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RESEARCH ARTICLE

Cognitive Emotion Regulation Strategies and Mindfulness: Key Determinants of Wellbeing Among Young Adults

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Abstract
This article addressed the predictor role of mindfulness and cognitive emotion regulation strategies on wellbeing. I expected that individuals who score higher on mindfulness use, more adaptive emotion regulation strategies, and less non-adaptive emotion regulation strategies would score higher on wellbeing. The present article used a correlational design to investigate the associations between cognitive emotion regulation strategies, wellbeing, and mindfulness in young adult participants. One hundred seventy-five university students were recruited for this study. Correlation analysis showed that mindfulness and wellbeing were significantly and positively correlated. Multiple regression analysis showed that emotion regulation strategies of Self-blame and Planning were significant predictors of wellbeing. University students' wellbeing might be enhanced when they use planning strategies and dampened when they use self-blame to cope with stressful events.

Keywords: emotion regulation; mindfulness; wellbeing

INTRODUCTION

Psychological wellbeing has become a salient concern for young adults as they navigate academic demands, social transitions, and uncertainty-laden life decisions. Contemporary stressors including rapid technological change and the lingering psychosocial effects of major societal disruptions have heightened interest in psychological resources that help individuals manage emotional experiences and maintain flourishing (Kozubal et al., 2023; Kraiss et al., 2020). Two constructs repeatedly implicated in resilient functioning are mindfulness and emotion regulation, both of which have robust theoretical links to wellbeing outcomes across clinical and nonclinical populations (Chambers et al., 2009; Gross & John, 2003; Roemer et al., 2015).

Mindfulness is a mental state emphasizing nonjudgmental awareness and acceptance of the current moment, encompassing sensations, thoughts, and physiological states (Hoffman & Gomez, 2017). There are many subscales of mindfulness. The most common of these are the following: Observing, which refers to noticing and attending to external and inner experiences, such as thoughts, emotions, and physical sensations; Describing, which refers to the ability to label internal experiences with words; non-judging of Inner Experience which involves adopting a nonjudgmental stance towards one's thoughts and emotions, Acting with Awareness that includes attention and awareness of the present moment, and avoiding distraction or preoccupation with past or future thoughts, Nonreactivity to Inner Experience which allows thoughts and emotions to enter and leave awareness without becoming consumed or resisting them (Baer et al., 2008; Pepping et al., 2013).

Individuals exhibit variability in their mindfulness levels and inherent capacity for mindfulness. Mindfulness can be conceptualized as a dispositional trait-like construct. Individuals with higher levels of dispositional mindfulness experienced better outcomes across various psychosocial domains than their less mindful counterparts (Keng et al., 2011). Individuals with more vital mindfulness skills demonstrate heightened awareness and understanding of their emotions and the ability to experience emotions with detachment and without judgment. Enhanced emotional awareness may lead to more informed decisions about expressing emotions appropriately and effectively (MacDonald & Baxter, 2016). Nonjudgmental, nonreactive awareness and acceptance of internal experiences, even those involving negative emotions, create an open attitude toward experiences, regardless of emotional valence (Brown & Ryan, 2003). This open attitude may protect against experiential avoidance, non-acceptance, and suppression of feelings and thoughts (Kumar et al., 2008). Individuals unafraid of intense emotions like sadness, anger, or fear may be less inclined to avoid or push these feelings away. Experiential avoidance is associated with psychological distress, and emotional suppression has been linked to lower psychological wellbeing. Therefore, individuals with higher mindfulness may be less prone to avoiding or suppressing negative thoughts or emotions, contributing to greater overall wellbeing (Feldner et al., 2003; Gross & John, 2003). In alignment with Pepping et al. (2013), who emphasized that mindfulness involves

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adopting a decentered stance towards thoughts, it is conceivable that individuals higher in mindfulness are less susceptible to being overwhelmed by thoughts and emotions associated with low self-esteem. The mindfulness subscale of describing plays a vital role in this process by enabling individuals to identify and label potentially self-critical or harsh thoughts about themselves. This practice empowers individuals to manage and overcome these negative thoughts, allowing them to engage in activities without being consumed or overwhelmed by such negativity.

Scholarly literature, exemplified by Huang et al.'s (2021) research on adolescents, illustrates a positive correlation between mindfulness and psychological wellbeing. Mindfulness, fostering nonjudgmental awareness of the present moment and intentional attention to the current task, nurtures qualities like energy, transparency, and happiness and is correlated with positive psychological outcomes. Additionally, mindfulness mediates the relationship between adverse childhood experiences and psychological wellbeing (Yousefi Afrashteh & Hasani, 2022). In the study conducted by Şahin (2019), a positive and significant relationship was found between the mindfulness scores and life satisfaction scores of university students, indicating that mindfulness predicts life satisfaction. Similarly, there was a positive and significant relationship between mindfulness scores and mental well-being wellbeing scores, suggesting that mindfulness predicts mental well-being wellbeing in university students. Shankland et al. (2020) demonstrated that engagement in mindfulness exercises reduces anxiety and depression and enhances life satisfaction–a crucial component of mental health and psychological wellbeing. The study by Terzioğlu and Çakır (2020) investigated whether Turkish university students' mindfulness, self-awareness, emotion regulation skills, and social interest significantly predict their subjective wellbeing and stress levels. The hierarchical regression analysis found that the dimensions of mindfulness, explicitly Describing, Acting with Awareness, and Nonreactivity, had a significant predictive impact on subjective wellbeing.

Additionally, the results indicated that Observing, Acting with Awareness, Non-judging of Inner Experiences, and Nonreactivity significantly predicted the manifestation of stress symptoms. Mindfulness has demonstrated effectiveness in mental health as a personal trait and state-level intervention program. The study conducted by Ramler et al. (2016) found that participants in the mindfulness-based stress reduction group demonstrated better adjustment to college and lower stress levels compared to a control group. Enhancing mindfulness skills in college students has the potential to positively influence their ability to cope with the stress of college life. This ability may benefit students' social, emotional, and academic functioning (MacDonald & Baxter, 2016). The study conducted by MacDonald and Baxter (2016) found that healthy female college students who exhibit a higher level of awareness and attention to present-moment experiences, coupled with the ability to describe their experiences without judgment or immediate reaction, tend to report enhanced success in various aspects of their lives, including psychological wellbeing factors, such as relationships, self-esteem, and a heightened sense of purpose and optimism.

Mindfulness demonstrates a meaningful positive impact on psychological flexibility by enhancing awareness. Heightened awareness empowers individuals to respond adaptively and flexibly to internal and external situations, diverging from habitual or impulsive reactions (Keng et al., 2011; Pepping et al., 2013). The review by Jaiswal et al. (2019) compiles findings from self-report measures and behavioral, electrophysiological, hemodynamic, and biological studies, collectively suggesting a consistent pattern of an inverse relationship between mindfulness and anxiety. Considering the self-report, behavioral, electrophysiological, fMRI, and biological markers evidence, it is proposed that mindfulness and anxiety are mediated by emotion regulation strategies such as reappraisal, non-acceptance, and rumination. These strategies may interact antagonistically (Jaiswal et al., 2019).

Emotion regulation

The rapid societal changes and advancements in digital technology observed in recent years expose individuals to various stimuli. This influx of stimuli results in cognitive strain, situational stress, and the onset of negative emotional states. Over the last few years, the COVID-19 pandemic and the accompanying restrictions have specifically posed a long-term threat. Given these transformations, the ability to flexibly regulate emotional reactions has become increasingly valuable (Kozubal et al., 2023). Emotion regulation entails the methods and procedures that impact or modify the encounter or display of emotions and encompasses adjusting both adverse and favorable emotional experiences (Gross & Thompson, 2007, as cited in Freudenthaler et al., 2017). Emotion regulation does not entail the absence of emotions or emotional responses; instead, it involves the capacity to be aware of and understand emotions and mitigate the negative consequences of the felt emotion (Cisler et al., 2009). Emotion regulation embraces various processes, including choosing situations, modifying situations, directing attention, altering cognitive perspectives, and adjusting responses (Gross, 1998). Emotion regulation occurs naturally and is an inherent process (Kozubal et al., 2023), and individuals tend to employ various emotion regulation strategies (Szasz et al., 2018).

The role of emotion intensity in guiding emotion regulation strategies has been extensively explored in the literature (Dixon-Gordon et al., 2015; Sheppes et al., 2014; Szasz et al., 2018). Sheppes and colleagues (2014) discovered that variations in emotion intensity are associated with differences in the selection and application of emotional regulation strategies. Specifically, individuals tend to use reappraisal at lower levels of emotion intensity, which is considered an adaptive strategy for processing emotions. Conversely, at higher levels of emotional intensity, individuals are more inclined to resort to avoidance, a potentially maladaptive strategy that involves disengaging from emotions (Sheppes et al., 2011). Dixon-Gordon et al. (2015) observed that reappraisal was more frequently employed in high-emotion-intensity contexts. In the context of this existing literature, the study conducted by Kozubal et al. (2023) aimed to investigate further the relationship between emotional intensity and the choice of emotion regulation strategies. The focus was on five strategies: distraction, rumination, reappraisal, suppression, and acceptance. The results revealed that emotional intensity played a significant role in predicting the use of rumination and reappraisal. Higher intensity was a positive predictor for rumination, indicating that more intense emotions increased the likelihood of employing rumination as a strategy. In contrast, higher intensity was a negative predictor for reappraisal, suggesting that greater intensity decreased the probability of using this particular strategy. Additionally, the study by Szasz et al. (2018) showed that it is prevalent to employ multiple strategies, especially in high-intensity emotional contexts.

The type of emotion is another crucial factor to consider when exploring the application of emotion regulation strategies. People exhibit diverse responses to different emotions. Bernstein et al. (2012) research suggests that individuals have varying tolerance levels for different emotional states, indicating different thresholds for regulating emotions. In particular, individuals may opt to regulate emotions they find challenging to tolerate while employing less effort in emotion regulation for emotions they find more manageable (Dixon-Gordon et al., 2015). For example, in the Dixon-Gordon et al. (2015) study, participants reported higher utilization of emotion regulation strategies in sadness than in anger contexts.

Adaptive emotion regulation includes a range of emotion regulation strategies and their flexibility (Ma & Fang, 2019). Several adaptive cognitive emotion regulation strategies exist, including contextualizing the event by highlighting its importance relative to other events or downplaying the significance of an event (Garnefski et al., 2001). "Positive Refocusing" involves directing thoughts towards happy and pleasant matters rather than dwelling on the actual event. "Refocus on Planning" entails planning steps to cope with the event. "Positive Reappraisal" is assigning a positive meaning to an event from a personal development perspective. Lastly, "Acceptance" involves acknowledging what you have experienced and accepting what has occurred (Garnefski et al., 2001). Several non-adaptive cognitive emotion regulation skills exist, including Catastrophizing, which involves thoughts that explicitly emphasize the horror of the events that occurred. Other-blame consists of thoughts that blame others for what has happened, while Self-blame involves thoughts that blame oneself for the events. Rumination, also known as Focus on Thought, is characterized by the continuous contemplation of emotions and thoughts associated with adverse events. (Garnefski et al., 2001). Another non-adoptive emotion regulation strategy is Expressive Suppression, which involves controlling emotional responses by refraining from outwardly expressing them (Hofmann et al., 2009).

Adaptive emotion regulation strategies have the potential to enhance wellbeing, while non-adaptive strategies may hinder it. Individuals' specific approach to regulating their emotions is crucial in determining their overall wellbeing. (Finkelstein-Fox et al., 2018; Kraiss et al., 2020). According to findings from Kraiss et al. (2020), specific approaches to emotion regulation significantly impact individual wellbeing. Studies indicate that the use of Self-blame, Catastrophizing, Other-blame, and Focus on Thought is associated with depression and other indicators of poor health. In contrast, adaptive cognitive emotion strategies are linked to greater mental wellbeing (Garnefski et al., 2001). The meta-analysis revealed that Avoidance and Rumination, regarded as non-adaptive strategies, were negatively correlated with wellbeing, aligning with existing knowledge of their association with psychological challenges. In contrast, adaptive strategies such as Acceptance and Positive Reappraisal positively correlated with wellbeing and emphasize the potential of these approaches to serve as adaptive strategies that contribute positively to overall wellbeing by mitigating avoidance (Kraiss et al., 2020).

The study conducted by Sağar (2022) aimed to investigate the predictive capacity of emotion regulation, coping, and cognitive flexibility variables on adolescents' subjective wellbeing at school. Students self-reported using scales such as the Brief Adolescents' Subjective Wellbeing in School Scale and the Emotion Regulation Questionnaire. The collected data underwent hierarchical regression analysis. The study revealed that the re-evaluation sub-dimension of emotion regulation positively predicted subjective wellbeing at school. In contrast, subjective wellbeing at school showed a moderate, negative, and significant association with the suppression sub-dimension of emotion regulation. Another study conducted in the Turkish context investigated the extent to which childhood adverse experiences, emotion regulation, and self-compassion predict symptoms of depression. It was observed that childhood adverse experiences predict symptoms of depression, the Catastrophizing sub-dimension of the Cognitive Emotion Regulation Scale, and the social isolation and self-kindness sub-dimensions of the Self-Compassion Scale. This study stresses the significance of early development of emotion regulation skills, highlighting their potential role as a protective factor against psychological distress in the face of potential negative childhood experiences. Additionally, individuals with high levels of self-compassion are known to be more emotionally resilient in stressful situations and better at tolerating negative emotions. (Akcan, G. & Taşören, A. B., 2020).

The study conducted by Gross and John (2003) indicates that individuals who employ Cognitive Reappraisal tend to experience fewer depressive symptoms and report higher levels of self-esteem, life satisfaction, and various other measures of wellbeing. On the other hand, limited emotional awareness, improper expression of negative emotions, and the use of maladaptive coping strategies serve as predictors for elevated symptoms of depression and anxiety (D'Avanzato et al., 2013). Challenges in regulating emotions lead to significant problems both within oneself and in interpersonal relationships (Crowell et al., 2009). Consequently, these difficulties are robust predictors of psychological distress (Abdi & Pak, 2019). Research indicates that the Expressive Suppression approach is less effective in alleviating negative emotions and is linked to heightened physiological arousal. Individuals who engage in the non-adoptive emotion regulation strategy of suppression exhibit the lowest scores in positive relations with others. Additionally, they demonstrate reduced levels of self-esteem, diminished life satisfaction, and an increased number of depressive symptoms (Gross & John, 2003).

Emotion regulation, mindfulness, and psychological wellbeing

Mindfulness, as a potential contributor to mental wellbeing, has been explored in the context of emotion regulation. Emotion regulation is gaining more empirical interest in the context of mindfulness and mental health (Jimenez et al., 2010; Roemer et al., 2015). Goldin et al.'s (2016) study demonstrated a comparable effect between mindfulness-based stress reduction and cognitive-behavioral therapy in increasing reappraisal. Regulatory processes activated by mindfulness contrast with maladaptive strategies like emotional suppression and rumination (Iani et al., 2019). Mindfulness opposes experiential avoidance, emphasizing observing emotions as transient mental events detached from complete identification (Guendelman et al., 2017). Nonjudgmental acceptance in mindfulness reduces emotion suppression, indicating opposite ends of a continuum (Reber et al., 2013). Iani et al. (2019) reveal links between mindfulness skills (describing and Nonreactivity) and adaptive emotion regulation (acceptance, reappraisal, and problem-solving), suggesting these skills serve as precursors to positive emotion regulation and contribute to overall wellbeing. The suppression of emotional experience is strongly associated with mindfulness skills, highlighting the role of describing emotions and Nonreactivity. Describing emotions is crucial,

allowing individuals to understand and express feelings. Nonreactivity, characterized by not being carried away by thoughts and feelings, plays a significant role. Moreover, a tendency to compulsively and judgmentally observe situations triggering negative emotions aligns with concepts of rumination in mindfulness, underscoring the intricate relationships between specific mindfulness skills (Iani et al., 2019).

Community studies indicate that Dispositional mindfulness is linked to adaptive emotion regulation abilities, greater acceptance of negative emotions, and effective regulation strategies (Hill & Updegraff, 2012; Pepping et al., 2013). Unlike suppression or avoidance approaches, mindfulness promotes adaptive emotion regulation strategies by fostering a nonjudgmental and accepting attitude toward emotions (Chambers et al., 2009). Toprak and Çetiner Bacak (2019) investigated the connection between emotional regulation and mindful awareness skills among middle school students in a province in Turkey. The findings revealed significant connections between students' emotional regulation and mindful awareness skills, with no notable differences observed in gender and class-based comparisons. The Pearson correlation analysis also showed positive correlations between mindful awareness skills and internal and external adaptive emotional regulation skills.

Conversely, there were negative correlations between mindful awareness skills, internal dysfunctional emotional regulation skills, and external dysfunctional emotional regulation skills. Similarly, Malik and Perveen (2021) found a negative correlation between mindfulness and anxiety and a positive association between mindfulness and adaptive emotion regulation strategies. On the other hand, anxiety showed a positive relationship with maladaptive cognitive emotion regulation strategies. Findings further revealed that combining low mindfulness with maladaptive cognitive emotion regulation led to higher anxiety levels. Additionally, the study suggested that limited use of adaptive cognitive emotion regulation strengthens the negative link between mindfulness and anxiety, potentially exacerbating anxiety symptoms.

Individuals exhibiting mindfulness traits also demonstrate reduced physiological emotional responses during stress (Hill & Updegraff, 2012). Numerous correlational studies consistently demonstrate that mindfulness is linked to positive emotional regulation, encompassing reduced engagement in harmful self-referential practices, diminished intensity of distress, and the promotion of active, healthy emotional recovery and effective goal-directed behavior (Roemer et al., 2015). The study conducted by MacDonald and Baxter (2016) revealed that the connections between three dimensions of mindfulness–namely, describing, acting with awareness, and non-reacting–and overall wellbeing were, in part or entirely, clarified by a reduction in difficulties with emotion regulation and a decrease in attempts to avoid specific types of thoughts. Roemer et al. (2015) state that by fostering nonjudgmental awareness and focused attention on the present moment, mindfulness enhances individuals' capacity to detect and manage their emotions effectively, leading to improved inhibitory learning and emotion regulation. This, in turn, may reduce the automatic self-focused thinking associated with emotional distress. In a cross-sectional investigation by Jimenez et al. (2010), the relationship between dispositional mindfulness and depressive symptoms in college students was influenced by self-acceptance and emotion regulation. In a cross-sectional study, Coeffy et al. (2010) found that college students' emotion regulation mediated the relationship between dispositional mindfulness and mental health. Recent studies among college students indicate that facets of mindfulness, excluding observation, are connected to challenges in regulating emotions (McDonald et al., 2016).

Similarly, Vujanovic et al. (2010) found that higher mindfulness skills were linked to reduced emotion regulation difficulties, such as emotional avoidance and lack of emotional awareness. Moreover, the ability to regulate emotions serves as a foundational mechanism for the therapeutic effect of Mindfulness-Based Interventions in reducing anxiety and depression in a general population seeking stress reduction (Goldin & Gross, 2010; Ma et al., 2018). In summary, the cumulative findings strongly indicate that emotion regulation is central to the connection between mindfulness and mental health.

Current Study and Rationale

This study aims to fill a gap in the existing literature by examining the predictor role of cognitive emotion regulation strategies and mindfulness on psychological wellbeing. Notably, most previous studies on these variables have been conducted in Western societies, prompting the need for research in diverse cultural contexts. This study contributes to a better understanding of the factors influencing psychological wellbeing within a non-Western society. Emotion regulation is influenced by various cultural dimensions, with the consequences and adaptability of different strategies varying across these dimensions. Different cultures shape how individuals regulate their emotions, introducing a dynamic interplay between cultural dimensions and individual emotional regulation. Understanding this complex relationship is crucial for comprehending how diverse cultural contexts mold the effectiveness and appropriateness of emotion regulation strategies. (Aka, 2023; Butler et al., 2007; Ramzan & Amjad, 2017).

Uncertainty avoidance is a significant cultural dimension that influences emotion regulation. Individuals who are intolerant of uncertainty tend to avoid uncertainty (Lee et al., 2010; Sahib et al., 2023). Uncertainty intolerance is defined as the extent to which the members of a culture feel threatened by uncertain or unknown situations (Hofstede & Hofstede, 2005, as cited in Potthoff et al., 2016). As demonstrated in studies such as Sahib et al. (2023), uncertainty intolerance has been observed to impede emotion regulation significantly. Theoretical frameworks consistently propose that individuals grappling with this trait face challenges in effectively managing their emotions (Anderson et al., 2019). These individuals often employ specific emotion regulation strategies in response to negative emotions arising from uncertainty; however, these strategies are frequently characterized as ineffective or maladaptive (Sahib et al., 2023). For instance, Einstein's (2014) transdiagnostic model posits that individuals intolerant to uncertainty resort to rumination and experiential avoidance as coping mechanisms when confronted with uncertain situations, aiming to regulate emotional arousal.

Nevertheless, these strategies hinder individuals from acknowledging or discounting information that contradicts their perception of uncertainty as a threat. Additionally, Hebert and Dugas (2019) propose, within the intolerance of uncertainty model of generalized anxiety disorder, that the catastrophic interpretation of uncertainty gives rise to behaviors such as situational avoidance and thought suppression. These behaviors contribute to a detrimental cycle characterized by heightened worry and anxiety.

The individualism/collectivism dimension is also a significant cultural factor influencing how people express and regulate emotions, leading to differences in emotion regulation strategies. Existing literature indicates that cultures endorse various forms of emotional expression, contributing to distinct approaches to emotion regulation. A systematic review, exemplified by the work of Ramzan and Amjad (2017), underscores that individuals in individualistic cultures tend to use emotional expression more frequently as a common strategy for regulating emotions, in contrast to those in collectivistic cultures. In individualistic cultures, individuals are perceived as self-directed and self-sufficient, fostering encouragement for self-expression and the development of individuality. Those oriented towards individualism may view emotion suppression negatively, associating it with compromised control and reduced satisfaction.

On the other hand, collectivism signifies a cultural orientation where every group member is closely interconnected, with an assumed loyalty among members throughout their lives (Barrett et al., 2007). Moreover, increased exposure to individualistic culture, marked by a strong emphasis on the independence of self-expression, is associated with diminished reliance on suppression as a strategy to maintain social harmony compared to collectivistic cultures (Ramzan & Amjad, 2017). Ford and Mauss (2015) observed that collectivistic cultures employed by East Asians tend to use expressive suppression, while individualistic cultures employed by European Americans rely on a cognitive reappraisal strategy of emotion regulation. These studies highlight the interplay between cultural values and emotion regulation strategies in shaping individuals' emotional expression and suppression responses.

According to Hofstede et al. (2010), Turkish culture exhibits high uncertainty avoidance, as indicated by its Uncertainty Avoidance Index (UAI) score of 85. In contrast, the United States demonstrates a medium level of uncertainty avoidance with a score of 46. Additionally, Turkish culture is characterized by low individualism, reflected in its Individualism Index (IDV) of 37. In comparison, the United States scores very high on the individualism dimension, boasting an IDV score of 91.

Building on insights from the discussed data regarding diverse cultural dimensions and their influence on emotion regulation strategies, this study seeks to investigate whether a significant negative relationship exists between psychological wellbeing and maladaptive emotion regulation strategies and conversely a significant positive relationship between psychological wellbeing and adaptive emotion regulation strategies. It is hypothesized that participants with greater levels of mindfulness, greater levels of adaptive cognitive emotion regulation strategies, and lower levels of non-adaptive cognitive emotion regulation strategies will report higher levels of overall wellbeing. This study aims to further the understanding of the interplay between cultural dimensions, emotion regulation, mindfulness, and psychological wellbeing, thereby contributing valuable insights to the fields of cultural psychology and clinical practices.

MATERIALS AND METHODS

Study Design and Setting

This study used a cross-sectional, correlational design to examine associations among dispositional mindfulness, cognitive emotion regulation strategies, and psychological wellbeing in young adults. Data were collected in Istanbul, Turkey, during the Spring 2023 term using an online survey distributed through multiple undergraduate courses.

Participants and Recruitment

Participants were recruited using nonrandom convenience sampling. A total of 175 university students completed the survey. The sample was predominantly female (n = 130, 74.3%), with males comprising 25.7% (n = 45). Participants' mean age was 21.44 years (SD = 2.29). Students represented multiple departments (e.g., Medicine, Psychology, and other programs) and varied academic standing (first year through other levels).

Ethical Considerations

Ethical approval was obtained from the relevant university Institutional Review Board/Ethics Committee prior to data collection. Participation was voluntary, and informed consent was obtained electronically before participants accessed the survey items. To protect confidentiality, responses were anonymized and coded prior to analysis; only de-identified data were used in statistical procedures. Given the self-report nature of items related to stress and coping, participants were informed that they could skip any question and discontinue participation at any time without penalty. No incentives were provided, and the authors reported no funding and no ethical conflicts.

Procedure

Survey administration was conducted through Google Forms. After consenting, participants completed demographic questions followed by standardized questionnaires assessing psychological wellbeing, cognitive emotion regulation strategies, and mindfulness. Completed responses were exported, coded, and prepared for analysis in IBM SPSS Statistics (Version 22.0).

Table 1. Participant Characteristics (N= 175)

	n	%	M	SD
Gender				
Female	130	74.3		
Male	45	25.7		
Age			21.44	2.29
Department				
Medicine	73	41.7		
Psychology	32	18.3		
Other Departments	70	40.0		
Year in University				
1st Year	48	27.4		
2nd Year	38	21.7		
3rd Year	23	13.1		
4th Year	41	23.4		
Other Levels	25	14.4		

Materials

PERMA

The PERMA wellbeing scale, created by Butler and Kern (2016), assesses the various dimensions of wellbeing among people. The PERMA-Profiler, comprising 23 items, integrates the core 15 items of the PERMA-Profiler, encompassing three items per domain, alongside eight additional items

designed to gauge overall wellbeing (1 item), physical health (3 items), negative emotions (3 items), and loneliness (1 item). Each item employs a Likert scale, ranging from 0 (reflecting markedly low levels) to 10 (reflecting significantly high levels). Domain scores are derived by averaging the responses across the three corresponding items. Demirci et al. (2017) examined the validity and reliability of the Turkish version of PERMA-Profiler. The scale demonstrated strong internal consistency with a Cronbach's alpha reliability coefficient of .91. At the same time, the subscales showed internal consistency coefficients ranging from .61 to .81. Additionally, the test-retest reliability coefficient of the scores obtained from the first and second administration of the scale ranged from .61 to .85 (Demirci et al., 2017). A Cronbach's alpha reliability analysis assessed the internal consistency of the questionnaire ın the current study. The analysis revealed a Cronbach's alpha coefficient of .94, indicating excellent internal consistency. (See Table 2)

Cognitive Emotion Regulation Questionnaire- Short form (CERQ)

Garnefski et al. (2001) developed the Cognitive Emotion Regulation Questionnaire (CERQ) to assess the cognitive facets of emotion regulation, aiming to identify the diverse cognitive coping strategies individuals utilize in response to challenging situations (Garnefski et al., 2002). This multidimensional scale categorizes cognitive coping into nine specific strategies: Self-blame, Acceptance, Rumination, Positive Refocusing, Refocus on Planning, Positive Reappraisal, Putting into Perspective, Catastrophizing, and Other-blame (Garnefski et al., 2002). Cakmak and Cevik (2010) culturally adapted the Cognitive Emotion Regulation Questionnaire-Short Version (CERQ-short; Garnefski & Kraaij, 2006) and assessed the reliability and validity of the Turkish version of the CERQ-TR short form. The short form included 18 items, two items per subscale. The Cronbach's alpha coefficient was computed to assess the internal consistency of the CERQ-TR Short Scale, yielding a value of .70 for the overall scale. For the subscales, this ranged from 0.63 to 0.74. I conducted a Cronbach's alpha reliability analysis to assess the internal consistency of the CERQ-TR Short Scale. The Cronbach's alpha coefficient ranged from .84 for the Other-blame subscale to .71 for the Focus on Thought subscale. Specifically, the item-total correlations ranged from .56 for the Focus on Thought subscale to .73 for the Other-blame subscale. (See Table 2)

Table 2. Means, Standard Deviations, and Reliability Coefficients

Scales/Subscales	M	SD	∝
PERMA	96.65	27.45	.94
CERQ			
Self-blame	6.52	2.02	.81
Acceptance	7.29	1.83	.76
Focus on Thought	7.67	2.01	.71
Positive Refocusing	5.06	1.87	.72
Planning	7.56	1.94	.77
Reappraisal	6.22	2.13	.82
Perspective	6.34	2.11	.76
Catastrophizing	5.88	2.16	.81
Other-blame	4.53	1.66	.84
FFMQ	73.94	9.72	.70

The Five Facet Mindfulness Questionnaire- Short form (FFMQ-SF)

Five Facet Mindfulness Questionnaire measures five facets of mindfulness: Observing, Describing, Acting with Awareness, Non-judging, and Nonreactivity (Bohlmeijer et al., 2011). The Five Facet Mindfulness Questionnaire Short-form (FFMQ-SF) consists of 24 items (Bohlmeijer et al., 2011). Items are evaluated using a 5-point Likert scale, where 1 represents "never or very rarely true," and 5 represents "very often or always true." The facet scores are calculated by adding the scores of the individual items. Higher scores indicate a greater level of mindfulness. All facets of the FFMQ-SF exhibit satisfactory internal consistency, with Cronbach's alpha coefficients ranging from .73 for Nonreactivity to .91 for describing (Bohlmeijer et al., 2011). A Cronbach's alpha reliability analysis assessed the internal consistency of the questionnaire. The analysis revealed a Cronbach's alpha coefficient of .70. Deleting any item did not substantially increase the alpha coefficient, indicating that each item contributed to the scale's internal consistency. (See Table 2).

As the FFMQ-SF had not previously been translated to Turkish, a factor analysis was conducted to determine the translation's validity. The translation was conducted by two researchers who were fluent in Turkish and English. The translation process involved observing the consistency of meaning through forward and backward translation. The analysis was conducted on a sample of 175 Turkish-speaking participants. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .77, indicating that the sample was adequate for factor analysis. Bartlett's test of sphericity was statistically significant (<.001), supporting the factorability of the correlation matrix. The factor analysis revealed five factors with eigenvalues greater than 1, which explained 59.37% of the total variance. The scree plot and parallel analysis suggested that five factors should be retained. The factors identified in the analysis corresponded to the three parenting styles: authoritarian, permissive, and authoritative. This finding supports the construct validity of the translated scale. (See Table 3)

Statistical Analysis

All analyses were conducted in IBM SPSS Statistics (Version 22.0). Preliminary analyses included descriptive statistics (means, standard deviations) and bivariate correlations to examine associations among demographic variables, mindfulness, cognitive emotion regulation strategies, and wellbeing. Group differences by gender were examined using independent-samples t tests where appropriate.

To address the primary research question regarding predictors of wellbeing, multiple linear regression was conducted with wellbeing as the dependent variable and mindfulness, cognitive emotion regulation strategies, and demographic covariates (age, gender) as predictors. Prior to regression, standard model assumptions were evaluated through (a) inspection of distributional properties and residual plots (normality and linearity), (b) assessment of homoscedasticity via residual scatterplots, (c) evaluation of multicollinearity using tolerance/VIF indices, and (d) screening for influential cases using leverage and Cook′s distance diagnostics. Statistical significance was evaluated using an alpha level of p = .05.

In addition, multivariate analyses were conducted to examine whether selected psychological predictors were associated with multiple wellbeing dimensions (e.g., Positive Emotion, Engagement, Relationships, Meaning,

Accomplishment). For multivariate models, assumptions (including multivariate outliers and homogeneity considerations) were evaluated, and omnibus multivariate tests (e.g., Wilks′ Lambda/Pillai′s Trace) were interpreted prior to any follow-up probing of domain-specific effects.

Power Analysis

A post hoc power analysis was performed using G*Power to evaluate whether the sample size provided adequate power for the regression models. Using conventional benchmarks for effect size (small = .02, medium = .15, large = .35) and a target power of .80, the achieved power exceeded .80 for detecting moderate-to-large effects, supporting the adequacy of the sample for the planned regression analyses.

Table 3 Factor Analysis (PCA) for FFMQ

FFMQ Items	Factor Loading				
	1	2	3	4	5
Factor 1: Describe Experiences					
Item 1	.80				
Item 5	.79				
Item 11	.75				
Item 16	.75				
Item 2	.72				
Factor 2: Observing Inner Experiences					
Item 20		.81			
Item 10		.80			
Item 6		.78			
Item 15		.61			
Factor 3: Acting Mindfully					
Item 23			.76		
Item 22			-.76		
Item 17			.73		
Item 12			.63		
Item 8			.61		
Factor 4: Nonreactivity					
Item 13				.77	
Item 9				.74	
Item 21				.68	
Item 3				.60	
Item 18				.59	
Factor 5: Non-judging					
Item 14					.83
Item 4					.78
Item 19					.73
Item 24					.45
Item 7					.40

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

RESULTS OF STUDY

Descriptive statistics

A correlation analysis examined the relationship between age, gender, mindfulness, cognitive emotion regulation strategies, and wellbeing. The results showed a significant positive correlation between mindfulness and wellbeing (r =0.27, $p < .01$), indicating that higher levels of mindfulness were associated with higher levels of wellbeing. Additionally, there was a significant positive correlation between wellbeing and Positive Refocusing (r =.28, $p < .01$), Positive Reappraisal (r =.41, $p < .01$), and a significant negative correlation between wellbeing and Self-blame (r =-.31, $p < .01$) and Catastrophizing (r =-.34, $p < .01$). (See Table 4)

PERMA

Participants ' overall psychological wellbeing was assessed using the PERMA scale (Butler & Kern, 2016). The participants reported an overall wellbeing score of 6.04 (SD = 1.71). Participants reported high levels of Positive Emotion (M = 5.92, SD = 1.90), Engagement (M = 6.27, SD = 1.79), Relationship (M = 5.75, SD = 2.19), Meaning (M=6.12, SD=2.07), Accomplishment (M = 6.12, SD = 2.08). An independent group t-test was conducted to determine if overall wellbeing scores differed by gender. Results indicated no significant difference.

Cognitive Emotion Regulation Questionnaire (CERQ)

Using the Cognitive Emotion Regulation Questionnaire (CERQ), the cognitive emotion regulation strategies used by the participants were measured. The most commonly used cognitive emotion regulation strategy was Focus on Thought (M=7.67, SD=2.01), Planning (M=7.56, SD=1.93), Acceptance (M=7.29, SD=1.83), Self-Blame (M=6.52, SD=2.02), Perspective (M=6.34, SD=2.11), and Reappraisal (M=6.22, SD=2.13) respectively. Conversely, the strategies that were least commonly used were Other-Blame (M=4.53, SD=1.66), Positive Refocusing (M=5.06, SD=1.87), Catastrophizing (M=5.88, SD=2.16) respectively. An independent group t-test was conducted to determine if gender differences existed in the cognitive emotion regulation strategies used as a function of participant gender. Results indicated only one difference. Females (M=6.65, SD=2.03) used Putting into Perspective more than males (M=5.47, SD=2.13), $t(173)=3.31$, $p<.05$, 95%*CI*: .47 to 1.88, $d=1.17$. No other sex differences were significant.

FFMQ

The Cognitive Five Facet Mindfulness Questionnaire (FFMQ) measured participants' mindfulness levels. Overall, participants reported high levels of mindfulness on average (M=15.47, SD=1.47). Participants scored highest on Observing Inner Experiences (M=3.63, SD=0.95), Describing Experiences (M=3.11, SD=0.41), Non-judging (M=2.98, SD=0.12), Acting Mindfully (M=2.92, SD=0.25), and Non-reactivity (M=2.81, SD=0.66). An independent group t-test was conducted to see if the total mindfulness score differed by gender. Results indicated only one difference. Females (M=3.72, SD=.93) observed their inner experiences more than males (M=3.36, SD=.95), $t(173)=2.20$, $p<.05$, 95%*CI*: .03 to .67, $d=.35$. No other sex differences were significant.

Research Question 1: Participants with greater levels of mindfulness, greater levels of adaptive emotion regulation strategies, and lower levels of non-adaptive cognitive emotion regulation strategies will report higher levels of overall wellbeing. A multiple regression analysis examined the relationship between age and gender, mindfulness, cognitive emotion regulation strategies, and wellbeing. The results revealed a significant overall model, $F(12, 162) = 5.58$, $p < .001$, $R^2 = .29$, indicating that approximately 29% of the variability in wellbeing was explained by the linear combination of predictor variables. The two independent

variables, Self-blame (β = -.20, *p* =.01) and Planning (β = .20, *p*=.01) strategies of cognitive emotion regulation, were significant predictors of wellbeing. However, other cognitive emotion regulation strategies and mindfulness were not significant predictors of emotion regulation. Specifically, participants who reported higher levels of Self-blame reported lower levels of wellbeing. Conversely, participants who reported higher levels of Planning reported higher levels of wellbeing. (See Table 5)

Research Question 2: How do psychological factors, including self-blame, acceptance, focus on thought, positive refocusing, and catastrophizing, influence multiple dimensions of emotional and cognitive wellbeing, such as positive emotion, engagement, relationship satisfaction, meaning, and accomplishment?

The multivariate tests for the intercept showed significant results across all test statistics: Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root, all indicating strong overall effects (F(5, 28) = 7.381, p < .001). The effect of age was not statistically significant in most tests (V = 1.285, F(55, 160) = 1.006, p = .475; Lambda = 0.206, F(55, 133.193) = 0.984, p = .515); T^2 = 1.987, F(55, 132) = 0.954, p = .570). However, Roy's Largest Root suggested a marginally significant effect (Theta = 0.836, F(11, 32) = 2.431, p = .025). The gender variable did not show significant effects, with all multivariate tests yielding non-significant results.

The multivariate tests for self-blame, acceptance, and focus on thought showed no significant multivariate effects. The multivariate effect of positive refocusing was significant in Roy's Largest Root test (Theta = 1.347, F(8, 32) = 5.387, p < .001), while the other tests did not show significant effects. The planning variable showed a significant effect in Roy's Largest Root (Theta = 0.781, F(8, 32) = 3.125, p = .010).

Both reappraisal and perspective variables did not show significant multivariate effects across all tests. The variable catastrophizing showed significant effects across several tests, particularly Roy's Largest Root (Theta = 1.073, F(8, 32) = 4.292, p = .001). Variables such as other blame, observing inner events, describe experiences, acting mindfully, self-compassion, non-judging, and Nonreactivity did not show significant effects in most multivariate tests.

Table 5. Predictors of WellBeing (PERMA Total)

					95% Confidence Interval	
Predictor	β	SE	t	p	Lower	Upper
Age	.07	.05	1.09	.28	-.05	.16
Gender						
Female-Male	.00	.28	.07	.95	-.53	.56
Cognitive Emotion Regulation						
Self-blame	-.20	.07	-2.62	.01*	-.30	-.04
Acceptance	-.04	.07	-.52	.61	-.17	.10
Focus on Thought	-.12	.07	-1.54	.13	-.23	.03
Positive Refocusing	.10	.07	1.17	.24	-.06	.24
Planning	.20	.07	2.50	.01*	.04	.32
Reappraisal	.17	.08	1.63	.10	-.03	.30
Perspective	.07	.06	.91	.37	-.07	.18
Catastrophizing	-.09	.07	-1.01	.32	-.20	.07
Other-blame	-.09	.07	-1.21	.23	-.24	.06
FFMQ Total Score	.08	.09	.98	.33	-.09	.27

F(12, 162) =5.58, p < .001, * significant at p = .05

Table 4. Intercorrelations Between the Variables

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Age													
2.	Gender	-.12												
3.	PERMA Total Score	.11	.04											
4.	Self-blame	-.01	-.07	-.31**										
5.	Acceptance	-.02	.04	.15*	-.02									
6.	Focus on Thought	.17*	.04	.05	.05	.14								
7.	Positive Refocusing	.05	.09	.28**	-.12	.20**	.22**							
8.	Planning	.10	-.05	.30**	.02	.27**	.41**	.21**						
9.	Reappraisal	.06	.05	.41**	-.23**	.39**	.32**	.54**	.45**					
10.	Perspective	-.04	.24**	.19*	.02	.21**	-.02	.23**	.16*	.40**				
11.	Catastrophizing	-.12	-.09	-.34**	.48**	-.14	.00	-.24**	-.11	-.40**	-.04			
12.	Other-blame	-.03	.02	-.14	.08	-.14	.09	.15*	-.04	-.06	.03	.26**		
13.	FFMQ Total Score	.10	.06	.27**	-.11	.34**	.32**	.32**	.39**	.45**	.15*	-.15*	-.04	

* significant at *p* = .05, ** significant at *p* = .01

DISCUSSION

Mindfulness and cognitive emotion regulation strategies have been studied in the context of predicting the psychological wellbeing of young adults in recent years. A significant positive relationship exists between mindfulness scores and mental wellbeing scores, suggesting that mindfulness predicts mental wellbeing in university students (Şahin, 2019). Enhancing mindfulness skills in college students can positively influence their ability to cope with the stress of college life (MacDonald & Baxter, 2016). Catastrophizing, Other-blame, Rumination, which is also known as Focus on Thought, and Self-blame, regarded as non-adaptive strategies, are negatively correlated with wellbeing (Garnefski et al., 2001; Kraiss et al., 2020; Sağar, 2022). In contrast, adaptive strategies such as Acceptance, Putting into Perspective, Refocus on Planning, Positive Refocusing, and Positive Reappraisal displayed a positive relationship with wellbeing (Garnefski et al., 2001; Gross & John, 2003; Kraiss et al., 2020).

Mindfulness skills and adaptive emotion regulation strategies are linked, contributing to overall wellbeing (Iani et al., 2019). Mindfulness and adaptive emotion regulation strategies of Acceptance, Putting into Perspective, Refocus on Planning, Positive Refocusing, and Positive Reappraisal are positively correlated, whereas there is a negative correlation between mindfulness and non-adaptive emotion regulation strategies of Catastrophizing, Other-blame, Rumination, and Self-blame (Malik & Perveen, 2021; Toprak & Çetiner Bacak, 2019). Combining high mindfulness with adaptive cognitive emotion regulation reduces psychological distress (Malik & Perveen, 2021).

This study investigated the predictor role of cognitive emotion regulation strategies and mindfulness on psychological wellbeing. In this study, participants reported high levels of mindfulness and psychological wellbeing. The findings of the correlation analysis revealed a significant positive correlation between mindfulness and adaptive emotion regulation strategies of Acceptance, Positive Refocusing, Planning, and Positive Reappraisal. There was a significant negative correlation between mindfulness and the non-adaptive emotion regulation strategy of Catastrophizing. In contrast to previous research, which indicated that Focus on Thought is linked to poor wellbeing, depression, and negative emotions (Ciesla & Roberts, 2007; Karabati et al., 2017), this study found a significant positive correlation between mindfulness and Focus on Thought.

One possible explanation for the significant positive correlation between Focus on Thought and mindfulness could be the frequent use of our study sample, Observing and Describing subscales. Observing involves noticing or paying attention to internal and external experiences while describing, which means labeling these internal experiences with words (Baer et al., 2008). This may encourage individuals to use the Focus on Thought emotion regulation strategy, which involves thinking and reflecting on the emotions and thoughts related to an adverse event (Garnefski et al., 2001).

Research Question 1

Research Question 1 examined how mindfulness and emotion regulation strategies might shape participants' wellbeing. The findings suggest that increased use of adaptive emotion regulation strategies such as Positive Refocusing, Planning, and Positive Reappraisal is associated with higher wellbeing. In comparison, higher use of non-adaptive emotion regulation strategies like Self-blame and Catastrophizing is associated with lower wellbeing. These results are consistent with previous evidence suggesting that Positive Reappraisal and Planning are positively correlated with psychological wellbeing (Balzarotti et al., 2014; Panahi et al., 2016), whereas Self-blame (Balzarotti et al., 2014; Panahi et al., 2016) and Catastrophizing (Balzarotti et al., 2014; Lábadi et al., 2021) are negatively correlated with participants' wellbeing.

One of the contributions of the current study relates to highlighting the importance of Positive Refocusing on wellbeing. In the face of stressful and challenging situations such as academic-related stress or health disorders, the Positive Refocusing strategy has the potential to enhance wellbeing (Braet et al., 2014; Extremera et al., 2020; Lábadi et al., 2021). One way of understanding this finding might be the enhanced positive emotions when individuals use Positive Reappraisal (Schroeder et al., 2008).

Only two emotion regulation strategies significantly predicted wellbeing outcomes: Self-blame and Planning. Specifically, participants who reported higher levels of Self-blame reported lower levels of wellbeing. Conversely, participants who reported higher levels of Planning reported higher levels of wellbeing. These findings closely mirror the results of previous studies (Garnefski et al., 2002; Moses, 2010; Yalçınkaya-Alkar, 2017), reinforcing the notion that Self-blame might be a significant predictor of a decrease in wellbeing. One possible explanation for why the Planning emotion regulation strategy emerged as a significant predictor in our study sample is that young adults often encounter numerous ambiguities and uncertainties. Planning is an effective emotion regulation strategy to reduce anxiety and distress when facing these uncertainties (Sacchi & Dan-Glauser, 2021).

According to the results, there was a significant positive correlation between mindfulness and wellbeing, indicating that higher levels of mindfulness were associated with higher levels of wellbeing. This finding is consistent with the research of Bränström et al. (2011), who reported that dispositional mindfulness might alleviate the negative impact of perceived stress on psychological wellbeing. Despite the significant correlation, mindfulness was not a significant predictor of wellbeing.

Research Question 2

Research question 2 examined how various psychological factors, including self-blame, acceptance, focus on thought, positive refocusing, and catastrophizing, influence multiple dimensions of emotional and cognitive wellbeing, such as positive emotion, engagement, relationship satisfaction, meaning, and accomplishment. The findings indicated that the overall multivariate effects of these psychological factors were mixed. Some variables, like positive refocusing and catastrophizing, showed significant influences in specific tests, particularly in Roy's Largest Root, while others, such as self-blame, acceptance, and focus on thought, generally did not exhibit significant effects across most multivariate tests. Gender and age did not appear to contribute meaningfully to the outcomes, and other psychological variables, such as reappraisal and perspective, similarly did not significantly impact the dimensions of wellbeing. Certain tests identified specific effects, such as Nonreactivity influencing wellbeing. However, most psychological factors did not demonstrate consistent or broad significance across the different emotional and cognitive wellbeing measures.

Limitations and future directions

Several limitations to this study should be acknowledged. Firstly, there is an uneven gender distribution, as most participants self-identified as female. This imbalance may be due to nonrandom sampling methods and the gender makeup of the sampled population. Consequently, the findings may be more relevant to understanding how young adult females' use of emotion regulation strategies and mindfulness predicts their psychological wellbeing. Future research should use a more representative sample. Secondly, the study focused solely on university students. A more diverse sample could offer deeper insights and more comprehensive answers to the research questions. Future research could explore how emotion regulation strategies and mindfulness predict the wellbeing of individuals from different age groups. Finally, while this study found strong correlations between mindfulness, emotion regulation strategies, wellbeing, and significant predictors of self-blame and Planning on wellbeing, it does not provide any causal explanations. Future research could investigate whether causal relationships exist between these variables.

CONCLUSION

There are several contributions to the current study. First, this is one of the few empirical research studies that studied the interaction of cognitive emotion regulation strategies, mindfulness, and wellbeing in the Turkish cultural context, where there is a high level of uncertainty avoidance and low individualism (Hofstede et al., 2010). Most previous studies in this field have focused on Western societies, which tend to have lower uncertainty avoidance and higher individualism (Hofstede et al., 2010). This focus is significant because uncertainty avoidance and individualism influence how individuals regulate their emotions. High uncertainty avoidance may lead individuals to use more non-adaptive emotion regulation strategies (Sahib et al., 2023), while high individualism may encourage adaptive emotion regulation strategies (Ford & Mauss, 2015). Another contribution of this study is that it replicated previous research findings based on Western cultural context. Previous studies (Freudenthaler et al., 2017; Iani et al., 2019; Ma & Fang, 2019) demonstrated that as individuals are more on mindfulness, use more adaptive emotion regulation strategies, and use less non-adaptive emotion regulation strategies, reported psychological wellbeing increases.

DECLARATION

Ethics approval and consent to participate

Ethics approval was received from the Ethics Committee at Istanbul Bilgi University prior to data collection. An informed consent form was provided to each participant.

Consent for publication

Not applicable.

Availability of Data and Material (ADM)

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare no competing interests.

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Artificial Intelligence-Assisted Technology

Not applicable.

Authors' contributions

First author (R.M. Wise). R.M. Wise was involved in designing the research, analyzing data, and writing the results, and was also coordinator of the research.
Second author (E.B. Yildiz). E.B. Yildiz was involved in data collection, statistical analysis, and assisting in the interpretation of results.

REFERENCES

Abdi, R., & Pak, R. (2019). The mediating role of emotion dysregulation as a transdiagnostic factor in the relationship between pathological personality dimensions and emotional disorders symptoms severity. *Personality and Individual Differences*, 142(1), 282–287. https://doi.org/10.1016/j.paid.2018.09.026

Aka, B. T. (2023). Duygu Düzenlemenin Kültürel Boyutları. *Psikiyatride Güncel Yaklaşımlar*, *15*(3), 441–450. https://doi.org/10.18863/pgy.1103621

Akcan, G. & Taşören, A. B. (2020). Genç yetişkinlerde çocukluk çağı olumsuz yaşantıları, öz-şefkat ve duygu düzenleme becerileri depresyon belirtilerini yordar mı? *Boğaziçi Üniversitesi Eğitim Dergisi* , 37 (2) , 59-80. [https://dergipark.org.tr/tr/pub/buje/issue/58375/842241]

Anderson, E. C., Carleton, R. N., Diefenbach, M., & Han, P. K. (2019). The relationship between uncertainty and affect. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.02504

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13(1), 27–45. https://doi.org/10.1177/1073191105283504

Baer, R. A., Smith, G. T., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., Walsh, E., Duggan, D., & Williams, J. M. (2008). Construct validity of the five-facet mindfulness questionnaire in meditating and nonmeditating samples. *Assessment*, *15*(3), 329–342. https://doi.org/10.1177/1073191107313003

Barrett, L. F., Mesquita, B., Ochsner, K. N., & Gross, J. J. (2007). The experience of emotion. *Annual Review of Psychology*, *58*(1), 373–403. https://doi.org/10.1146/annurev.psych.58.110405.085709

Bernstein, A., & Brantz, H. (2012). Tolerance of negative affective states (TNAS): Development and evaluation of a novel construct and measure. *Cognitive Therapy and Research*, *37*(3), 421–433. https://doi.org/10.1007/s10608-012-9471-6

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal, Z. V., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, *11*(3), 230–241. https://doi.org/10.1093/clipsy.bph077

Bohlmeijer, E., ten Klooster, P. M., Fledderus, M., Veehof, M., & Baer, R. (2011). Psychometric Properties of the five facet mindfulness questionnaire in depressed adults and development of a short form. *Assessment*, 18(3), 308–320. https://doi.org/10.1177/1073191111408231

Braet, C., Theuwis, L., Van Durme, K., Vandewalle, J., Vandevivere, E., Wante, L., Moens, E., Verbeken, S., & Goossens, L. (2014). Emotion regulation in children with emotional problems. *Cognitive Therapy and Research*, *38*(5), 493–504. https://doi.org/10.1007/s10608-014-9616-x

Bränström, R., Duncan, L. G., & Moskowitz, J. T. (2011). The association between Dispositional Mindfulness, psychological wellbeing, and perceived health in a Swedish population-based sample. *British Journal of Health Psychology*, *16*(2), 300–316. https://doi.org/10.1348/135910710x501683

Butler, E. A., Lee, T. L., & Gross, J. J. (2007). Emotion regulation and culture: Are the social consequences of emotion suppression culture-specific? *Emotion*, *7*(1), 30–48. https://doi.org/10.1037/1528-3542.7.1.30

Butler, J., & Kern, M. L. (2016). The perma-profiler: A brief multidimensional measure of flourishing. *International Journal of Wellbeing*, *6*(3), 1–48. https://doi.org/10.5502/ijw.v6i3.526

Chambers, R., Gullone, E., & Allen, N. B. (2009). Mindful emotion regulation: An integrative review. *Clinical Psychology Review*, *29*(6), 560–572. https://doi.org/10.1016/j.cpr.2009.06.005

Ciesla, J. A., & Roberts, J. E. (2007). Rumination, negative cognition, and their interactive effects on depressed mood. *Emotion*, 7(3), 555–565. https://doi.org/10.1037/1528-3542.7.3.555

Cisler, J. M., Olatunji, B. O., Feldner, M. T., & Forsyth, J. P. (2009). Emotion regulation and the anxiety disorders: An integrative review. *Journal of Psychopathology and Behavioral Assessment*, *32*(1), 68–82. https://doi.org/10.1007/s10862-009-9161-1

Coffey, K. A., Hartman, M., & Fredrickson, B. L. (2010). Deconstructing mindfulness and constructing mental health: Understanding mindfulness and its mechanisms of action. *Mindfulness*, 1(4), 235–253. https://doi.org/10.1007/s12671-010-0033-2

Crowell, S. E., Beauchaine, T. P., & Linehan, M. M. (2009). A biosocial developmental model of borderline personality: Elaborating and extending Linehan's theory. *Psychological Bulletin*, 135(3), 495–510. https://doi.org/10.1037/a0015616

Curtiss, J., Klemanski, D. H., Andrews, L., Ito, M., & Hofmann, S. G. (2017). The conditional process model of mindfulness and emotion regulation: An empirical test. *Journal of Affective Disorders*, 212, 93–100. https://doi.org/10.1016/j.jad.2017.01.027

Cakmak, Ahmet & Cevik, Emrah. (2010). Cognitive emotion regulation questionnaire: Development of Turkish version of the 18-item short form. *African Journal of Business Management*. 4. 2097-2102. Retrieved from https://www.researchgate.net/publication/228631257_Cognitive_emotion_regulation_questionnaire_Development_of_Turkish_version_of_18-item_short_form

D'Avanzato, C., Joormann, J., Siemer, M., & Gotlib, I. H. (2013). Emotion regulation in depression and anxiety: Examining diagnostic specificity and stability of strategy use. *Cognitive Therapy and Research*, 37(5), 968–980. https://doi.org/10.1007/s10608-013-9537-0

Demirci, İ., Ekşi, H., Dinçer, D. ve Kardaş, S. (2017). Beş boyutlu iyi oluş modeli: PERMA Ölçeği'nin Türkçe formunun geçerlik ve güvenirliği. *The Journal of Happiness & Wellbeing,* 5(1), 60-77. Retrieved from https://toad.halileksi.net/olcek/perma-olcegi/

Desrosiers, A., Vine, V., Klemanski, D. H., & Nolen-Hoeksema, S. (2013). Mindfulness and Emotion Regulation in depression and anxiety: Common and distinct mechanisms of action. *Depression and Anxiety*, *30*(7), 654–661. https://doi.org/10.1002/da.22124

Einstein, D. A. (2014). Extension of the transdiagnostic model to focus on intolerance of uncertainty: A review of the literature and implications for treatment. *Clinical Psychology: Science and Practice*, *21*(3), 280–300. https://doi.org/10.1111/cpsp.12077

Extremera, N., Sánchez-Álvarez, N., & Rey, L. (2020). Pathways between ability emotional intelligence and subjective wellbeing: Bridging links through Cognitive Emotion Regulation Strategies. *Sustainability*, *12*(5), 2111. https://doi.org/10.3390/su12052111

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical Power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. https://doi.org/10.3758/brm.41.4.1149

Ford, B. Q., & Mauss, I. B. (2015). Culture and emotion regulation. *Current Opinion in Psychology*, *3*, 1–5. https://doi.org/10.1016/j.copsyc.2014.12.004

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation, and emotional problems. *Personality and Individual Differences*, *30*(8), 1311–1327. https://doi.org/10.1016/s0191-8869(00)00113-6

Garnefski, N., & Kraaij, V. (2006). Cognitive Emotion Regulation Questionnaire–Development of a Short 18-Item Version (CERQ-Short). *Personality and Individual Differences*, 41, 1045–1053.

http://dx.doi.org/10.1016/j.paid.2006.04.010

Garnefski, Nadia, Van Den Kommer, T., Kraaij, V., Teerds, J., Legerstee, J., & Onstein, E. (2002). The relationship between cognitive emotion regulation strategies and emotional problems: Comparison between a clinical and

a non-clinical sample. *European Journal of Personality*, *16*(5), 403–420. https://doi.org/10.1002/per.458

Goldin, P. R., & Gross, J. J. (2010). Effects of mindfulness-based stress reduction (MBSR) on emotion regulation in social anxiety disorder. *Emotion*, *10*(1), 83–91. https://doi.org/10.1037/a0018441

Goldin, P. R., Morrison, A., Jazaieri, H., Brozovich, F., Heimberg, R., & Gross, J. J. (2016). Group CBT versus MBSR for social anxiety disorder: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, *84*(5), 427–437. https://doi.org/10.1037/ccp0000092

Gross, J. J. (1998). The emerging field of Emotion Regulation: An integrative review. *Review of General Psychology*, *2*(3), 271–299. https://doi.org/10.1037/1089-2680.2.3.271

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and wellbeing. *Journal of Personality and Social Psychology*, 85(2), 348–362. https://doi.org/10.1037/0022-3514.85.2.348

Guendelman, S., Medeiros, S., & Rampes, H. (2017). Mindfulness and emotion regulation: Insights from neurobiological, psychological, and clinical studies. *Frontiers in Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.00220

Heppner, W. L., Kernis, M. H., Nezlek, J. B., Foster, J., Lakey, C. E., & Goldman, B. M. (2008). Within-person relationships among daily self-esteem, need satisfaction, and authenticity. *Psychological Science*, *19*(11), 1140–1145. https://doi.org/10.1111/j.1467-9280.2008.02215.x

Hofmann, S. G., & Gómez, A. F. (2017). Mindfulness-based interventions for anxiety and depression. *Psychiatric Clinics of North America*, *40*(4), 739–749. https://doi.org/10.1016/j.psc.2017.08.008

Hill, C. L., & Updegraff, J. A. (2012). Mindfulness and its relationship to emotional regulation. *Emotion*, *12*(1), 81–90. https://doi.org/10.1037/a0026355

Huang C, Tan Y, Cheung SP, Hu H. Adverse Childhood Experiences and Psychological Wellbeing in Chinese College Students: Mediation Effect of Mindfulness. *Int J Environ Res Public Health*. 2021;18(4). https://doi.org/10.3390/ijerph18041636

Hofmann, S. G., Heering, S., Sawyer, A. T., & Asnaani, A. (2009). How to handle anxiety: The effects of reappraisal, acceptance, and suppression strategies on anxious arousal. *Behaviour Research and Therapy*, *47*(5), 389–394. https://doi.org/10.1016/j.brat.2009.02.010

Iani, L., Lauriola, M., Chiesa, A., & Cafaro, V. (2019). Associations between mindfulness and emotion regulation: The key role of describing and Nonreactivity. Mindfulness, 10(2), 366–375. https://doi.org/10.1007/s12671-018-0981-5

Jaiswal, S., Muggleton, N. G., Juan, C.-H., & Liang, W.-K. (2019). Indices of association between anxiety and mindfulness: A guide for future mindfulness studies. *Personality Neuroscience*, *2*. https://doi.org/10.1017/pen.2019.12

Jimenez, S. S., Niles, B. L., & Park, C. L. (2010). A mindfulness model of affect regulation and depressive symptoms: Positive emotions, mood regulation expectancies, and self-acceptance as regulatory mechanisms. *Personality and Individual Differences*, 49(6), 645– 650. https://doi.org/10.1016/j.paid.2010.05.041

Karabati, S., Ensari, N., & Fiorentino, D. (2017). Job satisfaction, rumination, and subjective wellbeing: A moderated mediational model. *Journal of Happiness Studies*, *20*(1), 251–268. https://doi.org/10.1007/s10902-017-9947-x

Keng, S.-L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review*, *31*(6), 1041–1056. https://doi.org/10.1016/j.cpr.2011.04.006

Kozubal, M., Szuster, A., & Wielgopolan, A. (2023). Emotional regulation strategies: The intensity of emotions and regulation choice. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1218694

Kraiss, J. T., ten Klooster, P. M., Moskowitz, J. T., & Bohlmeijer, E. T. (2020). The relationship between emotion regulation and wellbeing in patients with mental disorders: A meta-analysis. *Comprehensive Psychiatry*, *102*, 152189. https://doi.org/10.1016/j.comppsych.2020.152189

Lee, J. K., Orsillo, S. M., Roemer, L., & Allen, L. B. (2010). Distress and avoidance in generalized anxiety disorder: exploring the relationships with intolerance of uncertainty and worry. *Cognitive behavior therapy*, 39(2), 126–136. https://doi.org/10.1080/16506070902966918

Ma, Y., She, Z., Siu, A. F.-Y., Zeng, X., & Liu, X. (2018b). Effectiveness of online mindfulness-based interventions on psychological distress and the mediating role of Emotion Regulation. *Frontiers in Psychology*, *9*. https://doi.org/10.3389/fpsyg.2018.02090

Ma, Y., & Fang, S. (2019). Adolescents' mindfulness and psychological distress: The mediating role of Emotion Regulation. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.01358

MacDonald, H. Z., & Baxter, E. E. (2016). Mediators of the relationship between dispositional mindfulness and psychological wellbeing in female college students. *Mindfulness*, *8*(2), 398–407. https://doi.org/10.1007/s12671-016-0611-z

Moses, T. (2010). Exploring parents' self-blame in relation to adolescents' mental disorders. *Family Relations*, *59*(2), 103–120. https://doi.org/10.1111/j.1741-3729.2010.00589.x

McDonald, H. M., Sherman, K. A., Petocz, P., Kangas, M., Grant, K. A., & Kasparian, N. A. (2016). Mindfulness and the experience of psychological distress: The Mediating effects of emotion regulation and attachment anxiety. *Mindfulness*, 7(4), 799–808. https://doi.org/10.1007/s12671-016-0517-9

Pepping, C. A., O′Donovan, A., & Davis, P. J. (2013). The differential relationship between mindfulness and attachment in experienced and inexperienced meditators. *Mindfulness*, *5*(4), 392–399. https://doi.org/10.1007/s12671-012-0193-3

Potthoff, S., Garnefski, N., Miklósi, M., Ubbiali, A., Domínguez-Sánchez, F. J., Martins, E. C., Witthöft, M., & Kraaij, V. (2016). Cognitive emotion regulation and psychopathology across cultures: A comparison between six European countries. *Personality and Individual Differences*, 98, 218–224. https://doi.org/10.1016/j.paid.2016.04.022

Ramzan, N., & Amjad, N. (2017). Cross-cultural variation in emotion regulation: A systematic review. *Annals of King Edward Medical University*, *23*(1). https://doi.org/10.21649/akemu.v23i1.1512

Reber, C. A. S., Boden, M. T., Mitragotri, N., Alvarez, J., Gross, J. J., & Bonn-Miller, M. O. (2013). A prospective investigation of mindfulness skills and changes in emotion regulation among military veterans in posttraumatic stress disorder treatment. *Mindfulness*, 4(4), 311–317. https://doi.org/10.1007/s12671-012-0131-4

Roemer, L., Williston, S. K., & Rollins, L. G. (2015). Mindfulness and emotion regulation. *Current Opinion in Psychology*, 3, 52–57. https://doi.org/10.1016/j.copsyc.2015.02.006

Sağar, M. E. (2022). Predictors of subjective wellbeing at school in adolescents: Emotion regulation, coping, and cognitive flexibility. *Ege Eğitim Dergisi*, 23(2), 133–149. https://doi.org/10.12984/egeefd.1060883

Sahib, A., Chen, J., Cárdenas, D., & Calear, A. L. (2023b). Intolerance of uncertainty and emotion regulation: A Meta-analytic and systematic review. *Clinical Psychology Review*, *101*, 102270. https://doi.org/10.1016/j.cpr.2023.102270

Sacchi, L., & Dan-Glauser, E. (2021). Never too late to plan: "Refocus on planning" as an effective way to lower symptoms and difficulties in emotion regulation during the COVID-19 first lockdown. *Emotion*, 21(7), 1483–1498. https://doi.org/10.1037/emo0001039

Shankland R, Tessier D, Gauchet A, Baeyens C. Improving Mental Health and Wellbeing through Informal Mindfulness Practices: An Intervention Study. *Applied Psychology: Health And Wellbeing*. 2020;13(1):63–83. https://doi.org/10.1111/aphw.12216

Schroevers, M., Kraaij, V., & Garnefski, N. (2008). How do cancer patients manage unattainable personal goals and regulate their emotions? *British Journal of Health Psychology*, *13*(3), 551–562. https://doi.org/10.1348/135910707x241497

Szasz, P. L., Coman, M., Curtiss, J., Carpenter, J. K., & Hofmann, S. G. (2018). Use of multiple regulation strategies in spontaneous Emotion Regulation. *International Journal of Cognitive Therapy*, *11*(3), 249–261. https://doi.org/10.1007/s41811-018-0026-9

Sheppes, G., Scheibe, S., Suri, G., Radu, P., Blechert, J., & Gross, J. J. (2014). Emotion regulation choice: A conceptual framework and supporting evidence. *Journal of Experimental Psychology: General*, *143*(1), 163–181. https://doi.org/10.1037/a0030831

Sheppes, G., Scheibe, S., Suri, G., & Gross, J. J. (2011). Emotion-Regulation Choice. *Psychological Science*, *22*(11), 1391–1396. https://doi.org/10.1177/0956797611418350

Şahin, A. (2019). The relationship between Mindfulness and Life Satisfaction and wellbeing among University students. *Üsküdar Üniversitesi Sosyal Bilimler Dergisi*, (8), 151–176. https://doi.org/10.32739/uskudarsbd.5.8.61

Terzioğlu, Z. A., & Çakır, S. (2020). Üni˙versi˙te öğrenci˙leri˙nde öznel iyi oluş ve stres beli˙rti˙leri˙ni˙n yordayıcılarının i˙ncelenmesi˙. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, (55), 206–225. https://doi.org/10.21764/maeuefd.662923

Toprak, Z., & Çetiner Bacak, S. (2019). Ortaokul öğrencilerinin Duygu Düzenleme becerileri Ile Bilinçli farkındalık düzeyleri arasındaki i˙lişkinin i˙ncelenmesi. *Yaşadıkça Eğitim*, *33*(2), 306–317. https://doi.org/10.33308/26674874.2019332133

Turba, J. D., & Tran, U. S. (2017). Emotion regulation mediates the associations of mindfulness with symptoms of depression and anxiety in the general population. *Mindfulness*, *8*(5), 1339–1344. https://doi.org/10.1007/s12671-017-0709-y

Vujanovic, A. A., Bonn-Miller, M. O., Bernstein, A., McKee, L. G., & Zvolensky, M. J. (2010). Incremental validity of mindfulness skills in relation to emotional dysregulation among a young adult community sample. *Cognitive Behaviour Therapy*, 39(3), 203–213. https://doi.org/10.1080/16506070903441630

Yalçınkaya-Alkar, Ö. (2017). Is self-esteem mediating the relationship between cognitive emotion regulation strategies and depression? *Current Psychology*, *39*(1), 220–228. https://doi.org/10.1007/s12144-017-9755-9

Yousefi Afrashteh, M., & Hasani, F. (2022). Mindfulness and psychological wellbeing in adolescents: The mediating role of self-compassion, emotional dysregulation, and cognitive flexibility. *Borderline Personality Disorder and Emotion Dysregulation*, *9*(1). https://doi.org/10.1186/s40479-022-00192-y

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