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Research Article

# The Mediating Role of Self-Esteem: The Effects of Social Support and Subjective Well-Being on Adolescents' Risky Behaviors

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## Abstract

This research is a descriptive study based on the testing of a structural model developed by considering the effects of perceived social support and subjective well-being on adolescents' risky behaviors, and the possible mediating role of self-esteem. Participants consisted of 676 high school students attending formal education institutions, including 376 girls and 300 boys. Data collection employed the use of the Coopersmith Self-Esteem Inventory-Short Form, Risky Behaviors Scale, Social Support Rating Scale for Children and Adolescents, Subjective Well-being Scale, and a personal information form. LISREL 8.51 software was used in the establishment of the structural model, and analyses revealed sufficient levels of model-data fit indices. Accordingly, subjective well-being and perceived social support, together with the mediating effect of self-esteem, explained 29% of the variation in risky behaviors.

## Keywords

Adolescent • Self-esteem • Subjective well-being • Social support • Risky behaviors

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Adolescence is defined as a “role confusion against developing identity” period by Erikson, the “genital” period by Freud, and the “formal operations” period by Piaget (as cited in [Slavin, 2012](#)). During this period, whilst adolescents attempt to discover themselves, they begin searching for new roles that may help them to discover their sexual, social, and professional identities. The formation of an adolescent’s identity is a far more important event than identifications during previous periods ([Erikson, 1993](#)). Adolescents may spend more time alone contemplating ideas and trying to clarify their values, beliefs, and direction in life ([Vernon, 2004](#)). Additionally, different areas of developmental changes, such as psychology, cognition, and social status, can contribute to their engagement in risky behaviors ([Steinberg, 2004](#)). According to [Steinberg \(2007\)](#), adolescents may be impulsive and display sensation-seeking behaviors due to their inability to completely control their inhibitions and emotions, whereas others may exhibit such behavior because of a desire for autonomy from parental control ([Dolcini & Adler, 1994](#)) or peer influence and pressure ([Gardner & Steinberg, 2005](#); [Jessor, 1991](#)).

The conceptualization of risky behaviors among adolescents has incorporated many approaches. For example, the developmental approach examines adolescents’ risky behaviors as behaviors that contribute to an adolescent’s life, which emerge after the individual developmentally enters the period of adolescence. Risk-taking provides an adolescent the opportunity to gain characteristics that are included in the developmental tasks of adolescence, such as recognizing the self ([Scott, 2004](#)). Risk-taking meets the requirements of autonomy, gaining experience, and intimacy in the development process ([Irwin & Millstein, 1990](#)); as a developmental characteristic, egocentrism emerges among adolescents and this is a natural outcome ([Erden & Akman, 2008](#)). Through risk-taking, adolescents become aware of their role as a member of a wider community and their own maturity. In this way, it is also possible to understand risk-taking behavior by means of the friend and peer culture ([Lightfoot, 1997](#)).

Adolescent problem behaviors/risky behaviors include tobacco use, alcohol abuse or other illicit drug use, risky driving ([Arnett, 2000](#); [Jessor, 1991](#)), having unprotected sex, ([Arnett, 2000](#); [Lerner 2002](#)), early sexual intercourse, aggression ([Jessor, 1991](#)), substance abuse ([Lerner, 2002](#)), delinquency behaviors ([Arnett, 2000](#); [Jessor, 1991](#); [Lerner, 2002](#)), school failure or dropping out, crime/violence ([Lerner, 2002](#)), and impulsive sensation seeking ([Donohew et al., 2000](#)). [Jessor, Turbin, and Costa \(1998\)](#) defined risk-taking as behaviors as functional, purposeful and mediating one’s objective. In Problem-Behavior Theory, [Jessor \(1991\)](#) described the relationship of psychosocial protective and risk factors by the involvement in various adolescent problem behaviors. Protective factors decrease the likelihood of engaging in problematic behaviors. In other words, if an adolescent focuses on the benefit of a problematic behavior, the possibility of exhibiting that behavior, namely the risk-

taking possibility of an adolescent, is high. As Romer (2003) stated, despite views that support the fact that adolescents do not think of the negative consequences of risk, adolescents do in fact recognize these consequences, but are focused more on the positive outcomes they expect to receive.

Literature concerning variables related to adolescents' risky behaviors indicate that social support functions as a buffer, protecting the individual against stress sources in life. Whilst social support is effective in helping individuals cope with stressful life events (Callaghan & Morrissey, 1993; Shonkoff, 1984) and is effective in overcoming psychological problems (Lara, Leader, & Klein, 1998), poor family connections tend to lead to low self-esteem and increased levels of hopelessness and suicidal ideation in adolescence and early adulthood (McGee, Williams, & Nada-Raja, 2001). Similarly, subjective well-being, such as happiness, as another variable related to risky behaviors, is, overall, a positive function and actualization of one's potential (Trzesniewski, Donnellan, & Robin, 2003; Zimmerman, Phelps, & Lerner, 2008).

As another concept, adolescents' "intrapersonal strengths," such as high self-esteem (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Leary, Tambor, Terdal, & Downs, 1995), were significantly associated with risk behavior in adolescents (Salazar et al., 2005). According to this, we can protect adolescents from engaging in risk behaviors by increasing their self-esteem (Wild, Flisher, Bhana, & Lombard, 2004). Furthermore, it was revealed that changes in self-esteem mediated the effects of social support on both the emotional and behavioral adjustment of early adolescents (DuBois et al., 2002). Low self-esteem is related to a variety of psychological difficulties, including substance abuse, teenage pregnancy, academic failure, criminal behavior (Leary, 1999), as well as risky behaviors, such as aggression, irresponsible sexual behaviors, or being a member of a deviant group (Leary, Schreindorfer, & Haupt, 1995), with levels of risk engagement (Donnellan et al., 2005).

### Significance of the Study

Taking risks is fairly common in adolescence and the prevention these risky behaviors is important for several reasons. Indeed, such behaviors are associated with serious, long-term and life-threatening consequences (Terzian, Andrews, & Moore, 2011) and can lead to the engagement in other risky behaviors (Ellickson, Tucker, & Klein, 2003). Risky behavior can undermine progress toward positive educational goals, such as graduating from high school on time, and can increase the likelihood that social, behavioral, physical, and mental health problems will develop later in life (D'Amico, Ellickson, Collins, Martino, & Klein, 2005). Moreover, engaging in multiple risky behaviors further elevates the likelihood of poor outcomes (Terzian et al., 2011). In this process, school counselors working with adolescents and other

experts have important responsibilities, as adolescents' risky behaviors can be reduced by effective prevention and intervention programs.

There are a limited number of studies analyzing the factors that may affect adolescent risky behaviors in Turkey. Therefore, this research contributes to the literature and practices in this field. When analyzing this literature, it is possible to find studies that emphasize the direct relationship between risky behaviors and social support, subjective well-being and self-esteem. However, studies relating to whether social support and subjective well-being among adolescents have an effect on risky behaviors based on the mediating role of self-esteem, have not been found. In addition, this study examines the role of self-esteem on the effect of adolescents' social support and subjective well-being on their risky behaviors. In sum, the findings obtained contribute to the literature by analyzing variables with both direct and indirect effects on adolescents' risky behaviors.

### **Purpose of the Study**

This study tests a structural model conceptualizing the direct and indirect effects of social support and subjective well-being on adolescents' risky behaviors and the mediating role of self-esteem. Accordingly, hypotheses of the research were determined as follows:

- H1: There is a significant relationship between subjective well-being and self-esteem.
- H2: There is a significant relationship between perceived social support and self-esteem.
- H3: There is a significant relationship between self-esteem and inclination towards risky behaviors.
- H4: Subjective well-being has a direct effect on risky behaviors.
- H5: Perceived social support has a direct effect on risky behaviors.
- H6: Subjective well-being has an indirect effect on risky behaviors.
- H7: Perceived social support has an indirect effect on risky behaviors.

### **Method**

#### **Research Design**

This descriptive study research employed a survey model to test a theoretical model. For this purpose, structural models were systematically tested, beginning with measurement models and then moving to direct and indirect relationships. Independent variables of the study consisted of social support and subjective well-being.

Dependent variables included inclination towards risky behaviors and the mediator variable was self-esteem. In order for a variable tool to become a mediating variable a) an independent variable should be effective on the mediating variable, b) the mediating variable should be effective on the dependent variable, and c) when a and b paths are taken under control, the previously existing relationship between the dependent and independent variables should change significantly (Figure 1). The c path in Figure 1 can also be defined as the indirect effect of independent variables on dependent variables by means of the mediating variable (Bayram, 2010; Çokluk, Şekercioğlu, & Büyüköztürk, 2010).

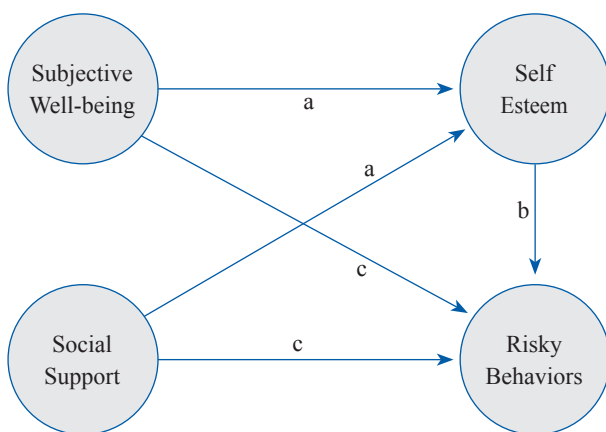


Figure 1. Proposed structural model of the study.

## Participants

The research data was collected from 676 students selected by a simple random-sampling method. Considering the heterogeneity of participants and for covering various types of schools, two vocational high schools and three public high schools were sampled. The participants consisted of 376 (66.62%) girls and 300 (54.38%) boys. The distribution of students as per grade levels included 176 (26.05%) 9th graders, 200 (29.58%) 10th graders, 186 (27.514%) 11th graders, and 114 (16.86%) 12th graders. The students ranged in age from 14 to 19 years ( $X = 16.35$ ). Permission was granted from the Directorate of National Education in Manisa City. Data collection tools were administered to students during classroom hours by researchers present in the classroom. Researchers informed students of the purpose of the study as well as possible risks associated with their taking part in the study. Students were also informed that if they chose to voluntarily participate in the study, any data acquired from the research would be used solely according to the study objectives and be kept anonymous and confidential. In addition, students were asked to refrain from sharing any personal information that could reveal their identity.

## Instruments

Coopersmith's Self-Esteem Inventory (CSEI) short form was developed to measure an individual's thoughts about himself/herself in their social, academic, family, and individual lives. The inventory consists of 25 items. Each item receives a score of 1 if it is an indicator of self-esteem or 0 if it is not. Possible scores can range from 0 to 25, with a higher score being indicative of higher self-esteem. The reliability coefficient acquired as a result of the inventory's short form, KR-20 for the high school students was .76 and the internal consistency coefficient was .81 (Pişkin, 1996).

The Subjective Well-Being Scale (SWS) was developed by Tuzgöl-Dost (2005) and was used in the determination of the students' well-being status. The scale consists of 46 single-dimension items, including 26 positive and 20 negative items. Each item is scored on a scale of 1 to 5 (1-not at all suitable to 5-completely suitable). Possible scores range between 46 and 230. Achieving a higher score refers to a higher level of well-being. Internal reliability for the SWS Cronbach Alpha reliability coefficient of scale was .93 and test re-test reliability of the scale obtained a correlation coefficient of .86.

The Social Support Rating Scale for Children and Adolescents measures to what extent children perceive themselves to be beloved, interested, valued, and accepted by the social networks to which they belong. The scale was adapted to Turkish by Gökler (2007) and utilizes a 5-point Likert -type scale (1 = never, 2 = rarely/very rarely, 3 = sometimes, 4 = often, 5 = always) and consists of 41 items. Factor analysis revealed three factors: Friend Support, Family Support, and Teacher Support. Internal consistency coefficients were obtained for the criteria validity of the scale ( $r = -.62$ ,  $p < .01$ ) and sub-dimensions were calculated as .89, .86, and .88. The test-retest reliability coefficient was calculated at .49 ( $p < .01$ ), the two-half reliability was (Guttman) .82, and the relation of article-total reliability with total points ranged between .34 and .64. The Cronbach Alpha coefficient of the scale was .93.

The Risky Behaviors Scale was developed by Bayar and Sayıl (2005) and consists of 25 items. The scale includes risky behaviors (i.e., smoking, carrying cutters like knives, jackknives, etc., spending more than necessary, risky sexual actions) and aims to measure adolescents' risky behaviors among those aged 12 to 21 years. This one-dimension scale utilizes a 5-point Likert scale, where a higher score suggests a higher likelihood of engaging in risky behaviors. The Cronbach's Alpha internal consistency coefficient of the scale was .81. According to Arıkan, Tacoğlu, and Erdoğan (2011), the Cronbach's alpha value of this scale was 0.84 in an Ankara sample, .86 in a Toronto sample, and .91 in a Priştina sample. In Savi-Çakar, Tagay, and Karataş (2015), the Cronbach's alpha value of the scale was found to be .86.

Lastly, the Personal Information Form was developed in consultation with experts to acquire personal data from research participants and included questions regarding gender, grade level, and age.

## Data Analysis

SPSS 15.0 and Lisrel 8.51 software were used for data analysis. Fit indices in structural equation modeling do not have a single significant statistic defining the correct model to the given sample data. As for rating the model compatibility in confirmatory factor analysis and the structural equation model, fit indices were classified as fit indices based on residuals, independent model, root mean square error of approximation (RMSEA), data criterion, and those based on relation criteria (Bayram, 2010). While analyzing model fits,  $\chi^2/sd$  was discussed together with fit indices based on residual (SRMR, GFI, AGFI), fit indices based on independent model (NFI, NNFI, CFI), and root mean square error of approximation (RMSEA). Admissibility and best-fit values of fit indices are given in Table 1 (Bayram, 2010; Raykov, 1997; Sümer, 2000).

Table 1  
*Fit Indices*

	Acceptable Fit Values	Good/Best Fit Values
$\chi^2 / sd$	$0 < \chi^2 / sd < 5$	$0 < \chi^2 / sd < 3$
RMSEA	$0.00 \leq RMSEA \leq 0.08$	$0.00 \leq RMSEA \leq 0.05$
SRMR	$0.00 \leq SRMR \leq 0.08$	$0.00 \leq SRMR \leq 0.05$
GFI	$0.90 \leq GFI \leq 1.0$	$0.95 \leq GFI \leq 1.0$
AGFI	$0.85 \leq AGFI \leq 1.0$	$0.90 \leq AGFI \leq 1.0$
NFI	$0.90 \leq NFI \leq 1.0$	$0.95 \leq NFI \leq 1.0$
NNFI	$0.90 \leq NNFI \leq 1.0$	$0.95 \leq NNFI \leq 1.0$
CFI	$0.90 \leq CFI \leq 1.0$	$0.95 \leq CFI \leq 1.0$

In the path analysis, during which the confirmatory factor analysis and hypotheses are tested, it was taken into account that all indicators have high factor loads in related factor ( $\lambda$ ), that  $t$ -values showing statistical significance of individual parameter predictions are significant, and that error variances are high (Bayram, 2010; Çokluk et al., 2010). In advance of the confirmatory factor analysis, the normal distribution conditions of variables (skewness and kurtosis) were analyzed and variables non-conforming to the normal distribution condition were included in the analysis after applying necessary transformations (log, square root).

## Findings

In accordance with the purpose of the study, findings focused on descriptive statistics and the results of the model testing.

Table 2  
*The Results of Risky Behaviors, Social Support, Subjective Well-being, and Self Esteem*

	Minimum Score	Maximum Score	Mean	Std. Deviation
Self Esteem	10.00	25.00	18.0947	4.16617
Subjective Well-Being	59.00	155.00	106.1464	11.80198
Risky behaviors	25.00	125.00	49.2101	17.33736
Support Received from Friend	37.00	111.00	70.2500	8.20846
Support Received from Family	22.00	60.00	44.6331	7.57315
Support Received from Teacher	15.00	50.00	32.7189	5.20606
Total Social Support	101.00	205.00	147.6021	15.12143

N = 676.

In Table 2, minimum score, maximum score, mean, and standard deviation values related to scales of risky behaviors, social support, subjective well-being, and self-esteem are given.

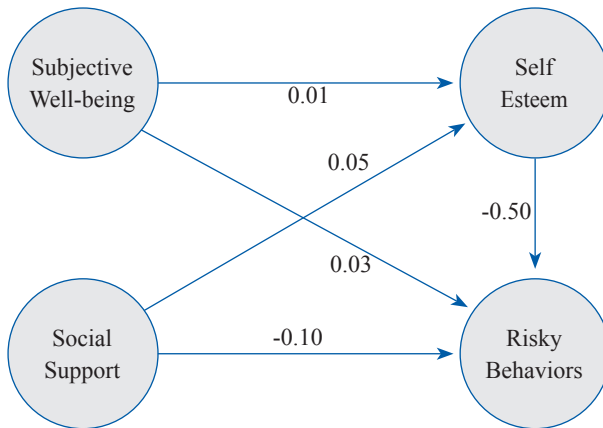
Confirmatory factor analysis results regarding scales of the survey are included in Table 3.

Table 3  
*Fit Indices and Reliability*

	Subjective Well-Being Scales		Perceived Social Support Scales		Risky Behaviors Scales	
	First	Latest	First	Latest	First	Latest
Number of Items	37	10	41	13	25	17
$\chi^2 / sd$	16.3	2.5	10.2	3.2	37.1	4.7
RMSEA	0.15	0.04	0.12	0.06	0.23	0.07
SRMR	0.13	0.03	0.11	0.05	0.17	0.03
	0.55	0.98	0.64	0.96	0.45	0.92
AGFI	0.50	0.96	0.60	0.94	0.35	0.88
NFI	0.64	0.97	0.69	0.93	0.89	0.99
NNFI	0.65	0.97	0.71	0.93	0.89	0.99
CFI	0.67	0.98	0.72	0.95	0.90	0.99
Cronbach Alpha	0.63	0.84	0.82	0.70	0.93	0.95
Item Top Correlation	-0.13	0.37	-0.02	0.22	-0.16	0.43
(Min. / Max.)	0.49	0.63	0.44	0.48	0.88	0.90

At the beginning of the confirmatory factor analysis, perceived social support and subjective well-being were considered predictor variables (implicit), self-esteem was identified as a mediator variable, and risky behavior was the predicted variable. Analyses investigated whether fit indices belonging to the structure of scales were at an acceptable level; Cronbach Alpha values were determined to be .70-.84 and .95, and item total correlations were over .20.





Chi-Square = 0.00, df = 0,  $p = 1.00000$ , RMSEA = 0.000

Analyzing the fit indices of the established structural model,  $\chi^2/sd$  rate ( $\chi^2/sd$ ) was found to be 2.5 for subjective well-being; 3.2 for perceived social support, and 4.7 for risky behaviors. GFI value was 0.98 for subjective well-being, 0.96 for social support, and 0.92 for risky behaviors. AGFI value was 0.96 for subjective well-being, 0.96 for social support, and 0.88 for risky behaviors. However, the RMSEA value was 0.04 for subjective well-being, 0.06 for social support, and 0.07 for risky behaviors. The SRMR value was 0.03 for subjective well-being, 0.05 for social support, and 0.03 for risky behaviors. The CFI value was 0.98 for subjective well-being, 0.95 for social support, and 0.99 for risky behaviors. Finally, the NFI value was 0.97 for subjective well-being, 0.93 for social support, and 0.99 for risky behaviors. These results show that the fit indices of the measurement models are at an acceptable level.

Table 4  
Path Analysis Results of the Structural Model

				Direct Effect			Indirect Effect		
				$\beta$	$t$	$R^2$	$\beta$	$t$	$R^2$
H1	Perceived Social Support	a	→ Self Esteem	0.05	1.20	0.00	0.05	1.20	0.00
H2	Subjective Well-Being	a	→ Self Esteem	0.01	0.14		0.01	0.14	
H3	Self Esteem	b	→ Risky Behaviors	0.02	0.43		0.03	0.94	
H4	Perceived Social Support	c	→ Risky Behaviors	-0.10	-3.00**	0.29	-0.10	-3.04**	0.29
H5	Subjective Well-Being	c	→ Risky Behaviors	-0.50	-14.85**		-0.50	-14.86**	

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

In terms of supporting or rejecting the study hypotheses, the following was found:

H1 Rejection: There is no significant relationship between subjective well-being and self-esteem ( $\beta = 0.01$ ,  $t = 0.14$ ,  $p > .05$ ).

H2 Rejection: There is no significant relationship between perceived social support and self-esteem ( $\beta = 0.05, t = 1.20, p > .05$ ).

H3 Rejection: There is no significant relationship between self-esteem and risky behaviors ( $\beta = 0.03, t = 0.94, p > .05$ ).

H4 Acceptance (Direct Effect): Subjective well-being had a negative and significant effect on risky behaviors ( $\beta = -0.50, t = -14.85, p < .01, >< /.01, >R^2 = 0.29$ ). Risky behaviors of high school students with high levels of subjective well-being decrease significantly.

H5 Acceptance (Direct Effect): Perceived social support had a negative and significant effect on risky behaviors ( $\beta = -0.10, t = -3.00, p < .01$ ). Risky behaviors of adolescents who perceive high levels of social support from family, friends, and teachers decrease significantly. Both subjective well-being and perceived social support variables explained 29% of the variance in risky behaviors.

H6 Rejection (Indirect Effect): The negative and significant effect of subjective well-being on risky behaviors disappears with the introduction of the self-esteem tool ( $\beta = -0.50, t = -14.86, p < .01$ ). Concerning the relationship between subjective well-being and risky behaviors, there is no mediating effect of self-esteem.

H7 Rejection (Indirect Effect): The negative and significant effect of perceived social support on risky behaviors disappears with the introduction of the self-esteem tool ( $\beta = -0.10, t = -3.04, p < .01$ ). There is no mediating effect of self-esteem on the relationship between perceived social support and risky behaviors,

Consequently, together with the mediator effect of subjective well-being and perceived social support on self-esteem, 29% of the variance in risky behaviors can be explained. In other words, self-esteem, perceived social support, and perceived social support do not have a significant mediator role in explaining risky behaviors.

### **Discussion and Conclusion**

This study tested a structural model developed to determine whether social support and subjective well-being, as perceived by adolescents, have a direct effect on risky behaviors and if self-esteem played a mediator role in explaining this relationship. As a result of the analyzes, adolescents' subjective well-being and perceived social support, together with the mediating effect of self-esteem explained 29% of the variance in risky behaviors.

Further, subjective well-being had a negative and significant effect on risky behaviors. Accordingly, adolescents with high self-esteem showed less risky

behaviors, a relationship that has been confirmed in previous studies (Bolton, Robinson, & Sareen, 2009; Koivumaa-Honkanen, Kaprio, Honkanen, Viinamaki, & Kosenvuo, 2004; Scourfield, Roen, & McDermott, 2008; Valdez, Kaplan, & Codina, 2000; Vesely et al., 2004; Zimmerman et al., 2008). Well-being has been found to be strongly and negatively related to more dangerous risk behaviors, with the most severe risk in the illicit drug use category (hard drug use, inhalant use, injecting drug use and prescription drug misuse) and driving-related risks, like impaired driving, as well as unsafe sexual behavior (Arnett, 2000). Similarly, adolescents' risk behaviors and hopelessness decrease as their life satisfaction increases (Savi-Çakar et al., 2015). As Scourfield et al. (2008) stated, the lack of subjective well-being is associated with an adolescent's behavior of damaging himself/herself. Additionally, Schwartz et al. (2011) found that if adolescents perceive themselves as "doing well" in life, i.e., feeling in control of their lives and enjoying satisfying relationships with others, they are least likely to engage in risky behaviors. Therefore, having a sense of purpose, meaning, and direction in one's life appears to add protection. Considering the fact that subjective well-being covers an individual's evaluations and emotions related to his/her life, it is considered an expected result that high subjective well-being has a significant negative effect, especially on the risky behaviors of adolescents.

Additional findings of this research indicate that perceived social support has a negative and significant effect on risky behaviors, as risky behaviors of adolescents who perceive a high level of social support from family, friends, and teachers decrease significantly. When analyzing previous study results in parallel with the results of this study, they emphasize the following: as social support perceived by adolescents increases, behavioral problems decrease (İkiz & Savi Çakar, 2012); and there is a significant relationship between perceived social support and anxiety and depression among children and adolescents (Barrera, Fleming, & Khan, 2004; Colarossi & Eccles, 2003), substance abuse and criminal behaviors (Holt & Espelage, 2005), high risk-taking and behaviors towards violence (DuRant, Cadenhead, Pendergrast, Slavens, & Linder, 1994), and adolescent suicide (Cotton & Range, 1996). Together with the results of previous research, it is evident that social support received from one's family has an important effect on adolescents' risky behaviors.

Another important social support source is peers. The importance of peer influences on antisocial behaviors in early adolescence has been supported in a number of studies (Dishion, 2000). Moreover, adolescents are more susceptible than adults to peer influence (Allen, Chango, Szwedo, Schad, & Marston, 2012). According to Jessor et al. (1998), peer pressure has a greater effect on risk-taking behavior than family. A wider risk-taking inclination among adolescents is explained with the desire for social acceptance, and is a direct effect of the group. Other studies have emphasized that having deviant friends is a consistently strong predictor of

delinquent activity (Brendgen, Vitaro, & Bukowski, 2000; Haynie & Osgood, 2005), and that adolescents showing behavioral problems tend to have friends exhibiting similar behaviors and acquiring antisocial friends increases the risk of substance abuse (Mason & Windle, 2002). Therefore, the role of peer relationships in risky behaviors should not be ignored. Contrary to our expectations, in the relationship between social support, subjective well-being, and risky behaviors, self-esteem did not explain “mediator variable rules” (Baron & Kenny, 1986), and it also did not show a positive or negative relationship with the dependent variable of the study, risky behaviors. After exploring other research findings, an association was not found between self-esteem and sexually transmitted diseases and teen pregnancy (Salazar et al. 2005), or to later alcohol intake or problem drinking (Scheier, Botvin, Griffin, & Diaz, 2000), increased smoking (Carvajal, Wiatrek, Evans, Knee, & Nash, 2000), substance use in general (McGee & Williams, 2000), suicidality (Beautrais, Joyce, & Mulder, 1999) or early sexual activity and adolescent pregnancy (McGee & Williams, 2000). In addition, higher self-esteem was not an independent predictor of early sexual intercourse in males (Paul, Fitzjohn, Herbison, & Dickson, 2000).

However, different findings were acquired in other studies. For example, it was found the association between self-esteem and later risk orientation (Gardner & Steinberg, 2005). An explanation for this is that it is possible that researchers have used different operational definitions of self-esteem. According to Kawabata, Cross, Nishioka, and Shimai (1999), it might be beneficial to replace the one-dimensional measure of global self-esteem used in most studies with a more specific, multidimensional measure. Harter (1998) posited that addressing specific domains or components of self-esteem appear to be more successful and the exploration of possible differential relationships between adolescent risk behaviors and different domains of self-esteem is important. Another possible explanation for this difference may be the multiple dimensions of adolescent risky behaviors.

Wild et al. (2004) found that the scores on each self-esteem scale were significantly associated with at least one risk behavior in male and female adolescents. However, specific domains of self-esteem were differentially related to particular risk behaviors. In contrast to other studies, they did not find any significant association between global self-esteem and an increased likelihood of cigarette or drug use for either gender. Moreover, low global self-worth did not make a significant independent contribution to predicting any of the risk behaviors in boys (Carvajal et al., 2000). According to Wild et al. (2004), this does not mean that self-esteem is unimportant in predicting adolescent risk behaviors, but rather, different risk behaviors are more strongly related to certain domains of self-esteem than others. In terms of peer relationships, for instance, if risky behaviors such as smoking, drinking, sexual intercourse and even bullying peers are valued or admired by the peer group, engaging in these

behaviors and adopting an identity as a “rebel” may actually increase adolescents’ self-esteem, particularly in the peer domain (West & Sweeting, 1997). Therefore, the multi-dimensionality feature of self-esteem should not be ignored when analyzing adolescents’ risky behaviors.

The literature in general emphasized that there is an increase in risky behaviors during adolescence (Bayar & Sayıl 2005; Jessor, 1991). This increase can be associated with an adolescent’s inclination towards risky behaviors, their attempt to adapt to the changes they are quickly experiencing, and their effort to show themselves and reveal their personalities (Gonzalez et al., 1994). This increase also means that adolescents must cope with various problems at the same time. Therefore, it may be possible to protect adolescents against risky/problematic behaviors with focused prevention and intervention programs. In fact, studies have highlighted the benefit of increasing correct decision-making, resistance to peer pressure, social skills (Slavin, 2012), as well as increasing self-esteem, subjective well-being, and social support, in promoting effective coping skills for reducing risky behaviors.

This study identified that perceived social support and subjective well-being has a direct effect on risky behaviors, for which self-esteem does not have a mediating role. Considering the direct effect of adolescents’ subjective well-being and social support on adolescents’ risky behaviors, improving subjective well-being and social support results in a certain level of decrease in risky behaviors. The determination of factors negatively affecting adolescents’ subjective well-being and controlling for these factors, in addition to improving social support systems will contribute to healthy development and decrease the inclination towards risky behaviors in adolescents.

### **Recommendations**

The results of this study suggest that school psychological counselors should evaluate subjective well-being, perceived social support, and self-esteem of students who show risky behaviors in prevention and intervention programs in schools. Further, School Guidance and Psychological Counseling Programs that focus on the improvement of well-being, social support perceptions, and self-respect of such students should be a priority. In addition, counselors may develop psychoeducation programs to teach coping skills for risky behaviors. Moreover, risky behavior prevention programs may be appropriate for teachers, administrators working in secondary schools, and families, making it possible to improve effective communication of students showing risky behavior in this regard. It may also be beneficial that other researches working in the field conduct studies with different participant groups in an effort to identify other variables that may predict risky behavior among adolescents.

In our country, due to problems experienced in the effective implementation of school guidance and counseling services, it is apparent that the awareness of risk behavior is low in schools. Thus, an increase in the number of studies exploring risky behaviors will contribute to increasing the attention focused on this important topic.

### Limitations

A number of limitations must be taken into consideration when reviewing the findings of this study. First, the results cannot be generalized to all adolescents, as the scope of this study included formal education of secondary education during adolescence within two specific school types. Therefore, adolescents from different programs and education types were excluded from the scope of this research. Second, the theoretical model of this study was developed with a determined objective towards testing. Therefore, in this regard, comparison among groups was not applied. In future studies, subjective well-being, social support, self-esteem, and risky behaviors should be studied comparatively across different groups.

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