

Nicel Araştırma

Why is Time Perspective Important for Emotion Regulation? The Role of Time Perspectives on Emotion Dysregulation among Young Adults

Pınar BÜRHAN-ÇAVUŞOĞLU^{1*}, Fatma OKTAY¹, Nuran BAYRAM ARLI²

¹ Süleyman Demirel Üniversitesi, Fen Edebiyat Fakültesi, Psikoloji Bölümü, Isparta, Türkiye

² Bursa Uludağ Üniversitesi, İktisadi ve İdari Bilimler Fakültesi, Ekonometri Bölümü, Bursa, Türkiye

Makale Bilgisi

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Anahtar Kelimeler:

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Abstract

Individual differences play a crucial role in addressing the issue of emotion regulation deficits among young adults. Although some research has been carried out on individual differences in emotion regulation, no single study has attempted to consider the role of time perspectives in emotion regulation deficits. This study aims to explain the associations between emotion regulation deficits and five-time perspectives, which are conceptualized as temporally based beliefs. Data was collected from a sample of 192 college students (146 females, 46 males) with a mean age of 20.46. The best-fitting model showed that Past-Negative, Past-Positive, Present-Fatalistic, and Future time perspectives explained directly 41% of the variation in emotion regulation deficits. Based on standard coefficients, the Past-Negative time profile was the strongest predictor of emotion regulation deficits. Maladaptive time perspectives like Past-Negative and Present-Fatalistic predicted emotion regulation negatively, and adaptive ones like Future and Past-Positive predicted emotion regulation positively. Time perspectives may structure an individual's emotional regulation deficits. The findings seem to be an essential contribution to the field of time perspective and emotion regulation.

Öz

Genç yetişkinler arasındaki bireysel farklılıklar, duygu düzenlemedeki bozukluklar konusunun ele alınmasında önemli bir rol oynamaktadır. Duygu düzenleme alanındaki bireysel farklılıklar üzerine bazı araştırmalar yapılmış olmasına rağmen, zaman perspektiflerinin duygu düzenleme eksikliklerindeki rolünü göz önünde bulundurmaya çalışan tek bir çalışma bulunmamaktadır. Bu çalışma, duygu düzenleme eksiklikleri ile zaman odaklı inançlar olarak tanımlanan beş zaman perspektifi arasındaki ilişkileri açıklamayı amaçlamaktadır. Veriler, yaş ortalaması 20.46 olan 192 üniversite öğrencisinden (146 kız, 46 erkek) toplanmıştır. En uygun model, Geçmiş-Olumsuz, Geçmiş-Olumlu, Şimdi-Kaderci ve Gelecek zaman perspektiflerinin duygu düzenleme eksikliklerindeki değişimin % 41'ini doğrudan açıkladığını göstermiştir. Standart katsayılar dayanarak, Geçmiş-Olumsuz zaman profilinin, duygu düzenleme eksikliklerinin en güçlü göstergesi olduğu gösterilmiştir. Geçmiş- Olumsuz ve Şimdi-Kaderci gibi uyuma yönelik olmayan zaman perspektifleri, duygusal düzenlemeyi negatif yönde; Geçmiş-Olumlu ve Gelecek gibi uyumlu olan perspektifleri ise duygu düzenlemeyi pozitif yönde yordamaktadır. Bu çalışma, zaman perspektifinin, bir bireyin duygusal düzenleme eksikliklerini yapılandırma rol aldığını göstermiştir. Bulgular, bu çalışmanın zaman perspektifi ve duygu düzenleme alanına önemli bir katkı sağladığını göstermektedir.

*Sorumlu Yazar, Süleyman Demirel Üniversitesi, Fen Edebiyat Fakültesi, Psikoloji Bölümü, Isparta, Türkiye Tel: 0246 211 4041

e-posta: pinar.burhan@hotmail.com

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Introduction

Emotion regulation relates to self-regulatory objectives, such as trying to find control over one’s own emotions or to give a meaning to emotional experience. Healthy emotion regulation is an essential aspect of one’s psychological (Adrian, Jenness, Kuehn, Smith, & McLaughlin, 2019; Chiu, Yee, Kwan, Cheung, & Hou, 2019; Kelly, Glazer, Pornpattananangkul, & Nusslock, 2019; Mérida-López, Extremera, & Rey, 2017; see Hu et al., 2014 for a meta-analysis) and even physiological well-being (Birk & Bonanno, 2016; Krkovic, Krinki, & Lincoln, 2018). In contrast, difficulties in emotion regulation are recognized as a possible indication of various psychological disorders (such as posttraumatic stress disorder, anxiety, depression, substance abuse, eating disorders, borderline personality disorder) among young adults (Doolan, Bryant, Liddell, & Nickerson, 2017; Sloan et al. 2017 for reviews). Besides that, emotion dysregulation is known to be connected with relatively prevalent negative consequences among young adults, such as deliberately hurting oneself, intense distress, and actions that are intended to hurt people (Barden, Kumpula, & Orcutt, 2013; Gratz & Roemer, 2008; Pickett, Barbaro, & Mello, 2016; Shorey, Brasfield, Febres, & Stuart, 2011). Different perspectives exist in the literature regarding possible explanations for the development and maintenance of emotion regulation. For example, according to the cognitive-behavioral clinical perspective, way of thinking, attributional styles, and behavioral patterns have a pivotal role in developing and managing signs of maladaptive emotions (Cole, Michel, & Teti, 1994). Cole, Michel, and Teti (1994) mentioned that these cognitive-behavioral perspectives are based on the assumption that individuals have either learned the maladaptive ways of thinking and strategies that maintain their negative emotions or to be insufficient to learn adaptive behavior in regulating emotions. Individuals differ from each other in terms of their thinking ways, attributional styles, and behavioral patterns. Therefore, it is possible to say that differences in these aspects affect how to regulate emotions. Thus, there is a crucial need to focus on individual distinctness in emotion regulation in order to prevent negative consequences among young adults, as mentioned above.

Although there are some research carried out on the role of individual differences such as differences in developmental process, neuroregulatory or biological systems (such as heart rate, brain electrical activity, endocrine response), behavioral traits (such as attentiveness, interest levels), cognitive components (such as beliefs, awareness of the need for regulation), interactive caregiving styles (such as responsive, insensitive, accessible), temperament and explicit training (such as modeling, reinforcement) in emotion regulation (Calkins, 1994; see reviews in Gross, 2014; see reviews in Rothbart, Sheese, & Posner, 2014); there is little

published information on the association between emotion regulation and time perspective that is another important measure of individual differences. However, no previous study has investigated whether there is an association between emotion dysregulation and time perspectives. Time perspective was described as an indicator of an individual's way of responding to the world in which different temporal dimensions (past, present, and future) regulate the relations between personal and social experiences (Zimbardo & Boyd, 1999).

Zimbardo and Boyd (1999) created the Zimbardo Time Perspective Inventory (ZTPI) scale to assess time perspectives. There are five basic time perspective dimensions: Past-Negative, Past-Positive, Present-Hedonistic, Present-Fatalistic, and Future that occur in a non-conscious process and that are developed naturally (Stolarski, Waleriańczyk, & Pruszcak, 2019). Past-Negative focused individuals tend to have a pessimistic orientation of the past. The other way round, Past-Positive oriented individuals tend to have an optimistic attitude towards the past. Present-Hedonistic is a time perspective that shows higher impulsivity and hedonistic attitude. Present-Fatalistic oriented individuals tend to have a belief in fate and an uncontrollable future. The final dimension of time perspective is the future, which shows a tendency characterized by making plans more for the future goals to gain specific rewards.

While there have been no studies that analyze the possible association between emotion regulation difficulties and time orientations, there are theoretical explanations for assuming an association between them. First of all, it is well established from a variety of studies, that there is an association between time perspectives and current emotional state. Some studies have postulated that time perspective appears to be a principal determining the factor of current emotional state (Desmyter & De Raedt, 2012; Stolarski, Bitner, & Zimbardo, 2011; Stolarski & Matthews, 2016; Stolarski, Matthews, Postek, Zimbardo, & Bitner, 2014). Diener and Emmons (1985) pointed out that two distinct parts of emotional state (positive and negative affect) form subjective well-being. Briefly, the positive affect represents the emotional state in which individuals feel excited, energetic, and attentive, whereas the negative affect represents the aversive emotional state that gives displeasure (Watson, Clark, & Tellegen, 1988). Desmyter and De Raedt (2012) showed that individuals who have a more pessimistic orientation of the past (Past-Negative) have a more negative affect. This finding is supported by Stolarski and Matthews (2016), who find that having a Past-Negative time perspective is a strong predictor of negative emotionality. Similarly, Past-Negative provides an advantage to predict an individual's current emotional states due to its high affective loading (Stolarski et al., 2014). Conversely, Present-Hedonistic (Desmyter & De Raedt, 2012; Stolarski et al., 2014), Past-Positive (Drake, Duncan, Sutherland, Abernethy, & Henry, 2008), and Future-oriented

individuals have a more positive affect (Desmyter & De Raedt, 2012). Besides this, Stolarski and his colleagues (2014) emphasized that it was necessary to have adaptive or balanced time perspective, which is a key term in time perspective theory (developed by Zimbardo & Boyd, 1999; Zimbardo & Boyd, 2009), in order to have a more positive emotional state. Individuals achieve balanced or adaptive time perspective when he/she gets a lower score from Past-Negative and Present-Fatalistic and gets higher or average scores from Past-Positive, Present-Hedonistic, and Future (Zimbardo & Boyd, 1999; Zimbardo & Boyd, 2009).

Taken together, time perspective type seems to be a good predictor of the current emotional state. Besides that, current emotional state changes as a component of emotion regulation. For this reason, the link between time perspectives and current emotional state should also be present for emotion regulation and even for emotion dysregulation, which underlie a broad, integrative term of emotion regulation.

Secondly, emotion regulation is temporal-based. Self-efficacy theory (Bandura, 1997) provides a useful account of how the influence of temporal categories on self-regulation, as occurred by adaptive beliefs based on capabilities, comes from time frames. Individuals are often paying attention to time categories (the past, the present, and the future), in reaction to demands of a particular situation as well as emotional situations, attitudes, and private intentions (Stolarski, Fieulaine, & Zimbardo, 2018). It is likely to say that an individual tries to find appropriate answers from time dimensions in response to inner states, particularly. There is no doubt that emotion regulation, as a part of self-regulation and inner states, should be associated with time perspectives.

Thirdly, emotion regulation strategies have also been found to be linked with time perspectives. Time perspective types seem to influence one's strategies of emotion regulation (Blais-Rochette & Miranda, 2016; Bolotova & Hachaturova, 2013; Taylor & Wilson, 2016; Wang, Chen, Cui, & Liu, 2015). Individual differences in time perspectives appear to be effective, whether one uses maladaptive or adaptive strategies of emotion regulation. Thus, there is a probability that time perspectives will influence one's emotion regulation deficits.

This study aims to provide a deeper understanding of the association between time perspectives and emotion regulation deficits. The findings can make an essential contribution to the field of time perspectives and emotion regulation. Besides this, it is fundamental to clarify the link between emotion regulation deficits and individual differences in time perspectives in order to prevent or minimize negative consequences and various psychological disorders, as mentioned above. Regarding the absence of research on the relationship between time perspectives and emotion regulation, this study is intended for exploration in nature.

Linking time perspective to Emotion Regulation Deficits

To date, the role of time perspective on emotion regulation, which has attempted to investigate the role of time perspectives on emotion dysregulation, has taken very little attention. However, similar assumptions can be described from the kinds of literature that have been addressed to the role of time perspectives on emotion regulation strategies in order to understand the role of time perspectives on emotion dysregulation. Some studies have postulated that time orientation appears to be closely linked with emotion regulation strategies (Blais-Rochette & Miranda, 2016; Bolotova & Hachaturova, 2013; Lang & Carstensen, 2002; Taylor & Wilson, 2016; Wang et al., 2015).

Stolarski, Bitner, and Zimbardo (2011) clearly illustrated that emotional competence as an ability to understand, control, and be aware of one's own emotions was affected by time perspectives. In a study investigating the role of emotional competence in emotion regulation, it was shown that a high ability to understand emotions is related to the more frequent use of adaptive strategies for the regulation of emotions (Śmieja, Mrozowicz, & Kobylińska, 2011). As noted by Matthews and Stolarski (2015), time perspective dimensions contribute to emotional regulation both directly and indirectly. It also explores to indicate, and therefore, time perspective contributes to emotion regulation deficits indirectly by affecting adaptive or maladaptive strategies. This view is supported by recent research (Blais-Rochette & Miranda, 2016; Bolotova & Hachaturova, 2013; Taylor & Wilson, 2016; Wang et al., 2015). These studies indicate that Past-Positive oriented individual uses cognitive reappraisal more and expressive suppression less, which are some of the strategies of emotion regulation (Blais-Rochette & Miranda, 2016; Taylor & Wilson, 2016; Wang et al., 2015). Individuals who have a Future time perspective are more likely to benefit from focusing on objectives related to emotion regulation maximization (Lang & Carstensen, 2002). For this reason, individuals who have higher scores of Future time perspective maximize emotion regulation by using cognitive appraisal strategies more, tend to postpone things less, and make plans more (Taylor & Wilson, 2016). On the contrary, individuals who have higher Past-Negative scores, use cognitive reappraisal strategies less, expressive suppression more (Blais-Rochette & Miranda, 2016), and emotion suppression more (Bolotova & Hachaturova, 2013). Similarly, Present-Fatalistic time orientation has a positive association with suppression of emotions (Bolotova & Hachaturova, 2013). Considering all of this evidence, it seems that being in adaptive (Past-Positive, Future, and Present-Hedonistic) or maladaptive (Past-Negative and Present-Fatalistic) time perspective profile somehow might affect one's sufficiency in emotion regulation processes.

There is a growing body of literature that provides the importance of time orientation on emotion regulation deficits. It is crucial to present the individual differences in time perspective with emotion regulation deficits in order to prevent or minimize negative consequences. The literature provides essential explanations about emotion regulation and time perspective; however, a question about the relations between time perspective and emotion regulation deficits remains -the matter of how and whether the terms-time perspective and emotion regulation-interact with each other should be answered. Furthermore, the goal of this study is to show the possible role of time perspective in emotion dysregulation in order to understand the nature of time perspectives and emotion regulation. It also explores to indicate which time perspectives are the strongest predictors of emotion regulation deficits. Data for this study were collected using ZTPI and Difficulties in Emotion Regulation Scale (DERS) measures to address the concepts of this study. For example, Zimbardo and Boyd's (1999, 2009) time perspective model involves five different time frames that were used in this study. It is further than the aim of this study to examine the role of a balanced time perspective that is described above. For emotion dysregulation, DERS (Gratz & Roemer, 2004) was used. Characterization of time perspectives is essential for the current understanding of emotion regulation deficits. That is, time perspective types may be a predictor in the management of emotion regulation deficits.

Individuals with different time orientations may carry different weights with their emotions and may regulate their emotions differently. Future-focused individuals are to regulate their emotions in order to get rid of the emotional discomfort that arises from potential future failure. As a result, they may have fewer emotion regulation deficits. Future-focused individuals are also expected to be in control of their emotions. Therefore, some studies have shown that the Future time perspective is associated with adaptive emotion regulation strategies (Lang & Carstensen, 2002; Taylor & Wilson, 2016). This rationale leads us to hypothesize that: Difficulties in emotion regulation would be negatively associated with Future time orientation.

As mentioned above, researchers have presented that Past-Positive and Present-Hedonistic time orientations are associated with positive affect (Desmyter & De Raedt, 2012; Drake et al., 2008), and are a good predictor of current emotional state (Stolarski et al., 2014). The individuals with a Past-Positive time orientation may be able to control their emotions adaptively. Studies indicate that having a Past-Positive time orientation is related to adaptive approaches of emotion regulation (Blais-Rochette & Miranda, 2016; Taylor & Wilson, 2016; Wang et al., 2015). Present-Hedonistic focused individuals attach more importance to the present moment and pleasures. They are more likely to regulate their emotions in order to

increase pleasure or decrease pain. Thus, they may have less emotion dysregulation. It seems likely that the tendency to have a Past-Positive time perspective or Present-Hedonistic time perspective would be associated negatively with emotion regulation deficits. This rationale leads us to assume that: Past-Positive time perspective would be negatively associated with emotion dysregulation; Present-Hedonistic perspective would be negatively associated with emotion dysregulation.

Past-Negative time orientation is generally related to negative affect (Desmyter & De Raedt, 2012; Stolarski et al., 2014; Stolarski & Matthews, 2016). Past-Negative oriented individuals are more focused on a negative perspective of the past, while Present-Fatalistic oriented individuals are more focused on fate or chance and uncontrollable future. As mentioned above, both of these time perspectives seem to link with maladaptive strategies of emotion regulation (Bolotova & Hachaturova, 2013; Blais-Rochette & Miranda, 2016). Individuals with a Present-Fatalistic time perspective could not be capable of dealing with emotional discomfort due to the belief that situations are out of control. Similarly, individuals with Past-Negative time orientation may not be able to deal with emotional disturbance. Past-Negative oriented individuals are expected to focus on negative situations regarding their past and to feel regret. They may have disturbances in emotion regulation. It seems possible that the tendency to have a Present-Fatalistic time perspective or Past-Negative time perspective would be related to emotion regulation deficits positively. This rationale leads us to assume that: Present- Fatalistic Perspective would be positively associated with difficulties in emotion regulation; Past- Negative Perspective would be positively associated with difficulties in emotion regulation.

Method

Participants and Procedure

This study was authorized by the Ethics Committee for Social Sciences and Humanities to include human data requiring ethical protection. The data of this study were gathered from 192 college students (between ages: 17-29; $M_{age} = 20.46$ years; $SD = 1.6$; 76% female). The participants were recruited using convenience sampling. Most of the participants were studying at a university in their first or second year. Regarding socioeconomic status, the greater number of the students had a middle-class status as measured by their parents; 72% of participants labeled themselves as middle-class; 19% of the participants labeled themselves as upper-class; 9% of the participants labeled themselves as lower-class.

Regarding national identity, the majority of participants labeled themselves as Turkish, and eight of them as Kurdish. Data were collected via a paper-and-pencil survey after the aim

of the research was described to the volunteer participants, and an informed consent form was obtained from them. Then participants filled out printed self-reporting questionnaires and a demographic data form without disclosing their identity. Participants are compared on variables at the same point in time.

Measures

Difficulties in Emotion Regulation Scale, developed by Gratz and Roemer (2004) and Zimbardo Time Perspective Inventory developed by Zimbardo and Boyd (1999) were used in this study. These measures are the most common procedures for determining time perspective and emotion regulation deficits. Besides, they were widely used by other researchers.

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). DERS was a 36-item instrument measuring emotion regulation deficits (Gratz & Roemer, 2004). The items of DERS were answered by using a 5 point Likert-type scale, ranging from (1) “never” to (5) “always.” DERS consists of 6 subscales: nonacceptance (e.g., “When I’m upset, I become angry with myself for feeling that way.”), goals (e.g., “When I’m upset, I have difficulty getting work done.”), impulse (e.g., “I experience my emotion as overwhelming and out of control.”), awareness (e.g., “When I’m upset, I acknowledge my feelings.”), strategies (e.g., “When I’m upset, I believe that I will remain that way for a long time.”), and clarity (e.g., “I have no idea how I am feeling.”). The subscales of DERS were used as observed variables and define the total score of DERS. The overall score of DERS was used for a latent variable in this study. The total score of DERS shows the levels of emotion regulation deficits. In DERS, higher scores mean higher levels of emotion dysregulation. Rugancı and Gençöz (2010) evaluated the psychometric properties and factor structure of the DERS among Turkish college students. This study's results suggested that item 10 should be excluded because of the low loading, and it was unrelated to all subscales. For this reason, the 35-item form of DERS was used, as suggested by Rugancı and Gençöz (2010). Cronbach’s alpha for the total scale in the present sample was .92.

Zimbardo Time Perspective Inventory (ZTPI; Zimbardo & Boyd, 1999). The basic dimensions of human nature about time were evaluated with ZTPI (Zimbardo & Boyd, 1999). The short form of ZTPI (ZTPI -short) was translated into the Turkish language by G ler (2008). There were five factors in ZTPI as follows: Future (e.g., “I complete projects on time by making steady progress.”), Past-Negative (e.g., “I think about the bad things that have happened to me in the past.”), Present-Hedonistic (e.g., “Taking risks keeps my life from becoming boring.”), Past-Positive (e.g., “It gives me pleasure to think about the past.”), and Present-Fatalistic (e.g., “My life path is controlled by forces I cannot influence”). Each factor

is made of 5 items, and there were 25 items in total. Each item was scored with a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). The validity of the ZTPI -short was evaluated by G ler (2008) among Turkish young, middle-aged, and older groups. For the aim of this research, scores on the Past-Negative (Cronbach's alpha = .72; M = 3.36, SD = .72), Past-Positive (Cronbach's alpha = .62; M = 3.53, SD = .62), Present-Hedonistic (M = 2.60, SD = .64) and Future (Cronbach's alpha = .61; M = 3.58, SD = .56) subscales were used as predictor and observed variables.

Results

Preliminary Analysis

Table 1 indicates the summary statistics of the sample's descriptive statistics, Cronbach's alpha reliabilities, and correlations between all measures. The Cronbach's alpha results of the ZTPI subscales revealed acceptable limits of internal consistency reliabilities as personality scales (Tuckman, 1999; Carter, 1997; Nunnally & Bernstein, 1994). However, we should address the low alphas for the subscales of the ZTPI in this sample and provide additional information about the construct validity of the subscales of the ZTPI scores within the current sample to make sure that the scale is valid in this sample. Sijtsma (2009) suggested that confirmatory factor analysis (CFA) is a good indicator to evaluate the psychometric properties of psychological measurements. In this way, the construct validity of ZTPI subscales also tested by CFAs.

The correlations indicate that while Future and Past-Positive time orientations were negatively associated with a total score of DERS, Present-Fatalistic and Past-Negative time orientations had a significantly positive correlation with a total score of DERS. All these correlations were significant ($p < .001$). However, there is no significant association revealed between Present-Hedonistic time orientation and total DERS score.

Construct Validity of the ZTPI

We conducted CFA to investigate the five-factor construction of the ZTPI in order to make sure that the scale is valid in this sample. There are five latent constructs. These are five-time perspectives: future, past negative, present fatalistic, past positive, and present hedonistic. We designed a model with five latent constructions. Five items were underlying each latent construction. The results presented that the hypothesized model had a good fit to the data ($\chi^2(256) = 336,576$; $p = .001$; $\chi^2/df = 1.31$; CFI = .91; RMSEA = .04; SRMR = .07). Overall, these results indicate that the subscales of the ZTPI appeared to be valid in this sample.

Table 1.

Descriptive statistics of the sample and correlations between all measures

Measures	Descriptives				Intercorrelations				
	# of Item	M	SD	C. Alpha	DERS	Past-Negative	Past-Positive	Future	Present-Fatalistic
DERS	35	84.66	18.84	.92	-----				
Past-Negative	5	16.84	3.61	.72	.436**	-----			
Past-Positive	5	17.67	3.15	.62	-.276**	-.167*	-----		
Future	5	17.90	2.79	.61	.307**	.065	.107	-----	
Present-Fatalistic	5	12.99	3.18	.61	.368**	.370**	-.084	-.005	-----
Present-Hedonistic	5	16.98	3.17	.71	-.028	.015	.207**	-.009	-.128

Note. M: Mean, SD: Standard Deviations, DERS: Difficulties in Emotion Regulation Scale. * $p < .05$. ** $p < .001$.

The subscales of the ZTPI and Emotion Regulation Deficits

Maximum Likelihood estimation method was used to evaluate the direction and magnitude of the effects of established observed variables on the latent variable (SEM, Amos 22 software; Arbuckle, 2013). Several fit indices were used to determine models' fit: 1) χ^2 goodness of fit test, 2) comparative fit index (CFI), 3) goodness of fit index (GFI), 4) standardized root mean square residual (SRMR), 5) root mean square error of approximation (RMSEA). Two models were built and statistically compared. Model 1 was built to show the direct paths from Past-Positive, Past-Negative, Future, Present-Hedonistic, and Present-Fatalistic to DERS. Covariations between the error terms were allowed. The sufficiency of Model 1 presented acceptable fit indices ($\chi^2(33) = 60,917$; $p = .002$; $\chi^2/df = 1.85$; GFI = .95; CFI = .95; RMSEA = .06; SRMR = 0.054) and the model 1 contained all paths regardless of significance.

In Model 1, the direct paths from Past-Negative, Past-Positive, Present-Fatalistic, and Future to DERS was statistically significant (respectively: $\beta = .37$, $p < .001$; $\beta = -.17$, $p < .009$; $\beta = .26$, $p < .001$; $\beta = -.29$, $p < .001$). On the other hand, the paths from Present-Hedonistic to DERS were not statistically significant ($\beta = -.14$, $p = .321$). The best-fitting solution was presented in Figure 2 when statistically nonsignificant paths (paths from Present-Hedonistic

to DERS) were removed. Covariations between the error terms were allowed, and arrows indicated hypothesized paths.

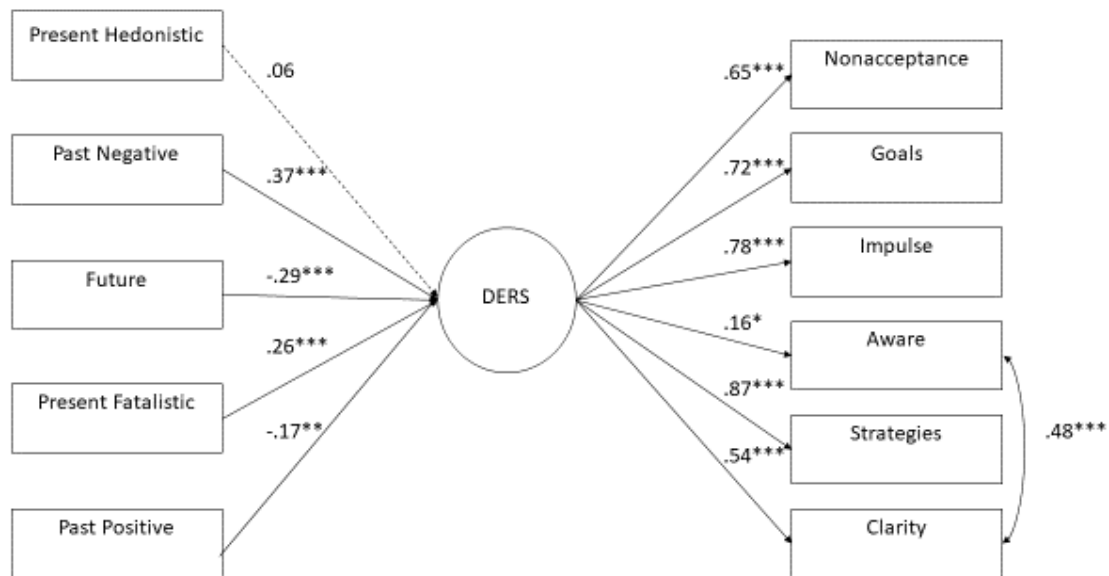


Figure 1. In Model 1 Past-Positive, Present-Hedonistic, Past-Negative, Present-Fatalistic, and Future time perspectives as predictors of difficulties in emotion regulation.

Note. DERS: Difficulties in Emotion Regulation Scale, dashed arrows indicate non-significant paths. * $p < .05$. ** $p < .01$. *** $p < .001$.

In model 2, the results were $\chi^2(28) = 47,657; p = .012; \chi^2/df = 1.70; GFI = .95; CFI = .96; RMSEA = .06; SRMR = .05$. These results showed that the hypothesized model was a good fit for the data. The results, as shown in Figure 2, indicated that all factor loadings and all estimated path coefficients were statistically significant. The R^2 value for DERS was 0.41. Past-Negative, Past-Positive, Present-Fatalistic, and Future time perspectives had a direct effect on emotion regulation deficits. These time perspectives explained directly 41% of the variation in emotion regulation deficits. The path from Past-Negative to DERS and Present-Fatalistic to DERS was significant (respectively; $\beta = .37$, Critical Ratio = 5.001; $\beta = .22$, Critical Ratio = 3.63). Future and Past-Positive time perspectives had a negative effect on DERS (respectively; $\beta = -.33$, Critical Ratio = -4.38; $\beta = .37$, Critical Ratio = -2.47, $p = .013$). Overall, these results were mostly in line with our hypotheses. Future and Past-Positive time perspectives negatively predicted difficulties in emotion regulation. Present-Fatalistic and Past-Negative time perspectives positively predicted difficulties in emotion regulation. However, one of our

hypothesis was not supported by the results. Present-Hedonistic time perspective was not significantly associated with difficulties in emotion regulation.

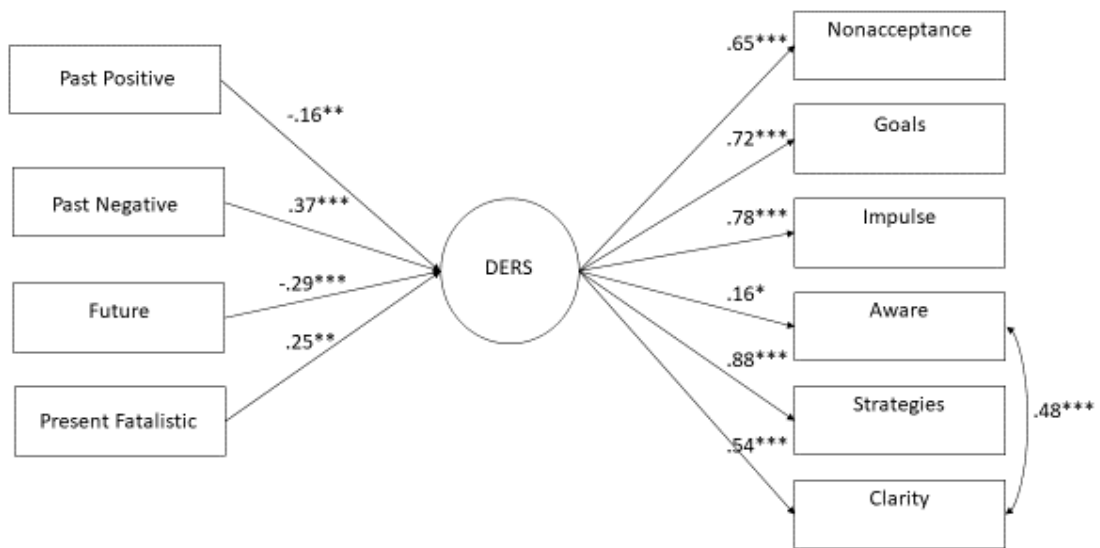


Figure 2. Model 2 shows the best fitting solution.

Note. ** $p < .01$. *** $p < .001$.

Discussion

These preliminary findings provide evidence that time perspectives may be a determinant in developing emotion regulation deficits. Specifically, Past-Negative, Past-Positive, Future, and Present-Fatalistic time perspectives were directly related to emotion regulation deficits. However, Present-Hedonistic time orientation was not related to emotion regulation deficits. Past-Negative and Present-Fatalistic time profiles predicted more reduced self-efficacy in emotion regulation. Thus, maladaptive time perspectives seem to affect an individual’s ability to deal with emotional disturbances. In contrast, Future and Past-Positive time profiles expected stronger self-efficacy in emotion regulation. Thus, Future or Past-Positive oriented individuals have fewer difficulties in emotion regulation.

Present-Fatalistic and Past-Negative time profiles were described as maladaptive time perspectives (Zimbardo & Boyd, 1999; Zimbardo & Boyd, 2009). Individuals with a pessimistic view of the past and belief in fate and an uncontrollable future were found to have difficulties in emotionally regulated processes. In other words, Present-Fatalistic and Past-Negative time profiles positively predicted emotion regulation deficits. This finding is consistent with

previous research (Blais-Rochette & Miranda, 2016; Bolotova & Hachaturova, 2013). Past-Negative was one of the most influential time perspectives that predict negative emotional states (Stolarski et al., 2014; Zimbardo & Boyd, 1999). The current study showed that the Past-Negative time profile is also the strongest predictor of emotion regulation deficits. It can be inferred that Past-Negative is a critical component of time perspectives to explain emotional disturbances. Similarly, Present-Fatalistic is described as being related to emotional uncertainty, depression (Zimbardo & Boyd, 2009), and negative emotions (Stolarski et al., 2014). It has been shown that both Present-Fatalistic and Past-Negative oriented individuals might be unable to cope with emotional disturbance. Indeed, Present-Fatalistic oriented participants may not need to use adaptive strategies about emotion regulation due to the belief that situations are out of control. The past-negative oriented individuals may also have disruptive effects on emotional regulation because of negative experiences regarding their past and feeling regret. Therefore, Past-Negative and Present-Fatalistic time-oriented individuals may be more vulnerable to emotionally negative situations, such as self-harm, intense distress, or violence.

However, Future-oriented or Past-Positive-oriented individuals are less likely to have emotion dysregulation. This result broadens the existing literature on the relations between adaptive strategies of emotion regulation and both Future and Past-Positive time perspectives. The Past-Positive time profile was a critical predictor of emotion regulation deficits. Prior researches have noted the crucial role of Past-Positive time perspective on higher emotional well-being (Drake et al., 2008). These previous indications may explain why individuals are less likely to have difficulties in emotion regulation. Similarly, the Future time perspective was an essential indicator of emotion dysregulation. Future-oriented individuals are more likely to make plans for the future in order to get rid of the emotional discomfort that arises from possible future failure and may use effective emotional strategies more. Therefore, they are less likely to have deficits in emotion regulation. Making plans for future goals or positive view of past experiences may be an adaptive strategy to have stable emotional well-being. That is to say that both Past Positive and Future time perspectives may have a strategic role for emotion regulation deficits.

One unanticipated finding was that Past-Hedonistic had not a statistically significant effect on emotion regulation deficits. Past-Hedonistic is a time perspective that has higher impulsivity. Even though Leith and Baumeister (1996) showed that impulsiveness has a relationship with emotion regulation, findings from another study show that Present-Hedonistic oriented individuals control their emotional experiences better (Wang et al., 2015). The hypothesis of the current study is closer to the results of Wang et al. (2015). However, the

results of the present study did not support one of our hypothesis, which is that Present-Hedonistic orientation would be negatively associated with emotion dysregulation. Matthews and Stolarski (2015) emphasized that social context is an essential factor in evaluating possible interactions with Present-Hedonistic. Present-Hedonistic time profiles may not have emotionally negative consequences for our samples, consisting of university students but may cause emotional disturbance for adults or older adults. In other words, a hedonistic perspective may be emotionally damaging for adults or older adults trying to manage jobs, career progress, and family responsibilities. However, university students are more likely to behave in a relaxed way without feeling restricted by rules or accepted ways of doing things. Therefore, the Present-Hedonistic time perspective may not be emotionally damaging for young adults, as shown in our results. For this purpose, the relationship between Present-Hedonistic and emotion regulation deficits needs to be investigated in different age groups to understand the function of Present-Hedonistic on emotion regulation deficits.

It is the first time, as far as we know, that a relationship between emotion regulation difficulties and time perspectives has been revealed in an empirical study. Thus, these results should be considered preliminary. The present study addressed the literature gap by investigating the associations between time perspective and emotion regulation deficits. However, the current research has limitations that must be taken into account. First of all, the study was cross-sectional, and self-efficacy in emotion regulation was based on the self-reported measure. A cross-sectional design was used for this study, which is based on a cohort of university students aged 17 to 29 years, and the findings should not be viewed as causal. However, the results should be interpreted as strong associations were detected. Gratz and Roemer (2004) emphasized that some individuals have limited awareness of their emotional responses. It is suggested that emotion regulation deficits may be measured experimentally. The second limitation is related to scales that were used in the present research. DERS seems to measure only the regulation of the emotional state. There is a need to study the associations between other emotional states and time orientations.

Furthermore, Carelli, Wiberg, and Wiberg (2011) suggested that future time profiles should be separated as positive and negative so that the special effects of future time orientation on emotion regulation deficits may be changed with positive and negative future time orientation. Therefore, future studies may need to investigate whether positive and negative future time orientations have a direct effect on emotion regulation deficits. Thirdly, the model of the current study consisted of direct paths from time perspectives to emotion regulation deficits. However, some psychological factors like perceived stress and emotional intelligence may mediate the relationship of time perspective to emotion regulation deficits.

Besides, emotion regulation deficits may mediate the association of time orientation to psychological well-being. Future researches are needed to study these mediation effects between these variables.

The present study shows that Past-Negative, Past-Positive, Present-Fatalistic, and Future time perspectives were associated with emotion regulation deficits directly. Findings from the study suggest that maladaptive time perspectives like Past-Negative and Present-Fatalistic tend to influence emotion regulation negatively, and adaptive ones like Future and Past-Positive may promote emotion regulation positively. A simple recommendation drawn from these findings may be to decrease maladaptive time perspectives and to increase adaptive time perspectives among individuals. More specifically, practitioners or therapists should guide people to increase their habits for making plans for future goals to minimize emotional disturbances. Also, individuals should be supported psychologically to have a more optimistic perspective of the past and future. Therefore, even interventions only about time perspectives can have positive effects on mental health. Currently, Cognitive Behavioral Therapy (CBT) and Acceptance and Commitment Therapy (ACT) have components that work on time perspectives. For example, CBT includes making plans for the future goals of individuals, and ACT tries to make the individual accept his/her past and present emotional state as they are. Zimbardo et al. (2012), on the other hand, worked on time perspective therapy that emphasized changing time perspectives directly. The primary purpose of the sessions they conduct with individuals with PTSD is to change the individual's past-negative time perspective into past-positive and future. That is, they try to prevent the person from getting stuck in the past trauma, to focus on the strengths of the past and the positive things in the future.

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Zaman Perspektifi Duygu D zenleme İin Neden  nemlidir? Gen Yetiřkinlerde Zaman Perspektiflerinin Duygu D zensizliklerindeki Rol 

 zet

Duygu d zenleme, birinin duyguları  zerinde kontrol sađlamak veya duygusal deneyimlerine anlam vermek gibi kendi kendini d zenleme ile ilgilidir. Sađlıklı bir duygu d zenleme, kiřinin psikolojik (Adrian, Jenness, Kuehn, Smith ve McLaughlin, 2019; Chiu, Yee, Kwan, Cheung ve Hou, 2019; Kelly, Glazer, Pornpattananangkul ve Nusslock, 2019; M rida-L pez, Extremera ve Rey, 2017; meta-analiz alıřması iin bkz. Hu ve ark., 2014) ve fiziksel (Birk ve Bonanno, 2016; Krkovic, Krinki, ve Lincoln, 2018) olarak iyi oluřu aısından  nemlidir. Buna karřılık, duygu d zenlemedeki g l kler, gen yetiřkinler arasında eřitli psikolojik bozuklukların olası bir g stergesi olarak kabul edilmektedir (Doolan, Bryant, Liddell ve Nickerson, 2017; derleme iin Sloan ve diđerleri, 2017). Bunun yanı sıra, duygu d zensizliđinin gen yetiřkinler arasında, kendilerini kasten yaralama, yođun sıkıntı ve insanlara zarar vermeyi amalayan eylemler gibi nispeten yaygın olan olumsuz sonularla bađlantılı olduđu bilinmektedir (Barden, Kumpula ve Orcutt, 2013; Gratz ve Roemer, 2008; Pickett, Barbaro ve Mello, 2016; Shorey, Brasfield, Febres ve Stuart, 2011). Cole, Michel ve Teti (1994),  đrenilen inan ve davranıřların duygu d zenleme  zerindeki etkisini vurgulamaktadır.  rneđin, biliřsel-davranıřçı klinik bakıř aısına g re d řunme tarzı, atıf stilleri ve davranıř kalıpları uyumlu olmayan duyguların belirtilerinin ortaya ıkmasında ve d zenlenmesinde ok  nemli bir role sahiptir (Cole, Michel ve Teti, 1994). Cole, Michel ve Teti (1994), bu biliřsel-davranıřı aıklamanın, bireylerin ya uyumsuz d řunme biimini ve olumsuz duygularını koruyan stratejileri  đrendiklerini ya da duyguları d zenlemedeki adaptif davranıřları  đrenmede yetersiz oldukları varsayımına dayandıklarını belirtmiřlerdir. Bireyler d řunme biimleri, atıf stilleri ve davranıř biimleri bakımından birbirlerinden farklılařır. Bu nedenle, bu y nlerdeki farklılıkların duyguları d zenleme biimini etkilediđini s ylemek m mkündür.

Arařtırmacılar, bireysel farklılıđın duygu d zenlemedeki rol ne yeterince dikkat etmemiřlerdir. Her ne kadar bazı arařtırmalar mizacın duygu d zenlemede rol n  arařtırmıř olsa da (derleme iin; Rothbart, Sheese ve Posner, 2014), bireysel farklılıkların bir diđer  nemli  ls  olan zaman perspektifi ile duygu d zenleme arasındaki iliřki hakkında ok az yayınlanmış bilgi bulunmaktadır. Bununla birlikte, daha  nce yapılan hibir alıřma duygu d zenleme bozukluđu ile zaman perspektifleri arasında bir iliřki olup olmadıđını arařtırmamıřtır. Bazı arařtırmalar, zaman perspektifinin mevcut duygusal durumu belirleyen temel bir fakt r gibi g r nd đ n  ileri s rmiřtir (Desmyter ve De Raedt, 2012; Stolarski,

Bitner ve Zimbardo, 2011; Stolarski ve Matthews, 2016; Stolarski, Matthews, Postek, Zimbardo ve Bitner, 2014). Bireyler genellikle belirli bir duruma ve hatta duygusal duruma, tutumlara ve kişisel hedeflere yönelik tepki verirken sahip oldukları zaman perspektifleri (geçmiş, şimdi ve gelecek) bu tepkiyi etkilemektedir (Stolarski, Fieulaine, ve Zimbardo, 2018). Zaman perspektiflerindeki bireysel farklılıklar, birinin duygu düzenleme stratejilerini etkiliyor olduğu bulunmuştur (Blais-Rochette ve Miranda, 2016; Bolotova ve Hachaturova, 2013; Taylor ve Wilson, 2016; Wang, Chen, Cui ve Liu, 2015). Bu çalışma, zaman perspektifleri ve duygu düzenleme eksiklikleri arasındaki ilişkiyi daha derinden anlamayı amaçlamaktadır. Bulgular, zaman perspektifleri ve duygu düzenleme alanına önemli bir katkı sağlayacaktır.

Bu çalışma için veriler 192 üniversite öğrencisinden (yaş aralığı: 17-29; $M_{age} = 20.46$ yıl; $SS = 1.6$; % 76 kadın) alınmıştır. Bulgular, $\chi^2(28) = 47,657$; $p = .012$; $\chi^2/df = 1.70$; $GFI = .95$; $CFI = .96$; $RMSEA = .06$; $SRMR = .05$, hipotez edilen modelin veriye iyi bir şekilde uyduğunu göstermiştir. Duygu Düzenlemedeki Güçlükler Ölçeđi (DDGÖ) için R^2 değeri 0.41'dir. Geçmiş-Olumsuz, Geçmiş-Olumlu, Şimdi-Kaderci ve Gelecek zaman perspektiflerinin duygu düzenleme eksiklikleri üzerinde doğrudan etkisi olduğu gösterilmiştir. Bu zaman perspektifleri, duygu düzenleme bozukluğundaki değişimin % 41'ini doğrudan açıklamıştır. Geçmiş-Olumsuz'dan DDGÖ'ye ve Şimdi-Kaderci'den DDGÖ'ye giden yol anlamlıdır (sırasıyla; $\beta = .37$, Critical Ratio = 5.001; $\beta = .22$, Critical Ratio = 3.63). Gelecek ve Geçmiş-Olumlu zaman perspektifleri DDGÖ'yü olumsuz yönde etkilemiştir (sırasıyla; $\beta = -.33$, Critical Ratio = -4.38; $\beta = .37$, Critical Ratio = -2.47, $p = .013$). Genel olarak, bu sonuçlar hipotezlerimizle uyumludur. Gelecek ve Geçmiş-Olumlu zaman perspektifleri, duygu düzenlemede olumsuz bir şekilde öngörülen zorlukları yordamaktadır. Şimdi-Kaderci ve Geçmiş-Negatif zaman perspektifleri, duygu düzenlemede zorlukları pozitif olarak yordar. Ancak, hipotezimizden biri sonuçlar tarafından desteklenmemiştir. Şimdi-Hazcı zaman perspektifi, duygu düzenlemedeki zorluklarla anlamlı bir şekilde ilişkili bulunmamıştır.

Bildiğimiz kadarıyla, bu çalışma duygu düzenlemedeki zorluklarla, zaman perspektifleri arasındaki ilişkinin ampirik bir çalışmada ortaya konduğu ilk çalışmadır. Bu çalışma, Geçmiş-Olumsuz, Geçmiş-Olumlu, Şimdi-Kaderci ve Gelecek zaman perspektiflerinin doğrudan duygu düzenlemedeki güçlüklerle ilişkili olduğunu göstermektedir. Çalışmadan elde edilen bulgular, Geçmiş-Olumsuz ve Şimdi-Kaderci gibi uyumsuz zaman perspektiflerinin duygu düzenlemesini olumsuz yönde etkilediğini; Gelecek ve Geçmiş-Olumlu gibi uyumlu zaman perspektiflerinin duygu düzenlemesini olumlu yönde etkileyebileceğini göstermektedir. Bu bulgulardan, uyumsuz zaman perspektiflerini azaltmak ve bireyler arasında uyumlu zaman perspektiflerini artırmanın duygu düzenleme üzerinde olumlu etkileri olabileceđi çıkarımı yapılabilir. Daha spesifik olarak, terapistler (örneğin

bilişsel-davranışçı terapistler ve kabul ve kararlılık terapistleri) duygusal rahatsızlıkları en aza indirebilmek için gelecek hedeflere yönelik planlar yapma alışkanlıklarını artırma konusunda insanları yönlendirebilir. Ayrıca, geçmiş ve gelecek hakkında daha iyimser bir bakış açısına sahip olmak için bireylerin psikolojik olarak desteklenmesi gerekebilir. Bu nedenle, zaman perspektifi terapisi (Zimbardo ve ark., 2012), duygu düzenleme ile ilgili sorunları olan insanlar arasında yeni bir terapötik müdahale olabilir.