



RESEARCH ARTICLE

DO ADOLESCENTS' SELF-ESTEEM LEVELS AFFECT THEIR DECISION-MAKING BEHAVIORS? THE STUDY OF THE RELATION BETWEEN DECISION-MAKING BEHAVIORS AND SELF-ESTEEM LEVELS OF 7TH AND 8TH GRADE ADOLESCENTS

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ARTICLE INFO

Article History:

Received 2nd, April, 2015
Received in revised form 10th,
April, 2015
Accepted 4th, May, 2015
Published online 28th,
May, 2015

Key words:

self-esteem, decision-making,
self-esteem and decision-making
in adolescent, 7th and 8th grade
adolescents

ABSTRACT

The present study is conducted to determine the effects of adolescents' self-esteem levels on their decision-making processes. General scanning model is used. The study is conducted with 608 students who were between the ages of 13 and 14 and attending secondary schools in Ankara, Turkey. In order to collect the data of the present study, the Personal Information Form, Coopersmith Self-Esteem Inventory-SEI and Adolescent Decision-Making Questionnaire were applied to students. Findings of the study are as follows: adolescents' self-esteem levels were found to have effects on their decision-making processes, there were meaningful gender differences in terms of self-esteem and decision-making levels, the 7th grade students had higher scores than the 8th grade students regarding general self-esteem, home-family self-esteem, academic self-esteem, self-esteem (short form) and total self-esteem. Moreover, the behavior of running away from responsibilities were seen less in 7th grade students. Finally, it is found that there was a relation between students' self-esteem levels and decision-making processes.

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INTRODUCTION

One of the most important periods in an individual's life is adolescence. Between the ages of 12-14, rapid development and changes are observed and behavioral changes are remarkable during this period (Derman, 2008). Although there are individual differences among the adolescents in this period, these new conditions provide opportunities and keep them busy with introspection and mature decision-making states which is beyond their cognitive capacity (Gentry *et al.*, 2002). The tendency for spending more time with peers, which starts during middle childhood, continues through the adolescent period. During the adolescent period, friendship is stronger and adolescents show more similar attitudes, passions and expectations among their peers (Rubin *et al.*, 2008).

As abstract thinking ability develops during the adolescence period, adolescents give more importance to focusing on relationships, emotions and beliefs compared to previous periods (Güvenç *et al.*, 2002). As the adolescent gets older, he guesses how personal behaviors affect certain situations and improves his reasoning skills by thinking about the risks and possibilities related to these behaviors and can think of many

behaviors and solutions to solve the problem (Commendador, 2007).

The adolescent period is a process in which he makes important decisions related to his life (Kulaksızoglu, 2008).

Decision-making in Adolescents

The most important cognitive change during adolescence is the change in executive functioning. This process includes top-level cognitive activities such as reasoning, controlling both critical thinking and cognitive processes (Santrock, 2012). When people do not learn what they should do through experiences, they need some decision-making skills that they can use. These skills include gathering the appropriate information, applying the general morals in certain situations and putting these pieces together with the right decision-making rule consistently (Parker *et al.*, 2005). The individual could think of experiences in the past to make a decision, be able to observe the present environment and make predictions regarding future possibilities (Garon *et al.*, 2004).

Decision-making is described in different ways. However, Morris (2002) described decision-making as a special method whose entire possible solutions are known beforehand.

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Decision-making is selecting a choice among many choices and accepting or denying the present possibilities (Gerrig *et al.*, 2012).

Decision-making is a mental process and one of the most important skills of a human. Decision-making is equipped with human-specific features such as wisdom, thinking, conscience and will. The individual uses his cognitive processes to make healthy decisions (Deniz, 2004). While some researchers state that decision-making is perceived as some cognitive process series, others express that in addition to cognitive processes at certain times and in certain places the features in the environment are included the decision-making process (Jurišová *et al.*, 2013). Different decision-making tasks require the involvement of different processes of control (e.g. Castellanos *et al.*, 2006; Del Missier *et al.*, 2010). Reactions need less executive control in the following situations: when decision-making requires the use of methods that are not cognitive such as open “perceptual” patterns; when they are directed within the environmental knowledge; when they depend on the process of regaining or when they are established on the basis of simple decision-making findings (Missier, *et al.*, 2012).

The individual's feature that causes differences in his decision-making is usually “the way he processes the information” in other words “his cognitive style.” Cognitive style is described as the method that humans process information, organize it and as a result of their observations come to a judgement or conclusion. These styles are seen as stable structures causing differences in behaviors during the decision-making process (Leonard *et al.*, 1999).

The decision-making behavior emerges a) when there is an issue that makes it necessary to decide and this issue is felt by the individual, b) when there is more than one option to solve the problem, c) when the individual has the freedom of tending to choose the one he likes. The individual is expected to make a decision only when these conditions are provided (Çoban *et al.*, 2006; Yıldız, 2012). When the individual feels the necessity for making a decision, the decision-making process begins. Decision-making is realizing a situation that requires a choice to be made, describing this situation, gathering information about this situation and determining the choices (Alver, 2004; Ersever, 1996; Kökdemir, 2003; Sardo an *et al.*, 2006; Tatlıo lu, 2014). An individual's tendency to choose one among many options is considered as the cognitive process. In order to make effective and healthy decisions, these cognitive processes should be operated (Deniz, 2011, Eldeleklio lu, 1996). Before deciding, the options should be evaluated very well. This process requires steps such as acquiring detailed information about the options, classifying the acquired information, ordering it in terms of importance and examining each option considering its possibility to fulfill the wishes (Öztürk *et al.*, 2011, Payne *et al.*, 1988).

Decision-making skills include (a) using the information, (b) evaluating the possibilities, (c) evaluating the positive and negative sides of the decisions and (d) evaluating the results of the different choices (Hammond, *et al.*, 1998, Keeney *et al.*,

1998). Giving an appropriate and realistic decision, gathering the correct information and evaluating it are all important in decision-making (Byrness *et al.*, 1994). There is a series of process to follow in decision-making. These are (a) determining goal/problem, (b) forming choices/alternatives, (c) considering the possible results of the alternatives, (d) collecting data in order to evaluate the alternatives better, (e) evaluating the collected data, (f) determining appropriate alternatives and (g) making the necessary plans and evaluating the results and applying the decision which is made (Byrnes, 2002; Çolakkadio lu, 2003; Erözkan, 2011; Gürçay, 2005; Harris, 1998; Önder *et al.*, 2011).

Mann (1989) stated that there are important changes in the development of decision-making skills during adolescence. These include changes such as applying cognitive processes in decision-making, thinking about the target, reviewing the information in hand, considering the possible results of the decisions and sticking to the decisions given. Decisions that are made willingly or unwillingly affect the adolescent's life significantly (Gürçay, 2005). Decisions made during adolescence shape or limit future opportunities (Mann *et al.*, 1989). While almost all the decisions are made by parents during childhood, adolescents reach a level at which they can make their own decisions. However, some adolescents are not ready to make decisions by themselves or do not have enough decision-making experience (Schvaneveldt *et al.*, 1983). Decision-making skills help adolescents cope with difficult situations in a better way (D'Zurilla *et al.*, 1995). While making a decision, the adolescent's decision-making pattern is important. Decision-making patterns are the behaviors which the adolescent approaches, responds and applies to solve his problem in a decision-making situation. For this reason the differences in adolescents' decision-making behaviors are remarkable (Bacanli, 2012).

There are so many factors affecting adolescents' decision-making behaviors. For instance, poor self-control regarding low expectation and responsibility (e. g. Converse *et al.*, 2014), negligence along with inner-control and tendency to believe in his/her chances, emotional arousal (e. g. Flouri *et al.*, 2011) and indecisiveness (e. g. Nota *et al.*, 2004), sudden reactions given to emotional effects in mental settings depending on the situation, an adolescent's sensitivity towards some circumstances, loss of self-confidence (e. g. Deeley *et al.*, 2013) and showing rigid reaction are affecting an adolescent's decision-making behavior substantially (Jurišová *et al.*, 2013). Reasons such as not giving chances to the adolescent to make decisions, as well as not getting enough support and help from adults in decision-making, prevent the adolescent from developing his decision-making behaviors. As a result of this, the adolescent might make poor decisions affecting his own future. An adolescent can drop out to make his own living as soon as possible but he does this with a limited academic and professional perspective (Güçray, 2003). Besides, differences emerging from adolescent's personal characteristics such as having anxiety (e.g. Richards *et al.*, 2015) and the way he deals with his problems or his ability to process the data are the other factors affecting adolescent's decision-making process (Mann *et al.*, 1997).

Factors such as instinct, attachment (e. g. Allen *et al.*, 1998), parental (e. g. Palan *et al.*, 1997) and kinship pressure (e.g. Dustin *et al.*, 2013; Güney Karaman, 2013), memory (e. g. Forman *et al.*, 2011), prejudice (e. g. Taghavi *et al.*, 1999) problem solving, confronting (e. g. Yu *et al.*, 2014), self-confidence (Trudeau *et al.*, 2003), committing/not committing crime (e. g., Demirba , 1992), depression (Joormann *et al.*, 2007; Okwumabua *et al.*, 2003), trait anxiety (e. g. Tuzgöl Dost *et al.*, 2014), psychological needs (Kesici, 2002), the type of schooling (Güçray, 2003) and self-esteem (e. g. Clay *et al.*, 2005; Ruiter *et al.*, 2015) are affecting adolescent's decision-making process (Candangil *et al.*, 2006; Çolakkadı lu, 2012). Self-esteem is one of these factors which affects an adolescent's decision-making significantly.

Self-esteem in Adolescents

Self-esteem has to do with feelings about one's positive or negative manners, worthiness, competence and goodness or acceptance about himself as a human or respecting himself (Crocker *et al.*, 1989; Farris *et al.*, 2013; Griffin-Shirley *et al.*, 2005; Rosenberg 1965). William James (1890), defined self-esteem as a measurable evaluation process about one's success rate regarding his own wishes. Self-esteem is important in many ways of life. Self-esteem is a stable/constant personality feature and affects an individual's life from adolescence until early adulthood significantly (Elfhag *et al.*, 2010).

An individual with high self-esteem accepts himself, finds himself worthy and believes in himself, evaluates himself positively, stays away from aggressive attitudes and feels good about himself (Av aro lu, 2007). The individual with high self-esteem is good at decision-making, eager to try new things, sensitive to others' needs, and has healthy and respectful relationships with others (Dalgas-Pelish, 2006; Griffin-Shirley *et al.*, 2005; Twenge *et al.*, 2001). Additionally, these individuals with high self-esteem have high academic success, healthy and productive (Dalgas-Pelish, 2006). On the other hand, an individual with low self-esteem has negative perceptions about himself, sees himself as unsuccessful, insufficient and worthless, and is more helpless against the effects of unpleasant and harmful feedback (Aunola *et al.*, 2002; Dere Çiftçi, 2015; Jones *et al.*, 2005). Individuals with low self-esteem run away from challenging tasks or leave these kind of tasks and tend to protect themselves. They don't ask for support from others in situations that threaten them (Buckingham *et al.*, 2012, Canevello *et al.*, 2011; Park *et al.*, 2009). In addition, cases such as smoking, substance abuse, low academic success, depression and suicide are more common among these individuals (Dalgas-Pelish, 2006). In their study, Robins *et al.* (2002) determined that self-esteem level is high during childhood, decreases in adolescence period, increases gradually during adulthood and drops suddenly with old age.

When the individual reaches adolescence, "a more abstract definition of himself" is developed, and his self-concepts are shaped and become more organized (Steinberg *et al.*, 2001). Identity formation during adolescence period and the development of self-esteem along with it are both important (Steinberg, 2005). Baumrind (1991) states that while self-

esteem in children and adolescents enables discovering and trying freely, it also needs an environment protecting the individual from hazards (Crisp *et al.*, 2007). Besides the physiological changes during this period, a decrease in general self-esteem is remarkable in 12-13 year-old girls and 14-15 year-old boys (Jacobs *et al.*, 2003; Powell, 2004), especially after starting secondary school (e. g. Lesar *et al.*, 2014). For this reason, transition period from primary school to secondary school is a difficult one in terms of understanding self-esteem development. Some researches show that the decrease in self-esteem during the transition period resume increasing by the end of the first grade of secondary school (e. g. Wigfield *et al.*, 1991) while others show that self-esteem keeps decreasing during the entire secondary school period until the young adulthood period (Arens *et al.*, 2013). The longitudinal study that Erol *et al.* (2011) conducted to evaluate the development of self-esteem from age 14 to age 30, found that self-esteem increases in adolescence and this increase really slows down in young adulthood.

High level self-esteem during adolescence might express individual's worthiness as a person, as well as right and fair perceptions regarding his achievements, but it might be also the sign of pride, showing off and injustice as a superiority feeling. Likewise low self-esteem level expresses either individuals' inadequacy or his twisted pathologic distrust and inferiority complex (Santrock, 2012). Besides, other features such as depression, laziness, not being happy about his own appearance and with the compliments made, feeling insecure and insufficient most of the time, having no imaginary expectations, having serious doubts about his future, being extremely shy, aggressiveness, or having antisocial behaviors, following others' desires, suicide, crime, substance abuse and poor academic success are also found related to low self-esteem during adolescence period (Gentry *et al.*, 2002; Gerrig *et al.*, 2012; Jaffe, 1998; Zimmerman *et al.*, 1997). It is also seen that adolescents with low self-esteem have poor mental and physical health during adolescence period.

An individual's satisfaction in life and improvement depend on acquiring the appropriate and effective decision-making skills. The individual needs help to make good decisions. Seeing a fact, a process or an event as an issue is also related with an individual's self-esteem (Av aro lu, 2007; Ersever, 1996). One's determination and sticking to his decision is related to the extent of his own positive self-evaluation about himself. Self-esteem is seen as a strong and motivating factor of human behavior (Thunholm, 2004). The value that the individual feels for himself affects the decisions he makes. An adolescent with high self-esteem evaluates himself realistically and realizes his positive sides, work on his negative sides and tries to turn them into positive too. However, the adolescent with low self-esteem has low self-confidence, is shy, depends on others and is not happy with himself. As a result of all these he is usually undecisive (Sari, 2007; Walsh *et al.*, 1973).

The present study searched for the answer of the following question: Do adolescent' self-esteem levels affect their decision-making behaviors?

MATERIALS AND METHODS

In the present study general screening model is used. General screening model is applied to make a judgement about population on the whole population or on a group chosen from the population (Karasar, 1994). In a screening model observations are made, relations between the facts are determined and generalizations are made on controlled stable relations (Yıldırım, 1966).

Ethics: The study was approved by the Ethics Council of Scientific Research Projects with Academic Purposes at the University of Turgut Özal, and the research was started after the approval of the committee.

Participants and Procedure

The purpose of the present study is determining the effects of adolescents' self-esteem levels on their decision-making processes.

The study was conducted with 820 secondary school students from Ankara, Turkey (Yenimahalle and Keçiören districts). The students were 13 and 14 year-old 7th and 8th graders. However, the results of 212 of the tests were not included within the study as the students haven't marked some of the items. The study was conducted with 608 students who completed the test fully. Personal Information Form, Coopersmith Self-Esteem Inventory-SEL and Adolescent Decision-Making Questionnaire were applied in 5 schools to 7th and 8th grade students who were volunteers to participate in the study. 47.5% (289) of the participants were 7 graders and 52.5% (319) of them were 8 graders. 50.3% (306) of them were girls and 49.7% (302) of them were boys. 47.5% (289) these students were 13 years old and 52.5% (319) of them were 14.

When students' parents are examined in terms of demographic features: 2.8% (17) of the mothers were between the ages of 20-30, 67.3% (409) of them were between 31-40, 28.5% (173) of them were between 41-50, and 1.5% (9) of them were 51 years old and above. 1% (6) of the fathers were between the ages of 20-30, 41% (249) of them were 31-40, 51% (310) of them were 41-50, 6.6% (40) of them were 51 and above and 0.5% (3) of the fathers were dead.

When parents' educational background is examined: 0.8% (5) of mothers were illiterate, 1.2% (7) of them were barely literate, 19.2% (117) of them were primary school graduates, 13.8% (84) of them were secondary school graduates, 28% (170) of them were high school graduates and 37% (225) of them were college graduates. The percentages for fathers were 0.2% (1) illiterate, 1% (6) literate, 10.2% (62) primary school, 12.3% (75) secondary school graduates, 23.2% (141) high school graduates, 52.6% (320) college graduates and % 0.5% (3) of them were dead. When parents are examined in terms of their jobs the percentages were as follows: 21.7% (132) of the mothers were officers, 3.6% (22) workers, 5.6% (34) healthcare staff, 65% (395) housewives, 1.5% (9) engineers, 1.2% (7) self-employed (has her own workplace), 0.7% (4) accountants and 0.8% (5) retired. These percentages for fathers were: 34.5% (210) officers, 23.5% (142) workers, 3.8% (23) healthcare staff, 8.5% (52) engineer, 24.6% (150) self-employed (has his

own workplace), 3.4% (21) retired and 1.2% (7) accountants. 0.5% (3) of the fathers were dead.

Measures

In order to collect the data of the present study the Personal Information Form, Coopersmith Self-Esteem Inventory- SEL and Adolescent Decision-Making Questionnaire were used.

Personal Information Form

Personal Information Form is prepared by the reseracher to gather information about the adolescent's age, gender, grade and parents' age, educational level and occupation.

Adolescent Decision-Making Questionnaire

Adolescent Decision Making Questionnaire was developed by Mann *et al.* (1989) to determine Decisional Self Esteem level and coping patterns. The questionnaire consists of two parts and five sub-scales. The two parts are Decisional Self Esteem and Decisional Coping Patterns. Decisional Self Esteem sub-scale is adapted from Mann's Adolescent Decision Making Questionnaire. The purpose of the scale is to measure an individual's self-esteem level in decision-making. Therefore, there are six items in the scale to determine self-esteem in decision-making. The scale is completed by checking off the most appropriate answer from four categories for each item: 3 (It is always true for me), 2 (It is often true for me), 1 (It is sometimes true for me) and 0 (It is never true for me.) The top score that one can get from Decisional Self Esteem sub-scale is 18 and the lowest score is 0. While high scores are the sign of high self-esteem, low scores are the sign of low self-esteem. The scores are calculated via reversing for the responses given to the 2nd, 4th and 6th items. The Cronbach alpha coefficient of the scale is found as .61. The second part of the scale is formed with the decisional coping patterns. Decisional coping patterns are formed with vigilance-selectivity, panic, cop-out and complacency sub-dimensions. Vigilance-selectivity is the individual's examination of the range of alternatives and his evaluation of positive and negative sides of each of them in decision-making conditions. Panic reflects the decisions that the individual make when he doesn't have enough time and still he has to make a decision to keep himself away from stress and conflict. Copping-out is individual's postponement of his decisions or giving his own responsibility to another in situations that has to decide. Complacency is the way that the individual acts as if there is no decision to make in situations that he has to decide. Just like in Decisional Self Esteem sub-scale there are also 6 items in each of these sub-scales. The responses to these items are also given like the ones in self-esteem sub-scale. The top score that one can get from each sub-scale is 18 and the least score is 0. When the score is high it shows that the related decision pattern is being used. Cronbach alpha for vigilance-selectivity is found as .73, for panic as .70, for cop-out as .66 and for complacency as .73 (Çolakkadio lu, 2012; Friedman *et al.*, 1993). The adaptation of Adolescent Decision Making Questionnaire is conducted by Çolakkadio lu *et al.* (2007). The study is conducted in two alternate stages on two different samples formed with students ranging in age from 13 to 15. In the first study, the data is gathered from 1582 primary and high school students and in the second one from

382 primary and high school students. In explanatory factor analysis carried out with Varimax rotation method it is found that all the items were placed in their original forms with factor loads changing between .30 and .72. Total variance is found as 38.09% which is explained by five factors whose eigenvalues were over 1. Cronbach alpha coefficient of Adolescent Decision Making Questionnaire for sub-dimensions of self-esteem, vigilance-selectivity, panic, cop-out, complacency are respectively .79, .78, .77, .65 and .73; for test-retest consistency Cronbach alpha coefficient is found as .80, .81, .82, .80 and .86 for sub-dimensions of self-esteem, vigilance-selectivity, panic, cop-out, and complacency. Confirmatory Factor Analysis is applied for five-factor model and it is seen that data of concordance indicators explain the model efficiently (Çolakkadio lu *et al.*, 2007). Validity and reliability studies of the scale are also conducted for secondary school students by Çolakkadio lu (2012). The sample of the study is formed with 616 students who were studying in secondary school in Adana. In the present study the following statistical analysis are made in terms of Adolescent Decision Making Questionnaire; construct validity, the correlation of sub-scales among themselves, criterion-related validity, Cronbach alpha internal consistency, item-total score correlation and test-retest reliability coefficients. As a result of the Confirmatory Factor Analysis carried out for construct validity of the Adolescent Decision Making Questionnaire, it is found that the original scale (Friedmann *et al.*, 1993) was consistent with all five sub-scales with its Turkish adaptation applied on a 13-15 year-old population (Çolakkadio lu *et al.*, 2007) and all the items were also taking place in the related sub-scale. Besides, the Cronbach alpha coefficient for Adolescent Decision Making Questionnaire was respectively .84, .85, .83, .76 and .77 for self-esteem, vigilance-selectivity, panic, cop-out, complacency sub-scales; and test-retest consistency is again found respectively as .85, .79, .85, .67 and .78. Statistical analysis applied for Adolescent Decision Making Questionnaire has shown that the questionnaire is valid and reliable in determining secondary school students' decisional self-esteem level and decision-making patterns.

In the present study, Cronbach's Alpha Coefficient for Adolescent Decision Making Questionnaire sub-scales of self-esteem, vigilance-selectivity, panic, cop-out and complacency were respectively found as .70, .70, .73, .64 and .59.

Coopersmith Self-Esteem Inventory- SEI

Coopersmith Self-Esteem Inventory is a "self-evaluation scale" developed by Coopersmith in 1967 to determine an individual's self-esteem level. The inventory includes items that emphasize children's or young ones' personal beliefs about themselves in terms of feeling skillful, competent, important and worthy, as well as behaviors that are habits and attitudes that he approves or disapproves of. Self-Esteem Inventory consists of five sub-scales that are related with different aspects of self-esteem. These are: General Self-Esteem (26 Items), Social (8 Items), Academic (8 Items), Home and Family-oriented Self-Esteem (8 Items), Lie (8 Items) sub-scales. Items related to lie sub-scale are not included in scoring so 50 items are taken into consideration while scoring. Along with sub-scale scores, total scores are also calculated. The way items are expressed

requires "Yes" or "No" answers. Answers showing high self-esteem get "2" points and answers showing low self-esteem get "0" points. A high score indicates high self-esteem.

Reliability coefficients for Coopersmith Self-Esteem Inventory are assessed with Kuder-Richardson 20 and 21 analysis. These coefficients are found as .91 for girls and .80 for boys. Test re-test reliability coefficient which was applied with a five-week break was found as .88, and stability coefficient which was applied after three years is found as .70. The first adaptation of Coopersmith Self-Esteem Inventory-SEI into Turkish is conducted by Onur (1981) on 127 primary school students. In Güçray's (1993) validity and reliability study of the scale on primary school children between 9-11 years old, the internal consistency, score-invariant and validity of similar scales are examined. These statistical analysis are applied considering total scores. KR-21 values in different groups are found as .83 and .75. For test re-test reliability the scale applied with a two-week break on 51 students and the correlation coefficient is found as .70. The correlation of scores between Self-Esteem Inventory and Pierre-Harris Children's Self-Concept Scale is found as .72. In 1996, Pi kin conducted a study with 315 Turkish high school students and applied the Self-Esteem Inventory and found KR-20 value for total scores as .81. Internal consistency values of sub-scales are as follows: for General Self-Esteem (.78), Home/Family (.66), Academic-School (.47), Social (.45) and Lie (.56). Spearman-Brown split half method is used to find the reliability coefficients of the scale on Turkish sample. According to the results of this method the coefficients are as follows; total .82, social .45, general .77, home/family .69, academic self-esteem .52 and lie .58.

KR-20 (Kuder-Richardson 20) values for the general self-esteem, social self-esteem, home/family self-esteem, academic self-esteem, short form and self-esteem subscales in the present study are respectively found as .83, .61, .75, .64, .84 and .90.

Statistical Analyses

SPSS 20 packaged program is used to analyze the data of the present study. Because of the number of units Shapiro Wilk's is used while examining the normal range of the variables. While interpreting the results the significance level was 0.05; $p < 0.05$ showed that distribution of the variables were not normal and $p > 0.05$ showed that the distribution of the variables were normal. When the distribution of the variables were not normal Mann Whitney U and Kruskal Wallis-H Tests are used in order to examine the differences between the groups.

When the differences found with Kruskal Wallis-H Test were meaningful, Post-Hoc Multiple Comparison Analysis is used to determine these differing groups. While examining the relations between the groups Spearman's Correlation Coefficient is used for the variables that are not distributed normally and Pearson Correlation Coefficient is used for the variables that are distributed normally. Cronbach's Alpha and KR-20 are used while conducting reliability studies of the scales. While interpreting the results the significance level was 0.05. When $p < 0.05$, it indicates that there was a meaningful

difference/relation and when $p > 0.05$, it indicates that there was no meaningful difference/relation.

RESULTS

According to the results of the present study that was conducted to determine 7th and 8th grade adolescents' decision-making behaviors, self-esteem levels and the effects of their self-esteem levels on their decision-making processes, the findings are as follows:

Decision-Making Questionnaire, the gender differences were statistically meaningful ($p < 0.05$) in terms of 7th grade students' complacency and cop-out sub-dimensions and 8th grade students' decisional self-esteem and panic sub-dimensions. 7th grade boys' scores regarding complacency and cop-out sub-dimension were higher than 7th grade girls' complacency and cop-out scores. 8th grade boys' scores regarding panic sub-dimension were meaningfully higher than 8th grade girls' panic sub-dimension scores. However, there were no statistically meaningful gender differences considering 7th graders' scores

Table 1 Mann Whitney U Test Results of the Differences Between Genders In Terms of 7th and 8th Grade Students' Questionnaire and Sub-dimension Scores

			7th GRADE						8th GRADE					
			Gender		Mann Whitney U Test				Gender		Mann Whitney U Test			
			n	Mean	ss	Mean Rank.	U	p	n	Mean	ss	Mean Rank.	U	p
adolescent Decision-Making Questionnaire	General Self-esteem	Girl	140	18	4,72	141,7	9968,5	0,515	166	16,02	5,27	146,82	10511	0,008
		Boy	149	18,19	5,41	148,1			153	17,61	4,77	174,3		
		Total	289	18,1	5,08				319	16,78	5,09			
	Social Self-esteem	Girl	140	6,35	1,43	163,53	7836,5	0,001	166	5,67	1,9	161,93	12379	0,693
		Boy	149	5,49	1,94	127,59			153	5,72	1,62	157,91		
		Total	289	5,91	1,76				319	5,7	1,77			
	Home-Family Self-esteem	Girl	140	5,68	2,13	157,29	0,014	0,014	166	4,89	2,29	161,28	12487	0,795
		Boy	149	5,13	2,1	133,45			153	4,83	2,26	158,61		
		Total	289	5,4	2,13				319	4,86	2,28			
	Academic Self-esteem	Girl	140	4,76	2,08	144,02	10292,5	0,845	166	3,87	2,06	153,35	11595,5	0,175
		Boy	149	4,82	1,98	145,92			153	4,2	2,07	167,21		
		Total	289	4,79	2,02				319	4,03	2,07			
	Self-esteem-Short Form	Girl	140	16,65	5,08	148,26	9973	0,519	166	14,4	5,35	151,19	11237	0,075
		Boy	149	16,16	5,62	141,93			153	15,44	5,02	169,56		
		Total	289	16,4	5,36				319	14,9	5,21			
Total Self-esteem Inventory	Girl	140	34,79	8,57	150,15	9708,5	0,309	166	30,46	9,51	151,53	11292,5	0,087	
	Boy	149	33,64	9,49	140,16			153	32,36	8,67	169,19			
	Total	289	34,2	9,06				319	31,37	9,16				
Self-esteem in Decision-Making	Girl	140	12,22	3,27	152,35	9400,5	0,145	166	10,98	3,53	148,94	10862,5	0,025	
	Boy	149	11,77	3,05	138,09			153	12,01	3,04	172			
	Total	289	11,99	3,16				319	11,47	3,34				
Vigilance-Selectivity	Girl	140	12,12	3,68	149,21	9841	0,405	166	11,81	3,69	157,87	12345,5	0,666	
	Boy	149	11,73	3,71	141,05			153	12,04	3,07	162,31			
	Total	289	11,92	3,7				319	11,92	3,4				
Complacency	Girl	140	3,34	2,7	122,84	7327,5	0,001	166	4,05	3,01	152,36	11431	0,121	
	Boy	149	4,79	3,06	165,82			153	4,48	2,9	168,29			
	Total	289	4,09	2,98				319	4,25	2,96				
Panic	Girl	140	6,73	4,02	145,31	10386,5	0,951	166	7,79	4,13	173,86	10398	0,005	
	Boy	149	6,65	4	144,71			153	6,47	3,78	144,96			
	Total	289	6,69	4				319	7,16	4,01				
Cop-out	Girl	140	3,89	3,03	131,75	8575	0,009	166	4,76	3,52	153,5	11620,5	0,188	
	Boy	149	4,78	3,13	157,45			153	5,09	2,96	167,05			
	Total	289	4,35	3,11				319	4,92	3,26				

$P < 0.05$

When students' scores are examined with Coopersmith Self-Esteem Inventory, a meaningful difference ($p < 0.05$) is found in 7th grade students' self-esteem scores in terms of social self-esteem and home-family self-esteem sub-scales between girls and boys. As for 8th grade students considering gender variable the difference was statistically meaningful ($p < 0.05$) only in terms of general self-esteem. There were no statistically meaningful gender differences ($p > 0.05$) regarding 7th grade students' general self-esteem, academic self-esteem, short form sub-scales as well as 8th grade students' social self-esteem, home-family self-esteem, academic self-esteem, short form and total self-esteem sub-scales. However, when social self-esteem and home-family self-esteem sub-scales are considered, 7th grade girls' scores were meaningfully higher than boys and 8th grade boys' scores were meaningfully higher than girls in terms of general self-esteem sub-scale. As for the Adolescent

of decisional self-esteem, vigilance-selectivity and panic sub-dimensions, and 8th graders' scores of decisional self-esteem and panic sub-dimensions (Table 1). When the differences between students' grades are examined in terms of Coopersmith Self-Esteem Inventory, Adolescent Decision-Making Questionnaire and sub-scale scores, a statistically meaningful ($p < 0.05$) difference is found regarding scores of Coopersmith Self-Esteem Inventory, general self-esteem, home-family self-esteem, academic self-esteem, self-esteem (short form) and total self-esteem sub-scales. The results show that 7th grade students' general self-esteem, home-family self-esteem, academic self-esteem, self-esteem (short form) and total self-esteem scores were meaningfully higher compared to 8th grade students' scores. As for Adolescent Decision-Making Questionnaire, students' scores of cop-out sub-scale was showing a statistically meaningful difference ($p < 0.05$) in terms

of their grades. 8th grade students' scores of cop-out sub-dimension are meaningfully higher than those studying in 7th grade which means 8th graders are running away from responsibilities more than 7th graders do.

Esteem, vigilance-selectivity, complacency and panic sub-dimension scores (Table 2). While there were positive relations between self-esteem scale and sub-dimensions of decisional self-esteem and vigilance-selectivity for 7th grade students,

Table 2 Mann Whitney U Test Results of the Differences Between Grades Regarding Student's Questionnaire Scores and Sub-dimension Scores

		Student's Grade	Student's Grade						Mann Whitney U Test		
			n	Mean	Median	Min	Max	ss	Mean Rank.	U	p
Coopersmith Self-Esteem Inventory- SEI	General Self-esteem	7th Grade	289	18,1	19	3	26	5,08	328,7	39101,5	0,001*
		8th Grade	319	16,78	17	2	26	5,09	282,58		
		Total	608	17,41	18	2	26	5,13			
	Social Self-esteem	7th Grade	289	5,91	6	0	8	1,76	316,21	42710,5	0,112
		8th Grade	319	5,7	6	0	8	1,77	293,89		
		Total	608	5,8	6	0	8	1,77			
	Home-family Self-esteem	7th Grade	289	5,4	6	0	8	2,13	326,06	39864	0,004*
		8th Grade	319	4,86	5	0	8	2,28	284,97		
		Total	608	5,12	6	0	8	2,22			
	Academic Self-esteem	7th Grade	289	4,79	5	0	8	2,02	337,55	36544,5	0,001*
		8th Grade	319	4,03	4	0	8	2,07	274,56		
		Total	608	4,39	4	0	8	2,08			
Self-esteem-Short Form	7th Grade	289	16,4	17	1	25	5,36	331,09	38411	0,001*	
	8th Grade	319	14,9	15	1	25	5,21	280,41			
	Total	608	15,61	16	1	25	5,33				
Total Self-esteem Inventory	7th Grade	289	34,2	35	7	50	9,06	333,39	37747,5	0,001*	
	8th Grade	319	31,37	31	5	50	9,16	278,33			
	Total	608	32,71	33	5	50	9,21				
Adolescent Decision-Making Questionnaire	Self-esteem in Decision-Making	7th Grade	289	11,99	12	0	18	3,16	318,09	42167	0,068
		8th Grade	319	11,47	12	1	18	3,34	292,18		
		Total	608	11,72	12	0	18	3,26			
	Vigilance-Selectivity	7th Grade	289	11,92	12	1	18	3,7	305,28	45871,5	0,917
		8th Grade	319	11,92	12	3	18	3,4	303,8		
		Total	608	11,92	12	1	18	3,54			
	Complacency	7th Grade	289	4,09	4	0	15	2,98	298,92	44482,5	0,453
		8th Grade	319	4,25	4	0	16	2,96	309,56		
		Total	608	4,18	4	0	16	2,97			
	Panic	7th Grade	289	6,69	6	0	18	4	294,21	43123	0,168
		8th Grade	319	7,16	7	0	18	4,01	313,82		
		Total	608	6,93	6	0	18	4,01			
Cop-out	7th Grade	289	4,35	4	0	15	3,11	288,54	41482	0,032*	
	8th Grade	319	4,92	4	0	18	3,26	318,96			
	Total	608	4,65	4	0	18	3,2				

*p < 0.05

Table 3 Correlation Test Results of the Relation between 7th Grade Students' Self-esteem Inventory Scores and Decision-Making Questionnaire Sub-dimension Scores

		7th Grade					
		Total Self-esteem Inventory	Self-esteem in Decision-Making	Vigilance-Selectivity	Apathy	Panic	Cop-out
Total Self-esteem Inventory	r	1	0,509	0,370	-0,376	-0,468	-0,385
	p	.	0,001*	0,001*	0,001*	0,001*	0,001*
	N	289	289	289	289	289	289
Self-esteem in Decision-Making	r		1	0,518	-0,337	-0,381	-0,423
	p		.	0,001*	0,001*	0,001*	0,001*
	N		289	289	289	289	289
Vigilance-Selectivity	r			1	-0,389	-0,246	-0,399
	p			.	0,001*	0,001*	0,001*
	N			289	289	289	289
Complacency	r				1	0,456	0,508
	p				.	0,001*	0,001*
	N				289	289	289
Panic	r					1	0,452
	p					.	0,001*
	N					289	289
Cop-out	r						1
	p						.
	N						289

*p < 0.05

There were no statistically meaningful (p>0.05) differences between students' grades in terms of Coopersmith Self-Esteem Inventory, social self-esteem sub-dimension scores and Adolescent Decision-Making Questionnaire, Decisional Self-

these relations were negative in terms of self-esteem scale and sub-scales of complacency, panic and cop-out sub-dimensions (p<0.05). The r-value for decisional self-esteem sub-dimension

is $r = 0.509$ and for vigilance-selectivity sub-dimension $r = 0.370$.

It is observed that, as the scores of self-esteem scale increased, scores of decisional self-esteem and vigilance-selectivity scores increased too. For complacency sub-dimension r -value is $r = -0.376$, for panic sub-dimension $r = -0.468$ and cop-out sub-dimension $r = -0.385$. As the scores of self-esteem scale increased, scores of complacency, panic and cop-out sub-dimensions decreased. While there was a positive relation ($p < 0.05$) between students' decisional self-esteem and vigilance-selectivity sub-dimensions, this relation was negative ($p < 0.05$) between decisional self-esteem sub-dimension and complacency, panic and cop-out sub-dimensions. The r -value of vigilance-selectivity sub-dimension is $r = 0.518$. As the decisional self-esteem sub-dimension score increased vigilance-selectivity sub-dimension score increased too. For complacency sub-dimension the r -value is $r = -0.337$, for panic sub-dimension $r = -0.381$ and for cop-out sub-dimension $r = -0.423$. It is seen that as the students' decisional self-esteem scores increased, scores of complacency, panic and cop-out sub-dimensions decreased. A negative relation ($p < 0.05$) is determined between vigilance-selectivity sub-dimension and complacency, panic and cop-out sub-dimensions. The r -value of complacency sub-dimension $r = -0.389$, for panic sub-dimension $r = -0.246$ and cop-out sub-dimension $r = -0.399$. As students' vigilance-selectivity sub-dimension scores increased, scores of complacency, panic and cop-out sub-dimensions decreased.

There is a positive relation ($p < 0.05$) between complacency sub-dimension and panic and cop-out sub-dimensions. The r -value for panic sub-dimension $r = 0.456$ and for cop-out $r = 0.508$. As the complacency sub-dimension score increased, panic and cop-out sub-dimension scores also increased. A positive relation ($p < 0.05$) is found between sub-dimensions of panic and cop-out. For cop-out sub-dimension the r -value is $r = 0.452$. As the panic sub-dimension score increased, score of cop-out sub-dimension increased too (Table 3).

For 8th grade students there is a positive relation between self-esteem scale and decisional self-esteem and vigilance-selectivity sub-dimensions. The r -value for decisional self-esteem is $r = 0.520$ and for vigilance-selectivity sub-dimension it is $r = 0.400$. As the self-esteem scale score increased, decisional self-esteem sub-dimension score also increased. The relation is negative ($p < 0.05$) for vigilance-selectivity, complacency, panic and cop-out sub-dimensions. For vigilance-selectivity, complacency, panic and cop-out sub-dimensions the r -values are respectively $r = 0.400$, $r = -0.346$, $r = -0.480$ and $r = -0.438$. As the self-esteem scale score increased, complacency sub-dimension score decreased. While there is a positive relation between decisional self-esteem sub-dimension and vigilance-selectivity sub-dimension, there is a negative relation between decisional self-esteem sub-dimension and complacency, panic and cop-out sub-dimensions ($p < 0.05$). The r -value for vigilance-selectivity sub-dimension is $r = 0.562$.

As the decisional self-esteem sub-dimension score increased, vigilance-selectivity sub-dimension score increased too. For complacency sub-dimension the r -value is $r = -0.326$, for panic sub-dimension $r = -0.463$ and for cop-out sub-dimension $r = -0.454$. As the decisional self-esteem sub-dimension score increased the scores of complacency, panic and cop-out sub-dimensions decreased. There is a negative relation between vigilance-selectivity complacency sub-dimensions and panic and cop-out sub-dimensions ($p < 0.05$). For complacency sub-dimension the r -value is $r = -0.317$, for panic sub-dimension $r = -0.284$, and for cop-out sub-dimension $r = -0.348$. As the vigilance-selectivity sub-dimension score increased panic and cop-out sub-dimension scores decreased. Results show that there is a negative relation between vigilance-selectivity sub-dimension and panic and cop-out sub-dimensions ($p < 0.05$). The r -value for panic sub-dimension is $r = -0.284$ and complacency sub-dimension $r = -0.348$. As the vigilance-selectivity sub-dimension score increased, scores of panic and cop-out sub-dimensions decreased. A positive relation is found between complacency sub-dimension and sub-dimensions of panic and cop-out ($p < 0.05$).

Table 4 Correlation Test Results of the Relation between 8th Grade Students' Self-esteem Inventory Scores and Decision-Making Questionnaire Sub-dimension Scores

		8th Grade					
		Total Self-esteem Inventory	Self-esteem in Decision-Making	Vigilance-Selectivity	Apathy	Panic	Cop-out
Total	r	1	0,52	0,4	-0,346	-0,48	-0,438
Self-esteem Inventory	p	.	0,001*	0,001*	0,001*	0,001*	0,001*
	N	319	319	319	319	319	319
Self-esteem in Decision-Making	r		1	0,562	-0,326	-0,463	-0,454
	p		.	0,001*	0,001*	0,001*	0,001*
	N		319	319	319	319	319
Vigilance-Selectivity	r			1	-0,317	-0,284	-0,348
	p			.	0,001*	0,001*	0,001*
	N			319	319	319	319
Complacency	r				1	0,448	0,503
	p				.	0,001*	0,001*
	N				319	319	319
Panic	r					1	0,444
	p					.	0,001*
	N					319	319
Cop-out	r						1
	p						.
	N						319

* $p < 0.05$

The r-value for complacency sub-dimension is $r = 0.448$ and for cop-out sub-dimension it is $r = 0.503$. As the complacency sub-dimension score increased, scores of panic and cop-out sub-dimensions also increased.

There was a positive relation between panic sub-dimension and cop-out sub-dimension ($p < 0.05$). The r-value for cop-out sub-dimension is $r = 0.444$. As the panic sub-dimension score increased, cop-out sub-dimension score increased too (Table 4).

DISCUSSION

The present study is conducted to determine 7th and 8th grade adolescents' decisional self-esteem behaviors, self-esteem levels and the effects of self-esteem levels on their decision-making behaviors.

In the study gender differences were remarkable in some sub-dimensions of the scales regarding students' self-esteem levels and decision-making behaviors. 7th grade girls' social self-esteem and home-family self-esteem scores were higher than boys' scores in terms of students' self-esteem levels. However, 8th grade boys' scores were meaningfully higher than girls in terms of general self-esteem sub-dimension. While girls' self-esteem levels are found higher than boys in some studies (Robins *et al.*, 2002; Twenge *et al.*, 2001; Young *et al.*, 2003) just like in the present study, there are also studies that found boys' self-esteem levels higher than girls (Moksnes *et al.*, 2010). Adams *et al.* (2006) conducted a study with European-American, African-American and Hispanic 6th, 7th and 8th grade students to determine the effects of gender and ethnicity on their self-esteem. According to the findings of the study, female adolescents in European-American and Hispanic group had lower scores than male adolescents. However, for some other studies there were small differences (Quatman *et al.*, 2001) or there were no differences in terms of the gender variable. For instance, Keltikangas-Järvinen (1990) conducted a study to find out gender differences in adolescence and early adulthood periods regarding self-esteem development. They found that there were no gender differences in terms of their self-esteem total scores. However, girls' home-family self-esteem levels were higher than boys. Considering decision-making behaviors, there were statistically meaningful differences in complacency and cop-out behaviors of 7th grade students. For 8th grade students this meaningful difference was found in terms of decisional self-esteem and panic behaviors. Complacency and cop-out behaviors are seen more in 7th grade boys than 7th grade girls. Kaık (2009) found that girls panic more while making decisions compared to boys. Haraburda (1996) conducted a validity study of "Multi-Domain Measures of Decision-Making Self-Efficacy and Indecisiveness" and found that girls were more decisive than boys. While decisional self-esteem level is seen more in 8th grade boys, panic behaviors were observed more in 8th grade girls. In other words, while 7th grade girls' social self-esteem and home-family self-esteem levels were higher than boys, 7th grade boys' general self-esteem levels were found higher than girls. Gürçay (2003) conducted a study in order to determine the differences in 15-18 year-old adolescents' decisional self-esteem, decisional-stress and problem solving skills in terms of

gender, age, school type and parents' educational status. According to the results of the study, female adolescents' decisional self-esteem levels were higher than boys regarding gender variable. In another study Gürçay (2005) determined a positive correlation between self-esteem and behaviors of indecisiveness in 14-19 year-old adolescents. Besides, boys had higher self-esteem and decisiveness levels than girls.

When students' self-esteem levels and decision-making behaviors are examined in terms of grade differences, it is found that 7th grade students' general self-esteem, home-family self-esteem, academic self-esteem, self-esteem (short form) and total self-esteem levels were meaningfully higher than 8th grade students. The reason for 8th graders' having lower self-esteem levels and decision-making behaviors might be because of their anxiety for the preparations of high school competitive examinations. In their study, Bacanlı *et al.* (2006) examined the relation between 8th grade students' exam anxiety and decision-making patterns and found that girls' exam anxiety was more than boys and there was a relation between the patterns they were using while coping with decision-making and their exam anxiety. Roeser *et al.* (1998) observed a decrease in 7th and 8th grade students' academic achievements and self-esteem levels and determined depressive symptoms, aggression, school truancy and an increase in depressive symptoms over time. Besides, it is seen that 8th grade students' cop-out behaviors were meaningfully high in terms of decision-making behaviors.

When the relation between 7th grade students' self-esteem levels and decision-making behaviors is examined, a positive relation is found between their self-esteem levels and decisional self-esteem and vigilance-selectivity levels. However, the relation between their self-esteem levels and complacency, panic and cop-out was negative. As students' self-esteem levels increased, decisional self-esteem and vigilance-selectivity levels increased while complacency, panic and cop-out behaviors decreased. There was a negative relation between students' vigilance-selectivity levels and complacency, panic and cop-out behaviors. As students' vigilance-selectivity levels increased, complacency, panic and cop-out behaviors decreased. Moreover, there was a positive relation between students' complacency behaviors and panic and cop-out behaviors. As their complacency behaviors increased, panic and cop-out behaviors were observed more. There was a positive relation between panic behaviors and cop-out behaviors. As the panic behaviors increased, cop-out behaviors were seen more in these 7th grader students.

When the relation between 8th grade students' self-esteem levels and decision-making behaviors is examined, a statistically positive relation is determined between their self-esteem levels and decisional self-esteem and vigilance-selectivity levels. As students' self-esteem levels increase, decisional self-esteem increased too. On the other hand there was a negative relation between vigilance-selectivity and complacency, panic and cop-out behaviors. As students' self-esteem levels increase, their complacency behaviors decreased. While there was a positive relation between students' decisional self-esteem and vigilance-selectivity level, this relation was negative in terms of their complacency, panic and

cop-out behaviors. As the decisional self-esteem level increased, an increase was observed also in vigilance-selectivity level but as for complacency, panic and cop-out behaviors this was observed as a decrease. A positive relation was determined between students' complacency behaviors and behaviors of panic and cop-out. As the complacency behaviors increased, behaviors of panic and cop-out increased too. It is observed that as the panic behaviors increased cop-out behaviors also increased. Gürçay (2005) also determined that general, social, academic, home-family self-esteem levels and problem solving skills affect decision-making behaviors substantially.

CONCLUSIONS

The results of the present study which was conducted to determine 7th and 8th grade adolescents' decision-making states, self-esteem levels and the effects of their self-esteem levels on their decision-making states are as follows:

1. When differences between students' self-esteem levels and decision-making behaviors are examined in terms of gender, 7th grade girls' social self-esteem and home-family self-esteem levels were found to be higher than boys. However, in terms of general self-esteem levels 8th grade boys scored higher than girls. Decision-making behaviors, complacency and cop-out behaviors are observed more in 7th grade male students. For 8th graders, decisional self-esteem levels were higher in male students and panic behaviors were higher in female students.
2. When the differences in students' self-esteem levels and decision-making behaviors are examined in terms of their grade level considering their self-esteem levels, 7th grade students' general self-esteem, home-family self-esteem, academic self-esteem, self-esteem (short form) and total self-esteem levels are found to be significantly higher than those of the 8th graders. As for decision-making behaviors, it is observed that cop-out behaviors were seen more in 7th grade students.
3. When the relation between 7th grade students' self-esteem levels and decision-making behaviors is examined, it is found that as students' self-esteem level increased levels of decisional self-esteem and vigilance-selectivity increased as well, but there was a decrease in complacency, panic and cop-out behaviors. When decisional self-esteem level increased, behavior of vigilance-selectivity also increased but behaviors of complacency, panic and cop-out decreased. Additionally, it is seen that as the complacency behaviors increase panic and cop-out behaviors are observed more.
4. When the relation between 8th grade students' self-esteem levels and decision-making behaviors is examined, a statistically positive relation is found between students' self-esteem level and levels of decisional self-esteem and vigilance-selectivity.

It is observed that as students' self-esteem levels increased, their decisional self-esteem and vigilance-selectivity levels

increased too. However, a decrease is observed in their complacency, panic and cop-out behaviors. As their complacency behaviors increased, behaviors of panic and cop-out increased as well.

In conclusion, students' self-esteem levels affect their decision-making processes. Students whose self-esteem levels are high are more decisive, more vigilant-selective while making decisions, experience less complacency and panic and they are not running away from their responsibilities.

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How to cite this article:

Dere Çiftçi, H., Do Adolescents' Self-esteem Levels Affect Their Decision-making behaviors? The Study of the Relation Between Decision-Making Behaviors and self-Esteem Levels Of 7th and 8th grade Adolescents. *International Journal of Recent Scientific Research Vol. 6, Issue, 5, pp.4005-4018, May, 2015*
