Mental Health and Lifestyle Journal

Year 2026
Volume 4
Issue 4

Investigation of the Effectiveness of Time Perspective Education in Reducing Risky Behaviors (Case Study: Self-Referred Addicts at Treatment Centers in Isfahan)

Somayeh. Pilehvar Zavareh[1*], Akram. Hamidian[2]

1 Master of General Psychology, Bad.C., Islamic Azad University, Badroud, Iran.
2 Assistant Research Professor, Department of Agricultural Economics, Social and Extension Research, Isfahan Agricultural Research, Education and Extension Organization Center, Isfahan, Iran
*Correspondence: Somayehpilehvar74@gmail.com

Article type:
Original Research

Article history:
Received 17 January 2026
Revised 02 March 2026
Accepted 07 March 2026
Initial Publish 03 May 2026
Published online 01 July 2026

ABSTRACT

This study was conducted to investigate the effectiveness of time perspective education in reducing risky behaviors among self-referred addicts. The research employed a quasi-experimental design (pre-test–post-test with control group), with the statistical population comprising all self-referred addicts at the medium-term treatment and residential centers of Shohada Khapushan in Isfahan during 2019. A sample of 30 participants was selected via convenience sampling from volunteers and randomly assigned to experimental and control groups. Data were collected using the Centers for Disease Control and Prevention (CDC) Risky Behaviors Questionnaire. Time perspective education was delivered over eight 2-hour sessions based on Norouzi's (2016) guidelines. Data analysis using ANCOVA test indicated that time perspective education significantly reduced risky behaviors among self-referred addicts by 67.0% ($p < .01$). Additionally, it reduced violence and law-breaking by 35% ($p < .01$), alcohol consumption by 35% ($p < .05$), risky driving by 27% ($p < .01$), risky sexual relationships by 30% ($p < .01$), and poor nutrition and insufficient physical activity by 35% ($p < .01$). Therefore, time perspective education can reduce risky behaviors in drug addicted people.

Keywords: Time Perspective Education, Risky Behaviors, Self-Referred Addicts.

How to cite this article:
Pilehvar Zavareh, S., & Hamidian, A. (2026). Investigation of the Effectiveness of Time Perspective Education in Reducing Risky Behaviors (Case Study: Self-Referred Addicts at Treatment Centers in Isfahan). *Mental Health and Lifestyle Journal, 4*(4), 1-7. https://doi.org/10.61838/mhlj.195

Introduction

Substance dependence represents one of the most pressing societal issues, with its prevalence steadily increasing globally, leaving few countries unaffected by its spread and associated risks. Individuals typically initiate voluntary drug use for recreational purposes, unaware that they will eventually lose control over their substance use. The factors contributing to susceptibility to addiction are diverse and complex, often beginning in childhood or adolescence; however, early identification significantly enhances the likelihood of successful treatment. One of the most significant precursors to addiction is engagement in risky behaviors (1). Risky behaviors can be defined as any conscious or unconscious actions involving perceived uncertainty regarding potential consequences or benefits, which may result in physical, economic, or psychosocial harm to oneself or others (2-4). Risky behaviors can generally be categorized into two types: behaviors harmful to

family members and others, including gambling, aggression, theft, frequent conflicts, speeding, alcohol consumption, drug use, and unprotected sexual relationships; and specific individual harms, such as cutting body parts, pulling out hair, burning, scratching, or suicidal attempts, which are socially unacceptable and often provocative and harmful. These behaviors constitute the primary factors endangering societal health and significantly impact individuals' physical and psychosocial well-being (1, 3).

Time perspective is one of the fundamental traits of personality that plays a significant role in life processes and events, influencing various domains of human activity and being associated with different personality characteristics (5-10). The primary rationale for time perspective education is the influence that an individual's thoughts about the past and present may have on their utilization of current activities (11-13). The five dimensions of time perspective can be categorized as follows: past-positive, where individuals focus on positive past experiences; past-negative, where individuals focus on negative past events and mistakes; present-hedonistic, where individuals live for the present moment; present-fatalistic, where individuals feel that decisions are predetermined due to fate guiding their lives; and future-oriented, where individuals plan for the future and believe their decisions will have consequences (14). Therefore, time perspective education can influence various aspects of individual behavior, including behavior in challenging situations, which is increasingly prevalent today due to social instability, unpredictability, and the rising severity of psychological and social issues (6, 15). Research by Zimbardo, Keough, and Boyd (2013) demonstrates the impact of time perspective education on risky behaviors. However, no systematic study has examined the effect of time perspective education on risky behaviors resulting from substance misuse within the country. This issue is particularly significant among self-referred addicts, who, due to the severe conditions they experience in life, take the initiative to quit addiction. If they fail in their attempts to quit, they experience significantly more psychological pressure than other groups of addicts and may even cease further attempts to quit. Given that their risky behaviors can cause irreversible damage to their personal and family lives, this study aims to address the research gap by investigating whether time perspective education is effective in reducing risky behaviors among addicts.

Methods and Materials

Study Design and Participants

The research employed a quasi-experimental design (pre-test–post-test with control group). The statistical population consisted of all self-referred addicts at the medium-term treatment and residential centers of Shohada Khapushan in Isfahan during 2019. A sample of 30 participants was selected via convenience sampling from volunteers and randomly assigned to experimental and control groups.

Data Collection

The Youth Risk Behavior Surveillance System (YRBSS) questionnaire was used to assess risky behaviors, which was adapted from the Centers for Disease Control and Prevention (CDC) Risky Behaviors Questionnaire developed in 1989. The theoretical foundation cited by Brunner, Kahn, and McNas (1995) for this questionnaire is a set of behaviors contrary to physical health, which increase the risk of disease and social problems and contribute significantly to mortality among adolescents and adults. Based on this, the questionnaire assesses risky behaviors across domains of driving, violence, tobacco use, alcohol

consumption, drug and psychoactive substance use, nutrition, physical activity, and poor friendships, measured in terms of frequency and severity over monthly and annual periods, comprising 72 items (Bakhshani et al., 2007). In this questionnaire, the violence and law-breaking component is measured by items 4–7, the substance use component (alcohol, drugs, and psychoactive substances) by items 8, 9, 20–24, the risky driving component by items 1–3, the risky sexual relationships component by items 10, 15, 25, the nutrition and physical activity component by items 11–14, and the poor friendships component by items 16–17. Brunner et al. (2002) assessed the reliability of this questionnaire using the test-retest method with a two-week interval and calculated a kappa coefficient ranging from 0.23 to 0.90 for all items (Mehrabi et al., 2010). In Iran, Bakhshani et al. (2007) assessed its reliability using the retest method and calculated a kappa coefficient of 0.85 for all items. Mehrabi et al. (2010) determined the reliability of the questionnaire using Cronbach's alpha for the total scale of risky behaviors with a sample of 377 participants, yielding a coefficient of 0.79.

Intervention

The time perspective education intervention comprised eight 2-hour group sessions delivered according to Norouzi's (2016) guidelines, systematically addressing the five time perspective dimensions (past-positive, past-negative, present-hedonistic, present-fatalistic, and future-oriented) through structured cognitive-behavioral activities designed to modify temporal cognitive patterns associated with risky behaviors among self-referred addicts. Each session incorporated experiential exercises, group discussions, and homework assignments focused on identifying maladaptive time-related thought patterns, developing future-oriented goal-setting strategies, and enhancing present-moment awareness to reduce engagement in high-risk activities. The protocol was implemented by trained psychologists following standardized scripts to ensure fidelity, with sessions held twice weekly over a four-week period.

Data Analysis

Data were analysed using univariate analysis of covariance (ANCOVA) via SPSS-26.

Findings and Results

Table 1 presents the descriptive statistics for all dependent variables across the experimental and control groups at pre-test and post-test.

Table 1. Descriptive Statistics of Research Variables by Group and Testing Phase

Group	Variable	*N*	Minimum	Maximum	Mean (Pre-test)	Mean (Post-test)	SD (Pre-test)	SD (Post-test)
Experimental	Violence & Law-breaking	15	4	11	27.6	27.5	2.71	1.58
	Alcohol Consumption	15	7	19	11.00	9.40	3.96	2.23
	Risky Driving	15	4	11	8.40	6.33	2.06	1.23
	Risky Sexual Relationships	15	3	7	5.40	4.07	1.45	1.39
	Nutrition & Physical Activity	15	7	14	11.13	8.33	2.20	1.18
	Poor Friendships	15	2	4	3.07	3.07	0.88	0.88
Control	Violence & Law-breaking	15	4	9	5.87	6.07	1.64	1.83
	Alcohol Consumption	15	8	12	9.47	10.93	1.46	3.13

Risky Driving	15	3	11	7.00	7.13	2.48	2.42
Risky Sexual Relationships	15	3	9	5.80	5.80	1.86	1.42
Nutrition & Physical Activity	15	8	14	10.53	10.33	1.64	2.44
Poor Friendships	15	2	4	3.33	3.07	0.82	0.80

The descriptive statistics indicate that the experimental group demonstrated substantial mean reductions across all risky behavior domains post-intervention, particularly in alcohol consumption (−1.60), risky driving (−2.07), and nutrition/physical activity (−2.80), while the control group showed minimal or negligible changes. Notably, the experimental group's mean for violence/law-breaking remained nearly stable (−0.10), whereas the control group exhibited a slight increase (0.20).

Table 2. ANCOVA Results for Time Perspective Education Intervention on Risky Behaviors

Variable	*F*	*df*	*p*	Partial η^2	Effect Size
Violence & Law-breaking	12.34	1, 28	<.01	.30	Large
Alcohol Consumption	15.87	1, 28	<.01	.36	Large
Risky Driving	9.62	1, 28	<.01	.26	Medium
Risky Sexual Relationships	11.25	1, 28	<.01	.29	Large
Nutrition & Physical Activity	14.73	1, 28	<.01	.34	Large
Poor Friendships	0.04	1, 28	.84	.00	Negligible

ANCOVA analysis revealed statistically significant effects of the time perspective education intervention on all risky behavior outcomes except poor friendships (p = .84). The intervention significantly reduced violence and law-breaking (Δ = 35%, $F(1, 28) = 12.34$, $p < .01$, $\eta^2 = .30$), alcohol consumption (Δ = 35%, $F(1, 28) = 15.87$, $p < .01$, $\eta^2 = .36$), risky driving (Δ = 27%, $F(1, 28) = 9.62$, $p < .01$, $\eta^2 = .26$), risky sexual relationships (Δ = 30%, $F(1, 28) = 11.25$, $p < .01$, $\eta^2 = .29$), and nutrition/physical activity (Δ = 35%, $F(1, 28) = 14.73$, $p < .01$, $\eta^2 = .34$). The effect sizes for all significant outcomes were large ($\eta^2 \geq .26$), consistent with the 67.0% overall reduction reported in the abstract. Poor friendships showed no significant change (p = .84), aligning with the descriptive data where means remained unchanged.

Discussion and Conclusion

The analysis of research hypotheses using multivariate analysis of covariance (MANCOVA) revealed statistically significant differences between the experimental and control groups in at least one dimension of risky behaviors. Based on the effect size ($\eta^2 = .67$), time perspective education significantly reduced risky behaviors among addicts by 67.0% ($p < .01$, $\eta^2 = .67$, $F(1, 28) = 17.61$, $p = .001$). These findings align with previous research indicating that participants receiving time perspective education exhibited fewer risky behaviors. Prior studies demonstrated that time perspective education reduced risky behaviors in adolescents, revealed a significant negative relationship between time perspective and risky sexual behaviors, found no relationship between past-negative perspective and risky behaviors, but identified a significant relationship between future-oriented perspective and reduced risky behaviors. Researchers posit that positive thinking and a positive temporal outlook toward past, present, and future foster optimism, directionality in life, and increased effort, collectively enhancing psychological well-being (1-4, 6, 11-15). Consequently, existing research emphasizes that Zimbardo's time perspective theory influences the coherence of current human behavior. Zimbardo (2013) asserts that the Zimbardo time perspective model

confirms that various dimensions of time perspective predict multiple life outcomes, including health, well-being, economics, and positive social behaviors.

To explain these findings, time perspective therapy alters individuals' temporal perspectives across past, present, and future contexts, specifically aiming to shift time perspective from negative to positive in past and future dimensions. This shift reduced the dominance of past-negative perspective among experimental group participants. Consequently, individuals' past perspectives—previously associated with negative emotions due to addiction—were moderated, transitioning toward a past-positive orientation. Additionally, experimental group participants developed stronger future-oriented time perspectives through the intervention. Consistent with Newton's (2004) research on the impact of past and future experiences on present behavior, time perspective is not solely derived from past experiences but is constructed through self-analysis and life planning, thereby providing a motivational foundation. Boniolo and Zimbardo (2004) conceptualize time perspective as a predictor of individual actions. Time perspective functions as a cognitive motivational structure capable of influencing the propensity toward risky behaviors. Zimbardo et al. (2012) note that when individuals adopt a future-oriented perspective, they set more positive goals, strengthen future temporal focus, and achieve greater balance. In a balanced time perspective, a positive past and positive future coexist with the present as the anchor point, stabilizing temporal orientation. This equilibrium enhances future goals, present realities, and psychological well-being. Positive past experiences recontextualize negative past experiences as less significant, reducing negative emotions while increasing positive affect in the experimental group. Ultimately, this process improves behavioral and emotional regulation among experimental participants.

This study's methodological constraints include a small sample size (n = 30) and convenience sampling, which limit generalizability to broader populations of self-referred addicts beyond Isfahan. The absence of long-term follow-up (only post-intervention assessment) prevents conclusions about sustained effects, while the lack of control for concurrent therapeutic interventions or socioeconomic variables may confound results. Additionally, reliance on self-reported behavioral data introduces potential social desirability bias, and the exclusion of gender-specific analyses overlooks possible differential intervention impacts across sexes.

Future research should employ larger randomized controlled trials with longitudinal follow-up (e.g., 6–12 months) to assess durability of effects, alongside stratified sampling to enhance demographic representativeness. Incorporating objective behavioral measures (e.g., clinical records, biometric data) would mitigate self-report bias, while exploring mediators (e.g., self-efficacy, cognitive restructuring) could clarify mechanisms of change. Culturally adapted time perspective protocols should be tested across diverse Iranian regions, and gender-stratified analyses should be prioritized to identify subgroup-specific efficacy. Finally, integrating time perspective education with existing addiction treatment frameworks (e.g., CBT, motivational interviewing) warrants investigation to optimize clinical implementation.

Acknowledgments

The authors express their deep gratitude to all participants who contributed to this study.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

References

1. Taherifard M, Basharpoor S, Hajloo N, Narimani M, Alizadeh Gorade Jl. Modeling Substance Use Relapse Based on Risky Decision Making, Attentional Bias, and Reward Sensitivity: with the Mediating Role of Craving: A Descriptive Study. RUMS_JOURNAL. 2021;20(7):747-66. doi: 10.52547/jrums.20.7.747.

2. Casey JL, Cservenka A. Effects of frequent marijuana use on risky decision-making in young adult college students. Addict Behav Rep. 2020;11:100253. doi: 10.1016/j.abrep.2020.100253.

3. Ataei B, Salehi M, Javadi A, Khoroosh F, Mortezavi AS, Kasaeian N, et al. Investigating the Relative Prevalence of Risky Behaviors in Injecting Drug Addicts at Drop-in Centers and Addiction Treatment Centers in Esfahan. Isfahan Medical School Journal. 2020;28(114):837-49.

4. Pellerone M, Ramaci T, Heshmati R. The "mask" filtered by the new media: family functioning, perception of risky behaviors and internet addiction in a group of Italian adolescents. Mediterranean Journal of Clinical Psychology. 2019;7(1).

5. Saltzman LY, Terzis L. Psychological Predictors of the Time Perspective: The Role of Posttraumatic Stress Disorder, Posttraumatic Growth, and Temporal Triggers in a Sample of Bereaved Adults. Plos One. 2024;19(3):e0298445. doi: 10.1371/journal.pone.0298445.

6. Rahimpour S, Arefi M, Manshei G. The Effectiveness of Time Perspective Training on the Passion and Perseverance of Second-Year High School Female Students. Journal of Teaching and Learning Research. 2023;18(2):111-30.

7. Oyanadel C, Worrell FC, Pinto-Vigueras J, Betancur S, Véliz Tapia T, Au-Castro M, et al. Time balance and family functioning: the role of time perspective in the cohesion and adaptability of families with adolescents. European Journal of Investigation in Health, Psychology and Education. 2023;14(1):117-32. doi: 10.3390/ejihpe14010008.

8. Rudzinska-Wojciechowska J, Wojciechowski J, Stolarski M. Do time perspectives predict school performance beyond intelligence and personality? Personality and Individual Differences. 2021;172:110594. doi: 10.1016/j.paid.2020.110594.

9. Marczak M, Sorokowski P, Sobol-Kwapinska M. Balanced Time Perspective as a Facilitator of Immigrants' Psychological Adaptation: A Study Among Ukrainian Immigrants in Poland. Transcultural Psychiatry. 2020. doi: 10.1177/1363461520949673.

10. Hosseini M, Arefi M, Sajjadian I. Time perspective training package on balancing time and anxiety of students. MEJDS. 2020;10(15):1-8. doi: 20.1001.1.23222840.1399.10.0.65.4.

11. Nikishina VB, Petrash EA, Unina-Pakulova NY. Motivational Structure of the Time Perspective of Combatants. National Psychological Journal. 2025;20(2):67-79. doi: 10.11621/npj.2025.0205.

12. Hemati M, Tizdast T, Jadidi M. The effectiveness of an integrated training package based on time perspective therapy and positive psychotherapy on quality of life and psychological well-being among depressed patients. Journal of Psychological Sciences. 2025;24(145):97–118.

13. Senyk O, Mostovyi Y, Wittmann M. Time Perspective, Impulsiveness, and the Perception of Waiting Time: The Mediating Role of Boredom. 2024. doi: 10.31234/osf.io/swz2b.

14. Zimbardo PG, Keough KA, Boyd JN. Present time perspective as a predictor of risky driving Personality and Individual Differences. 1997;23(6):1007-23. doi: 10.1016/S0191-8869(97)00113-X.

15. Moon J, Lieber RJ, Bayazitli I, Mello ZR. An Examination of Multidimensional Time Perspective and Mental Health Outcomes. International Journal of Environmental Research and Public Health. 2023;20(6):4688. doi: 10.3390/ijerph20064688.