

THE ROLE OF PERCEIVED SOCIAL PROBLEM SOLVING,
NARCISSISM, SELF-ESTEEM AND GENDER IN PREDICTING
AGGRESSIVE BEHAVIORS OF HIGH SCHOOL STUDENTS

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ABSTRACT

THE ROLE OF PERCEIVED SOCIAL PROBLEM SOLVING, NARCISSISM, SELF-ESTEEM AND GENDER IN PREDICTING AGGRESSIVE BEHAVIORS OF HIGH SCHOOL STUDENTS

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This study intended to investigate the role of perceived social problem solving, narcissism, self-esteem, and gender in predicting aggressive behaviors of high school students. The sample consisted of 825 participants recruited from five high schools in Ankara. Buss-Perry Aggression Questionnaire (BPAQ), D'Zurilla and Maydeu-Olivares Social Problem Inventory-Revised (SPSI-R), Ames, Rose, and Anderson Narcissistic Personality Inventory (NPI), and Rosenberg Self-Esteem Scale (RSES) were used as the data collection instruments.

Standard Multiple Linear Regression Analyses were performed to investigate predictive value of social problem solving (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style), narcissism, self-esteem, and gender in understanding high school students' aggressive behaviors (i.e., physical aggression, anger, hostility, and verbal aggression).

Results of the present study indicated that gender, narcissism, impulsivity/carelessness style, negative problem orientation, and rational problem solving were significantly related to adolescents' physical aggressive behaviors. However, self-esteem and avoidance style did not significantly correlate with physical aggression. Moreover, negative problem orientation, narcissism, impulsivity/carelessness style and gender were significantly related to anger; conversely the relationship between anger and self-esteem, rational problem solving, and avoidance style were not significant. Furthermore, although there was a significant correlation between hostility and negative problem orientation, self-esteem, narcissism, and rational problem solving, there was no significant relationship between adolescent hostile behaviors and avoidance style, impulsivity/carelessness style, and gender. Finally, impulsivity/carelessness style, narcissism, rational problem solving, and gender were significantly related to adolescents' verbal aggressive behaviors, nevertheless self-esteem, negative problem orientation, and avoidance style did not significantly correlate with verbal aggression. Theoretical and practical implications and recommendations for future research have been presented.

Keywords: Aggression, social problem solving, self-esteem, narcissism, high school students

ÖZ

ALGILANAN SOSYAL PROBLEM ÇÖZME, NARSİZM, BENLİK SAYGISI VE CİNSİYETİN LİSE ÖĞRENCİLERİNİN SALDIRGAN DAVRANIŞLARINI YORDAMADAKİ ROLÜ

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Bu çalışmada, lise öğrencilerinin saldırgan davranışlarını yordamada, algılanan sosyal problem çözme, narsizm, benlik saygısı ve cinsiyetin rolünün incelenmesi amaçlanmıştır. Araştırmanın örneklemini, Ankara'daki 5 lisede öğrenim gören 825 öğrenci oluşturmuştur. Bu çalışmada Buss-Perry Saldırganlık Ölçeği, D'Zurilla ve Maydeu-Olivares Sosyal Problem Çözme Envanteri, Ames, Rose ve Anderson Narsistik Kişilik Envanteri ve Rosenberg Benlik Saygısı Ölçeği veri toplama aracı olarak kullanılmıştır.

Sosyal problem çözme (probleme olumsuz yaklaşma, akılcı problem çözme, düşüncesiz/dikkatsiz yaklaşım, kaçınmacı yaklaşım), narsizm, benlik saygısı ve cinsiyetin, lise öğrencilerinin saldırgan davranışlarını (fiziksel saldırganlık, öfke, düşmanlık, sözel saldırganlık) ne derecede yordadığını anlamak için Standart Çoklu Doğrusal Regresyon Analizi kullanılmıştır.

Bulgular, Türk ergenlerinde, cinsiyet, narsizm, düşüncesiz/dikkatsiz yaklaşım, probleme olumsuz yaklaşım ve akılcı problem çözmenin fiziksel saldırganlıkla anlamlı derecede ilişkili olduğunu, benlik saygısı ile

kaçınmacı yaklaşımın ise anlamlı derecede ilişkili olmadığını göstermiştir. Ayrıca, probleme olumsuz yaklaşma, narsizm, düşüncesiz/dikkatsiz yaklaşım ve cinsiyetin öfkeyle anlamlı derecede ilişkili olduğu, ancak benlik saygısı, akılcı problem çözme ile kaçınmacı yaklaşımın öfkeyle anlamlı derecede ilişkili olmadığı bulunmuştur. Probleme olumsuz yaklaşma, benlik saygısı, narsizm ve akılcı problem çözenin düşmanlık ile istatistiksel olarak anlamlı düzeyde ilişkili olduğu bulunmasına karşın, kaçınmacı yaklaşım, düşüncesiz/dikkatsiz yaklaşım ile cinsiyetin düşmanlıkla anlamlı derecede ilişkili olmadığı bulunmuştur. Son olarak bulgular, kaçınmacı/dikkatsiz yaklaşım, narsizm, akılcı problem çözme ve cinsiyetin ergenlerin sözel saldırgan davranışlarıyla anlamlı derecede ilişkili olduğunu, ancak benlik saygısı, probleme olumsuz yaklaşma ile kaçınmacı yaklaşımın sözel saldırganlıkla anlamlı derecede ilişkili olmadığını göstermiştir. Kuramsal ve uygulama alanındaki doğurgular ve gelecekteki araştırmalar için öneriler sunulmuştur.

Anahtar kelimeler: Saldırganlık, sosyal problem çözme, benlik saygısı, narsizm, lise öğrencileri

To My Parents

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TABLE OF CONTENTS

PLAGIARISM.....	iii
ABSTRACT.....	iv
ÖZ.....	vi
DEDICATION.....	viii
ACKNOWLEDGEMENTS.....	ix
TABLE OF CONTENTS.....	x
LIST OF TABLES.....	xiii

CHAPTER

1. INTRODUCTION.....	1
1.1. Background to the Study.....	1
1.2. Purpose of the Study	7
1.3. Research Question.....	7
1.4. Hypothesis	7
1.5. Significance of the Study.....	7
1.6. Definitions of the Terms.....	9
2. REVIEW OF THE LITERATURE.....	11
2.1. Theories of Aggression.....	11
2.1.1. Psychoanalytic Theory.....	11
2.1.2. The Frustration-Aggression Hypothesis.....	12
2.1.3. Ethological Theories.....	13
2.1.4. Social Learning Theory.....	13
2.2. Types of Aggression.....	14
2.3. Variables Associated with Aggression.....	18
2.3.1. Gender.....	18
2.3.2. Self-Esteem.....	20
2.3.3. Narcissism.....	23
2.3.4. Social Problem Solving.....	29

3. METHOD.....	33
3.1. Overall Design of the Study.....	33
3.2. Participants.....	34
3.3. Data Collection Instruments.....	34
3.3.1. Aggression Questionnaire (AQ).....	34
3.3.1.1. Validity and Reliability of AQ...	35
3.3.2. Rosenberg Self-Esteem Scale (RSES).....	38
3.3.3. Narcissistic Personality Inventory (NPI-16).....	39
3.3.3.1. Adaptation Study of NPI-16...	40
3.3.3.2. Validity and Reliability of NPI-16.....	40
3.3.4. Social Problem Solving Inventory-Revised (SPSI-R).....	42
3.3.4.1. Validity and Reliability of SPSI-R.....	44
3.4. Data Collection Procedure.....	47
3.5. Description of Variables.....	48
3.6. Data Analysis Procedure.....	49
3.7. Limitations.....	50
4. RESULTS.....	51
4.1. Descriptive Statistics of Quantitative Predictor (independents) and the Criterion (dependents) Variables for the Total Sample.....	51
4.2. Bivariate Correlation Matrices of the Variables.....	52
4.2.1. Bivariate Correlation Matrix for Physical Aggression.....	52
4.2.2. Bivariate Correlation Matrix for Anger.....	53
4.2.3. Bivariate Correlation Matrix for Hostility...	54
4.2.4. Bivariate Correlation Matrix for Verbal Aggression.....	55
4.3. Results of the Multiple Regression Analyses.....	56

4.3.1. Results of the Multiple Regression Analysis Employed to Total Physical Aggression Subscale Scores.....	57
4.3.2. Results of the Multiple Regression Analysis Employed to Total Anger Subscale Scores.....	58
4.3.3. Results of the Multiple Regression Analysis Employed to Total Hostility Subscale Scores.....	60
4.3.4. Results of the Multiple Regression Analysis Employed to Total Verbal Aggression Subscale Scores.....	61
5. DISCUSSION.....	64
5.1. Discussion of the Findings.....	64
5.1.1. Physical Aggression.....	64
5.1.2. Anger.....	68
5.1.3. Hostility.....	70
5.1.4. Verbal Aggression.....	71
5.2. Implications for Practice and Research.....	73
5.3. Recommendations.....	74
REFERENCES.....	76
APPENDICES (In Turkish).....	91
Appendix A: SALDIRGANLIK ÖLÇEĞİ	91
Appendix B: NARSİSTİK KİŞİLİK ENVANTERİ.....	92
Appendix C: ROSENBERG BENLİK SAYGISI ÖLÇEĞİ.....	93
Appendix D: SOSYAL PROBLEM ÇÖZME ENVANTERİ	94
Appendix E: MİLLİ EĞİTİM BAKANLIĞI ARAŞTIRMA İZİNİ.....	95

LIST OF TABLES

TABLES

Table 3.1 Factor Loadings and Communalities of the Items of AQ via Principal Component Analysis with Varimax Rotation.....	36
Table 3.2 Rotation Sums of Squared Loadings of Four Factors of AQ.....	38
Table 3.3 Factor Loadings and Communalities of the Items of NPI via Principal Component Analysis with Varimax Rotation.....	41
Table 3.4 Rotation Sums of Squared Loadings of Five Factors of NPI.....	42
Table 3.5 Factor Loadings and Communalities of the Items of SPSI-R via Principal Component Analysis with Varimax Rotation.....	44
Table 3.6 Rotation Sums of Squared Loadings of Four Factors of SPSI-R.....	47
Table 4.1 Means and Standard Deviations of the Quantitative Predictor Variables and the Criterion Variables.....	52
Table 4.2 The Pearson Product Correlation Coefficients among the Predictor Variables and the Criterion Variable of Physical Aggression.....	53
Table 4.3 The Pearson Product Correlation Coefficients among the Predictor Variables and the Criterion Variable of Anger.....	54
Table 4.4 The Pearson Product Correlation Coefficients among the Predictor Variables and the Criterion Variable of Hostility.....	55
Table 4.5 The Pearson Product Correlation Coefficients among the Predictor Variables and the Criterion Variable of Verbal Aggression.....	56

Table 4.6 The Multiple Regression Analysis Results Applied to Physical Aggression Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender.....	57
Table 4.7 The Multiple Regression Analysis Results Applied to Anger Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender.....	59
Table 4.8 The Multiple Regression Analysis Results Applied to Hostility Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender.....	60
Table 4.9 The Multiple Regression Analysis Results Applied to Verbal Aggression Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender.....	62

CHAPTER 1

INTRODUCTION

1.1. Background to the Study

Aggression has become a major social problem all around the world, in Turkey as well (e.g., Dervent, 2007; Deveci, Karadağ, & Yılmaz, 2008; Turgut, Lagace, İzmir, & Dursun, 2006). Therefore, theorists, investigators, mental health experts, physicians, and laypeople are reconciled in paying their attention to aggression (Perez, Vohs, & Joiner, 2005). In addition to this interest, aggression is also an all-pervasive concept, so it has been defined in many different ways in the literature. Some theorists underline the characteristics of aggressive behavior; on the other hand, some of them emphasize the provocative factors of aggressive behavior and accompanying emotions to it, or the intent of harmful actions (Bandura, 1973).

Buss (1961, p.17) describes aggression as “a response that delivers noxious stimuli to another organism.” That dangerous reaction may be revealed in three ways, such as physical against verbal aggression, active against passive aggression, and direct against indirect aggression. According to Crick and Dodge (1996), there are two types of aggression, proactive and reactive. Proactive aggression consists of an intentional behavior, which is performed, with the hope of gaining some reward; on the other hand, reactive aggression is described as a self-acting emotional response that is derived from a loss of self-control. Leadbeater, Boone, Sangster, and Mathieson (2006) categorize aggression as overt physical aggression and

covert or subtle types of aggression (relational, social, and indirect). They also emphasize that covert type of aggression can be injurious and harmful as the former.

Many different theoretical frameworks have been posited to reveal the biological, environmental, psychological, cognitive, and social factors that influence aggressive behavior (Anderson & Bushman, 2002). One of the concepts that has been found to be related to cognitive underpinnings of aggression is problem solving. The definition of problem solving has been proliferated in the literature, emphasizing its different dimensions. For instance, the information-processing model describes problem solving as cognitive skills in problem identification, goal setting, finding suitable solutions, and evaluating problem-solving outcomes (e.g., Logan, 1989; as cited in Siu & Shek, 2005). According to Heppner and Krauskopf (1987, p.375; as cited in McGuire, 2005), problem solving is “a goal-directed sequence of cognitive and affective operations as well as behavioral responses for the purpose of adapting to internal or external demands or challenges.” Spivack, Platt, and Shure (1976, as cited in Dubow, Tisak, Causey, Hryshko, & Reid, 1991, p.585) have expanded the definition of problem solving to social situations and define it as “the ability to generate alternative solutions to social interaction problems, evaluate the possible consequences, and choose the most effective solution to the problem.” Likewise, the social problem-solving model defines social problem solving as “a construct that refers to problem solving as it occurs in the real world” (Chang & D’Zurilla, 1996, p.185). This view broadens the definition of social problem solving including motivational, affective and behavioral domains of problem solving (Logan, 1989; as cited in Siu & Shek, 2005).

According to the social problem-solving model (D’Zurilla & Goldfried, 1971; D’Zurilla & Nezu, 1982; as cited in D’Zurilla, Nezu, & Maydeu-Olivares, 2004), social problem solving includes two dimensions: problem orientation and problem solving style. The problem orientation is the

person's cognitive-emotional reactions to the problem or his or her own problem solving ability. Hence, it is important in terms of its motivational effects, which can be positive or negative. In contrast, problem-solving style consists of the cognitive and behavioral activities, which are done when confronted with a problem. These styles are rational problem solving, impulsivity/carelessness style, and avoidance style. Rational problem solving involves in rational, regular, and effective approach to the problematic situation. Impulsivity and carelessness style consists of inadequate problem solving strategies and this kind of people attempts to use problem solving strategies, but they are ineffective in producing alternative solutions or finding the best solution. Finally, avoidance style is another maladaptive strategy. The people who use this strategy try to avoid dealing with problems as much as possible, and they expect problems to be resolved without any effort by them.

Many research studies have focused on identifying aggressive behaviors of adolescents (e.g., Hendel, 2006; Kim & Kim, 2007; Korkut, 2002; Leadbeater et al., 2006) and its relationship with social problem solving styles (e.g., Keltikangas-Jarvinen, 2001; Keltikangas-Jarvinen & Pakaslahti, 1999; Pakaslahti & Keltikangas-Jarvinen; 1997). These empirical studies have demonstrated that aggressive and rejected adolescents are generally more likely to apply aggressive problem solving strategies in social interactions than non-aggressive adolescents. D'Zurilla, Chang, and Sanna (2003) examined the relationships among self-esteem, social problem solving ability, and aggression in university students, and found that three ineffective problem-solving dimensions (negative problem orientation, impulsivity/carelessness style, and avoidance style) were related to anger more, especially impulsive/carelessness style was connected to aggression that is more physical. Moreover, results supported the mediating role of social problem solving (especially negative problem orientation) between self-esteem and aggression. Results also showed that low self-esteem was related to the affective and cognitive components of aggression (anger and

hostility), but not to the instrumental components (physical and verbal aggression).

The association between individuals' self-views and aggression has been the focus of numerous empirical inquiries, and also of debate. As Salmivalli, Kaukiainen, Kaistaniemi, and Lagerspetz (1999, p.1268) puts it, self-esteem is "a person's global, evaluative view of himself or herself is a crucial aspect of an individual's personality." They argue that self-esteem is the core component of individual's psychological well-being and social functioning. Although the relationships between individuals' self-esteem and their thoughts, feelings, and actions have been analyzed extensively, some recent findings are ambiguous and inconsistent. Particularly its relationship with aggression is still unresolved. Several theorists attempt to clarify the roots of the relations between self-esteem and aggression. There are two competitive viewpoints linking aggression to low or high self-esteem presented in the literature.

Based on the first view, a group of theorists argues that people who are deficient in self-esteem level try to enhance it by aggressively dominating others (e.g., Jankowski, 1991; Toch, 1969). Great deal of evidence shows that low self-esteem is associated with more aggressiveness and violence (e.g., Anderson, 1994; Gondolf, 1985; Long, 1990; Toch, 1969).

On the other hand, second view researchers argue that high self-esteem is related to aggressive behaviors more (e.g., Baumeister & Tice, 1985; Baumeister, Tice, & Hutton, 1989; Tice, 1991). Baumeister, Smart, and Boden (1996) put forward that the results of the empirical studies about the relationship between low self-esteem and aggression are uncertain and contradictory. The authors suggest that high self-esteem is a source of aggression, which is labeled threatened egotism. Further, they describe egotism as

Favorable appraisals of self and the motivated preference for such favorable appraisals, regardless of whether they are valid or inflated, also assumption or belief that one is a superior being, or any broadly favorable assessment of self (especially in comparison with other people) (Baumeister et al., 1996, p.6).

According to Baumeister et al. (1996), the expectation of winning a fight is higher among egoists (narcissists), so they are more inclined to start a fight. Moreover, Baumeister et al. (1989) argue that low self-esteem is related to risk-taking avoidance, self-protectiveness, and lack of confidence. In a similar vein, Tice (1991) argues that self-enhancement incentives are the features of high self-esteem, not low self-esteem; on the contrary, individuals with low self-esteem avoid the situations, which strengthen their self-esteem (De La Ronde & Swann, 1993; as cited in Papps & O'Carroll, 1998).

Consequently, there is no consensus on the relationship between aggressive behavior and self-esteem. Essentially, beyond the relationship between self-esteem and aggression, a growing interest to understand the relationship between adolescents' aggressive behavior and narcissism has been demonstrated in the literature. According to Bushman and Baumeister (1998; as cited in Barry et al., 2007) narcissism is one's affective endeavour in forming one's superiority, but that has not been actualized in one's feeling. Although findings of the studies about the relation between narcissism and aggression are contradictory, most of the studies suggest that narcissism is significantly related to aggression (e.g., Ang & Yusof, 2005; Barry, Frick, & Killian, 2003; Barry, Frick, Adler, & Grafeman, 2007; Papps & O'Carroll, 1998; Sullivan & Geaslin, 2001). Empirical evidence also emphasized the role of narcissism in understanding aggressive behaviors of high school students (e.g., Barry, Chaplin, & Grafeman, 2006; Barry et al., 2007).

As for the individual differences, studies have suggested that gender has a substantial effect on aggression. Nevertheless, many studies of gender differences with respect to aggression and also its types demonstrated conflicting results (e.g., Connor, Steingard, Anderson, & Melloni, 2003; Efiltili, 2006; Korkut, 2002; Santisteban, Alvarado, & Recio 2006). For instance, in a recent cross-sectional study with 2,100 Korean adolescents, Kim and Kim (2007) reported that gender was one of the significant factors that affected aggression, and male adolescents had more aggressive behaviors than female adolescents. According to Toldos (2005), physical and verbal aggressions were used much more among males than females, but on indirect aggression, there were no gender differences. Like Toldos (2005), pointing to the type of the aggression Leadbeater et al. (2006) asserted that males reported higher levels of relational and physical aggression. Conversely, Pompili et al. (2007) found that physical aggression was utilized mostly among males, but males and females were not different in terms of overall verbal aggression and hostility.

To date, attempts have been made empirically to understand the major factors contributing to aggressive behaviors of Turkish adolescents. Majority of these studies have focused on aggression and its relationship with self-disclosure (Ağlamaz, 2006; Demirhan, 2002), attachment styles, interpersonal schemas (Çelik, 2006), participation to sport activities (Dervent, 2007), locus of control (Efiltili, 2006), self-acceptance (Gümüş, 2000), parental attitudes (Hatunoğlu, 1994; Tuzgöl, 1998), and playing computer games (Merttürk, 2005). Moreover, western literature suggests that it might be of considerable value to examine the role of certain personality traits and dispositional variables in understanding adolescents' aggressive behaviors in different cultures. Indeed, no study examined the role of gender, self-esteem, narcissism, and social problem solving (i.e., positive problem orientation, negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style) in explaining

adolescent aggressive behaviors (i.e., physical aggression, anger, hostility, and verbal aggression) in Turkey.

1.2. Purpose of the Study

The aim of this study is to investigate the role of perceived social problem solving (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style), self-esteem, narcissism, and gender in predicting aggressive behaviors (i.e., physical aggression, anger, hostility, and verbal aggression) of Turkish high school students.

1.3. Research Question

How well do perceived social problem solving (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style), self-esteem, narcissism, and gender predict physical aggression, anger, hostility, and verbal aggression of Turkish high school students?

1.4. Hypothesis

Based on the literature, in the present study, it was hypothesized that high levels of self-esteem, narcissism, ineffective social problem solving styles (i.e., negative problem orientation, impulsivity/carelessness style, and avoidance style), and being male would be linked to increased physical aggression, anger, hostility and verbal aggression among Turkish adolescents.

1.5. Significance of the Study

Adolescence is a transition period from childhood to adulthood in which many changes in physical, social, affective and cognitive development are

manifested. These rapid changes may bring some challenges as well as some problems. This period is not only a hard time for the adolescents but also difficult for their families, teachers, and peers. In Turkey, aggressive behaviors demonstrated by youths, particularly in school environment, have become a major concern of society and particularly of people who work in the field of education. In addition, studies indicated that effective intervention techniques or programs could reduce or prevent aggressive behaviors among adolescents (e.g., Ando, Asakura, Ando, & Simons-Morton, 2007; Boxer & Butkus, 2005; Cappella & Weinstein, 2006; Sütçü 2006; Yu, Harris, Solovitz, & Franklin, 1986). Therefore, identifying the most important factors that contribute to aggressive behavior among adolescents may provide useful information for parents, educators, school counselors and planning appropriate prevention and treatment strategies.

In relation this, understanding the factors, which contribute to aggression seem necessary for planning school counseling programs and designing guidance activities that address adolescents' needs. For instance, Lucas (2004) assumes that one's perceptions about solving problems might be initial step in counseling, and emphasizes that social problem solving has significant role in counseling. Likewise, according to Aldwin (1994; as cited in Frye & Goodman, 2000), adolescence is a crucial time in terms of the proficiency of social problem solving. It can be said that social problem solving abilities of adolescents is not negligible to overcome this period easily and to form these abilities. If the empirical link between aggression and social problem solving was found, school counselors could design group guidance and counseling programs for improving problem solving abilities to cope with aggressive behavior.

Moreover, Wells and Marwell (1976) pointed out that for understanding a wide variety of behaviors and attitudes of adolescents, self-esteem has been found a valuable concept. In addition, according to Baumeister et al. (1996), self-esteem is an important personality trait that has been linked to

aggression. It is therefore reasonable to expect that the development of adolescents' self-esteem would be related to aggression. Furthermore, narcissism is related to a series of behaviors that have a negative influence on both individual performance and social outcomes. Hence, discovering its relationship with aggression can be useful in planning interventions to minimize adolescents' aggressive behaviors (Campbell, Brunell, & Finkel, 2006). Contrary to the prevailing opinion, instead of using self-esteem enhancement techniques, self-esteem balancing techniques might be used for reducing aggressive behaviors.

Although there are many systematic research studies that examine the relationships among problem solving, self-esteem, narcissism, and aggression in western countries (e.g., D'Zurilla et al., 2003; Lochman, 1985), there have been few studies in Turkey (e.g., Danişık, 2005; Kurtyılmaz, 2005; Şahan, 2007). Hence, investigating the role of these variables in predicting aggressive behaviors (i.e., physical aggression, anger, hostility, and verbal aggression) of high school students can shed light on the problem for further research and intervention studies.

1.6. Definitions of the Terms

Aggressive behavior: “Any behavior directed toward another individual that is carried out with the proximate (immediate) intent to cause harm” (Anderson & Bushman, 2002, p.28).

Physical aggression: “An assault against an organism by means of body parts (limb, teeth) or weapons (knife, club, gun)” (Buss, 1961, p.4).

Anger: “An emotional reaction with prominent autonomic and skeletal-facial components” (Buss, 1961, p.9).

Hostility: “An implicit verbal response involving negative feelings (ill will) and negative evaluations of people and events” (Buss, 1961, p.12).

Verbal aggression: “A vocal response that delivers noxious stimuli to another organism” (Buss, 1961, p.6).

Problem solving: “The self-directed cognitive, behavioral process by which an individual, couple or group attempts to identify or discover effective solutions for specific problems encountered in everyday living” (D’Zurilla & Goldfried, 1971; as cited in D’Zurilla et al., 2004, p.12).

Social problem solving: “The process of problem solving as it occurs in the natural environment or real world” (D’Zurilla & Nezu, 1982; as cited in D’Zurilla et al., 2004, p.11).

Self-esteem: “A positive or negative attitude toward the self” (Rosenberg, 1965, p.30).

Narcissism: “A highly positive or inflated self-concept” (Campbell, Rudich, & Sedikides, 2002, p.359).

CHAPTER II

REVIEW OF THE LITERATURE

This chapter presents the research literature most relevant to the aim of this study. This chapter includes three sections. In the first section, major theories of aggression were represented. In the second section, types of aggression and related empirical studies were presented. In the third section, variables associated with aggression were presented respectively.

2.1. Theories of Aggression

In this part, the main theories, Psychoanalytic Theory, the Frustration-Aggression Hypothesis, Ethological Theories, and Social Learning Theory that were developed to explain aggression were presented.

2.1.1. Psychoanalytic Theory

Freud (1954) in early writings assumes that aggression is a first response to the behavior of obstructed pleasure seeking or pain avoiding and he did not conceive of aggression. He believed that aggression is necessarily a product of the frustration of pleasure seeking. Then Freud realizes that his ideas are insufficient in explaining behaviors that consist of drive effects, and sadism. Therefore, he develops instinctual theory and introduces the concepts of life instincts (Eros) and death instincts (Thanatos) which seek relief from excessive tension. In this final conceptualization, aggression is an innate drive, which originates from death instincts. In other words, aggression is impelled by a constantly driving internal force whose energy must be released. He argues that aggressive energy which originates within the body

leads to destructive attacks to the self or other people until its discharge in some socially acceptable way. According to Freud (1969), every human being perpetuates self-destructiveness, which is fueled by Thanatos, or the death instinct, which must destroy things and other people to survive. Therefore, aggression is inescapable, but intensity and style of its expression can be changed with the help of the life instincts. Trying to block it evokes behavior that is much more aggressive.

2.1.2. The Frustration-Aggression Hypothesis

Dollard, Doob, Miller, Mowrer, and Sears (1939; as cited in Berkowitz, 1962, p.26) describe that frustration is “an interference with the occurrence of an instigated goal-response at its proper time in the behavior sequence” and according to them, frustration-aggression hypothesis supposes a universal causal relation between frustration and aggression. According to Berkowitz (1969), this concept refers to either the outer instigating condition or response of the organism to this condition. Kaufmann (1970) asserts that this theory posits a causal relationship between frustration and aggression, and learned or innate behaviors are not taken into consideration. The Frustration-Aggression theory postulates that aggression is always the result of the frustration and occurrence of aggressive behavior always necessitates the presence of frustration.

Conditions, which lead to aggression, depend upon the strength of frustration. According to Dollard, Doob, Miller, Mowrer, and Sears (1939; as cited in Buss, 1961), the intensity and frequency of aggression is determined by the strength of frustration which may consist of the strength of the response tendency being blocked, the degree of interference, and the number of frustration sequences.

2.1.3. Ethological Theories

According to Lorenz (1966), aggression originates from an instinctual system, not from an external stimulant. Motivation of fighting accumulates until the proper stimulus appears. This internal stimulant condition also displays its threat and unchangeability.

Lorenz (1966) stresses that the place of the human beings is within the animal kingdom and described aggression as a behavior initiated by particular external stimuli, which subsequently grow up energy within the person. The energy reduces after the aggression and new rising starts after that discharge. Although those processes are obtained from non-human species, it is argued that similar processes are valid for human beings (Lorenz, 1966). On the other hand, Lorenz asserts that man, differently from animals, lacks aggression-inhibiting mechanisms, which prevent him from destroying members of his own species. On the other hand, man's capacity for thought and verbal communication prevent him following his instincts with impunity.

2.1.4. Social Learning Theory

According to Bandura (1978), aggression, which is a large concept, includes many determinants and purposes. Bandura (1973) considers human being who has cognitive abilities like thinking owns the power of self-direction. They can guide their actions or problems by using former representations of external influences. With the help of his or her mental process, far-sighted behaviors can be seen. In this theory, inward power and environmental factor do not represent human behavior by oneself. Hence, there is a reciprocal relationship between environment and behavior.

In the growing of new behavior patterns, direct experience or observation of others has major effects (Bandura, 1973). According to the social learning theory, human aggression is learned via stimulus, reinforcement, and cognitive control like other social behaviors. Bandura (1973) asserts that environmental stimuli, such as oral transmission, pictorial cues, particular people, places, and things are the source of information about potential results. He also puts forward that same acts generate different results related to the time, place or etc. Furthermore, reinforcement can receive its source from outside or inside. Especially rewarding and punishing results are effective, but they are not sufficient. Early experiences, scolding, care, acknowledgements of others, refusal have strong reinforcing functions. Finally, cognitive potential of human being affects the information that is acquired. Later these guides of outer world shape the overt acts as the time goes by.

As a result, considering how major theories explain aggression, psychoanalytic theory asserts that aggressive behaviors came out innately as the outcomes of instincts. On the other hand, biological theories emphasize the effects of instincts on aggressive behaviors, but, they do not accept it only as a source of aggression rigidly like Freud. Unlike these theories, for the social learning theory, aggressive behaviors are acquired via society. Moreover, as a drive theory, frustration-aggression hypothesis emphasizes the importance of both environment and instincts on aggression.

2.2. Types of Aggression

Research on the general construct of aggression has revealed many distinctions between different types of aggressive behavior. Some of these distinctions are related to the conditions involving the aggressive acts (e.g., its underlying motives) (Salmivalli, 2001). For instance, aggression has been classified into affective versus instrumental (Geen, 2001), or proactive versus reactive (Crick & Dodge, 1996) aggression. In affective aggression,

the main motive for the act is harming the victim accompanying strong negative emotional states. Anger can mostly be thought instigator condition of this type aggression. However, instrumental aggression does not consist of strong emotions (Geen, 2001). On the other hand, according to Dodge and Coie (1987, p.1147)

Aggression that appears to be a response to antecedent conditions such as goal blocking and provocation, and responses that are primarily interpersonal and hostile in nature can be considered reactive; in contrast, aggression that occurs in anticipation of self-serving outcomes can be called proactive.

Moreover, proactive aggression does not require anger or provocation whereas reactive aggression does.

Furthermore, other differentiations are related to the nature of act itself, such as physical versus verbal (Buss, 1961), or overt versus covert (relational, social, subtle) (Leadbeater et al., 2006) aggression. As explained earlier, aggression is defined as “a response that delivers noxious stimuli to another organism” (Buss, 1961, p.17), and according to Buss, noxious stimuli can occur in the context of different kinds of aggressive responses, such as physical, and verbal. Physical aggression is described as “an assault against an organism by means of body parts (limb, teeth) or weapons (knife, club, gun)” (Buss, 1961, p.4). There may be two kinds of outcomes of assault. The first one contains removing obstacle and putting an end to the source of noxious stimulation. Moreover, the second kind of outcome of physical aggression includes pain or injury (not always) to another organism. On the other hand, verbal aggression is defined as “a vocal response that delivers noxious stimuli to another organism” and compared to physical aggression, noxious stimuli appeared in verbal aggression are rejection and threat (Buss, 1961, p.6). Rejection can be verbal or nonverbal and there are three types of

verbal rejection; the first one is direct and unvarnished dismissal, the second one is a hostile remark, and the third one is criticism, derogation, and cursing.

Furthermore, Buss (1961) asserts that anger, hostility, and aggression are three concepts referring to emotion, attitudes or cognitions, and behavior, respectively. He also puts forward that although these three concepts often get together, in terms of expositional purposes, they are used separately. According to Kassiove and Sukhodolsky (1995, p.7) anger is

A negative phenomenological (or internal) feeling state associated with specific cognitive and perceptual distortions and deficiencies (e.g., misappraisals, errors, and attributions of blame, injustice, preventability, and/or intentionality), subjective labeling, psychological changes, and action tendencies to engage in socially constructed and reinforced organized behavioral scripts.

Moreover, Buss (1961, p.9) describes anger as “an emotional reaction with prominent autonomic and skeletal-facial components” and explains that although the skeletal and facial aspects of anger are changed and prohibited by society, the autonomic aspects of anger remain unaffected. He also emphasizes that diffuseness, energizing aspects, and tension are the main characteristics of anger. Furthermore, according to Buss (1961), anger may be considered as a drive state; however it is not the drive for aggression, all the time. Rather, it can be considered as one of the drives that lead to aggression, and it does not always result in aggression.

Hostility is defined as “an implicit verbal response involving negative feelings (ill will) and negative evaluations of people and events” (Buss, 1961, p.12). The hostile response, compared to physical aggression, verbal aggression, and anger, is not instrumental or autonomic. On the contrary, it

includes assessment and evaluation of stimuli, and these negative assessments did not have influence upon other people unless they are verbalized (Buss, 1961).

As a result, it can be concluded that aggression is a comprehensive construct with different forms, and there are many dispositional (personality) and situational (environmental) factors that can influence its different types. For instance, Weiss et al. (2005) examined the association between hostility, level of depressive symptoms, and smoking in a sample of 1699 ethnically diverse students, and found out that the relationship between hostility and smoking was stronger for students reporting higher levels of depressive symptoms. Furthermore, Muris, Meesters, Morren, and Moorman (2004) found that both attachment status and parental rearing behaviors accounted for a unique and significant proportion of the variance in adolescent's anger/hostility. In another study, Moses (1999) investigated the relationship between exposure to violence and symptoms of depression, gender, and hostility among 337 high school students, and found that exposure to violence was predictive of hostility for both gender groups, and predictive of depression for females.

Moreover, Loveland, Lounsbury, Welsh, and Buboltz (2007) examined the role of the Big Five personality traits and physical aggression in predicting the grade point averages of 992 adolescent students and found negative relationship between physical aggression and the grade point averages of students. In another study with 1155 adolescents, Hildyard (1999) explored the prevalence rates and gender differences in physical aggression and relational aggression in dating relationships and reported that almost 20% of participants used physical aggression, 50% of the participants used relational aggression in their relationships. Results also indicated that physical aggression was used more among females than males, and both forms of aggression were found to be related to social and psychological maladjustment, for both females and males.

Furhermore, Wolf and Foshee's (2003) study with 1965 adolescents, indicated that adolescents exposed to family violence learn anger expression styles that put them at risk of being perpetrators of dating violence. In another study with 216 high school students and 96 adolescents detained in a juvenile detention center, Gunderson (2006) investigated the effects of real life and media violence exposure, and found that real life and media violence were significantly related to increased aggression, increased hostile attributions, and decreased empathy for the high school students, on the other hand, for the detained adolescents, exposure to real life violence was positively related to aggression, but was not significantly related to hostile attributions and empathy. Besides, media violence was not related to none of them.

2.3. Variables Associated with Aggression

2.3.1. Gender

Gender is one of the demographic factors, which has been found to associate with aggression. Studies which investigated gender differences concerning aggression have suggested that males are mostly more aggressive than females, especially physically, and the types of the aggression vary in terms of gender.

For example, Connor et al. (2003) explored the gender differences related to proactive and reactive aggression with 323 clinically referred children and adolescents (68 females and 255 males). In this cross-sectional study, the results illustrated that there were no gender differences in proactive and reactive aggression.

In another non-experimental study with 653 Spanish adolescents, Toldos (2005) observed no gender difference in terms of indirect aggression. On the

other hand, physical and verbal aggressions were observed more frequently among males than among females in all age groups (14, 15, 16, and 17).

In the same vein, Santisteban et al. (2007) reported that males used more physical and verbal aggression than females in their correlational study with 2208 pre-adolescents and adolescents. Using self-report questionnaires (984 males and 1224 females) the researchers found no gender differences in terms of hostility, but the anger scores of females were higher than the anger scores of males.

Likewise, Leadbeater et al. (2006), using youth's self-reports in their correlational study with a sample of 455 adolescents (eighth to tenth-grade students), observed that males had higher levels of relational and physical aggression than females. Furthermore, in a sample of 1478 junior and senior secondary school students (ages ranging between 12 and 20 years) in Botswana Malete (2007) found that males perceived themselves more aggressive than females.

Literature has also demonstrated the relationship between aggression and gender in university samples. For example, Pompili et al. (2007), in a correlational study with 300 Italian university students (141 males, 159 females), reported that males reported higher physical aggression than females, although males and females did not differ in overall, verbal aggression and hostility scores. In another study with 134 university students, Burton, Hafetz, and Henninger (2007) found that males used more physical aggression than females, but no gender difference was observed on relational aggression.

In Turkey, studies have also demonstrated contradictory results. For instance, in a comparative study with 127 high school and 43 university students, Korkut (2002) discovered that females showed more expressive aggression than males. In contrast, in another study with 271 female and

216 male university students, Çelik (2006) found that male students showed more physical, verbal, and relational aggression, but there were no gender differences in anger and hostility. Similarly, in a study with 246 female and 334 male high school students, Efilci (2006) observed that males were more aggressive than females. However, Ađlamaz (2006) argued that aggression levels of high school students (577 female and 646 male) did not differentiate in terms of gender.

In sum, both western and Turkish literature indicates inconsistent findings regarding the role of gender in aggression. Although in some studies males have demonstrated more aggression than females, in some studies, no significant gender difference has been observed.

2.3.2. Self-Esteem

According to Rosenberg (1965, p.30), self-esteem is “the individual’s overall level of self-acceptance or self-rejection.” Two aspects of self-esteem are mentioned by Rosenberg, high and low self-esteem. Individuals with high self-esteem feel respectable, worthy, but not superior; on the other hand, individuals with low self-esteem do not satisfy themselves, and reject their selves.

Literature also reports contradictory results about the associations between self-esteem and aggression. Whether low or high self-esteem is the better predictor of aggression is disagreement point of that issue. Some researchers argue that both low and high self-esteem increase aggression; some supports low self-esteem and aggression relationship, while the others emphasize the importance of stability of self-esteem, not level of it.

For instance, Fling et al. (1992), in their study with adolescents ages 11-14, found negative relationship between self-reported self-esteem and

aggression. On the contrary, teacher ratings demonstrated positive relationship between self-esteem and aggression.

In a cross-sectional design study, Esposito, Kobak, and Little (2005) examined self-esteem reactivity and aggressive behavior by using a diary design in children included 23 boys and 18 girls, ranging in age from 10 to 13 years. The results indicated that level of self-esteem was not related to aggressive behavior, but aggressive children's self-esteem was more reactive to negative peer events and less reactive to negative interactions with adults. The researchers claimed that aggressive children were more sensitive to the problems in their relationships with adults than the problems in their relationships with their peers.

Perez et al. (2005), in a descriptive study with 140 undergraduate university students, investigated the relationship between both high-low self-esteem and self-reported physical aggression. The results indicated that very low and very high self-esteem people were apt to use physical aggression than reasonable self-esteem people. The results also indicated that men used more physical aggression than women.

Donellan, Trzesniewski, Robins, Moffitt, and Caspi (2005) conducted both cross-sectional and longitudinal study with 11-14 year-old 292 participants (study1), 11-13 year-old 1548 participants (study2), and 3143 undergraduate students (study3). The researchers observed that there was a strong relation between low self-esteem and internalizing problems such as aggression, antisocial behavior, and delinquency under the control of potential confounding variables like supportive parenting, parent-child and peer relationships, achievement-test scores, socioeconomic status, and IQ. Furthermore, the results suggested that low self-esteem and narcissism were independent in terms of their effects on aggression, and the researchers claimed that low self-esteem and narcissism were on the opposite ends of the same continuum.

In another longitudinal study with 842 middle school children, Taylor, Davis-Kean, and Malanchuk (2007) examined the influences of self-esteem and self-concept on aggression in a school environment. No relation was discovered between self-esteem and aggression. Moreover, the results showed that students with low self-concept in their scholastic abilities behaved more aggressively than those with high self-concept in their scholastic abilities, and threatened academic self-esteem was not related to aggression at school.

Turkish literature presents very limited number of studies regarding self-esteem and aggression relationship among adolescent population. For instance, in a recent descriptive study conducted with 538 high school students, Şahan (2007) examined the role of the problem solving, self-esteem, and peer pressure on aggression; and he explored the relationships between aggression and some demographic variables, such as gender, and class level. The results revealed that aggression levels of male students were higher than female students. Besides, low peer pressure, high self-esteem level, and problem solving ability were found to be related to low aggression level.

On the contrary, self-esteem and gender relationship have mostly been studied in Turkey. These studies usually demonstrate that no gender difference exist in terms of self-esteem level of adolescents. For example, Balat and Akman (2004), in their study with 482 Turkish high school students, found that self-esteem level did not differentiate between genders. Yenidünya (2005) did not observe any significant difference between female ($n = 230$) and male ($n = 228$) high school students in terms of their self-esteem level. Likewise, Çiğdemoğlu (2006) did not report any gender-self esteem association among 600 high school students. In the same line, Çevik's (2007) study has indicated that self-esteem levels of high school students ($n = 532$) did not differentiate in terms of gender.

Consequently, it can be said that the literature review indicates controversial findings regarding self-esteem and aggression relationship. Although some studies demonstrated no relationship between self-esteem and aggression, some others supported low self-esteem and aggression relationship.

2.3.3. Narcissism

Recent literature has suggested a potential role for narcissism as a predictor of aggression. Majority of these studies have been conducted to differentiate the concept of narcissism and high self-esteem concepts (e.g., Raskin and Terry, 1988), and their relationship with aggression in different populations. For instance, Papps and O'Carroll (1998), in their study with 338 university students, investigated the level of self-esteem and narcissism in expressing and experiencing anger. Subjects were divided into four groups according to their extreme scores on self-esteem and narcissism for comparing scores on anger scales of subjects. The results showed that high narcissism-high self-esteem individuals were more related to experience and express anger than low narcissism-high self-esteem individuals. High self-esteem-low narcissism individuals had fewer tendencies to experience or express anger. There was a relationship between low self-esteem and anger less than the level associated with high narcissism-high self-esteem, but greater than the level associated with low narcissism-high self-esteem.

Likewise, in Sullivan and Geaslin's (2001) correlational study with 235 undergraduate psychology students, the relationships among narcissism, self-esteem, irrational beliefs and aggression were investigated. The results of the study showed that students with higher scores on NPI (Narcissistic Personality Inventory) were more aggressive, there was a strong relationship between narcissism and especially instrumental (overt; such as verbal and physical) behavioral aspect of aggression. Males also reported higher aggression scores than females. Moreover, a negative relationship between self-esteem and aggression was observed.

In accordance with the previous study, Rozenblatt (2002) examined the relationships among self-esteem, narcissism, and aggressive behavior in undergraduate students (70 female, 33 male). The results indicated that unstable self-esteem was associated with anger, but not physical aggression, verbal aggression, and hostility. The results also revealed that stable self-esteem was less related to physical and verbal aggression, anger, and hostility than unstable high self-esteem and low self-esteem. Pathological narcissism such as exploitativeness and entitlement was related to hostility, physical, and verbal aggression, but not related to anger. In addition, healthy narcissism such as superiority, exhibitionism, vanity, self-sufficiency, and leadership had significant correlations with physical and verbal aggression, but not with anger and hostility. Pathological narcissism and low self-esteem were found to be related to aggression. The findings also indicated that self-esteem and narcissism were independent concepts.

Recent experimental studies have also provided additional support that narcissism appears to be an important variable in understanding the aggressive behaviors of individuals. For example, Barry et al. (2006), in their study with 120 undergraduates, explored the relationship between narcissism and aggression following the negative feedback, and reported that after negative feedback narcissism was related to increased aggression among males than females. Moreover, positive feedback did not increase aggression.

Similarly, Twenge and Campbell (2003) examined whether narcissists reacted to social rejection with increased anger in a four consecutive experimental study with undergraduate students. Study 1 indicated that narcissism was related to more anger and fewer internalized negative emotions after a part episode of social rejection related in a narrative. Study 2 showed that narcissism was associated with more anger and fewer internalized negative emotions in terms of manipulated social rejection in a laboratory. In study 3, behavioral measure of aggression was added, and

narcissists behaved more aggressively against to the rejecter. In study 4, displaced aggression was measured after social rejection, and narcissism was found to be related to this form of displaced aggression after a rejection experience. Nevertheless, the results did not support the relationship between narcissism and aggression or anger after social acceptance. Authors claimed that self-esteem played little role in predicting aggression in response to rejection. In general, the overall results indicated that narcissists were more angry and aggressive than non-narcissists in terms of social rejection.

Literature has also presented contradictory findings regarding narcissism and aggression, and several studies did not represent a link between threatened egotism (narcissism) and aggression. For example, Schreer (2002) explored whether narcissism, inflated views of the self, is connected to aggressive driving behavior such as tailgating, obscene gestures, flashing the high beams, obstructing the path of other vehicles, and intentionally trying to injure or assault another driver in a sample of 99 undergraduates. In this study narcissism was defined by using two subcomponents: non-defensive self-esteem (authority, self-sufficiency, vanity, and superiority), and defensive self-esteem- aggression (exhibitionism, exploitativeness, and entitlement). Although no relationship was found between total NPI scores and aggressive driving behavior, the results indicated that higher levels of exhibitionism revealed higher levels of aggressive driving behavior, and higher levels of superiority revealed lower levels of aggressive driving behavior. However, no correlation between exploitativeness and aggressive driving behavior was found. Additionally, no significant gender difference was found in aggressive driving behavior.

Furthermore, in a recent experimental study, Martinez, Zeichner, Reidy, and Miller (2008) explored the association between narcissism and displaced aggression (DA). Ninety-two undergraduate male students voluntarily participated in the study. After they completed the self-report questionnaires

and sample writing, participants were assigned to the following three experimental conditions: positive ($n = 32$), negative ($n = 30$), and delayed ($n = 30$) assessment on writing skills. DA was determined by phony electric shocks, which were administered to unconcerned people about the evaluation. The results indicated that narcissism was not significantly related to DA following negative and positive assessments. However, there was a strong effect of narcissism on DA in the delayed feedback condition. The researchers argued that this condition was frustrating because of ambiguity or delayed gratification about their performance.

Studies regarding the relationship between narcissism and aggression among children have revealed results that are rather more consistent. For example, Barry et al. (2003) investigated the relations among narcissism, self-esteem, CU (callous-unemotional, e.g. absence of guilt, limited emotional behaviors, lack of empathy) traits, and conduct problems in 98, 9-15 years old children. Results indicated that narcissism and self-esteem had low correlations, and their correlations with the conduct problems were at the opposite ends of the same continuum. High narcissism and low self-esteem were connected with high levels of conduct problems. Results also showed that a maladaptive dimension of narcissism was positively correlated with conduct problems and CU traits, and negatively correlated with self-esteem. There was no significant interaction between narcissism and CU traits. Moreover it was found that males who showed maladaptive aspects of narcissism employed more conduct problems than females.

In a comparative study with 370 Asian children and adolescents, Ang and Yusof (2005) studied the relationships among aggression, narcissism, and self-esteem. The results indicated that aggressive students reported considerably higher narcissism scores than non-aggressive students, but there is no difference between aggressive and non-aggressive students in terms of their self-esteem scores. The investigators claimed that results

provide empirical evidence that high self-esteem and narcissism are different constructs.

In a descriptive study with 233, 5th-8th grade students at three inner-city schools, Washburn, McMahon, King, Reinecke, and Silver (2004) found positive relationship between narcissistic features, especially exploitativeness and self reported proactive aggression (purposeful aggressive behavior), and between exhibitionism and internalizing symptoms. The results showed that females had higher scores on the NPI Adaptive Narcissism factor than males, whereas males had higher scores on the Teacher Checklist-Aggression Scale than females. The interaction between narcissism and self-esteem was only found in teacher-reported aggression, and in self-reported internalizing symptoms.

Barry, Frick et al. (2007), in their longitudinal study with 98 children, ranging in age from 9 to 15 years, found that maladaptive aspects of narcissism (exploitativenss, entitlement, exhibitionism) was a significant predictor of delinquency up to two years later even when controlling other interpersonal risk factors for conduct problems (e.g., callous-unemotional traits, impulsivity), parenting practices, earlier conduct problems; and delinquency in early years of life was a more consistent and unique predictor of delinquency in further ages. They also observed that adaptive narcissism (authority, self-sufficiency) was related to maladaptive narcissism, but not related to delinquency.

In the same vein, Barry et al. (2007) conducted an experimental study to investigate the role of psychopathy-linked narcissism in predicting proactive and reactive aggression and conduct problems of 160 aggressive children. The results indicated that males had higher levels of narcissism than females, and narcissism was related to reactive aggression, proactive aggression, and conduct problems. The researchers claimed that narcissism and self-esteem were unrelated since no correlation between them was

found. The results also indicated that higher narcissism was related to higher proactive aggression, reactive aggression, and conduct problems. When the control variables, such as narcissism, were entered into equation, no relationship was found between low self-esteem and high aggression and conduct problems.

Furthermore, Sandstrom and Herlan (2007) investigated the association between egotism and aggressive behavior of, 4th grade children in two consecutive studies. In the first study, participants were 392 children. Sociometric interviews were conducted and results showed that children, who overestimated their social acceptance, were scored high on both overt and relationally aggressive behavior by their peers. In the experimental study, participants were 94 children. Participants, after receiving positive or negative feedback from a peer about their performance in a class speech, were given a chance to behave aggressively toward the valuator for assessing the retaliation in reply to provocation. The results showed that children who had an exaggerated status among peers did not respond aggressively toward criticism coming from their peers. On the contrary, children who are considered more positive by their peers than their perceptions behave aggressively in response to criticism. The results also showed that low levels of self-esteem were associated with high levels of retaliatory behavior regardless of peer feedback. On the other hand, high levels of self-esteem was connected to low levels of retaliatory behavior in response to praise, and high levels of retaliation in response to peer criticism.

In summary, the literature review demonstrates that a considerable number of studies on narcissism and aggression relationship have been mostly carried out with university students and children abroad. Moreover, empirical evidence has not consistently suggested a link between narcissism and aggression particularly for university population. In addition, there

exists no study that explores the predictive value of narcissism on aggressive behaviors of high school students in Turkey.

2.3.4. Social Problem Solving

Throughout the day, people face many problems, and try to solve them at home, at school, at work, even at the market. However, some problems can be very challenging and require more thought and emotion. The way in which people handle these problems can play an important role in daily life, so it requires some skills. According to D’Zurilla and Nezu (1999; as cited in McMurrin, Fyffe, McCarthy, Duggan, & Latham, 2001) social problem solving is the application of these skills in daily life. On the other hand, deficiencies in these abilities might lead to aggressive solutions. Studies abroad also have yielded that aggressive children and adolescents found less solutions to problems and have chosen more aggressive behaviors than non-aggressive ones (e.g., Akhtar & Bradley, 1991; D’Zurilla, Chang, & Sanna, 2003; Jaffee & D’Zurilla, 2003; Pakaslahti & Keltikangas-Jarvinen, 1997; Perry, Perry, & Rasmussen, 1986).

For example, Pakaslahti and Keltikangas-Jarvinen (1997), in a study with 780, 14- year-old adolescents, demonstrated that “the approval of aggression as a way of coping with social problems because of existing excuses” was positively associated with aggressive behavior. “Completely negative attitudes towards aggression” and “Aggression as an unacceptable way of coping with social conflict situations” were associated negatively with aggressive behavior. Furthermore, the researchers found a support for the mediating role of social acceptance in relation to aggressive problem solving strategies and aggressive behavior.

Likewise, Jaffee and D’Zurilla (2003), in their descriptive study with 117 high school students and their mothers ($n = 83$) and fathers ($n = 73$), investigated the relationships among adolescents’ and their parents’ social

problem solving abilities, aggression and delinquency. Results of the study indicated that social problem solving abilities of adolescents were significantly related to aggression and delinquency. Moreover, aggression was related to more negative problem orientation and avoidance style; and delinquency was related to more avoidance style and impulsivity/carelessness style. It was also found out that mothers' problem solving skills were related to children's aggressiveness; but father's problem solving skills were not associated with aggression.

Similarly, McMurrin, Blair, and Egan (2002) found that there was a negative relation between social problem solving and aggression in British undergraduate and postgraduate male students ($n = 70$). It was also found that problem solving ability had a mediating role between impulsivity and aggression. The authors suggested that teaching problem solving skills could be beneficial in order to reduce aggression.

In a recent study with 108 psychology undergraduates, Ramadan and McMurrin (2005) reported that impulsiveness was linked to aggression, and social problem solving had a mediating role in this relationship in both males and females. However, in a correlational study with incarcerated male offenders, Derkzen (2007) found that social problem solving did not act as a mediating role in the relationship with impulsivity and aggression. The results also indicated that higher levels of impulsivity and alcohol dependency and lower levels of social problem solving were related to higher levels of aggression.

Studies regarding the relationship between problem solving and aggression have recently been appeared in the Turkish literature. In a descriptive study conducted with 538 high school students, Şahan (2007) examined the role of the problem solving, self-esteem, and peer pressure on aggression. Results revealed that low peer pressure, high self-esteem level, and problem solving ability were the indicators of low aggression. Likewise, in an adult sample,

Kurtyılmaz (2005) investigated the 853 teacher trainees' aggressive behaviors in terms of various variables. Results indicated that men were more aggressive than women were, and when the negative perceptions to problem solving ability increased, aggressive behaviors increased, too.

Although less research is available on the relationship between problem solving and aggression in Turkish samples, there have been several studies on the relationship between gender and problem solving. In general, literature indicated inconsistent findings about the effect of gender on problem solving. Although in some studies, males perceived themselves more confident than females in problem solving (e.g., Aksan, 2006; Aslan, 2007; Korkut, 2002), some of them showed that females were more confident in their problem solving abilities than males (e.g., Çam & Tümkaya, 2006; Danişık, 2005; Derin, 2006), and in others, no significant gender difference was found (e.g., Batıgün & Şahin, 2003; Çilingir, 2006; Taylan, 1990; Tümkaya & İflazoğlu, 2000).

For example, Tümkaya and İflazoğlu (2000), in their correlational study, found that social problem solving perceptions of 443 undergraduate students did not differentiate in terms of gender. Similarly, Taylan (1990), in his study with 226 university students also observed no interaction between problem solving and gender. Likewise, Batıgün and Şahin (2003), in their correlational study with 619 individuals (aged 14 to 62), reported no gender differences in problem solving ability. Moreover, in a descriptive study with 400 high school students, Çilingir (2006) found no significant gender effect on problem solving.

In a descriptive study with 623 graduate and undergraduate students, Çam and Tümkaya (2006) found that female students had more negative way of approaching problems and they used more insistent-persevering approach than male students. Moreover, Derin (2006), in her study with 434 secondary school students, indicated that females perceived themselves

better than males in problem solving abilities. On the contrary, in Korkut's study (2002) with 239 high school students, males reported more confident perception in terms of problem solving abilities than females. Likewise, Aslan (2007), in a descriptive study, investigated self-perceptions of 270 undergraduate students in terms of problem solving, and found that males had more confidence in problem solving than females. Similarly, Aksan (2006), in a correlational study with 111 university students, demonstrated that males had more confidence than females in problem solving abilities.

In summary, literature review indicates that gender, self-esteem, narcissism, and social problem solving appear to be important factors that influence or impact aggression in children, adolescents, and young adults. However, a precise understanding of each factors' contribution to aggression is still unknown. To date, it is also evident that no study has explored the gender, self-esteem, narcissism, and social problem solving (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style) variables concomitantly to predict aggressive behaviors (i.e., physical aggression, anger, hostility, and verbal aggression) among Turkish adolescents.

CHAPTER III

METHOD

In this chapter, methodological process of the study is presented. In the first section, the overall design of the study is presented. Details about the participants are explained in the second section. Data collection instruments used in the present study and their validity and reliability studies are presented in the third section. The data collection procedure is described in the fourth section. The fifth section presents description of variables. Data analysis procedure is explained in the sixth section. The last section presents the limitations of the study.

3.1. Overall Design of the Study

The purpose of this correlational study is to investigate the role of perceived social problem solving (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style), self esteem, narcissism, and gender in predicting aggressive behaviors (i.e., physical aggression, anger, hostility, verbal aggression) of high school students.

Participants were 825 adolescents (aged 14-18) from five state high schools located in Ankara. Buss-Perry Aggression Questionnaire (AQ), Rosenberg Self-Esteem Scale (RSES), Ames, Rose, and Anderson Narcissistic Personality Inventory (NPI-16), and D'Zurilla and Maydeu-Olivares Social Problem Solving Inventory-Revised (SPSI-R) were administered to participants in a single session.

Four separate standard multiple regression analyses were conducted to examine the role of perceived social problem solving (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, avoidance style), self-esteem, narcissism and gender in predicting aggressive behaviors (i.e., physical aggression, anger, hostility, verbal aggression) of high school students.

3.2. Participants

Convenient sampling method was used as a sample selection procedure. Eight hundred and twenty-five volunteer high school students were recruited from two Anatolian high schools (Ankara High School, and Ankara Atatürk High School) ($n = 400$), one general lycee (Ahmet Yesevi High School) ($n = 150$), one Anatolian vocational high school (Anafartalar Anatolian Vocational High School) ($n = 75$), and one multi programmed lycee (Doğantepe Multi Programmed Lycee) ($n = 200$) in Ankara. Of participants, 58.2% were female ($n = 480$) and 41.8% were male ($n = 345$).

3.3. Data Collection Instruments

Four self-report instruments, namely Aggression Questionnaire (Can, 2002), Rosenberg Self-Esteem Scale (Çuhadaroğlu, 1986), Narcissistic Personality Inventory (Ames, Rose, & Anderson, 2006), and Social Problem Solving Inventory-Revised (Dora, 2003) were used as data collection instruments in the present study.

3.3.1. Aggression Questionnaire (AQ)

Buss and Perry (1992) revised “the Buss-Durkee Hostility Inventory” and developed “Aggression Questionnaire” to measure the aggression level of healthy and unhealthy children and adolescents aged 9-18. It consists of 34 items, which are scored along a 5 point- Likert scale, with 1 showing “very

often applies to me” and 5 showing “never or hardly ever applies to me”. The item of 19 is scored in a reverse manner. Aggression Questionnaire includes five subscales; Physical Aggression (9 items), Verbal Aggression (5 items), Anger (7 items), Hostility (8 items), and Indirect Aggression (5 items). Internal consistency reliability of the original questionnaire was found to be .89 for the total scale, .85 for Physical Aggression, .72 for Verbal Aggression, .83 for Anger, .77 for Hostility, and .72 for Indirect Aggression subscales. Moreover, test-retest reliability for the total scale was .80; for the subscales of Physical Aggression, Verbal Aggression, Anger, Hostility, and Indirect Aggression were .80, .76, .72, .72, .74, respectively. Additionally, Harris (1997), in his reliability and validity study of AQ, found that Cronbach’s Alpha Correlation Coefficient was .76 for the total scale. The internal consistency of the subscales ranged between .70 and .75 (as cited in Can, 2002).

AQ was adapted to Turkish population by Can (2002) (see Appendix A). Self-report data were obtained from 300 healthy and voluntary people (ages 18 and above) in psychiatry service. The Turkish version of the instrument has a high internal consistency. Cronbach Alfa coefficient was found to be .92 for the total scale, and internal consistencies of the subscales ranged from .54 to .83. Test-retest reliability for the total scale was .86, for the subscales of physical aggression, verbal aggression, anger, hostility, and indirect aggression were .85, .70, .75, .81, and .74, respectively. The three subscales of the Spielberg’s State Trait Anger Scale, continual anger, anger-into, and anger-out had positive relationship with AQ (correlation coefficients ranged from -.53 to .75); whereas anger control subscale had a negative relationship ($r = -.28$) with AQ.

3.3.1.1. Validity and Reliability of AQ

Exploratory factor analysis was performed to obtain construct validity evidence for the AQ ($n = 825$). Results of the principal component analysis

with varimax rotation revealed 8 factors explaining 51.14% of the total variance with Eigenvalues of 7.31, 2.04, 1.80, 1.52, 1.39, 1.17, 1.14, and 1.02 respectively. However, it was observed that most of the items did not cluster according to a theoretically meaningful factor structure. Since the original AQ has five factors, 5 - factor orthogonal solution was selected. The five factor solution explained 41.62% of the total variance with Eigenvalues of 7.40, 2.00, 1.83, 1.52, and 1.39 respectively. It was also observed that several items did not load strongly on any factors (item 16), or highly loaded on at least two factors (item 22, 17, 14, 33, 9, 15, and 32). In addition, items of Indirect Aggression factor loaded on other factors. It was also noticed that almost all of Indirect Aggression items' loadings (except item 13) were quite low. Therefore, item 26, 28, 34, 20, 18, and 30 were dropped from the further analysis. Finally, the results of the principal component analysis with varimax rotation revealed four factors with Eigenvalues of 5.38, 1.69, 1.52, and 1.13, respectively, explaining 48.60% of the total variance. This four-factor consisted of 20 items of AQ. Except item 13, which loaded highly on Physical Aggression factor not on Indirect Aggression; factor loadings approximated those of the original study. Factor loadings of four-factor solution for the AQ are presented in Table 3.1. Additionally Eigenvalues and percentages of the explained variance of the four components are shown in Table 3.2.

Table 3.1
Factor Loadings and Communalities of the Items of AQ via Principal Component Analysis with Varimax Rotation

Item No	Items of AQ	Com	F1	F2	F3	F4
11	Someone has pushed me so far that hit him or her	.60	.76			
27	If I have to resort to violence to protect my rights, I will	.52	.72			
25	If somebody hits me, I hit back	.52	.71			

Table 3.1 Continued

Item No	Items of AQ	Com	F1	F2	F3	F4
23	At times I can't control the urge to hit someone	.51	.65			
8	I may hit someone if he or she provokes me	.46	.64			
10	I have threatened people I know	.41	.54			
24	I get into fights more than most people	.46	.53			
13	If I'm angry enough, I may mess up someone's work	.31	.49			
19	I'm a calm person	.52		.67		
7	At times I get very angry for no good reason	.50		.65		
12	I have trouble controlling my temper	.55		.58		
3	I flare up quickly, but get over it quickly	.33		.55		
29	At times I feel like a bomb ready to explode	.41		.47		
21	I sometimes feel that people are laughing at me behind my back	.60			.74	
31	I know that 'friends' talk about me behind my back	.56			.68	
5	At time I feel I have gotten a raw deal out of line	.50			.64	
2	Other people always seem to get the breaks	.41			.57	
4	I often find myself disagreeing	.64				.75
1	My friends say that I argue a lot	.51				.67
6	I can't help getting into arguments when people disagree with me	.42				.59

Note. Com=Communality; F1=Physical Aggression subscale; F2=Anger subscale; F3=Hostility subscale; F4=Verbal Aggression subscale.

Table 3.2

Rotation Sums of Squared Loadings of Four Factors of AQ

Component	Eigenvalue	% of Variance	Cumulative %
Physical aggression	5.38	18.25	18.25
Anger	1.69	10.36	28.61
Hostility	1.52	10.14	38.75
Verbal aggression	1.13	9.85	48.60

Internal consistency of AQ was assessed by computing Cronbach Alpha Coefficient ($n = 825$). The reliability coefficient alpha was found .85 for the total scale, .82 for Physical Aggression, .67 for Anger, .64 for Hostility, and .64 for Verbal Aggression subscales.

3.3.2. Rosenberg Self-Esteem Scale (RSES)

Rosenberg Self-Esteem Scale was developed by Rosenberg (1965) for measuring global self-esteem levels of adolescents. RSES is a Guttman-type scale with four response options ranging from strongly agree (1) to strongly disagree (4), and consists of 10 items, 5 positively scored and 5 negatively scored. RSES includes such statements as the following: “I do not have much to be proud of”, “I am proud of myself”, and “I take a positive attitude toward myself”. Reverse items are 3, 5, 8, 9, 10. The possible total score obtained from the scale ranges between 0-40. The higher score indicates the higher self-esteem (Schmitt & Allik, 2005).

Rosenberg Self Esteem Scale was adapted to Turkish adolescents by Çuhadaroğlu (1986) (see Appendix B). The correlation coefficient between psychiatric interview scores and scores of RSES was found .71 (Çuhadaroğlu, 1986). Besides, in a recent study with 837 high school students, Cronbach Alpha Correlation Coefficient computed for RSES was found .81 (Özmen, 2006).

In the present study, internal consistency of RSES was computed by Cronbach Alpha Coefficient ($n = 794$). For the total scale, the Cronbach Alpha Correlation Coefficient was found .79.

3.3.3. Narcissistic Personality Inventory (NPI-16)

Narcissistic Personality Inventory originally was developed by Raskin and Hall (1979, as cited in Raskin & Terry, 1988), and then revised by Raskin and Terry (1988) and Emmons (1987, as cited in Ames et al., 2006). Short measure of narcissism (the NPI-16) was developed by Ames et al. (2006) (see Appendix C). Ames, Rose, and Anderson (2006), in their five studies (776 undergraduate university students in the first study, 167 MBA students in the second study, 158 undergraduate students in the third study, 176 undergraduate students in the fourth study, and 43 MBA students in the last study) found that NPI-40 and NPI-16 scale were significantly and positively correlated ($r = .90$). Test-retest reliability of NPI-16 over a 5 week interval showed stable scores; α was .69 at Time 1, .78 at Time 2, and internal consistency estimated by Cronbach Alpha Correlation Coefficient was .85. Furthermore, NPI-16 and NPI-40 indicated similar moderate and significant correlations with Rosenberg Self-Esteem Scale ($r = .30$, and .38, respectively). Additionally, the NPI-16 was found to be positively correlated with openness, extraversion, self-esteem, self-monitoring, and expectations subscales of the longer version of NPI in Emmons' study (1984; as cited in Ames et al., 2006). However, short form was not significantly correlated with dispositionism subscale.

Scoring is done via computing proportion of narcissism. Narcissist items were scored as 1, and non-narcissist items were scored as 0. The possible maximum score obtained from the scale is 16 and minimum is 0. A higher scores obtained from the inventory indicates higher level of narcissism.

3.3.3.1. Adaptation Study of NPI-16

First translation study of the NPI-16 was implemented. Original form of the NPI-16 was translated to Turkish by two academicians from Middle East Technical University and one guidance counselor from Başkent University who had a good command of English and Turkish. The translated form was also examined by one instructor working at Academic Writing Center in Middle East Technical University. Afterwards the researcher and her supervisor evaluated the Turkish translations of the NPI-16, and then the final form of the NPI-16 was obtained.

3.3.3.2. Validity and Reliability of NPI-16

Exploratory factor analysis was performed for the NPI-16 in this study ($n = 825$). The results of the Principal components analysis with varimax rotation yielded five factors with Eigenvalues over 1, explaining 47.84% of the total variance. It was observed that item 11, item 7, and item 3 loaded on other factors as well. Therefore, these items were removed from the further factor analysis. In the second run results revealed five factors explaining 55.65% of the total variance with Eigenvalues of 2.71, 1.26, 1.17, 1.08, and 1.01 respectively. Factor loadings of five-factor solution for the NPI are given in Table 3.3. Additionally Eigenvalues and percentages of the explained variance of the five components are presented in Table 3.4.

Since the original NPI-16 was developed as a unidimensional scale, and several factors (i.e., F3, F4, and F5) obtained from the Principal components analysis included two items, it was decided to utilize the total score of NPI in the subsequent multiple regression analyses.

Table 3.3
Factor Loadings and Communalities of the Items of NPI via Principal Component Analysis with Varimax Rotation

Item No	Items of NPI	Com	F1	F2	F3	F4	F5
2	I am no better or no worse than most people	.59	.70				
6	I think I am a special person						
	I am going to be a great person	.55	.68				
	I hope I am going to be successful						
10	I am much like everybody else	.60	.66	.38			
	I am an extraordinary person						
16	I am more capable than other people	.41	.57				
	There is a lot that I can learn from other people						
5	I don't mind following orders	.57		.66			
	I like having authority over people						
13	Being an authority doesn't mean that much to me	.49		.62			
	People always seem to recognize my authority						
12	I don't like it when I find myself manipulating people	.51		.60			.39
	I find it easy to manipulate people						
1	I really like to be the center of attention	.74			.85		
	It makes me uncomfortable to be the center of attention						
9	I like to be the center of attention	.62			.73		
	I prefer to blend in with the crowd						
4	I usually get the respect that I deserve	.62				.76	
	I insist upon getting the respect that is due me						
8	I expect a great deal from other people	.52				.66	
	I like to do things for other people						
15	I try not to be a show off	.52					.68
	I am apt to show off if I get the chance						
14	I know that I am good because everybody keeps telling me so	.51					.67
	When people compliment me I sometimes get embarrassed						

Note. Com=Communality; F1 = Factor 1; F2 = Factor 2; F3 = Factor 3; F4 = Factor 4; F5 = Factor 5.

Table 3.4

Rotation Sums of Squared Loadings of Five Factors of NPI

Component	Eigenvalue	% of Variance	Cumulative %
Factor 1	2.71	14.01	14.01
Factor 2	1.26	11.71	25.71
Factor 3	1.17	10.99	36.71
Factor 4	1.08	9.55	46.26
Factor 5	1.01	9.39	55.65

The internal consistency of NPI-16 was calculated by Cronbach Alpha Correlation Coefficient ($n = 790$). The correlation coefficient .65 was obtained for the overall scale.

3.3.4. Social Problem Solving Inventory-Revised (SPSI-R)

Social Problem Solving Inventory, which was a theory based instrument, was developed to measure the social problem solving components. According to the social problem solving theory, social problem solving includes two dimensions, problem orientation and problem solving style and these two dimensions have also subscales in themselves (D’Zurilla & Nezu, 1990; as cited in Maydeu-Olivares, & D’Zurilla, 1996).

The revised version of SPSI consists of 52 items. This self-report inventory has five subscales; Positive Problem Orientation (PPO), Negative Problem Orientation (NPO), Rational Problem Solving (RPS), Impulsivity/Carelessness Style (ICS), and Avoidance Style (AS). Rational Problem Solving Scale also contains four subscales: Problem Definition and Formulation, Generation of Alternatives, Decision-Making, and Solution Implementation and Verification (Maydeu-Olivares & D’Zurilla, 1996). SPSI-R is a 5 point Likert type scale, ranging from “not at all true of me (0)” to “extremely true of me (4)”. Total score from the SPSI-R can be obtained, and subtests can also be scored, separately. D’Zurrilla, Nezu, and Maydeu-Olivares (1996; as cited in Dora, 2003), in their study with 1635 university students, 100 middle-aged and 100 elderly people, found that correlation coefficient alphas for the five major scales of SPSI-R ranged

between .69 and .95. Test-retest reliability reported for a sample of 359 university students ranged between .72 and .88. For the construct validity of SPSI-R, the factor structures was assessed with a sample of university students ($n = 1053$) and the results yielded five factors, as consistent with the social problem solving theory. The reliabilities reported for the individual scales in a university sample ranged between -.49 and .75. Furthermore, it was found that the subscales of SPSI-R and Problem Solving Inventory correlated significantly, and correlation coefficients ranged from -.58 to .69. Moreover, significant correlations were found between the subscales of SPSI-R and self esteem (correlation coefficients ranged between -.51 and .35) (D'Zurrilla et al., 1996; as cited in Dora, 2003).

SPSI-R was adapted to Turkish culture by Dora (2003). After translation and back translation procedures, Turkish and English forms of the inventory were administered to ten students, and correlation coefficient was found .82. Turkish form of SPSI-R was also subjected to factor analysis, and items with factor loadings below .30 were excluded (items 4, 10, 15, 19, 22, 34, 38, 42, and 51) from the scale. The final form of Turkish SPSI-R consists of 43 items and has five subscales. Furthermore, the correlations among the subscales of SPSI-R ranged from .49 (between Positive Problem Orientation and Rational Problem Solving subscales) to -.15 (between Positive Problem Orientation and Impulsivity/Carelessness Style subscales). The correlation between the scale scores of SPSI-R and score obtained from another measure of problem solving inventory was computed and Cronbach alpha coefficients ranged from -.44 to .59. The internal consistency of the total inventory estimated by Cronbach alpha was found .74. For the subscales, Cronbach alphas ranged from .60 to .90 (Dora, 2003).

3.3.4.1. Validity and Reliability of SPSI-R

Exploratory factor analysis was performed to obtain construct validity evidence for the SPSI-R ($n = 825$). Results of the principal component analysis with varimax rotation yielded nine factors explaining 50.01% of the total variance with Eigenvalues over 1. However, it was observed that several items did not load strongly on any factors (i.e., item 10) or highly loaded on at least two factors (i.e., item 18, item 43, item 46, item 26, item 27, item 2, item 36, item 22, item 45, item 51, and item 52). These items were excluded from the subsequent analysis. A series of principal component analyses with varimax rotation were carried out by considering the original SPSI-R factor structures. During this process, item 7, item 9, item 19, item 28, and item 38, which loaded highly on rational problem solving factor not on positive problem orientation were also dropped. The final rotated solution yielded four meaningful factors explaining 43.78% of the total variance with Eigenvalues of 7.77, 4.17, 1.92, and 1.45 respectively. Factor loadings of four-factor solution for the SPSI-R are presented in Table 3.5. Eigenvalue and percentage of the explained variance of SPSI-R are given in Table 3.6.

Table 3.5
Factor Loadings and Communalities of the Items of SPSI-R via Principal Component Analysis with Varimax Rotation

Item No	Items of SPSI-R	Com	F1	F2	F3	F4
48	When I am attempting to solve a problem, I approach it from as many different angles as possible.	.50	.70			
40	When I have a decision to make, I weigh the consequences of each option and compare them to each other.	.50	.70			

Table 3.5 Continued

Item No	Items of SPSI-R	Com	F1	F2	F3	F4
44	When I have a problem to solve, I examine what factors or circumstances in my environment might be contributing to the problem.	.43	.65			
39	When I am trying to solve a problem, I think of as many options as possible until I cannot come up with any more ideas.	.43	.65			
49	When I am having trouble understanding a problem, I try to get more specific and concrete information about the problem to help clarify it.	.42	.64			
29	When I have a problem to solve, one of the things I do is try to get as many facts about the problem as possible.	.42	.64			
37	After carrying out a solution to a problem, I try to evaluate as carefully as possible how much the situation has changed for the better.	.42	.63			
33	Before I try to solve a problem, I set a specific goal so that I know exactly what I want to accomplish.	.41	.62			
35	When the outcome of my solution to a problem is not satisfactory, I try to find out what went wrong and then I try again.	.40	.61			
47	When I am trying to solve a problem, I keep in mind what my goal is at all times.	.43	.61			
24	When making decisions, I consider both the immediate consequences and long-term consequences of each option and compare them to each other.	.40	.60			
20	When I am attempting to solve a problem, I try to be creative and think of new or original solutions.	.38	.58			
11	When I have a problem to solve, one of the things I do is analyze the situation and try to identify what obstacles are keeping me from getting what I want.	.36	.58			
5	When I am trying to solve a problem, I often think of different solutions and then try to combine some of them to make a better solution.	.36	.58			
25	After carrying out my solution to a problem, I analyze what went right and what went wrong.	.38	.56			

Table 3.5 Continued

Item No	Items of SPSI-R	Com	F1	F2	F3	F4
12	When my first efforts to solve a problem fail, I get very frustrated.	.55		.73		
17	Difficult problems make me very upset.	.47		.68		
50	When my first efforts to solve a problem fail, I get discouraged and depressed.	.47		.66		
41	I become depressed and immobilized when I have an important problem to solve.	.46		.65		
6	I feel nervous and unsure of myself when I have an important decision to make.	.43		.64		
13	When I am faced with a difficult problem, I doubt that I will be able to solve it on my own no matter how hard try.	.42		.62		
32	When I am trying to solve a problem, I get so upset that I cannot think clearly.	.45		.59		
1	I spend too much time worrying about my problems instead of trying to solve them.	.40		.56		
31	I spend more time avoiding my problems than solving them.	.56			.72	
14	When a problem occurs in my life, I put off trying to solve it for as long as possible.	.57			.71	
30	I put off solving problems until it is too late to do anything about them.	.56			.71	
16	I go out of my way to avoid having to deal with problems in my life.	.52			.66	
23	I prefer to avoid thinking about the problems in my life instead of trying to solve them.	.48			.64	
42	When I am faced with a difficult problem, I go to someone else for help in solving it.	.23			.42	
21	When I am trying to solve a problem, I go with the first good idea that comes to mind.	.62				.77
8	When I am attempting to solve a problem, I act on the first idea that occurs to me.	.59				.76
15	After carrying out a solution to a problem, I do not take the time to evaluate all of the results carefully.	.33				.45
34	When I have a decision to make, I do not take the time to consider the pros and cons of each option.	.35				.42

Table 3.5 Continued

Item No	Items of SPSI-R	Com	F1	F2	F3	F4
4	When I have decision to make, I fail consider the effects that each option is likely to have on well-being of other people.	.31				.40
3	When making decisions, I do not evaluate all my options carefully enough.	.32				.35

Note. Com=Communality; F1=Rational Problem Solving subscale; F2=Negative Problem Orientation subscale; F3=Avoidance Style subscale; F4=Impulsivity/Carelessness Style subscale.

Table 3.6

Rotation Sums of Squared Loadings of Four Factors of SPSI-R

Component	Eigenvalue	% of Variance	Cumulative %
Rational Problem Solving	7.77	17.48	17.48
Negative Problem Solving	4.17	10.62	28.11
Avoidance Style	1.92	9.87	37.98
Impulsivity/Carelessness Style	1.45	5.80	43.78

Internal consistency of SPSI-R was calculated by Cronbach Alpha Coefficient ($n = 798$). The Cronbach Alpha Correlation Coefficient was found .77 for overall scale, .89 for Rational Problem Solving, .82 for Negative Problem Orientation, .80 for Avoidance Style, and .67 for Impulsivity/Carelessness Style. These results indicate that SPSI-R has satisfactory internal consistency for the subscales as well as for the overall scale.

3.4. Data Collection Procedure

After obtaining permission from the Middle East Technical University Human Subjects Ethics Committee and the Ministry of Education (*see* Appendix E), school principals were visited for explaining the purpose of the study and asking their collaboration. After school principals accepted to

cooperate, five schools were selected. A set of instruments consisting of five scales (AQ, RSES, NPI, and SPSI-R), parent approval and student consent forms were prepared to collect the data. At the last week of 2007, after informing the students about the study, parent approval forms were delivered to the students through the collaboration with school counseling services, and administration day was announced for bringing the forms back at this time. After the student consent forms were collected, administration was made during the last two weeks of the first semester in the class sessions by the researcher. Detailed instructions about answering the instruments were given. Volunteer students completed the instruments in thirty minutes.

3.5. Description of Variables

Physical Aggression: The sum of scores as measured by Physical Aggression Subscale of Aggression Questionnaire.

Anger: The sum of scores as measured by Anger Subscale of Aggression Questionnaire.

Hostility: The sum of scores as measured by Hostility Subscale of Aggression Questionnaire.

Verbal Aggression: The sum of scores as measured by Verbal Aggression Subscale of Aggression Questionnaire.

Self-Esteem: The sum of scores as measured by Rosenberg Self-Esteem Scale (RSES).

Narcissism: The sum of scores as measured by Narcissism Personality Inventory-16 (NPI-16).

Rational Problem Solving: The sum of scores as measured by Rational Problem Solving Subscale of Social Problem Solving Inventory-Revised.

Negative Problem Orientation: The sum of scores as measured by Negative Problem Orientation Subscale of Social Problem Solving Inventory-Revised.

Avoidance Style: The sum of scores as measured by Avoidance Style Subscale of Social Problem Solving Inventory-Revised.

Impulsivity/Carelessness Style: The sum of scores as measured by Impulsivity/Carelessness Style Subscale of Social Problem Solving Inventory-Revised.

Gender: A dichotomous variable with categories of (1) female and (2) male. For multiple regression analysis, this variable was dummy coded as 0 for females and 1 for males.

3.6. Data Analysis Procedure

To investigate the role of perceived social problem solving styles (i.e., negative problem orientation, rational problem solving, impulsivity/carelessness style, and avoidance style), self esteem, narcissism, and gender in predicting aggressive behaviors (i.e., physical aggression, anger, hostility, verbal aggression) of high school students, four separate standard multiple regression analyses were conducted. SPSS 11.5 (Statistical Package for Social Sciences) for Windows was run to carry out all the analyses.

3.7. Limitations

There are certain limitations of the current study. First of all, this study was limited with the data collected from high schools located in Ankara, and sample selection was based on the convenient sampling. Thus, the generalizability of the results is limited with the 14-18 year old urban students at these high schools in Ankara. Secondly, the design of the present study is correlational; hence, no causal relationship can be depicted. Finally, self-report inventories were used, so responses to the questions could be perfunctory, wrong, or false. Social desirability or negative affectivity might confound to the results.

CHAPTER IV

RESULTS

In this chapter, the results of the statistical analyses are presented. This chapter includes three main sections. In the first section, the means and standard deviations of the quantitative predictor and criterion variables are reported. In the second section, the correlations among the predictor variables and criterion variables are presented. Last section is devoted to the presentation of the results of four standard multiple regression analyses that were applied separately to Physical Aggression, Anger, Hostility, and Verbal Aggression subscale scores of the Aggression Questionnaire.

4.1. Descriptive Statistics of Quantitative Predictor (independents) and the Criterion (dependents) Variables for the Total Sample

Prior to regression analyses, descriptive characteristics of the sample were investigated. Table 4.1 presents the means and the standard deviations of the quantitative predictor and the criterion variables.

Table 4.1
Means and Standard Deviations of the Quantitative Predictor and the Criterion Variables

Variables	<i>M</i>	<i>SD</i>	<i>n</i>
Criterion Variables (Aggressive Behaviors)			
1. Physical Aggression*	18.71	6.65	803
2. Anger*	13.44	4.21	814
3. Hostility*	11.02	3.58	815
4. Verbal Aggression*	6.83	2.68	814
Predictor Variables			
1. Negative Problem Orientation**	12.95	6.60	821
2. Avoidance Style**	5.86	4.72	819
3. Impulsivity/Carelessness Style**	7.71	4.26	819
4. Rational Problem Solving**	36.22	10.74	809
5. Narcissism	4.52	2.59	790
6. Self-esteem	30.50	4.68	794

Note. * = subscales of Aggression Questionnaire; ** = subscales of Social Problem Solving Inventory-Revised.

4.2. Bivariate Correlation Matrices of the Variables

Before conducting the regression analyses, Pearson correlation coefficients for all predictor (independent) variables with each criterion (dependent) variable were computed.

4.2.1. Bivariate Correlation Matrix for Physical Aggression

The Pearson Product Correlation Coefficients among the predictor variables and the criterion variable of physical aggression are presented in Table 4.2.

Table 4.2

The Pearson Product Correlation Coefficients among the quantitative predictor variables and the criterion variable of physical aggression

Variables	1	2	3	4	5	6	7	8
1.PA	-							
2.NPO	.13**	-						
3.AS	.21**	.48**	-					
4.ICS	.24**	.35**	.48**	-				
5.RPS	.03	-.15**	-.33**	-.27**	-			
6.Narcissism	.17**	-.03	.04	.08*	.10**	-		
7.Self-esteem	-.07	-.43**	-.35**	-.20**	.29**	.18**	-	
8.Gender	.30**	-.15**	.17**	.20**	-.04	.03	-.00	-

Note. **p< 0.01; * p< 0.05

PA=Physical Aggression; NPO=Negative Problem Orientation; AS=Avoidance Style; ICS=Impulsivity/Carelessness Style; RPS=Rational Problem Solving

As indicated in Table 4.2, the correlations among variables ranged from -.00 to .48. Any extreme correlation among the predictor variables was not detected. The highest significant correlation was observed between negative problem orientation and avoidance style. The results also showed low to moderate correlations between physical aggression and predictor variables. Physical aggression was found to significantly and positively correlate with negative problem orientation, avoidance style, impulsivity/carelessness style, narcissism, and gender. Moreover, rational problem solving and self-esteem did not significantly correlate with physical aggression.

4.2.2. Bivariate Correlation Matrix for Anger

The Pearson Product Correlation Coefficients among predictor variables and the criterion variable of anger are presented in Table 4.3.

Table 4.3

The Pearson Product Correlation Coefficients among the quantitative predictor variables and the criterion variable of anger

Variables	1	2	3	4	5	6	7	8
1.Anger	-							
2.NPO	.25**	-						
3.AS	.09*	.48**	-					
4.ICS	.16**	.35**	.48**	-				
5.RPS	.01	-.15**	-.33**	-.27**	-			
6.Narcissism	.15**	-.03	.04	.08*	.10**	-		
7.Self-esteem	-.12**	-.43**	-.35**	-.20**	.29**	.18**	-	
8.Gender	-.11**	-.15**	.17**	.20**	-.04	.03	-.00	-

Note. ** $p < 0.01$; * $p < 0.05$

NPO=Negative Problem Orientation; AS=Avoidance Style; RPS=Rational Problem Solving; ICS=Impulsivity/Carelessness Style

As seen in Table 4.3, anger was significantly and positively correlated with negative problem orientation, avoidance style, impulsivity/carelessness style, and narcissism; negatively correlated with self-esteem, and gender. Moreover, rational problem solving did not significantly correlate with anger.

4.2.3. Bivariate Correlation Matrix for Hostility

The Pearson Product Correlation Coefficients among the predictor variables and the criterion variable of hostility are presented in Table 4.4.

Table 4.4

The Pearson Product Correlation Coefficients among the quantitative predictor variables and the criterion variable of hostility

Variables	1	2	3	4	5	6	7	8
1.Hostility	-							
2.NPO	.40**	-						
3.AS	.25**	.48**	-					
4.ICS	.22**	.35**	.48**	-				
5.RPS	-.03	-.15**	-.33**	-.27**	-			
6.Narcissism	.10**	-.03	.04	.08*	.10**	-		
7.Self-esteem	-.34**	-.43**	-.35**	-.20**	.29**	.18**	-	
8.Gender	-.03	-.15**	.17**	.20**	-.04	.03	-.00	-

Note. **p< 0.01; * p< 0.05

NPO=Negative Problem Orientation; AS=Avoidance Style; RPS=Rational Problem Solving; ICS=Impulsivite/Carelessness Style

As seen in Table 4.4, hostility was significantly and positively correlated with negative problem orientation, avoidance style, impulsivity/carelessness style, and narcissism; negatively correlated with self-esteem. Furthermore, rational problem solving and gender negatively but not significantly correlated with hostility.

4.2.4. Bivariate Correlation Matrix for Verbal Aggression

The Pearson Product Correlation Coefficients among the predictor variables and the criterion variable of verbal aggression are presented in Table 4.5.

Table 4.5

The Pearson Product Correlation Coefficients among the quantitative predictor variables and the criterion variable of verbal aggression

Variables	1	2	3	4	5	6	7	8
1.VA	-							
2.NPO	.06	-						
3.AS	.05	.48**	-					
4.ICS	.17**	.35**	.48**	-				
5.RPS	.10**	-.15**	-.33**	-.27**	-			
6.Narcissism	.18**	-.03	.04	.08*	.10**	-		
7.Self-esteem	-.00	-.43**	-.35**	-.20**	.29**	.18**	-	
8.Gender	.13**	-.15**	.17**	.20**	-.04	.03	-.00	-

Note. **p< 0.01; * p< 0.05

VA=Verbal Aggression; NPO=Negative Problem Orientation; AS=Avoidance Style; ICS=Impulsivity/Carelessness Style=ICS; RPS=Rational Problem Solving

As seen in Table 4.5, verbal aggression was significantly and positively correlated with impulsivity/carelessness style, rational problem solving, narcissism, and gender. However, negative problem orientation, avoidance style, and self-esteem did not significantly correlate with verbal aggression.

4.3. Results of the Multiple Regression Analyses

Four separate standard multiple regression analyses were conducted to see how well gender, NPI scores, RSES scores, and the subscale scores of SPSI-R predicted the physical aggression, anger, hostility, and verbal aggression subscales scores of AQ. As is customary, categorical predictor, gender, was dummy coded. Results of the analyses were presented in the following sections.

Prior to conducting multiple regression analysis, major assumptions were tested. For testing normality, linearity, and homoscedasticity, descriptive statistics, histograms, residual scatterplots, and normal p-p plots were controlled. Results indicated that normality, linearity, and homoscedasticity were not violated. In order to check the assumption of no multicollinearity,

bivariate correlation coefficient, tolerance, VIF and CI values were examined. Correlations among independent variables were tested and no intercorrelation above .80 was found. Tolerance values were not low than .20. VIF values were not above 1. CI values were not above 3 (Field, 2000; 2003). As a result, it can be said that multicollinearity was not detected for the present data.

4.3.1. Results of the Multiple Regression Analysis Employed to Total Physical Aggression Subscale Scores

A standard multiple regression carried out to examine how well narcissism, self-esteem, negative problem orientation, rational problem solving, avoidance style, impulsivity/carelessness style, and gender predicted the total physical aggression scores of Turkish adolescents.

Table 4.6
The Multiple Regression Analysis Results Applied to Physical Aggression Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender

Predictor Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>
Constant	9.87	2.05	-	4.82
Narcissism	.39	.09	.16	4.48***
Self-Esteem	-.04	.06	-.03	-.65
Negative Problem Orientation	.12	.04	.12	2.73**
Rational Problem Solving	.08	.02	.13	3.51***
Avoidance Style	.11	.06	.07	1.70
Impulsivity/Carelessness Style	.19	.06	.12	3.06**
Gender	3.92	.48	.30	8.11***

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

Results showed that multiple regression coefficients (R) were significant for the equation model and combination of the seven variables explained 19% of the total variance ($R = .44$, $R^2 = .19$, $F_{7,718} = 24.29$, $p = .00$). Table 4.6

shows the summary of the multiple regression analysis predicting the total physical aggression scores of the sample.

As seen in Table 4.6, alteration in gender produced 3.92 points increase in the total scores of physical aggression ($t = 8.11, p = .00$). In other words, being male increased the total physical aggression scores. Additionally, every one point rising in the scores of narcissism, impulsivity/carelessness style, negative problem orientation, and rational problem solving, increased .39, .12, .08, and .19 points of the total scores of physical aggression ($t_n = 4.48; p = .00; t_{ics} = 3.06, p = .00, t_{npo} = 2.73, p = .01; t_{mps} = 3.51; p = .00$; respectively). Moreover, change in the scores of self-esteem and avoidance style did not significantly contribute to the total scores of physical aggression, respectively ($t_{se} = -.65, p = .52; t_{as} = 1.70, p = .09$). In respect to standardized regression coefficients, results indicated that the most predictive variables of the total scores of physical aggression were gender, narcissism, rational problem solving, impulsivity/carelessness style, and negative problem orientation. Furthermore, as seen in Table 4.6, gender predicted the total scores of physical aggression almost two times more than narcissism, rational problem solving, and impulsivity/carelessness.

4.3.2. Results of the Multiple Regression Analysis Employed to Total Anger Subscale Scores

A standard multiple regression employed to examine how well narcissism, self-esteem, negative problem orientation, rational problem solving, avoidance style, impulsivity/carelessness style, and gender predicted the total anger scores of Turkish adolescents.

Table 4.7

The Multiple Regression Analysis Results Applied to Anger Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender

Predictor Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>
Constant	11.56	1.35	-	8.58
Narcissism	.24	.06	.15	4.12***
Self-Esteem	-.07	.04	-.07	-1.80
Negative Problem Orientation	.14	.03	.22	4.89***
Rational Problem Solving	.02	.02	.06	1.44
Avoidance Style	-.07	.04	-.08	-1.71
Impulsivity/Carelessness Style	.12	.04	.12	2.80**
Gender	-.71	.32	-.08	-2.21*

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

Results showed that multiple regression coefficients (*R*) were significant for the equation model and combination of the seven variables explained almost 11% of the total variance ($R = .33$, $R^2 = .11$, $F_{7,722} = 12.20$, $p = .00$). Table 4.7 shows the summary of the multiple regression analysis predicting the total anger scores of the sample.

As seen in Table 4.7, alteration in gender produced -.71 points increase in the total anger scores ($t = -2.21$, $p = .03$). In other words, being female increased the total anger scores. Moreover, every one point rising in the scores of narcissism, negative problem orientation, and impulsivity/carelessness style increased .24, .14, and .12 points of the total scores of anger, respectively ($t_n = 4.12$, $p = .00$; $t_{npo} = 4.89$, $p = .00$; $t_{ics} = 2.80$, $p = .01$). Moreover, change in the scores of self-esteem, rational problem solving, and avoidance style did not significantly contribute to the total scores of anger, respectively ($t_{se} = -1.80$, $p = .07$; $t_{rps} = 1.44$, $p = .15$; $t_{as} = -1.71$, $p = .09$). Standardized regression coefficient results showed that the most predictive variables of the total scores of anger were negative problem orientation, narcissism, impulsivity/carelessness style, and gender. Furthermore, as seen in the table, negative problem orientation predicted the

total scores of anger more than narcissism and impulsivity/carelessness style.

4.3.3. Results of the Multiple Regression Analysis Employed to Total Hostility Subscale Scores

A standard multiple regression utilized to examine how well narcissism, self-esteem, negative problem orientation, rational problem solving, avoidance style, impulsivity/carelessness style, and gender predicted the total hostility scores of Turkish adolescents.

Table 4.8
The Multiple Regression Analysis Results Applied to Hostility Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender

Predictor Variables	<i>B</i>	<i>SE</i>	β	<i>t</i>
Constant	11.72	1.06	-	11.07
Narcissism	.19	.05	.14	4.13***
Self-Esteem	-.18	.03	-.24	-6.26***
Negative Problem Orientation	.16	.02	.30	7.28***
Rational Problem Solving	.03	.01	.10	2.70*
Avoidance Style	.03	.03	.04	1.05
Impulsivity/Carelessness Style	.05	.03	.07	1.68
Gender	.08	.25	.01	.33

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

Results showed that multiple regression coefficients (*R*) were significant for the equation model, and combination of the seven variables explained almost 25% of the total variance ($R = .50$, $R^2 = .25$, $F_{7,722} = 33.97$, $p = .00$).

Table 4.8 indicates the summary of the multiple regression analysis predicting the total hostility scores of the sample.

As seen in Table 4.8, every one point rising in the scores of narcissism, negative problem orientation, and rational problem solving increased

.19; .16, and .03 points of the total hostility scores, respectively ($t_n = 4.13$, $p = .00$; $t_{npo} = 7.28$; $p = .00$; $t_{tps} = .03$, $p = .01$). However, every one point increase in the self-esteem scores decreased .182 point of the total hostility scores ($t_{se} = -6.26$, $p = .00$). Moreover, change in the scores of avoidance style, impulsivity/carelessness style, and gender did not significantly contribute to the total scores of hostility, respectively ($t_{as} = .03$, $p = .30$; $t_{ics} = .05$, $p = .09$; $t_{gen} = .08$, $p = .74$). In terms of standardized regression coefficients, results indicated that the most predictive variables of the total scores of hostility were negative problem orientation, self-esteem, narcissism, and rational problem solving. Furthermore, as seen in Table 4.8, negative problem orientation predicted the total scores of hostility almost two times more than narcissism.

4.3.4. Results of the Multiple Regression Analysis Employed to Total Verbal Aggression Subscale Scores

A standard multiple regression performed to examine how well narcissism, self-esteem, negative problem orientation, rational problem solving, avoidance style, impulsivity/carelessness style, and gender predicted the total verbal aggression scores of Turkish adolescents.

Table 4.9

The Multiple Regression Analysis Results Applied to Verbal Aggression Subscale for Narcissism, Self-Esteem, Negative Problem Orientation, Rational Problem Solving, Avoidance Style, Impulsivity/Carelessness Style, and Gender

Predictor Variables	B	SE	β	t
Constant	3.92	.88		4.49
Narcissism	.17	.04	.16	4.39***
Self-Esteem	-.01	.02	-.02	-.40
Negative Problem Orientation	.03	.02	.07	1.49
Rational Problem Solving	.03	.01	.13	3.35**
Avoidance Style	-.03	.03	-.05	-1.15
Impulsivity/Carelessness Style	.10	.03	.17	3.91***
Gender	.57	.23	.11	2.75*

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

Results indicated that multiple regression coefficients (R) were significant for the equation model and combination of the seven variables explained almost 9% of the total variance ($R = .29$, $R^2 = .09$, $F_{7,718} = 9.64$, $p = .00$). Table 4.9 indicates the summary of the multiple regression analysis predicting the total verbal aggression scores of the sample.

As seen in Table 4.9, alteration in gender produced .57 points increase in the total scores of physical aggression ($t_{gen} = 2.75$, $p = .01$). Specifically, being male increased the total verbal aggression scores. Besides, every one point rising in the scores of narcissism, rational problem solving, and impulsivity/carelessness style increased .17, .03 and .10 points of the total scores of verbal aggression, respectively ($t_n = 4.39$; $p = .00$; $t_{ps} = 3.35$, $p = .00$; $t_{ics} = 3.91$, $p = .00$). Moreover, change in the scores of self-esteem, negative problem orientation, and avoidance style did not significantly contribute to the total scores of verbal aggression, respectively ($t_{se} = -.40$, $p = .69$; $t_{npo} = 1.49$, $p = .14$; $t_{as} = 1.15$, $p = .25$). Standardized regression coefficient results indicated that the most predictive variables of the total

scores of verbal aggression were impulsivity/carelessness style, narcissism, rational problem solving, and gender.

In summary, the first multiple regression analysis indicated that except self-esteem and avoidance style, other variables such as gender, narcissism, rational problem solving, impulsivity/carelessness style and negative problem orientation contributed to the explanation of physical aggressive behavior of adolescents. This result suggests that narcissist male adolescents who have negative problem orientation, impulsivity/carelessness style, and contrary to expectations, rational problem solving have displayed more physical aggressive behaviors. Moreover, the results of the second multiple regression analysis demonstrated that except avoidance style, rational problem solving, and self-esteem, other variables (negative problem orientation, narcissism, impulsivity/carelessness style, and gender) contributed to the explanation of anger of adolescents. This result demonstrates that narcissist female adolescents who have negative problem orientation and impulsivity/carelessness style are disposed to show angry behavior. Furthermore, the third multiple regression analysis indicated that except avoidance style, impulsivity/carelessness style, and gender, other variables such as negative problem orientation, self-esteem, narcissism, and rational problem solving accounted for hostile behaviors of adolescents. This result suggests that narcissist adolescents with low self-esteem who have negative problem orientation and rational problem solving have more hostile behavior. Finally, the fourth multiple regression analysis revealed that except avoidance style, negative problem orientation, and self-esteem, other variables (impulsivity/carelessness style, narcissism, rational problem solving, and gender) helped to explain verbal aggressive behavior of adolescents. This result suggests that narcissist male adolescents who have impulsivity/carelessness style and rational problem solving display more verbal aggressive behaviors.

CHAPTER V

DISCUSSION

This chapter presents the discussion of the results, their implications and recommendations for future research studies.

5.1. Discussion of the Findings

The purpose of this study was to investigate the role of perceived social problem solving styles, narcissism, self-esteem, and gender in predicting Turkish adolescents' aggressive behaviors. More specifically, how well positive problem orientation, negative problem orientation, rational problem solving, impulsivity/carelessness style, avoidance style, self-esteem, narcissism, and gender predict physical aggression, verbal aggression, anger, and hostility scores of Turkish adolescents were examined. Hence, in the following four subsections, discussion regarding the results of physical aggression, anger, hostility, and verbal aggression are presented separately.

5.1.1. Physical Aggression

The results of the standard multiple regression analysis predicting the quantitative scores of physical aggression revealed that the independent variables collectively explained 19% of the total variance. Results indicated that gender, narcissism, rational problem solving, impulsivity/carelessness style, and negative problem orientation were important predictors of physical aggression, whereas self-esteem and avoidance style did not contribute to predicting physical aggression scores of Turkish adolescents. In other words, narcissistic male adolescents who had rational problem

solving, negative problem orientation and impulsivity/carelessness style were more likely to demonstrate physical aggression.

Gender alone accounted for approximately 9% of the variance of physical aggression scores of Turkish adolescents. It can be said that gender is one of the most significant predictors of physical aggression among Turkish adolescents. This finding is in line with the numerous research findings in the literature that males are mostly more aggressive, especially physically, than girls. For example, in a recent study, Pompili et al. (2007) found that males reported higher physical aggression than females. Similarly, Leadbeater et al. (2006), in their study with 455 adolescents, found that males had higher levels of physical aggression than females. Huesman and Eron (1989) state that males are generally more aggressive than females, and they also argue that in the expression of aggression, socialization has a significant role. Eron also points out that if a woman is aggressive, she may be socialized like in the same manner with males (1980; as cited in Huesman & Eron, 1989). Furthermore, according to Campbell and Muncer, males are apt to see their aggressive behavior as a socially helpful means for controlling others; on the other hand, females perceive their aggressive behavior as a loss of self-control. Moreover, they found that women felt guiltier than men after displaying aggressive behavior (1987; as cited in Driscoll, Zinkivskay, Evans, & Campbell, 2006). Thus, it appears that cultural norms and social values are important in expressing physical aggression. Therefore, one possible explanation of the current study finding might be related to the social-psychological context in which male and female children are socialized. Males, especially in Turkish culture, seem to be encouraged to display more physically aggressive behaviors and these behaviors can even be perceived as a source of proud and honor. On the other hand, expression of aggression by females, especially physically, is not socially desirable. Indeed, a study conducted in Turkey indicated that men were expected to be more assertive, strong, brave, free, fighter, and strict; on the other hand, women were expected to be more emotional,

selfless, good-natured, polite, patient, obedient, and submissive (Dökmen, 2004).

Moreover, results indicated that narcissism alone accounted for approximately 2% of the variance of physical aggression scores of Turkish adolescents. The finding that there is a positive relationship between narcissism and physical aggression is also in line with the result of earlier research (Sullivan & Geaslin, 2001) indicating that narcissism was strongly associated with the instrumental domain (i.e., physical and verbal aggression) of aggression. Similarly, Rozenblatt (2002) found that the sub-dimensions of pathological narcissism such as exploitativeness, and entitlement, were related to physical, verbal aggression, and hostility, but not to anger. This finding may reflect the personality traits of narcissists. For example, Morf and Rhodewalt (2001) assume that narcissistic individuals have a highly inflated and vulnerable self. They also assert that narcissistic people engage in maintaining their inflated self-esteem through many kinds of interpersonal ways. Thus, they may use aggression to protect their inflated self-beliefs.

Furthermore, another result of the present study revealed that self-esteem was not significantly associated with self-reported physical aggression. The role of self-esteem in explaining adolescent aggressive behaviors is a controversial issue in the literature. While several researchers suggest that low or high self-esteem is linked to physical aggression (e.g., Washburn et al., 2004; Perez et al., 2005) several researchers argue that self-esteem is not correlated with aggression (e.g., Taylor et al., 2007; Webster, 2007). Webster (2007) also suggests that the relationship between self-esteem and aggression is dynamic and depends on various moderating variables. One possible explanation of not finding a significant contribution of self-esteem to physical aggressive behaviors of Turkish adolescents might have been related to one of the limitations of the present study. In the present study,

information about background characteristics of the participants that could mediate with self-esteem was not collected.

Rational problem solving, impulsivity/carelessness style, and negative problem orientation were other significant but low accounted predictors of adolescent's physical aggressive behaviors in this study. Rational problem solving alone accounted for approximately 2%, impulsivity/carelessness style alone accounted for approximately 1%, and negative problem orientation alone accounted for approximately 1% of the variance of physical aggression scores of Turkish adolescents. Results also indicated that rational problem solving, impulsivity/carelessness style, and negative problem orientation were positively correlated with physical aggression. The results of the current study partially supported by the earlier findings indicating that impulsivity/carelessness style was more related to physical aggression (D'Zurilla et al., 2003), and aggression was associated with more negative problem orientation (Jaffee & D'Zurilla, 2003). According to Nezu and Nezu (2001), people who use an impulsivity/carelessness style in solving their problems, suffer from ambiguity, self-bothering, and similar negative feelings. Therefore, when they face a problem, they may engage in aggressive behaviors rather than socially acceptable ones. Furthermore, negative problem orientation is a disruptive attitude toward problems that consists of negative beliefs in problem solving ability, the tendency to be pessimistic about the outcome, perceiving problems as a threat to well-being (Nezu & Nezu, 2001). For this reason, when an individual confronts a problem, these kinds of stressful feelings may be revealed aggressively. An additional and somewhat surprising finding of the present study was that the relation between rational problem solving and physical aggression. Although the magnitude of this correlation was relatively low, one possible explanation of this controversial finding could be related to the physically aggressive adolescents' problem solving schema that can be influenced by social norms. In other words, generation of effective solutions, evaluation of each potential solution and appropriateness of behaviors are also affected by

numerous environmental and experiential factors (Fontaine, 2005). Hence, these factors may lead individuals to choose aggressive behavior, and to think that the best solution of a problem is displaying an aggressive attack.

5.1.2. Anger

Results of the analysis showed that negative problem orientation, narcissism, impulsivity/carelessness style, and gender were the significant predictor variables of anger among Turkish adolescents. All these variables collectively accounted for 11% of the total variance of anger. On the other hand, self-esteem, rational problem solving, and avoidance style did not significantly contribute to Turkish adolescents' anger scores. In other words, results indicated that narcissistic female adolescents who had a negative problem orientation and impulsivity/carelessness style were more likely to express anger.

Negative problem orientation alone accounted for approximately 5%, impulsivity/carelessness style alone accounted for approximately 1% of the variance of anger dimension of aggression questionnaire scores of Turkish adolescents. These results indicated that negative problem orientation was one of the significant predictors of adolescent anger behavior. This finding is consistent with the finding of Kurtyilmaz (2005) that when the negative perceptions to problem solving ability increased, aggressive behaviors increased as well. Likewise, earlier research indicates that impulsivity/carelessness style was related to anger more (D'Zurilla et al., 2003). According to Buss (1961), anger which is a concept related to aggression, consists of emotional reactions. On the other hand, impulsivity/carelessness style includes active attempts to solve problems; however, these attempts are limited, uncompleted, hurried, and careless. Therefore, it can be speculated that impulsive/careless style and anger may trigger each other. Furthermore, the more impulsive/careless styles are generated, the more ineffective solutions are. This may lead to more

behaviors that are full of anger. On the other hand, the more these behaviors are displayed, the more impulsive/careless styles are displayed and less effective solutions to the problems are. Another possible explanation of these findings would be associated with the negative perceptions about problems. Since an individual has no confidence in his/her abilities to solve problems successfully (Nezu & Nezu, 2001), he or she may choose to behave angrily. Moreover, according to Nezu and Nezu (2001), negative problem orientation includes low frustration tolerance, and when an individual faces a problem, he or she becomes easily disappointed and upset. As a result, individuals who have negative problem orientation toward problems may display angry behaviors.

Narcissism was also found to be a significant but low accounted predictor of adolescent anger. Narcissism alone accounted for approximately 2% of the variance of anger scores of Turkish adolescents. This finding is inconsistent with Rozenblatt's (2002) finding that there was no significant relationship between narcissism and anger. On the other hand, Twenge and Campbell (2007) reported that narcissists were more angry and aggressive than non-narcissists in terms of social rejection. Similarly, Papps and O'Carroll (1998) demonstrated that individuals with high narcissism-high self-esteem tended to display more anger than individuals with low narcissism-high self-esteem individuals.

Gender was also found to be another significant but low accounted predictor of adolescent anger. Gender alone accounted for approximately 1% of the variance of anger scores of Turkish adolescents. This finding is consistent with the findings of Santisteban et al., (2007) that anger scores of females were higher than anger scores of males. A possible explanation of this finding would be that aggression is strongly associated with gender role socializations. For example, according to Kinney, Smith, and Donzella (2001), gender is one of the concepts on which social forces are mostly influential, especially in terms of beliefs and behaviors. Moreover, they

assert that sex roles related to the social expectations may be associated with expression of anger and verbal aggression. Thus, it can be concluded that the results of the current study may reflect the different socialization of Turkish male and female adolescents.

5.1.3. Hostility

Results of the analysis predicting the quantitative scores of hostility revealed that the independent variables collectively explained the 25% of the total variance. Results also displayed that negative problem orientation, self-esteem, narcissism, and rational problem solving were important predictors of hostility scores. However, impulsivity/carelessness style, avoidance style and gender did not contribute to predicting hostility scores among Turkish adolescents. Negative problem orientation was the significant predictor of adolescent hostility tendencies. Negative problem orientation alone accounted for approximately 9% of the variance of hostility scores of Turkish adolescents. Although modest, positive correlation between negative problem orientation, and hostility was found. The finding of the current study are consistent with the finding of D’Zurilla et al., (2003) that ineffective problem solving dimensions were associated with hostility; however, the results of the current study did not support the findings of the earlier research indicating that effective problem solving dimensions were negatively correlated with hostility. According to Buss (1961), hostility is “an implicit verbal response involving negative feelings and negative evaluations of people and events” (p.12). In a similar sense, negative problem orientation consists of negative evaluations (Nezu & Nezu, 2001). Hence, this finding might be related to personality characteristics, because individuals who have a general pessimistic approach toward others or oneself, and have negative approach to problems may encounter negative results and this may lead to more hostile behaviors towards others.

As mentioned before, self-esteem and narcissism were the other predictors of hostility tendencies of adolescents. Self-esteem alone accounted for approximately 6%, narcissism alone accounted for approximately 2% of the variance of hostility scores of Turkish adolescents. The findings indicated that highly narcissist adolescents who have low self-esteem level tended to be more hostile. This result is consistent with the result of earlier research indicating that low self-esteem was related to the affective and cognitive components of aggression (anger and hostility) (D’Zurilla et al., 2003), and hostility negatively correlated with self-esteem, and positively correlated with narcissism (Sullivan & Geaslin, 2001). Likewise, Barry et al., (2003) found that adolescents who reported high levels of narcissism and low levels of self-esteem had the greatest number of conduct problems. The finding of the present study can be discussed according to the threatened egotism theory. Threatened egotism theory asserts that when faced an ego threat, narcissist individuals who have fragile and unstable self-esteem may use aggression to reestablish their self-esteem and/or punish the source of the threat (Bushman & Baumeister, 1998; as cited in Washburn et al., 2004). Therefore, narcissist people may feel hostile towards the source of threat to their ego.

5.1.4. Verbal Aggression

Results of the analysis showed that impulsivity/carelessness style, narcissism, rational problem solving, and gender were significant predictors of verbal aggression among Turkish adolescents. All these variables collectively accounted for almost 9% of the total variance of verbal aggression. On the other hand, self-esteem, avoidance style, and negative problem orientation did not significantly contribute to Turkish adolescents’ verbal aggression scores. Impulsivity/carelessness style alone accounted for approximately 3%, and rational problem solving alone accounted for approximately 2% of the variance of verbal aggression scores of Turkish adolescents. Although modest, results indicated that impulsive and careless

male adolescents who perceived themselves as rational problem solvers were more likely to use verbal aggressive behaviors. This finding is inconsistent with the finding of D’Zurilla et al., (2003) that there was no significant relationship between verbal aggression and impulsivity carelessness style. Although less research has examined the direct effects of rational problem solving on verbal aggression, studies generally support the relationship between social problem solving and aggression. For example, according to McMurrin et al. (2002), effective social problem solving was negatively related to aggression. On the contrary, the results of the present study are consistent with the results of earlier research indicating that verbal aggression was not significantly related to avoidance style and negative problem orientation (D’Zurilla et al., 2003).

Narcissism alone also accounted for approximately 3% of the variance of verbal aggression scores of Turkish adolescents. Findings demonstrated that there was a positive relationship between narcissism and verbal aggressive behaviors of adolescents. This finding is supported with previous research finding that instrumental domain of aggression (physical and verbal aggression) was positively and significantly related to narcissism (Sullivan & Geaslin, 2001). This can be explained by the characteristics of narcissist individuals. According to, Bushman and Baumeister (1998) narcissist individuals try to gain superiority and dominance over others as they want their unrealistic self-perceptions to be approved. Moreover, they argue that when narcissist individuals feel a threat to their self-worth, they may react aggressively (as cited in Sullivan & Geaslin, 2001). Therefore, verbal aggressive behaviors can be used for dominating other people.

Results of the present study demonstrated that gender alone accounted for approximately 1% of the variance of verbal aggression scores of Turkish adolescents. This outcome is consistent with Toldos’ (2005) finding that physical and verbal aggressions were used more among male adolescents than female adolescents. The current result appears to support and highlight

the importance of social roles, particularly gender roles, on individuals' behaviors (Richardson & Hammock, 2007). Similarly, according to Bern (1981), in many societies, caring and nurturing qualities for girls are encouraged; on the other hand, boys are expected to be more dominant, autonomous, and aggressive. Moreover, Kinney et al., (2001) found that gender roles had an important effect on verbal aggression and outward/suppressed expression of anger. The researchers also found that there was a positive relationship between verbal aggression and outward expression of anger, and masculine characteristics.

5.2. Implications for Practice and Research

Several practical implications can be made based on the findings of the present study.

In general, results of the study indicate that perceived social problem solving styles, narcissism, and gender are important predictors of Turkish adolescents' aggressive behaviors. Therefore, having knowledge about aggressive adolescents' characteristics could be useful to identify risk groups, particularly in high schools, for aggression. School counselors may take these findings into consideration when they design effective preventive and treatment interventions for aggressive adolescents. On the bases of the present findings, the components of those trainings should aim to improve effective social problem solving skills and decrease highly inflated self-concept of adolescents. By putting emphasis on deficient skills, positive outcomes can be gained. Furthermore, Sandstrom and Herlan (2007) suggest that in addition to traditional intervention programs such as anger management and prosocial skills training, programs should also put in practice cognitive restructuring strategies for replacing perceptual distortions with more accurate self-portrayals.

Moreover, in line with the earlier findings (e.g., Leadbeater et al., 2006; Santisteban et al., 2007; Toldos, 2005), results of the present study yielded that being male appeared to be a risk factor for physical and verbal aggression. Consequently, it can be suggested that school counselors should devote particular attention to male students, who can be good candidates for prevention and intervention programs.

Furthermore, findings of the study pointed out that the role of self-esteem in understanding hostile behaviors of adolescents should not be disregarded. The results also suggest that prevention and intervention programs for hostile adolescents should include the dual goals of improving self-esteem and decreasing narcissistic tendencies. As Ang and Yusof (2005) states that if further enhancement is practiced to the aggressive child and adolescent who have a highly inflated, distorted, and unrealistic self-perceptions, it may give a greater harm. In addition, Rosenberg (1965) puts forward that “when we deal with self-esteem, we are asking whether the individual considers himself adequate –a person of worth– not whether he considers himself superior to others” (p.62). Therefore, a distinction between healthy self regard and narcissistic self-views in prevention and intervention programs should be drawn.

5.3. Recommendations

Several recommendations for future research can be made based on the findings of the present study. First of all, the examined variables which are perceived social problem solving, self-esteem, narcissism, and gender accounted for less than 25% of the total variance in predicting aggressive behaviors (physical, anger, hostility, and verbal) of Turkish adolescents. This can be explained that other factors such as family environment, other personality traits, and peer relationships may also play an important role in aggressive behavior of high school students. For example, in a recent study, Eldeleklioğlu (2007) found that peer pressure and parental attitudes had an

important effect on aggression. For this reason, other variables, which can be associated with aggression and related constructs with aggressive behaviors, should be investigated in the future studies.

Secondly, validation study of narcissism measure utilized in the present study may be replicated with other samples. In the same way, new instruments that measure narcissism may be developed.

Thirdly, due to the fact that aggression is socially undesirable, individuals' appraisals of themselves can sometimes be misleading. Hence, other assessment techniques such as peer-estimated, parent-estimated, or teacher-estimated should be used for determining the aggressive behavior of high school students. Likewise, data can be gathered from various sources for narcissism, self-esteem, and social problem solving in order to see the consistency between self-reports and reports of other sources.

Fourth, participants of the current study were selected from five high schools in Ankara. Hence, to reach more generalizable findings, comparative studies can be conducted in the other regions of Turkey. Furthermore, this study can also be replicated with other age groups such as children and university students.

Lastly, this study is correlational in nature and did not establish causal relationships between variables. Thus, in the future efforts, experimental studies can be carried out to determine causality.

REFERENCES

- Ađlamaz, T. (2006). *Lise öđrencilerinin saldırganlık puanlarının kendini açma davranışı, okul türü, cinsiyet, sınıf düzeyi, anne-baba öğrenim düzeyi ve ailenin aylık gelir düzeyi açısından incelenmesi [High school students' aggression point in terms of examining self-disclosure, school type, sex, class level, parent`s education level and families monthly income level]*. Unpublished master`s thesis, Ondokuz Mayıs University, Samsun, Türkiye.
- Akhtar, N., & Bradley, E. J. (1991). Social information processing deficits of aggressive children. *Clinical Psychology Review, 11*, 621-644.
- Aksan, N. (2006). *Üniversite öđrencilerinin epistemolojik inançları ile problem çözme becerileri arasındaki ilişki [The relationship between epistemological beliefs and the problem solving skills of college students]*. Unpublished master`s thesis, Çanakkale Onsekiz Mart University, Çanakkale, Türkiye.
- Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal of Research in Personality, 40*, 440-450.
- Anderson, E. (1994). The code of the streets. *Atlantic Monthly, 273*, 81-94.
- Anderson, C. A., & Bushman, B. J. (2002). Human Aggression. *Annual Review Psychology, 53*, 27-51.
- Ando, M., Asakura, T., Ando, S., & Simons-Morton, B. (2007). A psychoeducational program to prevent aggressive behavior among Japanese early adolescents. *Health Education and Behavior, 34*(5), 765-766.
- Ang, R. P., & Yusof, N. (2005). The relationship between aggression, narcissism, and self-esteem in Asian children and adolescents. *Current Psychology, 24*(2), 113-122.
- Aslan, C. (2007). Research on self-perceptions of pre-service Turkish language teachers in Turkey with regard to problem solving skills. *International Journal of Social Sciences, 2*(4), 250-256.

- Balat, G. U., & Akman, B. (2004). Farklı sosyo-ekonomik düzeydeki lise öğrencilerinin benlik saygısı düzeylerinin incelenmesi. *Fırat Üniversitesi Sosyal Bilimler Dergisi*, 14(2), 175-183.
- Bandura, A. (1973). *Aggression: A social learning analysis*. New Jersey: Prentice-Hall, Inc., Englewood Cliffs.
- Bandura, A. (1978). Social Learning Theory of Aggression. *Journal of Communication*, 12-29.
- Barry, C. T., Frick, P. J., & Killian, A. L. (2003). The relation of narcissism and self-esteem to conduct problems in children: A preliminary investigation. *Journal of Clinical Child and Adolescent Psychology*, 32(1), 139-152.
- Barry, C. T., Chaplin, W. F., & Grafeman, S. J. (2006). Aggression following performance feedback: The influences of narcissism, feedback valence, and comparative standard. *Personality and Individual Differences*, 41, 177-187.
- Barry, C. T., Frick, P. J., Adler, K. K., & Grafeman, S. J. (2007). The predictive utility of narcissism among children and adolescents: Evidence for a distinction between adaptive and maladaptive narcissism. *Journal of Child and Family Studies*, 16, 508-521.
- Barry, T. D., Thompson, A., Barry, C. T., Lochman, J. E., Adler, K., & Hill, K. (2007). The importance of narcissism in predicting proactive and reactive aggression in moderately to highly aggressive children. *Aggressive Behavior*, 33, 185-197.
- Batıgün, A. D., & Şahin, H. N. (2003). Öfke, dürtüsellik ve problem çözme becerilerindeki yetersizlik gençlik intiharlarının habercisi olabilir mi? *Türk Psikoloji Dergisi*, 18(51), 37-52.
- Baumeister, R. F., Smart, L., & Boden, J. M. (1996). Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review*, 103(1), 5-33.
- Baumeister, R. F., & Tice, D. M. (1985). Self-esteem and responses to success and failure: Subsequent performance and intrinsic motivation. *Journal of Personality*, 52, 450-467.

- Baumeister, R. F., Tice, D. M., & Hutton, D. G. (1989). Self-presentational motivations and personality differences in self-esteem. *Journal of Personality*, 57(3), 547-579.
- Berkowitz, L. (1962). *Aggression: A social psychological analysis*. New York: McGraw-Hill Book Company.
- Berkowitz, L. (1969). The frustration-aggression hypothesis revisited. In L. Berkowitz (Ed.), *Roots of aggression: A re-examination of the frustration-aggression hypothesis* (1-28). New York: Atherton Press.
- Bern, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88(4), 354-365.
- Burton, L. A., Hafetz, J., & Henninger, D. (2007). Gender differences in relational and physical aggression. *Social Behavior and Personality*, 35(1), 41-50.
- Buss, A. H. (1961). *The psychological of aggression*. New York: John Wiley & Sons, Inc.
- Boxer, P., & Butkus, M. (2005). Individual social-cognitive intervention for aggressive behavior in early adolescence. *Clinical Case Studies*, 4(3), 277-294.
- Campbell W. K., Brunell, A. B., & Finkel, E. J. (2006). Narcissism, interpersonal self-regulation, and romantic relationships. In D.K. Vohs & J.E. Finkel (Ed.), *Self and Relationships* (57-83). New York: The Guilford Press.
- Campbell, W. K., Rudich, E. A., & Sedikides, C. (2002). Narcissism, self-esteem, and the positivity of self-views: Two portraits of self-love. *Personality and Social Psychology Bulletin*, 28(3), 358-368.
- Can, S. (2002). *Aggresssion questionnaire adlı ölçeğin Türk popülasyonunda geçerlik ve güvenilirlik çalışması [Validity and reliability of the scale called "Aggression Questionnaire" in Turkish population]*. Unpublished master's thesis, Gülhane Askeri Tıp Akademisi, Ankara, Türkiye.
- Cappella, E., & Weinstein, R. (2006). The prevention of social aggression among girls. *Social Development*, 15(3), 434-462.

- Chang, E. C., & D'Zurilla, T. J. (1996). Relations between problem orientation and optimism, pessimism, and trait affectivity: A construct validation study. *Behavior Research Therapy*, 34(2), 185-194.
- Connor, D. F., Steingard, R. J., Anderson, J. J., & Melloni, R. H. (2003). Gender differences in reactive and proactive aggression. *Child Psychiatry and Human Development*, 33(4), 279-294.
- Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanism in reactive and proactive aggression. *Child Development*, 67(3), 993-1002.
- Çam, S., & Tmkaya, S. (2006). niversite ğrencilerinde kiřilerarası problem özme. *Ç.. Sosyal Bilimler Enstits Dergisi*, 15(2), 119-132.
- Çelik, H. (2006). *niversite birinci sınıf ğrencilerinin saldırganlık tepkileri, baėlanma tarzları ve kiřilerarası řemalarının incelenmesi [The relationships among aggression responses, attachment styles and interpersonal schemas of senior students]*. Unpublished master's thesis, Marmara University, İstanbul, Trkiye.
- Çevik, G. B. (2007). *Lise 3.sınıf ğrencilerinin arkadaşlık iliřkileri ve benlik saygılarının bazı deėişkenler aısından incelenmesi [An investigation of third graders' friendship characteristics and their self-esteem regarding of some variable at secondary schools]*. Unpublished master's thesis, Çukurova University, Adana, Trkiye.
- Çiėdemoėlu, S. (2006). *Lise 1.sınıf ğrencilerinin akran baskısı, zsaygı ve dıřadnklk kiřilik zelliklerinin okul trlerine gre incelenmesi [An examination of peer pressure, self-esteem and personality among 9th year students of different type high schools]*. Unpublished master's thesis, Ankara University, Ankara, Trkiye.
- Çilingir, A. (2006). *Fen lisesi ile genel lise ğrencilerinin sosyal becerileri ve problem özme becerilerinin karřılařtırılması [The comparison between high school and science high school students' social and problem solving skills]*. Unpublished master's thesis, Atatrk University, Erzurum, Trkiye.
- Çuhadaroėlu, F. (1986). *Adolesanlarda Benlik Saygısı [Self-esteem in adolescents]*. Unpublished master's thesis, Hacettepe University, Ankara, Trkiye.

- D'Zurilla, T. J., Chang, E. C., & Sanna, L. J. (2003). Self-esteem and social problem solving as predictors of aggression in collage students. *Journal of Social and Clinical Psychology, 22*(4), 424-440.
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology, 78*, 107-126.
- D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (2004). Social problem solving: theory and assessment. In E.C. Chang, T.J. D' Zurilla, & L.J. Sanna (Ed.), *Social problem solving theory, research, and training* (11-27). Washington, Dc: The American Psychological Association.
- Danıřık, N. D. (2005). *Ergenlerin srekli fke fke ifade tarzları ile problem zme becerileri arasındaki iliřki [The relation between adolescents' continual anger-anger expression and problem solving skills]*. Unpublished master's thesis, Abant İzzet Baysal University, Bolu, Trkiye.
- Demirhan, M. (2002). *Kendini ama dzeyleri farklı genel lise ğrencilerinin bazı deęişkenler aısından saldırganlık dzeylerinin incelenmesi [Investigation aggressiveness levels of high school students who have different self-disclosure levels with respect to some variables]*. Unpublished master's thesis, Anadolu University, Eskiřehir, Trkiye.
- Derin, R. (2006). *İlkğretim sekizinci sınıf ğrencilerinin problem zme becerileri ve denetim odaęı dzeyleri ile akademik başarıları arasındaki iliřki [The relationship between academical achivments, locus of control levels and problem solving skills of primary school eighth class students (İzmir city sample)]*. Unpublished master's thesis, Dokuz Eylül University, İzmir, Trkiye.
- Derkzen, D. M. (2007). *Impulsivity, social problem solving, and alcohol dependency as contributors to aggression in a sample of provincially incarcerated offenders*. Unpublished master's thesis, University of Saskatchewan, Saskaton.
- Dervent, F. (2007). *Lise ğrencilerinin saldırganlık dzeyleri ve sportif aktivitelere katılımla iliřkisi [The agressivity levels of high school students and the relation with their participation to sport activities]*. Unpublished master's thesis. Gazi University, Ankara, Trkiye.
- Deveci, H., Karadaę, R., & Yılmaz, F. (2008). Primary school students'

- perceptions of violence. *Electronic Journal of Social Sciences*, 7(24), 351-368.
- Dodge, K. A., & Coie, J. D. (1987). Social information-processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personal and Social Psychology*, 53, 1146-1158.
- Donellan, M. B., Trzesniewski, K.H., Robins R.W., Moffitt, T.W., & Caspi, A. (2005). Low self-esteem is related to aggression, antisocial behavior, and delinquency. *American Psychological Society*, 16(4), 328-335.
- Dora, S. (2003). *Sosyal problem çözüme envanteri (Revize edilmiş formu)'nin Türkçe'ye uyarlanması: Geçerlik ve güvenilirlik çalışmaları [Adaptation of the social problem solving inventory (revised form): its validity and reliability]*. Unpublished master's thesis, Hacettepe University, Ankara, Türkiye.
- Dökmen, Z. Y. (2004). *Toplumsal cinsiyet*. İstanbul: Sistem Yayıncılık.
- Driscoll, H., Zinkivskay, A., Evans, K., & Campbell, A. (2006). Gender differences in social representations of aggression: The phenomenological experience of differences in inhibitory control? *British Journal of Psychology*, 97, 139-153.
- Dubow, E. F., Tisak, J., Causey, D., Hryshko, A., & Reid, G. (1991). A two-year longitudinal study of stressful life events, social support, and social problem-solving skills: Contributions to children's behavioral and academic adjustment. *Child Development*, 62, 583-599.
- Efiliti, E. (2006). *Orta öğretim kurumlarında okuyan öğrencilerin saldırganlık, denetim odağı ve kişilik özelliklerinin karşılaştırmalı olarak incelenmesi [Observation of students' aggressiveness, locus of control and personal features in high school]*. Unpublished doctoral dissertation, Selçuk University, Konya, Türkiye.
- Eldeleklioğlu, J. (2007). The relationships between aggressiveness, peer pressure, and parental attitudes among Turkish high school students. *Social Behavior and Personality*, 35(7), 975-986.
- Esposito, A. J., Kodak, R., & Little, M. (2005). Aggression and self-esteem: A diary study of children's reactivity to negative interpersonal events. *Journal of Personality*, 73(4), 887-906.

- Field, A. P. (2000). *Discovering statistics using SPSS for Windows: Advanced techniques for the beginner*. London: Sage Publications Ltd.
- Field, A. P. (2003). *How to design and report experiments*. London: Sage Publications Ltd.
- Fling, S., Smith, L., Rodriguez, T., Thornton, D., Atkins, E., & Nixon K. (1992). Video games, aggression, and self-esteem: as survey. *Social Behavior and Personality*, 20(1), 39-46.
- Fontaine, R. G. (2005). Applying systems, principles to models of social information processing and aggressive behavior in youth. *Aggressive and Violent Behavior*, 11(1), 64-76.
- Freud, S. (1954). *The origins of psycho-analysis; Letters to Wilhelm Fliess, drafts and notes, 1887-1902*. New York: Basic Books.
- Freud, S. (1969). *A general introduction to psycho-analysis*. New York: Clarion Books.
- Frye, A. A., & Goodman, S. H. (2000). Which social problem-solving components buffer depression in adolescent girls? *Cognitive Therapy and Research*, 24(6), 637-650.
- Geen, R. G. (2001). *Human aggression* (2nd ed.). Buckingham [England], Philadelphia, PA: Open University Press. (Original work published in 1932).
- Gondolf, E. W. (1985). *Men who batter*. Holmes Beach, FL: Learning Publications.
- Gunderson, J. R. (2006). *Impact of real life and media violence: Relationships between violence exposure, aggression, hostility, and empathy among high school students and detained adolescents*. Unpublished doctoral dissertation, University of Toledo.
- Gümüő, T. (2000). *Kendini kabul düzeyleri farklı genel lise öğrencilerinin bazı değişkenlere göre saldırganlık düzeyleri [Aggressiveness levels of high school students who have different self-acceptance levels in terms of some variables]*. Unpublished master's thesis, Hacettepe University, Ankara, Türkiye.

- Hatunoğlu, A. (1994). *Ana-baba tutumları ile saldırganlık arası ilişkiler [The relationship between aggression and parental attitudes]*. Unpublished master's thesis, Atatürk University, Erzurum, Türkiye.
- Hendel, A. (2006). Restoring self-esteem in adolescent male. *Reclaiming Children and Youth, 15*(3), 175-178.
- Hildyard, K. L. (1999). *Relational and physical aggression in adolescent dating relationships: Prevalence, associated maladjustment, and gender differences*. Unpublished master's thesis, The University of Western Ontario, Ontario, Canada.
- Huesmann, L. R., & Eron, L. D. (1989). Individual differences and the trait of aggression. *European Journal of Personality, 3*, 95-106.
- Jaffee, W. B., & D'Zurilla, T. J. (2003). Adolescent problem solving, parent problem solving, and externalizing behavior in adolescents. *Behavior Therapy, 34*, 295-311.
- Jankowski, M. S. (1991). *Islands in the street: Gangs and American urban society*. Berkeley: University of California Press.
- Kassinove, H., & Sukhodolsky, D. G. (1995). Anger disorders: Science, practice and common sense issues. In H. Kassinove (Ed.), *Anger disorders: Definition, diagnosis and treatment* (1-26). Washington, DC: Taylor & Francis.
- Kaufmann, H. (1970). *Aggression and altruism: A psychological analysis*. New York: Holt, Rinehart and Winston, Inc.
- Keltikangas-Jarvinen, L., & Pakaslahti, L. (1999). Development of social problem-solving strategies and changes in aggressive behavior: A 7-year follow-up from childhood to late adolescence. *Aggressive Behavior, 25*, 269-279.
- Keltikangas-Jarvinen, L. (2001). Aggressive behavior and social problem-solving strategies: A review of the findings of a seven-year follow-up from childhood to late adolescence. *Criminal Behavior and Mental Health, 11*, 236-250.
- Kim, H. S., & Kim, H. S. (2007). Aggression among Korean adolescents: A comparison between delinquents and nondelinquents. *Social Behavior and Personality, 35*(4), 499-512.

- Kinney, T. A., Smith, B. A., & Donzella, B. (2001). The influence of sex, gender, self-discrepancies, and self-awareness on anger and verbal aggressiveness among U.S. collage students. *The Journal of Social Psychology, 141*(2), 245-275.
- Korkut, F. (2002). İfade edici saldırganlık ölçeğinin (ISÖ) Türkçeye uyarlanması üzerine bir ön çalışma. *Hacettepe Üniversitesi Eğitim Fakültesi*.
- Korkut, F. (2002). Problem solving skills of high school students. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 22*, 177-184.
- Kurtyılmaz, Y. (2005). Öğretmen adaylarının saldırganlık düzeyleri ile akademik başarıları, iletişim ve problem çözme becerileri arasındaki ilişkiler (Anadolu Üniversitesi ve Osmangazi Üniversitesi öğrencileri üzerinde bir araştırma) [Relationship between teacher trainers` aggression levels and academic achievement, communication skills, problem solving skills: (an investigation on the students of Anadolu and Osmangazi University)]. Unpublished master's thesis, Anadolu University, Eskişehir, Türkiye.
- Leadbeater, B. J., Boone, E. M., Sangster, N. A., & Mathieson, L. C. (2006). Sex differences in the personal costs and benefits of relational and physical aggression in high school. *Aggressive Behavior, 32*, 409-419.
- Lochman, E. J. (1985). Social problem solving and self-esteem of aggressive boys. *The American Psychological Association Annual Convention*.
- Long, D. E. (1990). *The anatomy of terrorism*. New York: Free Press.
- Lorenz, K. (1966). *On aggression* (M.K. Wilson, Trans.). New York: Brace and World.
- Loveland, J. M., Lounsbury, J. W., Welsh, D., & Buboltz, W. C. (2007). The validity of physical aggression in predicting adolescent academic performance. *British Journal of Educational Psychology, 77*, 167-176.
- Lucas, M. S. (2004). Problem solving appraisal in counseling and with different populations. *The Counseling Psychologist, 32*(3), 450-459.

- Malete, L. (2007). Aggressive and antisocial behaviors among secondary school students in Botswana: The influence of family and school based factors. *Social Psychology International*, 28(1), 90-109.
- Martinez, M. A, Zeichner, A., Reidy, D. E., & Miller, J. D. (2008). Narcissism and displaced aggression: Effects of positive, negative, and delayed feedback. *Personality and Individual Differences*, 44, 140-149.
- Maydeu-Olivares, A., & D’Zurilla, T. J., (1996). A factor analytic study of the social problem-solving inventory: an integration of theory and data. *Cognitive Therapy and Research*, 20(2), 115-133.
- McGuire, J. (2005). Social problem solving: basic concepts, research, and applications. In M. McMurrin & J. McGuire (Ed.), *Social Problem Solving and Offending: Evidence, Evaluation, Evolution* (3-29). Chichester, West Sussex, England: Wiley.
- McMurrin, M., Blair, M., & Egan V. (2002). An investigation of the correlations between aggression, impulsiveness, social problem-solving, and alcohol use. *Aggressive Behavior*, 28, 439-445.
- McMurrin, M., Fyffe, S., McCarthy, L., Duggan, C., & Latham, A. (2001). “Stop & Think”: Social problem solving therapy with personality-disordered offenders. *Criminal Behaviour and Mental Health*, 11, 273-285.
- Merttürk, R. (2005). *Bilgisayar oyunu oynayan ilköğretim öğrencilerinin saldırganlık, depresyon ve yalnızlık düzeylerinin incelenmesi [Investigation of aggression, depression, and loneliness levels of primary and elementary school students who play computer games and do not]*. Unpublished master’s thesis, Yeditepe University, İstanbul, Türkiye.
- Morf, C. C., & Rhodewalt, F. (2001). Unrevealing the paradoxes of narcissism: A dynamic self-regulatory processing model. *Psychological Injury*, 12(4), 177-196.
- Moses, A. (1999). Exposure to violence, depression, and hostility in a sample of inner city high school youth. *Journal of Adolescence*, 22(1), 21-32.
- Muris, P., Meesters, C., Morren, M., & Moorman, L. (2004). Anger and

- hostility in adolescents: Relationships with self-reported attachment style and perceived parental rearing styles. *Journal of Psychosomatic Research*, 57(3), 257-264.
- Nezu, A. M., & Nezu, C. M. (2001). Problem solving therapy. *Journal of Psychotherapy Integration*, 11(2), 187-205.
- Özmen, O. (2006). *Türk ergenlerinde risk alma davranışlarını yordayan değişkenler [Predictors of risk-taking behaviors among Turkish adolescents]*. Unpublished master's thesis, Middle East Technical University, Ankara, Türkiye.
- Pakaslahti, L., & Ketikangas-Jarvinen, L. (1997). The relationships between moral approval of aggression, aggressive problem-solving strategies, and aggressive behavior in 14-year-old adolescents. *Journal of Social Behavior and Personality*, 12(4), 905-924.
- Papps, B. P., & O'Carroll, R. E. (1998). Extremes of self-esteem and narcissism and experience and expression of anger and aggression. *Aggressive Behavior*, 24, 421-438.
- Perez, M., Vohs, K. D., & Joiner, T. E. (2005). Discrepancies between self- and other-esteem as correlates of aggression. *Journal of Social and Clinical Psychology*, 24(5), 607-620.
- Perry, D. G., Perry, L. C., & Rasmussen, P. (1986). Cognitive social learning mediators of aggression. *Child Development*, 57, 700-711.
- Pompili, M., Innamorati, M., Lester, D., Brunetti, S., Tatarelli, R., & Girardi, P. (2007). Gender effects among undergraduates relating to suicide risk, impulsivity, aggression, and self-efficacy. *Personality and Individual Differences*, 43, 2047-2056.
- Ramadan, R., & McMurrin M. (2005). Alcohol and aggression: Gender differences in their relationships with impulsiveness, sensation seeking and social problem solving. *Journal of Substance Use*, 10(4), 215-224.
- Raskin, R., & Terry, H. (1988). A principal-components analysis of the narcissistic personality inventory and further evidence of its construct validity. *Journal of Personality and Social Psychology*, 54(5), 890-902.
- Richardson, D. S., & Hammock, G. S. (2007). Social context of human

aggression: Are we paying too much attention to gender? *Aggression and Violent Behavior*, 12, 417-426

Rosenberg, M. (1965). *Society and the adolescents: Self-image*. Princeton: Princeton University Press.

Rozenblatt, S. (2002). *In defense of the self: The relationship of self-esteem and narcissism to aggressive behavior*. Unpublished doctoral dissertation, Long Island University.

Salmivalli, C. (2001). Feeling good about oneself, being bad to others? Remarks on self-esteem, hostility, and aggressive behavior. *Aggression and Violent Behavior*, 6, 375-393.

Salmivalli, C., Kaukiainen, A., Kaistaniemi, L., & Lagerspetz, K. M. J. (1999). Self-evaluated self-esteem, peer-evaluated self-esteem, and defensive egotism as predictors of adolescents' participation in bullying situations. *Personality and Social Psychology Bulletin*, 25(10), 1268-1278.

Sandstrom, M. J., & Herlan, R. D. (2007). Threatened egotism or confirmed inadequacy? How children's perceptions of social status influence aggressive behavior toward peers. *Journal of Social and Clinical Psychology*, 26(2), 240-267.

Santisteban, C., Alvarado, J. M., & Recio, P. (2007). Evaluation of a Spanish version of the Buss and Perry aggression questionnaire: Some personal and situational factors related to the aggression scores of young subjects. *Personality and Individual Differences*, 42(6), 1453-1465.

Schmitt, D. P., & Allik, J. (2005). Simultaneous administration of the Rosenberg Self-Esteem Scale in 53 nations: Exploring the universal and culture-specific features of global self-esteem. *Journal of Personality and Social Psychology*, 89(4), 623-642.

Schreer, G. E. (2002). Narcissism and aggression: Is inflated self-esteem related to aggressive driving? *North American Journal of Psychology*, 4(3), 333-342.

Siu, A. M. H., & Shek, D. T. L. (2005). Relations between social problem solving and indicators of interpersonal and family well-being among Chinese adolescents in Hong Kong. *Social Indicators Research*, 71,

517-539.

Sullivan, B. F., & Geaslin, D. L. (2001). The role of narcissism, self-esteem, and irrational beliefs in predicting aggression. *Journal of Social Behavior and Personality*, 16(1), 53-68.

Sütcü, S. T. (2006). *Ergenlerde öfke ve saldırganlığı azaltmaya yönelik bilişsel davranışçı bir müdahale programının etkililiğinin değerlendirilmesi [Investigating the effect of the cognitive-behavioral group intervention to reducing anger and aggression for adolescents]*. Unpublished doctoral dissertation, Ege University, İzmir, Türkiye.

Şahan, M. (2007). *Lise öğrencilerinde saldırganlığı yordayan bazı değişkenlerin incelenmesi [An examination of some variables which predict high school students' aggression]*. Unpublished master's thesis, Gazi University, Ankara, Türkiye.

Taylan, S. (1990). *Heppner'in problem çözme envanterinin uyarılama, geçerlik ve güvenilirlik çalışmaları*. Unpublished master's thesis, Ankara University, Ankara, Türkiye.

Taylor, L. D., Davis-Kean, P., & Malanchuk, O. (2007). Self-esteem, academic self-concept, and aggression at school. *Aggressive Behavior*, 33, 130-136.

Tice, D. M. (1991). Esteem protection or enhancement? Self handicapping motives and attributions differ by trait self-esteem. *Journal of Personality and Social Psychology*, 60, 711-725.

Toch, H. (1969). *Violent men; an inquiry into the psychology of violence*. Chicago: Aldine Pub. Co.

Toldos, M. P. (2005). Sex and age differences in self-estimated physical, verbal, and indirect aggression in Spanish adolescents. *Aggressive Behavior*, 31, 13-25.

Turgut, T., Lagace, D., İzmir, M., & Dursun, S. (2006). Assessment of violence and aggression in psychiatric settings: Descriptive approaches. *Klinik Psikoparmoloji Bülteni*, 16, 179-194.

Tuzgöl, M. (1998). *Ana-baba tutumları farklı lise öğrencilerinin saldırganlık düzeylerinin çeşitli değişkenler açısından incelenmesi*

[Examining aggressiveness levels of high school students whose parents have different attitudes in terms of various variables]. Unpublished master's thesis, Hacettepe University, Ankara, Türkiye.

- Tümekaya, S., & İflazoğlu, A. (2000). Ç.Ü. sınıf öğretmenliği öğrencilerinin otomatik düşünce ve problem çözme düzeylerinin bazı sosyo-demografik değişkenlere göre incelenmesi. *Ç.Ü. Sosyal Bilimler Dergisi*, 6(6), 143-158.
- Twenge, J. M., & Campbell, W. K. (2003). "Isn't it fun to get the respect that we're going to deserve?" Narcissism, social rejection, and aggression. *Personality and Social Psychology Bulletin*, 29(2), 261-272.
- Washburn, J. J., McMahon, S. D., King, C. A., Reinecke, M. A., & Silver, C. (2004). Narcissistic features in young adolescents: Relations to aggression and internalizing symptoms. *Journal of Youth and Adolescence*, 33(3), 247-260.
- Webster, G. D. (2007). Is the relationship between self-esteem and physical aggression necessarily U-shaped? *Journal of Research in Personality*, 41(4), 977-982.
- Wells, L. E., & Marwell, G. (1976). *Self-esteem: its conceptualization and measurement*. Beverly Hills: Sage Publications.
- Weiss, J. W., Mouttapa, M., Chou, C., Nezami, E., Johnson, C. A., Palmer, P.H., Cen, S., Gallaher, P., Ritt-Olson, A., Azen, S., & Unger, J. B. (2005). Hostility, depressive symptoms, and smoking in early adolescence. *Journal of Adolescence*, 28(1), 49-62.
- Wolf, K. A., & Foshee, V. A. (2003). Family violence, anger expression styles, and adolescent dating violence. *Journal of Family Violence*, 18(6), 309-316.
- Yenidünya, A. (2005). *Lise öğrencilerinde rekabetçi tutum, benlik saygısı ve akademik başarı ilişkisi [The Relation of competitiveness, self esteem and academic achievement at high school students]*. Unpublished master's thesis, Marmara University, İstanbul, Türkiye.
- Yu, P., Harris, G. E., Solovitz, B. L., & Franklin, J. L. (1986). A social problem solving intervention for children at high risk for later psychopathology. *Journal of Clinical Child Psychology*, 15(1), 30-

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APPENDICES

APPENDIX A

SALDIRGANLIK ÖLÇEĞİ (Sample Items)

KARAKTERİNİZE EN UYGUN OLAN YANITI (X) ŞEKLİNDE İŞARETLEYİNİZ		Hiç uygun değil	Çok az uygun	Biraz uygun	Çok uygun	Tamamen uygun
1	Arkadaşlarım çok münakaşacı olduğumu söylerler.					
4	Kendimi sık sık diğer insanlarla tartışırken bulurum.					
5	Bazen hayatın bana adaletli davranmadığını düşünürüm.					
7	Bazen ortada hiçbir neden yokken parlarım.					
12	Öfkemi kontrol etmekte zorluk çekerim.					
18	Bazen sevmediklerim hakkında dedikodu yayar, çamur atarım.					
24	Pek çok insandan daha sık kavga ederim.					
27	Haklarımı korumak için şiddete başvurmam gerekirse, hiç çekinmem.					
31	Arkadaşlarımın, arkamdan, benim hakkımda konuştuklarını bilirim.					

APPENDIX B

NARSİSTİK KİŞİLİK ENVANTERİ (Sample Items)

1. ___İlgi odağı olmayı gerçekten severim.
___İlgi odağı olmaktan rahatsızlık duyarım.
4. ___Hak ettiğim saygıyı genellikle görürüm.
___Hak ettiğim saygının gösterilmesinde ısrar ederim.
7. ___İnsanlar anlattıklarına bazen inanırlar.
___Herhangi bir kişiyi inanmasını istediğim herhangi bir şeye inandırabilirim.
10. ___Ben herkes gibi birisiyim.
___Ben olağandışı biriyim.
14. ___İyi olduğumu biliyorum çünkü herkes sürekli öyle söylüyor.
___İnsanlar bana iltifat ettiğinde bazen utanırım.
16. ___Başkalarından daha yetenekliyimdir.
___Başkalarından öğrenebileceğim çok şey var.

APPENDIX C

ROSENBERG BENLİK SAYGISI ÖLÇEĞİ (Sample Items)

	Çok Doğru	Doğru	Yanlış	Çok Yanlış
1 Kendimi en az diğer insanlar kadar değerli buluyorum	(a)	(b)	(c)	(d)
3 Genelde kendimi başarısız biri olarak görme eğilimindeyim.	(a)	(b)	(c)	(d)
4 Ben de diğer insanların bir çoğunun yapabildiği kadar bir şeyler yapabilirim.	(a)	(b)	(c)	(d)
9 Bazen kesinlikle bir işe yaramadığımı düşünüyorum.	(a)	(b)	(c)	(d)
10 Bazen kendimin hiç de yeterli bir insan olmadığını düşünüyorum.	(a)	(b)	(c)	(d)

APPENDIX D

SOSYAL PROBLEM ÇÖZME ENVANTERİ (Sample Items)

		Bana hiç uygun değil	Bana çok az uygun	Bana kısmen uygun	Bana çok uygun	Bana tamamen
1	Problemlerimi çözmek yerine, endişelenerek çok zaman harcarım.					
3	Karar verirken tüm seçeneklerimi yeteri kadar dikkatli <u>değerlendirmem</u>					
4	Karar verirken her bir seçeneğin diğer insanların yararına olup olmadığını <u>düşünmem.</u>					
6	Önemli bir karar verirken endişelenirim ve kendimden <u>emin olamam.</u>					
23	Problemleri çözmek yerine, onları düşünmekten kaçınmayı tercih ederim.					
24	Karar verirken her seçeneğin hem anlık hem de uzun dönemli sonuçlarını göz önüne alırım.					
27	Bir problemimi çözmeden önce başarı şansımı arttırmak için çözüm yolumu denerim.					
31	Problemlerimden kaçınmaya, çözmekten daha çok zaman harcarım.					
34	Bir karar vermek zorunda kaldığımda, her seçeneğin avantaj ve dezavantajlarını düşünmek için zaman <u>harcamam.</u>					
42	Güç bir problemle karşılaştığımda, başkalarına çözdürürüm.					
45	Karar verirken her seçeneğin sonuçları hakkında çok fazla düşünmeksizin içimden geldiği gibi davranırım.					

APPENDIX E

MİLLİ EĞİTİM BAKANLIĞI ARAŞTIRMA İZİNİ

T.C.
ÇANKAYA KAYMAKAMLIĞI
İlçe Milli Eğitim Müdürlüğü

BÖLÜM : Strateji Geliştirme
SAYI : B.08.4.MEM.4.06.02.11.312 / 02.01.2008* 300
KONU : Didem TEMEL Araştırma İzni

ATATÜRK LİSESİ
DR. ZİDAN BİNAR ESE

MÜDÜRLÜĞÜNE

- İlgi : a) Ankara Valiliği Milli Eğitim Müdürlüğünün 28/12/2007 tarihli ve 312/1269 sayılı yazısı.
b) 24/12/2007 tarihli ve 1214 sayılı Valilik Onayı.

DDTÜ Eğitim Bilimleri Ana Bilim Dalı Yüksek Lisans Öğrencisi Didem TEMEL' in "Algılanan Sosyal Problem Çözme Biçimleri Narsizim, Özsaygı ve Cinsiyet Lise Öğrencilerinin Saldırgan Davranışlarını Yordamdaki Rolü" konulu tezi ile ilgili anketini okulunuzda uygulamasının uygun görüldüğüne ilişkin ilgi (b) Valilik Onayı ekte gönderilmiştir.

Mühürlü anket örneği araştırmacıya İl Milli Eğitim Müdürlüğünce ulaştırılmış olup, uygulama yapılacak sayıda tarafından çoğaltılarak, araştırmanın gönüllülük esasına dayalı olarak yönerge esasları çerçevesinde uygulattırılması hususunda gereğini rica ederim.

Yaşar KOÇAK
Müdür a.
Şube Müdürü

Ek : 1 Valilik Onayı

Adres :

3.Cadde Kumrular Sokak No: 7/B Tel : 418 68 75 – 418 84 58 Web : http://www.cankaya-meb.gov.tr
Kızılay / ANKARA Faks : 419 27 84 – 85 e-posta : cankaya@cankaya-meb.gov.tr

T.C.
ANKARA VALİLİĞİ
Milli Eğitim Müdürlüğü

BÖLÜM : Strateji Geliştirme
SAYI : B.B.08.4.MEM.4.06.00.04-312/1263 / 5343 t. 28/12/2007
KONU : Didem TEMEL (Araştırma izni)

ALTINDAĞI.....KAYMAKAMLIĞINA
(İlçe Milli Eğitim Müdürlüğü)

- İlgi: a) M.E.B. Bağlı Okul ve Kurumlarda Yapılacak Araştırma ve Araştırma Desteğine Yönelik İzin ve Uygulama Yönergesi.
b) 24.12.2007 tarih ve 1214 sayılı Valilik Oluru.

ODTÜ. Eğitim Bilimleri Ana Bilim Dalı Yüksek Lisans Öğrencisi Didem TEMEL'in "Algılanan Sosyal Problem Çözme Biçimleri, Narsizim, Özsaygı ve Cinsiyetin Lise Öğrencilerinin Saldırgan Davranışlarını Yordamadaki Rolü " konulu tezi ile ilgili, anket çalışmalarını ek listede adı bulunan İlçeniz okullarında yapabilme isteği ilgi (b) Valilik oluru ile uygun görülmüştür.

Mühürlü anket örnekleri (Sosyal Problem Çözme Envanteri 2 sayfa, 52 soru), (Saldırganlık Ölçeği 2 sayfa, 34 soru), (Rosenberg Benlik Saygısı Ölçeği 1 sayfa, 10 soru), (Narsist Kişilik Envanteri 1 sayfa, 16 sorudan oluşan) araştırmacıya ulaştırılmış olup, uygulama yapılacak sayıda araştırmacı tarafından çoğaltılarak, araştırmacının ilgi (a) yönerge esasları çerçevesinde gönüllülük esasına dayalı olarak uygulattırılması hususunda bilgilerinizi ve gereğini rica ederim.

Murat Bey BALTA
Vali a.
Milli Eğitim Müdürü

EKLER :

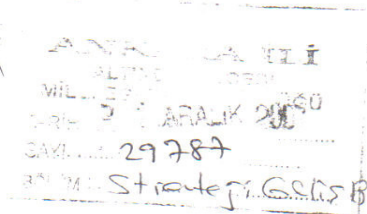
- 1- Valilik Oluru (1 sayfa)
- 2- Okul listesi (1 sayfa)

DAĞITIM:

Gereği:

Çankaya, Altındağ İlçe MEM.

12 8 ARA 2007



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