Research Paper:
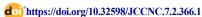# The Effects of Group Schema Therapy on Psychological Wellbeing and Resilience in the Clients Under Substance Dependence Treatment

Majid Pourpashang[1] , Shokoufeh Mousavi[1*]

1. Department of Psychology, Payame Noor University, Tehran, Iran.

ABSTRACT

Background: Low psychological resilience is an essential component in substance abuse relapse in individuals with substance use disorder. The present study aimed to investigate the effects of group schema therapy on psychological wellbeing and resilience in individuals under treatment with methadone and buprenorphine.

Methods: This was a quasi-experimental study with a pre-test, post-test design and a control group. The statistical population comprised 248 subjects with substance dependence under treatment in Samaa Addiction Treatment Clinic in Isfahan Province, Iran, in 2019. A sample of 40 patients was selected by convenience sampling method; accordingly, they were randomly allocated to the experimental and control groups. The experimental group underwent ten 90-minute weekly sessions of group schema therapy. The research instruments included the 75-item Early Maladaptive Schema Questionnaire-Short Form, the Connor-Davidson Resilience Scale, and the Ryff's Scale of Psychological Wellbeing. Data analysis was conducted by Multivariate Analysis of Covariance (MANCOVA) using SPSS.

Results: The obtained results revealed that group schema therapy was effective in promoting psychological wellbeing and resilience in individuals under treatment with methadone and buprenorphine (P<0.01).

Conclusion: This study provided evidence for the effectiveness of group schema therapy in enhancing psychological wellbeing and resilience among individuals with substance dependence. This intervention program can thus be implemented by substance dependence therapists and psychiatric nurses.

* **Corresponding Author:**
Shokoufeh Mousavi, PhD.
Address: Department of Psychology, Payame Noor University, Tehran, Iran.
Tel: +98 (21) 2123320000
E-mail: mousaviskf@gmail.com

Highlights

• Group schema therapy improves hopefulness and self-efficacy in clients with substance dependence.

• Group schema therapy effectively promoted psychological wellbeing in clients with substance dependence.

• Group schema therapy increased resilience in substance-dependent clients under treatment with methadone and buprenorphine.

Plain Language Summary

Substance dependence has destructive effects on the physical aspects and psychological wellbeing of individuals. Those with substance dependence have a lower level of psychological resilience and less life satisfaction, compared with non-substance abusers. The positive effects of schema therapy on emotion regulation, developing effective relationships, biopsychological health, self-acceptance, self-efficacy, competency, and the acceptance of change are associated with enhanced resilience against stressful life events and psychological wellbeing. The most important results of the present study were as follows: group schema therapy is effective in enhancing the psychological wellbeing and resilience in people with substance dependence under maintenance treatment with methadone and short-term detoxification with buprenorphine.

1. Introduction

Substance Dependence (SD) is a problem majorly affecting one's life (Laudet, 2011). Statistics from Iran suggest that the use of addictive substances is on the rise, while its age of use is declining (Sohrabi, Aazami & Dostian 2014). More than 90% of individuals with SD experience relapse after abstinence periods (Menon & Kandasamy 2018). SD presents destructive effects on individuals' physical and Psychological Wellbeing (PWB). Research indicates that subjects with SD experience a poor level of PWB (Moghadam, Makvandi & Naderi 2021; Bano et al. 2019). Substance Use Disorders (SUDs) have been studied concerning comorbidity with other psychological disorders (Solati & Hasanpour-Dehkordi, 2017). Roncero et al. (2016) documented that the level of PWB is low in this group. They also reported a high degree of comorbid anxiety, as well as sleep and mood disorders in clients with SD.

A major point that merits attention concerning SD is the affected individual's mutual and familial relationships, i.e., among the most important mutual social relations. Poor relations with parents and inefficient and unsuitable parenting styles can lead to the formation of Early Maladaptive Schema (EMS) during one's childhood and adolescence (Atadokht et al. 2015). The basic assumption in Schema Therapy (ST), which results from the creative integration of several other views, is that EMSs lead to psychological harm and personality disorders (Mohammadi et al. 2020). Young, Klosk and Weishaar (2006) emphasize the role of EMS in the formation and persistence of these harms; they believe that the process of treatment should focus on the identification and adjustment of these EMSs. These EMSs are gradually formed in the individual's mind and inefficiently influence their life. As a cognitive infrastructure, these schemas contain inefficient central beliefs with cognitive, emotional, and behavioral dimensions that, when activated, can lead to psychological distress, substance abuse, and other dysfunctions. Studies reported that the intensity and frequency of EMSs are higher in individuals with SD than in the general population (Shorey, Anderson & Stuart 2012; Shorey, Anderson & Stuart 2013; Zamirinejad et al. 2018). Shorey, Anderson and Stuart (2013) signified that EMSs can be altered during the short-term treatment of SD. Moreover, Amaro et al. (2010) regard ST as effective in treating SUDs.

Individuals with SD have lower psychological resilience and life satisfaction, compared to non-abusers. Such a decreased PWB increases one's vulnerability to substance abuse (Roustaei et al. 2017; Marmet et al. 2018). An essential component in substance abuse relapse is low psychological resilience in subjects with SUDs (Badie et al. 2020). Cognitive-Behavioral Therapy (CBT) interventions effectively prevent substance abuse relapse by enhancing the level of resilience (Sudhir 2018).

A common treatment for controlling narcotic dependence is pharmacotherapy; such interventions are aimed to prevent withdrawal symptoms, reduce cravings, prevent relapse, and return the physiological functions that have been disrupted by substance abuse to the normal state. Methadone and buprenorphine are widely prescribed medications for controlling narcotic dependence (Blanco-Gandía & Rodríguez-Arias 2018). Pharmacotherapy is the first stage of treatment for SD, which should be followed by rehabilitation, as the most important treatment stage. Rehabilitation indicates the empowerment of different domains of life and mental health, which requires psychotherapy (Wendt & Gone 2017; Wu, 2010).

Schemata are fundamental variables with strong explanatory power. This is because cognitive processing, coping strategies, and lifestyle are affected by this fundamental construct. Schemata are the overall prominent pattern and model of the cognitive-emotional experience of an event; their formation can date back even to the infant's pre-linguistic communication phase (Kamalian, Mirzahosseini & Monirpoor 2021). Individuals with SD present a low level of PWB and resilience; such conditions are associated with relapse and SD. Thus, the present study aimed to investigate the effects of group ST on PWB and resilience in individuals under treatment with methadone and buprenorphine.

2. Materials and Methods

This was a quasi-experimental study with a pre-test, post-test and a control group design. The statistical population comprised 248 subjects with narcotics dependence receiving maintenance treatment with methadone and detoxification with buprenorphine in Samaa Addiction Treatment Clinic in Isfahan Province, Iran, in 2019. The required sample was chosen by the convenience sampling method. In total, 40 subjects were randomly allocated to the experimental and control groups (n=20/group) by G×power statistical software. All study participants had undergone short-term detoxification (4-7 days) and were under treatment with methadone. The inclusion criteria were having a medical record in the SD treatment clinic and providing informed consent forms to participate in the research. The exclusion criteria were absence from >2 treatment sessions and reluctance to continue the treatment process. A pre-test was performed in the experimental and control groups before the onset of treatment sessions and no significant difference was observed between them. In the pre-test and post-test phases, PWB and resilience were examined in the study subjects. After administering the pre-test, the experimental group underwent ten 90-minute weekly sessions of

group ST by the researcher in the SD treatment clinic; however, the control group received no treatment. Then, the post-test was administered to the study groups. Table 1 presents a summary of the intervention sessions.

The following instruments were used to collect the necessary data in this study.

The 75-item Early Maladaptive Schema Questionnaire-Short Form (YSQ-SF): The YSQ-SF was developed by Yang in 1990. The YSQ-SF is a 75-item self-report instrument for assessing EMSs, scored on a 5-point Likert-type scale from 1 (completely untrue of me) to 6 (describes me perfectly). The total score for this scale ranges from 75 to 450, and a higher score indicates a more pronounced presence of inefficient schemas. Every 5 questions belong to one schema. Moreover, to obtain the score of each schema, the mean score of 5 questions is computed (Welburn et al. 2002). This questionnaire has no cut-off point and is only an auxiliary tool for diagnosis, i.e., completed by conducting an interview. For the initial diagnosis, it is enough to have two scores of 5 and above in the special questions group of each schema. This instrument has been normed in Iran by Divandari et al. (2009), reporting an internal consistency (Cronbach's alpha coefficient) of 0.97 and 0.98 in female and male populations, respectively. The content validity of the scale was obtained as desirable and the total test reliability equaled 0.87 according to Glaser et al. (2002). In the present study, Cronbach's alpha coefficient was measured as 0.91 for the questionnaire. Acquired scores from this questionnaire were not the inclusion criteria of this study.

Ryff's Psychological Well-Being Scale (PWB): This scale includes 84-items (14 items per subscale) and measures 6 components of self-acceptance; positive communication with others; self-determination; environmental mastery; personal growth, and purposefulness in life. The scale is a self-assessing instrument, i.e., responded on a 6-point Likert-type scale, ranging from strongly agree to strongly disagree (1-6) (Ryff 1989). The total score for this scale ranges from 84 to 504. A higher score indicates greater PWB. In the present study, the total score of the questionnaire was considered. Luștrea, Al Ghazi and Predescu (2018) reported the reliability of the scale as 0.87 using Cronbach's alpha coefficient. Bayani, Koochekya and Bayani (2008) reported Cronbach's alpha coefficient of 0.82 for the Persian version of this scale. The relevant Cronbach's alpha coefficient was computed as 0.88 in the present study.

Pourpashang, M., & Mousavi, Sh., 2021. Resilience in Patients Under Substance Dependence Treatment. *JCCNC*, 7(2), pp. 159-166.

161

Table 1. A summary of the group schema therapy sessions (Young, Klosko & Weishaar 2006)

Session	Content
1	After the introduction and establishing rapport with the participants, the importance and goal of schema therapy were explained; the clients' problems were formulated based on schema therapy, and their maladaptive schemata were identified.
2	Objective evidence confirming/rejecting the schemata was examined based on current and past life evidence, and the current and healthy schemata were discussed.
3	Cognitive techniques, such as schema validity test, new definitions for the evidence confirming the existing schema, and the use and evaluation of the advantages and disadvantages of coping styles were instructed.
4	The concept of a healthy adult was reinforced in the study participants' minds. Their unmet emotional needs were extracted by mental imagery. The early memories were identified. Strategies for expressing blocked emotions were taught by practicing the technique.
5	Healthy communication and imaginary talks with the subjects forming the schema were established.
6	Experimental techniques such as mental imagery of problematic situations and coping with the most problematic ones were taught.
7	By using the empty chair technique, communication with significant others in one's life was instructed. Role-Playing was used to teach adaptive coping responses.
8	By practicing healthy behaviors through role-playing and performing the exercises, new behavioral patterns were taught.
9	The advantages and disadvantages of healthy and unhealthy behaviors were examined, and strategies for overcoming the barriers to behavior change were instructed.
10	The materials presented in the previous sessions were briefly reviewed, and the instructed strategies were practiced.

Client- Centered Nursing Care

The Connor-Davidson Resilience Scale (CD-RISC-25): This scale was developed by Connor and Davidson (2003). It is a 25-item scale, scored on a 5-point Likert-type scale, ranging from 0 to 4 (0= not true at all, 1= rarely true, 2= sometimes true, 3= often true, 4= true nearly all the time), with minimum and maximum scores of 0 and 100, respectively. The cut-off point of the CD-RISC equals 80.4 and 47.8 for healthy individuals and those with Post-Traumatic Stress Disorder (PTSD), respectively. The higher the obtained total score, the higher the respondent's resilience level. Badie et al. (2020) reported Cronbach's alpha coefficient of 0.85 for this scale. In the present study, a Cronbach's alpha coefficient of 0.89 was calculated for the scale.

The obtained data were analyzed by descriptive and inferential statistics, such as mean, standard deviation, and Multivariate Analysis of Covariance (MANCOVA).

Shapiro-Wilk test was used to test the normality of the distribution of the data. SPSS 21.0 was used to analyze the collected data.

3. Results

The study participants included 40 male clients under treatment with methadone and buprenorphine, aged 25-45 years. The demographic data of the research participants are indicated in Table 2. Table 3 presents the pretest, post-test mean and standard deviation values of the research variables in the experimental and control groups. The Mean±SD post-test values of resilience in the ST and control groups were 87.64±11.93 and 68.20±15.36, respectively. Moreover, the Mean±SD post-test scores of PWB in the experimental and control groups were 332.37±52.06 and 277.33±43.76, respectively.

Table 2. The demographic characteristics of the research participants

Group	Mean±SD Age, y	Educational Level			Marital Status	
		Middle School Degree	High School Education	College Education	Married	Single
Experimental	36.74±9.61	9	6	5	9	11
Control	37.22±8.42	8	8	4	8	12
P	0.580		0.862		0.675	

Client- Centered Nursing Care

Table 3. The mean and standard deviation values of dependent variables in the experimental and control groups

Characteristic	Phase	Mean±SD		P
		Experimental Group	Control Group	
Resilience	Pre-test	69.52±15.03	66.70±15.60	0.684
	Post-test	87.64±11.93	68.20±15.36	0.001
Psychological wellbeing	Pre-test	280.00±44.54	276.05±43.04	0.839
	Post-test	332.37±52.06	277.33±43.76	0.001

<div align="right">Client- Centered Nursing Care</div>

The distribution of the dependent variables in pre-test and post-test phases is demonstrated in Table 3.

The Shapiro-Wilk test was used to test the normality of the scores' distribution. The null hypothesis of the normality of distribution of the two groups' scores was established (Table 4). In other words, the assumption of the normality of distribution of pre-test scores was confirmed for the experimental and control groups. Moreover, the homogeneity of the covariance matrix was confirmed by Box's M test.

Levene's test was performed to examine the assumption of the equality of variances of the study groups' scores. The null hypothesis of the equality of variances of the two groups' post-test scores was established (Table 5). In other words, the assumption of the equality of variances of the post-test scores was confirmed for the experimental and control groups. As the normality of distribution assumption was established, and based on the random selection of the sample and the equality of variances, ANCOVA was performed to obtain inferential results.

The pre-test effect on the post-test values was controlled by ANCOVA. The other confounding variables were controlled via random allocation. Based on Table 6 and the significance levels, group ST significantly increased the mean post-test scores of the experimental group, compared to the control group in PWB and resilience (P=0.001). Therefore, the main research hypothesis was approved. The MANCOVA data indicated that the effect size of PWB and resilience equaled 70.9% and 49.7%, respectively. Thus, 70.9% and 49.7% of the individual differences of the scores of PWB and resilience were explained by group membership effects.

4. Discussion

The present study investigated the effects of group ST on PWB and resilience among clients under treatment with methadone and buprenorphine. The obtained results indicated that group ST was effective in enhancing PWB and resilience in individuals with SD under maintenance treatment with methadone and short-term detoxification with buprenorphine. This finding was consistent with those of Dadomo et al. (2018) concerning the effectiveness of ST on emotion regulation and resilience in individuals with SD. Moreover, these data were in line with those of Shorey, Anderson and Stuart (2012) on the effectiveness of ST on PWB in clients with SD.

In individuals with SD, other comorbid psychological and personality disorders, such as borderline personality disorder, antisocial personality disorder, as well as

Table 4. The results of the Shapiro-Wilks test on the normality of the scores' distribution

Characteristic	Group	Shapiro-Wilks Test		
		Statistics	df	P
Resilience	Experimental	0.96	19	0.65
	Control	0.88	19	0.52
Psychological wellbeing	Experimental	0.93	19	0.19
	Control	0.97	19	0.71

<div align="right">Client- Centered Nursing Care</div>

Pourpashang, M., & Mousavi, Sh., 2021. Resilience in Patients Under Substance Dependence Treatment. *JCCNC*, 7(2), pp. 159-166.

Table 5. The results of Levene's test to examine the assumption of the equality of variances

Characteristic	F	df_1	df_2	P
Resilience	881.10	1	38	0.109
Psychological wellbeing	0.41	1	38	0.526

<div align="right">Client- Centered Nursing Care</div>

mood, sexual, and anxiety disorders are often observed. Thus, individuals with SD present a lower level of mental health, compared to the general population. Due to dysfunctions in different domains of life, including social and familial relationships, job, and education, their life is associated with extensive stress. The lack of effective coping skills for managing these stressors prone the subject to use maladaptive styles to cope with pressure. These maladaptive styles include experiencing a pleasant feeling by consuming drugs and feeling relieved from these pressures and problems for a short time. However, with this method, the problems, pressures, negative feelings, and distressing thoughts are not effectively eliminated from one's life (Solati & Hasanpour-Dehkordi 2017). Therefore, when problems remain unsolved, a lack of control over one's life and a sense of being dependent drive one to hopelessness. According to ST, these complications are originated in early maladaptive schemata that lead to chronic personality and psychological disorders. Schemata are our mental eyes for looking at ourselves, our relationships, and the world. They determine how we view ourselves, what expectations we have, and how we make sense of events. Early maladaptive schemata refer to a subject's deepest cognitive aspect and a set of negative and unrealistic beliefs, mental images, memories, and physical sensations about a topic in oneself and others (Bakhshi Bojed & Nikmanesh 2013).

Damaging experiences (e.g. the death of a parent or experiencing a trauma) and inefficient parenting styles (lenience and neglect) during childhood and adolescence are critical factors, leading to the formation of these early maladaptive schemata (Shorey, Anderson & Stuart 2013). When these schemata are formed in one's mind, they will be activated in future situations related to the schema and cause intense negative emotions. In this situation, the subject has to foster a coping response to control these intense and negative emotions; they usually confirm those EMSs, because they are self-continuing. Inefficient fundamental beliefs (i.e., I'm not lovable) and cognitive distortions (e.g. all-or-nothing thinking) are the second aspects of cognition. Negative automatic thoughts are the most accessible aspect of cognition originating from inefficient fundamental beliefs. Inefficient fundamental beliefs and negative automatic thoughts are the targets of classical CBT (Zamirinejad et al. 2018).

ST targets the deepest level, i.e., inefficient schemas, to modify them. As a result of this modification, the subject views oneself, others, and the world more realistically and flexibly; their basic emotional needs are modified; their healthy mentality finds a chance for empowerment. Implementing diverse techniques, such as cognitive techniques, the empty chair, discussions among the schema and the healthy mind, role-playing, and stopping the behavioral pattern promotes one's self-esteem and self-efficacy; subsequently, it expands one's inventory of adaptive behaviors and more efficient coping responses (Roelofs et al. 2016). Thus, the positive effects of such changes are realized in one's life, as the growth of capabilities is markedly associated with functional outcomes.

5. Conclusion

The obtained data revealed that ST was effective in alleviating pathological signs, promoting the quality of life, and enhancing a healthy mentality. Besides, ST im-

Table 6. Results of ANCOVA on the post-test score of the research variables

Characteristic	Source	SS	df	MS	F	P	η_p^2	Statistical Power
Resilience	Group	2215.67	1	2215.67	27.65	0.001	0.497	0.99
	Error	2243.96	38	59.05				
Psychological wellbeing	Group	22996.48	1	22996.48	118.55	0.001	0.709	0.99
	Error	5431.46	38	142.93				

SS: Sum of Squares; df: degree of freedom; MS: Mean Squares.

<div align="right">Client- Centered Nursing Care</div>

proved all components of PWB and resilience. The positive effects of ST on emotional self-regulation, effective relationships, autonomy, healthy mentality, accepting oneself, self-efficacy, competency, and the acceptance of change were associated with an increase in resilience against stressful life events and PWB. Cognitively, by challenging inefficient schemata and modifying them as directed by the therapist, the subject is equipped with a more powerful and healthy mentality and views oneself, others, and events more flexibly and rationally. Therefore, these cognitive, emotional, and behavioral changes resulting from ST enhance one's PWB.

Thus, employing ST also improves hopefulness and self-efficacy. These positive changes promote one's adjustment in the face of threatening situations. They result from the dominance of a healthy mentality over other mentalities (in terms of schema therapy) or the dominance of the cerebral cortex over the amygdala (in terms of neurology).

Ethical Considerations

Compliance with ethical guidelines

Funding

Authors' contributions

Conceptualization, supervision, methodology, investigation, writing–review & editing, writin –original draft: Both author; Funding acquisition, resources: Majid Pourpashang.

Conflict of interest

The authors declared no conflicts of interest.

Acknowledgments

References

Amaro, H., et al., 2010. Addiction treatment intervention: An uncontrolled prospective pilot study of Spiritual Self-Schema therapy with Latina women. *Substance Abuse*, 31(2), pp. 117-25. [DOI:10.1080/08897071003641602] [PMID]

Atadokht, A., et al. 2015. The role of family expressed emotion and perceived social support in predicting addiction relapse. *International Journal of High-Risk Behaviors & Addiction,* 4(1), p. e21250. [DOI:10.5812/ijhrba.21250] [PMID] [PMCID]

Badie, A., et al. 2020. Drug cravings and its relationship with family communication patterns and resiliency through the mediatory role of difficulty in cognitive emotion regulation. *Journal of Client-centered Nursing Care*, 6(2), pp. 125-34. [DOI:10.32598/JCCNC.6.2.329.1]

Bakhshi Bojed, F. & Nikmanesh, Z., 2013. Role of early maladaptive schemas on addiction potential in youth. *International Journal of High Risk Behaviors & Addiction*, 2(2), pp. 72-6. [DOI:10.5812/ijhrba.10148] [PMID] [PMCID]

Bano, Z., et al. 2019. Psychological well-being of substance use patient: Role of religious therapy as the treatment. *Pakistan Journal of Medical Sciences*, 35(5), pp. 1376-81. [DOI:10.12669/pjms.35.5.561]

Bayani, A. A., Koochekya, A. M. & Bayani, A., 2008. [Reliability and validity of Ryff's psychological well-being scales (Persian)]. *Iranian Journal of Psychiatry and Clinical Psychology,* 14(2), pp. 146-51. http://ijpcp.iums.ac.ir/browse.php?a_id=464&sid=1&slc_lang=en

Blanco-Gandía, M. C. & Rodríguez-Arias, M., 2018. Pharmacological treatments for opiate and alcohol addiction: A historical perspective of the last 50 years. *European Journal of Pharmacology,* 836, pp. 89-101. [DOI:10.1016/j.ejphar.2018.08.007] [PMID]

Connor, K. M. & Davidson, J. R., 2003. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), pp. 76-82. [DOI:10.1002/da.10113] [PMID]

Dadomo, H., et al. 2018. Schema therapy for emotional dysregulation in personality disorders: A review. *Current Opinion in Psychiatry,* 31(1), pp. 43-9. [DOI:10.1097/YCO.0000000000000380] [PMID]

Divandari, H., et al. 2009. [The young Schema Questionnaire - Short Form (SQ-SF): Investigation psychometric properties and factor structure between students in Islamic Azad university, Kashmar Branch (Persian)]. *Educational Researches*, 5(20), pp. 103-31. http://edu.bojnourdiau.ac.ir/article_518167.html?lang=en

Pourpashang, M., & Mousavi, Sh., 2021. Resilience in Patients Under Substance Dependence Treatment. *JCCNC*, 7(2), pp. 159-166.

165

Glaser, B. A., et al. 2002. The early maladaptive schema questionnaire-short form: A construct validity study. *Measurement and Evaluation in Counseling and Development,* 35(1), pp. 2-13. [DOI:10.1080/07481756.2002.12069043]

Kamalian, T., Mirzahosseini, H. & Monirpoor, N., 2021. The effects of emotional schema therapy and differentiation on emotional divorce among women. *Journal of Client-centered Nursing Care,* 7(1), pp. 65-74. [DOI:10.32598/JCCNC.7.1.357.1]

Laudet A. B., 2011. The case for considering quality of life in addiction research and clinical practice. *Addiction Science & Clinical Practice,* 6(1), pp. 44-55. [PMID] [PMCID]

Luștrea, A., Al Ghazi, L. & Predescu, M., 2018. Adapting and validating Ryff's psychological well-being scale on Romanian student population. *Educatia 21 Journal*, (16) 2018, pp. 118-26. [DOI:10.24193/ed21.2018.16.15]

Marmet, S., et al. 2018. Latent profiles of family background, personality and mental health factors and their association with behavioural addictions and substance use disorders in young Swiss men. *European Psychiatry,* 52, pp. 76-84. [DOI:10.1016/j.eurpsy.2018.04.003] [PMID]

Menon, J. & Kandasamy, A., 2018. Relapse prevention. *Indian Journal of Psychiatry*, 60(Suppl 4), pp. S473-8. [DOI:10.4103/psychiatry.IndianJPsychiatry_36_18]

Moghadam, M., Makvandi, B. & Naderi, F., 2021. The effectiveness of mindfulness training and dialectical behavior therapy on drug craving and emotional self-regulation in addicted clients. *Journal of Client-centered Nursing Care,* 7(2), pp. 131-8. [DOI:10.32598/JCCNC.7.2.329.2]

Mohammadi, S., et al. 2020. Effectiveness of schema therapy and emotional self-regulation therapy in the components of women's marital conflicts. *Journal of Client-centered Nursing Care,* 6(4), pp. 277-88. [DOI:10.32598/JCCNC.6.4.341.1]

Roelofs, J., et al. 2016. Group-schematherapy for adolescents: Results from a naturalistic multiple case study. *Journal of Child and Family Studies*, 25, pp. 2246-57. [DOI:10.1007/s10826-016-0391-z] [PMID] [PMCID]

Roncero, C., et al. 2016. Psychiatric comorbidities in opioid-dependent patients undergoing a replacement therapy programme in Spain: The PROTEUS study. *Psychiatry Research,* 243, pp. 174-81. [DOI:10.1016/j.psychres.2016.06.024] [PMID]

Roustaei, A., et al. 2017. Effectiveness of resilience training on ego-control and hardiness of illicit drug users. *Addiction & Health,* 9(1), pp. 24-31. [PMID] [PMCID]

Ryff, C. D., 1989. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology,* 57(6), pp. 1069-81. [DOI:10.1037/0022-3514.57.6.1069]

Shorey, R. C., Anderson, S. & Stuart, G. L., 2012. An examination of early maladaptive schemas among substance use treatment seekers and their parents. *Contemporary Family Therapy,* 34(3), pp. 429-41. [DOI:10.1007/s10591-012-9203-9] [PMID] [PMCID]

Shorey, R. C., Anderson, S. & Stuart, G. L., 2013. Early maladaptive schemas of substance abusers and their intimate partners. *Journal of Psychoactive Drugs*, 45(3), pp. 266-75. [DOI:10.1080/02791072.2013.805982] [PMID] [PMCID]

Sohrabi, F., Aazami, Y. & Dostian, T., 2014. [Comparison of early maladaptive schemas and dysfunctional attitudes in normal and drug-dependent individuals (Persian)]. *Journal of Applied Psychological Research,* 5(1), pp. 59-72. [DOI:10.22059/JAPR.2014.52544]

Solati, K. & Hasanpour-Dehkordi, A., 2017. Study of association of substance use disorders with family members' psychological disorders. *Journal of Clinical and Diagnostic Research*, 11(6), pp. VC12-5. [DOI:10.7860/JCDR/2017/24547.10021] [PMID] [PMCID]

Sudhir P. M., 2018. Cognitive behavioural interventions in addictive disorders. *Indian Journal of Psychiatry*, 60(Suppl 4), S479-84. [PMID] [PMCID]

Welburn, K., et al. 2002. The schema questionnaire-short form: Factor analysis and relationship between schemas and symptoms. *Cognitive Therapy and Research,* 26(4), pp. 519-30. [DOI:10.1023/A:1016231902020]

Wendt, D. C. & Gone, J. P., 2017. Group therapy for substance use disorders: A survey of clinician practices. *Journal of Groups in Addiction & Recovery*, 12(4), pp. 243-59. [DOI:10.1080/1556035X.2017.1348280] [PMID] [PMCID]

Wu, L., 2010. Substance abuse and rehabilitation: Responding to the global burden of diseases attributable to substance abuse. *Substance Abuse and Rehabilitation*, 2010(1), pp. 5-11. [DOI:10.2147/SAR.S14898] [PMID] [PMCID]

Young, J. E., Klosko, J. S. & Weishaar, M. E., 2006. *Schema therapy: A practitioner's guide*. New York: Guilford Press. https://books.google.com/books?id=pS5uAAAAQBAJ&dq

Zamirinejad, S., et al. 2018. Predicting the risk of opioid use disorder based on early maladaptive schemas. *American Journal of Men's Health*, 12(2), pp. 202-9. [DOI:10.1177/1557988317742230] [PMID] [PMCID]