

## Original Article

# The relation between early maladaptive schemas and suicidal ideation in girls: The mediating role of emotion regulation strategies

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### Abstract

The present study investigated the relationship between early maladaptive schemas and suicidal ideation in girls with the mediating role of emotion regulation strategies. The research method was descriptive-correlational, and the structural equation method was used to test the relationships between variables. The population of this research was all female students studying at Alzahra university of Tehran in 2022. To conduct this research, 323 girls participated in this study using convenience sampling. The subjects responded to Yang's Maladaptive Schema Questionnaire (short form), Beck's Suicidal Ideation Questionnaire (1979), and Garnefski and Kraaij's Cognitive Emotional Regulation Questionnaire (2001). Answers were received through online platforms and an electronic questionnaire. The data were analyzed in two ways: descriptive statistics using SPSS 26 and inferential statistics using structural equation modeling in SMART PLS 3. The results showed that early maladaptive schemas correlate with suicidal thoughts, adaptive emotion regulation strategies, and maladaptive emotion regulation strategies ( $p=0.001$ ). In addition, the adaptive emotion regulation strategies have no significant relationship with reducing suicidal thoughts ( $p=0.162$ ). However, maladaptive emotion regulation strategies can increase suicidal thoughts. Suicidal thoughts were not mediated by adaptive emotion regulation strategies, unlike maladaptive emotions regulation strategies. ( $p=0.142$ ). Therefore, the results of this research showed that the use of adaptive emotion regulation strategies is not effective in reducing suicidal thoughts. Consequently, it can be concluded that educating individuals on how to regulate their emotions while facing maladaptive strategies is more effective than addressing adaptive strategies.

### Keywords

Early maladaptive schemas  
Suicide ideation  
Emotion regulation strategies

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### Introduction

The study of suicide has brought many challenges in recent years due to its complex nature and the entanglement of its meaning within the cultural context. Therefore, there is an urgent need for a better understanding and prevention of this psychological problem in human societies. One of the strong predictors of suicide is the presence and persistence of suicidal thoughts, which can ultimately lead to consequences such as injury, hospitalization, etc. Moreover, it puts billions of dollars of financial burden on society (Klonsky, May, & Saffer, 2016). More than 703,000 people die by suicide every year, and according to a 2019 analysis, 1.3% (more than one death per 100 deaths) of all deaths are attributed to suicide (World Health Organization, 2021). Suicidal

thoughts or thinking about one's death is considered one of the potential risk factors for committing suicide (Naghavi, 2019). According to one of the systematic reviews that examined the facts and figures documented in the field of suicide between 1997 and 2016, successful suicide is estimated to be 9.9 per hundred thousand people (Hassanian-Moghaddam & Zamani, 2017). Universally, 1 in 1 million people (1 person every 40 seconds) dies by suicide each year (Stone et al., 2017). Suicide is a conscious act of self-destruction to influence others and eliminate mental pressure or overwhelming worry that may lead to death (Nazarzadeh, Bidel, & Sayehmiri, 2013). The term suicide is a broad spectrum that encompasses different aspects, including suicide ideation, suicidal plans, attempting suicide, and suicide leading to death (Bakhiyi, Calati, Guillaume, & Courtet, 2016). Suicidal thoughts are related to several factors,

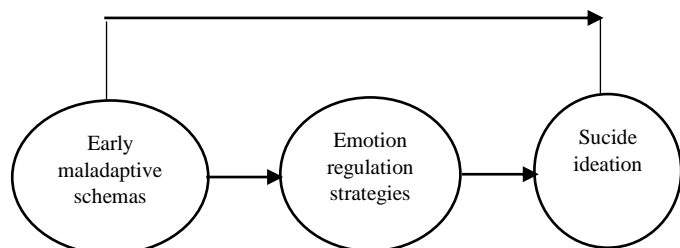
including social, cultural, biological, and environmental issues, psychiatric history, unemployment, poor economic status, and tragic childhood events (McClatchey, Murray, Rowat, & Chouliara, 2017). Some of these factors, such as terrible childhood events, are considered static factors that cannot be directly modified and changed; On the other hand, factors such as cognitive and psychological correlates are modifiable and can be the target of individual therapeutic interventions, among these cognitive factors, we can refer to early maladaptive schemas (Pilkington, Bishop, & Younan, 2021). In addition, one of the efficient interventions in preventing this social harm is identifying vulnerable people and risk factors, which requires much research to achieve the goal (Mobed & Naderi, 2016). As the child interacts with the environment, his early schemas are formed, which is how the infant develops his cognitive framework. However, if the child does not receive proper and sufficient support from the primary caregivers, early maladaptive schemas will develop. It is thought that the foundation for developing an individual's early maladaptive schemas is provided by the unfulfilled basic needs, unpleasant events like neglect and abuse, and the person's innate temperament (Bach, Lockwood, & Young, 2018). These schemas degrade interpersonal relationships and contribute to mental diseases like anxiety and depression, which may result in self-harming behaviors (Borji, Farshadnia, Khorami, & Ghahari, 2019). Young et al. defined an EMS as a broad, pervasive theme or pattern derived from memories, emotions, cognitions, and bodily sensations concerning oneself and one's relationships with others, developed during childhood or adolescence and elaborated throughout one's lifetime. These kinds of schemas are dysfunctional to some extent (Bach et al., 2018). A study titled emotion regulation as a mediator between early maladaptive schemas and non-suicidal self-injury in youth was conducted by Nicol et al. (2022) on four hundred and three Australian secondary and university students. They declared that for each of the EMS, there was a direct effect on self-injury status and an indirect effect via total emotion regulation difficulties. There was a significant indirect effect of Abandonment/Instability on self-injury via limited access to emotion regulation strategies (Nicol, Kavanagh, Murray, & Mak, 2022). In a study titled the role of avoidance coping and problem-focused style of coping in the association between early maladaptive schemas and suicide ideation in depressive Disorder Patients: a moderated mediation model, Kim and Lee (2021) suggested that early maladaptive schemas (disconnection and rejection) and coping avoidance act as risk factors for suicidal ideation in patients with depressive disorder (Kim & Lee, 2021). The possibility that variables in the cognitive and emotional fields are mediators of the association between suicidal thoughts and early schemas is enhanced since it seems that the relationship between suicidal thoughts and early maladaptive schemas is not linear.

Emotional regulation might be included among these variables. The management of emotional information is

known as emotion regulation. Emotional regulation strategies pertain to the types of emotions people experience, when they express them, and how they feel about them (Garnefski & Kraaij, 2006). Emotional regulation strategies are regarded as effective interventions in the field of controlling intense emotions that assist individuals in proactively avoiding unfavorable experiences and circumstances that elicit negative feelings (Tull, Barrett, McMillan, & Roemer, 2007). These strategies include nine items classified into two general categories, positive and negative. For example, self-blame, blaming others, rumination and catastrophizing are considered negative and maladaptive strategies. In contrast, positive and adaptive strategies include positive refocusing, positive reappraisal, acceptance, putting into perspective and refocusing on planning (Garnefski, Kraaij, & Spinhoven, 2001). In a study conducted by Kadkhodai (2020), which was conducted on people attempting suicide, it was stated that cognitive regulation training could be significantly effective in changing the schemas of people attempting suicide (Kadkhodai, 2020). In another study titled an investigation of whether emotion regulation mediates the relationship between attachment insecurity and suicidal ideation and behavior, Turton and his colleagues concluded that in the mediation model, there was no significant effect of emotion regulation on suicide ideation (Turton, Berry, Danquah, Green, & Pratt, 2022). Mizani et al. (2021) demonstrated that emotional regulation strategies are a moderator in a study concerning the association between maladaptive schemas and positive affect (Mizani, Rezaei, Khayyer, & Shegefti, 2021). Quintana-Orts et al. (2020) discovered a positive association between emotional intelligence and adaptive cognitive and emotional strategies and a negative relationship between emotional intelligence and suicidal thoughts (Quintana-Orts, Mérida-López, Rey, Neto, & Extremera, 2020).

According to the literature review, there has been a shortage of studies identifying the mediation function of emotional regulation strategies in the link between early maladaptive schemas and suicide ideation. Although most research has found a connection between early maladaptive schemas and suicidal thoughts, latent variables like emotional regulation strategies have been disregarded, and more research is needed. According to Nicol et al. (2021), gender could not moderate the relationship between maladaptive schemas and self-injurious behaviour. Consequently, we selected only women as samples in the present study to test this assumption. In addition, in the mentioned research, it was suggested that the function of emotional regulation in future research should be examined in the relationship between early maladaptive schemas and self-injurious behaviours (Nicol, Mak, Murray, & Kavanagh, 2021). Therefore, this study aimed to investigate whether emotional regulation strategies mediate the association between early maladaptive schemas and suicidal thoughts in girls. Furthermore, in religious societies such as Iran, where suicide is closely tied to religious themes, it is

possible that many subjects might refuse to talk about it, which would distort the data. So even though countless researchers have stressed the importance of this issue and its correlations, we need to conduct more and more research in this area and under various circumstances. Therefore, the current study sought to ascertain the association between early maladaptive schemas and suicide ideation in girls and the role of emotional regulation strategies as a moderator.



**Figure 1.** Conceptual model of research

## Method

### Participants

The research method in this study was a descriptive-correlational type, and the statistical model of structural equations was used to measure the relationships between the variables. The statistical population consisted of all female students of Alzahra University of Tehran. The sample of this study was selected using the convenience sampling method. The sample size was estimated to be 384 people using the Cochran formula. Three hundred and twenty-three people completed the questionnaires, of whom eight answer sheets were excluded due to outliers. The participants were invited to participate in the study through social media, including Telegram and Instagram.

### Instrument

#### *Young Schema Questionnaire:*

This 75-question self-report test assesses 15 core maladaptive schemas: distrust, emotional deprivation, social isolation, deficiency, abandonment, obedience, emotional inhibition, unrelenting standards, entitlement, failure, sacrifice, and underdeveloped self, person's vulnerability to loss, dependence, and lack of self-control. Each area is evaluated utilizing five questions (Salmalian, Maleki Pirezari, & Salehi, 2020). It is graded on a Likert scale, with a score of 1 representing a completely incorrect answer and a score of 6 representing an utterly correct option. A score higher than 2.5 in any subscale indicates that the individual is ineffective in that subscale. Cronbach's alpha coefficients range from 0.83 to 0.96 (Schmidt, Joiner, Young, & Telch, 1995). In Iran, Akbari obtained the reliability coefficient of the questionnaire using Cronbach's alpha method of 0.84 and calculated the reliability coefficient of the questionnaire using the test-retest method of 0.73 (Akbari, 2008).

#### *Beck Scale for Suicide Ideation (BSSI):*

This 19-item questionnaire was invented by Beck in 1979 and measured the attitude and behavior of people's desire to commit suicide during the past week. In this questionnaire, question 5 determines the answer to the remaining 14 questions. In other words, if the subject's answers indicate a tendency to commit suicide, he should answer all the questions in the questionnaire (Beck & Steer, 1991). Each question is assigned between 0 and 2 grades. So, a score of 0 indicates the lowest intensity, a score of 2 indicates the highest intensity, and the total score of the subject is assigned a number between 0 and 38. Scores 0-3 indicate the absence of suicidal thoughts, scores 4-11 indicate the presence of low-risk suicidal thoughts and scores 12-38 indicate high-risk suicidal thoughts (Rahman, Saiful Islam, Mamun, Moonajilin, & Yi, 2020). In the research conducted by Sepherinejad and Hatmian (2018), Cronbach's alpha coefficient of this questionnaire was calculated as 0.61. According to research conducted in Iran, the validity of this test was calculated based on Cronbach's alpha coefficient of 0.95 (Sepehreinjad & Hatamian, 2018).

#### *Cognitive Emotion Regulation Questionnaire (CERQ):*

This 36-item questionnaire was invented by Garnefsky and Karaj (2001). This questionnaire is used to evaluate a person's thoughts after facing a negative event and traumatic experience, and the nine subscales of this questionnaire are used to measure people's coping strategies when they are in negative situations. This questionnaire follows the Likert scoring method in such a way that the item "never" is given a score of 1, and the item "always" is given a score of 5. From the sum of the scores of each subscale, a number between 2 and 10 is obtained. A higher score in each subscale indicates a higher frequency of using that strategy in a person (Garnefski & Kraaij, 2006). In their research, Garnefsky and Karaj (2006) estimated Cronbach's alpha coefficient to be 0.65 to 0.78. In Iran, Hosni (2011) calculated Cronbach's alpha coefficient for this questionnaire from 0.68 to 0.82.

### Procedure

An electronic questionnaire was sent to the participants with user accounts through social media platforms of Telegram and Instagram. They were asked to complete the questionnaire to participate in the research project. Completing and collecting the questionnaire took about a week. The research method in this study was a descriptive-correlational one, and the statistical model of structural equations was used to measure the relationships between variables. Smart PLS 3 and SPSS 26 were used for data analysis. The results were described in the form of descriptive statistics, including mean and standard deviation and related graphs, as well as inferential statistics.

## Results

The demographic information of the participants in this study (323 people), including age and marital status, is

presented in Table 1-1. Table 1-1 shows that most of the studied sample is single people aged 21-24.

**Table 1.** Demographic characteristics of the participant

Demographic variables	group	Sample size:323	
		Frequency	Percentage
age	17-20	21	6.5 %
	21-24	124	38.4 %
	25-28	88	27.2%
	29-32	39	12.1%
	33-36	26	8%
	37-39	25	7.7%
marital statuses	single	181	56%
	married	142	44%

**Table 2.** Descriptive indices of mean and standard deviation of variables

Variables	Components	Mean	Sd
Early maladaptive schemas	Abandonment	58.97	24.43
	impaired autonomy and or performance	40.24	18.85
	impaired limits	29.65	9.13
	other-directedness	27.69	10.14
Emotion regulation strategies	over-vigilance and inhibition	29.53	10.45
	adaptive emotion regulation strategies	69.28	9.87
	maladaptive emotion regulation strategies	47.16	8.21
Suicide ideation	active desire to commit suicide	3.62	3.81
	passive desire to commit suicide	0.54	0.84
	suicide attempt	0.54	0.80

The variables of this research are early maladaptive schemas, adaptive emotion regulation strategies, non-adaptive emotion regulation strategies and suicidal ideation. The hypotheses of this research to investigate direct relationships between variables are:

1) Early maladaptive schemas have a positive relationship with suicidal ideation.

2) Early maladaptive schemas negatively affect adaptive emotion regulation strategies.

3) Early maladaptive schemas positively correlate with maladaptive emotion regulation strategies.

4) Adaptive emotion regulation strategies have a negative relationship with suicidal ideation.

5) Maladaptive emotion regulation strategies have a positive relationship with suicidal ideation.

**Table 3.** Evaluation of path coefficient significance for direct relationships between variables

Hypothesis	Path coefficient	T	significance
<b>1 Early maladaptive schema → suicide ideation</b>	0.462	5.76	0.001
<b>2 Early maladaptive schema → adaptive emotion regulation strategies</b>	-0.573	12.18	0.001
<b>3 Early maladaptive schema → maladaptive emotion regulation strategies</b>	0.635	19.02	0.001
<b>4 Adaptive emotion regulation strategies → suicide ideation</b>	-0.066	1.40	0.162
<b>5 Maladaptive emotion regulation strategies → suicide ideation</b>	0.17	2.72	0.007

The purpose of evaluating the path coefficient is to check the significance of the assumed relationships between variables. Table 3-1 shows the results evaluating the path coefficient significance for each direct relationship between the studied variables. The

table shows direct relationships between variables are significant at the 0.001 level. Only the direct relationship between adaptive strategies of cognitive emotion regulation and suicidal thoughts is insignificant ( $p=0.162$ ).

**Table 4.** Evaluation of the coefficient of determination and predictive power of the endogenous variables of the research

endogenous variables	coefficient of determination	predictive power
Adaptive emotion regulation strategies	0.326	0.107
Maladaptive emotion regulation strategies	0.401	0.114
Suicide ideation	0.383	0.187

The coefficient of determination of endogenous variables is given in Table 4. The results show that early maladaptive schemas explain 32.6% of the variance of adaptive strategies of cognitive emotion regulation,

40.1% of maladaptive strategies of cognitive regulation of emotion, and 38.3% of the variance of suicidal thoughts.

**Table 5.** Redundancy criterion and goodness of fit criterion of the assumed model

variables	redundancy criterion	goodness of fit criterion
adaptive emotion regulation strategies	0.034	0.18
maladaptive emotion regulation strategies	0.045	0.21
suicide ideation	0.071	0.27

Table 5 shows the values of the redundancy criterion and goodness of fit criterion for endogenous variables of the model. As seen in the table, the model's endogenous

variables have an acceptable amount of redundancy criterion and goodness of fit (Table 5).

**Table 6.** Mediation model analysis

endogenous variables	exogenous variables	mediation model ( $\beta$ )	direct model ( $\beta$ )
Early maladaptive schemas	suicide ideation	0.462	0.61
Early maladaptive schemas	Maladaptive emotion regulation strategies	0.635	
Maladaptive emotion regulation strategies	suicide ideation	0.17	
Early maladaptive schemas	Adaptive emotion regulation strategies	-0.573	
Adaptive emotion regulation strategies	suicide ideation	-0.066	

The results showed that the relationship between early maladaptive schemas and suicidal ideation is significant in the direct model ( $p < 0.001$ ,  $\beta=0.61$ ) and mediation model ( $p < 0.001$ ,  $\beta=0.462$ ). In the mediation model, the relationship between early maladaptive schemas and maladaptive emotion regulation strategies is significant ( $p < 0.001$ ,  $\beta=0.635$ ). Also, the relationship between maladaptive emotion regulation strategies and suicidal ideation ( $p < 0.004$ ,  $\beta=0.17$ ) is significant. Therefore, it can be said that maladaptive emotion regulation strategies partially mediate the relationship between early maladaptive schemas and suicidal ideation. In addition, in the mediation model, the relationship between early maladaptive schemas and adaptive emotion regulation strategies is significant ( $p < 0.001$ ,  $\beta=0.573$ ). However, the relationship between adaptive emotion regulation strategies and suicidal ideation is insignificant ( $p=0.142$ ,  $\beta=0.066$ ). Therefore, we conclude that adaptive emotion regulation strategies do not mediate the relationship between early maladaptive schemas and suicidal ideation (Table 6).

## Discussion

The present study aimed to determine the mediating role of emotional regulation strategies in the relationship between early maladaptive schemas and suicidal thoughts in girls.

The results of fitting the structural model showed that there is a significant positive relationship between early maladaptive schemas and suicidal thoughts. These findings are in line with the results of Nicol et al.'s (2021) research conducted on 403 high school students and students aged 16 to 25. According to this research, self-harming behaviors are related to a set of schemas of instability, defects, shame, and rejection (Nicol et al., 2021). Pilkington, Younan and Bishop (2020) also showed in their study that there is a high correlation between schemas of failure and shame and suicidal thoughts (Pilkington et al., 2021). Among other studies in line with this hypothesis, we can refer to the research conducted by Flink et al. (2017), which was conducted on 79 depressed patients and showed that these people have inconsistent schemas in the field of self-injury, which is considered predictors of suicidal thought (Franklin et al., 2017). In order to explain this hypothesis, it can be said that a person's perception and reactions to environmental actions and other people are affected mainly by his cognitive and emotional patterns; the basis of these cognitive and emotional components are schemas. On the other hand, based on the model of fluid and integrated motivational-volitional vulnerability of suicidal behavior, The underlying factors of suicide can be conceptualized in two dimensions, fixed and dynamic factors. In other words, fixed factors, such as predisposition or vulnerability, can provide the basis for the occurrence of self-harming behaviors. Furthermore,



since the early maladaptive schemas result from early childhood injuries, they can predict suicidal thoughts.

In addition, the research findings confirm a negative relationship between the early maladaptive schemas and adaptive emotion regulation strategies. Among the studies consistent with this hypothesis, we can refer to the research conducted by Salgo, Bazjet and Onka (2021), which shows a significant negative relationship between negative schema modes and adaptive emotion regulation strategies (Salgó, Bajzát, & Unoka, 2021). In addition, Zadeh Mohammadi and Kurdistanchi Aslani's (2021) study showed the mediating role of emotion regulation in the relationship between early maladaptive schemas and positive emotion (Zade-Mohammadi & Kordestanchi Aslani, 2021). In explaining this hypothesis, we can refer to Linehan's bio-social model. According to this model, the inefficiency of the child's growth environment exposes him to emotional damage. When facing emotional events in the environment, problems with managing, understanding and expressing real emotions may occur. Therefore, in critical situations, a person may resort to ineffective strategies such as emotional inhibition and avoidance. In addition, the environmental elements can play a central role in forming schemas, As a debilitating environment results in incompatible schemas and emotions. It can be stated that the early maladaptive schemas formed due to failures in the early stages of development cause people to be unable to manage their emotions effectively in response to emotional situations. Adaptive emotion regulation strategies allow a person to manage his emotions properly under any circumstances. However, activating maladaptive schemas will lead to negative emotions and deprive a person of the ability to use adaptive emotion regulation strategies.

The evaluation of the significance coefficient of the path shows that early maladaptive schemas have a positive relationship with maladaptive emotional regulation strategies. Among the studies consistent with this finding, we can refer to the research conducted by Mizani et al. (2021). In this study, which was conducted on 299 female students, the mediating role of emotional regulation strategies in the relationship between early maladaptive schemas and negative affect was investigated. The results indicated the influence of maladaptive schemas on the selection of maladaptive emotional regulation strategies (Mizani et al., 2021). The findings of the study conducted by McDonnell et al. (2018) are also consistent with this hypothesis. They indicate a positive relationship between initial maladaptive schemas and maladaptive emotion regulation strategies (Mc Donnell, Hevey, McCauley, & Ducray, 2018). In explaining this hypothesis, it can be stated that based on the extended process model of emotion proposed by Gross, Different people have different value systems based on which they perceive and react to different life events. These value systems determine emotions and the type of emotional strategy a person adopts in situations that provoke emotion. On the

other hand, people's value systems are guided by their cognitive framework, which we refer to as schemas. Naturally, if these cognitive forms are formed ineffectively, in that case, they can leave destructive effects on the nature of people's value systems, distort the quality of cognition, attention, physiological and behavioral reactions to environmental stimuli, and lead a person to employ maladaptive strategies.

The results showed that adaptive emotion regulation strategies are not related to suicidal thoughts. Therefore, the research's fourth hypothesis was rejected, which indicated a negative relationship between adaptive emotion regulation strategies and suicidal thoughts. The study consistent with this hypothesis is the research conducted by Ong and Thompson (2019), which states that there is a positive correlation between adaptive emotion regulation strategies such as reappraisal and reducing suicide risk (Ong & Thompson, 2019). In another study, inconsistent with the above hypothesis, Swee et al. (2020) showed that emotional regulation has a low to moderate correlation with suicidal thoughts (Swee, Shochet, Cockshaw, & Hides, 2020). In order to explain this hypothesis, we can refer to emotional intensity. In the study by Shafir et al. (2015), emotional intensity was mentioned as a mediating variable, determining the efficiency of adaptive emotional regulation strategies such as reappraisal. In this way, reappraisal can only be useful in situations where the intensity of emotion arising from the situation is at a moderate threshold. On the other hand, In situations where the intensity of emotion is very high, adaptive strategies such as reappraisal lose their effectiveness (Shafir, Schwartz, Blechert, & Sheppes, 2015). Based on this finding, it can be stated that the adaptive emotion regulation strategies cannot always act as protective factors against the emergence of suicidal thoughts because if the intensity of the experienced emotion is high, their efficiency decreases. In addition, considering the individual and environmental factors involved in the efficiency of adaptive emotion regulation strategies, it can be claimed that utilizing these strategies may not end in the extinction of suicidal thoughts. As mentioned earlier, reappraisal is one of the adaptive strategies of emotion regulation, and biologically, its mechanism is related to the frontal cortex; Therefore, the existence of any genetic and acquired problems in this part can disturb the processing of this part of the brain, so the way and extent of using these strategies will undergo changes, and its function may be disturbed in critical and stressful situations that provoke suicidal thoughts and behaviors. Therefore, it can be stated that the relationship between adaptive emotion regulation strategies and suicidal thoughts cannot simply be linear. Many environmental, biological and physiological variables can mediate and distort their relationship.

Based on the research findings, maladaptive cognitive emotion regulation strategies have a positive relationship with suicidal thoughts. The results of the

Turten et al. (2021) study were consistent with the above hypothesis and stated that there is a positive relationship between emotional dysregulation and suicidal thoughts (Turton, Berry, Danquah, & Pratt, 2021). A study conducted by Hetkevich, Penner and Sharp (2019) concluded that maladaptive emotion regulation strategies have a positive relationship with suicidal thoughts (Hatkevich, Penner, & Sharp, 2019). In the research conducted by Brach and Woods (2019), it was stated that a defect in emotion regulation could be a predictor of suicidal thoughts (Brausch & Woods, 2019). Among the studies inconsistent with this hypothesis is the research conducted by Harris et al. (2018), which shows no positive relationship between maladaptive emotion regulation strategies and suicidal thoughts (Harris, Chelminski, Dalrymple, Morgan, & Zimmerman, 2018). We can refer to Gross' opinion about emotion regulation strategies in explaining this finding. According to Gross, strategies such as avoidance and suppression are non-adaptive strategies of emotion regulation, and suppressing negative emotions increases the possibility of experiencing them mentally so that the person engages in continuous and erosive mental rumination. As a result, his ability to solve problems is impaired. The combination of these factors causes a person to be unable to make a correct decision in a crisis and in a situation where he is emotionally disturbed. Ultimately, dangerous thoughts and self-harm may come to his mind. According to Gross, suppressing unpleasant emotional experiences in the short term can give the individual a sense of relief. Still, for a long time, it causes double cognitive and emotional distress, which targets the reasoning and problem-solving capacities of the individual and exposes him to thoughts and risky behavior.

Another result was that adaptive emotion regulation strategies could not mediate the relationship between early maladaptive schemas and suicidal thoughts. The researcher did not find any research in line with past studies' results. The current research concluded that the early maladaptive schemas have a negative and significant relationship with the adaptive emotional regulation strategies. However, the adaptive systems of emotional regulation cannot always cause a reduction in Suicidal thoughts. Furthermore, we can now refer to the dangerous and protective concept of suicidal thoughts in explaining the mediating role of an adaptive strategy. That is, while suicidal thoughts can be the most crucial predictor of self-harm behaviors as a risk factor, they can also be considered a protective factor; Because the fusion of these thoughts with emotional and cognitive components makes it controllable and changeable. This way, adaptive emotion regulation strategies under specific environmental and biological conditions can lead to the adjustment or even expansion of suicidal thoughts. When a person benefits from an efficient cognitive processing system and environmental stressors are not very intense, using adaptive emotion regulation strategies can reduce suicidal thoughts. On the other hand, if the person has a cognitive weakness

and neurobiological defect, the situation in which the person would expose arouses intense tension and excitement. Hence the adaptive strategies of emotion regulation cannot effectively play their potential role in modulating and destroying suicidal thoughts.

The research findings confirmed that non-adaptive strategies of cognitive emotion regulation could mediate the relationship between early maladaptive schemas and suicidal thoughts. The researcher did not find any research related to this title. Schemas are cognitive themes that guide people's thinking and cognitive path. The quality of childhood experiences determines the adaptive and maladaptive nature of these schemas. Unpleasant experiences during early development may lead to early maladaptive schemas, which could result in ineffective thoughts and strategies. On the other hand, the type and intensity of a person's emotional expression, as well as his practical strategy for managing these emotions in different situations, are affected by his schemas. Therefore, incompatible schemas can lead to conflicting emotions and perhaps a weakness in the emotion management system. Among these non-adaptive strategies, we can mention avoidance, which is highly frequent in people with mental disorders, and somehow suicide is a way to avoid life's problems. Non-adaptive emotion regulation strategies in stressful and critical situations distort the person's subjective experience. Moreover, combining this component with other fundamental factors, such as long-term intolerance of emotion and weakness in problem-solving skills, can lead to high-risk behaviors such as suicide attempts.

## Conclusion

Among seven research hypotheses, two hypotheses were rejected, and five hypotheses were confirmed. The results rejected the direct and mediating role of adaptive emotion regulation strategies with suicidal ideation. However, the research findings showed that non-adaptive emotion regulation strategies, either directly or through mediation, can have a significant relationship with suicidal thoughts and cause an increase in suicidal thoughts. On the other hand, this research showed a significant positive relationship between maladaptive schemas and suicidal thoughts, and both adaptive and maladaptive emotion regulation strategies have a significant relationship with early maladaptive schemas. Limitations also accompanied this research; for example, since the questionnaire was completed online and its link was made available to the subjects through social media, it can be claimed that the participants of this research were only people with smartphones. In addition, since the questionnaire was completed online, the subjects did not have the same conditions in terms of environmental factors. Since the role of adaptive emotion regulation strategies in reducing suicidal thoughts was rejected, and the effect of non-adaptive emotion regulation strategies on the expansion of suicidal thoughts was confirmed, it is suggested; Instead

of emphasizing the acquisition of adaptive strategies, more attention should be paid to the methods of managing and dealing with non-adaptive strategies.

## Disclosure Statement

No potential conflict of interest was reported by the authors.

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