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Multiple Mediation of Emotion Regulation Strategies in the Relationship between Loneliness and Positivity in Adolescents \*

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## Abstract

The current study aims to investigate the parallel multiple mediation role of emotion regulation strategies in the relationship between adolescents' loneliness and their positivity. Participants consisted of a total of 300 high school students (F= 146, 48.7%; M= 154, 51.3%) who attended to a high schools in Adıyaman during 2014-2015 academic years. The participating students were 14-19 year-old with a mean age of 15.51 (SD= 1.09). Data were collected through the Short-Form of UCLA Loneliness Scale, Emotion Regulation Scale for Adolescents, Positivity Scale, and the Personal Information Form. Descriptive statistics and Pearson correlation coefficient were used in the analysis of research data. The mediation effect of model tested in the research was examined for statistical significance with an approach based on Ordinary Least Squares Regression and Bootstrap Method. The research findings showed that the mediation role of internalfunctional emotion regulation, internal-dysfunctional emotion regulation, and external-functional emotion regulation in the relationship between adolescents' loneliness and positivity was statistically significant. The mediation role of externaldysfunctional emotion regulation, on the other hand, was not found to be statistically significant. Findings were discussed within the relevant literature, and suggestions for researchers were put forward.

## Keywords

Adolescents Loneliness Emotion regulation Positivity Multiple-mediation

## Article Info

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## Introduction

Positive psychology is about examining the processes and conditions contributing in full functioning or development of people, groups, and institutions (Gable & Haidt, 2005). Positive psychology field on subjective level deals with considerations of subjective experiences such as past well-being, pleasure and satisfaction, hope for future and optimism, and current flow and happiness (Seligman & Csikszentmihalyi, 2000). A recently developed concept within positive psychology is positivity. The concept of positivity was included within the relevant literature initially as positive thinking (Caprara & Steca, 2005; Caprara, Steca, Gerbino, Paciello, & Vecchio, 2006), later as positive orientation (Alessandri, Caprara, & Tisak, 2012; Caprara, Steca, Alessandri, Abela, and McWhinnie,

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2010) or positivity (Caprara et al., 2012). According to Caprara et al. (2009), certain personal characteristics such as self-esteem, life satisfaction, and optimism are elements of positive mental health and well-being. These characteristics in individuals are found to be inter-associated. According to some researchers (Alessandri et al., 2012; Caprara & Steca, 2005; Caprara et al., 2010, 2011), positive thinking, positive orientation or positivity correspond to the latent dimension underlying life satisfaction, self-esteem, and optimism influenced by individuals' cognition, emotions, and actions. Positivity refers to the individual's positive orientation towards or positive consideration of self, future, and past experiences. Based on this definition by the researchers, it may be said that individual's self-considerations of future reflect his/her optimism. In a study, Caprara et al. (2012) found significant relations between positivity and self-esteem, life satisfaction, optimism, positive and negative affects, depression, and five-factor personal construct. In Froh, Yurkewicz, and Kashdan's (2009) research, positive significant relationships were found among positive feeling, life satisfaction, optimism, social support, and positive social behaviors.

One of the variables that could be associated with individuals' positivity is loneliness. Loneliness can often be described as a situation that distresses an individual. Asher and Paquette (2003) define loneliness as the cognitive awareness of deficiency following reactions to sadness, longing or emotional emptiness in an individual's social and personal relationships. Perlman and Peplau (1984, 1998), on the other hand, define loneliness as the subjective psychological distress experienced when there is considerable inadequacy in the quality and quantity of an individual's social network. Loneliness, as a distressing and unpleasant experience, may threaten an individual's mental health when it is long-term and intense. According to Sonderby and Wagoner (2013), loneliness is associated with anxiety, depression, suicide, and weak self-regulation behaviors. In addition, loneliness is a phenomenon associated with feelings of sadness, boredom, depression, fear, longing, and meaninglessness. According to Margalit (2010), childhood loneliness creates a bitter experience influencing individual's current life quality as well as forming a risk for individual's future well-being. In several studies within the relevant literature, negative relationships were found between loneliness and life satisfaction and subjective well-being as basic concepts positive psychology (Ben-Zur, 2012; Bugay, 2007; Çivitci, Çivitci, & Fiyakalı, 2009; Goodwin, Cook, & Yung, 2001; Kapıkıran, 2013; Kapıkıran & Yağcı, 2012; Mellor, Stokes, Firth, Hayash, & Cummins, 2008; Salimi, 2011; Shaheen, Jahan, & Shaheen, 2014; Schumaker, Shea, Monfries, & Groth-Marnat, 1993; Tuzgöl Dost, 2007; Yıldız, 2013, 2016; Yıldız & Duy, 2014; Yılmaz & Altınok, 2009 ). Negative relationships were found between loneliness and self-esteem in some studies (Baran, Baran, & Maskan, 2015; Erözkan, 2009; Güloğlu & Karaırmak, 2010; Shaheen et al., 2014). In addition, negative relationships were also reported between loneliness and optimism in numerous studies (Ben-Zur, 2012; Davis, Hanson, Edson, & Ziegler, 1992; Davis, Miller, Johnson, McAuley, & Dinges, 1992). Thus, it may be said that lonely individuals are with low self-esteem, pessimistic, unhappy, and unsatisfied with life; in other words, they have low positivity.

Loneliness reduces individuals' optimism levels, while escalating their pessimism, and thus, leading to negative feelings such as depression and overall unhappiness (Ben-Zur, 2015). Considering that loneliness is an unpleasant and distressing phenomenon influencing self-esteem, life satisfaction, and optimism, people need to regulate and manage emotions in order to keep and sustain their positivity. According to Margalit (2010), emotions are thought to have significant effects on social functions. There is an increasing interest towards the role of emotion regulation in individuals' development and adjustment. Individual differences in emotion regulation can be regarded within the risk factors and protective personal factors. In short, emotions provide the required base for understanding emotion regulation. According to Macklem (2008), emotions may contain positive as well as negative effects. In that sense, theoretical explanations and studies within the relevant literature posit that loneliness is related to negative effects. According to Gross (2008), on the other

hand, individuals may be highly motivated to regulate their feelings when emotions are unhealthy, come up at the wrong time, and experienced at an inappropriate level of intensity. As such, emotion regulation refers to the processes that influence one's emotions, the times one has these emotions, and how she/he experiences them and how she or he expresses them. Emotion regulation also consists of effective efforts that people put in to manage their emotional situations. In a broader sense, emotion regulation consists of management of all situations associated with emotions including moods, stress, and positive and negative affects (Gross, 1998, 2008; Rottenberg & Gross, 2003). According to Macklem (2008), it is about the actions that we express in order to reduce, increase, sustain, and manage a certain emotion. Basic goal of emotion regulation is to adequately change natural emotional reaction (Gross, 2002). A successful emotion regulation is the prior condition for the functionality of individual's adjustment (Gross, Richards, & John, 2006). Emotion regulation is also the main component of a good mental health. However, not having the ability to regulate emotions is often a sign of mental health problems (Howe, 2005). Thus, individuals need to regulate the negative emotions stemming from loneliness in order to protect their well-beings. In some studies, on the other hand, individuals experiencing high levels of loneliness were found to be unable to regulate emotions or to have difficulty in regulating emotions (Hawkley, Thisted, & Cacioppo, 2009; Southward et al., 2014).

Emotion regulation is associated with adapting to the difficulties of daily life and being healthy. Successful emotion regulation helps people to reach to a high-level goal in order to preserve their subjective well-being. The two components of emotional well-being are positive affect and negative affect. Regulating emotion involves increasing the positive affect and reducing the negative affect. Consequently, people may influence their subjective well-being by regulating positive and negative emotions (Larsen & Prizmic, 2004). According to Larsen and Prizmic (2008), two ways of increasing emotional well-being are available. The first is about individuals' going after hedonistic things to be able to increase their emotional well-being, and the second involves regulating and minimizing their negative emotions to be able to increase their emotional well-being. Thus, both ways have the same impact on subjective well-being. According to Koole (2009), on the other hand, psychologists traditionally assume that people's efforts to regulate emotions serve hedonistic needs to increase pleasure and inhibit pain. They listed the functions of emotion regulation as supporting target efforts, maintaining overall personality system, and satisfying hedonistic. According to Yıldız (2014), one of the basic functions of emotion regulation is to promote an individual's subjective wellbeing. On this perspective, it may be assumed that emotion regulation may have significant relationships with individuals' positivity. Repo (2011) found significant level relationships between emotion regulation strategies that individuals use and their subjective well-being. Lecce (2008), on the other hand, found that emotional processes and emotion regulation are significant predictors of subjective well-being. Schraub, Turgut, Clavairoly, and Sonntag (2013) in their study, also, found that reappraisal as a healthy and functional strategy of emotion regulation positively influenced individual's emotional well-being, and served as a protection against the effects of emotional stress. In another study, Cheung, Gardner, and Anderson (2014) found significant-level relationships between loneliness, emotion regulation, and well-being.

Adolescence is known as a period of fast and continuous change when the young individual heads towards adulthood (Temel & Aksoy, 2001) in terms of social, emotional, and cognitive development. Beginning with the puberty, intensity of emotions in adolescents increases. This intensity is noticed when adolescents express their emotions such as sadness, joy, anger, and fear. Adolescents' emotional reactions are not regular and the change in their moods is fast-paced; and they are not stable in their emotions (Kulaksızoğlu, 2001). According to Yıldız (2014), one of the most important identifiers and indicators of mental health is the quality of an individual's emotions and how s/he regulates emotions in relation to experiences and situations. Macklem (2008), on the other hand, emphasized that childhood and adolescence tasks require successful emotion regulation and the

ability to regulate emotions becomes physical and mental health. Verzeletti, Zammuner, Galli, and Agnoli (2016) found positive relationships between cognitive reappraisal as a functional emotion regulation strategy and positive emotions, life satisfaction, and psychological health in adolescents. In addition, negative relationships between suppression as a dysfunctional emotion regulation and psychological health, life satisfaction, and positive emotions as well as positive relationships between suppression and emotional loneliness and negative emotions were determined. Chin and Rickard (2013) found significant-level relationships between emotion regulation and well-being, in their research. In a study conducted by Yıldız (2014) with high school adolescents, it was determined that emotion regulation strategy used significantly predicted adolescents' subjective well-being. In another study, Duy and Yıldız (2013) found positively significant relationships between adolescents' internal dysfunctional emotion regulation and depressive symptoms and psychosomatic symptoms. As seen in the studies in relevant literature, being able to regulate emotions during adolescence is closely associated with various indicators of mental health. Within this perspective, it may be assumed that strategies of emotion regulation may serve a significant function of mediation to influence the relationship between individuals' loneliness and positivity as an indicator of their well-being. In addition, testing whether adolescents' emotion regulation strategies mediate the relationship between their loneliness and positivity may provide important data in relation to protective and preventive mental health services as well as intervention studies for adolescents provided by experts such as psychological counselor, psychologist, and psychiatrist who work with adolescents. Thus, in the current research, parallel multiple-mediation of emotion regulation strategies in the relationship between adolescents' loneliness and their positivity was tested.

#### Method

#### **Research Design**

The current study is a correlational study. According to Heppner, Wampold, and Kivlighan (2013), correlational designs are used to investigate the relationships between two or more variables. Causal relationships among loneliness (predicting variable), strategies of emotion regulation (mediating variables), and positivity (outcome variable) as research variables were investigated through parallel multiple mediation method.

#### **Participants**

The participants of the study consisted of 300 high school students with 146 females (48.7%), and 154 males (51.3%) attending to three high schools in Adıyaman namely Altınşehir Anatolian High School, Adıyaman Science High School, and Adıyaman Central Anatolian High School during 2014-2015 academic year. Age range of the participants varied between 14 and 19-year old with mean age of 15.51 (Sd=1.09). Convenient sampling method was used to determine the participants.

#### Data Collection Tools

**UCLA Loneliness Scale – Short-Form (ULS-8):** The ULS-8 developed by Hays and DiMatteo (1987), in order to determine individuals' loneliness levels, was adapted into Turkish language by Yıldız and Duy (2014). Factor analysis results in the adaptation study showed that the scale had a unidimensional structure as is in the original study. Item loadings varied between .31 and .71. Confirmatory factor analysis of ULS-8 yielded acceptable good fit values. According to criterion validity study carried out with 80 students, statistically significant relationships were found between loneliness and overall belongingness (*r*=.71) and life satisfaction (*r*=.42). Cronbach's Alpha consistency coefficient for ULS-8 was found as  $\alpha$ = .74. Test-retest reliability of ULS-8 performed within two weeks interval with 64 students had a high correlation *r*=.84. ULS-8, scored as a 4-point Likert type scale (1=Never; 2=Rarely; 3=Sometimes; 4=Always), included total seven items. Scores that can be obtained on the scale ranged from 7 to 28. Increase in the scores obtained on the scale meant increase in individuals' loneliness levels. In the current study, the Cronbach's alpha internal consistency coefficient of the scale was found to be  $\alpha$ = .72.

Emotion Regulation Scale for Adolescents (REQ): Adaptation studies into Turkish for the scale, developed by Philips and Power (2007), were conducted by Duy and Yıldız (2014). The scale consists of 17 items and is scored over a 5-point Likert (1= Never, 5=Always) scale. REQ factor load values were found to be between .53 and .77 in the exploratory factor analysis conducted for the construct validity of the scale. Four dimensions of the scale overall explained 51.48% of the total variance. The fit indices obtained on the confirmatory factor analysis, on the other hand, were as follows: RMSEA= .06, RMR= .09, SRMR= .06, GFI= .94, AGFI= .92, CFI= .93, NFI= .91, and NNFI= .92. In REQ theoretical substructure, emotion regulation strategies such as self-mutilation, rumination, suppression, negative social comparison, and derealization on the internal dysfunctional emotion regulation dimension (for instance: "I keep the feeling locked up inside"); positive reappraisal, replacing goals, planning, fitting in the perspective, and focusing within internal functional emotion regulation (for instance: "I review (re-think) my thoughts or beliefs"); bullying, verbal attacking, physical attacking, hitting or breaking things, and trying to make others feel bad within external dysfunctional emotion regulation (for instance: "I bully other people (e.g. saying nasty things to them, hitting them)"; expressing emotions, seeking advice, establishing physical relationship, and exercising within external functional emotion regulation (for instance: "I ask others for advice") were determined. The scale aiming to measure adolescent strategies of emotion regulation has four subscales, named as 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 from a sub-scale indicates how often the relevant emotion regulation strategy is being used. Higher scores mean more frequent use of a strategy. Testretest reliability analyses yielded high correlation. In the current research, internal consistency coefficients associated with REQ subdimensions were found as follows: internal-functional emotion regulation ( $\alpha$ = .71), external-functional emotion regulation ( $\alpha$ = .62), internal-dysfunctional emotion regulation ( $\alpha$ = .70), and external-dysfunctional emotion regulation ( $\alpha$ = .71).

**Positivity Scale (PS):** Positivity Scale was developed by Caprara et al. (2012). Duy and Yıldız (2015) conducted the study for adaptation of scale into Turkish language. PS consists of 8 items on a single dimension. The adaptation study ensured the measurement equivalence for PS among adolescents and young adults. Analyses of criterion validity showed significant level of relationships among positivity and optimism sub-dimensions (r=.43, r=.63), optimism total score (r=.48, r=.68), positive affects (r=.55, r=.55), negative affects (r=.47, r=.40), life satisfaction (r=.60, r=.73), and selfesteem (r=.62, r=.54). Cronbach's alpha internal consistency coefficient was found as  $\alpha$ = .81 in both groups. In the current research, Cronbach's alpha internal consistency coefficient of the scale was found as  $\alpha$ = .75.

*Personal Information Form:* PIF was prepared by the researcher to define students' ages, genders, and grade levels.

#### Procedure

Data collection tools were distributed to the adolescents volunteering to participate in the study. Participants' responses took about 15-20 minutes. In the current research, data analysis was based on descriptive statistics and Pearson correlation coefficient. Statistical significance of the mediating effects of the model tested in the current research was examined by Ordinary Least Squares Regression Method and Bootstrap Method through the software developed by Hayes (2012, 2013). Bootstrap analyses were conducted through PROCESS Macro and "Multiple Mediation Model 4" for parallel multiple mediation. Statistical significance of the mediating variable was examined on 5000 Bootstrap samples. Significance level was set as .05. Research data analysis was conducted through IBM SPSS 22.0 software.

### Findings

Pearson correlation analysis was conducted to define the relationships among the research variables. Table 1 includes the descriptive statistics obtained based on research variables as loneliness, strategies of emotion regulation, and positivity and the correlations among the variables.

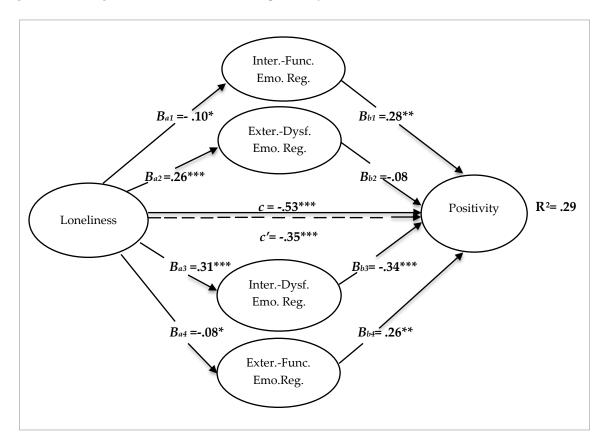
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Variables	Mean	SD	1	2	3	4	5	6
1. Loneliness	14.61	4.42						
2. Internal-Functional Emo. Reg.	14.87	3.22	14*					
3. External-Dysfunct. Emo. Reg.	11.95	3.72	.31**	19**				
4. Internal-Dysfunct. Emo. Reg.	14.75	3.76	.37**	04	.34**			
5. External-Functional Emo.Reg.	12.27	2.99	12*	23**	.06	01		
6. Positivity	27.35	5.49	43**	.25**	24**	37**	.21**	

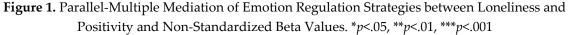
Table 1. Descriptive Statistics and Pearson Correlation Coefficient Values Regarding Study Variables

N=300, \*p<.05, \*\*p<.01

A review of values included in Table 1 showed negatively significant relationships between loneliness and internal-functional emotion regulation and external-functional emotion regulation and positivity. Positively significant relationships among loneliness, internal-dysfunctional, and externaldysfunctional emotion regulation were found. In addition, significant relationships were found between strategies of emotion regulation and positivity.

Figure 1 includes the test results associated with parallel multiple mediation of emotion regulation strategies between loneliness and positivity.





As can be seen in Figure 1, total effect (c = -.53, SE= .06, t= -8.14, p<.001) of loneliness on positivity is on a significant level (Step 1). In addition, direct effects of loneliness on internal-functional emotion regulation (B= -.10, SE= .04, t= -2.38, p<.05), external-dysfunctional emotion regulation (B= .26, SE= .05, t= 5.57, p<.001), internal-dysfunctional emotion regulation (B=.31, SE= .05, t=6.83, p<.001), and external-functional emotion regulation (B= -.08, SE= .04, t= -2.08, p<.05) as mediating variables, are on a significant level (Step 2). When the direct effects of mediating variables on positivity are examined, the effects of internal-functional emotion regulation (B= -.28, SE= .09, t= 3.16, p<.01), internal-dysfunctional emotion regulation (B= -.34, SE= .08, t= -4.29, p<.001), and external-functional emotion regulation (B= .26, SE= .09, t= 2.83, p<.01) were found to be significant. On the other hand, the effect of externaldysfunctional emotion regulation (B= -.08, SE= .08, t= -.98, p>.05) on positivity was not found on significant levels (Step 3). When loneliness and all mediating variables were entered in the equation simultaneously (Step 4), in relation to direct effect, the relationship between loneliness and positivity decreased and significance values was found on the same level (c'= -.35, SE= .07, t= -5.20, p<.001). Based on this result, three of the mediating variables were found to mediate between loneliness and positivity. In addition, it is observed that the overall model is on a significant level ( $F_{(5-294)} = 24.29$ , p<.001) and it explains 29% of the total variance on positivity.

Table 2 includes the comparison between indirect effects of adolescent loneliness on positivity through strategies of emotion regulation and its specific indirect effects.

		Product of Coefficients			Bootstrapping	
					95% BCa Confidence Interval	
Effects	Point Estimate	SE	Z	р	Lower	Upper
Total Indirect Effects	1771	.0408			2692	1049
Internal-Functional Emo. Reg.	0277	.0159	-1.8426	.0654	0704	0053
External-Dysfunct. Emo. Reg.	0205	.0238	9518	.3412	0750	.0204
Internal-Dysfunct. Emo. Reg.	1074	.0306	-3.6064	.0003	1765	0562
External-Functional Emo. Reg.	0215	.0135	-1.6116	.1071	0594	0026
Contrasts						
C2	.0797	.0344			.0163	.1532
C4	.0869	.0407			.0101	.1707
C6	0859	.0330			1581	0285

**Table 2.** The Comparison of Indirect Effects of Adolescent Loneliness on Positivity Through Strategies of Emotion Regulation and its Specific Indirect Effects

N= 300, k= 5000, \*p<.05, \*\*p<.01, \*\*\*p<.001, Control Variables = Gender, Age, Grade, Income Level, BCa: Bias Corrected and Accelerated 5000 bootstrap samples

Statistical significance of indirect effects within the tested model was examined on 5000 bootstrap samples. Estimations were tested within the 95% confidence interval and bias corrected and accelerated results are included in Table 2. As seen in Table 2, indirect total effect of loneliness, through the strategies of emotion regulation (namely, the difference between the total and direct effect /c-c') is statistically significant (point estimation= -.1771 and 95% BCa CI [-.2692, -.1049]). When the four mediating variables were separately considered in relation to mediation for indirect effects of loneliness on positivity within the tested model, the mediations of internal-functional emotion regulation (point estimate= -.0277 and 95% BCa CI [-.0704, -.0053]), internal-dysfunctional emotion regulation (point estimate= -.0215 and 95% BCa CI [-.0594, -.0026]) were found statistically significant. On the other hand, the mediation of external-dysfunctional emotion regulation (point estimate= -.0205) was not found statistically significant. Paired comparisons were conducted in order to define the powers of mediating variables. Statistically significant three

comparisons with point estimates outside the zero interval, based on 95% confidence interval, were included in Table 2. Based on the paired comparisons of certain indirect effects, internal-dysfunctional emotion regulation was found to be a more powerful mediator than internal-functional emotion regulation (C2), external-dysfunctional emotion regulation (C4), and external-functional emotion regulation (C6). However, other paired comparisons were not found as statistically significant.

#### **Discussion, Conclusion and Suggestions**

The current study aimed to investigate whether adolescent strategies of emotion regulation mediated in the relationship between adolescent loneliness and positivity. Research results showed that the mediations of internal-functional emotion regulation, internal-dysfunctional emotion regulation, and external-functional emotion regulation were statistically significant. However, external-dysfunctional emotion regulation was not found to be statistically significant. According to paired comparisons conducted to define which mediating variable mediated more strongly, internal-dysfunctional emotion regulation was a more powerful mediator than internal-functional emotion regulation, external-dysfunctional emotion regulation, and external-functional emotion regulation.

Research findings indicated that as individuals' loneliness levels increased, they were not able to internally and functionally regulate their emotions and, thus, their positivity levels decreased. Considering loneliness is a more internally experienced emotion, it may be said that loneliness may be influencing adolescent positivity in relation to internal-dysfunctional emotion regulation. In a supportive perspective according to De Castella et al. (2013), individual's beliefs about his/her emotions influence individual's strategies of emotion regulation and, consequently, individual's mental health is considerably affected. Based on this, it may be stated that adolescents, due to negative emotions based on loneliness feelings, may be unable to functionally regulate their emotions and may, thus, be decreasing their positivity. According to Margalit (2010), individuals that experience loneliness and are socially incompetent do not much have the opportunity to attain strategies of emotion regulation to help prevent their age-specific negative emotions. Hence, lonely individuals, in some studies, were found to have difficulties regulating their emotions (Hawkley et al., 2009; Southward et al., 2014). In addition, in some studies supporting the findings of current research, within the relevant literature, significant level relationships between emotion regulation and wellbeing were found. In a study conducted by Özbay, Palancı, Kandemir, and Çakır (2012), a significant level relationship between emotion regulation and subjective well-being was found. In addition, in many studies (Aka, 2011; Alink, Cicchetti, Kim, & Rogosch, 2009; Ataman, 2011; Bilim, 2012; Cipriano, 2010; Duy & Yıldız, 2013; Manning, 2010; Morris, 2000; Rugancı, 2008; Warfield, 2012; Yıldız, 2014), significant level relationships were found between the use of strategies of emotion regulation and emotion regulation difficulties and psychological problems. Thus, well regulation of emotions contributed in individuals' level of well-being. On the other hand, not being able to regulate emotions is associated with psychopathology or low level of well-being.

Loneliness is a distressing, negative emotional experience (Margalit, 2010). Loneliness is, also, an internal emotion powerfully influenced by the characteristics of an individual's social life (Asher & Paquette, 2003). So, due to loneliness as an internal process, individuals may be decreasing their positivity by using strategies of internal dysfunctional emotion regulation such as rumination, suppression, and inhibition. In Zawadzki's (2015) study, a negative relationship was found between the use of strategies of internal dysfunctional emotion regulation, such as rumination and suppression, and self-esteem and optimism. According to Gross (2002), excessive use of suppression that means an effort to reduce the ongoing emotion-based behavior may be preventing individuals from using function on positive levels and negatively influence their positivity; or lonely individuals, focused on their mental status, namely negative feelings based on loneliness, may be inadequately using the functional emotion regulation strategies such as distraction as stated by Gross (2002, 2008). As importantly stated in Gross and Thompson (2007), when using distraction, an individual inspires inconsistent thoughts or memories through undesired emotional situations. Presumably, individuals with high levels of loneliness may be unable to distract their loneliness by using techniques such as

visualization and imagination; or they may be unable to disengage their moods because they imagine more negative situations and, thus, decrease their positivity.

Basically, there are two types of emotion regulation. Cognitive reappraisal as the healthful and functional type among these, involves the change of thinking ways about a potential situation leading to the emotion in order to influence the situational emotional effect; dysfunctional suppression, on the other hand, is defined as the reduction of emotion-based behavior or the prevention of ongoing emotion-based behavior in the case of individual's emotional situation (Gross, 2002; Gross et al., 2006; John & Gross, 2004). Presumably, individuals with high levels of loneliness have difficulties cognitively reappraising the negative emotions stemming from the situation of loneliness; they mostly try to prevent or suppress their feelings of loneliness and, thus, decrease their positivity. Margalit (2010) emphasized that loneliness, just as anxiety, fear, and depression is an unpleasant and distressful experience and, just as depression does, loneliness leads the individual to passively cope and have difficulties regulating himself/herself. Based on the above-said, individuals experiencing loneliness may be avoiding to face these negative emotions distressing them and, without functionally regulating their emotions or having difficulties regulating emotions, suppressing their emotions and decreasing their positivity. That is because suppression is an internal-dysfunctional strategy of emotion regulation. Expressly, frequent use of suppression, along with unpleasant feelings due to loneliness, may be decreasing adolescent positivity levels.

Suppression significantly costs physiologically and cognitively. In the long term, individuals using more suppression have exhibited worse functionality on emotional, interpersonal, and wellbeing areas (Gross et al., 2006). Individuals who frequently use an internal-dysfunctional strategy of emotion regulation may be expected to have weaker relationships and further decrease their positivity along with experiences of loneliness. In addition, individuals with high levels of loneliness may experience an increase in dysfunctional thoughts and that may influence individual's emotion regulation and positivity negatively. According to Lin (1986), close social relationships are highly associated with individuals' well-being. Networks of social relationships are strongly effective on individual's well-being as they lead to the feeling of belongingness in a community. In this perspective, developing individuals' social networks may positively influence their well-being.

Gross et al. (2006) investigated the relationships between reappraisal and suppression and emotions, social support, depression, life satisfaction, and well-being in their research. Research findings indicated that daily use of reappraisal was found more related to the experience of positive emotions and less related to negative emotions. In terms of maladaptive symptoms, depressive symptoms of the individuals, used to use reappraisal, were found on lower levels and such individuals were found to have high levels of life satisfaction and optimism. De Castella et al. (2013) found a positive relationship between the strategy of reappraisal and self-esteem and life satisfaction; and a negative relationship between the strategy of reappraisal and depression and stress. The research findings obtained in John and Gross' (2004) study indicated a positive relationship between the strategy of reappraisal and positive emotions and the expression of positive emotions but a weaker relationship between negative emotions and reappraisal. Consequently, individuals who use suppression strategy more frequently have been found to experience more negative emotions. Based on the research findings, it may be assumed that individuals with high levels of loneliness rarely refer to functional strategies of emotion regulation such as reappraisal; they are unable to regulate their emotions; and, thus, they do not have a positive inclination towards their own personality, future, and life satisfaction as components of positivity.

According to John and Gross (2004), frequent use of reappraisal by the individual must promote psychological well-being. Hence, one of the most important reappraisal effects is to reduce the negative emotions stemming from distress. Reappraisal must have a protecting effect against the depressive symptoms due to negative reactions to distress and loss. In addition, individuals who reappraisal their emotions in the light of the relationship between positive emotional and social consequences and reappraisal must have high levels of self-esteem and life satisfaction. As can be predicted, individuals who are accustomed to use reappraisal have been found to have less depression symptoms and higher self-esteem and to be more satisfied with their lives.

Consequently, according to John and Gross (2004), findings within particularly the reviewed literature indicate that reappraisal leads to healthier consequences than suppression does. Particularly through maturity and life experiences, individuals may increase their learning more with the use of healthy emotion regulation strategies (such as reappraisal) and use unhealthy strategies of emotion regulation (such as suppression) less (Gross et al., 2006). Thus, individuals may increase their positivity and be happier. As can be seen within the theoretical explanations, in order to protect and improve adolescent mental health and well-being, development and practice of programs to teach healthy and functional strategies of emotion regulation to adolescents at schools may be suggested. In addition, based on the current research results, training on recognizing emotions, developing awareness of emotions, correctly expressing emotions, and regulating negative emotions, by psychological counselors employed at schools may be suggested.

The current research showed that particularly the internal-dysfunctional emotion regulation is a strong mediating variable in the relationship between adolescent loneliness and positivity. At schools, adolescents who frequently use the dysfunctional strategies of emotion regulation such as suppression may be defined; and individuals and group psychological counseling for these adolescents may be conducted by psychological counselors. Activities about functionally regulating emotions may be included in the middle-school guidance courses by the Ministry of Education. In future studies, a model similar to the model used in the current study may be tested for whether similar results would be obtained in a multi-group structural equation model. The mediation of variables such as coping and self-efficacy in relationships between loneliness and positivity may be investigated. The effects of family factors such as attachment to parents, parents-and-child relationships, parents' attitudes and behaviors that are thought to lead adolescents to use dysfunctional strategies of emotion regulation may be investigated in future cross-sectional or longitudinal studies. In addition, considering the importance of peer relations in such a period as adolescence, the effects of variables such as peer socialization, belongingness, and perceived social support that could be associated with adolescent loneliness, emotion regulation, and positivity may be investigated. In the current research, loneliness was found to reduce positivity particularly through dysfunctional emotion regulation strategies. In further studies also, the mediation of dysfunctional emotion regulation strategies in the relationships between loneliness and depression and suicidal tendency may be investigated.

Determining and comparing the mediation effects of multiple variables in the relationship between predicting and outcome variables through a multiple mediation model may be stated as the strength in the current study. As in all other studies, the current research has some limitations. As it was not known whether the research participants were clinically diagnosed, thus, all participants were assumed to respond in the instruments in a mentally healthy status; this situation may be considered as a limitation in the current research. Another limitation, on the other hand, is about the participants being selected within the same city. Thus, attention is required generalizing the study findings over the same-age groups. Investigation of whether the same model would yield similar results on adolescents from other cities or regions with more cultural variety may be recommended for future studies.

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