



## The adolescents' psychological pain model based on emotion (positive and negative) factor with the mediating role of emotion regulation for daily activities

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### ABSTRACT

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**Background and Aim:** The present research performed to develop a conceptual model of adolescents' psychological pain based on emotion (positive and negative) factor with the mediating role of emotion regulation for daily activities. **Methods:** The research method was the structural equations modeling. The statistical society of research included 14-18 years old girls and boys of Tehran city which among them 284 individuals selected as research sample by cluster random sampling method. Due to spread of Covid-19 pandemic, the research data collected by electronic questionnaires in social networks. To data collecting, PANAS (positive and negative affective scale) (Watson, Clark & Talgen, 1988), Orbach and Mikulincer's "mental pain" questionnaire (Orbach et al, 2003) and Garnefski's "cognitive emotion regulation" questionnaire (Garnefski et al, 2001) were used and the structural equations method used to data analysis. **Results:** The findings showed that indirect effect of positive emotions in psychological pain is equal to -0.20 that by given to  $t=-3.65$ , it was significant at 0.05 level. The indirect effect of negative emotions on psychological pain is equal to 0.26 that by given to  $t=4.81$ , it was significant at 0.07 level. These indirect effects are taking place via mediation of emotion regulation strategies. Thus, the positive and negative emotions have an indirect effect on adolescents' psychological pain by mediating of emotions regulation strategies. Also, by given to  $RMSEA=0.070$ , it can conclude that the final conceptual model has a good fit. **Conclusion:** It can be concluded that the psychological pain of adolescents can be explained based on positive and negative emotions and through the mediation of emotion regulation for daily activities.



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## Introduction

The adolescence period is considered a crucial phase for physiological, emotional, and psychological growth and development in an individual's life (Kazemi, 2016). It is a time characterized by significant physical, psychological, and social changes, accompanied by intense emotions (Maleki Majd, 2016). The sudden and extensive changes occurring in all aspects of adolescent life create a critical stage that naturally brings about various problems and maladjustments (Kazemi, 2016). Adolescents experience more day-to-day troubles and negative emotions, and fewer positive emotions compared to their childhood (Larson & Ham, 1993) and also experience greater fluctuations in emotions (Silk, Steinberg & Morris, 1869; Masiejovsky, Van Lier, Branje, et al., 2015). Many of the challenges faced by adolescents, including increased conflicts with parents, finding peer groups, changes in relationships, unexpected psychological disorders, etc., are emotion-dependent (Allen & Sheeber, 2009). Emotions and affect play a significant role in human behavior and life. Studies on affective structure consistently identify two dominant dimensions known as positive and negative affect (Maleki Majd, 2016). Positive affect is characterized by joy, openness, exhilaration, excessive happiness, calm and comfort, satisfaction, vitality, and enthusiasm, while negative affect is associated with sadness, worry, anxiety, restlessness, despair, excessive energy expenditure for tasks, and feelings of worthlessness (Mohammadi & Alibeygi, 2019). Negative affect is associated with unpleasant states leading to moods such as anger, sorrow, disgust, humiliation, guilt, fear, and irritation, while positive affect is a state of active energy, high concentration, and engaging in pleasurable activities, including moods like joy and interest (Watson, Clark & Carey, 1988). Adolescents use various emotions in their daily activities and in response to different events. Utilizing positive emotions can sustain and stabilize emotions and reduce the negative emotions that occur in different situations. Positive emotions, apart from neutralizing the effects of negative emotions, have benefits such as increasing life hope and psychological well-being (Taghipour, Gholami, Ranjbar, et al., 2019). In dealing with stressful events, emotions are not always beneficial on their own and often need to be

regulated and managed. Emotional regulation is a process that leads to changes in the type, intensity, duration, and expression of feelings, fostering an optimal level of interaction with the environment, important in initiating and maintaining adaptive behavior, reducing stress, experiencing negative emotions, and maladaptive behavior (Graber & Kaslow, 2014). Cognitive regulation of emotion refers to the cognitive management and manipulation of emotion-eliciting information (Sharifi Bastan, Monavvar, & Zahraie, 2016). Individuals use different emotion regulation strategies to modify or adjust their emotional experiences when faced with stressful events (Troy, 2012). Garnefski and Kraaij (2006) identified nine different cognitive emotion regulation strategies: self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, perspective taking, catastrophizing, and blaming others (Garnefski & Kraaij, 2019). Emotional regulation strategies can influence psychological well-being by affecting the control, moderation, management, and regulation of emotions in stressful situations. Cognitive regulation of emotion is positively associated with the psychological, emotional, social, and educational health of adolescents (Saxena, Dubey & Pandey, 2011). Emotion regulation is a critical factor in determining mental health and psychological well-being, and successful functioning in social interactions (Jafari, Ghazanfarian, Aliakbari, Kamarzarin, 2017), and disturbances and dysregulation in emotions, due to their inherent importance in everyday life, will have pathological consequences (Aldao, Nolen-Hoeksema, & Goldin, 2014). Difficulty in emotion regulation is a key factor in psychopathology. Garnefski and Kraaij (2006) believe that any defect in emotion regulation can make an individual vulnerable to psychological problems. If adolescents are unable to effectively manage their emotions in the face of everyday events or experience prolonged periods of distress, they may exhibit emotional disorders. One of these psychological and emotional disorders is psychological pain or mental distress. According to Cassell (1982), mental pain can be defined as a state of severe distress related to events that threaten the completeness and health of the person and occurs when imminent destruction is perceived. "Suffering is experienced by individuals and stems from challenges that threaten a person's well-being as

a complex psychological and social being. Suffering alienates the sufferer from themselves and society and may create a 'crisis of meaning' and loss of hope" (Cressley, 2010). Schneiderman (1999) was the first to use the term psychological pain to describe unbearable mental pain. He believed that mental pain is caused by the frustration or fruitlessness of an individual's basic needs (for example, being loved, having control, supporting one's self-image, avoiding shame and embarrassment, feeling safe, or being understood) in which the person is dissatisfied and cannot continue to live. Frustration in satisfying these needs leads to a combination of negative feelings such as guilt, shame, failure, humiliation, disrespect, sorrow, despair, and anger. Schneiderman (1999) emphasizes that various negative emotions can become generalized to the experience of unbearable mental pain (a state of emotional disorder). Orbach, Mikulincer, Sirota, et al. (2003) also describe mental pain as a broad range of mental experiences characterized as perceptions of negative changes in oneself and its functioning, associated with severe negative feelings. According to their model, mental pain is a mental experience distinct from other negative states and emotions such as depression and anxiety. Orbach et al. (2003), in a study aiming at mental pain and its relationship with suicidal behaviors and life meaning, showed that there is a negative relationship between mental pain and life meaning. There is also a significant positive relationship between mental pain and suicidal behaviors (Baghian Kolemarzi, Karami, Momeni, et al., 2019). Overall, research results indicate that mental pain has a significant positive relationship with depression, anxiety, borderline personality disorder, and suicide, and a negative relationship with positive coping skills, mental health, and psychological, social, and emotional well-being (Karami, Baghian Kolemarzi, Momeni, et al., 2018).

Considering the importance of the adolescent period and the significant role that emotions and cognitive regulation of emotion play in this period on the psychological, emotional, social, and educational health, as well as on the psychopathology of adolescents, studying in this area can help expand knowledge in this regard. Therefore, the present research aims to develop a conceptual model of adolescents' psychological pain based on the emotion factor (positive and

negative affect) with the mediating role of emotion regulation for daily activities. Hence, the objective of this research is to answer the question: What is the best-fitting model in predicting adolescents' psychological pain based on the emotion factor (positive and negative affect) with the mediating role of emotion regulation for daily activities?

### Method

The present study is a descriptive-analytical research utilizing the Structural Equation Modeling (SEM) method. The population consisted of male and female adolescents aged 14 to 18 in the 22 districts of Tehran, enrolled in junior and senior high schools in 2022. The sample included 284 adolescents, comprising 107 girls (38%) and 177 boys (62%). The sampling method was random cluster sampling. Due to the COVID-19 pandemic, data collection through face-to-face and pen-and-paper methods was not feasible, so data were collected virtually using electronic questionnaires on social networks. Determining the minimum sample size for structural equation modeling is crucial. According to many researchers, sample size is based on latent variables rather than observed ones. Kline (2005) defines a sample size below 100 as small, between 100 to 200 as medium, and over 200 as large, and also believes that the sample size in modeling depends on the complexity of the model; the more complex the model, the larger the sample size required. In this study, 20 samples per factor (latent variable) were necessary, making a minimum sample size of 200 for both boys and girls defensible. Study entry criteria included: 1. Adolescents aged 14 to 18, both genders; 2. Self-reported absence of specific psychological disorders such as depression, anxiety, etc.; 3. Not having received psychological treatments.

### Materials

**1. Cognitive Emotion Regulation Questionnaire:** Developed by Garnefski et al. (2001), this self-report tool comprises 36 items. It consists of 9 subscales assessing cognitive strategies like self-blame, acceptance, rumination, positive refocusing, refocusing on planning, positive reappraisal, perspective-taking, catastrophizing, and blaming others. The scoring range is from 1 (almost never) to 5 (almost always), with each subscale containing 4 items. High scores indicate greater use of the respective strategy in stressful events. Garnefski and Kraaij (2006) reported the reliability of the test using Cronbach's alpha coefficient for positive strategies as 0.91 and for negative strategies as 0.87. Samani and Sadeghi (2010) reported Cronbach's alpha

coefficients ranging from 0.62 to 0.91. The questionnaire's reliability in the study by Noorali et al. (2018) for negative cognitive regulation strategies was reported as 0.654, 0.805, and 0.754 for split-half, Cronbach's alpha, and Guttman, and for positive emotional regulation strategies as 0.654, 0.804, and 0.750. The scale's validity was also acceptable, as evidenced by its correlation with other scales (Noorali et al., 2018).

### 2. Orbach & Mikulincer Mental Pain (OMMP)

**Questionnaire:** This scale, created by Orbach et al. (2003), measures the intensity of mental pain. Exploratory factor analysis identified 9 subscales for measuring various aspects of mental pain: inalterability, lack of control, narcissism/worthlessness, emotional turmoil, numbness, alienation, confusion, social withdrawal, and emptiness (meaninglessness). In a study by Orbach et al. (2003), Cronbach's alpha coefficients for these subscales ranged from 0.75 to 0.95. To calculate convergent validity, they also correlated the mental pain scale with anxiety and depression and coping skills. The results showed significant correlations, indicating the scale's convergent validity with anxiety and depression. Karami et al. (2018) reported the reliability of the questionnaire using Cronbach's alpha for the entire mental pain scale as 0.966, and for factors such as emptiness and worthlessness as 0.952, confusion and emotional turmoil as 0.893, lack of control as 0.877, inalterability as 0.872, social withdrawal/alienation as 0.869, and fear of loneliness as 0.617 (Karami et al., 2019).

### 3. Positive and Negative Affect Schedule (PANAS):

This scale was developed and validated by Watson, Clark, and Tellegen (1988). It consists of 20 items, "10 each for the subscales of positive and negative affect." Items are rated on a 5-point Likert scale (1\_very little or not at all to 5\_very much) with scores ranging from 10 to 50 for each of positive and negative affect. Watson et al. reported internal consistency coefficients for the positive affect subscale as 0.88 and for negative affect as 0.87, and test-retest reliability over an 8-week interval for positive affect as 0.68 and for negative affect as 0.71. They also found correlations of positive affect with depression as -0.56 and negative affect with depression as 0.35. According to Bakhshipour and Dezhkam, this tool has significant construct and

discriminant validity. Cronbach's alpha coefficient for both positive and negative affect scales was reported as 0.85 (Alipour et al., 2016).

## Implementation

Appropriate questionnaires for each component were searched, selected, and evaluated and approved by guiding professors. Due to the COVID-19 pandemic, the implementation of pen-and-paper questionnaires was not feasible; thus, electronic questionnaires were distributed on social networks using Press Line. After obtaining permission from the Tehran Provincial Education Department, visits were made to educational districts in the north, center, and south of Tehran. From each district, 8 junior and senior high schools for girls and boys were introduced. After coordination with school officials, electronic questionnaires specific to the schools were made available to students on social networks.

The collected data were analyzed descriptively and inferentially. In the descriptive section, mean, standard deviation, and minimum and maximum scores were used for analyzing the research variables. In the inferential section, the Structural Equation Modeling method was used, which includes examining outlier data, skewness and kurtosis, examining the relationships of multicollinearity among variables, checking for the normality and independence of residuals, testing structural equations, and model fit characteristics.

## Results

Initially, the demographic characteristics of participants, including age, gender, history of depression/anxiety, history of psychotherapy or psychiatric medication, and economic status were examined. Of the 284 participants, about 41% were aged 14 to 15, 21% were aged 15 to 16, 20% were aged 16 to 17, and 17% were aged 17 to 18. Approximately 38% were girls and 62% were boys. About 14% reported a history of depression or anxiety, and 86% did not have such a history. About 4% had a history of receiving psychotherapy or psychiatric medications, and 96% did not have such a history. According to personal reports, about 4% were from a low economic status, 85% from a medium economic status, and 11% from a high economic status.

Table 1. Descriptive findings

Variable	Mean	Standard deviation	VIF
Positive affect	36.24	7.33	1.319
Negative affect	15.08	5.34	1.209
Adaptive strategies	64.58	14.39	1.504
Maladaptive strategies	33.14	10.49	1.252
Psychological pain	72.24	24.96	-

For data analysis, path analysis was used. Before that, assumptions for using this method were examined in 4 steps (examining outlier data, skewness and kurtosis, examining multicollinearity relationships,

and checking normality and independence of residuals). Subsequently, the correlation matrix of variables is presented.

**Table 2. Correlation matrix, skewness, kurtosis and tolerance results**

Variable	1	2	3	4	5
<b>1. Positive affect</b>	1				
<b>2. Negative affect</b>	**0.36	1			
<b>3. Adaptive strategies</b>	**0.34	**0.20	1		
<b>4. Maladaptive strategies</b>	**0.24	**0.43	**0.48	1	
<b>5. Psychological pain</b>	**0.21	**0.26	-0.42	**0.55	1
<b>Skewness</b>	0.52	-0.24	1.01	-0.97	0.59
<b>Kurtosis</b>	-0.29	0.48	-0.83	0.75	-0.07
<b>Tolerance</b>	0.758	0.827	0.665	0.799	-

\*p<0.05; \*\*p<0.01

Table 2 shows that among the exogenous variables (positive and negative affects) and the endogenous variables (adaptive and maladaptive emotion regulation strategies), respectively, maladaptive strategies (0.55), adaptive strategies (-0.42), negative affects (0.26), and positive affects (-0.21) have the highest to lowest correlation coefficients with psychological pain. According to the table, all

research variables have skewness and kurtosis less than |2|, indicating that the distribution of variable scores is normal. The results also show that multicollinearity among variables did not occur. The tolerance coefficient is higher than 0.1, and variance inflation is less than 10. Table 3 presents the direct effect coefficients:

**Table 3. Estimates of direct and indirect effects**

Estimate	Standardized parameter	SE	T
<b>Direct effect of positive affect on:</b>			
<b>Adaptive strategies</b>	**0.29	0.04	3.95
<b>Maladaptive strategies</b>	**0.19	0.03	-2.59
<b>Psychological pain</b>	*0.17	0.03	-2.26
<b>Direct effect of negative effect on:</b>			
<b>Adaptive strategies</b>	*0.16	0.04	-2.20
<b>Maladaptive strategies</b>	**0.39	0.06	5.69
<b>Psychological pain</b>	**0.21	0.03	2.77
<b>Direct effect of adaptive strategies on:</b>			
<b>Psychological pain</b>	**0.36	0.07	-5.18
<b>Direct effect of maladaptive strategies on:</b>			
<b>Psychological pain</b>	**0.52	0.10	7.64
<b>Indirect effect of positive affect on:</b>			
<b>Psychological pain</b>	**0.20	0.05	-3.65
<b>Indirect effect of negative affect on:</b>			
<b>Psychological pain</b>	**0.26	0.07	4.81

\*p<0.05; \*\*p<0.01

Table 3 shows that the direct effect of positive affects on adaptive strategies is 0.29 and on maladaptive strategies is -0.19, both significant at the 0.01 level. Additionally, the direct effect of positive affects on psychological pain is -0.17, significant at the 0.05 level. Also, the direct effect of negative affects on adaptive strategies is -0.16 and on maladaptive strategies is 0.39, the former significant at the 0.05 level and the latter at the 0.01 level. Moreover, the

direct effect of negative affects on psychological pain is 0.21, significant at the 0.01 level. The direct effects of adaptive and maladaptive strategies on psychological pain are -0.36 and 0.52, respectively, both significant at the 0.01 level. The indirect effects of positive and negative affects on psychological pain are -0.20 and 0.26, respectively, both significant at the 0.01 level.

**Table 4. Standardized coefficients of direct, indirect and total effects**

<b>Estimations from psychological pain on:</b>	<b>Direct effect</b>	<b>Indirect effect</b>	<b>Total effect</b>
<b>Positive affect</b>	-0.17*	-0.20**	-0.37**
<b>Negative affect</b>	0.21**	0.26**	0.47**
<b>Adaptive strategies</b>	-0.36**	-	-0.36**
<b>Maladaptive strategies</b>	0.52	-	0.52**

In Table 4, the standardized direct, indirect, and total effects of variables on psychological pain are reported. The indirect effect of positive affects on psychological pain (-0.20) is greater than its direct effect (-0.17), indicating the effective role of the mediating variable of emotion regulation strategies. Both the direct and indirect effects of negative affects

on psychological pain are significant. Among the two exogenous variables of positive and negative affects, affects have stronger direct, indirect, and total effects on psychological pain. Emotion regulation strategies only have direct effects on psychological pain, both significant; however, maladaptive strategies play a more prominent role.

**Table 5. Fit model tests**

<b>Index</b>	<b>Value</b>
<b>Chi-square</b>	1552.49
<b>Df</b>	655
<b>Sig.</b>	0.001
<b>RMSEA</b>	0.070
<b>NFI</b>	0.91
<b>NNFI</b>	0.88
<b>CFI</b>	0.93
<b>GFI</b>	0.89
<b>AGFI</b>	0.87
<b>IFI</b>	0.88
<b>SRMR</b>	0.041

Based on the results and considering the RMSEA value (0.070), the model fit can be considered satisfactory. Other indices, including IFI, NFI, NNFI, CFI, GFI, and AGFI, show results above 0.80, indicating a satisfactory model fit. The SRMR index

is also calculated to be less than 0.05. A diagram of the model's path for predicting psychological pain is presented, along with standardized estimated parameters and significant t-values.

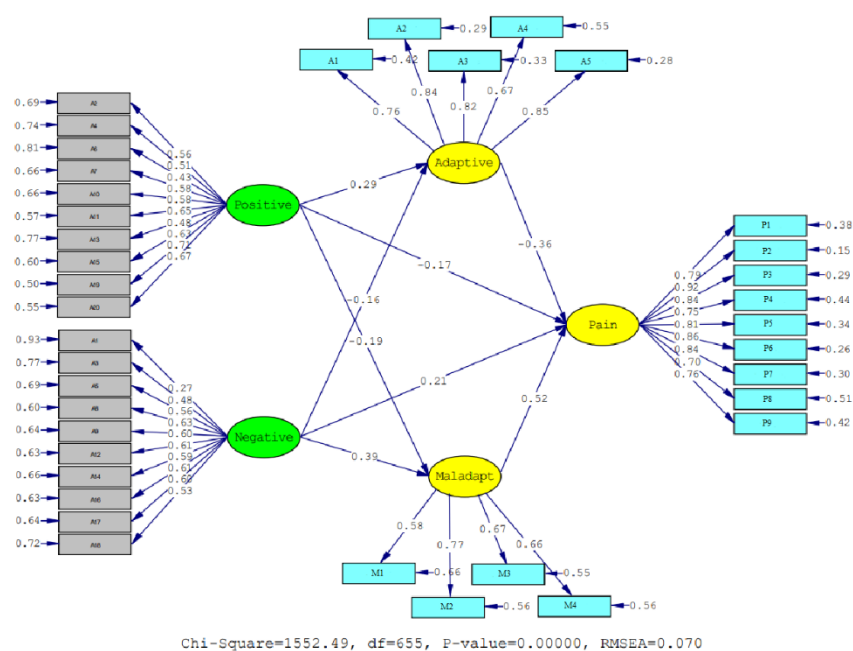


Figure 1. Psychological pain prediction model in standard parameter mode and significant t-values

## Conclusion

The findings of the current study revealed that positive and negative emotions have a significant direct relationship with adaptive and maladaptive cognitive emotion regulation strategies. The direct effect of adaptive and maladaptive cognitive emotion regulation strategies on psychological pain was also significant. Moreover, the indirect effect of positive and negative emotions on psychological pain was significant, mediated through emotion regulation strategies. Therefore, positive and negative emotions indirectly affect adolescents' psychological pain through the mediation of emotion regulation strategies. The findings also showed that the final conceptual model has satisfactory fit. The research findings are consistent with those of Aryazanganeh et al. (2022), Khodayi & Zare (2021), Khanjani et al. (2020), Begian et al. (2019), Silvers (2022), Meow et al. (2022), Sioka et al. (2021), Holden et al. (2021), Lenartz et al. (2019), and Garnefski & Kraaij (2018).

In explaining the findings, it can be said that adolescence is an important period of physiological, psychological, social, emotional, and emotional development (Kazemi, 2016). In this period, adolescents face many stress-inducing issues (Rajabi et al., 2017). Many of these challenges, such as physical developments, puberty and identity crises, increased conflicts with parents, peer pressure, striving for

independence, and unexpected psychological disorders, are emotionally dependent and cause emotional disturbances in adolescents (Allen & Sheeber, 2009). Adolescents use various emotions in daily activities. Emotions are not only related to mood but also to broader cognitive, motivational, biological, and behavioral systems. Emotions exist as positive and negative. Positive emotions include an internal pleasant dimension and feelings like joy, pride, interest, enthusiasm, optimism, etc. (Stepp et al., 2008). Utilizing positive emotions by adolescents can sustain and stabilize their emotions and reduce the impact of negative emotions. Positive emotions have benefits such as physical and psychological health (Taghipour et al., 2019). In contrast, negative emotions include an internal dimension of discomfort and unpleasant states like anger, sadness, hatred, disappointment, fear, anxiety, etc. When negative emotion is high in adolescents, they feel upset, dissatisfied, nervous, irritable, lacking energy, enthusiasm, and confidence, avoiding intense experiences, and doubtful about actively engaging with their environment. Emotions also influence how adolescents assess situations. Negative emotions lead to incorrect assessments of daily experiences (Stepp et al., 2008). Negative emotions in adolescents can create emotional turmoil and affect their psychological health. Studies have shown that positive emotions are related to various dimensions of

psychological health and play an important role in preventing mental disorders, while negative emotions are positively related to mental disorders and contribute to the creation and persistence of abnormalities (Taghipour et al., 2019).

Psychological pain is one of the psychological abnormalities associated with emotions and can occur during adolescence. According to Orbuch, Mikulincer, Sirota, and Gilboa-Schechtman (2003), psychological pain is described as a wide range of mental experiences characterized by the perception of negative changes in oneself and one's functioning, accompanied by intense negative emotions. According to their model, psychological pain is a mental experience distinct from other negative states and emotions such as depression and anxiety (Begian et al., 2019). Psychological pain includes dimensions of intractability, lack of control, narcissism/worthlessness, emotional turmoil, desolation, alienation, confusion, social withdrawal, and emptiness (Karami et al., 2018). The results of the current study showed that the use of positive and negative emotions is indirectly related to psychological pain. Adolescents who used more negative emotions like anger, sadness, fear, anxiety, disappointment, etc., and fewer positive emotions like joy, enthusiasm, interest, optimism, hope, etc., in daily activities had higher psychological pain, and those who used more positive and fewer negative emotions reported less psychological pain. Moreover, the results indicated that the relationship between positive and negative emotions and psychological pain is mediated by cognitive emotion regulation.

Cognitive emotion regulation refers to strategies used to decrease, increase, or maintain emotional experiences. These strategies are adaptive and maladaptive. The use of each strategy has different consequences. According to research, adolescents who use more positive emotions in facing stressful events use more adaptive emotion regulation strategies. In contrast, adolescents who use more negative emotions employ more maladaptive cognitive regulation strategies (Vanderlind et al., 2021; Lenartz et al., 2019). The results of Amiri et al. (2016) showed that levels of positive and negative affect are related to the use of positive and negative emotion regulation strategies. Individuals with high positive affect had higher scores in adaptive

strategies, and those with high negative affect had higher scores in maladaptive strategies. Shaw et al. (2014) stated that cognitive emotion regulation, especially positive strategy, reduces negative feelings and increases positive feelings and adaptive behaviors. Adaptive and maladaptive cognitive emotion regulation strategies play a mediating role in the relationship between positive and negative emotions and mental health. Adolescents who experience a lot of negative emotions have lower emotional regulation abilities (Kamali et al., 2020). The present study also showed that adolescents with more positive emotions used more adaptive and fewer maladaptive strategies, and those with more negative and fewer positive emotions used more maladaptive and fewer adaptive strategies. Khademi Ashkezari et al. (2020) stated that nurses with low positive and high negative emotions use fewer adaptive and more maladaptive cognitive emotion regulation strategies. Lenartz et al. (2019) showed that maladaptive emotion regulation strategies such as rumination, self-blame, and catastrophizing are positively related to symptoms of depression, anxiety, and stress, whereas adaptive strategies like acceptance, problem-solving, and reappraisal have a negative correlation. Meow et al. (2022) in a meta-analysis stated that emotion regulation is related to psychopathology. Vanderlind et al. (2021) expressed that less use of rumination and suppression is related to lower levels of positive emotion, and depression is associated with a pattern of strategies related to low positive emotion. Schafer et al. (2017) noted that adaptive emotion regulation strategies are negatively related to symptoms of depression and anxiety in adolescents, and maladaptive strategies showed a positive relation. Karami et al. (2018) mentioned that individuals with more psychological pain use more maladaptive cognitive regulation strategies, have more depression, anxiety, and fewer adaptive cognitive regulation strategies, and those with healthier strategies report more psychological pain. Maladaptive strategies have a destructive effect on adolescents' psychological health and lead to intensification of negative emotions. When adolescents experience severe and prolonged negative emotions and use more maladaptive strategies for emotion regulation, these negative emotions encompass a broader range of life, resulting in psychological pain. Arabi and Bagheri (2017) in a study showed that



the emotion reappraisal strategy is significantly negatively related to pain severity and positively to quality of life, and the suppression strategy is positively related to pain severity and negatively to quality of life. Moreover, emotion regulation strategies play a mediating role in the relationship between pain severity and quality of life. Orbuch et al. (2003) reported a significant positive relationship between psychological pain and suicidal behaviors. The findings of Karami et al. (2018) showed a significant positive relationship between the component of psychological pain and negative emotion regulation strategies. Zaraati et al. (2019) stated that psychological pain plays a mediating role between childhood trauma and suicidal thoughts. In conclusion, one of the predictors of the extent of psychological pain is the extent to which an individual uses maladaptive or adaptive strategies. Individuals who use maladaptive strategies are at risk of psychological pain. As Schneidman (1999) emphasizes, negative emotions can become a generalization of the experience of psychological pain. Negative feelings of hopelessness, distress, anger, anxiety, dissatisfaction, failure, etc., if not properly regulated, lead to psychological pain in adolescents. Adolescents who use more negative emotions and maladaptive emotion regulation strategies in daily activities lack the ability to cope with events, becoming hopeless and upset. Negative emotions can reduce individual control, and this intolerance of turmoil over time causes the occurrence and increase of psychological pain in adolescents. Therefore, it can be concluded that the conceptual model of the present study is the most fitting model in predicting adolescents' psychological pain based on the emotion factor (positive and negative affect) with the mediating role of emotion regulation in daily activities. Due to the use of electronic questionnaires and their virtual implementation, some misinterpretations in the interpretation of questionnaire questions may have occurred. Given that the results indicate a satisfactory fit of the research model, it is suggested that educational protocols be designed and developed to teach emotion regulation, increase positive emotions, and reduce adolescents' psychological pain, and be implemented in schools and educational and cultural centers.

### Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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