

ORIGINAL ARTICLE

Pathways to positivity from perceived stress in adolescents: multiple mediation of emotion regulation and coping strategies

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BACKGROUND

The current study aimed to examine the multiple mediation of emotion regulation and coping strategies in the relationship between perceived stress and positivity in adolescents.

PARTICIPANTS AND PROCEDURE

Participants included 312 adolescents attending high schools. 162 of the participants were female and 150 were male, with an average age of 16.26, $SD = 1.21$. Data collection was conducted with the Perceived Stress Scale, the Emotion Regulation Scale for Adolescents, the Coping Scale for Children and Youth, and the Positivity Scale. Descriptive statistics, Pearson's correlation coefficient, regression based on ordinary least squares, and the bootstrap method were used to analyze the research data.

RESULTS

The research findings indicated that internal dysfunctional emotion regulation, assistance seeking, problem solving,

and behavioral avoidance mediated the relationship between perceived stress and positivity.

CONCLUSION

In conclusion, internal dysfunctional emotion regulation, seeking assistance, problem solving, and behavioral avoidance were found to mediate the relationship between adolescents' perceived stress and positivity. Thus, preparing individual and group psychological counseling as well as emotion regulation and coping-oriented psycho-educational programs for adolescents to regulate negative emotions and to cope with stress may be important. The research findings were discussed and interpreted based on the relevant literature, and suggestions for relevant experts were included.

KEY WORDS

perceived stress; positivity; emotion regulation; coping; adolescents; multiple mediation

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BACKGROUND

Psychologists have tried to heal negative situations, losses, and disorders in individuals' lives for many years (Seligman, 2007). On the other hand, research on powers contributing to human development has recently been the focus of the positive psychology movement (Haybron, 2008). The field of positive psychology pertains to individuals' judgments of private experiences such as well-being about, contentment of, and satisfaction with the past, hope and optimism towards the future, and current flow and happiness. In general, positive psychology aims to enable people to overcome hardships in life as well as strengthen and develop individuals' positive characteristics (Seligman & Csikszentmihalyi, 2000). Researchers use the terms *subjective well-being* and *happiness* to describe a good life. Subjective well-being may be defined as the reality of subjective thoughts on viewing an individual's own life as pleasant, good, and desirable. People's well-being levels are high when their pleasant experiences outweigh their painful experiences and, in general, when they are satisfied with their lives, when they do activities that they are interested in and they like, and when they feel that their negative affects are less than their positive affects (Diener, 1984; Diener, 2000). One of the important concepts developed in the positive psychology sphere is positivity. Positivity refers to the latent dimension, with life satisfaction, self-esteem, and optimism hidden beneath, influenced by people's thoughts, affects, and actions. Positivity is about the individual with a positive orientation towards or judgment of himself/herself, his/her future, and past experiences (Alessandri et al., 2012; Caprara, Steca, Alessandri, Abela, & McWhinnie, 2010; Caprara et al., 2011). Based on this, individual's judgments of himself/herself, namely self-judgments, may be said to increase his/her self-esteem; judgments of his/her life may be considered to increase his/her life satisfaction; and judgments of the future may be said to increase his/her optimism (Yildiz, 2016). According to Caprara et al. (2009), some personal characteristics such as self-esteem, life satisfaction, and optimism are basic components of positive mental health situations and well-being; and these characteristics tend to be relational in people.

A review of the relevant literature shows that individuals' positivity is associated with anxiety, stress (Avey, Wernsing, & Mhatre, 2011; Shrira et al., 2011), emotion regulation, loneliness (Yildiz, 2016), extraversion and neuroticism (Lauriola & Iani, 2016), irrational beliefs (Duy & Yildiz, 2015), optimism, self-esteem, and positive and negative emotions (Duy & Yildiz, 2015a). Stress is among the important concepts with potential to negatively impact positivity in individuals. The definition of the concept of stress

is varied. According to Folkman (1984), stress is defined as a relationship, considered to tax and exceed the individual's resources or to risk his/her well-being, between the individual and the environment. According to Santrock (2012), stress is the reaction to the situations and events, namely the stressors, disturbing individuals and challenging their coping skills. According to Carpenter (1992), this reaction may include physiological, cognitive, emotional, and behavioral components and is constantly considered as dangerous by individuals. Korkut (2007) stated that high expectations, peer pressure, parents' separation or divorce, ignorance and abuse, and poor relationships could become stress factors for the youth. Santrock (2012), on the other hand, emphasized that life events, daily hardships, and socio-cultural factors were among the stressors for adolescents. An individual's experience of stress requires coping with the stress. Stone, Kennedy-Moore, Newman, Greenberg, and Neale (1992) define coping as an individual's cognitive and behavioral efforts to deal with stress. Aldwin (2007), on the other hand, defined coping as the strategies used to cope with current and expected problems and accompanying negative emotions. In another definition, Lazarus and Folkman (1984) described coping as an individual's cognitive and behavioral efforts to manage internal and external demands considered over-challenging and exceeding the individual's resources and as constant alteration. According to Folkman and Moskowitz (2004), upon coping with a stressful situation, if the individual finds a successful solution, his/her positive emotions prevail, but if the solution is negative or not clear, then negative emotions prevail. On the other hand, successfully coping with problems, in many respects, is considered as being strong in terms of mental health, and coping difficulties are associated with emotional issues including depression and anxiety (Aldwin & Yancura, 2004). When an individual is not able to cope with his/her problems, the individual's level of positivity is expected to decrease.

For an individual, it is greatly important to regulate emotions in stressful situations as well as to cope with stress in terms of mental health protection and sustainable well-being. According to Gross (2008), when individuals experience wrong emotions at wrong times or on wrong levels of intensity, they may be highly motivated to regulate their emotions. Emotion regulation refers to the emotions that individuals have, when they have those emotions, how they experience the emotions, and the processes influencing how they express those emotions (Gross, 1998; Rottenberg & Gross, 2003). The basic goal of emotion regulation is to alter the natural emotional reaction to appropriate levels (Gross, 2002). Emotion regulation consists of active attempts that people embark on to manage their emotional statuses. In the broadest sense, emotion regulation covers

regulation of all emotionally charged situations including moods, stress and positive or negative affect (Kooze, 2009). John and Gross (2004) categorized the strategies of emotion regulation as cognitive reappraisal and suppression. According to studies in the relevant literature, reappraisal among emotion regulation strategies was found to influence individuals' health and psychological well-being more positively than the suppression strategy did. Gross, Richards, and John (2006) found that individuals doing reappraisals frequently experienced more positive and less negative emotions. In addition, the depressive symptoms of those individuals with a habit of reappraisal in their daily lives were found to be at lower levels and their levels of life satisfaction and optimism were higher. Psychoanalytic theory research on anxiety, non-conscious processes and defense mechanisms and theoretical explanations paved the way to the development of both emotion regulation and coping concepts (Aldwin, 2007; Aldwin & Yancura, 2004; Gross, 1998). Emotion regulation is different from psychological defense and coping. However, the common goal of almost all is to reduce pain and increase pleasure (Gross & Thompson, 2007). According to Gross et al. (2006), coping and emotion regulation overlap; however, coping includes individuals' non-emotional actions in reaching non-emotional targets (e.g. studying hard to pass an important test). On the other hand, emotion regulation is associated with emotions that could be experienced in any context. Individuals are known to react cognitively, emotionally, and behaviorally against the events that they experience, in terms of consequences. As can be seen in theoretical explanations (Gross et al., 2006; Folkman & Moskowitz, 2004), emotion regulation is about individuals' emotions; on the other hand, coping is about regulating the cognitive and behavioral domains. The concepts of both emotion regulation and coping can be considered the most important mechanisms that individuals have in relation to adjustment at the conscious level and protecting well-being (Yıldız, 2014). Thus, both emotion regulation and coping may have an important function in terms of impacting individuals' positivity levels.

Perceived stress may increase based on characteristics of adolescence as this period is considered turbulent, tumultuous, rough, and problematic by researchers (Korkut, 2007; Santrock, 2012). Hormones during adolescence may lead to emotion fluctuations. Hence, adolescents may reduce and be unable to sustain their positivity due to difficulties regulating their emotions and coping with problems.

When an individual effectively copes with problems and regulates emotions through functional strategies, this will relevantly reflect on the individual's subjective well-being (Yıldız, 2014). According to Aldwin (2007), coping mechanisms directly affect mental health. As effectively coping with problems,

particularly in situations of high-level stress, reduces the influence of stress on the individual, it will positively affect the mental health. Bordwine and Huebner (2010) found positive relationships between positive emotions and coping in studies with adolescents. According to Santrock (2012), if one knows how to cope, a stressful situation may become less stressful. According to Korkut (2007), coping with stress has a protective function in terms of mental health. According to Aldwin and Yancura (2004), many researchers focus on coping with studies about reducing the symptoms only. However, effective coping may lead to positive consequences such as increasing an individual's efficacy and self-recognition, and developing better social relationships. According to Greenglass and Fiksenbaum (2009), psychology research traditionally focused on negative situations and their determiners and consequences. Studying individuals' positive aspects and understanding about the effective variables in the current research may prove to be significant in terms of protective and preventive mental health. On the other hand, based on views and studies in the relevant literature, it is considered that emotion regulation and coping strategies may mediate between adolescents' perceived stress and positivity, in relation to the impact on individuals' positivity. In addition, studying the mediation of emotion regulation and coping strategies in the relationships between adolescents' perceived stress and their positivity may provide important data for the services of mental support and assistance. Also, experts such as psychiatrists, psychologists, and psychological counselors working with adolescents may make use of the findings of the current research in their protective, preventive, and intervention activities.

PARTICIPANTS AND PROCEDURE

RESEARCH DESIGN

A relational design was used in the current study. Relational designs are used to study the relationships between two or more variables (Heppner, Wampold, & Kivlighan, 2013). In the current research, the relationships among perceived stress (predictive variable), emotion regulation and coping strategies (mediating variables), and positivity (outcome variable) were studied through parallel multiple mediation analysis.

PARTICIPANTS

Participants included 312 high school students attending schools in the city of Adiyaman during the 2015–2016 academic years. 162 (51.9%) female and 150 (48.1%) male students were among the partici-

pants. Adolescent participants' ages ranged between 13 and 19, with an average age of 16.26, $SD = 1.21$. This is a sampling method that enables researchers to reach participants of a specific study easily (Cohen, Manion, & Morrison, 2007).

INSTRUMENTS

Perceived Stress Scale (PSS): The Perceived Stress Scale was developed by Cohen, Kamarck, and Mermelstein (1983). The PSS is a 5-point (1 – *never*; 5 – *very often*) Likert-type scale with 10 items. Higher scores obtained by the individual on the PSS indicate higher levels of perceived stress. Yerlikaya and İnanç (2007) adapted the PSS into Turkish language. Significant relationships between PSS and the Beck Depression Inventory and the State-Trait Anxiety Inventory were found. The internal consistency α coefficient, calculated for the scale reliability, was found to be .84. Cronbach's α value for the scale within the current study was found to be .78.

Emotion Regulation Scale for Adolescents (ERSA): The ERSA was developed by Phillips and Power (2007) to determine the emotion regulation strategies that adolescents use. Duy and Yıldız (2014) adapted the ERSA into Turkish language. The instrument consists of 17 items scored on a 5-point scale (1 – *never*; 5 – *always*). The ERSA includes four sub-dimensions: internal functional emotion regulation ($\alpha = .75$), external functional emotion regulation ($\alpha = .57$), internal dysfunctional emotion regulation ($\alpha = .71$), and external dysfunctional emotion regulation ($\alpha = .74$). Total score obtained on a sub-dimension by the adolescent indicates the frequency of using the relevant strategy of emotion regulation: higher scores mean more frequent and lower scores mean less frequent uses. The results of test-retest for scale reliability were at satisfactory levels. In the current research, internal consistency coefficients were found as follows: for internal functional emotion regulation ($\alpha = .80$); for external functional emotion regulation ($\alpha = .62$); for internal dysfunctional emotion regulation ($\alpha = .70$); and for external dysfunctional emotion regulation ($\alpha = .72$).

Coping Scale for Children and Youth (CSCY): The CSCY was developed by Brodzinsky et al. (1992) to define coping strategies of children and youth. Yıldız (in press) adapted the CSCY into Turkish language. CSCY includes 24 items with four sub-dimensions: assistance seeking, problem solving, cognitive avoidance, and behavioral avoidance. The fit indices in the confirmatory factor analysis conducted for construct validity of the CSCY were as follows: $\chi^2 = 506.02$, $SD = 246$, $\chi^2/SD = 2.06$, $p < .01$, $RMSEA = .05$, $SRMR = .06$, $GFI = .90$, $AGFI = .87$, $CFI = .93$. In addition, CSCY cross validation (metric invariance) was performed in male and female samples. The correlation values obtained for CSCY test-retest reliability ranged be-

tween .32 and .67. CSCY internal consistency coefficients were found to be .68 for assistance seeking, .70 for problem solving, .32 for behavioral avoidance, and .82 for cognitive avoidance. CSCY combined reliability values were calculated to be between .44 and .81. In the current research, internal consistency coefficients were as follows: .61 for assistance seeking, .79 for cognitive avoidance, and .57 for behavioral avoidance.

Positivity Scale (PS): The Positivity Scale, developed by Caprara et al. (2012), is a scale defining individuals' positivity levels. Adaptation of the PS into Turkish language and a study of psychometric characteristics were conducted by Duy and Yıldız (2015). PS is a single-dimension scale with 8 items. The scale invariance for PS between adolescents and young adults was provided in the study conducted by Duy and Yıldız (2015). Significant relationships were found between positivity and optimism sub-dimension ($r = .43$, $r = .63$), pessimism sub-dimension ($r = -.36$, $r = -.57$), optimism total score ($r = .48$, $r = .68$), positive affect ($r = .55$, $r = .55$), negative affect ($r = -.47$, $r = -.40$), life satisfaction ($r = .60$, $r = .73$), and self-esteem ($r = .62$, $r = .54$) in the criterion validity analyses for PS. Cronbach's α internal consistency coefficient calculated for the scale reliability was found to be $\alpha = .81$ for both groups. Cronbach's α value for the scale within the current study was found to be .80.

PROCEDURE

The research data were collected during instruction upon obtaining the required permission. Volunteering students were included in the research. The data collection took about 20 minutes. Research data analysis was conducted through descriptive statistics, Pearson's correlation coefficient, an approach involving regression based on ordinary least squares, and the bootstrap method. According to Hayes' approach (2012; 2013), the statistical significance of the indirect mediation effects of variables is examined based on whether the mediating variable includes zero within the 95% bias-corrected and accelerated (BCa) confidence interval of the point estimate. Thus, the variable with no point estimate within the zero-interval is considered statistically significant. Also, with the contrast test through the software developed by Hayes (2012; 2013), specific direct effects of the variables are found and mediating variable pairs are compared to determine what variable has a more mediating effect within the model. Bootstrap analyses in the current research were conducted through the software developed by Hayes (2012; 2013) and downloaded at <http://www.processmacro.org/download.html>, using IBM SPSS with PROCESS Macro "Multiple Mediation Model 4" for parallel multiple medi-

ation. The significance level in the current research was set as .05. The IBM SPSS 22.0 software package was used in the research data analyses.

RESULTS

FINDINGS ASSOCIATED WITH THE RELATIONSHIPS BETWEEN THE DESCRIPTIVE STATISTICS AND THE VARIABLES

The lowest and the highest scores obtained by all participant adolescents on each scale, mean, standard de-

viation, skewness coefficient, and kurtosis values are presented in Table 1. A review of Table 1 indicates that values of skewness and kurtosis in the data belonging to the participants were within normal limits (+1 to -1); thus, data were distributed normally.

Pearson correlation analysis was conducted to evaluate the relationships among the scores of the Perceived Stress Scale, sub-dimensions of the Emotion Regulation Scale for Adolescents, sub-dimensions of the Coping Scale for Children and Youth, and the Positivity Scale. Obtained findings are presented in Table 2.

A review of Table 2 indicates significant relationships between perceived stress and internal function-

Table 1

Lowest and highest scores obtained by all participating students on each scale, mean, standard deviation, skewness coefficient, and kurtosis values

Variable	<i>N</i>	Lowest score	Highest score	Mean	<i>SD</i>	Skewness	Kurtosis
Perceived stress	312	10	50	31.66	6.67	.19	.60
IFER	312	4	20	14.88	3.36	-.62	.23
EDER	312	5	24	10.81	4.45	.67	-.24
IDER	312	5	25	15.10	4.17	.13	-.32
EFER	312	4	20	11.43	3.66	.19	-.40
Assistance seeking	312	3	16	9.33	2.62	.10	-.59
Problem solving	312	7	28	18.72	4.20	.17	-.22
Cognitive avoidance	312	10	33	19.30	5.16	.34	-.60
Behavioral avoidance	312	3	12	6.17	1.91	.47	-.19
Positivity	312	12	40	27.64	6.31	-.39	-.47

Note. IFER – internal functional emotion regulation, EDER – external dysfunctional emotion regulation, IDER – internal dysfunctional emotion regulation, EFER – external functional emotion regulation.

Table 2

Bivariate correlations of study variables

Variables	1	2	3	4	5	6	7	8	9	10
1. Perceived stress	---									
2. IFER	-.23**	---								
3. EDER	.36**	-.24**	---							
4. IDER	.55**	-.16**	.39**	---						
5. EFER	.04	.17**	.10	.03	---					
6. Assistance seeking	-.28**	.24**	-.05	-.29**	.54**	---				
7. Problem solving	-.28**	.54**	-.11	-.17**	.36**	.35**	---			
8. Cognitive avoidance	-.14*	-.13*	.09	.02	.11	.10	.01	---		
9. Behavioral avoidance	.13*	-.14*	.23**	.23**	.03	-.10	-.07	.44**	---	
10. Positivity	-.53**	.31**	-.19**	-.45**	.23**	.46**	.45**	.04	-.21**	---

Note. IFER – internal functional emotion regulation, EDER – external dysfunctional emotion regulation, IDER – internal dysfunctional emotion regulation, EFER – external functional emotion regulation.

N = 312, **p* < .050, ***p* < .010.

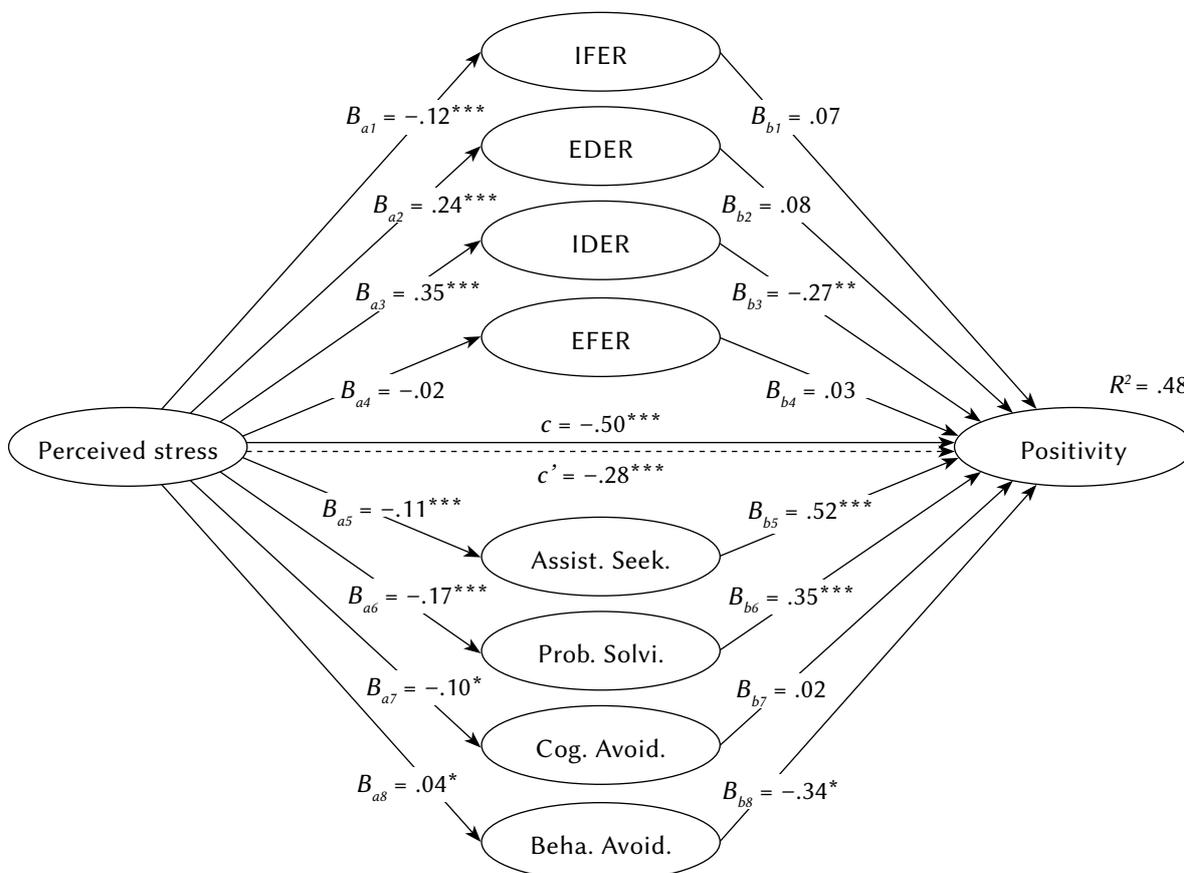
al emotion regulation, external functional emotion regulation, internal dysfunctional emotion regulation, assistance seeking, problem solving, cognitive avoidance, behavioral avoidance, and positivity. On the other hand, no significant relationship between perceived stress and the external dysfunctional emotion regulation was found. In the current study, significant relationships were found between positivity and all other variables except cognitive avoidance.

FINDINGS ASSOCIATED WITH PARALLEL MULTIPLE MEDIATION ANALYSIS

Figure 1 includes the findings associated with the parallel multiple mediation and non-standardized β values of emotion regulation and sub-dimensions of coping between perceived stress and positivity.

A review of Figure 1 indicates that the total effect of perceived stress on positivity is ($c = -.50$, $SH = .05$, $t = -10.99$, $p < .001$) at a significant level (Step 1). In addition, direct effects of perceived stress on mediating variables of *Internal Functional Emotion Regulation* ($B = -.12$, $SE = .03$, $t = -4.17$, $p < .001$), *External Dysfunctional Emotion Regulation* ($B = .24$, $SE = .03$, $t = 6.82$, $p < .001$), *Internal Dysfunction-*

al Emotion Regulation ($B = .35$, $SE = .03$, $t = 11.77$, $p < .001$), *Assistance Seeking* ($B = -.11$, $SE = .02$, $t = -5.14$, $p < .001$), *Problem Solving* ($B = -.17$, $SE = .03$, $t = -5.10$, $p < .001$), *Cognitive Avoidance* ($B = -.02$, $SE = .01$, $t = -1.48$, $p > .050$), and *Behavioral Avoidance* ($B = .04$, $SE = .02$, $t = 2.30$, $p < .050$) are at significant levels. However, the direct effect of perceived stress on *External Functional Emotion Regulation* ($B = -.02$, $SE = .03$, $t = -0.78$, $p > .050$) is not significant (Step 2). A review of direct effects of mediating variables on positivity indicates that the effects of *Internal Dysfunctional Emotion Regulation* ($B = -.27$, $SE = .08$, $t = -3.32$, $p < .010$), *Assistance Seeking* ($B = .52$, $SE = .13$, $t = 3.90$, $p < .001$), *Problem Solving* ($B = .35$, $SE = .08$, $t = 4.26$, $p < .001$) and *Behavioral Avoidance* ($B = -.34$, $SE = .17$, $t = -2.10$, $p < .050$) are at significant levels; the direct effects of *Internal Functional Emotion Regulation* ($B = .07$, $SE = .10$, $t = 0.77$, $p > .050$), *External Dysfunctional Emotion Regulation* ($B = .08$, $SE = .07$, $t = 1.19$, $p > .050$), *External Functional Emotion Regulation* ($B = .03$, $SE = .09$, $t = 0.36$, $p > .050$), and *Cognitive Avoidance* ($B = .02$, $SE = .06$, $t = 0.34$, $p > .050$) on positivity are not at significant levels (Step 3). When perceived stress and all mediating variables were entered simultaneously into the equation (Step 4), the relationship between perceived stress and positivity



* $p < .050$, ** $p < .010$, *** $p < .001$.

Figure 1. Parallel multiple mediation and non-standardized β values of emotion regulation and sub-dimensions of coping between perceived stress and positivity.

ty decreased in terms of the direct effect; however, the significance value remained at the same level ($c' = -.28$, $SE = .05$, $t = -5.57$, $p < .001$). Also, it was found that the whole model was significant ($F_{(10-301)} = 27.23$, $p < .001$) and explained 48% of the total variance in positivity.

Table 3 includes the comparison of indirect effects and specific indirect effects of adolescents' perceived stress levels on their positivity, through emotion regulation and coping strategies.

The statistical significance of indirect effects in the tested model in the current research was exam-

ined through 5000 bootstrap samples. Estimates were considered within the 95% confidence interval, and bias-corrected and accelerated results are given in Table 3. A review of Table 3 indicates that the total indirect effect (the difference between total and direct effects/ $c-c'$) of perceived stress on positivity, through emotion regulation and coping strategies, was statistically significant (point estimate = $-.2174$ and 95% BCa CI [$-.3041$, $-.1406$]). When the eight mediating variables are considered separately in relation to mediation among the effects of perceived stress on positivity in the tested model, the mediation

Table 3

Comparison of indirect effects and specific indirect effects of adolescents' perceived stress levels on their positivity through emotion regulation and coping strategies

Effects	Point estimate	Product of coefficients			Bootstrapping 95% BCa confidence interval	
		SE	z	p	Lower	Upper
Total indirect effects	-.2174	.0410			-.3041	-.1406
IFER	-.0087	.0127	-0.7358	.467	-.0354	.0156
EDER	.0196	.0179	1.1601	.246	-.0134	.0582
IDER	-.0947	.0323	-3.1819	.002**	-.1631	-.0355
EFER	-.0008	.0045	-0.2214	.832	-.0168	.0046
Assistance seeking	-.0569	.0193	-3.0701	.002**	-.1016	-.0249
Problem solving	-.0609	.0195	-3.2323	.001***	-.1072	-.0295
Cognitive avoidance	-.0022	.0077	-0.3133	.754	-.0206	.0114
Behavioral avoidance	-.0128	.0090	-1.4756	.140	-.0382	-.0005
Contrasts						
C2	.0861	.0362			.0173	.1615
C4	.0482	.0226			.0086	.0985
C5	.0522	.0265			.0096	.1152
C8	.1143	.0415			.0345	.1968
C10	.0765	.0243			.0328	.1289
C11	.0805	.0278			.0328	.1443
C14	-.0939	.0318			-.1630	-.0365
C17	-.0926	.0338			-.1642	-.0296
C18	-.0820	.0345			-.1560	-.0189
C19	.0561	.0207			.0221	.1048
C20	.0601	.0201			.0276	.1078
C24	-.0547	.0211			-.1039	-.0194
C25	-.0441	.0206			-.0894	-.0077
C26	-.0588	.0209			-.1073	-.0237
C27	-.0482	.0205			-.0943	-.0126

Note. Covariates – gender, BCa – bias-corrected and accelerated 5000 bootstrap samples. $N = 312$, $k = 5000$, * $p < .050$, ** $p < .010$, *** $p < .001$.

of *internal dysfunctional emotion regulation* (point estimate = $-.0947$ and 95% BCa CI [$-.1631, -.0355$]), *assistance seeking* (point estimate = $-.0569$ and 95% BCa CI [$-.1016, -.0249$]), *problem solving* (point estimate = $-.0609$ and 95% BCa CI [$-.1072, -.0295$]), and *behavioral avoidance* (point estimate = $-.0128$ and 95% BCa CI [$-.0382, -.0005$]) was found to be statistically significant; however, the mediation of variables of *internal functional emotion regulation* (point estimate = $-.0087$ and 95% BCa CI [$-.0354, .0156$]), *external dysfunctional emotion regulation* (point estimate = $.0196$ and 95% BCa CI [$-.0134, .0582$]), *external functional emotion regulation* (point estimate = $-.0008$ and 95% BCa CI [$-.0168, .0046$]), and *cognitive avoidance* (point estimate = $-.0022$ and 95% BCa CI [$-.0206, .0114$]) was not found to be statistically significant.

In the current research, contrast findings, entered in pairs to determine whether the specific indirect effects of mediating variables were stronger than one another, were included. Based on the results of the analysis, 28 contrast pairs were obtained. However, as the indirect effects of 13 contrast pairs were within the point estimate zero of the 95% BCa confidence interval, they were not found to be statistically different from one another. Table 3 includes 15 contrast pairs that were not within the point estimate zero of the 95% BCa confidence interval and that were statistically significant. Based on the contrast pairs of specific indirect effects, *internal dysfunctional emotion regulation* was found to mediate for a stronger indirect effect than *internal functional emotion regulation* (C2), *external dysfunctional emotion regulation* (C8), *external functional emotion regulation* (C14), *cognitive avoidance* (C17), and *behavioral avoidance* (C18). *Assistance seeking* was found to mediate more strongly than *internal functional emotion regulation* (C4), *external dysfunctional emotion regulation* (C10), *external functional emotion regulation* (C19), *cognitive avoidance* (C24), and *behavioral avoidance* (C25) for an indirect effect. *Problem solving* was found to mediate more strongly than *internal functional emotion regulation* (C5), *external dysfunctional emotion regulation* (C11), *external functional emotion regulation* (C20), *cognitive avoidance* (C26), and *behavioral avoidance* (C27) for an indirect effect.

DISCUSSION

The current research aimed to examine the parallel multiple mediation of emotion regulation and coping strategies in the relationship between perceived stress and positivity. The research results indicated that internal dysfunctional emotion regulation among emotion regulation strategies and assistance seeking, problem solving, and behavioral avoidance among coping strategies were found to mediate the

relationships between perceived stress and positivity. On the other hand, internal functional emotion regulation, external dysfunctional emotion regulation, and external functional emotion regulation among emotion regulation strategies and cognitive avoidance among coping styles were found not to mediate.

DISCUSSION AND INTERPRETATION ASSOCIATED WITH THE MEDIATION OF EMOTION REGULATION

The research results indicated that internal dysfunctional emotion regulation among emotion regulation strategies strongly mediated between perceived stress and positivity. Thus, as adolescents' perceived stress levels increased, they were not able to internally regulate emotions and this reduced their positivity. Internal dysfunctional emotion regulation includes dysfunctional elements such as suppression, self-damage, rumination, negative social interactions, and de-realization (Phillips & Power, 2007). According to Yildiz (2014), adolescents using the internal dysfunctional emotion regulation strategy frequently may internally increase their distress levels and, hence, reduce their emotional well-being levels to impact their subjective well-being negatively. As emotional well-being decreases, the individual's satisfaction with life, a more overall structure, may be reduced. Consequently, the individual may be at risk of experiencing mental problems. The results of the current research indicate that, probably, as the perceived stress levels of adolescents increase, they ignore their negative emotions by suppressing them instead of regulating negative emotions functionally, and this may reduce their positivity. According to Gross et al. (2006), suppression has significant physiological and cognitive costs. Individuals using more suppression in the long term function worse in emotional, interpersonal, and well-being spheres. According to Larsen and Prizmic (2004), on the other hand, emotion regulation is about the adjustment to daily life challenges and being healthy. Successful regulation of emotions impacts individuals' reach for a higher-level target to preserve their subjective well-being. According to both theoretical perspectives and the findings of the current study, being unable to functionally regulate negative emotions stemming from perceived stress reduces an individual's positivity. Based on the findings of the current research, adolescents may be considered to be required to functionally regulate their negative emotions stemming from the perceived stress to preserve and sustain their positivity.

Yildiz (2014) emphasized that one of the most important determiners and indicators of psychological health was the quality of emotions that an individu-

al experienced and how she/he regulated emotions in the face of events and situations experienced. When the perceived stress increases, adolescents, approaching the negative experiences and the negative emotions stemming from it repeatedly, namely from a ruminative perspective, may reduce their positivity and risk their psychological health. On the other hand, as the level of perceived stress increases, adolescents, negatively comparing themselves with adolescents better managing stress and having a pessimistic perspective, may reduce their self-esteem and positivity. Also, as the level of perceived stress increases, adolescents may experience difficulties regulating their emotions and they may be self-damaging to avoid a mood based on negative emotions. Koole (2009) stated that a basic function of emotion regulation was to support the satisfaction of an individual's hedonic needs. Thus, adolescents, having difficulties regulating the negative emotions stemming from stress or trying to regulate their emotions through an internally dysfunctional strategy, may reduce their positivity while experiencing pain, with the effects of negative emotions, instead of satisfaction. From a different perspective, John and Gross (2004) emphasized that individuals with a habit of using reappraisal as a functional emotion regulation strategy, instead of a dysfunctional emotion regulation strategy such as suppression, had less depression symptoms, more satisfaction with life, and higher levels of self-esteem and were more optimistic. In other words, they indicated that those individuals' positivity levels may have been high. Hence, significant relationships were found between emotion regulation and subjective well-being in the studies within the relevant literature (Özbay, Palancı, Kandemir, & Çakır, 2012; Yıldız, 2014). In a study conducted by Yıldız (2016), internal dysfunctional emotion regulation, external functional emotion regulation, and internal functional emotion regulation were found to mediate the relationship between loneliness and positivity in adolescents. External dysfunctional emotion regulation, on the other hand, was found not to mediate it. In Duy and Yıldız's (2015) research, internal functional emotion regulation, external dysfunctional emotion regulation, and internal dysfunctional emotion regulation were found to mediate the relationships between irrational beliefs and positivity in adolescents. In Yıldız's (2014) study, in the relationship between attachment to parents and subjective well-being, the mediation effect of internal dysfunctional emotion regulation among emotion regulation strategies and problem solving among coping strategies was found to be statistically significant. Based on a review of studies, in the relevant literature, supporting the findings of the current research, being unable to functionally regulate emotions may be considered to negatively impact individuals' positivity and subjective well-being.

The internal functional emotion regulation strategy involves positive reappraisal, goal shifting, planning, viewing in a perspective, and focusing one's attention; the external dysfunctional emotion regulation strategy involves bullying, verbal assault, physical assault, hitting or breaking things, and trying to make others feel bad; and the external functional emotion regulation strategy involves expressing emotions, seeking advice, building physical relationships, and exercising (Phillips & Power, 2007; Yıldız, 2016). Hence, the strategies of positively reappraising thoughts, distracting, bullying, expressing emotions or seeking advice from others did not mediate between adolescents' perceived stress and their positivity. As adolescents' stress levels increase, they may not use these strategies. In a study, Yıldız (2016) found that the external dysfunctional emotion regulation strategy did not mediate between adolescents' loneliness and their positivity. During adolescence, due to adolescents' experience of emotional ups and downs, they may find it hard to functionally regulate emotions stemming from stress, and this in turn may impact their positivity.

DISCUSSION AND INTERPRETATION ASSOCIATED WITH THE MEDIATION OF COPING

Another finding in the current study was about assistance seeking, problem solving, and behavioral avoidance among coping strategies mediating the relationship between perceived stress and positivity. Thus, as the levels of perceived stress in adolescents increase, they may increase their positivity through seeking and receiving assistance in their social circles. Receiving assistance may increase individuals' perceived social support levels and, hence, their positivity levels as they cope with stress and do not feel lonely. Also, with the increase in stress levels, adolescents may increase their positivity levels upon solving problems. In a study supporting the findings of the current research, Yıldız (2014) found that the mediation of problem solving in the relationship between attachment to parents and subjective well-being was statistically significant. Presumably, problem solving individuals have higher levels of self-esteem and they also approach future possibilities more optimistically; thus, their positivity may increase. Upon solving problems, having less perceived stress may contribute to an individual's positivity. In this context, Bridges (2003) emphasized that individuals constantly coping with stressful situations could navigate better and, thus, as the individual's stress was reduced, his/her perceived efficacy improved. Hence, an adolescent with improved efficacy may be expected to have higher positivity. Also, Aldwin (2007) stated that, upon effectively coping with problems, individuals developed a new sense of confidence

along with a sense of efficacy and could overcome challenging problems. Hence, Greenglass and Fiksenbaum (2009) determined the partial mediation of proactive coping between social support and positive emotions and found positive emotion to be associated with better psychological functionality. Also, positive emotion was found to mediate between proactive coping and depression.

Another finding in the current study was that adolescents with increased levels of perceived stress reduced their positivity by using behavioral avoidance. Adolescents may reduce their positivity by choosing behavioral avoidance strategies such as playing computer games, using a smartphone, smoking, etc., to eliminate negative emotions and thoughts in stressful situations. In addition, their perceived positivity levels may remain low as individuals having difficulty coping with problems through a behavioral avoidance strategy cannot solve their problems and feel incompetent due to internal discomfort. Bridges (2003) stated that adolescents with avoidance behaviors or developed coping strategies of gradual passivity restricted their possibility of developing competencies and experienced feelings of increased anxiety and helplessness in future challenging tasks. In this respect, the positivity of adolescents trying to cope with stress in an avoidance style is expected to be lower. In some studies in the relevant literature supporting the results of the current research, subjective well-being of individuals effectively coping with problems was found to be high and the subjective well-being of individuals having difficulties coping with problems was found to be low and they were problematic (Bordwine & Huebner, 2010; Boysan, 2012; Eryılmaz, 2009; Kraaij et al., 2008; Odacı & Çıkrıkçı, 2012; Özbay et al., 2012; Terzi, 2005; Topal, 2011). Also, Korkut (2007) stated that coping with stress brought about a protective effect in terms of mental health, whereas stress as an experienced problem could be considered a risk factor for mental health. In this context, in order for adolescents to develop positivity, they first of all need to have effective coping strategies.

CONCLUSION AND SUGGESTIONS

In conclusion, internal dysfunctional emotion regulation, assistance seeking, problem solving, and behavioral avoidance were found to mediate the relationships between adolescents' perceived stress and positivity. Thus, preparing individual and group psychological counseling as well as emotion regulation and coping-oriented psycho-educational programs for adolescents to regulate negative emotions and to cope with stress may be important. Also, emotion-centered activities may be conducted in order for adolescents to recognize emotions and to

use functional emotion regulation strategies instead of suppressing emotions or avoiding. Larsen and Prizmic (2004) stated that individuals regulating emotions with strategies such as humor, laughter, and smiling were stronger and such individuals had positive life goals. Psycho-educational activities focused on gaining positive emotion regulation skills may be beneficial for adolescents to reduce stress levels and increase positivity levels. Folkman (1997), on the other hand, stated that, upon distress when not using effective coping strategies or immediately before the distress experienced, namely immediately after the negative solution, individuals could experience spiritual beliefs and positive situations upon using positive reappraisal and a change of goals among meaning-based coping strategies, and consequently could effectively cope with problems through sustainable coping processes. Thus, preparing programs where adolescents with low positivity, using ineffective coping strategies, can develop meaning-based coping strategies may be beneficial. Future researchers may study the same model in terms of gender differences. A similar model may be suggested for research to find out whether it would provide similar results with data collected in different cities and regions. The relationship between adolescents' perceived social support through peer relationships and their positivity may be examined. In addition, the relationships among attachment to parents, parent attitudes and adolescents' perceived stress, positivity, emotion regulation strategies, and coping styles may be studied.

LIMITATIONS

A limitation of the current study was that participating adolescents had no clinical diagnosis of mental health. Thus, the findings can only be generalized to similar adolescents. Also, inclusion of participants from just one city and region may be considered another limitation. Hence, caution is suggested when generalizing the findings of the current study to adolescents in different regions. Nonprobability preferred instead of probability sampling in data collection within the current study can be considered as a limitation in terms of sample representation. On the other hand, when evaluating the research findings, it should be remembered that adolescents' emotional well-being was limited to their perceptions in a particular period as adolescents experience frequent emotional ups and downs.

ENDNOTE

A short summary of this study was presented verbally at 26th International Congress on Educational Sciences, April 20-23, 2017, Antalya, Turkey.

REFERENCES

- Aldwin, C. M. (2007). *Stress, coping, and development: An integrative perspective* (2nd ed.). New York: The Guilford Press.
- Aldwin, C. M., & Yancura, L. A. (2004). Coping. In C. D. Spielberger (Editor-in-Chief.), *Encyclopedia of Applied Psychology* (vol. 1, pp. 507–510). Elsevier Academic Press Inc.
- Alessandri, G., Caprara, G. V., & Tisak, J. (2012). The unique contribution of positive orientation to optimal functioning. *European Psychologist, 17*, 44–54.
- Avey, J. B., Wernsing, T. S., & Mhatre, K. H. (2011). A longitudinal analysis of positive psychological constructs and emotions on stress, anxiety, and well-being. *Journal of Leadership & Organizational Studies, 15*(48051810397368)
- Bordwine, V. C., & Huebner, E. S. (2010). The role of coping in mediating the relationship between positive affect and school satisfaction in adolescents. *Child Indicators Research, 3*, 349–366. doi: 10.1007/s12187-010-9063-5
- Boysan, M. (2012). *Üniversite öğrencilerinde erken dönem uyumsuz şemalar, başa çıkma stilleri ve öznel iyi oluş arasındaki ilişkilere yönelik bir model sınaması* [Testing a model of associations between early maladaptive schemas, coping styles, and subjective well-being in university students]. Yayınlanmamış Doktora Tezi, Eğitim Bilimleri Enstitüsü, Ankara Üniversitesi, Ankara.
- Bridges, L. J. (2003). Coping as an element of developmental well-being. In M. H. Bornstein, L. Davidson, C. L. M. Keyes, & K. A. Moore (eds.), *Well-being: Positive development across the life course* (pp. 155–166). New Jersey: Lawrence Erlbaum Associates, Inc.
- Brodzinsky, D. M., Elias, M. J., Steiger, C., Simon, J., Gill, M., & Hitt, J. C. (1992). Coping Scale for children and youth: Scale development and validation. *Journal of Applied Developmental Psychology, 13*, 195–214. doi: 10.1016/0193-3973(92)90029-H
- Caprara, G. V., Alessandri, G., Eisenberg, N., Kupfer, A., Steca, P., Caprara, M. G., & Abela, J. (2012). The positivity scale. *Psychological Assessment, 24*, 701–712.
- Caprara, G. V., Alessandri, G., Trommsdorff, G., Heikamp, T., Yamaguchi, S., & Suzuki, F. (2011). Positive orientation across three cultures. *Journal of Cross Cultural Psychology, 43*, 77–83.
- Caprara, G. V., Steca, P., Alessandri, G., Abela, J. R., & McWhinnie, C. M. (2010). Positive orientation: Explorations on what is common to life satisfaction, self-esteem, and optimism. *Epidemiologia e Psichiatria Sociale, 19*, 63–71.
- Carpenter, B. N. (1992). Issues and advances in coping research. In B. N. Carpenter (ed.), *Personal coping: theory, research, and application* (pp. 1–13). Westport, CT: Greenwood Publishing Group, Inc.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385–396.
- Cohen, L. M., Manion, L. I., & Morrison, K. (2007). *Research methods in education* (6th ed.). New York: Taylor & Francis.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542–575. doi:10.1037/0033-2909.95.3.542
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist, 55*, 34–43. doi: 10.1037/0003-066X.55.1.34
- Duy, B., & Yıldız, M. A. (2014). Ergenler için duygu düzenleme ölçeğinin Türkçe'ye uyarlanması [Adaptation of the Regulation of Emotions Questionnaire (REQ) for Adolescents]. *Türk Psikolojik Danışma ve Rehberlik Dergisi, 5*, 23–35.
- Duy, B., & Yıldız, M. A. (2015). An examination of the mediating effect of emotion regulation strategies on the relationship between irrational beliefs and positivity in adolescents: A multiple mediation analysis, *8th International and 13th National Congress of Clinical Psychology*, 19 to 22 November, 2015, Granada, Spain. (Poster Papers).
- Duy, B., & Yıldız, M. A. (2015a). Investigation of the psychometric properties of the positivity scale (P Scale) for Turkish adolescents and young adults, *APCCC 2015 Asia Pacific Counseling Conference*, 18–19 June, 2015, Singapur. <https://www.counseling.org/docs/default-source/2015-singapore-conference/op4-baki-duy.pptx?sfvrsn=2>
- Eryılmaz, A. (2009). *Başa çıkma stratejilerinin kişilik özellikleriyle ergen öznel iyi oluş arasındaki aracı rolü* [The mediator role of coping strategies between personality traits and adolescents? subjective well being]. Yayınlanmamış Doktora Tezi, Eğitim Bilimleri Enstitüsü, Ankara Üniversitesi, Ankara.
- Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology, 46*, 839–852. doi: 10.1037/0022-3514.46.4.839
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science and Medicine, 45*, 1207–1221. doi: 10.1016/S0277-9536(97)00040-3
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology, 55*, 745–774. doi: 10.1146/annurev.psych.55.090902.141456
- Greenglass, E. R., & Fiksenbaum, L. (2009). Proactive coping, positive affect, and well-being testing for mediation using path analysis. *European Psychologist, 14*, 29–39. doi: 10.1027/1016-9040.14.1.29
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271–299. doi:10.1037/1089-2680.2.3.271

- Gross, J. J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, 39, 281–291. doi: 10.1017.S0048577201393198
- Gross, J. J. (2008). Emotion regulation. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (eds.), *Handbook of emotions* (3rd ed.) (pp. 497–512). New York: Guilford.
- Gross, J. J., Richards, J. M., & John, O. P. (2006). Emotion regulation in every day life. In D. K. Snyder, J. A. Simpson, & J. H. Hughes (eds.), *Emotion regulation in couples and families: Pathways to dysfunction and health* (pp. 13–35). Washington DC: American Psychological Association.
- Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (ed.), *Handbook of emotion regulation* (pp. 3–24). New York: The Guilford Press.
- Haybron, D. M. (2008). Philosophy and the science of subjective well-being. In M. Eid & R. J. Larsen (eds.), *The science of subjective well-being* (pp. 17–43). New York: The Guilford Press.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling. Retrieved from <http://www.processmacro.org/download.html>
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Hepner, P. P., Wampold, B. E., & Kivlighan, D. M., Jr. (2013). *Psikolojik danışmada araştırma yöntemleri [Research Methods in Counseling]* (D. M. Siyez, Trans.) (1st ed.). Ankara: Mentis Yayıncılık.
- John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72, 1301–1333.
- Koole, S. L. (2009). The psychology of emotion regulation: An integrative review. *Cognition and Emotion*, 23, 4–41. doi: 10.1080/02699930802619031
- Korkut, F. (2007). *Okul temelli önleyici rehberlik ve psikolojik danışma [School-based preventive guidance and counseling]* (2. Baskı). Ankara: Anı Yayıncılık.
- Kraaij, V., van der Veek, S. M., Garnefski, N., Schrevers, M., Witlox, R., & Maes, S. (2008). Coping, goal adjustment, and psychological well-being in HIV-infected men who have sex with men. *AIDS patient care and STDs*, 22, 395–402. doi: 10.1089/apc.2007.0145
- Larsen, R. J., & Prizmic, Z. (2004). Affect regulation. In R. F. Baumeister & K. D. Vohs. (eds.), *Handbook of self-regulation: Research, theory, and applications* (pp. 40–61). New York: The Guilford Press.
- Lauriola, M., & Iani, L. (2016). Personality, positivity and happiness: A mediation analysis using a bifactor model. *Journal of Happiness Studies*, 1–24.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer Publishing Company.
- Odacı, H., & Çıkrıkçı, Ö. (2012). University students' ways of coping with stress, life satisfaction and subjective well-being. *TOJCE: The Online Journal of Counseling and Education*, 1, 118–131.
- Özbay, Y., Palancı, M., Kandemir, M., & Çakır, O. (2012). Üniversite öğrencilerinin, öznel iyi oluşlarının duygusal düzenleme, mizah, sosyal öz yeterlik ve başa çıkma davranışları ile yordanması [Prediction of subjective well-being of university students via self-regulation, humor, social self-efficacy and stress-coping strategies]. *Türk Eğitim Bilimleri Dergisi*, 10, 325–345.
- Phillips, K. F. V., & Power, M. J. (2007). A new self-report measure of emotion regulation in adolescents: The regulation of emotions questionnaire. *Clinical Psychology and Psychotherapy*, 14, 145–156.
- Rottenberg, J., & Gross, J. J. (2003). When emotion goes wrong: Realizing the promise of affective science. *American Psychological Association*, 10, 227–232. doi: 10.1093/clipsy/bpg012
- Santrock, J. W. (2012). *Ergenlik* (14. Baskı). (D. M. Siyez, Çev. ed.). Ankara: Nobel Akademik Yayıncılık.
- Seligman, M. E. P. (2007). *Gerçek mutluluk [Authentic happiness]*. (S. Kunt, Çev. ed.). Ankara: HYB Yayınları.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Shrira, A., Palgi, Y., Wolf, J. J., Haber, Y., Goldray, O., Shacham-Shmueli, E., & Ben-Ezra, M. (2011). The positivity ratio and functioning under stress. *Stress and Health*, 27, 265–271.
- Stone, A. A., Kennedy-Moore, E., Newman, M. G., Greenberg, M., & Neale, J. M. (1992). Conceptual and methodological issues in current coping assessments. In B. N. Carpenter (ed.), *Personal coping: theory, research, and application* (1st ed.) (pp. 15–29). Westport, CT: Greenwood Publishing Group, Inc.
- Terzi, Ş. (2005). *Öznel iyi olmaya ilişkin psikolojik dayanıklılık modeli [Psychological hardness model relating to subjective well being]*. Yayımlanmamış Doktora Tezi, Eğitim Bilimleri Enstitüsü, Gazi Üniversitesi, Ankara.
- Topal, M. (2011). *Üniversite öğrencilerinin stresle başa çıkma stilleri ile pozitif ve negatif duygu arasındaki ilişki [Coping styles with stress of the university students and the relation between positive and negative emotion]*. Yayımlanmamış Yüksek Lisans Tezi, Eğitim Bilimleri Enstitüsü, Selçuk Üniversitesi, Konya.
- Yerlikaya, E. E., & ve İnanç, B. (2007). Algılanan stres ölçeğinin Türkçe çevirisinin psikometrik özellikleri [Psychometric properties of the Turkish translation of the Perceived Stress Scale] *IX. Ulusal Psikolojik Danışma ve Rehberlik Kongresi*, 17–19 Ekim, İzmir.

- Yıldız, M. A. (2014). *Ergenlerde anne-babaya bağlanma ile öznel iyi oluş arasındaki ilişkide duygu düzenleme ve baş etme yöntemlerinin çoklu aracılık rolü [The multiple mediating role of emotion regulation and coping strategies on the relationship between parent attachment and subjective well-being in adolescents]*. Yayımlanmamış doktora tezi, Eğitim Bilimleri Enstitüsü, Mersin Üniversitesi, Mersin.
- Yıldız, M. A. (2016). Multiple mediation of emotion regulation strategies in the relationship between loneliness and positivity in adolescents. *Education and Science*, 186, 217–231. doi: 10.15390/EB.2016.6193
- Yıldız, M. A. (In press). Çocuk ve ergenler için baş etme ölçeğinin Türkçe'ye uyarlanması: Geçerlik ve güvenilirlik çalışmaları [Adaptation of the Coping Scale for Children and Youth to Turkish: Validity and reliability studies]. *Çocuk ve Gençlik Ruh Sağlığı Dergisi*.