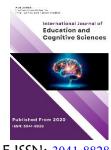


Article history: Received 03 October 2024 Revised 18 January 2025 Accepted 27 January 2025 Published online 05 February 2025

International Journal of Education and **Cognitive Sciences**

Volume 6, Issue 2, pp 1-9



E-ISSN: 3041-8828

Investigating the Effectiveness of Choice Theory Training on Time Perspective and Psychological Capital (Resilience, Self-Efficacy, Hope, and Optimism) in Male High School Students in **South Khorasan Province**

Hadi. Hamidi 🗓, Mitra. Kamyabi 🖜 Alireza. Manzari Tavakkoli 🗓, Zahra. Zeinaddini Meymand

¹ Department of Psychology and Educational Sciences, Ke.C., Islamic Azad University, Kerman, Iran

* Corresponding author email address: Kamyabi.mitra@gmail.com

Article Info

Article type:

Original Research

How to cite this article:

Hamidi, H., Kamyabi, M., Manzari Tavakkoli, A., & Zeinaddini Meymand, Z. (2025). Investigating the Effectiveness of Choice Theory Training on Time Perspective and Psychological Capital (Resilience, Self-Efficacy, Hope, and Optimism) in Male High School Students South Khorasan Province. International Journal of Education and Cognitive Sciences, 6(2), 1-9.

https://doi.org/10.61838/kman.ijecs.6.2.3



© 2025 the authors. Published by Iranian Association for Intelligence and Talent Studies, Tehran, Iran. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

Purpose: The present study aimed to analyze the effectiveness of choice theory training on time perspective and psychological capital in male high school students in South Khorasan Province.

Methods and Materials: This study was conducted using a quasi-experimental design with a pre-test, post-test, and follow-up phase across three groups (for each dependent variable). The statistical population consisted of all male high school students in South Khorasan Province. A purposive and convenient sampling method was used to select participants. The statistical population was divided into three groups of 15 participants, and choice theory training was conducted with them. The Zimbardo Time Perspective Inventory (ZTPI) by Zimbardo and Boyd (1999) and the Psychological Capital Questionnaire (PCQ) by Luthans (2007) were used to evaluate the outcomes. The research hypotheses were analyzed using repeatedmeasures ANCOVA.

Findings: The results indicate that choice theory training impacts the components of negative past, positive past, hedonistic present, and fatalistic present. Furthermore, effect size values show that choice theory training created the necessary effectiveness within the groups. The training also influenced the components of self-efficacy, hope, resilience, and optimism. Similarly, effect size values demonstrate that the training established the required effectiveness among the groups.

Conclusion: The results of this study revealed that choice theory training can significantly assist students in acquiring essential characteristics. Time perspective and psychological capital are critical attributes of a successful and mentally healthy student, which can be fostered through choice theory training.

Keywords: Choice theory, time perspective, psychological capital, high school students.

1. Introduction

In today's advanced world, alongside the expansion of educational technologies, unfortunately, many psychological states of students have been neglected. Hope, resilience, optimism, and self-efficacy are among the important and influential criteria in the educational and developmental process of students (Sadat Mousavi & Ebrahimi, 2024; Tang, 2024; Yang, 2024). A student possessing these traits can facilitate the educational process and make achieving educational goals more attainable. However, what is observed in reality is that many students either lack these traits or have not moved toward acquiring them (Cao et al., 2024; Emami Khotbesara et al., 2024).

Furthermore, with the rapid advancement of science and technology, societies require skills to move in harmony with the development of science and technology, adapt to these changes, and avoid being left behind (Abedi et al., 2024). Cultivating individuals who are hopeful, optimistic, efficient, and resilient to a high degree can significantly contribute to this goal. Since education today is recognized as a fundamental factor in cultural, political, economic, and social development, mere social and scientific capital alone cannot ensure success for societies and individuals. Instead, another form of capital, referred to as psychological capital, becomes crucial. Psychological capital is a positive, developmental psychological state characterized by having the necessary confidence and making efforts to succeed in challenging tasks (self-efficacy), developing positive attributions about current and future success (optimism), persevering toward achieving goals and, when necessary, modifying strategies to reach those goals (hope), and withstanding difficulties and returning to one's original state to achieve success (resilience). This concept helps individuals cultivate an active coping style (Tang, 2024; Yang, 2024). According to researchers, psychological capital is a positive, developmental psychological state, and its components-self-efficacy, hope, resilience, and optimism—are highly malleable. With appropriate psychological and situational conditions, individuals can enhance these components in various ways (Almurumudhe et al., 2024; Cao et al., 2024; Emami et al., 2024; Emami Khotbesara et al., 2024; Haseli Songhori & Salamti, 2024; Maarefvand & Shafiabady, 2024; Rezazadeh Taloukolaei et al., 2024; Sadat Mousavi & Ebrahimi, 2024; Tang, 2024; Yang, 2024).

On the other hand, learners in educational environments face numerous challenges in achieving educational goals. When these challenges are perceived negatively, they can adversely affect students' attitudes and academic performance (Mikaeli-Manee et al., 2021; Norouzi et al., 2023). One consequence of negatively perceiving challenges is the prevalence of academic burnout among students. Academic burnout refers to feelings of exhaustion due to academic demands (exhaustion), having a cynical and disinterested attitude toward academic tasks (cynicism), and feeling incompetent as a student (reduced efficacy) (Hosseini et al., 2020; Sharifi et al., 2023). Thus, avoiding academic burnout can also be an important and influential factor in the educational process.

Moreover, it is evident that the best type of learning occurs in a social context, and successful education can only be claimed when it is taught within the social sphere. Social learning emphasizes that humans acquire much of their knowledge and awareness through social interactions, observation, and imitation. Therefore, it can be argued that the most effective type of education is one that enhances the social learning abilities of learners. Given aforementioned considerations, our educational system requires content that complements the core, approved curriculum, facilitating the process of education and development. Numerous approaches exist to help students acquire these traits, and according to research, one such approach is utilizing William Glasser's Choice Theory. One of the psychotherapeutic interventions that has gained attention from psychologists in recent decades for addressing various psychological problems in individuals and communities is Choice Theory training (Fereydouni et al., 2019; Glasser, 1998, 2011; Glasser & Glasser, 2010; Gündoğdu, 2018; Irvine, 2015; Mottern, 2008; Movahedi Rad et al., 2021; Reeder, 2011; Wubbolding, 2010). Choice Theory, proposed by Glasser, is based on internal control and posits that all our behaviors and choices are driven by five basic needs: survival, love and belonging, power, freedom, and fun (Glasser, 1998, 2011; Glasser & Glasser, 2010). According to Choice Theory, we can only control our own behavior. Using Choice Theory, individuals learn that their actions are not determined by external factors but are influenced by internal processes under their control (Wubbolding, 2010).

Glasser believed that failure to meet basic needs is a universal phenomenon. Instead of taking responsibility and striving to find effective behaviors to meet these basic needs, many people act irresponsibly, which can lead to numerous problems (Reeder, 2011). Glasser argued that anger arises when individuals attempt to control others instead of

managing themselves. He believed that the sooner individuals understand their basic needs, abandon external control beliefs, recognize behavioral choices, and become aware of their desires and needs, the more successful they will be in managing aggressive behaviors (Ghazanfari et al., 2021; Glasser, 1998, 2011; Glasser & Glasser, 2010; Gündoğdu, 2018; Movahedi Rad et al., 2021).

Thus, to achieve beneficial, effective, and efficient education, along with considering other factors, Choice Theory training can be a solution to many challenges. This study aims to examine students' performance (before and after learning Choice Theory) to determine whether learning and applying Choice Theory can impact students' time perspective, psychological capital, academic burnout, and social learning.

2. Methods and Materials

2.1. Study Design and Participants

This study utilized a quasi-experimental design with a pre-test, post-test, and follow-up, conducted across three groups. The statistical population included all male high school students in South Khorasan Province. The sampling method was purposive and convenient, selecting participants from male high school students in Birjand. Based on the characteristics of the students, the sample was divided into three groups of 15 participants (for each dependent variable), and Choice Theory training was implemented.

2.2. Measures

2.2.1. Time Perspective

The Zimbardo Time Perspective Inventory (ZTPI) developed by Zimbardo and Boyd (1999) is a 56-item selfreport tool evaluating five subscales: Negative Past (items 4, 5, 16, 22, 27, 33, 34, 36, 50, 54), Positive Past (items 2, 7, 11, 15, 20, 25, 29, 41, 49), Hedonistic Present (items 1, 8, 12, 17, 19, 23, 26, 28, 31, 32, 42, 44, 46, 48, 55), Fatalistic Present (items 3, 14, 35, 37, 38, 47, 52, 53), and Future (items 6, 9, 10, 13, 18, 21, 24, 30, 40, 43, 45, 51, 56). Items are rated on a five-point Likert scale ranging from 1 (very untrue) to 5 (very true), with reverse scoring for items 9, 24, 25, 41, 56, and 61. Zimbardo and Boyd (1999) reported Cronbach's alpha coefficients of 0.82, 0.80, 0.79, 0.74, and 0.77 for the subscales Negative Past, Positive Past, Hedonistic Present, Fatalistic Present, and Future, respectively. The five-factor structure was confirmed through exploratory and confirmatory factor analyses in the

original study. In Iran, Alizadeh Fard, Mohtashami, Haghighatgoo, and Zimbardo (2016) standardized the inventory for an adult population in Tehran, reporting a Cronbach's alpha of 0.71 for the total scale and a confirmatory factor validity of 0.78. In a study by Alidousti, Rasouli Sherbiyani, and Taghilo (2017), the Cronbach's alpha coefficients for the subscales Negative Past, Positive Past, Hedonistic Present, Fatalistic Present, and Future were 0.76, 0.71, 0.66, 0.74, and 0.74, respectively. For the current study, the reliability of the tool will be assessed using Cronbach's alpha (Mikaeli-Manee et al., 2021).

2.2.2. Psychological Capital

The Psychological Capital Questionnaire (PCQ), designed by Luthans (2007), contains 24 items assessing four components: hope, resilience, optimism, and self-efficacy. The questionnaire uses a six-point Likert scale to measure psychological capital, with self-efficacy assessed by items 1–6, hope by items 7–12, resilience by items 13–18, and optimism by items 19–24. The validity of the questionnaire was confirmed in a study by Bahadari Khosroshahi et al. (2012), where Cronbach's alpha for the overall scale exceeded 0.70. In this study, Cronbach's alpha will also be used to evaluate the reliability of the questionnaire (Nazemi & Givarian, 2015).

2.3. Intervention

2.3.1. Choice Theory Training

Choice Theory focuses on understanding the choices individuals make, the reasoning behind those choices, and how these choices shape their behavior. According to Glasser and Glasser (2010), all behaviors are intentional, motivated internally, and aimed at fulfilling five basic needs: survival, love and belonging, power, freedom, and fun (Glasser & Glasser, 2010). These needs are intrinsic, universal, and interconnected. Choice Theory, developed by Glasser in 1998 based on his earlier therapeutic work, emphasizes the internal control psychology, rejecting the external control model that posits external factors drive behaviors (Glasser, 1998). The theory explains that individuals strive to satisfy their needs by creating a personal "quality world," which includes people, beliefs, and desires that are meaningful to them. Behavior, as per the theory, is purposeful, aiming to reduce or eliminate the frustration caused by the gap between what is desired and what is attained (Wubbolding, 2010). Choice Theory ultimately

3



seeks to transform conventional understanding into a new paradigm (Glasser, 2011).

Session 1: The program is introduced along with its underlying rationale, followed by the administration of the pre-test. The concept of aggression is defined, and participants are introduced to basic ideas regarding the satisfaction of needs within the framework of Choice Theory. This session aims to create a foundation for understanding the theoretical concepts to be explored in subsequent sessions.

Session 2: Participants are introduced to the reasons behind and mechanisms of behavioral actions. The session emphasizes the identification and understanding of the five basic needs (survival, love and belonging, power, freedom, and fun) and their influence on individuals' lives. This provides a deeper insight into how needs shape behaviors and choices.

Session 3: Participants explore the distinction between needs and wants. The session includes explanations of what constitutes "wants" and how they differ from "needs." Participants also analyze the underlying needs behind their desires, fostering a clearer understanding of the motivations driving their behavior.

Session 4: The concept of "total behavior" and its four components—thoughts, actions, emotions, and physiology—are introduced. Participants learn about direct control over thoughts and actions and indirect control over emotions and physiology. The session emphasizes the role of taking control over one's actions and thoughts in influencing overall behavior.

Session 5: The concept of external control is discussed, along with its destructive role in close relationships. Participants are introduced to the seven destructive habits (e.g., criticizing, blaming, complaining) and the seven caring habits (e.g., supporting, encouraging, listening), which are proposed as replacements to foster healthier relationships.

Session 6: The session introduces the four types of conflict, which include: (a) forcing the other party to do something they don't want, (b) being forced by another party to do something you don't want, (c) mutual coercion where both parties are compelled to do something neither wants, and (d) self-coercion to engage in unwanted actions. Participants are encouraged to recognize these patterns and

develop strategies to manage and resolve such conflicts effectively.

Session 7: The concept of the "quality world" is introduced, helping participants identify their ideal world and desired relationships. The perceptual system is explained, focusing on the imbalance between "having" and "wanting." Techniques for rebalancing this discrepancy through non-destructive, responsible approaches are discussed to promote accountability in relationships.

Session 8: The WDEP system (Wants, Doing, Evaluation, and Planning) is introduced as a structured approach to behavior change. Participants are guided through the questions: "What do you want?", "What are you doing to achieve it?", and "Is what you're doing helping you get what you want?" They are also introduced to the SMART planning model, ensuring that their plans are Specific, Measurable, Achievable, Relevant, and Time-bound. The session concludes with a post-test, review of participants' progress, and final reflections on applying these strategies in their lives.

2.4. Data Analysis

To statistically describe the research variables, tables and descriptive statistical indicators were used. For inferential analysis and to test the research questions, repeated-measures ANCOVA was applied. Initially, the collected data were described using descriptive statistics, aimed at summarizing the data and providing a deeper understanding of the statistical population. This initial analysis allowed for the description, extraction of key points, and synthesis of the data. Subsequently, the hypotheses were tested, and the results were analyzed using inferential statistics. Inferential statistics aim to make generalizations about the population by analyzing the data collected from the sample. The research hypotheses were tested using appropriate statistical methods with SPSS software version 23.

3. Findings and Results

Table 1 provides descriptive statistics for the collected data. The mean and standard deviation for the experimental and control groups in the pre-test, post-test, and follow-up phases are presented.

Table 1Descriptive Statistics for the Time Perspective Variable

Variable	Group	Pre-test		Post-test		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Time Perspective	Control	1.97	0.16	2.28	1.07	1.99	0.18
	Experimental	1.96	0.18	2.60	0.23	2.63	0.22
Negative Past	Control	1.78	0.20	1.83	0.23	1.78	0.25
	Experimental	1.75	0.27	2.62	0.37	2.55	0.33
Positive Past	Control	2.42	0.35	2.44	0.34	2.42	0.35
	Experimental	2.45	0.36	2.76	0.52	2.85	0.40
Hedonistic Present	Control	1.69	0.30	1.72	0.27	1.69	0.30
	Experimental	1.71	0.26	2.63	0.32	2.53	0.39
Fatalistic Present	Control	1.81	0.33	1.83	0.31	1.81	0.33
	Experimental	1.78	0.34	2.52	0.29	2.55	0.32
Future	Control	2.12	0.26	3.59	2.12	2.24	0.53
	Experimental	2.13	0.31	2.49	0.30	2.69	0.25

The descriptive statistics in Table 1 indicate that the time perspective variable in the experimental group increased in the post-test and follow-up stages compared to the pre-test.

This suggests a relative improvement in the experimental group's performance following the intervention.

Table 2

Descriptive Statistics for the Psychological Capital Variable

Variable	Group	Pre-test		Post-test		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Psychological Capital	Control	1.52	0.16	1.50	0.17	1.51	0.16
	Experimental	1.48	0.16	1.89	0.12	1.59	0.17
Self-Efficacy	Control	1.44	0.25	1.41	0.28	1.43	0.26
	Experimental	1.40	0.22	1.99	0.09	1.62	0.37
Hope	Control	1.47	0.26	1.45	0.28	1.45	0.28
	Experimental	1.44	0.29	1.89	0.17	1.48	0.29
Resilience	Control	1.42	0.23	1.42	0.23	1.42	0.23
	Experimental	1.38	0.91	1.84	0.29	1.78	0.27
Optimism	Control	1.72	0.19	1.72	0.21	1.72	0.19
	Experimental	1.69	0.22	1.85	0.40	1.50	0.36

The descriptive statistics in Table 2 indicate that the psychological capital variable in the experimental group increased in the post-test and follow-up stages compared to the pre-test. This suggests a relative improvement in the experimental group's performance following the intervention.

Test of Hypothesis 1: Choice Theory Training is Effective on the Time Perspective of Male High School Students in South Khorasan Province.

To evaluate the effectiveness of Choice Theory training on the time perspective of male high school students in South Khorasan Province, repeated-measures ANCOVA was utilized. The application of this analysis required meeting specific assumptions, which were tested prior to conducting the analysis. The Kolmogorov-Smirnov test was used to assess the normality of residuals. Since the significance level was greater than 0.05, the assumption of normality for model residuals was confirmed. Levene's test was employed to examine the homogeneity of variance in the research variable's error. Given that the F-statistic's significance level was greater than 0.05, the error variance across groups was deemed equal. Therefore, the use of repeated-measures ANCOVA was appropriate.

 Table 3

 Results of Repeated-Measures ANCOVA for Differences in Post-Test and Follow-Up Values of Time Perspective Components After Adjusting

 Pre-Test Scores

Component	Source of Variation	Sum of Squares	df	Mean Squares	F-Statistic	Significance Level	Effect Size (η²)
Negative Past	Pre-Test	1.118	1	1.118	10.675	0.003	0.317
	Group	9.271	1	9.271	88.524	0.000	0.794
	Error	2.409	23	0.105			
Positive Past	Pre-Test	3.446	1	3.446	19.656	0.000	0.461
	Group	1.890	1	1.890	10.782	0.003	0.319
	Error	4.032	23	0.175			
Hedonistic Present	Pre-Test	0.626	1	0.626	5.543	0.027	0.194
	Group	11.028	1	11.028	97.719	0.000	0.809
	Error	2.596	23	0.113			
Fatalistic Present	Pre-Test	0.926	1	0.926	7.248	0.013	0.240
	Group	8.039	1	8.039	62.925	0.000	0.732
	Error	2.938	23	0.128			
Future	Pre-Test	0.690	1	0.690	0.097	0.758	0.004
	Group	1.407	1	1.407	0.198	0.660	0.009
	Error	163.097	23	7.091			

Based on the results, the significance levels for the group factor (experimental and control groups) for the components of negative past, positive past, hedonistic present, and fatalistic present were less than 0.05. Thus, at a 95% confidence level, Choice Theory training significantly affected these components. The effect size values (η^2) of 0.794, 0.319, 0.809, and 0.732 indicate that Choice Theory training accounted for approximately 79%, 32%, 81%, and 73% of the variance in these components, respectively.

Test of Hypothesis 2: Choice Theory Training is Effective on the Psychological Capital of Male High School Students in South Khorasan Province. To evaluate the effectiveness of Choice Theory training on the psychological capital of male high school students in South Khorasan Province, repeated-measures ANCOVA was used. The assumptions of the analysis were tested beforehand. The Kolmogorov-Smirnov test confirmed the normality of residuals, with significance levels greater than 0.05. Levene's test showed that the error variance was equal across groups since the F-statistic's significance level was greater than 0.05. Therefore, the use of repeated-measures ANCOVA was deemed appropriate.

 Table 4

 Results of Repeated-Measures ANCOVA for Differences in Post-Test and Follow-Up Values of Psychological Capital Components After

 Adjusting Pre-Test Scores

Component	Source of Variation	Sum of Squares	df	Mean Squares	F-Statistic	Significance Level	Effect Size (η²)
Self-Efficacy	Pre-Test	1.310	1	1.310	20.934	0.000	0.466
	Group	2.326	1	2.326	37.183	0.000	0.608
	Error	1.502	24	0.063			
Норе	Pre-Test	0.131	1	0.131	1.624	0.215	0.063
	Group	0.870	1	0.870	10.785	0.003	0.310
	Error	1.936	24	0.081			
Resilience	Pre-Test	1.442	1	1.442	28.867	0.000	0.546
	Group	2.836	1	2.836	56.784	0.000	0.703
	Error	1.199	24	0.050			
Optimism	Pre-Test	0.226	1	0.226	1.342	0.258	0.053
	Group	0.016	1	0.016	0.093	0.763	0.004
	Error	4.037	24	0.168			



According to the results, the significance levels for the group factor (experimental and control groups) for the components of self-efficacy, hope, resilience, and optimism were less than 0.05. Thus, at a 95% confidence level, Choice Theory training significantly affected these components. The effect size values (η^2) of 0.608, 0.310, 0.703, and 0.004 indicate that Choice Theory training accounted for approximately 61%, 31%, 70%, and 0.4% of the variance in these components, respectively.

4. Discussion and Conclusion

This study investigated the effectiveness of Choice Theory training on time perspective and psychological capital in male high school students in South Khorasan Province. The findings indicate that Choice Theory training significantly improved components of time perspective, including negative past, positive past, hedonistic present, and fatalistic present, as well as psychological capital components such as self-efficacy, hope, resilience, and optimism.

The results support the argument that Choice Theory, with its focus on meeting basic psychological needs and fostering internal control, can positively influence individuals' cognitive and emotional frameworks. For time perspective, the significant changes in the experimental group align with Zimbardo and Boyd's (1999) theory, which posits that time perspective is a stable cognitive framework influenced by targeted interventions. The improvement in negative past and fatalistic present suggests that participants gained a healthier perception of their past and current circumstances, moving away from unhelpful ruminations and feelings of helplessness (Zimbardo & Boyd, 1999). Similarly, the enhancement in positive past and hedonistic present indicates that Choice Theory training helped participants develop a more balanced and adaptive approach to their past and present, emphasizing gratitude and enjoyment. These findings are consistent with earlier studies, such as those by Fereydouni et al. (2019), which demonstrated the effectiveness of Choice Theory in enhancing psychological constructs like happiness and selfesteem (Fereydouni et al., 2019).

The significant improvements in psychological capital components also validate the efficacy of Choice Theory training in fostering positive psychological traits. Self-efficacy, as a critical component of psychological capital, showed notable growth in the experimental group, consistent with Gundogdu's (2018) findings that Choice Theory anger

management programs improve individuals' self-regulation and confidence in handling challenges (Gündoğdu, 2018). Furthermore, the observed enhancement in hope, resilience, and optimism underscores the value of Choice Theory in building adaptive coping mechanisms and a positive outlookThese improvements reflect Glasser's (2011) assertion that understanding and fulfilling basic psychological needs through internal control leads to emotional and behavioral stability (Glasser, 2011).

Choice Theory's focus on empowering individuals to control their own behaviors and meet their needs internally likely contributed to the observed changes. By introducing concepts like the quality world, total behavior, and the destructive nature of external control, the intervention fostered a deeper understanding of personal agency and responsibility. These results are consistent with the findings of Reeder (2011), who demonstrated that Choice Theory protocols effectively reduce emotional and psychological disturbances by promoting self-awareness and constructive behavior (Reeder, 2011).

Additionally, the results demonstrate the program's potential to reduce maladaptive thought patterns. The significant improvements in resilience and optimism highlight Choice Theory's ability to enhance participants' ability to adapt to challenges and maintain a hopeful outlook. This aligns with Mottern's (2008) assertion that Choice Theory provides a robust framework for adult development and adaptability, which can also be extended to younger populations (Mottern, 2008). Similarly, Faber et al. (2013) emphasized the importance of Choice Theory in managing distress and fostering emotional resilience, findings that resonate with the present study's outcomes (Faber et al., 2013).

Despite these positive findings, it is important to acknowledge that the intervention had less pronounced effects on some components, such as future time perspective and optimism. These results suggest that while Choice Theory training effectively addresses past- and present-oriented constructs, additional strategies may be necessary to foster long-term goal orientation and optimism. Wubbolding (2010) suggested that integrating complementary techniques, such as cognitive-behavioral methods, may enhance the effectiveness of Choice Theory in addressing these areas (Wubbolding, 2010).

Overall, the findings reinforce the efficacy of Choice Theory in educational settings, particularly in promoting adaptive time perspectives and psychological capital. By encouraging students to take control of their behaviors and

7



meet their psychological needs constructively, Choice Theory training has the potential to enhance emotional wellbeing and academic success.

This study faced several limitations that should be considered when interpreting the results. First, the sample was limited to male high school students in South Khorasan Province, which restricts the generalizability of the findings to other populations, such as female students or students from different cultural or geographical contexts. Second, the relatively small sample size may limit the robustness of the statistical analyses. Third, the intervention duration was short, which may not have allowed for long-term changes in participants' psychological constructs to fully manifest. Finally, the study relied on self-reported measures, which are susceptible to response biases, such as social desirability or inaccurate self-assessment.

Future research should aim to address these limitations by including more diverse and larger samples to enhance the generalizability of findings. Studies should also consider examining the effects of Choice Theory training over extended periods to assess its long-term impact on psychological constructs and behavior. Additionally, future research could incorporate mixed-methods approaches, combining quantitative data with qualitative insights from interviews or focus groups to gain a deeper understanding of participants' experiences with the intervention. Finally, comparative studies exploring the effectiveness of Choice Theory training against other therapeutic approaches, such as cognitive-behavioral therapy or solution-focused therapy, could provide valuable insights into its relative strengths and limitations.

Educational institutions and mental health professionals should consider integrating Choice Theory training into school curricula and counseling programs. Providing students with practical tools to understand and meet their psychological needs can improve their emotional wellbeing, time management, and resilience in the face of academic and personal challenges. Teachers and counselors should be trained in Choice Theory principles to effectively deliver the intervention and support students in applying the concepts to their daily lives. Additionally, incorporating Choice Theory into teacher training programs could help educators create more supportive and student-centered learning environments. Finally, designing accessible resources, such as workshops or online modules, could ensure that the benefits of Choice Theory training reach a wider audience, including parents and caregivers.

Authors' Contributions

All authors significantly contributed to this study.

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.

Acknowledgments

We hereby thank all individuals for participating and cooperating us in this study.

Declaration of Interest

The authors report no conflict of interest.

Funding

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

Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

References

Abedi, G., Ataeifar, R., & Ghamari, M. (2024). The Effectiveness of Group Marital Conflict Resolution Training Based on Choice Theory on Emotional Divorce and Hope for Life in Married Women. International Journal of Education and Cognitive Sciences, 5(3), 136-146. https://doi.org/10.61838/kman.ijecs.5.3.10

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

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

Emami, D., Ahmadi, M., & Ghaffari, R. (2024). Presenting a Pattern of Flexible working Hours in Government Organizations with an





- Emphasis on Increasing the Productivity Level of Academic Employees in the Ministry of Cooperation, Labor and Social Welfare [Research Article]. *Iranian Journal of Educational Sociology*, 7(1), 57-65. https://doi.org/10.61838/kman.ijes.7.1.6
- 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
- Faber, A. W., Patterson, D. R., & Bremer, M. (2013). Repeated use of immersive virtual reality therapy to control pain during wound dressing changes in pediatric and adult burn patients. *Journal of Burn Care & Research*, 34(5), 563-568. https://doi.org/10.1097/BCR.0b013e3182777904
- Fereydouni, H., Omidi, A., & Tamannaeifar, S. (2019). The effectiveness of choice theory education on happiness and self-esteem in university students. *Journal of Practice in Clinical Psychology*, 7(3), 207-214. https://doi.org/10.32598/jpcp.7.3.207
- Ghazanfari, B., Keshavarzi Arshadi, F., & Hassani, F. (2021). Comparison of the Effectiveness of Emotionally Focused Couple Therapy and Choice Theory-Based Therapy on the Quality of Relationships Among Couples with Marital Conflicts. *Journal of Disability Studies*, 11(1). https://jdisabilstud.org/article-1-1812-fa.html
- Glasser, W. (1998). Choice Theory. Sayeh Sokhan Publications. https://sayehsokhan.com/default.aspx?TabId=502&Id=27387
- Glasser, W. (2011). Choice Theory: An Introduction to the Psychology of Hope. Sayeh Sokhan Publications. https://danjehpub.com/product/%D8%AA%D8%A6%D9%88%D8%B1%DB%8C-
 - %D8%A7%D9%86%D8%AA%D8%AE%D8%A7%D8%A8-
 - %D8%AF%D8%B1%D8%A2%D9%85%D8%AF%DB%8C-
 - %D8%A8%D8%B1-%D8%B1%D9%88%D8%A7%D9%86-
 - %D8%B4%D9%86%D8%A7%D8%B3%DB%8C-
 - %D8%A7%D9%85%DB%8C%D8%AF/
- Glasser, W., & Glasser, C. (2010). Getting together and staying together: solving the mystery of marriage. Harper Collins. https://www.amazon.de/-/en/Getting-Together-Staying-Solving-Marriage/dp/006095633X
- Gündoğdu, R. (2018). The influence of choice theory anger management program (ctamp) on the ability of prospective psychological counselors for anger management. *International Education Studies*, 11(4), 43-54. https://doi.org/10.5539/ies.v11n4p43
- 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
- Hosseini, M., Arefi, M., & Sajjadian, I. (2020). Time perspective training package on balancing time and anxiety of students. *MEJDS*, 10(15), 1-8. https://doi.org/20.1001.1.23222840.1399.10.0.65.4
- Irvine, J. (2015). Enacting Glasser's (1998) Choice Theory in a grade 3 classroom: a case study. *Journal of Case Studies in Education*, 7, 1-14. https://www.aabri.com/jcse.html
- Maarefvand, A., & Shafiabady, A. (2024). Effectiveness of Shafie-Abadi's Multidimensional Model Training on Enhancing Occupational Well-being and Quality of Work Life among Teachers in Qom City. International Journal of Education and Cognitive Sciences, 4(4), 21-30. https://doi.org/10.61838/kman.ijecs.4.4.3
- Mikaeli-Manee, F., Tabatabaee, S. M., & Raad-Masoumi, S. F. (2021). The Comparison of Time Perspective, Spiritual Well-being and Psychological Well-being in the Young Participating and not

- Participating in I'tikaf Rite. *Journal of Pizhūhish dar dīn va Salāmat (i.e., Research on Religion & Health)*, 7(3), 68-79. https://doi.org/10.22037/jrrh.v7i3.31787
- Mottern, R. (2008). Choice theory as a model of adult development. *International Journal of Reality Therapy*, *13*(2), 35-41. https://frooyesh.ir/article-1-2844-en.pdf
- Movahedi Rad, M., Ebrahimi, M. I., & Sahebi, A. (2021). The Effect of Choice Theory Training on the Satisfaction of Basic Needs and Aggression Levels Among High School Girls. *Rooyesh-e-Ravanshenasi*, 10(9), 137-148. https://frooyesh.ir/browse.php?a_id=2844&slc_lang=en&sid=1 &printcase=1&hbnr=1&hmb=1
- Nazemi, A., & Givarian, H. (2015). Investigating the Impact of Psychological Capital on Job Burnout Among Nurses in a Military Hospital in Tehran. Sina Scientific Research Quarterly, 18. http://ebnesina.ajaums.ac.ir/article-1-393-fa.html
- 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
- Reeder, S. (2011). Choice Theory Investigating the effects of treatment Selection theory protocol in identified students Clear sexual or emotional disability Anxiety measures, depression, leukemia Control and self-examination https://ninercommons.charlotte.edu/islandora/object/etd:971
- Rezazadeh Taloukolaei, F., Zameni, F., & Enayati, T. (2024). Identifying the Dimensions and Components of Good Governance and Organizational Development at Mazandaran University of Medical Sciences [Research Article]. *Iranian Journal of Educational Sociology*, 7(1), 113-123. https://doi.org/10.61838/kman.ijes.7.1.11
- Sadat Mousavi, S., & Ebrahimi, A. (2024). Structural Model of the Effect of Psychological Capital on Innovative Behavior in Teaching: The Mediating Role of Conscientiousness Personality Trait. *International Journal of Education and Cognitive Sciences*, 4(4), 1-10. https://doi.org/10.61838/kman.ijecs.4.4.1
- 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
- Tang, X.-l. (2024). The Impact of School Climate on Academic Burnout of Chinese Students: The Mediating Effect of Psychological Capital. Frontiers in Education, 9. https://doi.org/10.3389/feduc.2024.1346347
- Wubbolding, R. E. (2010). *Reality Therapy*. American Psychological Association. https://psycnet.apa.org/record/2010-09293-000
- Yang, D. (2024). The Mediating Role of Psychological Capital on the Relationship Between Perceived Stress and Self-Directed Learning Ability in Nursing Students. BMC Nursing, 23(1). https://doi.org/10.1186/s12912-024-02094-6
- Zimbardo, P. G., & Boyd, J. N. (1999). Time perspective: A valid, reliable individual differences metric. *Journal of personality and social psychology*, 77, 1271-1288. https://doi.org/10.1037/0022-3514.77.6.1271

