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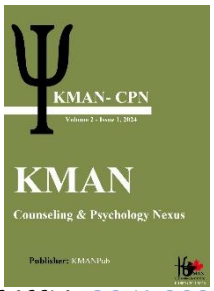


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# Comparison of the Effectiveness of Time Perspective Therapy and Mindfulness Therapy on Academic Motivation, Academic Engagement, Academic Procrastination, and Academic Persistence in Flood-Affected High School Students with Symptoms of Post-Traumatic Stress Disorder

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A B S T R A C T

This study compared the effectiveness of time perspective therapy and mindfulness therapy on academic motivation, academic engagement, academic procrastination, and academic persistence in flood-affected high school students with symptoms of PTSD. The research design was a quasi-experimental extended design with pre-test, post-test, control group, and follow-up study. The statistical population included all first-year high school students in the 2021-2022 academic year from high schools in Bavi, Karun, Hamidiyeh, and Shavur regions of Khuzestan province. After initial screening and obtaining consent from parents and students, 60 students were selected and randomly assigned to three groups: 20 students in the mindfulness intervention group, 20 students in the time perspective therapy group, and 20 students in the control group. The Mississippi PTSD Scale, Academic Motivation Scale, Martin and Jackson's Short Form Academic Engagement Scale, Academic Procrastination Scale, and Academic Persistence Scale were used as measurement tools. Data were analyzed using SPSS 24 software through multivariate and univariate covariance analysis. The results confirmed the hypotheses regarding the effectiveness of time perspective therapy and mindfulness therapy on academic motivation, academic engagement, academic procrastination, and academic persistence. However, the hypotheses related to comparing the effectiveness of these two therapies on the dependent variables were not confirmed. Therefore, implementing time perspective therapy and mindfulness therapy is recommended for the dependent variables of this study and other academic problems of male and female students at different educational levels.

***Keywords:*** *Academic Motivation, Academic Procrastination, Academic Persistence, Time Perspective Therapy, Mindfulness, Academic Engagement*.

## 1. Introduction

Khuzestan province is considered one of the flood-prone areas of the country. Psychological and social damages are among the most significant consequences following natural disasters such as floods (Mousavi et al., 2021). After a traumatic event like a flood, children and adolescents, due to the potential loss of parents and other supportive resources, may be at greater risk than adults for developing symptoms of post-traumatic stress disorder (PTSD), which affects all aspects of their lives, including education. PTSD symptoms encompass a range of psychological, physical, and behavioral conditions associated with individuals exposed to trauma. The presence of such symptoms can be the first step in the actual diagnosis of PTSD (Kienzler et al., 2015; Morgan et al., 1995; Otto et al., 2006; Zavala et al., 2022).

After experiencing disasters such as floods, the stressful family environment resulting from physical and financial damages can lead to a lack of concentration in children on their academic tasks and a decline in academic performance. These students may suffer from reduced academic motivation more than others. Many researchers consider academic motivation the only direct influencing factor on academic success and believe that other factors in this area exert their effects on students' academic progress through academic motivation (Arslan et al., 2022; Azimi et al., 2017; Baker, 2003; Hashemi Nosratabad et al., 2017; Hosseini Sadr et al., 2022; Hussein, 2021; Igomigo et al., 2023; Salehi & Behzadi, 2018; Smith et al., 2022). The role of motivation in students' learning and learning processes has always been a primary concern for teachers and university professors. High motivation in students is recognized as a factor in reducing dropout rates and increasing students' academic success (Ansari-Khoh & Ansari-Khoh, 2024; Celcima et al., 2024; Jehanghir et al., 2024; Moradi & Mardani, 2023; Ng & Boey, 2023).

Csikszentmihalyi (1990) placed the experience of flow at the core of positive psychology, defining it as a state of consciousness in which an individual is completely immersed in an activity to the extent that nothing else seems to matter. This experience is inherently enjoyable, motivating individuals to engage in the activity despite high costs. Nakamura and Csikszentmihalyi (2002) defined flow as the deep engagement of an individual in an intrinsically valuable activity. One of the most recent variables in the field of education is academic engagement, which represents an attitude toward education that fosters the necessary competence for active and enthusiastic learning, aiding students in maintaining enthusiasm for studying and academic flexibility (Nakamura & Csikszentmihalyi, 2014). Academic engagement promotes students' cognitive enthusiasm while completing academic and school assignments, protecting them from fatigue, burnout, and academic procrastination (Anierobi et al., 2024; Cao et al., 2024; Haseli Songhori & Salamti, 2024; Li et al., 2024; Liu, 2024; McKellar & Wang, 2023; Najarian & Vahedi, 2023; Pan & Yao, 2023; Sajadifar, 2023; Shen, 2024; Wang, 2024).

One issue faced by families during adolescence, which may intensify during crises such as floods due to resulting anxiety and PTSD symptoms, is students' procrastination in completing assignments, specifically academic procrastination. Procrastination is an anti-motivational process stemming from a lack of willingness and satisfaction to perform tasks (Parsafar, 2024; Rahmani et al., 2024; Sparfeldt & Schwabe, 2024). In other words, it is the intentional delay in completing an assignment that needs to be done (Emami Khotbesara et al., 2024; Evriani, 2024; Joojam & Safarpour-Dehkordi, 2024). Procrastination is defined as the avoidance of responsibilities and tasks in a timely and expected manner despite being avoidable and within the individual's capability, often leading to dissatisfaction with one's performance (Balkis & Dura, 2009, as cited in Farid, Habibi Kalibar, & Mohammadi, 2018). The trait of procrastination predicts students' delay behaviors and is associated with harmful consequences such as low grades, withdrawal from education, and delayed completion of academic tasks (Alipour et al., 2024; Almurumudhe et al., 2024; Soleimani Rad et al., 2023; Sudirman et al., 2023; Turki et al., 2023; Turner & Hodis, 2023).

After disasters like floods and earthquakes, resilience helps individuals maintain optimal performance under such conditions. In line with this, the construct of academic persistence has recently attracted the attention of researchers (Khoshesteh-Abbasi et al., 2023). Most definitions of persistence are based on existing theoretical foundations of hardiness. However, unlike constructs such as hardiness, vitality, and resilience, which are conceptualized to understand coping with negative life experiences (such as distress, stress, and anxiety), persistence not only involves personal adaptation to situational demands but also includes coping with positive experiences (such as success) and achieving personal growth and development (Khoshesteh-Abbasi et al., 2023).


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Time perspective is one of the novel approaches in psychology that emphasizes an individual's attitude toward time, considering one's perception within a temporal framework. It influences an individual's experiences and well-being by strengthening the relationship with time and life, even reconstructing them (Farzin et al., 2020; Norouzi et al., 2023; Sharifi et al., 2023). Despite its significance, people often underestimate time, as stated in the first principle of the time paradox, which highlights this contradiction. Time perspective provides frameworks that allow individuals to assign meaning to events within temporal dimensions, including past, present, and future. An individual's time perspective and the attitudes shared with others strongly impact various life aspects. This essential aspect of psychological time structure manifests as categorizing cognitive processes into past, present, and future frameworks (Leondari, 2007). The second principle of the time paradox emphasizes a balanced attitude toward the past, present, and future, indicating individual well-being. The contradiction in this principle refers to extreme attitudes that lead to unhealthy life patterns. Time perspective therapy is a novel time-based therapy focusing on clients' perceptions of their past, present, and future, aiming to enhance their self-belief and self-efficacy for life advancement instead of repeating negative past experiences (Farzin et al., 2020; Hadad Ranjbar et al., 2020; Jin et al., 2019; Norouzi et al., 2023; Omidi et al., 2019). This therapy identifies six major time perspectives: negative and positive past, present, and future, helping clients recognize their personal time attitudes and use their valuable time optimally through specific exercises. The goal is to learn from yesterday, enjoy today, and manage tomorrow (Sword et al., 2014; Zimbardo et al., 2012). The overall aim of time perspective therapy is to apply better methods for living and freeing oneself from outdated, unhealthy thoughts and behaviors tied to old perspectives (Zimbardo et al., 2012). To build a better future, individuals need to replace negative views of the past with positive, active outlooks and transform everyday present perceptions into satisfaction-oriented ones, ultimately creating a hopeful, prosperous future. Positive past memories activate positive emotions, boost self-esteem, and support a sense of purpose in life, while future orientation is reinforced by higher levels of optimism and anticipation of positive outcomes. Time perspective can predict academic success or failure, with transcendent future orientation leading to significant life achievements. Since students in crises like floods may develop an obsessive focus on the past that hinders future thinking and negatively affects their education, this approach will be employed as one of the interventions in the present study. Previous studies have shown that providing interventions and counseling to students can improve their learning quality and interest in education (Amidian et al., 2019; Barzegar bafrooei & Aref manesh, 2019; Golestaneh et al., 2016; Jenaabadi & Jafarpour, 2019; Jin et al., 2019; Settanni et al., 2018).

It appears that the construct of mindfulness can also help these students by reducing emotional exhaustion related to academic procrastination and motivation, leading to improved academic outcomes (Shoghi et al., 2023; Sofyan et al., 2023). Mindfulness enables individuals to form a different relationship with internal feelings and external events through moment-to-moment awareness and behavior guided by wise responsibility instead of automatic reactivity. By purposefully utilizing higher cognitive functions such as attention, awareness, kindness, compassion, and curiosity, mindfulness effectively controls emotional reactions through cortical inhibition of the limbic system. Mindfulness techniques enhance muscle relaxation, reduce worry, stress, and anxiety (Karimi et al., 2024; Vajihesadat & Gholamreza, 2023). Although relaxation is not the primary goal of mindfulness, non-judgmental observation of negative internal events or physiological arousal activates brain regions associated with positive emotions and beneficial effects on immune system functions, fostering present-centered attention, a conceptually related aspect to mind-wandering and a common principle in all mindfulness definitions (Joghataei et al., 2023). Lack of mindfulness results in constant negative self-talk, significantly influencing self-evaluation processes. Mindfulness can be defined as a psychological trait, a meditative practice, or a specific state of awareness (Mashhadi et al., 2022; Shahsavari Googhari et al., 2022). Numerous studies have shown that high levels of mindfulness are associated with emotional stability (Heydarian & Salimi, 2021; Yüksel & Bahadır Yılmaz, 2020). Other findings have indicated that mindfulness training improves self-esteem, academic achievement, and reduces academic procrastination in students (Asli Azad et al., 2019; Farhadi Navarudi et al., 2020), contributing to the academic success of students experiencing stress symptoms due to crises like floods.

Regarding the comparison of these intervention methods, the present study aims to determine whether there is a difference in the effectiveness of time perspective therapy, cognitive-behavioral therapy, and mindfulness therapy on academic motivation, academic engagement, academic



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procrastination, and academic persistence in flood-affected high school students with PTSD symptoms.

## 2. Methods and Materials

### *2.1. Study Design and Participants*

The research design employed in this study was a quasi-experimental extended design with pre-test, post-test, and follow-up using a control group, including three groups: two experimental groups and one control group. Participants were randomly assigned to the three groups (two experimental groups and one control group), with different interventions implemented for the two experimental groups, and assessments conducted during the pre-test, post-test, and follow-up stages for all participants. The statistical population consisted of all female first-year high school students enrolled during the 2021-2022 academic year in high schools located in Bavi, Karun, Hamidiyeh, and Shavur regions of Khuzestan province. A total of 980 female students were selected through convenience sampling and completed the Mississippi PTSD Scale. Of these, 480 students who scored above the average on the PTSD scale were selected. Subsequently, based on purposive sampling according to the inclusion criteria, including PTSD diagnosis based on the PTSD scale and clinical interview, willingness to participate in group sessions and continue attendance, no medication use, and written consent from both parents and students, 80 students were initially selected. Before starting the intervention sessions, 12 students from the experimental groups dropped out due to absence during the sessions, and 8 students declined to participate, resulting in 60 students being randomly assigned to three groups: 20 in the first experimental group, 20 in the second experimental group, and 20 in the control group. The purpose of this sampling method was to select participants who matched the research objectives.

### *2.2. Measures*

#### *2.2.1. PTSD*

This is a self-report scale developed by Kian et al. (1988) for assessing the severity of post-traumatic stress disorder (PTSD) symptoms. The scale consists of 35 items, with participants responding on a 5-point Likert scale, where the options are scored from 1 to 5. The total score range for an individual is between 35 and 175, with a score of 107 or higher indicating the presence of PTSD. This scale was validated in Iran by Gudarzi (2002), with a Cronbach's alpha coefficient of 0.92. For concurrent validity, the scale was compared with three other instruments: the Life Events Checklist, the PTSD Checklist, and the Padua Inventory, yielding correlation coefficients of 0.23, 0.82, and 0.75, respectively (Gudarzi, 2002).

#### *2.2.2. Academic Motivation*

This scale was translated from French to English in 1992 by Vallerand and colleagues to assess the type of academic motivation among students. Based on self-determination theory, it explores three main dimensions of motivation: intrinsic motivation, extrinsic motivation, and amotivation. The questionnaire contains seven subscales, three of which measure intrinsic motivation (knowledge, progression, and stimulating experiences), one measures extrinsic motivation (identification, introjection, and external regulation), and one measures amotivation. In Iran, Baqeri, Shahraray, and Farzad (2003) translated the scale and administered it to 838 participants. Using factor analysis, they found that five factors from the original seven-factor structure were repeated, aligning the scale with the cultural characteristics of the Iranian population. The internal consistency and test-retest reliability coefficients were above 0.77 for most of the subscales, indicating good reliability (Khaled, 2011).

#### *2.2.3. Academic Engagement*

This scale is derived from the long-form multidimensional scale and contains 9 items. Martin and Jackson tested the short form in studies of shift in extracurricular activities in high school students, math, and sports. The results indicated that the short form has acceptable internal validity, a nearly normal distribution, and a satisfactory fit based on confirmatory factor analysis using LISREL. For external validity, the correlation between this scale and the Martin Motivation and Engagement Scale (MES) was used, and the results confirmed its external validity. Jalili et al. (2018) reported a Cronbach's alpha coefficient of 0.85 for internal consistency and a Guttman reliability coefficient of 0.82 for the test-retest reliability (Jalili et al., 2018).

#### *2.2.4. Academic Procrastination*

This scale, developed by Solomon and Rothblum (1984), investigates academic procrastination in two dimensions. The first dimension, exam readiness, consists of 6 questions (1, 4, 6, 10, 12, and 14), and the second dimension, task

readiness, includes 9 questions (2, 3, 5, 7, 8, 9, 11, 13, and 15), scored reversely. In a study conducted by Narimani et al. (2015), the Cronbach's alpha for the scale was reported as 0.69. The internal consistency coefficients for exam readiness (0.74) and task readiness (0.78) were also reported, indicating good validity (Narimani et al., 2015).

#### *2.2.5. Academic Persistence*

This questionnaire was developed and normed in Iran by Jamshidi Soluklu and Sheikholeslami in a sample of secondary school students. The scale contains 24 items. The results of exploratory factor analysis in 2015 revealed three factors: growth (10 items), effort (8 items), and invincibility (6 items). Confirmatory factor analysis in 2016 confirmed the model derived from the exploratory analysis. The reliability coefficients using Cronbach's alpha and test-retest methods were 0.91 and 0.83, respectively. These results indicate that the Academic Persistence Scale has good reliability and validity, and it can be used by education researchers (Jamshidi Soluklu & Raziye, 2018).

### *2.3. Intervention*

#### *2.3.1. Mindfulness*

The intervention for the mindfulness-based stress reduction (MBSR) group included 9 sessions (one session per week, each lasting 90 minutes) (Karimi et al., 2024; Vajihesadat & Gholamreza, 2023). The first session introduced the program's structure and objectives, familiarized participants with PTSD symptoms and components, and included a mindful eating exercise with a raisin while explaining the rationale behind mindfulness practice. The second session taught and practiced mindfulness techniques such as a 40-minute breathing meditation, a 10-minute mindful breathing exercise, a body scan meditation, and a three-minute breathing space, with reflections on each exercise and its rationale. The third session provided muscle relaxation training through recalling previously tensed and released muscle groups, with homework that included body scan, yoga, seated meditation focusing on breath, mindful awareness of unpleasant events, and mindfulness of routine activities. The fourth session introduced a 45-minute seated meditation practice, including mindful breathing and breathing space exercises, with guided practices for managing difficult emotions and a 10-minute breathing exercise. The fifth session focused on breath control training and mindfulness meditation, encouraging participants to integrate previous practices such as body scan, yoga, walking meditation, and seated meditation into their daily routines. The sixth session began with a review of homework, followed by prolonged seated meditation with mindful awareness of environmental sounds. The seventh session extended breath control and mindfulness meditation to daily activities, with homework encouraging mindfulness during everyday tasks such as washing dishes, cleaning, eating, and shopping. The eighth session started with a body scan, continued with seated meditation, and concluded with a group discussion reflecting on participants' experiences throughout the program.

#### *2.3.2. Time Perspective Therapy*

The intervention for the time perspective therapy group included 6 sessions (one session per week, each lasting 90 minutes) (Mirshafieea & Jafarib, 2019; Sword et al., 2014; Zimbardo & Boyd, 2014). the first session focused on building rapport with participants, introducing Zimbardo's time perspective theory, and exploring its dimensions. The second session involved administering the Time Perspective Inventory and other psychological assessments. The third session addressed transforming a negative past perspective into a positive past perspective through guided reflections and exercises. The fourth session focused on shifting from fatalistic present thinking and hedonistic present attitudes to selected hedonistic present enjoyment, emphasizing mindful present engagement. The fifth session aimed at transforming fatalistic future thinking into positive future expectations by setting realistic goals and fostering future-oriented optimism. The sixth and final session emphasized a balanced time perspective review, integrating past, present, and future outlooks for improved psychological well-being and academic persistence.

### *2.4. Data analysis*

Data analysis involved descriptive statistics such as frequency, percentage, mean, and standard deviation, and inferential statistics including multivariate and univariate covariance analysis, Bonferroni post hoc tests, and assumption checks. SPSS version 24 was used for data analysis, with the significance level set at $\alpha = 0.05$.

## 3. Findings and Results

In this section, the research hypotheses were tested using multivariate analysis of covariance (MANCOVA) and

Bonferroni post hoc tests. To compare the experimental and control groups based on follow-up scores, after controlling for pre-test effects, a MANCOVA was conducted to determine the effect of time perspective therapy and mindfulness therapy interventions on academic motivation, academic engagement, academic procrastination, and academic persistence. The descriptive statistics for the study variables, including means and standard deviations for each group across the pre-test, post-test, and follow-up stages, are presented in Table 1. This table shows that both experimental groups demonstrated improvements in academic motivation, academic engagement, academic procrastination, and academic persistence from pre-test to post-test and maintained these improvements in the follow-up stage, while the control group showed no significant changes.

**Table 1**

*Descriptive Statistics (M, SD) of Study Variables in Pre-Test, Post-Test, and Follow-Up Across Groups*

| Variable | Stage | Time Perspective Therapy (M, SD) | Mindfulness Therapy (M, SD) | Control Group (M, SD) |
|---|---|---|---|---|
| Academic Motivation | Pre-test | 82.45 (5.12) | 83.21 (4.98) | 81.89 (5.34) |
| | Post-test | 90.84 (4.87) | 89.73 (5.11) | 82.35 (5.29) |
| | Follow-up | 92.79 (5.03) | 91.95 (5.24) | 85.23 (5.42) |
| Academic Engagement | Pre-test | 25.34 (3.21) | 26.11 (3.08) | 24.89 (3.34) |
| | Post-test | 30.54 (2.97) | 29.92 (3.21) | 25.12 (3.44) |
| | Follow-up | 31.77 (3.12) | 30.38 (3.18) | 24.98 (3.57) |
| Academic Procrastination | Pre-test | 59.21 (4.87) | 58.43 (4.92) | 58.87 (5.02) |
| | Post-test | 51.32 (4.54) | 54.11 (4.76) | 57.83 (5.23) |
| | Follow-up | 48.43 (4.32) | 51.90 (4.89) | 57.97 (5.11) |
| Academic Persistence | Pre-test | 63.45 (5.11) | 62.89 (5.24) | 62.34 (5.31) |
| | Post-test | 71.22 (4.97) | 68.76 (5.11) | 62.87 (5.29) |
| | Follow-up | 75.96 (5.08) | 70.65 (5.34) | 62.52 (5.42) |

The results of the MANCOVA analysis are presented in Table 2. The multivariate tests, including Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root, all showed significant differences among the groups in at least one of the dependent variables, confirming that the interventions had significant effects on academic motivation, academic engagement, academic procrastination, and academic persistence.

**Table 2**

*Results of Multivariate Analysis of Covariance (MANCOVA) on Follow-Up Scores of Academic Motivation, Academic Engagement, Academic Procrastination, and Academic Persistence in Experimental (1 and 2) and Control Groups*

| Test | Value | F | Hypothesis df | Error df | p |
|---|---|---|---|---|---|
| Pillai's Trace | 1.009 | 9 | 12 | 213 | .001 |
| Wilks' Lambda | .122 | 18.52 | 12 | 182.84 | .001 |
| Hotelling's Trace | 6.14 | 34.66 | 12 | 203 | .001 |
| Roy's Largest Root | 5.97 | 106.04 | 4 | 71 | .001 |

The Bonferroni post hoc test results below show the pairwise comparisons between the groups. The findings indicate that while there were no significant differences between time perspective therapy and mindfulness therapy groups in academic motivation and academic engagement, significant differences were observed between these groups in academic procrastination and academic persistence, with time perspective therapy demonstrating greater effectiveness in reducing academic procrastination and enhancing academic persistence.

**Table 3**

*Bonferroni Post Hoc Test Results for Comparison of Adjusted Means of Academic Motivation, Academic Engagement, Academic Procrastination, and Academic Persistence in Experimental and Control Groups During Follow-Up*

| Variable | Comparison | Adjusted Means | Mean Difference | SE | p |
|---|---|---|---|---|---|
| Academic Motivation | Group 1 - Control | 92.79, 85.23 | 7.56 | 1.04 | .001 |
| | Group 2 - Control | 91.95, 85.23 | 6.72 | 1.04 | .001 |
| | Group 1 - Group 2 | 92.79, 91.95 | 0.83 | 1.02 | 1.00 |
| Academic Engagement | Group 1 - Control | 31.77, 24.98 | 6.79 | 0.64 | .001 |
| | Group 2 - Control | 30.38, 24.98 | 5.39 | 0.63 | .001 |
| | Group 1 - Group 2 | 31.77, 30.38 | 1.39 | 0.63 | .18 |
| Academic Procrastination | Group 1 - Control | 48.43, 57.97 | 9.54 | 0.69 | .001 |
| | Group 2 - Control | 51.90, 57.97 | 6.06 | 0.68 | .001 |
| | Group 1 - Group 2 | 48.43, 51.90 | 3.47 | 0.67 | .001 |
| Academic Persistence | Group 1 - Control | 75.96, 62.52 | 13.43 | 1.51 | .001 |
| | Group 2 - Control | 70.65, 62.52 | 8.12 | 1.50 | .001 |
| | Group 1 - Group 2 | 75.96, 70.65 | 5.31 | 1.48 | .004 |

The results indicate that time perspective therapy significantly reduced academic procrastination and improved academic persistence compared to mindfulness therapy, while no significant differences were found between the two interventions in academic motivation and academic engagement.

## 4. Discussion and Conclusion

The results of the multivariate analysis of covariance showed that there was a significant difference between the control group and the time perspective therapy group in academic motivation, academic engagement, academic procrastination, and academic persistence in favor of the time perspective therapy group. Therefore, time perspective therapy was effective in improving academic motivation, academic engagement, academic procrastination, and academic persistence. These results are consistent with the prior findings (Almurumudhe et al., 2024; Amidian et al., 2019; Barzegar bafrooei & Aref manesh, 2019; Emami Khotbesara et al., 2024; Farzin et al., 2020; Golestaneh et al., 2016; Hadad Ranjbar et al., 2020; Haseli Songhori & Salamti, 2024; Jenaabadi & Jafarpour, 2019; Jin et al., 2019; Leondari, 2007; Norouzi et al., 2023; Omidi et al., 2019; Settanni et al., 2018; Sharifi et al., 2023).

Zimbardo and Boyd described five time perspectives: negative past, which reflects a generally negative attitude toward the past; positive past, which reflects a nostalgic and positive view of past experiences; hedonistic present, which reflects an orientation toward enjoying the present moment without concern for future consequences; fatalistic present, characterized by a deterministic and hopeless view of life; and future, which reflects planning and striving for future goals and outcomes. Time perspective therapy helps improve an individual's well-being by reducing focus on negative past experiences and enhancing focus on positive past experiences, leading to mood and behavioral improvements (Barzegar bafrooei & Aref manesh, 2019). The ability to set future expectations is a unique human trait that plays a crucial role in shaping present behaviors. Adolescents develop future-oriented goals during secondary education, influenced by family, school, and society, which are associated with motivational outcomes and adaptive learning strategies. Adolescents with a long-term future time perspective set distant future goals, while those with a short-term perspective focus on immediate goals and seek novel experiences (Jin et al., 2019). Researchers have found a relationship between academic procrastination and time perspective, with procrastination linked to time wastage across temporal dimensions, highlighting the critical role of time perspective in addressing this issue (Jenaabadi & Jafarpour, 2019). Time perspective reflects individuals' cognitive connection to past, present, and future, influencing decision-making and subsequent actions. Individuals with a future focus exhibit traits such as self-efficacy, responsibility, hope, and confidence, evaluating potential rewards and the importance of positive future outcomes (Barzegar bafrooei & Aref manesh, 2019).

The effectiveness of time perspective therapy in enhancing academic persistence can be attributed to its focus on future expectations, fostering optimism about education and the future, as academic persistence is closely linked to self-esteem and optimism (Omidi et al., 2019){Omidi, 2019 #76545}{Omidi, 2019 #76545}. Time perspective therapy enhances perseverance by reducing focus on negative past experiences and increasing focus on positive past experiences.

The results also showed that there was a significant difference between the control group and the mindfulness therapy group in academic motivation, academic engagement, academic procrastination, and academic persistence, favoring the mindfulness therapy group. These findings align with prior studies (Joghataei et al., 2023; Karimi et al., 2024; Mashhadi et al., 2022; Rahmani et al.,


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2024; Shahsavari Googhari et al., 2022; Shoghi et al., 2023; Sofyan et al., 2023; Soleimani Rad et al., 2023; Vajihesadat & Gholamreza, 2023). Academic challenges such as low interest in learning, academic decline, and increased dropout rates are closely related to academic motivation. Mindfulness-based interventions have been identified as effective in enhancing academic motivation by fostering present-moment awareness and non-judgmental attitudes, essential for focused learning and improved academic performance (Shoghi et al., 2023). Mindfulness interventions train students to redirect attention from intrusive thoughts to the present moment, enhancing concentration during academic tasks and overcoming distractions, thus improving study quality and academic motivation over time (Heydarian & Salimi, 2021; Omidi et al., 2019).

This study was conducted in the context of the Khuzestan flood, which may have temporarily influenced the affected population due to the prevailing conditions. Additionally, the study was not an experimental design, limiting causal inferences. Future research should include diverse populations and groups, and demographic variables such as age and education should be considered. Limitations of the current design should be addressed in future studies.

## Authors' Contributions

Authors contributed equally to this article.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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## Declaration of Interest

The authors report no conflict of interest.

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According to the authors, this article has no financial support.

## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study included obtaining informed consent for participation and ensuring the confidentiality of participants' information. The study was reviewed and approved by the Islamic Azad University, Isfahan (Khorasgan) Branch, under the ethics code IR.IAU.KHUISF.REC.1403.099.

## References

Alipour, F., Farid, A., & Mosleh, S. Q. (2024). The model of academic procrastination based on academic self-handicapping and perfectionism with the mediating role of students' sense of competence. *Research in cognitive and behavioral sciences*, *13*(2), 1-20. https://cbs.ui.ac.ir/article_27778_en.html?lang=fa

Almurumudhe, L. K. A., Mahdad, A., Abdulkadhim Johni, A., & Yousefi, Z. (2024). The Mediating Role of Self-Esteem in the Relationship between Psychological Capital, Academic Engagement, and Academic Procrastination with Academic Performance among Students in Al-Diwaniyah, Iraq [Research Article]. *Iranian Journal of Educational Sociology*, *7*(3), 1-9. https://doi.org/10.61838/kman.ijes.7.3.1

Amidian, M., Mehrabi, Z., & Haji Yakhchali, A. (2019). The causal relationship between mindfulness and intrinsic and extrinsic academic motivation with the mediation of time perspective in students at Shahid Chamran University of Ahvaz. *Journal of Educational Psychology*, *15*(53), 161-181. https://jep.atu.ac.ir/article_10699.html?lang=en

Anierobi, E. I., Nwikpo, M. N., Okeke, N. U., & Ezennaka, A. O. (2024). Students' Academic Engagement in Secondary Schools: Parental Involvement and Academic Resilience as Predictor Variables. *International Journal of Educational and Psychological Sciences*, *2*(1), 13-26. https://doi.org/10.59890/ijeps.v2i1.1207

Ansari-Khoh, M. S., & Ansari-Khoh, S. S. (2024). The Two-Way and Effective Relationship of Success with Academic Motivation. Conference on Management and Humanities Research in Iran,

Arslan, G., Allen, K.-A., & Waters, L. (2022). Strength-Based Parenting and Academic Motivation in Adolescents Returning to School After COVID-19 School Closure: Exploring the Effect of School Belonging and Strength Use. *Psychological Reports*, *126*(6), 2940-2962. https://doi.org/10.1177/00332941221087915

Asli Azad, M., Manshaei, G., & Ghamarani, A. (2019). The Effect of Mindfulness Therapy on Tolerance of Uncertainty and Thought-Action Fusion in Patients with Obsessive-Compulsive Disorder. *childmh*, *6*(1), 83-94. https://doi.org/10.29252/jcmh.6.1.8

Azimi, D., Gadimi, S., Khazan, K., & Dargahi, S. (2017). The Role of Psychological Capitals and academic motivation in academic vitality and decisional procrastination in nursing



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E-ISSN: 3041-9026

students. *JMED*, *12*(3), 147-157. http://jmed.ssu.ac.ir/article-1-807-en.html

Baker, S. R. (2003). A prospective longitudinal investigation of social problem-solving appraisals on adjustment to university, stress, health, academic motivation and performance. *Personality and individual differences*, *35*, 569-591. https://doi.org/10.1016/S0191-8869(02)00220-9

Barzegar bafrooei, K., & Aref manesh, M. (2019). The Role of Time Perspective and Personality Factors On Academic Procrastination of Yazd University Students. *Research in School and Virtual Learning*, *7*(1), 59-68. https://doi.org/10.30473/etl.2019.6054

Cao, F., Zhang, L. F., Li, M., & Xie, Z. (2024). Subjective well-being among PhD students in mainland China: the roles of psychological capital and academic engagement. *Frontiers in psychology*, *15*, 1354451. https://doi.org/10.3389/fpsyg.2024.1354451

Celcima, D., Osmani, F., Bardhi, E. K., & Icka, E. M. (2024). The relationship between academic motivation and self-efficacy in undergraduate students: Kosovo case. *Revista De Gestão Social E Ambiental*, *18*(1), e07755. https://doi.org/10.24857/rgsa.v18n1-193

Emami Khotbesara, Z., Mahdian, H., & Bakhshipour, A. (2024). Comparing the Effectiveness of Academic Buoyancy and Psychological Capital Training on Academic Procrastination in Female High School Students [Research Article]. *Iranian Journal of Educational Sociology*, *7*(3), 149-160. https://doi.org/10.61838/kman.ijes.7.3.18

Evriani, T. (2024). How Does the Effectiveness of Cognitive Behavior Therapy in Reducing Academic Anxiety Influence the Academic Procrastination of Undergraduate Students? *Buana Pendidikan Jurnal Fakultas Keguruan Dan Ilmu Pendidikan*, *20*(1), 22-28. https://doi.org/10.36456/bp.vol20.no1.a8698

Farhadi Navarudi, S., Tahmorsi, N., & Sedaghat, M. (2020). The effectiveness of mindfulness-based therapy (MBCT) on negative spontaneous thoughts and coping strategies to avoid and perceived stress of entrance exam candidates with physical symptoms. *Journal of Adolescent and Youth Psychological Studies*, *1*(1), 177-189. https://www.magiran.com/paper/2538475

Farzin, S., Barzegar bafrooei, K., & Faghihi, M. (2020). The role of time perspective in prediction of academic emotions of secondary school male students. *Journal of School Psychology*, *9*(1), 153-172. https://doi.org/10.22098/jsp.2020.908

Golestaneh, S., Afshin, S., & Dehghani, Y. (2016). The Relationship between the Time Perspective and Achievement Goal, the Academic Procrastination and Academic Achievement of Students in Various Colleges of the University of the Gulf. *Social Cognition*, *5*(2), 52-71. https://sc.journals.pnu.ac.ir/article_3271.html

Gudarzi, M. A. (2002). Checking the validity and reliability of Beck's hopelessness scale in a group of Shiraz University students.

Hadad Ranjbar, S., Sadipour, E., Dortaj, F., Delavar, A., & Ebrahimi Qavam, S. (2020). The Effectiveness of Acceptance and Commitment Training prgram on motivational beliefs and future time perspective for students with academic self-defeating behaviors. *Clinical Psychology and Personality*, *17*(2), 31-45. https://cpap.shahed.ac.ir/article_2906_en.html?lang=fa

Haseli Songhori, M., & Salamti, K. (2024). The Linkage Between University Students' Academic Engagement and Academic Support: The Mediating Role of Psychological Capital [Research Article]. *Iranian Journal of Educational Sociology*, *7*(2), 72-84. https://doi.org/10.61838/kman.ijes.7.2.10

Hashemi Nosratabad, B., Mansour, V., & Shahram, B. (2017). Effectiveness of Help-Seeking Strategies Training on Academic Stress, Performance, and Academic Motivation in Students. *Learning Strategies in Cognition*, *5*(8), 139-158.

Heydarian, M., & Salimi, N. (2021). Effectiveness of mindfulness-based group therapy approach on academic self-efficacy, achievement motivation and stress coping strategies in students. *Applied Educational Leadership*, *2*(2), 27-36. https://ael.uma.ac.ir/article_1529_4e34cedc872056b5b214ea5f48da1aef.pdf

Hosseini Sadr, S., Farhangi, A., & Jafari, A. (2022). Modeling the Mediating Role of COVID-19 Anxiety in the Relationship Between Identity Styles and Academic Motivation in Students. *Psychological Studies of Adolescents and Youth*, *3*(1), 463-455. https://doi.org/10.61838/kman.jayps.3.1.36

Hussein, K. (2021). The relationship between emotional intelligence and academic motivation of pre-university students using the mediating role of mental health. *Management and Educational Perspective*, *3*(2), 77-98. https://doi.org/10.22034/jmep.2021.294708.1060

Igomigo, R., Obosi, A., & Oyelade, O. (2023). Influence of self-efficacy, academic motivation, academic stress and anxiety on memory recall among PG students. https://doi.org/10.21203/rs.3.rs-3715535/v1

Jalili, F., Arefi, M., Ghamarani, A., & Monshi, G. (2018). Psychometric properties of academic fascination scale in students. *Scientific Journal of Education and Evaluation (Quarterly)*, *11*(41), 155-172.

Jamshidi Soluklu, B., & Raziye, S. (2018). Investigating the psychometric properties of the academic sustainability scale based on classical and question-answer theories. *Educational Measurement and Evaluation Studies*.

Jehanghir, M., Ishaq, K., & Akbar, R. A. (2024). Effect of learners' autonomy on academic motivation and university students' grit. *Education and Information Technologies*, *29*(4), 4159-4196. https://doi.org/10.1007/s10639-023-11976-2

Jenaabadi, H., & Jafarpour, M. (2019). The effectiveness of time perspective treatment in sense of coherence and perceived stress of mothers of children with learning disorders. *Journal of Learning Disabilities*, *9*(1), 53-71. https://doi.org/10.22098/jld.2019.833

Jin, H., Wang, Q., & Lan, X. (2019). Peer Attachment and Academic Procrastination in Chinese College Students: A Moderated Mediation Model of Future Time Perspective and Grit. *Frontiers in psychology*. https://doi.org/10.3389/fpsyg.2019.02645

Joghataei, A., Mafakheri, A., & bakhshipoor, a. (2023). Evaluation of the effectiveness of mindfulness training on high-risk and procrastination behaviors and fear of success among students. *Journal of Applied Family Therapy*, *4*(1), 64-81. https://doi.org/10.22034/aftj.2023.334795.1496

Joojam, P., & Safarpour-Dehkordi, S. (2024). The Effect of Cognitive and Metacognitive Strategies on Self-Concept and Academic Procrastination in Middle School Students. *Excellence in Education Quarterly*, *3*(2), 6-10.

Karimi, P., Baseri, A., & Razini, H. H. (2024). The effectiveness of mindfulness-based cognitive therapy on procrastination and self-handicapping of students with academic failure. *Rooyesh-e-Ravanshenasi Journal (RRJ)*, *13*(1), 171-180. https://frooyesh.ir/browse.php?a_id=3781&sid=1&slc_lang=en&ftxt=1

Khaled, R. (2011). Gender differences in students' academic achievement and motivation. *Strategic studies of women*, *13*(50), 81-124.

Khoshesteh-Abbasi, F., Tarvordi Zadeh, H., & Younesi, S. J. (2023). Comparison of the Effectiveness of Cognitive and Metacognitive Strategies on Academic Persistence. *Psychological Studies of Adolescents and Youth*, *4*(7), 43-32. https://doi.org/10.61838/kman.jayps.4.7.3

Kienzler, S., Pech, I., Kreibich, H., Müller, M., & Thieken, A. (2015). After the extreme flood in 2002: changes in preparedness, response and recovery of flood-affected residents in Germany between 2005 and 2011. *Natural Hazards and Earth System Sciences*, *15*(3), 505-526.

Leondari, A. (2007). Future Time Perspective, Possible Selves, and Academic Achievement. *New Directions for Adult and Continuing Education*, *2007*(114), 17-26. https://doi.org/10.1002/ace.253

Li, X., Mao, Z., Zhao, J., Wang, Y., & Wang, Y. (2024). Relationships among locus of control, academic engagement, and achievement motivation in Chinese adolescents. *Social Behavior and Personality: an international journal*, *52*(5), 12640E-12655E. https://www.ingentaconnect.com/content/sbp/sbp/2024/00000052/00000005/art00001

Liu, X. (2024). Effect of Teacher–student Relationship on Academic Engagement: The Mediating Roles of Perceived Social Support and Academic Pressure. *Frontiers in psychology*, *15*. https://doi.org/10.3389/fpsyg.2024.1331667

Mashhadi, R., Arab, A., & Jenaabadi, H. (2022). Comparing the Impact of Positive Intervention and Mindfulness-Based Cognitive Therapy Intervention on the Emotional Maturity. *Research in cognitive and behavioral sciences*, *12*(1), 17-38. https://doi.org/10.22108/cbs.2022.131777.1605

McKellar, S. E., & Wang, M.-T. (2023). Adolescents' daily sense of school connectedness and academic engagement: Intensive longitudinal mediation study of student differences by remote, hybrid, and in-person learning modality. *Learning and Instruction*, *83*, 101659. https://www.sciencedirect.com/science/article/pii/S0959475222000809

Mirshafieea, N. S., & Jafarib, F. (2019). How Strength-based Counseling effects on Self-Compassion and Future Time Perspective in adolescents? *Journal of Neurodevelopmental Cognition*, *2*(1), 12-21.

Moradi, S., & Mardani, F. (2023). The Impact of Peer Attachment on Academic Motivation: A Quantitative Analysis. *KMAN Counseling & Psychology Nexus*, *1*(2), 4-9. https://doi.org/10.61838/kman.psychnexus.1.2.2

Morgan, I. A., Matthews, G., & Winton, M. (1995). Coping and personality as predictors of post-traumatic intrusions, numbing, avoidance and general distress: A study of victims of the Perth flood. *Behavioural and Cognitive Psychotherapy*, *23*(3), 251-264. https://www.cambridge.org/core/journals/behavioural-and-cognitive-psychotherapy/article/coping-and-personality-as-predictors-of-posttraumatic-intrusions-numbing-avoidance-and-general-distress-a-study-of-victims-of-the-perth-flood/57CAE2CC65E575162202599FAFD006D7

Mousavi, S. K., Naghvi, M. S., Khashei, V., & Mohammadi, S. (2021). Provision of a Crisis Management Model in Khuzestan Province with an Emphasis on Environmental Crises, Iran. *Qom University of Medical Sciences Journal*, *14*(12), 52-60. https://www.magiran.com/paper/2291130

Najarian, Z., & Vahedi, S. (2023). The Relationship of Perseverance, Psychological Hardiness, and Resilience With Academic Engagement in Students: A Path Analysis Model. *Educational Psychology Quarterly*, *18*(66), 169-192.

Nakamura, J., & Csikszentmihalyi, M. (2014). The concept of flow. *Flow and the foundations of positive psychology*, 239-263. https://doi.org/10.1007/978-94-017-9088-8_16

Narimani, M., Mohammad Amini, Z., Zahed, A., & Abolghasemi, A. (2015). A comparison of effectiveness of training self-regulated learning strategies and problem-solving on academic motivation in male students with academic procrastination. *Journal of School Psychology*, *4*(1), 139-155.

Ng, A. H. N., & Boey, K. W. (2023). Academic motivation and academic self-concept of students with special education needs in higher education. https://repository.cihe.edu.hk/jspui/handle/cihe/4243

Norouzi, S., Bashardoust, S., & Mojtabaie, M. (2023). Presenting a structural model for predicting mental disturbance based on time perspective with the mediation of psychological coherence and cognitive flexibility in male and female students. *Journal of Adolescent and Youth Psychological Studies (JAYPS)*, *4*(1), 90-102. https://doi.org/10.61838/kman.jayps.4.1.10

Omidi, M., Mehrabi, Z., & Haji Yakhchali, A. (2019). The causal relationship between mindfulness and intrinsic and extrinsic academic motivation mediated by time perspective among students of Shahid Chamran University of Ahvaz. *Educational Psychology Journal*, *15*(53), 161-181. https://jep.atu.ac.ir/article_10699.html

Otto, K., Boos, A., Dalbert, C., Schöps, D., & Hoyer, J. (2006). Posttraumatic symptoms, depression, and anxiety of flood victims: The impact of the belief in a just world. *Personality and individual differences*, *40*(5), 1075-1084. https://doi.org/10.1016/j.paid.2005.11.010

Pan, X., & Yao, Y. Y. (2023). Enhancing Chinese Students' Academic Engagement: The Effect of Teacher Support and Teacher–student Rapport. *Frontiers in psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.1188507

Parsafar, A. (2024). Investigating the Effectiveness of Motivational Interviewing on Social Anxiety and Academic Procrastination Among Students. *Jayps*, *5*(3), 55-64. https://doi.org/10.61838/kman.jayps.5.3.6

Rahmani, M., Namvar, H., & Hashemi Razini, H. (2024). The Effectiveness of Rational Emotive Behavior Therapy on Executive Functions and Academic Procrastination of Children with Sluggish Cognitive Tempo. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, *2*(4), 82-90. https://doi.org/10.22034/pdmd.2024.434756.1038

Sajadifar, S. (2023). Emotional Pathways to Engagement: Predicting Academic Engagement Through Academic Emotions Among High School Girls. *KMAN Counsel and Psych Nexus*, *1*(1), 189-194. https://doi.org/10.61838/kman.psychnexus.1.1.22

Salehi, A., & Behzadi, F. (2018). The Impact of Stress Management Training on Academic Motivation of University Students. *Iranian Journal of Educational Sociology*, *1*(3), 80-93.

Settanni, M., Marengo, D., Fabris, M. A., & Longobardi, C. (2018). The interplay between ADHD symptoms and time perspective in addictive social media use: A study on adolescent Facebook users. *Children and Youth Services Review*, *89*, 165-170. https://doi.org/10.1016/j.childyouth.2018.04.031

Shahsavari Googhari, Z., Hafezi, F., Asgari, P., & Heidari, A. (2022). The effectiveness of mindfulness-based cognitive therapy and acceptance and commitment therapy on medical science students' subjective well-being, psychological distress, and emotion regulation. *J Shahrekord Univ Med Sci*, *24*(1), 35-41. https://doi.org/10.34172/jsums.2022.07

Sharifi, M., Arefi, M., & Aghaei, A. (2023). A comparative study on the effects of three methods of group education of academic vitality, positivism, and time perspective on academic

engagement and academic vitality of ninth-grade male students. *Knowledge & Research in Applied Psychology*, *23*(4), 1-16. https://doi.org/10.30486/jsrp.2022.1948690.3301

Shen, S. (2024). Teacher Emotional Support Facilitates Academic Engagement Through Positive Academic Emotions and Mastery-Approach Goals Among College Students. *Sage Open*, *14*(2). https://doi.org/10.1177/21582440241245369

Shoghi, B., Mohammadi, A., & Pirkhaefi, A. (2023). The Mediating Role of Mindfulness in the Relationship between Cognitive Abilities and Wisdom in Students. *Sociology of Education*, *8*(2), 262-273. https://doi.org/10.22034/ijes.2023.707076

Smith, J., Johnson, A., & Williams, R. (2022). The Impact of Stress Management on Academic Adaptability, Academic Motivation, and Academic Self-Regulation.

Sofyan, A., Ramli, M., Sugiyo, S., & Kurniawan, K. (2023). Development of Acceptance and Commitment Therapy Group Counseling Models and Mindfulness-Based Stress Reduction to Reduce Academic Burnout in High School Students. *COUNS-EDU: The International Journal of Counseling and Education*, *7*(3). https://doi.org/10.23916/0020220736730

Soleimani Rad, H., Samadi, S., Sirois, F. M., & Goodarzi, H. (2023). Mindfulness intervention for academic procrastination: A randomized control trial. *Learning and Individual Differences*, *101*, 102244. https://doi.org/10.1016/j.lindif.2022.102244

Sparfeldt, J. R., & Schwabe, S. (2024). Academic procrastination mediates the relation between conscientiousness and academic achievement. *Personality and individual differences*, *218*, 112466. https://doi.org/10.1016/j.paid.2023.112466

Sudirman, S. A., Reza, F. A., Yusri, N. A., Rina, R., & Bah, M. (2023). Putting Off Until Tomorrow: Academic Procrastination, Perfectionism, and Fear of Failure. *International Journal of Islamic Educational Psychology*, *4*(1), 136-153. https://doi.org/10.18196/ijiep.v4i1.17576

Sword, R. M., Sword, R. K., Brunskill, S. R., & Zimbardo, P. G. (2014). Time perspective therapy: A new time-based metaphor therapy for PTSD. *Journal of Loss and Trauma*, *19*(3), 197-201.

Turki, M., Sahnoun, F., Guermazi, A., Elleuch, O., Bennaceur, F., Halouani, N., Ellouze, S., & Aloulou, J. (2023). Relationship between self-esteem, self-efficacy and academic procrastination among medical students. *European Psychiatry*, *66*(S1), S554-S554. https://doi.org/10.1192/j.eurpsy.2023.1169

Turner, M., & Hodis, F. A. (2023). A systematic review of interventions to reduce academic procrastination and implications for instructor-based classroom interventions. *Educational psychology review*, *35*(4), 118. https://doi.org/10.1007/s10648-023-09838-x

Vajihesadat, E., & Gholamreza, M. (2023). The Effectiveness of Mindfulness Based Therapy on the Parenting Burnout and Self-Compassion in the Mothers of Children with Attention Deficit/Hyperactivity Disorder. *Modern psychological research*, *17*(68), 43-52. https://www.magiran.com/paper/2568347

Wang, Y. (2024). Correlation Between Students Perceived Parental Expectations and Students Academic Engagement: The Intermediary Effect of Academic Self-Efficacy. *Journal of Pedagogical Research*. https://doi.org/10.33902/jpr.202427683

Yüksel, A., & Bahadır Yılmaz, E. (2020). The effects of group mindfulness-based cognitive therapy in nursing students: A quasi-experimental study. *Nurse Education Today*, *85*, 104268. https://www.sciencedirect.com/science/article/pii/S0260691719303521

Zavala, C., Waters, L., Arslan, G., Simpson, A., Nuñez del Prado, P., & Gargurevich, R. (2022). The role of strength-based parenting, posttraumatic stress, and event exposure on posttraumatic growth in flood survivors. *Psychological Trauma: Theory, Research, Practice, and Policy*. https://psycnet.apa.org/record/2022-55435-001?doi=1

Zimbardo, P. G., & Boyd, J. N. (2014). Putting time in perspective: A valid, reliable individual-differences metric. In *Time perspective theory; review, research and application: Essays in honor of Philip G. Zimbardo* (pp. 17-55). Springer.

Zimbardo, P. G., Sward, R., & Sward, R. (2012). *The time cure: Overcoming PTSD with the new psychology of time perspective therapy*. Jossey-Bass. https://www.amazon.de/-/en/Time-Cure-Overcoming-Psychology-Perspective/dp/1118205677