



Prediction of Risky Behaviors in Adolescents: Effect of Character Strengths and Being Virtuous *

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Abstract: The purpose of the present study is to determine if high school students' character strengths composed of twenty-four different strengths, virtues including six dimensions and demographic characteristics predict risky behaviors. The participants of the study were 380 students aged between 14-19 years and enrolled in general high schools. The data was collected by using the Values in Action Inventory of Strengths for Youth and the Risky Behaviors Scale. From the findings, it was determined that the risk of school drop-out score was higher in the ninth grades and the male students had more risky behaviors compared to their female counterparts. Moreover, it was also determined that the risky behaviors were significantly related to many character strengths. Besides this, as a result of the regression analyses, it was found that the character strengths predicted risky behaviors composed of the areas of anti-social behaviors, use of alcohol/cigarette, eating habits, suicide tendency and school dropout at different levels. The findings were discussed within the context of adolescents' psychological counseling needs and suggestions were proposed.

Keywords: *Character strengths, virtues, risky behaviors, adolescents*

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Introduction

Today young people enrolled in high school may encounter risky behaviors threatening their future with their psychosocial dimensions. Taking risks and risky behaviors observed among adolescents are evaluated as phenomena threatening their future and hindering their healthy developments with their bio-psychosocial aspects.

It is appropriate to take some risks in terms of learning and development. However, when risk taking puts a person and others in danger significantly, it evokes worries. With this aspect of its, harmful risk-taking behavior is defined in terms of its possible negative consequences (Center for Mental Health in Schools at UCLA, 2007). Risky behaviors which can be described (Gencanirim-Kuru, 2010) as behaviors damaging young people's bio-psychological development and life processes and not approved by the society are also classified as risk categories in terms of leading behaviors such as school drop-out, substance use, use of violence and suicide. Besides prevention interventions (McWhirter, McWhirter, McWhirter & McWhirter, 1998) such as problem solving, decision making, self-control development and cognitive restructuring in the process of coping with mentioned behaviors, laying emphasis on young people's strengths has been an attention-attracting approach in recent years as well.

Beyond evaluating and monitoring such behaviors as violence, substance use, school drop-outs, academic failure and depression which parents and the society desire to prevent in young people, it is also necessary to focus on their positive development and protective factors. Strengths based approaches are the opposite of problem focused approaches. The Character Strengths approach included among these approaches play an important role in positive youth development. Besides being protective, it both prevents problem behaviors and achieves further development of young people (Bhatt et al., 2012; Shoshani & Slone, 2013; Park & Peterson, 2009).

Character strengths lead young people to accommodate in many areas by getting away from risky behaviors. The virtues of wisdom and courage may affect cognitive adaptation to school, the virtues of humanity and justice may affect social adjustment and the strengths of temperance may affect behavioral adjustment. The strengths of transcendence may increase emotional adjustment to school by giving adolescents the sense of purposefulness. Especially the

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strengths of temperance help children and young people control their reactions and may contribute to positive affectivity within the school context by increasing their adjustment ability (Shoshani & Aviv, 2012; Shoshani & Slone, 2013; Weber, Ruch, Littman-Ovadia & LavyGai, 2013). These personal strengths both increase goodness and function as factors protecting (Franks, 2011) from negative effects of risky behaviors.

Different models used to define strengths and related structures put forward various terms. One of these terms, character strengths (Owens, 2011) are positive personal characteristics and capabilities in adolescents' emotions, thoughts and behaviors and they determine virtues (Niemić, Rashid & Spinella, 2012; Peterson, 2006; Shoshani & Slone, 2013). While the virtue of wisdom includes creativity, curiosity, love of learning, open-mindedness and perspective, courage virtue consists of honesty, bravery, industry, zest. The virtue dimension of humanity encompasses kindness, love, social intelligence strengths and justice virtue encompasses the strengths of fairness, leadership, and citizenship. Forgiveness, humility, prudence, and self-regulation strengths compose the virtue dimension of temperance. The virtue of transcendence consists of character strengths of appreciation of beauty and excellence, gratitude, hope, humor, and spirituality.

It is emphasized that such features as perspective, self-control, and sense of purposefulness are observed less in young people with risky behaviors (McWhirter et al., 1998). The strength of self-control, violence, crime behaviors and substance use (Herndon, 2011) and aggressiveness and antisocial behaviors (Seider, Gilbert, Novick & Gomez, 2013) are negatively related. It is emphasized that low self-control is risk factor for personal, interpersonal problems and unhappiness (Tangney, Baumeister & Boone, 2004), and aggressiveness and crime (Krueger, Caspi, Moffitt, White & Stouthamer-Loeber, 1996) and high self-control protect against risky behaviors (Quinn & Fromme, 2010). Forgiveness is negatively related to smoking (Kendler et al., 2003). In Karris' study (2007), risky behaviors including alcohol and tobacco use were predicted at a moderate level. The prudence character strength included in another temperance virtue dimension was the most consistent and negative predictor of substance use and behavior problems.

In a study carried out with adolescents, it was found that religious adolescents were inclined less towards substance use (Hardy & Carlo, 2005). There is a negative relationship between religiousness and anti-social behaviors (Evans, Cullen, Dunaway & Burton, 1995). Moreover, Kendler et al. (2003) found that spirituality and religiousness were negatively related with tobacco, alcohol and substance use, anti-social behaviors.

Different character strengths are related with different risky behaviors. For example, the strength of hope is the protective factor (Davidson, Wingate, Slish & Rasmussen, 2010) against the risk and thought of suicide. The strength of honesty is the negative predictor of discipline problems (Seider et al., 2013). That gratitude is negatively related with tobacco, alcohol and drug addiction and pathological disorders (Kendler et al., 2003) and the love of learning affects cigarette smoking are among other findings (Karris, 2007). Moreover, in a study with adolescents, Ma et al. (2008) found that, when it is looked in terms of sexual health, some character strengths were related with low level of thoughts and behaviors related to sexuality and refraining from premarital sexual experience. In this scope, the strengths of prudence, love of learning, curiosity, open-mindedness and leadership were attached more importance. As it is seen, the effects of character strengths on risky behaviors are discussed widely in the literature. It is understood that some character strengths may be related with risky behaviors more than others. These are the strengths composing the virtue of temperance such as self-control, prudence and forgiveness and the strength of spirituality. After these, the strengths of hope, honesty, love of learning, curiosity attract attention.

It is emphasized that not only character strengths but also demographic characteristics (Noftle, Schnitker & Robins, 2011) affect risky behaviors. In this scope, especially the effects of the variables of gender (Bhatt et al., 2012; Durak Batigun, 2008; Zuckerman, 2007) and class level (Seider et al., 2013) are investigated. It is stated that male students and those who are from low class levels exhibit more risky behaviors.

As it is seen, character strengths and demographic variables are negatively related with different risky behaviors. However, in the character strengths approach, the most commonly studied variables are, as it is in the general of positive psychology, life satisfaction and happiness. In order to protect ourselves against psychological illness, addiction or problem behaviors, it is necessary to investigate the need for developing character strengths (Niemić, 2013). Starting from the limitedness (Bhatt et al., 2012; Seider et al., 2013; Shoshani & Slone, 2013) of the studies carried out within this scope, it is necessary to investigate if twenty-four character strengths and six virtue dimensions predict risky behaviors and the effects of demographic variables on these behaviors. In this direction, it was aimed to investigate how much twenty-four character strengths predict the risky behaviors of antisocial behaviors, alcohol use, tobacco use, eating habits, suicide tendency and school drop-out. To achieve this aim, answers were sought for the following questions:

- Do the sub-dimensions of the risky behaviors and the total score change according to the variables of gender and class level?
- At what level are the sub-dimensions of the character strengths and the virtue dimensions related with the sub-dimensions of the risky behaviors and the total score?

- How much do the sub-dimensions of the character strengths and the virtue dimensions predict the sub-dimensions of the risky behaviors and the total score?

Methodology

Research Design

This study is quantitative and relational study aiming to examine the relationship between dependent and independent variables. In this correlational study (Creswell & Guetterman, 2019), it is planned to predict outcomes based on more than one predictor variable by accounting for the effect of each variable. Multiple regression approach is included as variable analysis. Below are also described the sample and the data collection tools and the procedural process.

Sample and Data Collection

391 students attending public high school participated in the study. The participants were determined via the convenience sampling method by considering the researcher's reaching participants easily and receiving administrative permission under the research conditions. Since the answer sheets of 11 students were incorrect or incomplete, they were excluded and the analyses were made with the data obtained from 380 students. 248 (65.3%) of the participants were female and 130 (34.4%) were male and 2 (0.5%) did not indicate gender. 72 (18.9%) of the students were in the ninth, 121 (31.8%) were in the tenth and 187 (49.2%) were in the eleventh grade. 3 of the participants were 14 (0.8%), 46 were 15 (12.2%), 124 were 16 (32.8%), 167 were 17 (44.2%), 35 were 18 (9.3%) and 3 of them are 19 (0.8%) years old. Two people (0.5%) did not indicate their age. The mean age was 16,5 and the range was 5 (19-14).

Data Collection Tools

Risky Behaviors Scale (RBS): It was developed by Genctanirim-Kuru (2010) to evaluate high school students' risky behaviors. RBS is a five-point Likert type self-expression scale including 36 items. The scale was formed with the six dimensions accounting for 55% of the variance in the exploratory factor analysis and 36 items and this structure was confirmed with the confirmatory factor analysis. The internal consistency coefficients were .58 and .91 for the sub-scales; the total scores were .90 and .91. The test-retest reliabilities were .56 and .90 for the sub-scales; the total score was .85. "I go to entertainment places and take alcohol", "I talk with my friends by using bad language", "I smoke cigarettes" are example items. The highest score which can be taken from the scale is 180 and the lowest score is 36. While the increasing score points to the intensity of risky behaviors, the decreasing score points to less risky behaviors. The internal consistencies of the scale in this study were found between .69 and .93.

Values in Action Inventory of Strengths for Young People (VIA-Youth): The inventory adapted by Kabakci (2013) into Turkish was developed by Peterson & Seligman (2004) and the construct validity of it was examined by Park & Peterson (2006). The 198-item inventory evaluating six virtues and twenty-four character strengths is a five-point scale. A high score taken from the inventory points to high level character strengths. With the exploratory factor analysis applied via the Varimax rotation method, it was found that the sub-scales distributed at four dimensions, namely temperateness, mental, theological and other oriented. All the internal consistency coefficients belonging to the sub-scales were found above .65 and between .66 and .86. The test-retest reliability coefficients were between .46 and .71. The correlations of the sub-scales changed between .14 and .32 with the teacher grading and they changed between .18 and .55 with the self-grading. In the Turkish adaptation, the forward and backward rotation methods were used. Language equivalency was calculated and the correlation between two administrations was found as .80. The inter-rater reliability calculated for the content validity was found at a sufficient level. According to the results of the confirmatory factor analysis applied within the scope of the construct validity, item t values at a significant and sufficient level, factor loads and, according to six virtue dimensions, goodness-of-fit index values were determined and the theoretical structure of the inventory composed of six virtue dimensions and twenty-four sub-scales was confirmed. For the criterion validity of the scale, its correlations with six different value characteristics changed between .21 and .56. Moreover, the correlations of .48 and .72 were found between the dimensions of the inventory and those of .00 and .73 between the sub-scales. The internal consistency reliabilities were found between .64 and .91 in the first group and between .61 and .90 in the second group and reliabilities were found between .72 and .89. The item-total correlations were determined between .21 and .75 except for five items. The lowest score which can be taken from six virtue dimensions and 24 character strength sub-scales of the inventory having 197 items is 197 and the highest score which can be taken is 985. It is administered individually or in groups. The answering time is 25 minutes. "I'm always very active", "I'm a thankful person", "I'm very optimistic about the future", "I'm a religious person" are example items.

Analysis of Data

For the study, the necessary permissions were taken from the Ministry of National Education. The data was collected by the researcher based on participants' voluntariness. It took about a lesson hour for the students to answer the scale and the inventory. In the examination of the risky behaviors according to demographic variables, the independent samples t-test and one-way ANOVA were used. Normality of distribution was examined and determined that the data showed a distribution close to normal based on the Q-Q plots and histogram diagrams besides values of kurtosis and skewness

coefficients. Moreover, the homogeneity of the variances was examined via Levene's test. The relationships between the variables were evaluated with the Correlation Coefficient. For the prediction effect, the Multiple Linear Hierarchical Regression Analysis was used. Prior to the regression analysis, it was examined if the necessary assumptions (Cokluk, Sekercioglu & Buyukozturk, 2012; Eroglu, 2010; Field, 2009) were fulfilled. According to this, in order to determine the multicollinearity, the variance increment factor and tolerance values were examined. On the basis of the observation of the VIF values of much lower than 10, the CI-condition index of lower than 30 and much higher tolerance values, it was determined that there was not a relation problem between the independent variables. For the autocorrelation, attention was paid to the requirement of the Durbin Watson coefficient to be between 1-3 and the multivariate normality and linearity was examined via the help of the scatter diagram matrix. Moreover, lost and extreme values were examined via the frequency tables. After the conditions of the fulfillment of the assumptions were examined, the multiple regression analysis was applied. In the study, the margin of error upper limit is 0.05.

Findings

In this section, first of all, the findings related to the comparisons of risky behaviors according to the demographic variables and the relationships between the character strengths and the risky behaviors were given. Then, the findings related to how much the character strengths predict the risky behaviors were presented in order.

The Findings related to the Comparisons of Risky Behaviors according to the Demographic Variables

As a result of the t-test applied in order to determine the effect of gender on risky behaviors, it was determined that there were differences in terms of antisocial behaviors ($t_{(377)} = -4.061, p < .001$), alcohol use ($t_{(377)} = -3.124, p < .01$), tobacco use ($t_{(377)} = -3.409, p < .01$), eating habit ($t_{(377)} = 2.687, p < .01$), school drop-out ($t_{(377)} = -2.946, p < .01$), and risky behaviors total score ($t_{(377)} = -2.918, p < .01$), except for suicide tendency ($t_{(377)} = 1.207, p > .05$). In order of frequency, the males' antisocial behaviors, alcohol use, tobacco use, school drop-out and risky behaviors total scores ($M = 16.04$; $M = 11.04$; $M = 11.83$; $M = 10.83$; $M = 72.52$) are higher than the females' ($M = 13.39$; $M = 8.98$; $M = 9.25$; $M = 8.10$; $M = 65.38$). The females' eating habit score ($M = 15.57$) is higher than the males' ($M = 14.07$). Besides this, with the aim of comparing the students' risky behaviors according to class level, one-way ANOVA was applied for the independent samples. According to the results, while no differences were found between the groups in terms of the antisocial behaviors ($F_{(2-377)} = .081, p > .05$), alcohol use ($F_{(2-377)} = 1.350, p > .05$), tobacco use ($F_{(2-377)} = .405, p > .05$), suicide tendency ($F_{(2-377)} = 1.804, p > .05$), eating habit ($F_{(2-377)} = .414, p > .05$) and risky behaviors total scores ($F_{(2-377)} = 1.523, p > .05$) according to the class level, a significant difference was found in the dimension of school drop-out ($F_{(2-377)} = 4.206, p > .05$). The effect size ($\eta^2 = 0.02$) calculated as a result of the test indicates that this difference is at low level. According to the result of the Games-Howell test, in terms of school drop-out score, the mean score of the 9th grade students' ($M = 11.1389$) is higher than that of the 10th grade students ($M = 8.8430$).

Findings related to the Relationship of the Character Strengths with the Risky Behaviors

The relationships between the character strengths sub-scales and the virtue dimensions scores and the risky behaviors sub-scales and the total score were examined and the means and the standard deviation values of the mentioned variables and the correlation coefficients indicating the relationships between them were given in Table 1. It was observed that the relationships between the dependent and the independent variables changed between $r = -.00$ (curiosity-eating habit) and $r = -.57$ (hope-suicide tendency). Except for few number of rather low ($r = .00-.11$) and insignificant positive correlations between the strengths of curiosity, zest for life, leadership and humor and some risky behavior dimensions, it was observed that all of the relationships between the character strengths and the risky behaviors were negative. Moreover, it was also found that the relationships of the risky behaviors with one another were positive and changed between .05 and .82.

Table 1. Mean, standard deviation and correlation coefficients for dependent and independent variables

Character Strengths and Virtues	\bar{x}	Sd	AB	AU	TU	ST	EH	SD	RBT
Creativity	30.21	5.43	-.13*	-.04	-.05	-.27*	-.07	-.06	-.13*
Curiosity	30.79	4.87	-.06	-.06	-.01	-.14*	-.00	.09	-.08
Love of learning	32.51	5.47	-.34*	-.17*	-.19*	-.28*	-.17*	-.18*	-.31*
Open-mindedness	30.47	4.72	-.34*	-.16*	-.15*	-.33*	-.19*	-.15*	-.30*
Perspective	29.01	4.67	-.23*	-.02	-.03	-.35*	-.05	-.11*	-.17*
WISDOM	153.00	19.56	-.28*	-.12**	-.11*	-.35*	-.12**	-.15*	-.26*
Honesty	27.67	4.72	-.44*	-.15*	-.26*	-.34*	-.17*	-.19*	-.37*
Bravery	32.02	4.67	-.21*	-.05	-.06	-.24*	-.06	-.04	-.14*
Industry	32.94	6.08	-.38*	-.17*	-.26*	-.38*	-.20*	-.21*	-.37*
Zest	29.14	5.47	-.25*	-.13**	-.24*	-.48*	.01	-.18*	-.28*
COURAGE	121.78	16.10	-.42*	-.16*	-.27*	-.48*	-.14*	-.21*	-.39*

Table 1. Continued

Character Strengths and Virtues	\bar{x}	Sd	AB	AU	TU	ST	EH	SD	RBT
Kindness	36.28	5.17	-.32*	-.17*	-.15*	-.19*	-.15*	-.15*	-.27*
Love	35.24	6.13	-.26*	-.09	-.19*	-.40*	-.01	-.25*	-.27*
Social intelligence	31.02	4.61	-.37*	-.17*	-.21*	-.32*	-.08	-.20*	-.32*
HUMANITY	102.54	13.20	-.38*	-.16*	-.22*	-.37*	-.09	-.25*	-.34*
Fairness	34.26	5.98	-.40*	-.17*	-.24*	-.29*	-.24*	-.14*	-.35*
Leadership	28.58	5.86	-.14*	.01	.00	-.31*	.02	-.09	-.10**
Citizenship	30.28	5.20	-.37*	-.18*	-.23*	-.24*	-.22*	-.24*	-.35*
JUSTICE	93.11	13.19	-.39*	-.14*	-.20*	-.36*	-.19*	-.20*	-.34*
Forgiveness	23.64	6.41	-.29*	-.14*	-.15*	-.04	-.18*	-.15*	-.24*
Humility	31.58	5.93	-.36*	-.17*	-.17*	-.12*	-.15*	-.15*	-.28*
Prudence	28.74	5.16	-.41*	-.19*	-.23*	-.38*	-.20*	-.17*	-.37*
Self-control	28.13	6.52	-.40*	-.21*	-.25*	-.26*	-.30*	-.14*	-.37*
TEMPERANCE	112.08	16.71	-.52*	-.25*	-.29*	-.28*	-.30*	-.22*	-.45*
Appr.Beau.Excel.	33.99	4.98	-.32*	-.17*	-.25*	-.16*	-.05	-.24*	-.30*
Gratitude	33.71	4.45	-.29*	-.17*	-.23*	-.28*	-.04	-.17*	-.28*
Hope	29.69	5.59	-.28*	-.14*	-.19*	-.57*	-.11**	-.18*	-.32*
Humor	35.01	6.44	.02	.01	.04	-.17*	.11**	-.11**	-.03
Spirituality	34.32	5.63	-.14*	-.18*	-.16*	-.10	-.01	-.09	-.16*
TRANSCENDENCE	166.76	17.42	-.30*	-.19*	-.26*	-.40*	-.02	-.24*	-.32*
Antisocial Beh. (AB)	14.29	6.15	1	.58*	.52*	.37*	.27*	.57*	.81*
Alcohol Use (AU)	9.68	5.51		1	.70*	.21*	.15*	.66*	.82*
Tobacco Use (TU)	10.13	6.58			1	.31*	.11**	.60*	.81*
Suicide Tendency (ST)	9.02	3.59				1	.08	.33*	.49*
Eating Habit (EH)	15.04	5.21					1	.05	.39*
School Dropout (SD)	9.62	5.39						1	.78*
Risky Behaviors Total (RBT)	67.79	22.89							1

N=380

**p<.05 *p<.01

Findings related to the Character Strengths' Predicting Risky Behaviors

In the direction of the fact that the relationships between the dependent and independent variables were significant ($p<.01$; $p<.05$), the multiple hierarchical regression analysis was applied and the results were given below in order by considering the six dimensions of the risky behaviors. When the results were examined in general, the results of the ANOVA applied to determine the significance of the regression analysis model in terms of the sub-dimensions of the risky behaviors and the total score indicated that the effects of all the independent variables entering the model were significant at $p=.000$ level. Moreover, the t-test results related to the significance of the regression coefficients indicated that all the variables in the regression model were each a statistically significant predictor on the risky behaviors total score and its sub-dimensions at .001, .01 and .05 levels. Moreover, all of the B values of the independent variables took place within the confidence interval of 95%. The findings related to the sub-dimensions of the risky behaviors and the total scores were presented in more detail below.

Alcohol Use: According to the results, two different regression models were found and the independent variables of temperance and spirituality account for 09% of the variance belonging to alcohol use ($R^2=.09$). When the predictive variables were put into the order of importance by examining the standardized regression coefficients (β), the temperance placed the first (-.23) and the spirituality (-.15) placed the second. As the temperance and spirituality scores increase, the "alcohol use" scores decrease (Table 2.).

Table 2. The prediction of alcohol use by character strengths

	B	β	t
Constant	23.435		10.046*
Temperance	-.077	-.235	-4.729*
Spirituality	-.148	-.151	-3.037**
F= 17.933*			
R ² = .09			

*p<.001, **p<.01

Tobacco Use: According to the results, six different regression models were found (Table 3.). The independent variables of temperance and appreciation of beauty and excellence (ABE), perspective, zest for life, curiosity and industry accounted for 19% of the total variance related to tobacco use ($R^2 = .19$). When the predictive variables were put into the order of importance, temperance placed the first (-.23) and then came perspective (.22), ABE (-.20), zest (-.17), industry (-.13) and curiosity (.13). As the temperance, ABE, zest for life and industry scores increased, the "tobacco use" scores decreased. However, as the curiosity and perspective scores increased, the "tobacco use" scores increased.

Table 3. The prediction of tobacco use by character strengths

	B	β	t
Constant	25.991		8.696*
Temperance	-.092	-.233	-4.248*
Appr. Beau. Excel	-.266	-.201	-3.615*
Perspective	.309	.219	3.782*
Zest	-.210	-.175	-3.019**
Curiosity	.178	.132	2.397***
Industry	-.148	-.136	-2.116***
F= 14.245*			
R ² = .19			

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

Antisocial Behaviors: According to the analysis results (Table 4.), four different regression models were found and it appeared that temperance, ABE, honesty and curiosity accounted for 35% of the total variance belonging to antisocial behaviors ($R^2 = .35$). When the predictive variables were put into the order of importance, it was observed that temperance place the first (-.38) and then came ABE (-.22), honesty (-.20) and curiosity (.11). As the temperance, ABE and honesty scores increased, the "antisocial behaviors" scores decreased. However, as the curiosity scores increased, the "antisocial behaviors" scores increased.

Table 4. The prediction of antisocial behaviors by character strengths

	B	β	t
Constant	42.491		17.346*
Temperance	-.141	-.382	-7.932*
Appr. Beau. Excel	-.276	-.224	-4.665*
Honesty	-.262	-.201	-4.058*
Curiosity	.137	.108	2.349***
F= 51.448*			
R ² = .35			

*p< .001, ***p< .05

Suicide Tendency: According to the analyses (Table 5.), six different regression models were found and the independent variables of hope, zest for life, prudence, spirituality, love of learning and love accounted for 41% of the total variance belonging to suicide tendency ($R^2 = .41$). When the predictive variables were put into the order of importance, hope placed the first (-.40) and then came zest (-.25), prudence (-.15), spirituality (.12), love of learning (.11) and love (-.11). As the hope, zest for life, prudence and love scores increased, the "suicide tendency" scores decreased. However, as the love of learning and spirituality scores increased, the "suicide tendency" scores increased.

Table 5. The prediction of suicide tendency by character strengths

	B	β	t
Constant	21.546		17.221*
Hope	-.255	-.396	-7.255*
Zest	-.162	-.246	-4.725*
Prudence	-.105	-.151	-3.239**
Spirituality	.077	.121	2.814**
Love of learning	.075	.114	2.310***
Love	-.065	-.110	-2.181***
F= 42.496*			
R ² = .41			

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

Eating Habit: According to the results (Table 6.), three different regression models were found and the independent variables of self-control, fairness and humor accounted for 12% of the total variance belonging to eating habit ($R^2 = .12$). When the predictive variables were put into the order of importance, self-control placed the first (-.23) and then came fairness (-.14) and humor (.10). As the self-control and fairness scores increased, the "eating habit" scores decreased. However, the humor scores increased, the "eating habit" scores increased.

Table 6. The prediction of eating habit by character strengths

	B	β	t
Constant	21.614		10.516*
Self-control	-.186	-.233	-4.290*
Fairness	-.125	-.144	-2.646**
Humor	.084	.104	2.130***
F= 16.658*			
$R^2 = .12$			

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

School Drop-Out: According to the findings (Table 7.), four different regression models were found and the independent variables of love, ABE, temperance and bravery accounted for 12% of the total variance belonging to school drop-out ($R^2 = .12$). When the predictive variables were put into the order of importance, love (-.18) placed the first and then came ABE (-.18), temperance (-.17) and bravery (.12). As the love, ABE and temperance scores increased, the "school drop-out" scores decreased. However, as the bravery scores increased, the "school drop-out" scores increased.

Table 7. The prediction of school drop-out by character strengths

	B	β	t
Constant	23.395		9.213*
Love	-.158	-.180	-3.322**
Appr. Beau. Excel	-.194	-.180	-3.356**
Temperance	-.054	-.169	-3.286**
Bravery	.141	.122	2.288***
F= 13.015*			
$R^2 = .12$			

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

Risky Behaviors Total Score: According to the analysis results (Table 8.), five different regression models were found and the independent variables of temperance, ABE, hope, perspective and honesty accounted for 28% of the total variance belonging to risky behaviors ($R^2 = .28$). When the predictive variables were put into the order of importance, temperance (-.35) placed the first and then came ABE (-.18), hope (-.17), perspective (.16) and honesty (-.13). As the temperance, ABE, hope, honesty scores increased, the "risky behaviors" scores decreased. However, as the perspective scores increased, the "risky behaviors" scores increased.

Table 8. The prediction of risky behaviors by character strengths

	B	β	t
Constant	164.176		17.801*
Temperance	-.477	-.348	-6.671*
Appr. Beau. Excel	-.815	-.177	-3.723*
Hope	-.686	-.167	-3.138**
Perspective	.770	.157	2.939**
Honesty	-.621	-.128	-2.337***
F= 29.544*			
$R^2 = .28$			

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

Discussion and Conclusion

In this study, the effects of the character strengths and some demographic variables on the high school students' risky behaviors were examined. According to the presentation order of the findings, first of all, the comparison results of the risky behaviors were examined in terms of demographic characteristics. It was found that the eating habit levels of the female students were higher than those of the male students and the antisocial behaviors, alcohol use, tobacco use, school drop-out and risky behaviors general levels of the male students were higher than the female students.

Moreover, the 9th grade students' school drop-out levels were determined to be higher than the 10th grade students. Besides studies having not found a difference (Yaprak, 2006) according to gender, there are also studies (Ceviren, 2001; Bolland, 2003; Guney, 2007; Ozmen, 2006; Zuckerman & Kuhlman, 2000) having reported that gender was predictive and the male students exhibited more risky behaviors and had more risk resources compared to the female students. Such factors as girls' finding support and emotional comfort from their friends at stressful times and their behaviors' being observed by their environments (Bhatt et al., 2012) more than boys and boys' free time activities' being more appropriate for risks and their being encouraged by the society and guided by their peers (Guney, 2007) may cause boys to exhibit risky behaviors more frequently than girls. In terms of class level, it is considered that the ninth grades' being under more risk of school drop-out may be related to the period of starting high school. Since students in this period enter a new friend and teacher environment, try themselves academically for the first time with some new duties, question the correctness of their school preferences and make field choices, they may be under more risk compared to the tenth grades.

As a result of the examination of the relationships of the sub-dimensions of the character strengths with the sub-dimensions of the risky behaviors, it was found that all the character strengths were negatively related with the risky behaviors at a significant level. It can be stated that this result was an expected one and it was similar to many findings (Evans, Cullen, Dunaway & Burton, 1995; Herndon, 2011; Kendler et al., 2003; Ma et al., 2008) in the literature. Starting from here, the effects of the character strengths on the risky behaviors were examined in detail in this study.

However, when the results related to how much the character strengths sub-dimensions predict the risky behaviors sub-dimensions and the total score were examined, it was found that the variance ratios accounted for in relation to the dependent variables changed between 09% and 41%. Moreover, about two-thirds of 24 character strengths were predictors of the risky behaviors. Notably antisocial behaviors and suicide tendency, the tobacco use and risky behaviors total scores were accounted for higher variance ratio. Apart from the alcohol use, in the other risky behaviors dimensions, besides negative predictor strengths, at least one positive predictor strength was found. When all the predictor variables were examined, it was seen that the temperance virtue dimension composed of the strengths of forgiveness, humility, self-control and prudence and the ABE included in the transcendence virtue dimension were the most prominent.

When these two prominent predictor virtue and strength were examined in detail, it was observed that the character strengths included in the temperance virtue dimension were the first order predictors for the antisocial behaviors, alcohol use and tobacco use sub-dimensions and risky behaviors total score; they were the third order negative predictors for school drop-out. The temperance strengths are positive traits protecting against extremism and emotional and behavioral control related to one's self-control (Aviv & Shoshani, 2012; Peterson & Seligman, 2004). Of the strengths belonging to the temperance virtue, the most general one is self-control (Niemic et al., 2012) which covers many behaviors ranging from quitting smoking to acting aggressively and protects against emotional extremism. From this respect, for the risky behaviors which can be considered as extreme behaviors, the strengths belonging to the temperance virtue were the most effective predictors. Moreover, it was also found that the ABE strength was a negative predictor in terms of antisocial behaviors, tobacco use and school drop-out and risky behaviors total score. When the characteristics of this strength are looked in (Keltner & Haidt, 2003; Peterson & Seligman, 2004), it is seen that it includes noticing what is good in physical and social world, altruism, richness of social relationships, devotion to the society and making sense of life. It attracts attention that these mentioned characteristics may not be present in individuals acting socially, smoking cigarettes or dropping out school. For example, if a young person having a school drop-out tendency cannot set goals and does not show necessary sensitivity to human body and health, which is a perfection example of those who smoke, and young people acting antisocially are not altruistic, this can be an expected situation.

When it is looked in alcohol use, it was found that the temperance and spirituality strengths predicted this dimension negatively. Since the predictive characteristic of low self-control both for alcohol use (Tangney et al., 2004) and negative psychosocial side effects (Anderson, Costello & Stein, 2008) of alcohol use are open, the temperance strengths, the foundation of which is constituted by self-control, might have predicted alcohol use negatively. At the point of spirituality strength predicting alcohol use negatively, it can be stated that when the emotional component of religious life is confused with childhood, it becomes much more complex and strong in adolescence (Peterson & Seligman, 2004) and this may be related with the presence of the mentioned strength in the findings. The fact that as the level of spirituality increased, alcohol use decreased and spirituality was the only character strength, apart from spirituality, having predicted alcohol use might have resulted from the possibility that alcohol use does not only have individual and social damages, but it can also be perceived as a sin (Ghandour, Karam & Maalouf, 2009; Kendler et al., 2003). When the religious structure of the participant group is taken into consideration (Arfken, Ahmed & Abu-Ras, 2013; Ghandour et al., 2009), this finding can be evaluated as culture-specific finding as well.

Tobacco use was negatively predicted by temperance, ABE, zest for life and industry and positively predicted by curiosity and perspective. Similarly, there are studies having revealed that prudence (Karris, 2007) and forgiveness (Kendler et al., 2003) composing the temperance virtue were negatively related with tobacco use and self-control was necessary (Muraven, 2010) in quitting smoking. When it is considered that zest means physical health (Peterson &

Seligman, 2004), that tobacco use, which is harmful to health, was negatively related with zest for life was an expected finding. Moreover, industry was found to be negatively related with tobacco use. Since quitting smoking may require a long time effort and not giving up easily, it can be considered as a factor accounting for this relationship.

Antisocial behaviors were predicted negatively by temperance, ABE and honesty and positively by curiosity. In relation to how much the variable of honesty predicts Seider, Gilbert, Novick & Gomez (2013) found that fewer school discipline problems were positively related with honesty. Besides this, high self-control was found related with less psychopathology and fewer risky behaviors and better interpersonal relationships (Tangney et al., 2004). Moreover, helping other people's needs, undertaking the responsibility of emotions and behaviors are the basic characteristics of honesty (Peterson & Seligman, 2004). When it is looked from this perspective, it can be stated that the general of antisocial behaviors and risky behaviors may not be consistent and negatively related with honesty.

It was concluded that suicide tendency was positively related with the strengths of hope, zest for life, prudence and love and positively related with the strengths of love of learning and spirituality. Similar to the prediction of the variables of love, hope and zest for life, in Durak Batigun's (2008) study, "loneliness", "hopelessness" and "commitment to life" were found to be a common prediction for both genders. Hopelessness is a risk factor (Klonsky, Kotov, Bakst, Rabinowitz & Bromet, 2012; Kuo, Gallo & Eaton, 2004) in suicide attempt; however, hope predicts suicide thought negatively (Davidson et al., 2010; O'Keefe & Wingate, 2013). Prudence predicting suicide tendency in the third order takes immediate and future consequences of decisions into consideration (Niemi et al., 2012; Peterson & Seligman, 2004). If a person does not make an evaluation by considering risks, s/he may exhibit risky behaviors easily (Zuckerman, 2007) and be inclined to suicide attempt. Even if spirituality took place in the suicide tendency with low variance ratio and in the following orders, its positive effect may bring the fact that this strength may not have been structured correctly in adolescents' lives to mind.

Eating habit was predicted by self-control and fairness and positively by humor. Similarly, in previous studies (Byrd-Bredbenner et al., 2008; Steiner et al., 2003), self-efficacy and self-control were found to be negatively related with risky nutrition and eating disorder. When it is looked from the perspective of the variable of fairness, fairness is defined as paying attention to moral values (Peterson & Seligman, 2004). It is known that eating out frequently will not be morally accepted by the society especially for young people. With this aspect, the strength of fairness may have been found negatively related with the eating habit measured via junk food and fast food style of frequent eating out. In line with this, in a study investigating the frequency of eating with the family, it was found to be a protective factor (Fulkerson et al., 2006) against risky behaviors. Moreover, Karris (2007) found that fairness was negatively related with substance use because of its ethical acting dimension. With this aspect, since the above-mentioned eating style is not ethical, it may have been negatively related with fairness. Moreover, that humor predicted eating habit positively brings the fact that young people's free time activities including eating fast food and junk food outside home/in the canteen may be accompanied by the interaction styles including humor to mind.

School drop-out was predicted negatively by love, ABE and temperance but positively predicted by courage. It is emphasized in the literature that insufficiencies in close relationships with family or society members are a factor (Drewry, 2007) contributing to school drop-out and school drop-out is decreased (Ozer, Genctanirim & Ergene, 2011) by the family and peer support. For this reason, increase in the strength of love may mean feeling support in the direction of continuing the school and decreasing of school drop-out risk. Moreover, courage, which was negatively related with school drop-out, includes the characteristics of independence, being open to new experiences and risk taking (Peterson & Seligman, 2004). In this context, among high school students' school drop-out reasons can be considered the component of satisfaction from free life (Tas, Selvitopu, Bora & Demirkaya, 2013) which they meet or the interaction of the experience of out-of-school work (McWhirter et al., 1998) with the strength of courage.

When it is looked from the perspective of the risky behaviors total score, it is observed that temperance, ABE, hope and honesty predicted the risky behaviors negatively, but perspective predicted them positively. That the character strengths are related with the staying away from the general of the risky behaviors (Ma et al., 2008) is emphasized in the literature. Moreover, in parallel to these findings, it was found that hopelessness in the adolescent period was related with all the risky behaviors (Bolland, 2003) such as violence and substance use and encourages risk taking on risky behaviors in adolescents (Kagan et al., 2012). In relation to hopelessness, it is known that sometimes students referred to discipline for their risky behaviors are referred by guidance services due to depression. Moreover, for the variable of self-control, one of the temperance strengths, it was found in the literature that lack of delay of gratification (Herndon, 2011) and low self-control (Scott, 2007) predicted risky behaviors positively. Self-control's requiring age, maturity and life experience (Karris, 2007) makes us consider that adolescents may not show the maturity which is necessary for self-control in risky behaviors or use this strength correctly. Besides all these factors, it is emphasized that for children, adolescents and young adults, in all risk types, seeking excitement to take risks (Zuckerman, 2007) is a predictive and general factor (Wagner, 2001). From this aspect, it can be kept in mind that seeking excitement, too, may be a characteristic which can interact with predictive character strengths.

In addition to all these findings, interestingly, some strengths such as curiosity, perspective and love of learning predicted some of the risky behaviors positively. According to McWhirter et al., (1998), all young people including those who are under risk have a natural capacity of taking life maturely, carrying the interest of learning and having common

sense. Similarly, the opinion that a person may definitely have strong sides wherever they are compared to others (Franks 2011; Park & Peterson, 2009) seems to explain this finding. Moreover, high bravery is related with high excitement seeking and excitement seeking is a risk factor for risk taking behaviors (Muris, 2009) and the most important positive predictor (Ozmen, 2006). For this reason, that the strength of courage was found to be positively related with school drop-out makes us consider the presence of the component of excitement seeking in school drop-out. The same situation may be true for the finding that the character strength of curiosity was a positive predictor for the risky behaviors of tobacco use and antisocial behaviors. Excitement seeking is taken in hand as a structure which is related with curiosity (Peterson & Seligman, 2004). With this aspect, it attracts attention that curiosity may result in risky behaviors. Since seeking high excitement may lead to seeking short-time satisfaction and inclination to violent behaviors at a cost of future negative consequences (Peterson & Seligman, 2004), it may help explain the phenomenon of "starting due to curiosity" observed in young people in the start of smoking. The use of cigarette-like substances may lead to the involvement in the environments and behaviors where antisocial behaviors are observed. It is considered that the high positive correlations found in this study between the dimensions of the risky behaviors support this.

In conclusion, the present study determined that the risky behaviors differed according to gender and class level, the character strengths were negatively related with the risky behaviors and the character strengths predicted the risky behaviors. Firstly, the effects of the demographic variables should be taken into consideration in further preventive and detractive psychological counseling studies. In order to decrease risky behaviors, in both psychological counseling and guidance practices at both individual and group levels, it may be given priority to have students acquire the character strengths determined to predict risky behaviors. In relation to the relationship between the character strengths and the risky behaviors and with the aim of raising school employees and parents' awareness, such works as seminars, forming groups, preparing websites and developing projects can be carried out. According to the cognitive and affective characteristics of the predictive character strengths and within the scope of character and values education, experimental interventions can be designed. Beyond taking in hand the risky behaviors in six dimensions, which can be regarded as another limitation of the study, current dimensions such as risky behaviors related to the use of internet and technology can be investigated in future studies. Besides this, this study, which is limited to high school students, can be expanded in a way to cover elementary and secondary students. Moreover, further studies may investigate mediating effects of environmental and social factors in the relationship between risky behaviors and character strengths and it may be useful to design longitudinal studies starting from early ages.

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