219
	Total	266	15.58	1.930
Victim	Female	41	15.61	1.358
	Male	56	14.14	2.511
	Total	97	14.76	2.216

Continued with Table 27.

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Bully	Female	25	16.00	2.041
	Male	42	14.64	2.105
	Total	67	15.15	2.169
Bully-victim	Female	35	15.51	2.254
	Male	66	14.80	2.062
	Total	101	15.05	2.147

Two-way ANOVA indicated that there was significant group difference among neutral, victim, bully, and bully-victim students for social competence mean scores ($F = 2.820$, $p = .038$), between males and females ($F = 26.759$, $p = .000$), where females had the higher scores in all groups. But, there was not significant interaction between sex and bullying. Table 28 displays two-way ANOVA results for social competence.

Table 28. *Two-way analysis of Variance for Social Competence by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	34.096	3	11.365	2.820	.038
Sex (B)	107.835	1	107.835	26.759	.000
A X B	14.772	3	4.924	1.222	.301
Error	2107.632	523	4.030		
Total	126181.000	531			

Follow up results indicated neutral group had significantly higher scores compared to victim group, which had the lowest scores. Table 29 summarizes follow up results.

Table 29. *Tukey Test for Bully-victim groups in Social Competence*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
Social Competence	Neutral	Victim	.82	.238	.004
		Bully	.43	.274	.399
		Bully-victim	.53	.235	.110
	Victim	Neutral	-.82	.238	.004
		Bully	-.39	.319	.620
		Bully-victim	-.29	.285	.747
	Bully	Neutral	-.43	.274	.399
		Victim	.39	.319	.620
		Bully-victim	.10	.316	.989
	Bully-victim	Neutral	-.53	.235	.110
		Victim	.29	.285	.747
		Bully	-.10	.316	.989

Table 30 displays descriptive results related of friendship quality in bully-victim risk groups. The highest mean score was again seen among neutral students, while the bully-victim group had the lowest score. Females had higher scores than males in all groups.

Table 30. *Descriptive Statistics of Friendship Quality Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	134	44.86	4.821
	Male	109	41.49	7.424
	Total	243	43.35	6.339
Victim	Female	36	44.30	5.317
	Male	48	38.73	7.561
	Total	84	41.12	7.211
Bully	Female	24	43.21	8.224
	Male	41	42.24	7.628
	Total	65	42.60	7.803
Bully-victim	Female	34	42.29	8.702
	Male	61	39.16	8.062
	Total	95	40.28	8.387

Two-way ANOVA indicated that there was significant group differences among neutral, victim, bully, and bully-victim students for friendship quality mean scores ($F = 3.187, p = .024$), between males and females ($F = 19.971, p = .000$). But, there was no significant interaction between sex and bullying ($F = 1.311, p = .270$). Table 31 displays two-way ANOVA results for friendship quality.

Table 31. *Two-way analysis of Variance for Friendship Quality by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	459.148	3	153.049	3.187	.024
Sex (B)	959.176	1	959.176	19.971	.000
A X B	188.913	3	62.971	1.311	.270
Error	23005.611	479	48.028		
Total	895352.000	487			

Follow up results indicated neutral group had significantly higher scores compared to bully-victim group. Table 32 summarizes follow up results.

Table 32. *Tukey Test for Bully-victim groups in Friendship Quality*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	<u>p</u>
Friendship Quality	Neutral	Victim	2.23	.877	.055
		Bully	.75	.967	.866
		Bully-victim	3.06	.838	.002
	Victim	Neutral	-2.23	.877	.055
		Bully	-1.48	1.144	.567
		Bully-victim	.83	1.037	.852
	Bully	Neutral	-.75	.967	.866
		Victim	1.48	1.144	.567
		Bully-victim	2.31	1.115	.162
	Bully-victim	Neutral	-.3.06	.838	.002
		Victim	-.83	1.037	.852
		Bully	-2.31	1.115	.162

4b. Are there significant differences among neutral, victim, bully, and bully-victim students in social approval of peer group by other students, other teenager groups, parents, and teachers?

To test overall group difference for bully-victim groups, in social approval of peer group, a two-way multiple analysis of variance (MANOVA) was conducted (Table F2). There was no significant overall difference in the social approval scores of neutral, victim, bully, and bully-victim students ($F(\text{error df: } 1328.000) = 2.299; p = .003$), so, further univariate analyses of variance were not conducted. However, descriptive statistics (means and standard deviations) of each variable were calculated for females and males separately (Table G).

Results on School Context Questions

Relations with Broad outcomes

5th question investigated school-related factors and their relations with the outcome factors. For that purpose, Pearson Product-Moment correlations among school-related variables and broad outcomes were conducted for males and females separately.

5a. How does school-related stress relate to perceived academic achievement, general life satisfaction, and self-rated mental health for the late female and male adolescents?

Table 33 shows that school-related stress had significant and negative correlations with perceived academic achievement ($r = -.26, p = .000$), general life satisfaction ($r = -.23, p = .000$), and self-rated mental health ($r = -.32, p = .000$) in

females. School-related stress did not significantly relate to perceived academic achievement but it was negatively and moderately associated with general life satisfaction ($r = -.20, p = .000$) and self-rated mental health ($r = -.18, p = .002$) in males. The direction of correlations was negative with all outcomes no matter whether statistical significance existed or not. In other words, as stress of the students were greater, they reported less perceived achievement, lower life satisfaction, and they got lower total scores from mental health index.

5b. How does school-related satisfaction relate to perceived academic achievement, general life satisfaction, and self-rated mental health for the late female and male adolescents?

Second step of this question regarded school-related satisfaction and its relations with outcome factors. As displayed in Table 33, achievement, life satisfaction, and mental health were significantly related with the level of satisfaction students reported about school. Scores for broad outcomes increased as school-related satisfaction showed increase, except in males, whose school-related satisfaction had low correlation with their general life satisfaction ($r = .04, p = .425$). Table 33 presents the correlational analyses of school-related stress and school-related satisfaction with the outcome factors.

Table 33. *Correlations of School-related Stress and Satisfaction to Broad outcomes*

Broad outcomes	School-related Stress				School-related Satisfaction			
	Females		Males		Females		Males	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Perceived academic achievement	-.26*	.000	-.09	.104	.17*	.004	.21*	.000
General life satisfaction	-.23*	.000	-.20*	.000	.29*	.000	.04	.425
Self-rated mental health	-.32*	.000	-.18*	.002	.37*	.000	.23*	.000

*Correlation is significant at the .01 level (2-tailed).

Relations with Risk Behaviors

6a Are there significant differences among neutral, victim, bully, and bully-victim students in school-related stress and school-related satisfaction?

Two-way MANOVA was conducted to test overall group differences in school-related stress and school-related satisfaction (Table H1). Hotelling's test indicated significant overall difference between neutral, victim, bully, and bully-victim students ($F(\text{error df: } 1120.000) = 2.295, p = .033$). Then, two-way univariate analyses were conducted for school-related stress and school-related satisfaction separately.

Table 34 summarizes the mean values and standard deviations of school-related stress scores for female and male neutral, victim, bully, and bully-victim adolescents. The highest mean for school-related stress was seen among bully-victim and bully females. On the other hand, neutral students reported the lowest level of stress. Females had higher means than males for school stress in each group.

Table 34. *Descriptive Statistics of School-related Stress Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	<u>SD</u>
Neutral	Female	157	2.59	1.074
	Male	132	2.56	.967
	Total	289	2.58	1.025
Victim	Female	42	2.79	1.048
	Male	60	2.78	.976
	Total	102	2.78	1.001
Bully	Female	26	3.04	.824
	Male	46	2.78	1.094
	Total	72	2.88	1.006
Bully-victim	Female	36	3.08	.996
	Male	73	2.77	1.007
	Total	109	2.87	1.010

Univariate analysis of variance indicated significant group difference in the level of school-related stress of students, depending on bully-victim group they belonged ($F=4.128$, $p = .007$). However, there was no significant difference between the scores of males and females, and there was no significant interaction effect. Table 35 displays two-way ANOVA results.

Table 35. *Two-way analysis of Variance for School-related Stress by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	12.784	3	4.2618	4.128	.007
Sex (B)	2.354	1	2.354	2.280	.132
A X B	2.098	3	.699	.677	.566
Error	582.259	564	1.032		
Total	4791.000	572			

Follow up test showed that neutral group differed from bully-victim group only ($p = .051$). Table 36 displays the follow-up results.

Table 36. *Tukey Test for Bully-victim groups in School-related Stress*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
School-related Stress	Neutral	Victim	-.21	.117	.292
		Bully	-.30	.134	.119
		Bully-victim	-.29	.114	.051
	Victim	Neutral	.21	.117	.292
		Bully	-.09	.156	.938
		Bully-victim	-.09	.140	.925
	Bully	Neutral	.30	.134	.119
		Victim	.09	.156	.938
		Bully-victim	.00	.154	1.000
	Bully-victim	Neutral	.29	.114	.051
		Victim	.09	.140	.925
		Bully	.00	.154	1.000

Then, difference in school-related satisfaction scores of bully-victim groups was tested with univariate analysis of variance. Table 37 summarizes the mean values and standard deviations of school-related satisfaction scores for female and male neutral, victim, bully, and bully-victim adolescents. Descriptive results related with school satisfaction were in contrast with school-related stress results. The highest overall mean for school-related satisfaction was reported by neutral group students while this group had the lowest mean score in school-related stress. Bullies, who reported high level of stress, had low level of school-related satisfaction. Females reported higher level of stress and satisfaction, except for the victim group. Yet, these differences were not statistically significant.

Table 37. *Descriptive Statistics of School-related Satisfaction of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	<u>SD</u>
Neutral	Female	156	3.19	.843
	Male	132	2.98	.819
	Total	288	3.10	.837
Victim	Female	42	2.86	.899
	Male	60	3.03	.736
	Total	102	2.96	.807
Bully	Female	27	3.15	1.027
	Male	46	2.78	.964
	Total	73	2.92	.997
Bully-victim	Female	36	3.08	.649
	Male	73	2.93	.822
	Total	109	2.98	.770

Univariate analysis of variance indicated that there was no significant group difference in the level of school-related satisfaction ($F = .959$, $p = .412$). Neutral, victim, bully, and bully-victim students did not differ in their school-related satisfaction scores. There was no significant difference between the scores of males and females, and there was no significant interaction effect, either. Table 38 displays two-way ANOVA results.

Table 38. *Two-way analysis of Variance for School-related Satisfaction by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	2.019	3	.673	.959	.412
Sex (B)	1.946	1	1.946	2.771	.097
A X B	3.655	3	1.218	1.735	.159
Error	395.918	564	1.032		
Total	5650.000	572			

6b. Are there significant differences among neutral, victim, bully, and bully-victim students in perceived academic achievement, general life satisfaction, and self-rated mental health?

Firstly, two-way MANOVA was conducted to test overall group differences for perceived academic achievement, general life satisfaction, and self-rated mental health (Table H2). Hotelling's test indicated significant overall difference between neutral, victim, bully, and bully-victim students ($F(\text{error df: } 1613.000) = 3.771; p = .000$). Then, two-way univariate analyses were conducted for each dependent variable separately.

Table 39 summarizes the mean values and standard deviations of perceived academic achievement scores for female and male neutral, victim, bully, and bully-victim adolescents. The highest mean for perceived academic achievement was seen among neutral students. On the other hand, bully-victim students reported the lowest mean score. Males had lower mean scores in each category compared to females.

Table 39. *Descriptive Statistics of Perceived Academic Achievement Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	156	2.72	.705
	Male	133	2.43	.828
	Total	289	2.59	.777
Victim	Female	42	2.48	.773
	Male	60	2.35	.799
	Total	102	2.40	.787
Bully	Female	27	2.48	.935
	Male	46	2.26	.801
	Total	73	2.34	.853
Bully-victim	Female	36	2.39	.688
	Male	70	2.27	.947
	Total	106	2.31	.866

As two-way ANOVA indicates, there was significant group difference in academic achievement of students, depending on bully-victim group they belonged ($F= 3.152$, $p = .025$). There was a significant difference in the scores of females and males also, showing that females had significantly higher mother monitoring scores. However, no significant interaction effect was found.

Table 40. *Two-way analysis of Variance for Perceived Academic Achievement by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	6.055	3	2.018	3.152	.025
Sex (B)	3.721	1	3.721	5.811	.016
A X B	.876	3	.292	.456	.713
Error	359.854	562	.640		
Total	3859.000	569			

To see which group(s) caused the significant difference, was applied. Follow up results showed students in the neutral group had significantly higher scores compared to bully-victim group ($p = .013$). Table 41, below, displays the follow-up results.

Table 41. *Tukey Test for Bully-victim groups in Perceived Academic Achievement*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
Perceived Academic Achievement	Neutral	Victim	.19	.092	.181
		Bully	.75	.105	.089
		Bully-victim	.28	.091	.013
	Victim	Neutral	-.19	.092	.181
		Bully	.06	.123	.962
		Bully-victim	.09	.111	.847
	Bully	Neutral	-.25	.105	.089
		Victim	-.06	.123	.962
		Bully-victim	.03	.122	.994
	Bully-victim	Neutral	-.28	.091	.013
		Victim	-.09	.111	.847
		Bully	-.03	.122	.994

Table 42 presents the descriptive information for the bully-victim risk groups' life satisfaction scores. As in perceived academic achievement, neutral group (especially females) reported the highest level of life satisfaction. The lowest mean was among bully females. Females tended to report greater levels of life satisfaction compare to males in each group, except the bully group.

Table 42. *Descriptive Statistics of General Life Satisfaction Scores of Adolescents by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	157	6.55	1.841
	Male	133	6.51	1.841
	Total	290	6.53	1.838
Victim	Female	42	5.95	2.263
	Male	59	5.73	2.273
	Total	101	5.82	2.260
Bully	Female	27	5.41	2.062
	Male	46	5.80	2.040
	Total	73	5.66	2.043
Bully-victim	Female	36	6.17	2.049
	Male	73	5.77	1.969
	Total	109	5.90	1.995

As two-way ANOVA indicates, there was significant group difference in life satisfaction scores of students, depending on bully-victim group they belonged ($F=6.239$, $p = .000$). However, no significant main effect for sex and interaction were found. Table 43 displays two-way ANOVA statistics.

Table 43. *Two-way analysis of Variance for General Life Satisfaction by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	73.194	3	24.398	6.239	.000
Sex (B)	.445	1	.445	.114	.736
A X B	6.974	3	2.325	.594	.619
Error	2209.489	565	3.911		
Total	24140.000	573			

Follow up results are presented in Table 44. As displayed, neutral students had significantly higher scores compared to other three groups.

Table 44. *Tukey Test for Bully-victim groups in General Life Satisfaction*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
General Life Satisfaction	Neutral	Victim	.71	.228	.011
		Bully	.87	.259	.004
		Bully-victim	.63	.222	.024
	Victim	Neutral	-.71	.228	.011
		Bully	.16	.304	.949
		Bully-victim	-.08	.273	.992
	Bully	Neutral	-.87	.259	.004
		Victim	-.16	.304	.949
		Bully-victim	-.24	.299	.851
	Bully-victim	Neutral	-.63	.222	.024
		Victim	.08	.273	.992
		Bully	.24	.299	.851

Table 45 displays descriptive information about mental health scores of neutral, victim, bully, and bully-victim students. As seen, neutral group reported the highest level of mental health, whereas victims had the lowest level of mental health.

Table 45. *Descriptive Statistics of Mental Health Scores by Bully-victim groups and Sex*

Bullying	Sex	<u>n</u>	<u>M</u>	SD
Neutral	Female	152	32.92	6.625
	Male	130	35.16	6.909
	Total	282	33.95	6.837
Victim	Female	41	29.85	6.784
	Male	59	32.14	6.689
	Total	100	31.20	6.788
Bully	Female	21	31.10	7.956
	Male	44	33.14	7.268
	Total	65	32.48	7.496
Bully-victim	Female	35	31.17	6.819
	Male	71	31.46	6.568
	Total	106	31.37	6.621

As two-way ANOVA indicates, there was significant group difference in mental health scores of students, depending on bully-victim group they belonged ($F = 7.019$, $p = .000$). There was a significant difference in the scores of females and males also, showing that males had significantly higher mental health scores than females in all groups. However, there was no significant interaction. Table 46 displays two-way ANOVA results.

Table 46. *Two-way analysis of Variance for Mental Health by Bully-victim groups and Sex*

Source of Variation	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
Bullying (A)	979.747	3	326.582	7.019	.000
Sex (B)	278.847	1	278.847	5.993	.015
A X B	72.400	3	24.133	.519	.670
Error	25358.322	545	46.529		
Total	621207.000	553			

Follow up results are presented in Table 47. As displayed, neutral students had significantly higher scores compared to victims ($p = .003$) and bully-victims ($p = .005$), but not bullies ($p = .395$).

Table 47. *Tukey Test for Bully-victim groups in Mental Health*

Dependent variable	Bullying (I)	Bullying (J)	Mean Difference (I-J)	Std. Error	p
Mental Health	Neutral	Victim	2.75	.794	.003
		Bully	1.48	.939	.395
		Bully-victim	2.59	.777	.005
	Victim	Neutral	-2.75	.794	.003
		Bully	-1.28	1.087	.643
		Bully-victim	-.17	.951	.998
	Bully	Neutral	-1.48	.939	.395
		Victim	1.28	1.087	.643
		Bully-victim	1.11	1.075	.731
	Bully-victim	Neutral	-2.59	.777	.005
		Victim	.17	.951	.998
		Bully	-1.11	1.075	.731

In summary, two-way multiple analyses of variance (MANOVAs) were conducted since there were research questions with multiple dependent variables. MANOVA result was statistically significant for school-related stress and school-related satisfaction, perceived academic achievement, life satisfaction, and mental health scores of bully-victim risk groups. Further univariate analyses and follow up tests indicated in general that neutral adolescents, who were not involved in or victimized by bullying, had significantly higher levels of perceived academic achievement, life satisfaction, and mental health.

Summary of Results

This study considered family, peer, and school related factors in relationship with outcome factors of perceived academic achievement, general life satisfaction,

and self-rated mental health, and with the risk behavior of bullying. Following the general HBSC study where the mean age of 15.5 was important to ensure, not only the tenth graders but also the ninth graders who were born in 1990 were targeted. Therefore, all tenth graders and ninth graders with the mean age of 15.5 were included in the current study. Examination of sample characteristics indicated that 79.4 % of students were born in 1990 and 20.6 % of them were one year younger or at most three years older. Females and males were similarly distributed (47.1% and 52.9%, respectively). Most of the fathers were reported to be working (87.6 %) while most of the mothers were reported to be non-working (75.4 %). Only 11 students reported not seeing their fathers, while nobody reported not seeing their mother. This indicated that our sample had rather regular contacts with both parents.

Descriptive statistics of the study variables showed that students reported their parents, especially mothers to be highly monitoring (sample mean was 13.19 for mother and 11.58 for father monitoring). Females reported their mothers being more monitoring compared to males. Females also reported their mothers to be more permissive and authoritative, and their fathers to be more permissive than males did. On the contrary, males reported their fathers to be more authoritarian than females did. It seemed that females perceived their parental attitudes more favorable than males. Interestingly, for both genders correlations between permissive and authoritative and between neglectful and authoritarian parental attitudes were positive.

In peer context females scored higher in close friendship quality, social competence, and peer group approval by social sources. More males reported to be involved in bullying as a form of aggression. In addition, males were more likely to

be a victim of bullying and to perceive lower level of approval of peer group by other students, and they seem to have lower social competence.

In school context, females and males did not differ significantly although females tended to report higher school stress as well as school satisfaction. As an outcome factor, academic achievement was reported to be higher in females.

Several variables including parental monitoring, parental bonding, family wealth, friendship quality, social approval of peer group, school satisfaction and stress were significantly related to academic achievement, general life satisfaction, and mental health of adolescents. However, perceived academic achievement had the lowest degree of correlation with family, peer and school related variables. Among family variables, parental bonding showed the highest degree of correlations with broad outcomes. Both mother and father permissive behavior significantly correlated with outcomes in females, but other disciplinary behaviors showed weak correlations in both female and male groups. In peer variables, social approval scores, except teenager approval, showed moderate to high correlations with broad outcomes. Friendship quality correlated with life satisfaction in females and with self-rated mental health in both males and females. Social competence correlated only with self-rated mental health. As a school context variable, school-related stress negatively correlated with broad outcomes while school-related satisfaction correlated with outcomes positively.

As far as bullying was concerned as a risk behavior, there were some group differences in family, peer, and school contexts of neutral (not bullying or victimized), victim, bully, and bully-victim students. Except father bonding and family wealth, in all other family variables, neutral students had the highest scores and were significantly different from other groups. In social competence and

friendship quality, neutral students, again, got the highest scores. Yet, bully-victim groups did not significantly differ in terms of social approval scores. Neutral students significantly differed from bully-victims and victims in life satisfaction and mental health. Neutrals significantly differed only from bully-victims in school-related stress (neutrals had less stress) and academic achievement.

Gender differences found in some variables, like mother monitoring, academic achievement and mental health, did not seem to have any interactive effect with bullying. In other words, differences between neutral, victim, bully, and bully-victim students did not change by the sex of adolescents. Directions and significance of correlations were similar for both genders.

CHAPTER V

DISCUSSION

The final part is presented in three sections: a review of the findings in terms of the research questions, presentation of implications of the current study, and discussion of limitations of the current study and recommendations for future research.

Review of the Findings

Relationships of Family-Context Factors to Broad Outcomes and Risk Behaviors

The first and second research questions were addressed to gather information about familial and parental behaviors and how they were related with the students' outcome behaviors and attitudes. In the first question, relationships of parental monitoring, parental bonding, family wealth, and parental disciplinary behaviors to perceived academic achievement, general life satisfaction, and self-rated mental health were investigated. In terms of findings, a significant positive relationship was found between parental supportive behaviors and development of outcome factors.

High parental monitoring was associated with greater mental health and higher life satisfaction. Father monitoring was correlated with all outcomes in both females and males, while mother monitoring was not associated with perceived academic achievement. Correlation values were higher in terms of father monitoring

although mother monitoring was correlated with general life satisfaction and mental health, too. In other words, students, who reported higher father monitoring also stated higher academic achievement, general life satisfaction, and mental health. This might be the sign of importance for fathers' availability and showing supportive control and care for their children. As underlined before, children may voluntarily share their acts with their parents or they may perceive parents to be monitoring although parents do not know where they are and what they are actually doing. But, when a parent is emotionally available and becomes supportive, children are more likely to perceive them monitoring. Fathers are mostly reported to have less interaction with their adolescents and are perceived as less caring than mothers (Paterson et. al., 1995). So, caring fathers, who are available for their children, might be perceived as being more interested and monitoring and might affect children's perception about quality of life. Especially, in terms of academic development, mothers are likely to control and support adolescents and fathers are likely to be involving. When a father is interested, an adolescent is more likely to study and become academically successful. Yet, in general, both father and mother monitoring are important for adolescents. As Paterson et. al. (1995) underlined, adolescents may expect fathers to play a less interactive role in their lives than mothers. When relationship with fathers falls into the expected pattern there is little negative effect on adolescents' self-esteem. It is possible that parenting roles complement each other and the adolescent receives support he/she needs from both parents but in different ways. Similarly in the current study, parental bonding, which included parental closeness and attachment, was reported to be positively associated with adolescent outcome factors. In both monitoring and bonding, children perceive parental closeness, interest, and care. Monitoring and positively attaching parents are

involved with children and relate to them, which in turn contributes to children's well-being (Pedersen et. al., 2001). The least but still significant relationship of parental bonding was with perceived academic achievement in both females and males. The highest association was found with mental health in females and males. Results indicated significance of attachment and close bonds with parents.

In terms of mother disciplinary behaviors of females, neglectful and authoritarian behaviors were not related to any outcome variable. In other words, these behaviors were not in any correlational relationship with academic achievement, life satisfaction, and mental health as reported by students. Instead, permissive mother behavior related to all outcome factors and authoritativeness was correlated with self-rated mental health only. As seen in mothers, father neglect behavior was not related to any outcome variable, permissiveness related to all outcome factors, and authoritative and authoritarian behaviors were correlated with mental health only. Those results bring the idea that permissive parental behaviors importantly relate to females' perception about health-related outcomes of mental health and life satisfaction as well as academic outcome. Authoritativeness correlated with self-rated mental health showing that the higher authoritativeness score was reported by females, the higher mental health scores they got. But, this was not the case for life satisfaction in the current study. Previous research indicated the contrary findings that authoritative parenting associated with adolescents' life satisfaction (Dew & Huebner, 1994).

In terms of mother disciplinary behaviors of males, neglectful and permissive behaviors were not related to any outcome variable. Authoritative and authoritarian mother behaviors related only to self-rated mental health. For father behaviors, neglectful, permissive, and authoritative behaviors did not relate to any

outcome variable. Only authoritarian father behavior was related to mental health and life satisfaction. Those, who reported higher authoritarian behavior, had less general life satisfaction and mental health.

As Suldo and Huebner (2004) reported, despite the emphasis on peer relations, concern on physical appearance, and schooling, life satisfaction more strongly associated with parental relationship-especially authoritative parenting. In their study (2004), Suldo and Huebner used three subscales referring to different dimensions of authoritative parenting, which were strictness-supervision (monitoring as well as strictness), social support/involvement (care, emotional support, provision of resources), and psychological autonomy granting (non-coercive, democratic discipline and encouraging child's autonomy). As seen from these dimensions, this study considered authoritative parenting as more general, positive parental behaviors including bonding and monitoring as well as discipline. In the first look, study's emphasis on authoritative parenting seems contradictory with the current study in terms of life satisfaction associations. But, when considering monitoring and bonding together with disciplinary behaviors, it is seen that the results are parallel in two studies. In HBSC study, disciplinary styles for parental childrearing are assessed with respect to problem behavior in general (Pedersen et. al., 2001). So, it is asked when and how the child is punished by parents to determine parental disciplinary attitudes. Each single item referred to certain disciplinary behavior – neglect, permissive, authoritative, and authoritarian. In a broader sense, bonding and monitoring strongly indicate the associations of parental factors with outcomes, but, there was no conclusive result about associations of disciplinary styles items with outcomes (although permissiveness and authoritativeness positively and authoritarian behavior negatively related with one or two factors in some cases). As emphasized in the

literature part, the Turkish family system combine love and support with control, coercion, and authoritarian behavior (Kağıtçıbaşı, 1996). Coercion, control, and punishment in child-rearing practices might be perceived by children as discipline tools used for their own goodness because parents love them. Parental warmth and support as well as psychological availability of parents are likely to play a crucial role in development of well-being in children. Parental bonding, closeness to family, and parental involvement in activities are more important in an adolescent's healthy development.

The correlational nature of this study does not permit us to conclude it is the quality of adolescent-parent relationship and parental behaviors directly affect and shape levels of academic achievement, mental health, and general life satisfaction. There are many factors that affect adolescent psychological and scholastic development. Social-demographic characteristics of the youth and family might influence adolescents directly, or indirectly, by exposing them to high-risk environments and by influencing parenting practices (Eamon, 2005). But, it is seen that familial factors are influential and contribute to overall development through childhood to adulthood.

Leung and Leung (1992) conducted a study with 1156 9th grade students in Hong Kong to investigate factors influencing adolescent life satisfaction. They used self-concept measures, relationship with parents scale, relationship with school scale, and life satisfaction scales (one with 5 items and other one was global life satisfaction scale with a single item). The findings of this study seem to be parallel to the current research findings. As the current study also pointed out, relationship with parents provided the greatest explanatory power for adolescents' life satisfaction. Furthermore, parents were found to affect development of subjective well-being and

formation of self-concept in Leung and Leung study, as in the current study. The study points out the importance of parental influence on psychological development of adolescents and they talked about no significant gender differences in terms of results.

Family wealth, as perceived by students, was the other familial factor that was investigated in relation to outcome factors. In the current study, perceived family wealth was found to relate to general life satisfaction and mental health but not to academic achievement. When students perceived their family as wealthy, their satisfaction and mental health scores tended to be higher, too. This was the case in both genders. In the meta-analysis of White (1979) it was found that relationship between socioeconomic status and academic achievement was weaker than expected. In the current study, academic achievement was positively associated with close attachment of parents, supervision and monitoring, and school-related parental support, but not with perceived family wealth. In other words, parental availability and involvement together with care and emotional support are significant for students' perception on scholastic achievement no matter family is wealthy or not.

In the second research question, bullying and some familial variables among neutral, bully, bully-victim, and victim students were investigated. As descriptive analyses indicated, bullying was found to be prevalent among Turkish 10th grade adolescents. It was more prevalent among males compared to females. The results about occurrence of bullying among females and males were consistent with the previous research conducted in Türkiye (Dölek, 2002; Pekel-Uludağlı & Uçanok, 2005) and in HBSC countries (Alexander et al., 2004a; Forero, McLellan, Rissel, & Bauman, 1999; Morgan & Mulvihill, 2002). Among students, 23.3% of females and 37.5% of males reported that they bullied others at least one time in the last two

months. But, when we looked at students that reported to bully others at least one time in a week, the percentage was 5.6 for females and 5.3 for males, pointing out very close results. So, number of males and females, persistently and continually bullying other students in a week, were close to each other.

Two-way MANOVA indicated significant differences among bully-victim groups' parental monitoring, parental bonding, and family wealth scores. Further two-way ANOVAs supported these findings for parental monitoring and mother bonding. Statistically significant or not, neutral students, who did not bully others and were not bullied, tended to report the higher level of positive family environment. In mother monitoring, these students were different from bully and bully-victims but not from victims. In father monitoring, they differed from all three groups. That might show us that less monitored students are more likely to bully their peers. As findings presented, males were less monitored by their mothers when compared to females. But, differences in any variable score among bully-victim groups did not differ by adolescent sex. In other words, in both male and female groups, neutral adolescents had the highest scores. In father bonding, groups did not differ from one another. That might be because of fathers' less close relationships with their children compared to mothers. In the website of "Yeniden Association" (<http://www.yeniden.org.tr/vio/vio8.asp>), bullying children were defined as having less positive interaction at home, having more negative images of parents, spending less time with the family and being less monitored about time spent outside, and bully children's parents were said to be neglectful (tolerating negative behaviors) or authoritarian (punishing). The current study also showed that bullies are less monitored by their parents while bully-victims perceive low level of parental bonding, especially mother bonding. So, combination of bullying with victimization

points out low level of parental attachment. Family wealth did not differ among four groups. Subjective characteristics of family environment might be more related to bullying instead of economical conditions and welfare.

Bowers, Smith, and Binney (1994) investigated perceived family relationships of bully, victim, and bully-victims. They noted significantly lower parental monitoring, parental warmth, and more neglect among bully-victims. On the other hand, bullies reported lower family cohesion among family members. Victims reported very high level of involvement with all family members, which was called as enmeshed family structure in the study. In other words, reported cohesion of victims with parents and siblings was so high that it was unusual for their ages. The findings were similar with the current study results. Yet, this study grouped students as victim, bully, and bully-victim not according to students' own reports but they used peer nominations. Secondly, ages ranged from 8 to 11, indicating middle childhood. Thirdly, the study was conducted in England, Sheffield. So, methodological differences must be taken into consideration while discussing differences in results of the current study and Bowers et. al. study.

When the results were examined with MANOVA analyses, it is seen that there were no significant differences between the neutral, bully, bully-victim, and victim students in terms of parental disciplinary styles. It was also found that the scores in parental neglect and authoritarian behaviors were not normally distributed and there were negatively skewed curves. Very few students reported their parents to be sometimes or often neglectful or authoritative. Most of them said "never" to neglect and authoritarian behaviors. So, further analyses were not conducted in these variables. In the questions pointing disciplinary styles, students were asked "What does your mother/father do, when you do something that she thinks is wrong?" and

punishment is stressed in each item. However, what students understand from the term “punishment” is open to question. The question on parental disciplinary style included an item referring to permissiveness as “My mother/father *tells me that I behaved badly* but doesn’t punish me”. So, students might have focused on the fact that a parent is *aware* of certain mistake but does not *punish*. It might be that they did not think this item referred to indifferent or less-monitoring parent but stresses a tolerant and not punishing parental behavior (but a parent is still aware). Based on experiences with students coming to guidance service, it can be said that punishment is mostly perceived as physical punishment, for example, being beaten, hit, or kicked by parents. In Turkish, punishment is likely to be interpreted as physical penalty (the use of physical force or coercion) rather than response cost type of bearing behavioral consequences. Report of physical punishment and abuse is not common among high school students. So, students might have responded to the questions with their subjective idea about punishment and parental control. That might have weakened the relationships between disciplinary styles and bully-victim behaviors.

In summary, bullying was found to be widely witnessed among 10th grade students. There were parental differences among bullies, victims, bully-victims, and neutral students in monitoring, bonding, and wealth, but MANOVA showed no significant difference for disciplinary behaviors of four groups. Here, it is worth to list the differences of this study compared to other research conducted on bullying. Firstly, bullying and being bullied scales specifying bullying behaviors and their frequency were not used in this study as many other studies have used (Espelage et. al., 2000/2002; Juvonen, Graham, & Schuster, 2003). Instead, a single question (one for bullying and one for being bullied) was asked to see whether a child experienced bullying/being bullied in the last two months. The previous research investigated

psychological and emotional adjustment, peer relations, attitudes towards school, and involvement in other risk behaviors such as alcohol use, weapon carrying (Forero et. al., 1999; Nansel, Craig, Overpeck, Saluja, & Ruan, 2004) but not family characteristics of bullies. Instead, the current study did not ask whether bullies, victims, and neutral students differed in terms of other risk behaviors that might co-occur with bullying (like fighting, substance use, smoking, or weapon carrying) but looked at family characteristics, peer and school cultures. Inclusion other risk behaviors might have yielded similarities in research results.

Relationships of Peer-Context Factors to Broad Outcomes and Risk Behaviors

The third research question was used to see the associations of social competence, friendship quality, and peer group approval with outcome factors, namely perceived academic achievement, general life satisfaction and self-rated mental health. For both females and males, findings presented moderate, positive correlations between social competence and self-rated mental health ($r=.16$ for females, and $.14$ for males). In other words, as students had higher scores in social competence, they were more likely to get greater mental health scores, too. As Brendgen, Vitaro, Turgeon, Poulin, and Wanner (2004) found in their study, a student's perception of high social competence in the peer group and overestimation of friendship quality were both related to a decrease in his/her depressive feelings. Even if students reported their social competence higher than their friend did for them, students were found to be emotionally well and healthy. Brendgen et. al. explained this finding with the fact that children, who have very positive perception of their friendship and related social competence, convey this positive viewpoint through their behavior toward their friends. They might openly share secrets, show

trust and understanding. This might, in turn, contribute to both friendship and a sense of well-being in a child.

Social competence was found to relate to perceived academic success and life satisfaction for neither females nor males. As underlined before, social competence does not have one unique definition. It can be a personal trait that makes a person socially competent or not under any circumstances. Or it is defined as situational that a person can behave competently in one situation but not in the other (Schneider, 2000). In the current study, social competence was considered in peer relations, assessing person's assertiveness, empathy, and sociability. In the article reviewing literature on relationship between social responsibility and academic achievement, Wentzel (1991b) considered the term "social responsibility" as social competence at school. In the article, social responsibility, as a part of social competence, is defined as adherence to social rules and role expectations. This term is specifically about one's social ability to contribute to school success and academic ability. So, only one part of general social competence, which is more about social responsibility and taking appropriate social roles, was considered. Besides, Wentzel studied with students aged 12-13, which points out the time period when children's academic success is welcome and favored compared to late high school years. In the study of Luthar (1995), social competence in school setting was investigated, including academic achievement, peer reputation, and teacher-rated classroom behaviors. School-based social competence was said to be the sum of these three aspects. On the other hand, the current study regarded social competence as the one's ability to assert himself/herself in the peer group in healthy ways. So, a student's perception of himself/herself in a peer group might not relate to his/her academic achievement. It is important to have an operational definition of social competence;

otherwise, comparison of different studies, which talk about social competence, might mislead the results. Another important point is that a student might perceive himself/herself competent among a peer group that may be involved in risky behaviors. Also, students may experience unhealthy family climate and be oriented toward peers to gain a sense of support and belonging. Then, they might perceive support and social competence specifically in a peer groups, but that does not indicate peer group's contribution to scholastic success. Or, those, who perceive greater academic achievement, might not see themselves more competent. Not only perceived social competence in a peer group but being in a group, which can be identified with positive orientation and motivation toward school, can be important factor increasing student's school adjustment (Baker et. al., 2003).

Social competence was not found to relate to life satisfaction, either. Although correlations between social competence and life satisfaction were positive for both females and males, they did not reach statistical significance. That might be because of adolescents' resilience. As stated in the literature, adolescence is a time for crisis, but most of adolescents are mentally healthy despite these crises. Students might perceive themselves as less competent but can still report at least average life satisfaction. Life satisfaction was found to be related to friendship quality, peer group's acceptance by outside sources, many family-related factors, and school-related factors. Satisfaction with family relationships is the strongest influence in overall life satisfaction in both early childhood and adolescence (Dew & Huebner, 1994). So, all these variables, especially family factors, might moderate the relationship between life satisfaction and social competence.

Friendship quality was another factor to be investigated in relation to broad outcomes. Here, the perceived quality of close friendship, relationship with a

“special friend” was considered and students were asked to state dyadic relationship with the close friend. Correlational analyses indicated that as students (both females and males) perceive high quality in their close friendship, they perceive themselves mentally better. Brendgen et. al. (2004) underlined that children’s positive perception about their peers is beneficial in terms of their emotional well-being and that protects them from depressive feelings. In female students, friendship quality was associated with life satisfaction, too. But, that was not the case in males. That might be because females tend to have more close friends and they attach more importance to dyadic relationships (Clayton, 1999). So, their perceived quality of life might be more affected by the quality friendship and sharing with special friend. On the other hand, males prefer to be in larger peer network and are less exclusive than females (Clayton, 1999; Eslea et. al., 2003).

As social competence, friendship quality was not related to perceived academic achievement, either. It should be noted here that students are less attracted to academically good standing peers in the period of adolescence. Instead, they prefer to be oriented toward more aggressive children to gain popularity. This might force students report lower academic achievement in their self-report. As Anderman and Maehr (1994) stated academic involvement and motivation toward school decrease as children get older. Instead, social environment provided by peers and non-academic importance of school becomes more important.

The last peer variable was peer group’s acceptance by social bodies, namely parents, peers, teenagers, and teachers. Analyses indicated that acceptance coming from social sources, except teenagers, was significantly related to adolescents’ positive perception of academic achievement, mental health, and life satisfaction. Acceptance by other teenager groups outside school was related to mental health and

general life satisfaction, only in males. In females, it was not related to any outcome variable. That might be because of the fact that other teenager groups are outside the school and females might report their peer group not meeting outside groups. So, other groups might not have any idea about one's own group. Besides, other teenager groups could be any group; some may be involved in risky behaviors or have totally different characteristics. When it is the case, low acceptance by these groups might not relate to one's mental health, life satisfaction, or academic success. Teenagers' appraisal can be significant as long as students attach importance to the ideas of these outside groups. As defined by Gifford-Smith and Brownell (2003), friendship, social networks, and peer acceptance are important for children's social development. Yet, peer relations are open to age-related development and changes. In the late childhood and adolescence, being well liked by the larger group may be less important to the child than maintaining close supportive friendships and/or establishing one's position within one's own close group. On the other hand, other students in school, one's own teachers and parents might be more significantly associated with broad outcomes since they more closely observe student's peer relationships and provide more knowledgeable appraisal.

Correlations between parental approval and mental health were high in both females and males. Other students' approval of one's peer group was also highly correlated with general life satisfaction scores in males. As stated in the family-related literature and study results, parents preserve their importance all through the life although peer relations in adolescence moderate this significance (Suldo & Huebner, 2004). It should be noted that parents must have knowledge about their child's peer group in order to approve or disapprove this group. That is also related with the parental monitoring. In the sample, only 3% of students reported their

parents never met friends in the peer group. Students, whose friends were lowly accepted by parents reported lower academic achievement, lower mental health, and lower life satisfaction. If parents do not provide personal autonomy in addition to control and monitoring, adolescents might be more likely to oppose to parental authority. They might involve in risk behaviors with peers to assert their power and independence (Herken et. al., 1994). This, in turn, might result in lower parental approval for peer relationships. If a child does not feel parental support and respect, and become oriented toward at-risk peer relationships, s/he might end up having lower psychological adjustment and lower life satisfaction as well as decreases in school success. In this sense, parental approval for peer group might have mediating role between family and peer relationships.

Acceptance by other students was also positively associated with all outcome factors. Those, who perceived higher acceptance from other students, reported greater mental health, life satisfaction, and academic achievement. Correlations with mental health were the highest for both genders, showing the importance of peer appraisal in adolescent's life in general and psychological well-being specifically. Adolescents are resilient and majority of them achieve to be psychologically healthy. They create their social (friendships) groups and these groups are accepted by other students at least in an average level. Average youth is neither rejected nor very popular (Lerner, 2002).

Among four social sources, correlation of academic achievement was highest with social approval of peer group by teachers. The question about academic achievement asks students "teachers' opinion about their school performance compared to classmates." This is a very indirect way of measuring academic achievement and is related to student's appraisal about teacher's attitude toward

himself/herself (in other words, perception of teacher's perception). So, academic achievement might have been found to relate to teacher acceptance. Students, who reported that their teacher find them academically successful, might be likely to report higher teacher acceptance score. As Yıldırım (2006) stated, teachers' positive interactions with students and students' perceptions of interactions with teachers have impact on students' behavioral and emotional engagement in the classroom, which in turn contribute to students' sense of well-being and feeling of success. Teacher acceptance was moderately related to mental health, but it was not as high as in parent and student approval. That might be because of adolescents' lowered interest in school and diminishing effects of teachers as compared to childhood period. However, even if mental health was only moderately correlated with teacher acceptance, reported general life satisfaction was highly correlated with it in females.

The fourth research question asked about differences between neutral, bully, victim, and bully-victim students in terms of peer-related variables. MANOVA analysis showed no significant overall group difference for social approval of peer groups by other students, other teenager groups, parents, and teachers. So, further two-way ANOVAs were not conducted for approval scores.

Neutral, victim, bully, and bully-victim students were found to differ in terms of social competence, friendship quality, academic achievement, general life satisfaction, and mental health. Neutral group students were found to have greater academic achievement compared to bully-victims, higher life satisfaction than the other three groups, and greater mental health compared to victims and bully-victims. In the 2001-02 HBSC report, bullying was reported to be a risk behavior, involving aggression (Ravens-Sieberer et. al., 2004). In the report, bullying and being bullied, separately, were investigated in relation with life satisfaction, self-rated health, health

complaints, and smoking. Being bullied was found to be significantly associated with low life satisfaction while bullying was related to other risk behavior of smoking.

Females reported significantly higher levels of social competence and friendship quality compared to males. In both variables, neutral group had the highest means. In social competence, victims and in friendship quality bully-victims had significantly the lowest scores. In that sense, victimization seems to be a risk factor in development of mental health and supportive peer relations. Those, who are bullied by others, perceive themselves as less competent. In the current study, social competence includes assertiveness, empathy, and sociability, and self-reports instead of peer nominations have been used. So, reported results are subjective perception of students. Females might have provided socially desirable answers to questions and might have reported themselves as equally competent and having healthy, close friendships that are well accepted by social bodies (Eslea et. al., 2003). But, it is equally important to state that females have closer and more special friend relations while males prefer to be in larger peer groups. That might also affect their perception of friendship.

Although there is a belief that bullying and victimization are risk for mental health and supportive peer relations, some studies introduce contradictory findings. In their study, Lansford, Putallaz, Grimes, and Schiro-Osman (2006) examined the association between sociometric status and friendship quality. They used both observational and questionnaire-based data. It was found that rejected females were similar to other students in reports of friendship quality. Both self-report of rejected students and reports of their friends showed that rejected females were not different from average or popular ones in terms of friendship quality. But, in observations, rejected females showed more negative affect and less behavioral maturity. That

stresses the possible discrepancy between children's self-report and results taken from objective observations. Another idea might be related to the concept of popularity in adolescence. Since aggression and opposing authority are seen as the sources of power in adolescence, especially in school setting. Bullying may actually enhance within-group popularity. Aggressive and popular anti-social males especially are likely to be seen as "cool" by others. This gives power and status (Espelage, Bosworth, & Simon, 2002; Lerner, 2002). Even if bullies are not more highly accepted by others, they are not rejected, either. Actually, in the current study, bully-victims and victims had lower social competence and friendship quality scores compared to bullies and neutral group. This is consistent with the results of Eslea et. al. study (2003), on friendship and loneliness among bully, victim, neutral, and bully-victim primary and secondary school students in China, England, Ireland, Italy, Japan, Portugal, and Spain. This study reported victims getting lowest scores from all measures: liking playtime, having good friends, and being liked by peers. In terms of having good friends and being left alone in playtimes, bully-victims resembled victims. On the other hand, bullies and neutrals were not different from each other on these measures. Both groups reported to have many friends. So, Eslea and his colleagues (2003) concluded that bullying is a universal phenomenon that brings about many negative effects on victims but few social consequences for bullies.

In conclusion, bullying is an important factor in adolescents' perception about friendship and social competence. In addition, absence of bullying in one's life points to greater psychological adjustment, general life satisfaction, and academic success.

Relationships of School-Context Factors to Broad Outcomes and Risk Behaviors

The last two questions searched the relations of school factors, namely school-related stress and school-related satisfaction, with perceived academic achievement, general life satisfaction, and mental health. Additionally, bullying was investigated among students as a factor that might be related with perception of school.

The fifth question was answered by correlational analyses between school variables and outcome factors. Associations between school-related stress and broad outcomes (perceived academic achievement, general life satisfaction, and mental health) were negative in both male and female groups. In other words, as school-related stress increased, reported academic success, mental health, and general life satisfaction tended to decrease. Correlations were higher for females and high in magnitude. School-related stress was related to all factors for females and to general life satisfaction and mental health for males. There was no significant association between perceived academic achievement and school-related stress in males. Ravens-Sieberer, Kökönyei, and Thomas stated in the HBSC study report that older students – especially males in general – tend to like school less and rate their academic performance lower. So, negative relationship between school stress and academic achievement is expected.

Stress from schoolwork increases with age, especially in adolescence (Torsheim & Wold, 2001; Undheim & Sund, 2005). Adolescents are less motivated toward school and report more negative feelings toward school as they get older. This negative attitude might also increase the stress related with schoolwork. As Undheim & Sund (2005) proposed, low grades might be stressful for students and this can also be a threat for one's sense of well-being. They also reported females to

be less sensitive toward school success, thus, relationship between school stress and psychological well-being is greater for females. Females were also reported to develop health complains as a result of school stress (Ravens-Sieberer et. al., 2004). But, support coming from classmates, teachers, and parents are protective factors that can decrease the negative effects of school-related stress. Females are again in more need for support of social networks in times of stress. As a place where adolescents spend most of their time, school and its elements directly and indirectly shape students' lives. In this study, school-related stress was related to general life satisfaction as in other HBSC country results (Ravens-Sieberer et. al., 2004). In the 2001-02 study report of HBSC, association of school-related stress with general life satisfaction was -.16 for females and -.15 for males. These associations were greater in the current İstanbul sample compared to other HBSC countries (-.23 for females, -.20 for males). As underlined in HBSC report (Currie et. al., 2004), a positive school environment and good school adjustment (as indicated by academic achievement and low level of school-related stress) can increase sense of success and competence, and this, in turn, can result in greater well-being and general life satisfaction. In contrast, lack of academic achievement and poor peer acceptance can result in increase of subjective health complaints and lower mental health.

School-related satisfaction can be a protective factor against the effects of school-related stress. In this study, school-related satisfaction was associated with perceived academic achievement for both males and females. Both academic achievement and school satisfaction are parts of positive school appraisal. Therefore, academic success and school adjustment are likely to contribute to satisfaction with school climate. School-related satisfaction related to mental health, too. Correlations of both females and males were high although the relationship was stronger among

females. As students like school, they tend to report better psychological well-being and adjustment. A positive school environment and good school adjustment can increase the sense of success and competence, and this, in turn, might result in higher well-being and general life satisfaction. On the other hand, poor academic performance and non-supportive school climate can lead to negative health outcomes and an increase in risk behavior (Ravens-Sieberer et. al., 2004). So, the school can be a risk factor as well as a resource for physical, emotional and social well-being depending on what it provides to children (Baker et. al., 2003). In other HBSC countries (Ravens-Sieberer et. al., 2004), as students reported higher school-related satisfaction, they had greater levels of life satisfaction and less health complains, such as headaches, stomachaches, and other psychosomatic symptoms related with stress. Relations were greater for females. Likewise, in the current study, general life satisfaction was found to relate to school satisfaction in females, but not in males. That might, again, be because females rely on supportive social ties more than males. Thus, their satisfaction with general life might more strongly be related to school-satisfaction. As HBSC report for 2001-02 study concluded, when the composite measure of school experience is used (including school satisfaction, academic achievement, classmates and teacher support), school environment seems to affect general health, general life satisfaction and subjective health complaints more strongly in females than males. Other factors that were not controlled in the correlations (such as academic achievement, mental health, and peer support) might have also affected the association between these two variables in males.

6th, and the last question, was raised to examine the differences among neutral, bully, victim, and bully-victim students in terms of school-related variables of stress and satisfaction. Four groups did not differ much on school-related

satisfaction, but there was significant group difference in terms of school-related stress. However, post hoc test did not specify any group to be the reason for this difference because the difference might be small among groups.

Rigby (2004) reviewed major theoretical perspectives for explanation of bullying and stated implications for schools to address the problem of bullying. Firstly, the theory addressed individual differences and reviewed the reasons for bullying. In this view, children are said to differ from one another in terms of psychological and physical power. As Rigby (2004) underlined, bully students are more likely to be powerful, manipulative, aggressive, and might tend to oppress others. On the other hand, victims are said to be less powerful and there is imbalance of power between bully and victim. Teachers cannot do anything related to changing genetic factors or pre-determined individual differences. Schools may use behavior modification techniques and discipline tools to cope with bully behaviors. Secondly, Rigby introduced theoretical view that bullying is a developmental process. As children grow, the way of asserting their power and dominance changes. Children try to develop their domination over others, especially over less powerful children by using physical power, for example by hitting them. But, as Hawley (1999) also points out, aggression and an attempt to assert power by physical strength does not work in social group as individuals enter into late childhood and adolescence. Instead, they prefer using more verbal and indirect ways of bullying to physical forms. Implication of this view is that bullying is a natural part of developmental process and schools are not to be blamed for high prevalence of bullying. But, teachers must pay more attention to subtle ways of bullying among adolescents. They should apply disciplinary rules consistently to decrease bully-behaviors and not to encourage bullying among students. A further perspective introduced by Rigby takes

bullying as a socio-cultural phenomenon. In other words, differences in gender, race or ethnicity, and social class can result in development of different social groups with power differences, which can result in increases in bullying. For example, males are seen as generally having more power than females and there is a social belief that they should be dominant to prove their masculinity. This might be one reason of their involvement in bullying more than females. According to this socio-cultural view of Rigby, school curriculum can be developed in ways to influence children to accept and respect socio-cultural differences. The next perspective suggests that bullying is a response to peer pressure in school. This view introduces bullying as a group behavior. Students are powerfully influenced by a group of peers with whom they have close relationships. These groups are formed within schools because students share common interests and purposes with their peers and they provide support for group members. They may also constitute a threat to outsiders, whom they may bully. So, schools must be aware that groups play different roles than individuals and they are more powerful. Counseling services are said to be important in order to educate bullies. Rigby concludes that each of these views supports single perspective and lacks other alternative angles. So, it is important to combine these views and to analyze bullying as a broader issue that involves many dynamics in itself.

To sum up, increasing significance of peers, decreasing motivation towards school, and remaining effects of parents for adolescents might somehow relate to one's personal development, psychological well-being, and general enjoyment and pleasure from life. School-related stress tends to increase in adolescence and risk behaviors involving bullying and being bullied might multiply the likelihood of this stress.

Implications of the Study

This study generally indicated the importance of psychosocial environment; including family, peer, and school contexts, in the lives of adolescents, tenth grade students, specifically. Despite these environmental and social effects including family, peer, and school factors, adolescents are resilient to negative. In other words, even if some students suffer from problems related to family and peer relationships or face stress in school, most of them manage to stay psychologically well, report average level of satisfaction from life and rate their academic success in average when compared to other students. Results underlined the significance of relationships with close people as well as the strength and resilience of adolescents. Although being bullied had some important effects in the lives of victim students especially, students did not differ much on self-reports related to parental disciplinary behaviors, family wealth, father bonding, social approval of peer group, and school-related satisfaction.

The main significance of this study was its being the part of general world-wide study of HBSC. İstanbul data was considered in the study and the procedure of the study was the same with the general Türkiye HBSC study. Development of instrument, selection of schools, and application of instruments and coding of data were the same in all selected cities. This enables the comparison of İstanbul results with the general country-based findings. Since data were collected from randomly selected schools (and a class in each school) of different regions in the city, sample was representative of tenth grade students of İstanbul. Tenth grade represented the mean age of 15, which pointed the start of late adolescence. In the general Türkiye HBSC survey, optional items were included in the questionnaires of tenth grade

students only. So, only tenth grade students were included in the current study. Students from low, middle, and high SES were included, so, the results are not limited to certain social class only. In addition, study findings were analyzed separately for females and males in order to observe differential effects of gender, if there is any. Lastly, the application of the instrument was an opportunity to see how valid the packages were in Turkish sample. In the light of this research, further validity studies can be conducted for some variables and items related to them, such as parental disciplinary behaviors.

In the light of this research, educational programs targeting not only students but also teachers and parents can be developed to deal with the problem of bullying in schools. Prevention-based counseling might be effective in educating parents and teachers in communication skills and problem solving. So that, they might learn how to approach adolescents and how to deal with problem behavior occurring at home and school. In order to strengthen peer support among students, activities considering teamwork and cooperation among students can be placed on annual guidance programs in schools. Bullying seems to be peer-supported. So, peer guidance intervention programs, social skills training, empathy education seem important because bullying has negative effects on victims. Intervention programs should target not only bullies but other observer students as well.

The Ministry of Education has developed a long-term project to decrease and prevent violence in schools. This project was considered to be applied in schools in time period of 2006-2011 (for further information <http://orgm.meb.gov.tr>). In this project, the importance of counseling services for schools is underlined in every intervention activity. In relation with this long-term plan of the ministry and information provided by the current study, schools can give importance to group

guidance activities related to social skills training, communication skills, and problem solving skills. Seminars on risk behaviors, peer relations and peer pressure can also be implemented in classrooms. Not only school counselors but also classroom guidance teachers should be trained in helping students through these preventional activities. For this purpose, Guidance and Research Centers can be used since they can help widening intervention studies.

Limitations of the Study and Recommendations for Further Research

First, the analyses were correlational and it was not possible to specify cause and effects related to study variables. Since all analyses were done for family, peer, and school variables separately, the study could not state multiple relationships among all study variables. In other words, it was not possible to specify moderating effects that can change the relationship between two certain factors. For example, parent, peer, and school variables were separately analyzed in relation to broad outcomes and bullying. It was not known whether parental factors might have affected the relationship of peer relationships with mental health, academic achievement, or general life satisfaction. Or, parental disciplinary behaviors did not differ among bully, victim, bully-victim, and neutral group students. Yet, it is possible that parental bonding or monitoring might moderate the reports of students about discipline and punishment. So, the use of structural equation modeling might have helped us state clearer picture of adolescent life and capture complex relationships among variables with mediating and moderating roles.

Third, use of bullying and being bullied items was limited to stating availability of bullying or victimization for a student. These items did not specify the

behavioral indicators of bullying and types of bullying. Self-reports might not determine who and how often makes bullying. In this study, the definition of bullying was provided to students and they were asked to report how often they did these things to others. As Bosworth, Espelage, and Simon (1999) underlined, using such approach might produce unreliable self-report from those who feel uncomfortable in describing their negative behaviors toward others. Thus, it might be more appropriate to simply ask students about the frequency of specific behaviors, like as teasing and hitting instead of directly asking whether and how often they did bully others. To use bullying scale that is in the optional package of HBSC might provide deeper analyses related to bullying and its effects. It can specify the difference between students in terms of degree of bullying and its behavioral indicators.

Fourth, peer variables other than social competence, friendship quality, and social approval of peer group, could have been used in analyses to see involvement in risky behaviors with peers and its relation to bullying. For instance, to use peer group activities items, including smoking, sexual relationships, and weapon carrying etc. might help us see the associations among risk behaviors.

Last, the HBSC instruments are basically developed to collect descriptive information about school-aged children and to make cross-national comparisons. They include many variables and target large samples. In this method, it is difficult to make in-depth analyses. In the current study, broad questions were asked and the answers were also broad in a sense. Especially in bullying, it might be better to have idea of peers, teachers in schools to identify bullies and victims. Or, optional package questions about bullying can be used to identify behavioral indicators of bullying.

APPENDIX A

List of Study Variables

A LIST OF VARIABLES AND RECOMMENDED QUESTION ORDER

Mandatory items	Optional packages (OP)
1. Demographics	
Gender / Grade / Age	
	← Ethnicity (SI OP2)
2. Behaviors (1)	
Eating breakfast	
Food frequency	
	← Food frequency (E&D OP1)
Hunger (food poverty)	
	← Food related lifestyle aspects (E&D OP2)
Dental health (tooth-brushing)	
Dieting & weight control behaviour	
	← Dieting (E&D OP3 1-3)
Physical activity (MVPA)	
Smoking: ever smoked / frequency	
Alcohol consumption frequency	
Drunkenness	
Age of onset: drinking/drunken/smoking/	
	← Substance use OPS 1&2
Cannabis use: lifetime/12 months/30 days	
	← Substance use OPS 3-6
3. School	
Academic achievement	
Satisfaction with school	
Classmate support	
School-related stress	
	← School climate index (SC OP1) ← School-related parental support (SC OP2) ← Travel to/from school (PA OPs1 & 2)
4. Health and 'how you feel' / physical development	
Self-rated health	
Height & weight	
Life satisfaction (Cantril ladder)	
	← KIDSCREEN index (PH OP1) ← Strengths & Difficulties scale (PH OP2) ← Suicide
Subjective health complaints (symptoms)	
	← Medicine use (PH OP3) ← Physical disability & chronic illness (PH OP4)

Mandatory items	Optional packages (OP)
Body image	
	← Body image (E&D OP3 qs 4-5)
Puberty	
	← Puberty (OPs1 & 2)
Sexual health: prevalence / age / contraception use / condom use	
5. Behaviors (2)	
Bullying: being bullied / bullying others	
	← Bullying (VIP OP3)
Fighting	
	← Fighting & weapon-carrying (VIP OP2)
Injuries	
	← Injuries (VIP OP1)
6. Family	
Family structure	
Family well off	
Parental occupation	
Easy to talk to parents/siblings/friends	
	← Parental monitoring, parenting styles, family life (FC OPs 1, 2 & 3)
‘Where you live’	← Local area socio-economic status (SI OP1)
7. Friends	
Number of friends	
Peer contact frequency: after school / evenings / electronic media	
	← Peer group & friendship (PC OP1; PC OP2 qs 1 and 2; PC OP3)
8. Leisure activities	
Television use	
Computer use	
Computer ownership (FAS item 4)	
Car ownership (FAS item 1)	
Own bedroom (FAS item 2)	
Holidays (FAS item 3)	
Physical activity (VPA)	
	← Leisure time physical activity (PA OP3)
	← Leisure time activities (Leisure working group OPs 1-3)
	← Music preference (Peer Culture OP2 q3)

APPENDIX B

Standard Teacher Instruction Form

Sevgili öğretmenimiz,

Öncelikle bu araştırmaya katkılarınızdan ötürü teşekkür ediyoruz.

Bu araştırma, 2005/2006 öğretim yılı içinde Avrupa'daki 40 ülkede ve Kanada ve Amerika Birleşik Devletleri'nde Dünya Sağlık Örgütü'nün (WHO) katkılarıyla gerçekleştirilen çok uluslu bir araştırmanın Türkiye ayağını oluşturmaktadır.

Ülkemiz 1983 yılından beri her 3 yılda bir tekrarlanan bu araştırmaya ilk kez bu yıl katılmaktadır. Bu araştırmanın Türkiye ayağı Milli Eğitim Bakanlığı, Üniversitesi Cerrahpaşa Tıp Fakültesi Çocuk Sağlığı ve Hastalıkları Anabilim Dalı, Halk Sağlığı

Anabilim Dalı, Biyoistatistik Bilim Dalı ve Boğaziçi Üniversitesi Eğitim

Fakültesi'nin işbirliği ile gerçekleştirilmektedir. Araştırma gençlerin sağlık davranışları ve yaşam biçimleri, onların nasıl şekillendiği ve zaman içinde nasıl değiştiğiyle ilgilidir.

Bu yönerge araştırmaya katılan öğretmenler tarafından kullanılmak üzere geliştirilmiştir. Lütfen anketi uygulamadan önce aşağıdaki açıklamaları dikkatlice okuyunuz.

Bu araştırmanın gerçekleştirilebilmesi için gösterdiğiniz ilgi ve katkılarınıza yeniden teşekkür ediyoruz.

UYGULAMA SIRASINDA SINIF ORTAMI

Öğrencilerin anketi sessiz ve uygun bir ortamda acele etmeden doldurmaları yanıtlarının geçerlik ve güvenilirliğini etkileyeceği için çok önemlidir. İdeal olan, öğrencilerin anketi her zaman ders yaptıkları sınıflarında ve sınav havası içinde doldurmalarıdır. Öğrencilerin konuşmasına ve birbirlerinin yanıtlarını görmesine izin verilmemelidir. Anketin tamamlanması için geçecek süre öğrenciden öğrenciye

değişecektir. Bu nedenle, anketi tamamlayan öğrencinin diğer öğrencileri rahatsız etmesi önlenmelidir. Ancak, bu öğrenciler sınıftan kesinlikle çıkarılmamalıdır. Onlara ilgilenebilecekleri başka bir görev verilebilir. Bu araştırmaya katılmak istemeyen öğrenciler olabilir. Bu öğrenciler katılmaları için zorlanmamalıdır. Ancak, katılmayan öğrenciler de mutlaka sınıfta tutulmalıdır. Onlara da ilgilenebilecekleri başka bir görev verilebilir.

Bu ankette oldukça özel sorular sorulmakta olduğundan öğrencilerin yanıtlarının anonim kalabilmesi ve gizliliğinin korunabilmesi için, anketi uygulatan öğretmenin öğrencilerden yardım talep edilmedikçe sıraların arasında dolaşmaması ve öğrencilerin anket formlarını görebilecek şekilde oturmaması gereklidir.

ÖĞRENCİLERİN YARDIM İSTEKLERİ

Öğrencilerin anketi kendi kendilerine doldurmaları istenmektedir. Ancak bazı öğrencilerin soruları yanıtlarken yardıma gereksinimleri olabilir. Soruların yanıtlanması sırasında uygulamayla ilgili teknik sorunlarda yardım edilebilir.

Örneğin, bir kutuyu sadece karalaması mı gerektiğini ya da bir sayı mı yazması gerektiğini anlayamayan bir öğrenciye yardım edilebilir.

Eğer istenen yardım öğrencinin soruyu anlamasını kolaylaştıracaksa ya da bir yanıt seçmesini sağlayacaksa yardım edilmemeli ve öğrenciye “soruyu tekrar dikkatlice okuması ve kendisi için en uygun olan yanıtı işaretlemesi” önerilmelidir.

Eğer bir öğrenci bir soruyu anlayamıyorsa; o soruda “Bilmiyorum” seçeneği varsa onu işaretlemeli, eğer bu seçenek yoksa “bu soruyu anlamadım” yazarak, bir sonraki soruya geçmelidir.

SINIFLA İLGİLİ BİLGİLER

Lütfen ekteki “Okul Formu”nu doldurunuz. Anketin uygulandığı sırada sınıfınızda var olan öğrenci sayısını, sınıftaki toplam öğrenci sayısını, o gün okula gelmeyenlerin sayısını ve eğer biliyorsanız gelmeme gerekçelerini ve ankete katılmak istemeyen öğrenci sayısını belirtiniz.

Sınıfınızda kaynaştırma öğrencisi(leri) / engelli öğrenciler var ise lütfen bu öğrenciye de soru formunu verin. Ancak, bu öğrenciden(lerden) soru formunu geri aldığınızda lütfen zarfın üzerine “KÖ” / “EÖ” yazın ve doldurmanızı istediğimiz okul formunda eğer biliyorsanız bu öğrencinin(lerin) engel tipini(lerini) belirtin.

ÖĞRENCİLERE AÇIKLAMA

Uygulama öncesi öğrencilerin yanıtlarının gizli ve anonim kalacağını anladıklarından emin olunuz. Soruları yanıtladıktan sonra anket formunu kendileri zarfa yerleştirmeli ve zarfı yapıştırmalıdır. Aşağıdaki açıklamayı uygulamaya geçmeden önce öğrencilere okumanızı rica ediyoruz. Lütfen açıklamayı okurken kalın harflerle yazılmış olanları vurgulayınız.

“Okulumuz Türkiye’de gençlerin yaşam biçimlerini inceleyen bir araştırmaya katılmaktadır. Sizden istenen önünüzdeki (dağıtılacak) anketi doldurarak bu araştırmaya katılmanızdır. Yanıtlarınızı çoğunlukla sizin için en uygun olan seçeneğin yanındaki kutucuğu işaretleyerek vereceksiniz.

ÖNEMLİ NOT: Öğrencilerden bazı sorularda (örneğin 16. soru) her bir satır için bir kutu işaretlemeleri istenmektedir. Pilot çalışmamız sırasında bazı öğrencilerin böyle sorularda da yalnızca bir satıra yanıt verdikleri gözlenmiştir. Bu nedenle sizden uygulamaya geçmeden önce bazı sorularda her bir satır için bir seçenek işaretlenmesi istendiğini vurgulamanızı rica ediyoruz.

Yanıtlarınızı ben dahil okulumuzdan ya da evinizden hiç kimse görmeyecektir.

Anket formunun üzerine lütfen adınızı yazmayın. Soruları yanıtlama işini

tamamladıktan sonra anket formunu zarfa koyup, zarfı yapıştırın.

Anketler, İstanbul Üniversitesi Cerrahpaşa Tıp Fakültesi Çocuk Sağlığı ve

Hastalıkları Anabilim Dalı'nda görev yapmakta olan araştırmacılara gönderilecektir.

Aynı sorular sizlerin yaşında olup, farklı ülkelerde farklı yaşamlar süren pek çok

gence de sorulmaktadır. Bu nedenle bazı sorular size biraz acayip gelebilir.

Başlamadan önce lütfen ilk sayfadaki açıklamayı dikkatlice okuyun. Sorulara

elinizden geldiğince dürüst yanıtlar vermeye çalışın. Dürüstçe yanıt

veremeyeceğinizi düşündüğünüz soruları boş bırakın ya da varsa “bilmiyorum”

seçeneğini işaretleyin. Ancak bir soru için çok fazla zaman harcamayın.

Anketi herkes tamamlayana kadar birbirinizle konuşmayın. Araştırmacıların

ilgilendiği şeyin sizin kendi düşünceleriniz ve size özgü yanıtlar olduğunu

unutmayın. Bu nedenle soruları yanıtlarken lütfen birbirinizle konuşmayın ve

birbirinizin yanıtlarını görmeye çalışmayın. Herkesin rahatça kendi başına

çalışabilmesi için konuşmamanızı istiyorum ancak bu bir sınav değildir. Bu nedenle

hiçbir sorunun doğru ya da yanlış yanıtı olmadığını da unutmayın.

Anketi tamamladığınız zaman sessizce kitap okuyabilir ya da ödevlerinizi

yapabilirsiniz

Yardımlarınız için teşekkür ediyoruz.

Katkılarınız için tekrar teşekkür ederiz.

Okul Çağındaki Çocukların Sağlık Davranışları Araştırması

Türkiye sorumlusu: Prof. Dr. Oya Ercan

APPENDIX C

School Form

OKUL FORMU

(Uygulamayı yapan öğretmen tarafından doldurulacaktır)

Lütfen soru formlarıyla birlikte tamamlayıp, aynı koli içinde gönderiniz.

Tarih:

Okul adı:

Okul İL/İLÇE:

Anketi uygulayan öğretmenin adı:

Anketin uygulandığı sınıf ve şube:

Sınıfın program türü (Fen, TM, Yapı meslek gibi):

Sınıf mevcudu:

Anketi teslim eden öğrenci sayısı:

Ankete katılmayı reddeden öğrenci sayısı:

Anketin uygulandığı gün sınıfta olmayan öğrenci sayısı:

Eğer biliyorsanız, bu öğrencilerin sınıfta olmama nedenleri:

Sınıftaki engelli öğrenci sayısı:

Öğrencilerin engel tipleri:

Yardımlarınız için teşekkür ediyoruz.

APPENDIX D

Results of two-way MANOVAs in Family-related Variable Scores for the Bully-victim-groups

Table D1:

Multivariate Analysis of Variance of Parental Monitoring, Parental Bonding, and Family Wealth by Participation in Bully-victim groups and Sex

Effect		Value	<u>F</u>	Hypothesis	Error df	p
				df		
Intercept	Pillai's Trace	.984	5336.483	5.000	444.000	.000
	Wilks' Lambda	.016	5336.483	5.000	444.000	.000
	Hotelling's Trace	60.096	5336.483	5.000	444.000	.000
	Roy's Largest Root	60.096	5336.483	5.000	444.000	.000
Sex	Pillai's Trace	.063	5.975	5.000	444.000	.000
	Wilks' Lambda	.937	5.975	5.000	444.000	.000
	Hotelling's Trace	.067	5.975	5.000	444.000	.000
	Roy's Largest Root	.067	5.975	5.000	444.000	.000
Bullying	Pillai's Trace	.074	2.265	15.000	1338.000	.004
	Wilks' Lambda	.927	2.284	15.000	1226.090	.003
	Hotelling's Trace	.078	2.299	15.000	1328.000	.003
	Roy's Largest Root	.059	5.285	5.000	446.000	.000
Bullying*	Pillai's Trace	.027	.823	15.000	1338.000	.653
Sex	Wilks' Lambda	.973	.822	15.000	1226.090	.654
	Hotelling's Trace	.028	.822	15.000	1328.000	.654
	Roy's Largest Root	.019	1.736	5.000	446.000	.125

Table D2:

Multivariate Analysis of Variance of Father and Mother Neglectful, Permissive, Authoritative, and Authoritarian Behaviors by Participation in Bully-victim groups and Sex

Effect		Value	<u>F</u>	Hypothesis df	Error df	<u>p</u>
Intercept	Pillai's Trace	.935	881.494	8.000	491.000	.000
	Wilks' Lambda	.065	881.494	8.000	491.000	.000
	Hotelling's Trace	14.362	881.494	8.000	491.000	.000
	Roy's Largest Root	14.362	881.494	8.000	491.000	.000
Sex	Pillai's Trace	.064	4.170	8.000	491.000	.000
	Wilks' Lambda	.936	4.170	8.000	491.000	.000
	Hotelling's Trace	.068	4.170	8.000	491.000	.000
	Roy's Largest Root	.068	4.170	8.000	491.000	.000
Bullying	Pillai's Trace	.068	1.426	24.000	1479.000	.083
	Wilks' Lambda	.933	1.426	24.000	1424.651	.083
	Hotelling's Trace	.070	1.425	24.000	1469.000	.084
	Roy's Largest Root	.034	2.075	8.000	493.000	.037
Bullying*	Pillai's Trace	.043	.890	24.000	1479.000	.617
Sex	Wilks' Lambda	.958	.889	24.000	1424.651	.618
	Hotelling's Trace	.044	.888	24.000	1469.000	.620
	Roy's Largest Root	.023	1.397	8.000	493.000	.195

APPENDIX E

Descriptive Statistics of Parental Disciplinary Behaviors Scores for Bully-victim-groups

Table E1:

Descriptive Statistics of Mother Disciplinary Behaviors of Adolescents by Bully-victim groups and Sex

Mother Disciplinary Behaviors	Bully-victim groups	N	M	SD
		Female/Male	Female/Male	Female/Male
Neglect	Neutral	147 / 131	1.98 / 2.15	1.22 / 1.20
	Victim	39 / 57	2.05 / 2.33	1.09 / 1.20
	Bully	23 / 46	2.26 / 2.28	1.14 / 1.87
	Bully-victim	36 / 71	2.11 / 2.18	1.24 / 1.22
Permissive	Neutral	151 / 130	3.91 / 3.58	1.30 / 1.32
	Victim	40 / 56	3.76 / 3.16	1.37 / 1.40
	Bully	24 / 44	3.73 / 3.41	1.40 / 1.44
	Bully-victim	35 / 72	3.64 / 3.57	1.33 / 1.35
Authoritative	Neutral	152 / 131	3.42 / 3.01	1.43 / 1.39
	Victim	41 / 57	3.70 / 2.91	1.28 / 1.39
	Bully	26 / 46	3.29 / 2.82	1.37 / 1.39
	Bully-victim	36 / 72	3.54 / 3.06	1.31 / 1.37
Authoritarian	Neutral	150 / 131	1.22 / 1.31	.64 / .81
	Victim	40 / 57	1.38 / 1.21	.84 / .49
	Bully	24 / 46	1.50 / 1.46	1.02 / .96
	Bully-victim	36 / 70	1.58 / 1.56	1.20 / .86

Table E2:

Descriptive Statistics of Father Disciplinary Behaviors of Adolescents by Bully-victim groups and Sex

Father Disciplinary Behaviors	Bully-victim groups	<u>N</u> Female/Male	<u>M</u> Female/Male	<u>SD</u> Female/Male
Neglect	Neutral	142 / 125	2.08 / 2.20	1.27 / 1.30
	Victim	39 / 57	2.31 / 2.26	1.51 / 1.34
	Bully	21 / 40	2.29 / 2.40	1.35 / 1.32
	Bully-victim	33 / 69	2.61 / 2.22	1.39 / 1.27
Permissive	Neutral	146 / 126	3.65 / 3.25	1.40 / 1.45
	Victim	41 / 58	3.54 / 2.74	1.25 / 1.37
	Bully	22 / 40	3.32 / 3.40	1.29 / 1.30
	Bully-victim	33 / 72	3.48 / 3.40	1.42 / 1.42
Authoritative	Neutral	144 / 123	3.25 / 3.20	1.53 / 1.47
	Victim	40 / 57	3.63 / 2.79	1.39 / 1.47
	Bully	21 / 39	3.29 / 3.33	1.23 / 1.46
	Bully-victim	33 / 70	3.30 / 2.86	1.33 / 1.30
Authoritarian	Neutral	144 / 124	1.35 / 1.64	.88 / 1.14
	Victim	39 / 57	1.26 / 1.40	.72 / .86
	Bully	22 / 39	1.32 / 1.54	.65 / .996
	Bully-victim	33 / 69	1.64 / 1.87	1.32 / 1.29

APPENDIX F

Results of two-way MANOVAs in Peer-related Variable Scores for the Bully-victim-groups

Table F1:

Multivariate Analysis of Variance of Social Competence and Friendship Quality by Participation in Bully-victim groups and Sex

Effect		Value	F	Hypothesis df	Error df	p
Intercept	Pillai's Trace	.982	12315.487	2.000	463.000	.000
	Wilks' Lambda	.018	12315.487	2.000	463.000	.000
	Hotelling's Trace	53.199	12315.487	2.000	463.000	.000
	Roy's Largest Root	53.199	12315.487	2.000	463.000	.000
Sex	Pillai's Trace	.060	14.897	2.000	463.000	.000
	Wilks' Lambda	.940	14.897	2.000	463.000	.000
	Hotelling's Trace	.064	14.897	2.000	463.000	.000
	Roy's Largest Root	.064	14.897	2.000	463.000	.000
Bullying	Pillai's Trace	.034	2.651	6.000	928.000	.015
	Wilks' Lambda	.966	2.656	6.000	926.000	.015
	Hotelling's Trace	.035	2.660	6.000	924.000	.015
	Roy's Largest Root	.029	4.459	3.000	464.000	.004
Bullying*	Pillai's Trace	.017	1.362	6.000	928.000	.227
Sex	Wilks' Lambda	.983	1.359	6.000	926.000	.228
	Hotelling's Trace	.018	1.356	6.000	924.000	.229
	Roy's Largest Root	.010	1.487	3.000	464.000	.217

Table F2:

*Multivariate Analysis of Variance of Social Approval of Peer Group by Participation
in Bully-victim groups and Sex*

Effect		Value	F	Hypothesis df	Error df	p
Intercept	Pillai's Trace	.948	1916.044	4.000	420.000	.000
	Wilks' Lambda	.052	1916.044	4.000	420.000	.000
	Hotelling's Trace	18.248	1916.044	4.000	420.000	.000
	Roy's Largest Root	18.248	1916.044	4.000	420.000	.000
Sex	Pillai's Trace	.031	3.353	4.000	420.000	.010
	Wilks' Lambda	.969	3.353	4.000	420.000	.010
	Hotelling's Trace	.032	3.353	4.000	420.000	.010
	Roy's Largest Root	.032	3.353	4.000	420.000	.010
Bullying	Pillai's Trace	.033	1.164	12.000	1266.000	.304
	Wilks' Lambda	.967	1.168	12.000	1111.507	.301
	Hotelling's Trace	.034	1.172	12.000	1256.000	.298
	Roy's Largest Root	.029	3.051	4.000	422.000	.017
Bullying*	Pillai's Trace	.021	.753	12.000	1266.000	.699
Sex	Wilks' Lambda	.979	.753	12.000	1111.507	.700
	Hotelling's Trace	.022	.753	12.000	1256.000	.700
	Roy's Largest Root	.018	1.864	4.000	422.000	.116

APPENDIX G

Descriptive Statistics of Social Approval of Peer Group Scores for Bully-victim-groups

Table G:

Descriptive Statistics of Social Approval of Peer Group by Bully-victim groups and Sex

Variables	Bully-victim	<u>N</u>	<u>M</u>	<u>SD</u>
	Groups	Female/Male	Female/Male	Female/Male
Approval by other students	Neutral	140 / 113	2.54 / 2.40	.57 / .62
	Victim	38 / 50	2.47 / 2.06	.56 / .59
	Bully	24 / 42	2.50 / 2.29	.59 / .71
	Bully-victim	35 / 68	2.49 / 2.34	.56 / .64
Approval by other teenager groups	Neutral	130 / 117	2.28 / 2.26	.60 / .70
	Victim	36 / 48	2.36 / 2.08	.59 / .68
	Bully	22 / 43	2.36 / 2.23	.58 / .65
	Bully-victim	34 / 66	2.41 / 2.11	.70 / .68
Approval by Parents	Neutral	145 / 124	2.66 / 2.58	.50 / .64
	Victim	39 / 54	2.56 / 2.33	.55 / .67
	Bully	25 / 42	2.52 / 2.38	.59 / .70
	Bully-victim	34 / 67	2.68 / 2.34	.59 / .69
Approval by Teachers	Neutral	127 / 107	2.40 / 2.35	.59 / .69
	Victim	34 / 46	2.35 / 2.04	.65 / .73
	Bully	20 / 40	2.10 / 2.13	.64 / .72
	Bully-victim	31 / 60	2.39 / 2.05	.67 / .75

APPENDIX H

Results of two-way MANOVAs in Outcome and School Variables Scores for the Bully-victim-groups

Table H1:

Multivariate Analysis of Variance of School-related Stress and School-related Satisfaction by Participation in Bully-victim groups and Sex

Effect		Value	<u>F</u>	Hypothesis	Error df	p
				df		
Intercept	Pillai's Trace	.943	4645.232	2.000	561.000	.000
	Wilks' Lambda	.057	4645.232	2.000	561.000	.000
	Hotelling's Trace	16.561	4645.232	2.000	561.000	.000
	Roy's Largest Root	16.561	4645.232	2.000	561.000	.000
Sex	Pillai's Trace	.009	2.631	2.000	561.000	.073
	Wilks' Lambda	.991	2.631	2.000	561.000	.073
	Hotelling's Trace	.009	2.631	2.000	561.000	.073
	Roy's Largest Root	.009	2.631	2.000	561.000	.073
Bullying	Pillai's Trace	.024	2.282	6.000	1124.000	.034
	Wilks' Lambda	.976	2.289	6.000	1122.000	.034
	Hotelling's Trace	.025	2.295	6.000	1120.000	.033
	Roy's Largest Root	.023	4.327	3.000	562.000	.005
Bullying*	Pillai's Trace	.013	1.229	6.000	1124.000	.289
Sex	Wilks' Lambda	.987	1.228	6.000	1122.000	.289
	Hotelling's Trace	.013	1.227	6.000	1120.000	.289
	Roy's Largest Root	.010	1.914	3.000	562.000	.126

Table H2:

Multivariate Analysis of Variance of Perceived Academic Achievement, General Life Satisfaction, and Self-rated Mental Health by Participation in Bully-victim groups and Sex

Effect		Value	<u>F</u>	Hypothesis df	Error df	<u>p</u>
Intercept	Pillai's Trace	.948	3298.504	3.000	539.000	.000
	Wilks' Lambda	.052	3298.504	3.000	539.000	.000
	Hotelling's Trace	18.359	3298.504	3.000	539.000	.000
	Roy's Largest Root	18.359	3298.504	3.000	539.000	.000
Sex	Pillai's Trace	.032	5.894	3.000	539.000	.001
	Wilks' Lambda	.968	5.894	3.000	539.000	.001
	Hotelling's Trace	.033	5.894	3.000	539.000	.001
	Roy's Largest Root	.033	5.894	3.000	539.000	.001
Bullying	Pillai's Trace	.060	3.706	9.000	1623.000	.000
	Wilks' Lambda	.940	3.746	9.000	1311.935	.000
	Hotelling's Trace	.063	3.771	9.000	1613.000	.000
	Roy's Largest Root	.053	9.482	3.000	541.000	.000
Bullying*	Pillai's Trace	.010	.586	9.000	1623.000	.809
Sex	Wilks' Lambda	.990	.585	9.000	1311.935	.810
	Hotelling's Trace	.010	.584	9.000	1613.000	.811
	Roy's Largest Root	.007	1.309	3.000	541.000	.271

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