The Effectiveness of Cognitive-Behavioral Group Therapy and Existential Group Therapy on Anxiety in Addicted Patients Undergoing Methadone Maintenance Treatment

Saeid Alami[1] , Saeid Bakhtiarpour[2] , Parviz Asgari[2], Naser Seraj-Khorrami[3]

[1] Department of Health Psychology, Khorramshahr Persian Golf International Branch, Islamic Azad University, Khorramshahr, Iran
[2] Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran
[3] Department of Psychology, Dezful Branch, Islamic Azad University, Dezful, Iran

Corresponding Author: Saeid Bakhtiarpour*; Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran*
Email: Saeedbakhtiarpoor@iauahvaz.ac.ir

Quantitative Study

Abstract

Background: The aim of this study was to compare the effects of cognitive-behavioral group therapy (CBGT) and existential group therapy on anxiety in addicts undergoing methadone maintenance treatment (MMT).

Methods: The present semi-experimental research was conducted with a pretest-posttest design, follow-up, and a control group. The statistical population of the study consisted of all addicted men undergoing MMT and referring to addiction treatment and harm reduction clinics in Qazvin, Iran, in 2019 (n = 1139). A total of 36 addicted patients referring to addiction treatment and harm reduction clinics were randomly assigned to 2 experimental groups (12 in each group) and 1 control group (n = 12). After random assignment, 1 experimental group participated in 10 sessions (120 minutes for each session) of existential therapy and the other experimental group participated in 10 sessions (120 minutes for each session) of CBGT. The Beck Anxiety Inventory (BAI) was used to collect the data. Data were analyzed using mixed analysis of variance (ANOVA).

Results: The results showed that CBT (F = 16.84, P = 0.0001) and existential group therapy (F = 4.81, P = 0.0001) decreased anxiety levels at the level of 99% confidence interval (CI). This effect remained stable until the follow-up stage. In addition, among the two methods, CBGT was more effective on anxiety than existential group therapy (P = 0.017).

Conclusion: Therapists should prioritize CBGT over other treatment modalities to reduce psychological problems such as anxiety in addicts.

Keywords: Existential group therapy; Cognitive-behavioral group therapy; Anxiety; Methadone maintenance treatment addicts

Introduction

Drug addiction, as one of the 4 crises of the 21st century, has influenced all societies (Shamsi Meymandi, Zia Aldini, & Sharifi Yazdi, 2008). Drug addiction is a psychiatric disorder, with biological, psychological, and social dimensions each of which is involved in the development and progression of the disease, during which the person loses control over substance use and continues to use drugs despite their harmful consequences (Murthy, Mahadevan, & Chand, 2019). To reduce the harm of substance abuse, methadone maintenance treatment (MMT) was developed in 1964, and its developers stated that taking high doses of methadone would reduce the tendency to use substances and prevent the euphoria caused by its use (Crapanzano, Hammarlund, Ahmad, Hunsinger, & Kullar, 2019).

In this method, the addicted person is treated with methadone for several years and sometimes for the rest of his or her life. As a result of reducing temptation, the patient can use it for constructive activities instead of wasting his or her energy, time, and effort in providing substances. Although this method might not result in a complete cessation of substance use, it will improve the social functioning of addicted people (Peles, Sason, Malik, Schreiber, and Adelson, 2016). Hence, it seems that rehabilitation and harm reduction centers need more psychological therapies to change the attitude of substance abusers, and the need to pay attention to psychological and non-pharmacological therapies is being felt more than ever (Kamarzarin, Zaree, & Brouki, 2012).

One of the psychological interventions used as a group activity to treat mental disorders is cognitive-behavioral group therapy (CBGT). The goal of cognitive approaches is mainly to change addictive behavior through changing cognitive distortions such as dysfunctional behavior maintenance beliefs, or through improving positive cognitions such as self-efficacy and motivation to change behavior (Kamarzarin, et al., 2012). The goal of this treatment is to help people to be able to identify their dysfunctional cognitions and replace them with efficient cognitions, and cope with unpleasant events that may occur in their lives (Ahmadvand, Saie, Sepehrmanesh, & Ghanbari, 2011). In fact, the goal of CBGT is not merely a change of mind, but an attempt to change the way people think. While working on the thoughts, therapists try to speed up the treatment by prescribing a set of behaviors as assignment at home and within the personal environment of the individual. These assignments, in addition to gradually creating new experiences, gradually prepare the patient for greater changes (van Emmerik-van et al., 2019). Cognitive-existential group therapy is another group of psychological interventions used to treat mental disorders. Considering the transient nature of human existence, instead of pessimism and isolation, existential group therapy calls man to effort and activity. At its foundation is the view that the cause of destruction in human beings is not their sufferings and undesirable destiny, but the meaninglessness of life (Farkas & Andritsch, 2018). The main goal of existential group therapy is to help individuals have a real presence in the universe. In other words, it helps people to establish a real and honest connection with life and its phenomena, and in fact, instead of focusing on external problems, it emphasizes the current relationships of members with each other (Thir & Batthyany, 2016).

Previous studies have reported the effects of CBGT on addicts. These include the effects of CBGT on improving anxiety and reducing alcohol dependence among alcoholics (Kiluk, Nich, Babuscio, & Carroll, 2010). Bador and Kerekes (2020) found that CBGT reduced depression and anxiety, increased self-esteem, and decreased

hopelessness in substance abusers, leading to greater self-esteem before treatment and somehow evaluates their ability to deal with more positive issues and problems, resulting in improved self-esteem and reduced depression in their lives. Can and Okanli (2019) investigated the impact of CBT on depression, anxiety, and self-efficacy among individuals with alcohol abuse in Turkey. They found that the intervention based on CBT was effective in reducing depression and anxiety and increasing self-efficacy in these individuals.

Due to the lack of effectiveness of drug treatments in opioid addicts, which is usually due to medical and psychological disorders in these patients and the high cost of health and medical cares, paying attention to non-pharmacological and group therapies based on psychological approaches such as existential group therapy and CBGT for addicts is necessary. The results of such studies can provide health professionals with valuable information that can be used to increase the effectiveness of psychological therapies. Given what was stated above, the present study was conducted to compare the effects of CBGT and existential group therapy on anxiety in addicted patients undergoing MMT in Qazvin Province, Iran.

Methods

The present semi-experimental research was performed with a pretest-posttest design, follow-up, and a control group. The statistical population of the present study included all 1139 addicted men who underwent MMT and referred to addiction and harm reduction clinics in Qazvin in 2019. Given the effect size of 0.25, alpha value of 0.05, and test power of 0.80 in 3 groups, the minimum number of samples to achieve the desired power was determined to be 12 people in each group (a total of 36 people) (Quinn, & Keough, 2002). The study inclusion criteria included at least 1 year of methadone use, age range of 20-50 years, being male, a minimum level of education of diploma, and lack of any psychiatric disorders (using clinical interview). The study exclusion criteria included the use of psychiatric drugs, receiving other psychological treatments during the present study, and absence from more than 2 treatment sessions.

The Beck Anxiety Inventory: The Beck Anxiety Inventory (BAI) was developed by Beck et al. (1988) and has 21 items. Each of the items describes 1 of the most common symptoms of anxiety (mental symptoms and panic). The items are scored on a scale of 0 to 3 and the maximum total score obtained in this test is 63, which indicates severe anxiety. Beck et al. (1988) reported the internal consistency of this test at 0.92. They also estimated the reliability of the BAI using test-retest method at 0.75. Khesht-Masjedi, Omar, and Masoleh (2015) confirmed the face and content validities of this inventory, and reported the reliability coefficient of the BAI to be 0.82 using Cronbach's alpha. The content of the existential group therapy sessions and CBGT sessions are presented in tables 1 and 2.

The collected data were analyzed using repeated measures analysis of variance (ANOVA) in SPSS software (version 23; IBM Corp., Armonk, NY, USA).

Results

All participants in the study were men and their mean age was 25.58, 26.58, and 27.5 years in the existential therapy, CBGT, and control groups, respectively. The minimum age of the participants was 20 years and the maximum was 35 years. Mean and standard deviation were used to present pretest and posttest anxiety in the 3 groups. The results are presented in table 3.

Table 1. Existential group therapy sessions

Session	Content of sessions in brief
1	Noting the patients' current complaints, obtaining brief information about the disorder, pharmacotherapy, and psychotherapy (if any), introducing basic route and assessing the suitability of the patient
2	Allowing the patient to give more details of their complaints, trying to explain which aspects of patient's life are already close to authenticity
3	Structuring the therapeutic dialogue on a phenomenological basis, exploring intangible statements, and directing the patient to embody his/her speech, demonstrating how apart the patient is from or how close to authenticity in certain fields
4	Improving the phenomenological dialogue, improving the embodiment of patient's statements, assessment of patient's stance toward self-relatedness, directing the patient to express him/herself in the physical, relational, and spiritual fields of living
5	Improving the phenomenological dialogue, exploring restrictions resulting from avoiding embodiment, exploring the patient's stance toward responsibility and life choices
6	Improving the phenomenological dialogue, receiving feedback concerning patient's certain patterns interfering with functionality, exploring issues resulting from avoiding responsibility
7	Improving the phenomenological dialogue, inviting the patient to give feedback about his/her patterns which interfere with functionality, exploring issues resulting from avoiding responsibility and freedom, directing the patient to negotiate about taking responsibility for the predictable and unpredictable outcomes of his/her choices
8	Improving the phenomenological dialogue, inviting the patient to give feedback about his/her feelings regarding the sessions and the therapist, exploring the strengths that the patients might have gained through an enhanced sense of responsibility, inviting the patient to negotiate about his/her fears concerning freedom

The data presented in table 3 show a reduction in the posttest and follow-up anxiety scores of the 2 experimental groups compared to the control group. Results showed that the assumptions of natural distribution of scores, homogeneity of variances in groups, homogeneity of variance-covariance matrices, and equality of within-subjects variances are valid.

Table 2. Cognitive-behavioral group therapy sessions

Session	Content
1	Noting the patients' current complaints, obtaining brief information about the disorder, pharmacotherapy, and psychotherapy (if any), explaining some cognitive contradictions, and setting appropriate and achievable targets
2	Discussing cognitive contradictions and presenting others, explaining the term "automatic thoughts" and deriving them from existing contradictions, demonstrating possible initiating, triggering, and maintaining factors, assigning homework(s)
3	Evaluating homework(s), exploring more automatic thoughts and evaluating alternative thoughts, explaining triggering and maintaining factors, assigning new homework(s)
4	Evaluating homework(s), testing certain automatic thoughts and explaining them, evaluating alternative thoughts, retracing triggering and maintaining factors, assigning new homework(s)
5	Evaluating homework(s), testing and evaluating other (new, if explored any) automatic thoughts, elaborating on and retracing initiating factors, explaining the term "intermediary beliefs", and assigning new homework(s)
6	Evaluating homework(s), elaborating on and testing intermediary beliefs evaluating original and current targets, assigning new homework(s)
7	Evaluating homework(s), testing other intermediary beliefs, retracing initiating factors, assigning new homework(s)
8	Evaluating homework(s), performing an overall assessment of alternative automatic thoughts and intermediary beliefs, and overall assessment of original and current targets, assigning new (monthly) homework(s)

Table 3. Mean and standard deviation of anxiety in pretest, posttest, and follow-up tests in the three groups

Group	Pretest	Posttest	Follow-up
	Mean ± SD	Mean ± SD	Mean ± SD
1	48.83 ± 3.68	48.50 ± 4.66	51.33 ± 2.46
2	47.33 ± 4.96	28.66 ± 3.89	29.41 ± 3.36
3	48.66 ± 4.92	37.08 ± 3.08	38.08 ± 3.20

SD: Standard deviation

The results presented in table 4 illustrate a significant difference among the existential therapy, CBT, and control groups in terms of anxiety at least at the level of 1% (P = 0.001).

The results presented in table 5 show that the difference between experimental groups and the control group in the 3 stages of anxiety measurement is significant in at least 2 stages.

In table 6, the difference in the anxiety score (P = 0.001) in the posttest and follow-up stages compared to the pretest in both experimental groups was significant and this effect remained stable until the follow-up stage, but in the control group, these differences were not significant (P = 0.64).

The results of Tukey's post hoc test (Table 7) showed a significant difference in anxiety levels between the CBGT and existential therapy groups, indicating that CBT is more effective than existential therapy (P = 0.017).

Discussion

The present study results revealed that CBGT is effective in reducing anxiety in addicts undergoing MMT. The results of this study were in line with that of the studies by Bahadorzade, Jajarmi, Jalalabadi, and Eydi-Baygi (2015), Morrison et al. (2019), and Bador and Kerekes (2020). The results revealed a difference between CBGT and existential group therapy in terms of their effect on reducing anxiety in addiction patients undergoing MMT, and that the effect of CBGT was greater than that of existential therapy in reducing anxiety in these patients. In explaining the greater effect of CBGT on the addicts studied, it can be stated that CBGT, through the cognitive reconstruction of defective thoughts and beliefs, helps addicts to regain their lost self-esteem and dispense with their sense of guilt, or anger and resentment towards themselves and those around them. By directly teaching skills such as problem solving, negotiation, and conflict resolution skills, this approach helps patients to show the best reactions to family and social problems, and accordingly, enjoy peaceful relationships and the support of family, friends, and others in the society. This support and effective communication will fill the emotional and psychological gap caused by addiction to a large extent and give them the ability to cope with life stresses more effectively, thus resulting in reduced anxiety. By replacing behavioral and cognitive adaptation patterns in individuals, CBT enables them to have an extensive and more appropriate behavioral treasury and to act with planning and foresight in the face of problems (Kiamini, Nikbakht, Amirabadi, Ramezani, & Nikyar, 2014).

Table 4. Results of mixed analysis of variance with repeated measures in four groups in three stages

Components	Source of changes		SS	df	MS	F	effect size
Anxiety	Intra-group	Stages	3768.57	2	1884.28	63.68	0.79
	Inter-group	Interventions	2176.46	2	1088.23	136.63	0.88
	Interaction	Intervention×stages	1549.87	4	387.46	48.64	0.68

SS: Sum of squares; df: Degree of freedom; MS: Mean of squares
* P< 0.05, **P< 0.01

Table 5. Comparison of the simple intra-group effect separately for four groups on state anxiety and trait anxiety

Group	Variable	Source of effect	SS	df	MS	F	Squared Eta
Existential Therapy	Anxiety	Stage	63.28	1	63.28	4.81	0.24
		Error	177.09	14	15.49		
Cognitive-Behavioral	Anxiety	Stage	397.55	1	397.55	16.84	0.53
		Error	344.22	14	26.80		
Control	Anxiety	Stage	0.74	1	0.74	1.11	0.09
		Error	22.51	14	1.34		

SS: Sum of squares; df: Degree of freedom; MS: Mean of squares

* $P < 0.05$, ** $P < 0.01$

The results showed that existential group therapy is effective in reducing anxiety in addicts undergoing MMT. The results of the studies conducted by Can and Okanli (2019) on addicts, and Breitbart, Rosenfeld, Pessin, Applebaum, Kulikowski, and Lichtenthal (2015) on cancer patients were in line with that of the present study. In explaining this result, it can be stated that in existential therapies, a person gains a better understanding of his/her inner world and better recognizes the root of behavioral psychological problems, including his/her anxieties. This treatment allows the person to find constructive ways to control anxiety, to feel more peace of mind, and even to improve his/her problem-solving skills. In general, since existential therapy increases people's self-awareness, implementation of this treatment method on addicts also increases their self-awareness, and as a result, increases their adaptation to high-pressure situations and ability to control their anxiety in situations that trigger anxiety. The mechanism of effectiveness of existential group therapy is based on the fact that it increases people's awareness, and accordingly, allows them to review their values and compare them with the values of others in the group. Thus, by recognizing that he/she is not the only person facing problems, the individual regains self-esteem and feels empowered by recognizing his/her ability, and consequently, acquires learning anxiety reduction skills (Kang, Kim, Song, & Kim, 2013; Thir and Batthyany, 2016).

One of the limitations of the present study was that the control group did not receive regular counseling sessions to eliminate the expected effect of the treatment group, which was not possible due to limitations in time and facilities. It is recommended that a study be conducted to examine the therapeutic effects of these two therapies on those addicted to amphetamine and stimulants. It is also recommended that the effects of these two therapies be examined on reducing the recurrence of substance use among addicts after drug use withdrawal. Based on the results, training the use of muscle relaxation techniques in cases of severe anxiety is recommended instead of substance use. The provision of modern and appropriate reinforcements to addiction patients undergoing MMT is also recommended. Moreover, paying attention to motivational interviewing in CBT is crucial, as it is an important process through which therapists try to change patients' motivation in order to prepare them for change.

Conclusion

Therapists should prioritize CBGT over other treatment modalities to reduce psychological problems such as anxiety in addicts.

Table 6. Bonferroni test results for anxiety in the study groups in three stages

Variables		Stage I	Cognitive-behavioral	Existential therapy	Control
			Mean ± SD	Mean ± SD	Mean± SD
Anxiety	Post-test	Pretest	-18.67** ± 2.18	-11.58* ± 1.89	-0.33 ± 0.21
	Follow-up	Pretest	-17.92** ± 2.02	-10.58* ± 1.97	2.50 ± 0.77
	Follow-up	Pretest	0.75 ± 0.52	1.00 ± 1.184	2.83 ± 0.82

SD: Standard deviation;* $P < 0.05$, ** $P < 0.01$

Table 7. Results of Tukey's post hoc test for pairwise comparison of experimental and control groups

Variable	Group	Group	Mean difference ± SD
Anxiety	Cognitive-	Existential	-6.13* ± 2.86
	Behavioral	Control	-14.41** ± 2.86
	Existential	Control	-8.27* ± 2.86

* P < 0.05, **P < 0.01

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

References

Ahmadvand, A., Saie, R., Sepehrmanesh, Z., & Ghanbari, A. R. (2011). Effect of cognitive-behavioral group therapy on anxiety and depression hemodialysis patients in Kashan, Iran. *Qom Univ Med Sci J, 5*(1), 35-39.

Bador, K., & Kerekes, N. (2020). Evaluation of an integrated intensive cognitive behavioral therapy treatment within addiction care. *J Behav Health Serv Re, 47*(1), 102-112.

Bahadorzade, M., Jajarmi, M., Jalalabadi, M., & Eydi-Baygi, M. (2015). Effectiveness of cognitive-behavioral group therapy on anxiety in addicts with successful cut off. *Urmia Med J, 25*(11), 961-967.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *J Consult.Clin Psychol, 56*(6), 893-897. doi:10.1037//0022-006x.56.6.893 [doi]. Retrieved from PM:3204199

Breitbart, W., Rosenfeld, B., Pessin, H., Applebaum, A., Kulikowski, J., & Lichtenthal, W. G. (2015). Meaning-centered group psychotherapy: an effective intervention for improving psychological well-being in patients with advanced cancer. *J Clin Oncol., 33*(7), 749-754. doi:JCO.2014.57.2198 [pii];10.1200/JCO.2014.57.2198 [doi]. Retrieved from PM:25646186

Can, G. G., & Okanli, A. (2019). The Effects of Cognitive-Behavioral Model-Based Intervention on Depression, Anxiety, and Self-Efficacy in Alcohol Use Disorder. *Clin Nurs Res, 28*(1), 52-78. doi:10.1177/1054773817722688 [doi]. Retrieved from PM:28778134

Clemens Farkas, & Elisabeth Andritsch. (2018). Psychoonkologie und Existenzanalyse. *Existenzanalys, 35*(1), 20-26.

Crapanzano, K. A., Hammarlund, R., Ahmad, B., Hunsinger, N., & Kullar, R. (2019). The association between perceived stigma and substance use disorder treatment outcomes: A review. *Subst.Abuse Rehabil., 10*, 1-12. doi:10.2147/SAR.S183252 [doi];sar-10-001 [pii]. Retrieved from PM:30643480

Harris, K. R., & Norton, P. J. (2019). Transdiagnostic cognitive behavioral therapy for the treatment of emotional disorders: A preliminary open trial. *J Behav Ther Exp.Psychiatry, 65*, 101487. doi:S0005-7916(18)30336-7 [pii];10.1016/j.jbtep.2019.101487 [doi]. Retrieved from PM:31132511

Hemati, G., Khorasani, S., Najafi, M., Jabbari, F., & Shojaee, S. (2019). The effect of cognitive-behavioral therapy on depression, anxiety, and stress levels in iranian males with addiction. *SAGE Open, 9*(1), 215824401882446.

Hopkinson, M. D., Reavell, J., Lane, D. A., & Mallikarjun, P. (2019). Cognitive behavioral therapy for depression, anxiety, and stress in caregivers of dementia patients: A systematic review and meta-analysis. *Gerontologist., 59*(4), e343-e362. doi:4908661 [pii];10.1093/geront/gnx217 [doi]. Retrieved from PM:29529290

Kamarzarin, H., Zaree, H., & Brouki, M. (2012). The Effectiveness of cognitive behavioral therapy on increasing of self-efficacy and improving of addiction symptoms among drug dependency patients. *Research on Addiction, 6*(22), 75-85.

Kang, K. A., Kim, S. J., Song, M. K., & Kim, M. J. (2013). Effects of logotherapy on life respect, meaning of life, and depression of older school-age children. *J Korean Acad.Nurs, 43*(1), 91-101. doi:201302091 [pii];10.4040/jkan.2013.43.1.91 [doi]. Retrieved from PM:23563072

Khaledian, M., & Mohammadifar, M. A. (2016). On the Effectiveness of Group Cognitive-Behavioral Therapy and Logotherapy in Reducing Depression and Increasing Life Expectancy in Drug Addicts. *Research on Addiction, 9*(36), 63-80. Retrieved from http://etiadpajohi.ir/article-1-1109-en.html

Khesht-Masjedi, M. F., Omar, Z., & Masoleh, S. M. K. (2015). Psychometrics properties of the Persian version of Beck Anxiety Inventory in North of Iranian adolescents. *International Journal of Educational and Psychological Researches*, *1*(2), 145.

Kiamini, M., Nikbakht, M., Amirabadi, B., Ramezani, A., & Nikyar, A. (2014). Effects of cognitive behavioral therapy on psychopathological signs and high risk behaviors in prisoners. *Journal of Inflammatory Diseases, 18*(2), 53-58.

Kiluk, B. D., Nich, C., Babuscio, T., & Carroll, K. M. (2010). Quality versus quantity: acquisition of coping skills following computerized cognitive-behavioral therapy for substance use disorders. *Addiction, 105*(12), 2120-2127. doi:10.1111/j.1360-0443.2010.03076.x [doi]. Retrieved from PM:20854334

Shamsi Meymandi, M., Zia Aldini, S. H., & Sharifi Yazdi, A. R. (2008). Opinion of high school students of Kerman towards affecting factors on narcotics tendency (2005). *J Qazvin Univ Med Sci, 12*(3), 80-88.

Morrison, A. S., Mateen, M. A., Brozovich, F. A., Zaki, J., Goldin, P. R., Heimberg, R. G. et al. (2019). Changes in empathy mediate the effects of cognitive-behavioral group therapy but not mindfulness-based stress reduction for social anxiety disorder. *Behav Ther, 50*(6), 1098-1111. doi:S0005-7894(19)30051-6 [pii];10.1016/j.beth.2019.05.005 [doi]. Retrieved from PM:31735245

Murthy, P., Mahadevan, J., & Chand, P. K. (2019). Treatment of substance use disorders with co-occurring severe mental health disorders. *Curr.Opin.Psychiatry, 32*(4), 293-299. doi:10.1097/YCO.0000000000000510 [doi];00001504-201907000-00007 [pii]. Retrieved from PM:31157674

Peles, E., Sason, A., Malik, E., Schreiber, S., & Adelson, M. (2016). Characteristics and outcome of methadone maintenance treatment (MMT) patients with depression. 33(S1), S311-S312.

Quinn, G., & Keough, M. (2002). *Experimental Design and data analysis for biologists*. Cambridge, UK: Cambridge University Press.

Reavell, J., Hopkinson, M., Clarkesmith, D., & Lane, D. A. (2018). Effectiveness of cognitive behavioral therapy for depression and anxiety in patients with cardiovascular disease: A systematic review and meta-analysis. *Psychosom.Med, 80*(8), 742-753. doi:10.1097/PSY.0000000000000626 [doi];00006842-201810000-00008 [pii]. Retrieved from PM:30281027

Roos, C. R., Bowen, S., & Witkiewitz, K. (2017). Baseline patterns of substance use disorder severity and depression and anxiety symptoms moderate the efficacy of mindfulness-based relapse prevention. *J Consult.Clin Psychol, 85*(11), 1041-1051. doi:2017-48283-002 [pii];10.1037/ccp0000249 [doi]. Retrieved from PM:29083220

Thir, M., & Batthyany, A. (2016). The State of Empirical Research on Logotherapy and Existential Analysis. In A. Batthyany (Ed.). *Logotherapy and Existential Analysis* (pp. 53-74) Cham, Switzerland: Springer International Publishing.

van Emmerik-van, O. K., Vedel, E., Kramer, F. J., Blankers, M., Dekker, J. J. M., van den Brink, W. et al. (2019). Integrated cognitive behavioral therapy for ADHD in adult substance use disorder patients: Results of a randomized clinical trial. *Drug Alcohol.Depend., 197*, 28-36. doi:S0376-8716(19)30038-9 [pii];10.1016/j.drugalcdep.2018.12.023 [doi]. Retrieved from PM:30769263

Williams, M. T., Domanico, J., Marques, L., Leblanc, N. J., & Turkheimer, E. (2012). Barriers to treatment among African Americans with obsessive-compulsive disorder. *J Anxiety Disord., 26*(4), 555-563. doi:S0887-6185(12)00032-1 [pii];10.1016/j.janxdis.2012.02.009 [doi]. Retrieved from PM:22410094