Extended Abstract

Journal of Behavior Modification Studies (JBMS), 1(1), 2024

Vol.1, No.1, Autumn 2024
Submitted Date: 2024-4-16 Accepted Date:2024-8-6

https://jbms.guilan.ac.ir/article_8347.html?lang=en

Research paper

The Effectiveness of Emotion Regulation and Time Perspective Therapies on High-Risk Behavior in Adolescents

Saeed Ariapooran*
Associate Professor, Department of Psychology, Malayer University, Malayer, IranUniversity, Tabriz, Iran
Vahid Esmaili
PhD student in General Psychology, Department of psychology, Faculty of literature and Humanistic sciences, Sanandaj Branch Islamic Azad University, Sanandaj, Iran
Corresponding Author: esmailiv4@gmail.com
Hasan Amiri
Assistant Professor, Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

Introduction

High-risk behaviors usually occur between the ages of 10 and 19 (Krokstad et al., 2017; World Health Organization, 2023). These behaviors include a wide range of activities, including smoking, poor diet, alcohol consumption, and physical inactivity (Noble et al., 2015). Prevalence of high-risk behaviors including alcohol consumption, smoking, physical inactivity, long time using screens on weekdays and weekends, suicidal thoughts, planning to commit suicide, attempted suicide, and non-suicidal self-harm, was 11.9, 3.4, 61.9, 15.1, 51.1, 27.7, 13.9, 6.5, and 0.27%, respectively, and the amount of high-risk behaviors has been reported as 22.2 in adolescents(Wang et al, 2024). Psychological trainings and therapies are necessary to reduce these risky behaviors. Emotion Regulation Therapy (ERT) is one of the most important therapies that targets changes in emotions, their duration, and the way they are expressed and experienced (Gross, 2014). The effects of this therapy on high-risk behaviors including drug use (Habibi-Kaleybar & Dehghani, 2021), substance dependence, impulsive behaviors, and anger (Kooshki et al., 2021; Massah et al., 2016; Asgari & Matini, 2020) has been confirmed. One of the therapies that has attracted the attention of researchers in recent years is the Time Perspective Treatment (TPT), which aims to focus on people's perception of the past, present, and future (Sword et al., 2014). Among adolescents, the relationship between time perspective and high-risk behaviors has been confirmed (Măirean & Diaconu-Gherasim, 2021; Bagherian et al., 2022). In addition, among adolescents, this therapy has been effective in improving emotion regulation (Nazari Fardoee et al., 2022) and reducing anxiety (Hosseini et al., 2020). The aim of the present study was to investigate the effectiveness of ERT and TPT on high-risk behaviors of adolescents.

Method

The research method was quasi-experimental with a control group. The statistical population of this research was the seventh to twelfth grade students of Gilan-E-Ghreb city. According to screening based on high-risk behaviors, school counselors introduced 92 students with at least one high-risk behavior to the researcher. After interviewing and implementing the checklist of risk behaviors for youth (CORBY, Armstrong, 2012) of adolescents, 71 people were diagnosed with high-risk behavior. After agreeing to participate in therapy sessions, 63 of them were randomly replaced in therapies and control groups in equal proportion. Adolescents were matched in three groups based on their educational level. Three participants from the TPT group and two particioants from the ERT group were excluded in the final evaluation; In the

ERT group, one person who was matched with the excluded people in the TPT group in terms of educational level was excluded in the final evaluation. Then, among the control group, 3 adolescents matched with those excluded in the experimental groups were excluded. Finally, 17 adolescents were evaluated in each group. The inclusion criteria were being an adolescent, having high-risk behavior based on the initial interview and responding to the high-risk behavior questionnaire, and not having a chronic physical or mental illness. Lack of agreement or willingness to participate in the research, continuous non-participation in therapy sessions, lack of desire and motivation while participating in the sessions, and not completing homework were exclusion criteria. The instrument used was the Adolescent Risky Behavior Scale (Armstrong, 2012). For the first experimental group, ERT designed by Ariapooran (2014) and for the second experimental group, TPT (Sward et al., 2014) was implemented. The stages of these therapies were performed in eight sessions of 1.5 hours by a PH. D student of general psychology in one of the schools of Gilan-E-Ghreb city.

Results

According to descriptive results, the mean age of ERT, TPT, and control groups were 15.70±0.985, 15.70±0.985, and 15.59±1.42, respectively. The results showed a significant difference in the mean scores of pre-test, post-test, and follow-up for high-risk behaviors between the two treatment groups (ERT and TPT) and the control group. The interaction effect of group and time, as well as the main effect of group, on high-risk behaviors were also significant; additionally, the effect size of time, group*period, and group on high-risk behaviors were 0.59, 0.29, and 0.19, respectively. The results of Tukey's post hoc test showed no significant difference in the pre-test means of high-risk behaviors in the ERT, TPT, and control groups. But in the post-test and follow-up, the mean of high-risk behaviors in the experimental groups has decreased significantly compared to the control group(P<0.001). In other words, ERT and TPT have been effective in reducing high-risk behaviors. However, there was no significant difference between the effectiveness of the two therapy on high-risk behaviors(P>0.05). The results of the Bonferroni post-hoc test showed that in the ERT and TPT group, the post-test and follow-up mean for high-risk behaviors decreased compared to the pre-test, and due to the lack of significant difference in the post-test and follow-up, it can be said that the effect of both therapies was maintained.

Table 1: The results of the repeated measures ANOVA for high-risk behaviors in the two experimental and control groups

Sources	SS	df	MS	F	P	η^2	OP
Period	77.66	1	77.66	71.85	0.001	0.59	1
Group* Period	20.96	2	20.96	6.69	0.001	0.29	0.98
Error	51.88	48	51.88	-	-	-	-
Group	115.80	1	115.80	5.74	0.006	0.19	0.94
Error	3431.76	48	3431.76	-	-	-	-

Discussion and Conclusion

The results showed that ERT and TPT were effective in reducing the high-risk behavior of adolescents. However, no significant difference was observed between the effectiveness of the two therapies. The effectiveness of ERT on high-risk behaviors including substance use (Habibi-Kaleybar & Dehghani, 2021), substance dependence, impulsive behaviors, and anger (Kooshki et al., 2021; Massah et al., 2016; Asgari & Matini, 2020) has been confirmed. Negative and maladaptive emotional strategies are related to increasing risky behaviors and positive and adaptive emotional strategies are related to decreasing risky behaviors (Sadeghi et al., 2015). Therefore, ERT, which teaches people positive emotion regulation strategies, including emotional marketing and awareness of emotions, can help reduce risky behaviors in adolescents by correcting negative emotion regulation strategies. The effectiveness of TPT on improving emotion regulation (Nazari Fardoee et al., 2021) and reducing anxiety (Hosseini et al., 2020) of adolescents and the relationship between time perspective (Bagherian et al., 2022) with high-risk behaviors have been

confirmed. Time perspective theory states that a person's time perspective has a significant effect on his thoughts, feelings and behaviors (Borisenkov et al., 2022). Therefore, TPT by changing the negative past to a positive past, appreciative present to a hedonistic present, and changing the negative future to a positive future can have an effect on improving the thoughts, feelings and behaviors of adolescents and this can be effective in reducing high-risk behaviors among them. In this study, the sample was selected from adolescent boys and a two-month follow-up period was conducted, which are considered as the limitations of this study; it is suggested that researchers conduct similar researches among boys and girls and follow up for more than two months. According to results, therapists are suggested to use these treatments to reduce the psychological problems of adolescents.

Ethical Considerations

Ethical Code

This article is taken from the doctoral dissertation of general psychology and has been approved by the ethics committee of the Sanandaj Branch Islamic Azad University with the code IR.IAU.SD.J.REC.1400.33.

Financial Support

This study was supported by the Sanandaj Branch Islamic Azad University.

Authors' Contributions

Saeed Ariapooran supervised the research process, analyzed the data and, revise it critically for intellectual content, and approved the final version for publication. Vahid Esmaili conducted the research, implementation of training and, wrote the manuscript as part of her MA thesis at the University of Tehran. Hasan Amiri revise it critically for intellectual content, and approved the final version for publication.

Conflicts of Interst

This study is based on a doctoral thesis, supported by the Sanandaj Branch Islamic Azad University and no potential conflict of interest was reported by the authors.

Acknowledgments

Appreciation are given to the students and all those who paved the way for the implementation of the current research.

References

Ariapooran, S. (1390). The effectiveness of mindfulness training and emotion regulation on psychological well-being and resilience of chemical veterans. Doctoral thesis in general psychology, Mohaghegh Ardabili University. https://elmnet.ir/article/10485359. [Link]

Armstrong, L.L. (2012). Initial development and validation of the checklist of risk behaviors for youth (CORBY). *Psychology, health & medicine*, *17*(1), 116-124. https://doi.org/10.1080/13548506.2011.592842. [Link]

Asgari, M., & Matini, A. (2020). The Effectiveness of Emotion Regulation Training Based on Gross Model in Reducing Impulsivity in smokers. *Counseling Culture and Psycotherapy*, *11*(42), 205-230. https://doi.org/10.22054/qccpc.2020.45707.2197. [Link]

Bagherian, F., Mozafari, N., Mohammadi, A.Z., & Heidari, M. (2022). Predicting High-Risk Behaviors Based on Time Perspective in Iranian Adolescents by Emphasizing the Mediating Role of Decision Making and Inhibitory Response: Path Analysis. *International Journal of High Risk Behaviors and Addiction*, *11*(1), e114519. https://doi.org/10.5812/ijhrba.114519. [Link]

Borisenkov, M.F., Popov, S.V., Smirnov, V.V., Gubin, D.G., Petrov, I.M., Vasilkova, T.N., ... & Symaniuk, E.E. (2022). Association between food addiction and time perspective during COVID-19 isolation. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, 27(5):1585-1591. https://doi.org/10.1007/s40519-021-01259-5. [Link]

Gross, J.J. (2014). Emotion regulation: Conceptual and empirical foundations. In J.J.Gross (Ed.), *Handbook of emotion regulation* (pp.3–20). The Guilford Press. https://psycnet.apa.org/record/2013-44085-001. [Link]

Habibi-Kaleybar, R., & Dehghani, S. (2021). The Effectiveness of Training Emotional Regulation Skills in Reducing Addiction Ability in Male High School Students. *Journal of Research and Health*, *11*(2), 105-112. https://doi.org/10.32598/JRH.11.2.1721.3. [Link]

Hosseini, M., Arefi, M., & Sajjadian I. (2020). Time Perspective Training Package on Balancing Time and Anxiety of Students. *Middle Eastern Journal of Disability Studies*, 10, 15-23. https://jdisabilstud.org/browse.php?a_code=A-10-1230-1&slc_lang=fa&sid=1. [Link]

Kooshki, S., Nemat Tavousi, M., & Oraki, M. (2021). The Effectiveness of Acceptance-commitment Therapy and Emotion Regulation Training on Impulsivity and Distress Tolerance in People with a History of Drug Addiction. *Preventive Care in Nursing & Midwifery Journal*, *11*(2), 65-74. http://nmcjournal.zums.ac.ir/article-1-713-en.html. [Link]

Krokstad, S., Ding, D., Grunseit, A. C., Sund, E. R., Holmen, T. L., Rangul, V., & Bauman, A. (2017). Multiple lifestyle behaviours and mortality, findings from a large population-based Norwegian cohort study-The HUNT Study. *BMC public health*, *17(1)*, 1-8. https://doi.org/10.1186/s12889-016-3993-x. [Link]

Măirean, C., & Diaconu-Gherasim, L. R. (2021). Time perspective, risk perception on the road, and risky driving behavior. *Current Psychology*, published online: 28 May 2021, 1-10. https://doi.org/10.1007/s12144-021-01921-2. [Link]

Massah, O., Sohrabi, F., A'azami, Y., Doostian, Y., Farhoudian, A., & Daneshmand, R. (2016). Effectiveness of gross model-based emotion regulation strategies training on anger reduction in drug-dependent individuals and its sustainability in follow-up. *International journal of high risk behaviors & addiction*, *5*(1), e24327. https://doi.org/10.5812/ijhrba.24327. [Link]

Nazari Fardoee, Z., Foroozandeh, E., Banitaba, S. M. (2022). The effectiveness of time-perspective therapy on cognitive abilities, emotion regulation and alexithymia in depressed teenager girls. *Journal of Torbat Heydariyeh University of Medical Scien*ce, 9 (3), 68-79. https://jms.thums.ac.ir/article-1-964-fa.html. [Link]

Noble, N., Paul, C., Turon, H., & Oldmeadow, C. (2015). Which modifiable health risk behaviours are related? A systematic review of the clustering of Smoking, Nutrition, Alcohol and Physical activity ('SNAP') health risk factors. *Preventive medicine*, *81*, 16-41. https://doi.org/10.1016/j.ypmed.2015.07.003. [Link]

Sadeghi, H., Shahri, M., Khaleghi, N., Asadian, Z., & Pirani, Z. (2015). Investigation the Role of Negative Emotion Regulation and Educational Enthusiasm in Predicting of Risky Behavior of Students. *Quarterly Journal of Health Breeze*, *3*(4), 37-44. https://jfh.sari.iau.ir/article_649207.html. [Link]

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. https://doi.org/10.1080/15325024.2013.763632. [Link]

Wang, J., Xie, Y., Zhang, Y., Xu, H., Zhang, X., Wan, Y., & Tao, F. (2024). The relationship between cumulative ecological risk and health risk behaviors among Chinese adolescents. *BMC Public Health*, *24*(1), 603. https://doi.org/10.1186/s12889-024-17934-y. [Link]

World Health Organization. (2023). *Adolescent Health*. World Health Organization. https://www.who.int/health-topics/adolescent-health#tab=tab_1. [Link]