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Comparison Between the Efficiency of Pharmacotherapy and Cognitive Behavioral Therapy in Reducing Cocaine Addiction and Relapse Prevention

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Abstract

Objectives: To examine the therapeutic efficacy and effectiveness of cognitive behavior therapy and pharmacotherapy in the treatment of Major Cocaine Dependence.

Method: A 41 outpatients males, selected for the study, diagnosed as they suffering from Cocaine Dependence according to the DSM-5, with mean age 34.58 ± 5.11. The sample was divided into three experimental groups, first group (A) (N= 14 cocaine dependents) treated by cognitive behavior therapy and pharmacotherapy in combination. The second group (B) (N=13 cocaine dependents) treated by cognitive behavior therapy alone. The third group (C) (N=14 cocaine dependents) treated by pharmacotherapy alone. The CBT second group had been exposed to 20 regular sessions of a full CBT program. All groups were assessed by Beck Depression Inventory (BDI), Automatic Thoughts Checklist, Irrational Thoughts Questionnaire, Negative Health Beliefs Questionnaire, Beck Craving Beliefs Questionnaire (CBQ), Beck Relapse Prediction Scale (RPS), and the Social Efficacy Treatment Checklist (SETC) designed by the researcher. All groups were assigned to four measurements, one for the baseline before any treatment interventions, one for the post-treatment evaluation, and two for evaluating the groups in tow times of follow-up within a short time and long time. Non-parametric statistics were used to analyze the data collected by SPSS.

Results: There is no significant intra-group differences were found in terms of baseline assessment. There was no significant discrepancy between the first and the second group except in the term of reducing cocaine craving, as it was clearer in the first group in comparison with other groups. There was a clear significant discrepancy between the first and third group, for all the study variables and it's phases of assessment especially follow up. There was a clear degree of differences among the second and the third group, through the different phases of post-assessment, which refers to the great efficacy and effectiveness of Cognitive Behavioural Therapy in Treating Cocaine Dependence. There was a difference among the three groups in reducing the different variables of the study for the first group. Cognitive Behaviour Therapy (CBT) was proved to be more effective than pharmacotherapy in the treatment of Cocaine Dependence. The combination of CBT and pharmacotherapy was more effective than each other alone in the treatment of Cocaine Dependence and Relapse Prevention. All the results had been discussed in terms of information processing model and discussed in terms of cognitive-behavioral models of dependencies and relapse prevention.

Conclusions: Available evidence suggests that cognitive–behavioral therapy is an effective intervention method for psychological aspects of automatic thoughts, depression, negative health beliefs, craving, and relapse prevention, although its efficacy in reducing cocaine dependence.

Keywords: Cognitive behavioral therapy; Cocaine dependence; Craving; Relapse prevention

Introduction

In the 1970s, behavioral and cognitive–behavioral interventions for persons with substance use disorders were developed at Patton State Hospital in California [1] the University of Mississippi Medical Center in Jackson [1,2]. The Seattle Veterans Administration (VA) Alcoholic Treatment Program, and the University of Oregon [3]. In the last program, treatment consisted of cognitive–behavioral skills training, instruction, and role-playing in Cocaine refusal skills and techniques for effectively coping with emotional states such as depression, anxiety, or anger. When feasible, skills training was individualized to address each person's high-risk situations for Cocaine abuse. For many adults, CBT offers a more attractive and positive intervention than more traditional approaches [4]. In CBT, the counselor neither reinforces nor punishes relapse but instead enhances clients' efforts to manage behavior that can lead to relapse. The goal is to help clients develop effective coping skills for the antecedents that can trigger their relapse. CBT differs from many other treatment approaches that focus on abstinence without offering individualized methods to accomplish it [5]. CBT is tailored to each client's antecedents to substance abuse. Provided that a client has adequate cognitive functioning to recall recent antecedents or high-risk situations and to learn new, adaptive behaviors, the skills learned and practiced in group sessions can be applied to situations beyond the treatment setting. The treatment plan also can be evaluated and modified as needed, based on the data collected with the SAPE individual assessment tool. Through discussion or negotiation with the group counselor, each client sets individual goals by which success can be judged. For clients with Cocaine or illicit drug use problems, a typical

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goal is an abstinence, whereas, for clients who misuse medications, the goal is likely to be safe use of over-the-counter medications or use of prescription medications as directed by a physician. Success in the program is equated with reaching such a goal, mastery of the relapse-prevention skills taught by counselors, and the absence of relapses during and after discharge from treatment. Other goals indicating successful participation in treatment include improvements in a client's emotional state, rebuilding support networks, and mastery of skills necessary for long-term prevention of relapse. TIP 26 [4], provides additional information on the need for flexibility in setting goals for adult clients.

Skills Training for Coping With High-Risk Situations for Substance Abuse

The third phase of CBT (Modules 2 through 9) helps clients take responsibility for their behavior by learning and practicing skills to cope with the types of high-risk antecedents that have triggered slips or relapses in the past. Self-management techniques require clients to become active participants in their treatment process. How these self-management skills are taught may vary with the number and types of problems identified, the content of the broad treatment program, and the pace or speed at which individual clients and the treatment group can function. The cognitive–behavioral skills help clients cope with problems such as anger and frustration, depression and grief, tension and anxiety, and lack of social support.

Participants and Method

A 41 outpatients males, selected for the study, diagnosed as they suffering from Cocaine Dependence according to the DSM-5, with mean age 34.58 ± 5.11. The sample was divided into three experimental groups, first group (A) (N=14 cocaine dependents) treated by cognitive behavior therapy and pharmacotherapy in combination. The second group (B) (N=13 cocaine dependents) treated by cognitive behavior therapy alone. The third group (C) (N=14 cocaine dependents) treated by pharmacotherapy alone. The CBT second group had been exposed to 20 regular sessions of a full CBT program. All groups were assessed by Beck Depression Inventory (BDI), Automatic Thoughts Checklist, Irrational Thoughts Questionnaire, Negative Health Beliefs Questionnaire, Beck Craving Beliefs Questionnaire (BCBQ), Beck Relapse Prediction Scale (RPS), and the Social Efficacy Treatment Checklist (SETC) designed by the researcher. All groups were assigned to four measurements, one for the baseline before any treatment interventions, one for the post-treatment evaluation, and two for evaluating the groups in tow times of follow-up within a short time and long time. Non-parametric statistics were used to analyze the data collected by SPSS.

The study problem

Based on the objective of the study, the problem of the current study was formulated in the following question:

1) Is there a differences between the mean scores of the three groups of cocaine-dependent, whether the group receiving the treatment together, or who received CBT only, or who received only medical medication, after treatment and during the follow-up periods, Treatment, in both the increased severity of depressive symptoms, automatic and irrational thoughts, negative health beliefs, levels of flirting, and the likelihood of relapse?

2) Is there a significant positive impact of the multidimensional cognitive-behavioral therapy program from a social and ethical point of view, between and among groups and each other?

Study concepts

First: **The concept of accreditation in the light of diagnostic tests**: The fourth diagnostic and statistical manual of the Psychiatric Disorders, relying on narcotic substances, is defined as a non-adaptive pattern of the use of this substance which leads to malfunction or malignancy of clinical significance as reflected in three (or more) manifestations of the following, occurring at any time during the period The last 12 months, namely:

Tolerance: It is the need to increase the quantities of the material to a remarkable degree to achieve the desired effect, or is the decrease of the effect significantly when continuing to use the same amount of material [1].

Withdrawal: It is the withdrawal of the characteristic of the article, as is taking the article itself or (material related to it) to remove or avoid the symptoms of withdrawal [1].

The person often takes narcotics in larger quantities, or for longer periods than intended. This is also known as the psychological condition and sometimes physiological is the result of the interaction between a living organism and psychological material, and this situation is characterized by the emergence of responses or behaviors that always contain the element of desire to force the person to take certain psychological substances on a continuous basis or periodically from time to time, A person may be dependent on one or more substances, and dependability depends on those characteristics that are available in any psychological material, based on their pharmacological influence. Which raise the probability of dependence [6,7].

Phases of CB/SM

CB has four phases:

- Analysis of previous substance use behavior.
- Identification of each client's high-risk situations for substance abuse referred to as the ABCs (antecedents, behaviors, and consequences) of substance use.
- Skills training to cope with high-risk situations and prevent relapse.
- Continuing care and follow-up.

All four phases can be accomplished in either group or individual treatment. The participants in the CBT group received individual CBT weekly and group CBT monthly in addition to the standard care of MEDICATION treatment for 26 weeks. The CBT was delivered by psychotherapists experienced in providing counseling or psychotherapy services for patients with SUDs and mental health disorders. They received training for the study in a 3-day didactic and interactive seminar. The competence of CBT counseling was rated with the validated rating system after training. The CBT manual used for this study was adapted from the matrix intensive outpatient treatment for people with stimulant use disorders group in collaboration with colleagues at the Integrated Substance Abuse Programs.

The individual CBT sessions occurred in three stages over 6 months. The focus of the first stage of individual sessions (first 6 weeks) was to build treatment relationships and enhance motivation for MEDICATION. By a comprehensive evaluation of the patient's Cocaine use history and drug-related problems, the patients understood their physical, mental health, social function, legal, economic, family, and

employment problems associated with their Cocaine use. In this stage, the principle of CBT was explained and the participants signed a treatment agreement and set treatment goals with their counselors. The second stage (from week 7 to week 14) focused on skills training in coping and in recognition and management of triggering and craving for Cocaine use. The goal of the second stage was to make individualized intervention protocols, proceed step by step according to the individualized protocols, and repeatedly evaluate treatment feedback. Considering the feedback from previous sessions, the counselors focused on problem solving and skills building. The third stage (from week 15 to week 26) focused on managing psychological stress, building a balanced lifestyle, and maintaining abstinence. CBT group sessions addressed health education, recognition, and self-control of drug craving, harm reduction, and relapse management. The participants in CBT group sessions shared with other group members their experiences and knowledge of ceasing drug use and maintaining abstinence.

Assessment and Outcome Measurement

The primary outcome of the study was retention in treatment and Cocaine use during the study period. The secondary outcomes of the study were composite scores of the ASI and PSS total scores. Participants were assessed at baseline, week 12, and week 26. The medication dose was recorded in accordance with the National data management system.

Treatment retention

Treatment retention was defined as regular attendance for medication in clinics. Participants would be discharged from the study if they did not attend clinics to take medication for seven consecutive days.

Drug use

Cocaine use was measured by urine samples. Study research assistants collected urine samples 2 times per month. All of the urine specimens were collected on-site under staff observation and immediately screened for Cocaine. Consistent with other studies and our previous observations, almost all patients who failed to provide urine for a test or were lost to follow-up had relapsed. Therefore, any missing urine specimens were assumed positive, and the proportion of negative urine tests was defined as the proportion of the total number of negative drug urine tests among the total required number of drug tests during a certain time periods (for example, 6 times at 12 weeks and 13 at 26 weeks were the required numbers of drug tests). The overall proportion of negative urine test results was used to determine the Cocaine use status.

Addiction severity

The addiction severity of patients was measured at baseline, week 12, and week 26 using the Egyptian version of the ASI. Cronbach's alpha coefficient ranged between 0.59–0.83 and the test-retest reliability ranged between 0.72–0.88 for Egyptian samples from clinics. The participants were assessed in seven domains of the ASI: physical health, mental health, employment, family support, Cocaine use, alcohol use, and legal problems. The range of the composite ASI score was between 0 and 1; the higher scores indicated more serious problems. Beck Depression Inventory (BDI), Automatic Thoughts Checklist, Irrational Thoughts Questionnaire, Negative Health Beliefs Questionnaire, Beck Craving Beliefs Questionnaire (CBQ), Beck Relapse Prediction Scale (RPS), and the Social Efficacy Treatment Checklist (SETC) designed by the researcher.

Results

The mean age of participants was 34.58 (SD=5.11) years, 72.2% were male, 41% were married, 66.9% had less than a high school diploma, 62.4% had been unemployed in the past three years. The average age at the time of first Cocaine use was 27.11 (SD=4.5) years, and the mean duration of Cocaine use was 6.8 (SD=3.7) years; 67.9% of participants were Cocaine injectors. There were no significant group differences in the baseline characteristics (Tables 1 and 2).

Discussion and Conclusion

The mean performance outcomes of cocaine-dependent after CBT were significantly lower than the mean of their outcomes before CBT, and during the follow-up period, both increased severity of depressive symptoms, automatic and irrational thoughts, negative health beliefs, levels of relapse, and indicators of the social impact of the program.

This result is an explanation of the differences within the group that received cognitive behavioral therapy only. In this context, cognitive behavioral therapy has achieved efficiency for cocaine-dependent

Variables	CBT and Pharmacotherapy Group A (n=14)		CBT Group B (n=13)		Pharmacotherapy Group C (n=14)	
	Mean	SD	Mean	SD	Mean	SD
Age	33.14	5.12	31.71	4.55	33.80	6.71
Education	17.51	3.14	18.66	4.22	16.91	3.20
Addiction Severity Index ASI	55.12	6.48	51.09	6.15	52.91	5.82
Beck Depression Inventory BDI	61.23	7.13	59.23	6.77	60.78	6.66
Automatic Thoughts Checklist ATC	51.91	6.20	49.91	5.45	48.14	5.92
Irrational Thoughts Questionnaire ITQ	72.63	9.44	69.70	7.10	71.12	8.25
Negative Health Beliefs Questionnaire NHBQ	56.31	5.19	52.53	4.91	54.91	4.26
Beck Craving Beliefs Questionnaire BCBQ	59.61	4.13	54.19	3.77	55.17	4.50
Beck Relapse Prediction Scale RPS	74.81	11.01	70.11	9.19	73.20	10.17
Social Efficacy Treatment Checklist SETC	59.12	5.12	55.33	4.72	57.81	5.75

Note: There's no significant scatter between the Means among the three groups before intervention

Table 1: Baseline characteristics of participants before the intervention.

Variables	CBT ând Pharmacotherapy Group A (n=14)		CBT Group B (n=13)		Pharmacotherapy Group C (n=14)	
	Mean	SD	Mean	SD	Mean	SD
Addiction Severity Index ASI	41.09	3.14	47.17	4.17	51.16	4.18
Beck Depression Inventory BDI	32.60	4.05	41.88	5.17	51.39	5.14
Automatic Thoughts Checklist ATC	38.30	4.13	41.22	5.14	44.30	5.29
Irrational Thoughts Questionnaire ITQ	42.15	5.71	44.13	6.77	50.85	7.14
Negative Health Beliefs Questionnaire NHBQ	31.10	3.87	34.70	3.99	40.15	4.27
Beck Craving Beliefs Questionnaire BCBQ	27.55	2.46	31.84	3.81	39.22	4.01
Beck Relapse Prediction Scale RPS	33.14	5.19	41.57	6.64	61.91	8.35
Social Efficacy Treatment Checklist SETC	12.07	2.59	16.85	3.01	49.14	5.35

Note: There's clear significant scatter between the Means among the three groups after intervention in comparison with before

Table 2: Characteristics of participants after the intervention by 12 weeks.

and their families. The results of repeated measurements in the post-measurement phase and the first and second follow- The effectiveness of cognitive behavioral therapy at several points included improving the effectiveness of dynamic communication between recuperative adopter and his relative to the nature of this communication prior to the therapeutic intervention.

The effectiveness of the recuperative dependent communication with respect to functional competence and reintegration. The social environment is more consistent than it was before treatment. This is due to the reduction of depressive symptoms, autoimmune thoughts, irrational beliefs, negative health beliefs, and the urgency of cocaine abuse in follow-up stages in the post-measurement phase, which led the researcher to say that the hypothesis was partly fulfilled and the extent of the prediction of relapse) after intervention with CBT compared to the baseline phase of the CBT program. Some of the explanations for these findings are as follows:

The stability of improvement during successive therapeutic stages after intervention with the therapeutic program is related to the extent of the exacerbation of these variables before the therapeutic program [6,7]. It is also related to the extent of the therapeutic program's impact on reducing these variables, in line with the results of Yale research group Bruce Rounsaville, Carla Nish, Paul Sam Ball, Lisa Fenton, Frank Gawin, Tom Costen, Elinor McCance-Katz, Douglas Ziedonis, Roseann Bisighini, Monica Canning Ball and Monica Canning Ball , Joanne Corvino, Keux Cox, and Lenin Gordon Lynn Gordon, Tami FrankForter, and Jennifer O'Neller, as well as psychologists who applied the program: Michel Barrios, Dan Keller, and Andrew Grunebaum, under the supervision of Megan Brio, who confirmed the efficiency Cognitive therapy to reduce dependence on cocaine and prevent relapse [8-17].

The contribution of cognitive-behavioral therapy is increasing over time. Beck et al. argue that the dependant may tell a group of life situations that represent high-risk situations that are predisposed to the relapse of substance abuse but depend on what he has acquired throughout the periods of cognitive therapy sessions. To counteract these situations, using automatic applications of the register of ideas to meet the ideas of automatic and irrational, and using some exercises of imagination and daily recording of his mood, and control itself, and even some of the techniques of muscle relaxation and deep breathing as one of the methods of confronting the passion of substance abuse In addition to other methods of self-dialogue, role-playing and exchange, and comparisons between gains and losses of substance abuse, all these methods and practice have had no idea about them before intervention in the CBT program. Therefore, researchers agree that behavioral cognitive therapy It is an educational school that is passed by the accredited, using everything that is trained and taught to face his or her automatic thoughts if he or she is confronted or confronted by the attitudes, events or people who are motivated to use the material or the changes in his mood between the stability and signs of Munther Depression, or resistance to the sense of urgency to use the usual substance before, in order to achieve the goal firmly in all types of treatments to rely on any material, whether pharmacological or psychological treatment or even religiously religious, as in the program of treatment of the ten steps to the group of addicts or approved [3,7,11]. It is no secret to any specialist that the scourge of treatment for any accredited is how to protect him from repeated setbacks, which is what this program in the current study to achieve by reducing the symptoms of withdrawal in the form of the severity of depressive symptoms, and reduce the ideas of automatic and irrational beliefs and negative health beliefs and the urgency of cocaine abuse , Predict relapse, and raise the efficiency of social indicators or indications of the CBT program to reduce dependence on cocaine and prevent relapse [5,8,11].

The results showed that the association between the two types of CBT and pharmacotherapy resulted in a substantial improvement in all variables of the intervention study in the first group, which received both CBT and pharmacotherapy, because the interaction between both types of treatment increased The therapeutic efficiency of each of them, which led to an improvement in the performance of the accredited in the first group in both the post-measurement and the first and second follow-up compared to their performance in the tribal measurement (baseline stage). It should be noted that the researcher will explain this result according to the following explanations.

This finding is consistent with the Yale Research Group's study of behavioral cognitive therapy and its efficacy compared with other treatments. The Yale research team conducted a study on a sample of 17 cocaine-dependent patients aged between 39 and 53 years. In two groups, the first group of eight cocaine-dependent patients received CBT only, while the second group of nine cocaine-dependent patients received CBT and pharmacotherapy consisting of some antidepressants. The study indicated a significant improvement in the reduction The severity of the objects In addition to the prevention of relapse in the second group that received both types of treatment, compared with their performance before the therapeutic intervention, compared with the performance of the first group that received the program of

cognitive behavioral therapy only [12,15]. The performance of the third group that received medical treatment only improved with respect to reducing the severity of depressive symptoms and craving for cocaine use after medial medical intervention compared to the baseline phase of pharmacotherapy, while the difference was not significant with respect to the reduction of autoimmune thoughts and beliefs and prevention of relapse. The following is an explanation of this result:

The differences between the performance of the third group after the intervention of the pharmacological treatment compared to the baseline phase of the drug treatment were not significant differences except for the fundamental change in the factor of the cocaine abuse, as the nature of some antidepressant drugs, even those anti-epilepsy (used in the group The third is a component of the medical pharmaceutical treatments offered to the accredited, although no case of any epileptic seizures or minor, but these drugs were used by the consultant psychiatry in order to reduce the emotional excitement and impulsiveness of those relying on the Cocaine, as well as to discourage the use of the substance, which was referred to earlier in the presentation of the partial treatment of medicine in the third quarter of the current study, which made these drugs contribute effectively to reduce the emotional arousal of cocaine-dependent and inhibit their sense of gout for substance abuse, That they had no significant differences in the reduction of motor ideas and their reflections of irrational beliefs and negative health beliefs, and did not act to prevent a clear relapse of cocaine abuse [17]. Four individuals in the third group During the period of psychological evaluation in the first follow-up, one of them was reversed, while the other three fell in the second follow-up period, indicating that the contribution of medical treatment in reducing the prevention of relapse was ineffective, despite differences in the performance of the third group on Some of the study tools for glaucoma use of cocaine, after receiving medical treatment compared to the pre-medical treatment phase (baseline phase). The result was also matched by Yale research team Bruce Rounsaville, Carla Nich, Paul Sam Ball, Lisa Fenton, Frank Gawin, Tom Kosten, Elinor McCans-Katz, Douglas Ziedonis, Roseann Bisighini, Monica Canning Ball, Joanne Corvino, Kea Cox, Lynn Gordon, Tami FrankForter, and Jennifer O'Neller, as well as psychiatrists who have The program is implemented by Michel Barrios, Dan Keller, Andrew Grunebaum, Under the supervision of Meghan Brio, conducted in the context of the study of the efficacy of the CBT program and its impact on the treatment of dependence on cocaine, on a sample of 16 dependent on cocaine, divided into two groups with equivalence, one received cognitive behavioral therapy and the other received Treatment with some antidepressants and epilepsy [12,15]. The two groups were shown to reduce the feeling of gout for cocaine use. The pharmacological treatment group achieved a clear difference in reducing the intensity of gallbladder use of cocaine compared with the performance of its members prior to drug intervention using antidepressants and epilepsy. The result of the measurement indicated that three of the eight participants relapsed, while only one patient in the first group who received cognitive behavioral therapy did not relapse due to his irregularity in treatment sessions.

References

1. American Psychiatric Association (2013) Diagnostic and statistical manual of mental disorders (DSM-5), APA, Washington, DC.
2. Beck AT, Wright ED, Newman C, Liese B (1993) Cognitive therapy of substance abuse. The Guilford Press, New York.
3. Gfroerer J, Penne M, Pemberton M, Folsom R (2003) Substance abuse treatment need among older adults in 2020: The impact of the aging baby-boom cohort. Drug Alcohol Depend 69: 127–135.
4. Chaney EF, O'Leary MR, Marlatt GA (1978) Skill training with alcoholics. J Consult Clin Psychol 46: 1092–1104.
5. Glantz S, Pickens C, Ritter M, Franques B (2007) Health beliefs variables for studying addiction and relapse: A new perspective. Journal of Addictive Diseases 12: 45-59.
6. Vertz L, Turner R (2003) The gerontology alcohol project: A behavioral treatment program for elderly alcohol abusers. The Gerontologist 24: 510–516.
7. Oslin DW, Pettinati H, Volpicelli JR (2002) Alcoholism treatment adherence: Older age predicts better adherence and drinking outcomes. Am J Geriatr Psychiatry 10: 740–747.
8. Miller WM (1978) Behavioral treatment of problem drinkers: A comparative outcome study of three controlled drinking therapies. J Consult Clin Psychol 46: 74–86.
9. Reilly PM, Shopshire MS, Durazzo TC, Campbell TA (2003) Anger Management for Substance Abuse and Mental Health Clients: Participant Workbook. DHHS Publication No. (SMA) 03–3817. Center for Substance Abuse Treatment, Rockville, MD.
10. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2005) The effectiveness of cognitive behavioural therapy for cocaine addiction. Journal of National Institute on Drug Abuse 9: 103-137.
11. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2007) The effectiveness of cognitive behavioural therapy for cocaine addiction versus pharmacotherapy. Journal of National Institute on Drug Abuse 10: 55-82.
12. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2009) The effectiveness of cognitive behavioural therapy for cocaine addiction in-comparison with antidepressant and antiepileptic treatment. Journal of National Institute on Drug Abuse 13: 117-148.
13. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2010) The effectiveness of cognitive behavioural therapy for opium and cocaine addiction, versus antidepressant intervention. Journal of National Institute on Drug Abuse 11: 165-193.
14. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2011) The effectiveness of cognitive behavioural therapy for cocaine and crack addiction, in-comparison with the efficacy of antiepileptic. Journal of National Institute on Drug Abuse 13: 56-87.
15. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2013) The effectiveness of cognitive behavioural therapy for cocaine addiction craving, and relapse prevention. Journal of National Institute on Drug Abuse 16: 128-162.
16. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2014) The effectiveness of cognitive behavioural therapy for cocaine addiction and relapse prevention (a cross-culture study). Journal of National Institute on Drug Abuse 19: 207-235.
17. Rounsaville, Nich, Ball, Fenton, Gawin, et al. (2015) The effectiveness of cognitive behavioural therapy for relapse prevention of cocaine addiction, and family intervention. Journal of National Institute on Drug Abuse 14: 47-72.