Contemporary Readings in Law and Social Justice

ISSN: 1948-9137, e-ISSN: 2162-2752

Vol 16 (1), 2024 pp. 645 - 652



# Exploring the Comparative Efficacy of Reality and Paradox Therapy in Treating Post-Traumatic Stress Disorder in Traumatized Adolescents: An Analytical Review

Farnaz Asadiof <sup>1</sup>, Beheshteh Safarpour <sup>2</sup>, Somayeh Barabadi <sup>3\*\*</sup>, Farshid Fathy Karkargh <sup>4\*</sup>, Atiyeh Janbozorgi <sup>5</sup>, Reyhane Khayayi <sup>6</sup>, Mohammad Delshadi <sup>7</sup>, Kosar Haghani<sup>8</sup>

<sup>1</sup>Educational Psychology, Payame Noor university, Tehran, Iran, <u>f.asadiof@gmail.com</u>

<sup>2</sup>Graduated with a doctorate in Philosophy of Education from Shiraz University - Teacher at Mohaghegh Ardebili University, <a href="mailto:safarpour.b.d@gmail.com">safarpour.b.d@gmail.com</a>, 09143520281

<sup>3</sup>Department of Psychology Islamic Azad University, Azadshahr Branch, Iran, <u>Barabadisomayeh@gmail.com</u>

<sup>4</sup>Corresponding author, PHD. student in health psychology, Department of health psychology, University of Tehran, Tehran, Iran. Email: <a href="mailto:farshidfathy1373@ut.ac.ir">farshidfathy1373@ut.ac.ir</a>, <a href="https://orcid.org/0000-0002-9075-9488">https://orcid.org/0000-0002-9075-9488</a>

<sup>5</sup>Department of Psychology, Islamic Azad University North Tehran Branch, Tehran, Iran, <u>Atjan.st36@yahoo.com</u>

<sup>6</sup>MSc, Department of Psychiatric Nursing, Zahedan University of Medical Science, Iran. <u>Khayati.rkh@gmail.com</u>

<sup>7</sup>Master of Clinical Psychology, Azad University of Ilam, <u>dlshadymhmd432@gmail.com</u>

<sup>8</sup>Department of Social Sciences Texas Woman's University, Denton, TX 76204, Email: <a href="mailto:khaghani@twu.edu">khaghani@twu.edu</a>, <a href="https://orcid.org/0000-0002-1129-664X">https://orcid.org/0000-0002-1129-664X</a>

Corresponding author: Farshid Fathy Karkaragh (PHD. student in health psychology, Department of health psychology, University of Tehran, Tehran, Iran. Email: <a href="mailto:farshidfathy1373@ut.ac.ir">farshidfathy1373@ut.ac.ir</a>, <a href="mailto:https://orcid.org/0000-0002-9075-9488">https://orcid.org/0000-0002-9075-9488</a>)

Co - Corresponding author: Somayeh Barabadi (Department of Psychology Islamic Azad University, Azadshahr Branch, Iran, <u>Barabadisomayeh@gmail.com</u>)

#### **Abstract**

In this study, we conducted a comparative analysis between reality therapy and paradox therapy approaches for treating post-traumatic stress disorder (PTSD) in traumatized adolescents. This research, undertaken through a comprehensive library review, draws upon research findings from various databases including ISI, SID, Magiran, ScienceDirect, Google Scholar, SCOPUS, and JCR. Among the 31 studies analyzed, encompassing both quantitative and qualitative methodologies, the focus was on research conducted within the past eight years. Our findings suggest that paradox therapy emphasizes the consolidation of the patient's psychological foundation or self by introducing mechanisms to address the conflict between personal perception (real anxiety) and this is done by creating and developing mechanisms to resolve the conflict between the institution and the objective facts (real anxiety) and change the value and meaning of signs related to unfortunate or traumatic events. Notably, this approach offers advantages in terms of efficiency and cost-effectiveness. Conversely, reality therapy centers on fostering emotional engagement with the illness, emotions, thoughts, and related symptoms encouraging

patients to confront and manage their symptoms with the support of their families. Through this therapeutic process, patients are empowered to assume responsibility for their thoughts, behaviors, emotions, and overall well-being, ultimately fostering a sense of autonomy, courage, and self-worth often associated with mental health.

**Keywords:** paradox therapy approach, post-traumatic disorder, reality therapy approach, traumatized teenagers, treatment,

Received:19 March 2024 Revised: 15 May 2024 Accepted: 20 June 2024

#### Introduction

One of the most prevalent psychiatric conditions that people experience as a result of being exposed to stressful events, such as natural disasters or serious accidents, is post-traumatic stress disorder (PTSD). People react to these traumatic occurrences with negative and unpleasant feelings including intense fear, constant anxiety, and helplessness. A person may endure considerable psychological anguish as a result of these events, and their everyday life—including their social, academic, and professional functioning—may be severely disrupted.

Like obsessive-compulsive disorder, post-traumatic stress disorder (PTSD) can make people unconsciously think back on their experiences and have nightmares. Individuals' cognitive and emotional processes and behaviors may alter if these memories and reminders are avoided (St. Cyr et al., 2014; American Psychiatric Association, 2013).

Following events such as war, earthquakes, floods, and volcanic eruptions, individuals may experience symptoms such as depression and anxiety, which can have severe consequences for both themselves and their families. In recent years, there has been a significant increase in research on the prevalence of PTSD and its neurocognitive causes, particularly in traumatized children and adolescents. This research has been particularly pronounced in developing countries.

One of the symptoms observed in this group of individuals is anxiety (Cloninger, 2016; cited by Alamdar et al., 2020). Therefore, PTSD can be considered an anxiety disorder that not only challenges the mental health of those with PTSD but also poses problems for the health of those around them. This anxiety is the organism's reaction to a threat that endangers an individual's physical and mental integrity (Astitene & Barakat, 2021). According to the DSM-IV, to diagnose this disorder, it must be confirmed that the client has been exposed to a trauma or has witnessed a trauma that has happened to others. At this point, the affected individual exhibits emotional symptoms such as intense fear, panic, and anxiety (ibid.).

According to reports, two-thirds of adolescents in their late teens experience some kind of trauma, and as a result, they develop post-traumatic stress disorder (PTSD), which manifests as severe symptoms of tension, anxiety, fear, and worry (Miche et al., 2018). According to Merrick et al. (2019), by the time they reach late adolescence, 18% of traumatized adolescents fulfill the criteria for PTSD, with approximately 40% of them having experienced sexual abuse (Merrick et al., 2019).

This group of patients with mental illness faces difficulties in social interactions and academic progress due to the excruciating psychological distress and suffering they endure. Consequently, they have a high level of anxiety and depression (Laube et al., 2020). Post-traumatic stress disorder is the first mental illness that is significantly recognized as a contributing factor to suicide among adolescents and young adults (Kaplan & Sadock, 2015), which consequently leads to various challenges in terms of healthcare and costs related to medication and visits to physicians and psychiatrists, respectively. In the United States, about 2 trillion dollars are spent annually on the care and treatment of this group of patients (Stupar et al., 2021).

Specialists and therapists in the field of mental disorders have used various therapeutic methods to treat post-traumatic stress disorder in adolescents. However, what is certain is the dominance of traumafocused cognitive therapy in the treatment of this type of disorder, for which there is limited evidence of its strong effectiveness (Duddy-Burkevich et al., 2021).

Furthermore, it should be noted that there is currently no evidence-based medication option for the treatment of PTSD in adolescents, and despite the fact that traumatized adolescents also see skilled psychotherapists and psychiatrists, respectively, we are still aware that this group of patients faces challenges in various cognitive, emotional, physical, and social functions.

In light of these implications, there is a growing imperative for psychologists and therapists specializing in treating PTSD in traumatized adolescents to enhance their understanding of integrated and innovative therapeutic approaches. It is essential to adapt traditional therapeutic techniques to address the needs of this demographic and to devise interventions customized to the specifics of each therapeutic modality.

In light of the above, this study aims to conduct a comparative review and analysis of reality therapy and paradoxical therapy approaches for treating post-traumatic stress disorder in traumatized adolescents.

#### **Definitions**

#### Post-Traumatic Stress Disorder

Post-traumatic stress disorder (PTSD) is a psychological disorder in which individuals repeatedly experience intrusive thoughts about traumatic events. They avoid stimuli that remind them of these events, leading to hyper-reactivity in terms of arousal and changes in personality, cognition, and mood (Elsey et al., 2015; Fonzo et al., 2016). The consequences of PTSD include decreased quality of life, a tendency towards self-harmful behaviors, and a high rate of co-occurrence with other psychiatric disorders (Cisler et al., 2015).

The main characteristic that distinguishes PTSD from other psychological disorders is the presence of excessive anxiety and stress after experiencing a traumatic event. Selective amnesia, or avoidant coping, is the response that individuals with PTSD produce in response to their condition and traumatic stimuli with fear and helplessness (Cisler et al., 2016).

### **Trauma in Adolescents**

Trauma, or adverse experiences, refers to events, personal, and social experiences that cause harm to individuals and result in psychological distress. This distress is often accompanied by physical, emotional, behavioral, and personality damages. The prevalence of trauma during adolescence has increased, with research indicating that at least 66% of adolescents have been exposed to at least one adverse event in their lifetime, and 28% have experienced more than one. Considering that adolescents interact with a broader scale of the world during their growth and maturation into adulthood, the likelihood of this age group experiencing traumatic events rises (Leitaoa et al., 2019).

Adolescents' trauma symptoms often originate from various adverse events such as family conflicts, physical violence, sexual abuse, and socio-political or economic incidents, all of which can profoundly impact their well-being (Garrett et al., 2019). Frequently, these experiences can culminate in PTSD. Addressing these individuals' confrontation with the reality of such events and their accompanying emotions can serve as a pertinent therapeutic approach for this population (Heyn & Herringa, 2019).

## The Paradoxical Therapy Approach

The Paradoxical Therapy Approach represents a blended therapeutic method that offers an alternative to conventional psychological treatments, with the aim of transcending the limitations often associated with traditional therapies. Drawing upon principles and techniques from various therapeutic modalities, this approach encompasses the analytical, systemic, and behavioral aspects of mental health conditions, while also accommodating the individual capabilities and circumstances of patients (Tenore et al., 2018). The roots of the "paradox" concept can be traced back to psychological principles articulated by theorists such as Adler (the founder of individual psychology), Donelp, and Frankl (pioneers of existential therapy). Initially introduced by Besharat (2019) as Temporal Paradoxical Therapy, this form of treatment has gained recognition as a highly effective approach for addressing anxiety disorders.

### **Main Components of Reality Therapy**

This type of treatment includes two essential components in patient care that differentiate this approach from other treatments (Besharat, 2021):

- 1. Paradox, which is essentially the prescription and presentation of signs of illness or harmful behavior to mental health that patients are asked to address in therapy sessions.
- 2. Formulating a timeline for changes and achieving health, which provides the shortest time for patient treatment.

## **Reality Therapy Approach**

This therapeutic approach, developed and presented by William Glasser for the treatment of various psychological disorders for different age groups, especially children and adolescents (Shin et al., 2015). The solution it offers for improving patients' conditions is for them to seek changes in their conditions and behaviors, choosing useful and constructive behaviors. Patients can overcome their difficulties by controlling their lives and accepting responsibility for facing their illnesses and life challenges. To experience positive emotions throughout their lives, they must be able to distinguish between right and wrong matters and identify and satisfy their life needs within their capabilities and resources (De La-Cuesta et al., 2019). Important goals pursued by the Reality Therapy Approach include accepting life realities, accepting responsibilities, and controlling internal behaviors, which, if adhered to principles such as kindness, support, and compassion can pave the way for the realization of better outcomes (Shin et al., 2019; Meiser-Stedman et al., 2009). It is better to consider this approach as a type of educational method with preventive aspects, and the role of the counselor in this approach is more supportive and educational than therapeutic, emphasizing educational and training aspects. These psychological structures include personal engagement, responsibility, success, positive planning, and action. Based on the above, it can be said that the Reality Therapy Approach is one of the common approaches in the treatment and prevention of various diseases and psychological problems that effectively contribute to patients' satisfaction, happiness, success, life control, self-esteem, strengthening interpersonal relationships, and increasing responsibility (Haan et al., 2020).

## Main Components of the Reality Therapy Approach

- 1. Emotional engagement of patients
- 2. Satisfaction of biological needs
- 3. Increase in responsibility
- 4. Independence of clients (Eruyar et al., 2018).

## Methodology

This research, conducted as a literature review, draws upon studies sourced from various online databases and platforms including SID, ISI, SCOPUS, Google Scholar, Science Direct, Magiran, and JCR. In total, 31 studies were included, spanning the past 8 years and employing a combination of quantitative and qualitative methodologies. These articles are available in both Persian and English languages and utilize either correlational or comparative research designs. Importantly, the majority of articles utilized in this review provide full-text access to researchers.

# Treatment Methodology for Patients with PTSD in Reality Therapy Approach

William Glasser, the originator of the "Reality Therapy" method and developer of "Choice Theory,". In Choice Theory, he believed that "why and how people have different behaviors and beliefs in their interpersonal interactions." In reality therapy, which is mainly used as educational packages, it is believed that humans should strive to meet their basic biological and genetic needs instead of fulfilling social roles. For this purpose, they are blessed with decision-making and free choice and can choose behaviors according to their needs. They must take responsibility for their chosen behaviors (Fatemi et al., 2021). Glasser believes that creating and increasing interpersonal relationships is a solution that people should take to meet their needs and prevent various types of mental disorders. Through the application of reality

therapy, clients can rely on their abilities in their relationships with others and their environment, leading to a sense of self-worth. In fact, reality therapy strengthens the principle of internal control and its components in patients, providing them with self-management opportunities. This allows them to engage with their difficulties and emotions (such as trauma, anxiety, and stress) by regulating constructive behaviors and relying on their capabilities, ultimately surpassing them. Moreover, this principle of internal control and its reinforcement can have a positive and constructive impact on clients' behaviors, thoughts, and emotions, aiding in their mental improvement, gradually reducing stress and anxiety, thus enhancing mental health (Kheramin et al., 2019).

Encouraging responsibility alongside emotional support is crucial for families in nurturing their children. This fosters the development of vital life skills such as problem-solving and effective peer interactions, particularly with the opposite gender. By instilling these skills early on, children can navigate adolescence, a sensitive developmental stage, with greater self-reliance when facing adversity, including trauma. This empowers adolescents to confront and ultimately manage such challenges, fostering autonomy and self-worth (Motaghedifard et al., 2015). Research suggests that Reality Therapy, pioneered by Glasser, in the treatment of individuals with post-traumatic stress disorder, results in decreased depression (Gharibpour & Hojati, 2019), intrusive and obsessive thoughts (Seadatee et al., 2018), improved communication skills (Ramzi et al., 2017), heightened self-esteem, and overall health enhancement (Ebnosharieh & Aghili, 2019).

## The Treatment Approach for Clients with PTSD in Paradoxical Therapy

This therapy involves a specific time frame determined for the treatment of patients. Clients have the opportunity to contemplate how symptoms and disease-related thoughts arise and experience them in therapy sessions. After observing these symptoms, the therapist, considering the patient's condition and type of illness, provides medications or exercises without offering a label or diagnosis for the client's problem, enabling the patient to engage in reconstruction and experience the paradoxical symptoms in a specified and appropriate time and place. By continuing these exercises according to a predetermined schedule, the patient can ultimately experience the disturbing thoughts and symptoms without stress and anxiety (Besharat & Naghipoor, 2021). Explaining this outcome, it should be mentioned that with the support of therapists and patients' families and the systematic program employed in this therapeutic approach, the significance and meaning of intrusive thoughts for patients change. As a result, the stress and anxiety resulting from the conflict between ID and Superego diminish, and processes such as secondary thinking are strengthened (Besharat & Naghipoor, 2020). Among individuals who experience significant stress and anxiety after trauma, once they resolve their internal conflicts through repeated and systematic reconstruction, they find peace and attribute new meaning to their bitter experiences and distressing thoughts and symptoms.

What causes the anxiety and stress resulting from trauma to dissipate in individuals involved is that the ego is at the center of human psychological activities, and its activities and processes are reinforced. Through this, clients' perceptions of the traumatic event and their abilities to control the emergence or disappearance of intrusive thoughts change. These objectives are not achieved unless patients perform their planned tasks regularly and on time. Furthermore, by regularly reconstructing thoughts and symptoms related to a traumatic event, it is hoped that the stress and anxiety associated with them will disappear, and these events will no longer have their previous significance and value. In other words, by repeatedly reconstructing the paradoxes of traumatic events in a systematic schedule, they lose their energy. The effectiveness of this approach is not only evident in clients but also in therapists and the families of patients. This normalization, which occurs as a result of therapy sessions and completion of tasks by clients, severs the link between anxiety and stress with symptoms and thoughts related to trauma and distressing events. Indeed, this disconnection (de-identification) achieved after completing paradoxical therapy leads to psychological improvement for patients and facilitates changes in cognitive structures and the enhancement of cognitive skills (Besharat & Naghipoor, 2021).

#### **Conclusions**

The primary objective of therapists when treating individuals with post-traumatic stress disorder (PTSD) is to facilitate a comprehensive understanding of their current life circumstances and work towards restoring optimal conditions and enhancing their overall quality of life. To achieve this goal effectively, it is crucial to integrate psychotherapeutic interventions with appropriate medical treatments. While numerous factors contribute to improving the psychological well-being of adolescents with PTSD, interventions should prioritize those central and pivotal aspects that significantly influence various facets of the patients' personality and adjustment. Key factors include fostering self-empowerment, fostering a cohesive self-identity, addressing symptoms of depression, and mitigating stressors that directly impact individuals' mental health. Utilizing effective and suitable therapeutic approaches to enhance various aspects of psychological well-being is paramount. Therapists must tailor therapeutic methods according to patients' individual conditions, level of understanding, and abilities. In this context, we conducted a comparative analysis of reality therapy and paradoxical therapy for treating adolescents with PTSD.

This study revealed that paradoxical therapy, characterized by a time-limited program incorporating analytical, behavioral, and systemic dimensions in patient care, aims to facilitate patient improvement by altering the significance and interpretation of distressing memories associated with traumatic events. This is achieved through repeated reconstruction and strategic reinterpretation of distressing events, intrusive thoughts, and symptoms. Notably, this approach offers time and cost savings while empowering clients to actively participate in their treatment. By assigning tasks to patients, it fosters a sense of responsibility and instills the belief that they can exert control over the occurrence and alleviation of disease symptoms. Paradoxical therapy demonstrates constructive and impactful applications in the treatment of PTSD. Over time, repeated exposure to traumatic events enables patients to normalize these experiences and gain control over associated symptoms and intrusive thoughts, thereby enhancing their ability to manage their condition effectively.

Indeed, over a specified period, patients gradually learn to overcome the stress and anxiety associated with these symptoms, enabling them to confront thoughts and memories without experiencing distressing symptoms. Achieving this outcome in the treatment of PTSD depends on effectively resolving conflicts between reality and the thoughts linked to genuine anxiety.

Another therapeutic modality that we examined for the treatment of post-traumatic stress disorder is William Glasser's Reality Therapy, primarily employed as an educational tool in the upbringing and education of children and adolescents. This approach places the onus of improvement squarely on the patients themselves. Essentially, the therapist cultivates an environment wherein clients can emotionally engage with their illness, emotions, thoughts, and associated symptoms, enabling them to confidently and assertively assume control over their condition with reasoned support, often derived to an appropriate extent from their families. The overarching aim of this therapeutic approach is to foster a sense of self-worth and autonomy, which is realized when the therapist successfully instills and reinforces a sense of responsibility in the patients.

#### **References:**

- [1] Ahmed Leitaoa, F., Rosensteina, D., Marxa, M., Younga, S., Korteb, K., and Seeda, S.(2019). Posttraumatic stress disorder, social anxiety disorder and childhood trauma: Difference sin hippocampal subfield volume. Psychiatry Research: Neuroimaging, 284, 45-52.
- [2] Alamdar Baghini, A. Mohammadtehrani, H. Behbodi, M. Kiamanesh., A.R. (2020). Comparison of effectiveness of Eye Movement Desensitization and Reprocessing, Cognitive Behavioral Therapy, and Emotional Freedom Technique in reducing anxiety in patients with post-traumatic stress disorder [Persian].
- [3] American Psychiatric Association. (2013). Fifth Edition Diagnostic and Statistical Manual of Mental Disorders. (Translated by Yahya Seyyed Mohammadi). Publisher: Ravān.
- [4] Besharat MA. (2019). Evaluating the effectiveness of paradox therapy for the treatment of social anxiety disorder: A case study. Journal of psychological science; 18(76):383–96. [Persian]

- [5] Cisler JM, Sigel BA, Kramer TL, Smitherman S, Vanderzee K, Pemberton J, Kilts CD (2015): Amygdala response predicts trajectory of symptom reduction during Trauma-Focused Cognitive-Behavioral Therapy among adolescent girls with PTSD. J Psychiatr Res 71: 33–40. [PubMed: 26522869]
- [6] Cisler JM, Sigel BA, Steele JS, Smitherman S, Vanderzee K, Pemberton J, et al. (2016): Changes in functional connectivity of the amygdala during cognitive reappraisal predict symptom reduction during trauma-focused cognitive-behavioral therapy among adolescent girls with post-traumatic stress disorder. Psychol Med 1–11.
- [7] De Haan A, Landolt MA, Fried EI, Kleinke K, Alisic E, Bryant R, Salmon K, Chen SH, Liu ST, Dalgleish T, McKinnon A. (2020). Dysfunctional posttraumatic cognitions, posttraumatic stress and depression in children and adolescents exposed to trauma: a network analysis. J Child Psychol Psychiatry.;61(1):77–87.
- [8] De La-Cuesta G, Schweizer S, Diehle J, Young J, Meiser-Stedman R. (2019). The relationship between maladaptive appraisals and posttraumatic stress isorder: a meta-analysis. Eur J sychotraumatol; 10(1):1620084.
- [9] Dusko Stupar, Dejan Stevanovic, Panos Vostanis, Olayinka Atilola , Paulo Moreira , Katarina Dodig-Curkovic., et al . (2021).Posttraumatic stress disorder symptoms among trauma-exposed adolescents from lowand middle-income countries. Child and Adolescent Psychiatry and Mental Health, (2021) 15:26 <a href="https://doi.org/10.1186/s13034-021-00378-2">https://doi.org/10.1186/s13034-021-00378-2</a>
- [10] Ebnosharieh J, Aghili SM. (2019). Effectiveness of group based reality therapy based on Glasser choice theory on the general health and obsessive beliefs of divorced women. Journal of Gorgan University of Medical Sciences; 20(4):53-60. (Persian)
- [11] Elsey J, Coates A, Lacadie CM, McCrory EJ, Sinha R, Mayes LC, Potenza MN (2015): Childhood trauma and neural responses to personalized stress, favorite-food and neutral-relaxing cues in adolescents. Neuropsychopharmacology 40: 1580–1589. [PubMed: 25567424]
- [12] Eruyar S, Huemer J, Vostanis P.(2018) How should child mental health services respond to the refugee crisis? Child Adolesc Mental Health;23(4):303–12.
- [13] Fatemi Nayeri., M., Soltanifar, A., Moharreri., F., and Akbarzadeh., F., (2021). A Randomized Controlled Trial of Group Reality Therapy in Attention Deficit Hyperactivity Disorder and Oppositional Defiant Disorder in Adolescents. Iran J Psychiatry Behav Sci. In Press(In Press):e68643. doi: 10.5812/ijpbs.68643.
- [14] Fonzo GA, Huemer J, Etkin A (2016): History of childhood maltreatment augments dorsolateral prefrontal processing of emotional valence in PTSD. Journal of Psychiatric Research 74: 45–54. [PubMed: 26741277]
- [15] Garrett A, Cohen JA, Zack S, Carrion V, Jo B, Blader J, et al. (2019): Longitudinal changes in brain function associated with symptom improvement in youth with PTSD. J Psychiatr Res 114: 161–169. [PubMed: 31082658]
- [16] Gharibpour S, Hojati H. (2019). The effect of reality therapy on selfefficacy in mothers of children with Down syndrome. Iranian Journal of Nursing Research. 2019; 13(6): 63-7. (Persian)
- [17] Heyn SA, Herringa RJ (2019): Longitudinal cortical markers of persistence and remission of pediatric PTSD. Neuroimage Clin 24: 102028. [PubMed: 31670153]
- [18] Kaplan and sadock (2015). synopsis of psychiatry" updated with DSM-5:11. Mehdi ganji tehran, savalan.
- [19] Kh.,Astitene, A., Barkat., (2021). Prevalence of posttraumatic stress disorder among adolescents in school and its impact on their wellbeing: a cross-sectional study. Pan African Medical Journal. 39(54). 10.11604/pamj.2021.39.54.27419 , Available online at: <a href="https://www.panafrican-medjournal.com//content/article/39/54/full">https://www.panafrican-medjournal.com//content/article/39/54/full</a>
- [20] Kheramin S, Sahebi A, Shirazi YG, Malekzadeh M, Mohseni S, Shirazi HRG. (2019). Construct and psychometric properties of a new version quality of life scale based on choice theory. *Open Access Maced J Med Sci*;7(3):440–5. doi: 10.3889/oamjms.2019.075. [PubMed: 30834017].[PubMed Central: PMC6390164].

- [21] Laube C, van den Bos W, Fandakova Y (2020): The relationship between pubertal hormones and brain plasticity: Implications for cognitive training in adolescence. Dev Cogn Neurosci 42: 100753. [PubMed: 32072931]
- [22] Mancebo MC, Steketee G, Muroff J, Rasmussen S, Zlotnick C. (2017). Behavioral therapy teams for adults with OCD in a community mental health center: An open trial. Journal of Obsessive-Compulsive and Related Disorders;13:18–23. doi: 10.1016/j.jocrd.2017.03.002
- [23] Meiser-Stedman R, Dalgleish T, Glucksman E, Yule W, Smith P. (2009). Maladaptive cognitive appraisals mediate the evolution of posttraumatic stress reactions: A 6-month follow-up of child and adolescent assault and motor vehicle accident survivors. J Abnorm Psychol;118(4):778.
- [24] Merrick MT, Ford DC, Ports KA, Guinn AS, Chen J, Klevens J, et al. (2019): Vital Signs: Estimated Proportion of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention 25 States, 2015–2017. MMWR Morb Mortal Wkly Rep 68: 999–1005. [PubMed: 31697656]
- [25] Miche M, Hofer PD, Voss C, Meyer AH, Gloster AT, Beesdo-Baum K, Lieb R (2018): Mental disorders and the risk for the subsequent first suicide attempt: results of a community study on adolescents and young adults. Eur Child Adolesc Psychiatry 27: 839–848. [PubMed: 29027588]
- [26] Motaghedifard M, Naderi H, Baezzat F. (2015). Effectiveness of quality education based on Glasser's choice theory on the student's academic selfefficacy. *EJPER* ;**2**(2):43. doi: 10.4103/2395-2555.170720.
- [27] Ramzi Eslambooli L, Alipour A, Sepehri Shamloo Z, Zareh H. (2015). The Effectiveness of Group Therapy based on Reality Therapy on Rebuild of Relationship Beliefs in Working Married Women of Mashhad. Family Research; 10(4): 493-509. (Persian)
- [28] Seadatee shamir A, Najmi M, Haghshenas rezaeeyeh M. (2018). The Effectiveness of Reality Therapy Training on Marital Engagement and Marital Engagementin Married Students in Azad University. Journal of of research in medical system; 12(Special Issue).653-69. (Persian)
- [29] Shin KM, Chang HY, Cho SM, Kim NH, Kim KA, Chung YK. (2015). Avoidance symptoms and delayed verbal memory are associated with posttraumatic stress symptoms in female victims of sexual violence. J Affect Disord;184:145–8.
- [30] St. Cyr, K., McIntyre-Smith, A., Contractor, A.A., Elhai, J.D., & Richardson, J.D. (2014). Somatic symptoms and healthrelated quality of life among treatmentseeking Canadian Forces personnel with PTSD. *Psychiatry Res.* 218(1-2):148-152.C:\Users\Negin Rayaneh\Downloads\Eitaa Desktop\APSY Volume 13 Issue 4 Pages 625-650.pdf
- [31] Tenore K, Basile B, Mancini F, Luppino OI. A (2018). Theoretical Integration of Schema Therapy and Cognitive Therapy in OCD Treatment: Conceptualization and Rationale (Part II). PSYCH; 9(9):2278– 95. doi:10.4236/psych.2018.99130