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A FEW RESEARCH PROJECTS INDICATING THE SUCCESS AND THE PHYSIOLOGICAL EFFECTS OF USING ACUPUNCTURE FOR TREATING METHAMPHETAMINE AND OTHER DRUG ADDICTION

Frequently Asked Questions Series: Effectiveness of Acupuncture as an Adjunct to Substance Abuse Treatment: Summary of Recent Research Findings. BJA Drug Court Technical Assistance Project. May 24, 2011

Michael Schwartz, PhD “The Value of Acupuncture Detoxification Programs in a Substance Abuse Treatment System” Journal of Substance Abuse Treatment 17, no.4 (1999)

Michael Schwartz, professor of Health Care and Operations Management at Boston University, conducted research to assess the benefits of acupuncture in substance abuse treatments and its impact on readmission rates. In his study, Professor Schwartz compared patients who received acupuncture in outpatient treatment programs and patients receiving treatment in residential detoxification facilities. The acupuncture program also included counseling services for patients. The study focused on the first six months following discharge from treatment -- the period when patients were considered more exposed to risks of relapse. Using data from the Boston Office of Treatment Improvement (BOTI) and a sample of 8,011 clients (6,907 following treatment in a residential program and 1,104 in an outpatient acupuncture program), the study found that 18% of acupuncture patients were readmitted compared to 36% of patients readmitted from traditional inpatient detox programs. This study demonstrated that acupuncture as a component of outpatient detoxification programs can be effective and also found that acupuncture treatment appeared to be most effective for clients with two or more admissions in residential detoxification in the year prior to the acupuncture treatment.

The following table from the Schwartz study details the percentage of readmitted patients from residential treatment programs without acupuncture compared with those from outpatient programs with acupuncture and the nature of their substance addiction (alcohol, cocaine, crack or heroin). (*Carolyn's note: Though Schwartz didn't isolate meth specifically, he did isolate cocaine and crack as their stimulants of choice, and the results are dramatically excellent for these and all drugs.*)

Primary Drug	Residential Detox		Acupuncture	
	n	% re-admitted	n	% readmitted
Alcohol	2,919	37.3	358	10.9
Cocaine	1,122	31.0	183	19.7
Crack	1,099	28.8	223	21.5
Heroin	1,699	40.6	210	31.4

[Iran J Public Health](#). 2019 Mar; 48(3): 561–563.

PMCID: PMC6570803 PMID: [31223589](#)

Physical or Psychological Therapy? Cognitive Behavioral Therapy or Acupuncture for Subsyndromal Depression among Methamphetamine Users

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Dear Editor-in-Chief

Using Methamphetamine is comorbid lifetime anxiety disorders. Sub-syndromal Depression Disorder (SSD) refers to the existence of major clinical symptoms that these symptoms in terms of intensity are not enough for the diagnosis of major depression and does not meet all the diagnostic criteria (1).

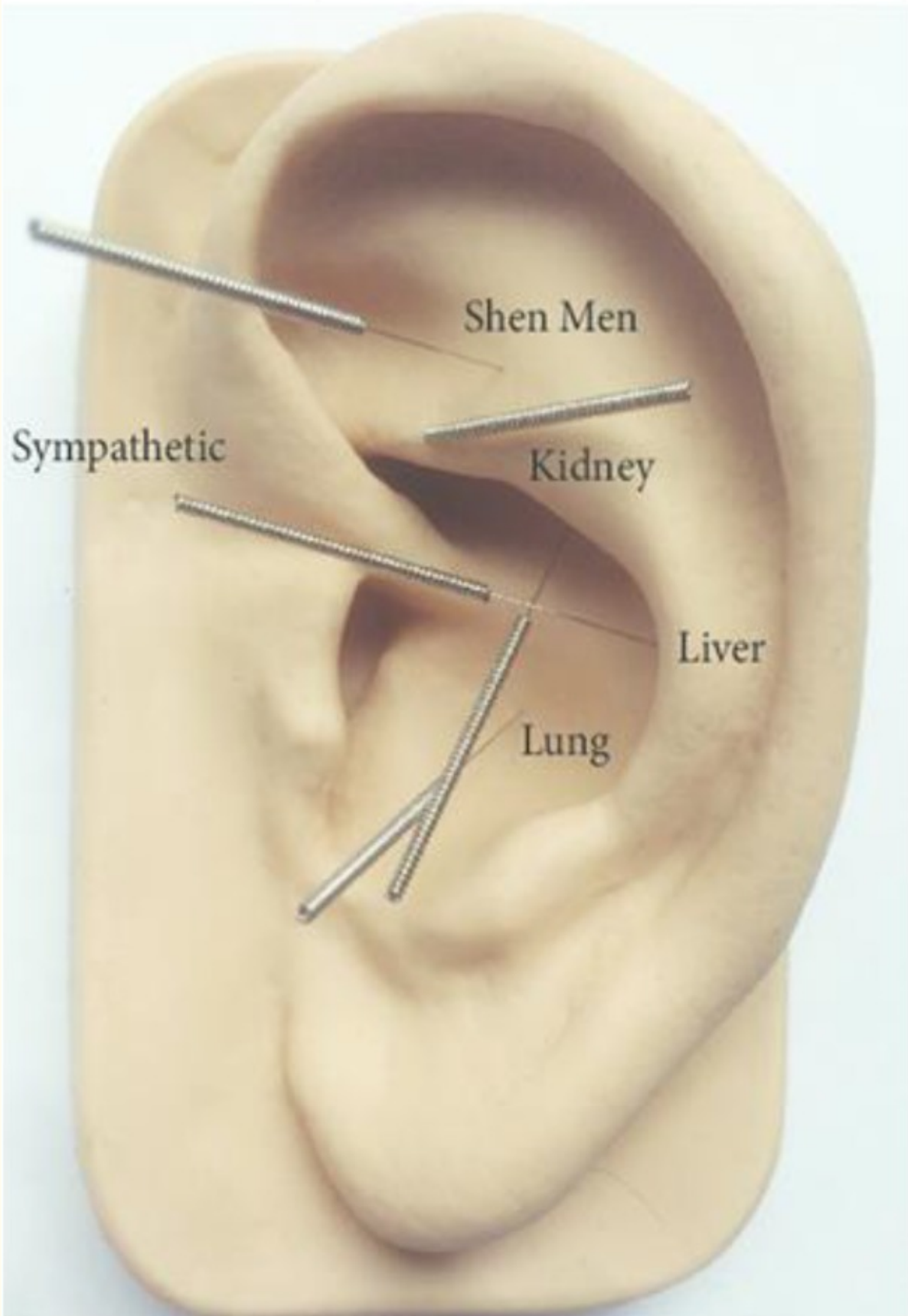
Acupuncture is a therapy method used around the world for two thousand years. National Acupuncture Detoxification Association (NADA) is an applied Manual Protocol of Ear Acupuncture (EA) that is an evidence-based approach.

On the other hand, cognitive-behavioral therapy (CBT) has been associated with promising results in the treatment of substance abuse. Two studies compared the effectiveness of CBT and acupuncture in reducing symptoms of depression. There is not a significant difference between the effectiveness of these two therapies on the depression index in patients with SSD (1). In the study of comparing the effectiveness of EA and CBT on depression in patients with insomnia were not reported significant (2).

According to the conflicting evidence on the effectiveness of the two treatments and aimed to develop effective treatment strategies, this study aimed to compare the effectiveness of two approaches of Ear acupuncture and cognitive therapy on symptoms of depression in patients with SSD. This was a one-site controlled clinical trial conducted in the Bijan Center for Substance Abuse Treatment between Dec 2015 and Jun 2016. Overall, 36 male participants were chosen through Respondent-driven sampling (RDS) were assigned into three groups of CBT, EA and control by Excel software. Subjects were under preliminary assessment for six weeks in a baseline and then six weeks of treatment was conducted on two groups of treatment and the control group received no treatment.

CBT was presented based on the theory of ABC (activating events-belief consequence) that includes six weekly sessions of 1.5–2 h. Intervention was performed by a therapist with a clinical certificate in psychology trained in this approach (first author, B. P). Groups were including 6 to 10 subjects.

EA was performed three times a week for six weeks (eighteen sessions) and the duration of each session was 30–45 min. During the session, five points of ear supposed to be the best points in substance-abusing patients were intervened (Fig. 1). EA was performed in both ears using disposable stainless steel needles (0.25+13 mm) with a depth of 2–3 mm and using manual stimulation method by a trained doctor and an acupuncturist who had a degree and five-years history of the treatment (second author, K. P).



Shen Men

Sympathetic

Kidney

Liver

Lung

[Fig. 1:](#)

Acupuncture points according to the NADA protocol

Inclusion criteria were included: 1) 18–40 yr of age; 2) presence of ≥ 1 but < 5 symptoms required for the diagnosis of major depression (MD) based on DSM 4; 3) the symptoms last at least two weeks; 4) informed consent. Exclusion criteria were included: 1) a history of psychiatric disorders or brain injury; 2) unstable medical conditions; 4) participating in any clinical trial in the last four weeks, and 5) allergy to nickel or ear tissue damage. Beck Depression Inventory (BDI) and The Structured Clinical Interview for DSM-4 (SCID-4) were used to detect symptoms of depression below the threshold. According to the non-normal distribution scores of depression, to analyze the data during 12 wk of evaluation, semi-parametric test of GEE (3) through IBM SPSS Statistics Version 20 (IBM Corp., Armonk, NY, USA) was used. Statistical significance was accepted at the level of $P < 0.05$.

The informed consent was obtained and the whole process was carried out based on the latest version of the Declaration of Helsinki.

Decrease the craving in the EA group is significant. The mean of (95% of confidence) methamphetamine craving tests was 8.11 (5.91–10.32) in EA group, 9.43 (4.91–13.95) in CBT group and 9.51 (5.18–13.84) in control group ($P = 0.037$). Although no significant reduction in depression index in the EA group was observed ($P > 0.05$). These findings are consistent with studies (4) that showed that no evidence for the effectiveness of EA in reducing anxiety in drug abusers was observed.

Secondary outcome represents a significant improvement in depressive symptoms in the CBT group ($P < 0.05$). Cognitive and behavioral interventions based on the belief that knowledge has a key role in etiology and maintenance of depressive disorders is effective. ABC theory was used in this study. This model can be effective on the symptoms of depression and these findings are consistent with previous studies (1). According to our findings on the effectiveness of acupuncture on craving and effectiveness of CBT on depression symptoms, combining acupuncture treatment and CBT can draw a promising outlook in the treatment of addiction.

Footnotes

Conflict of Interest

None declared.

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[Electro-acupuncture improves psychiatric symptoms, anxiety and depression in methamphetamine addicts during abstinence: A randomized controlled trial.](#)

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Medicine (Baltimore). 2018 Aug;97(34):e11905. doi: 10.1097/MD.00000000000011905.

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[Zhen Ci Yan Jiu.](#) 2014 Oct;39(5):362-6.

[Effect of manual acupuncture stimulation of "Baihui" (GV 20) and "Dazhui" (GV 14) on contents of 5-HT, dopamine and ACh and expression of 5-HT mRNA, DA mRNA and AChE mRNA in the hippocampus in methamphetamine addiction rats].

[Article in Chinese] (Carolyn's note: We often add baihui (top of the head) to our NADA treatment because it adds even more than usual relaxation sensation to clients. I include this study and the previous two, even though the researchers didn't use the NADA ear protocol, to show that acupuncture has physiological effects mediated through the neurotransmitters and isn't just wishful thinking on the part of the clients)

[Yu S](#), [Chen L](#), [Cai XH](#), [Song XG](#), [Zhang Y](#), [Zhang Y](#), [Song R](#), [Li YF](#).

Abstract

OBJECTIVE:

To observe the effect of manual acupuncture stimulation on changes of hippocampal monoamine neurotransmitter levels and expression of 5-hydroxytryptamine (5-HT) mRNA, dopamine (DA) mRNA and acetylcholine esterase (AChE) mRNA in methamphetamine addiction rats, so as to explore its mechanism underlying improvement of drug addiction.

METHODS:

SD rats were randomly divided into normal control, model and manual acupuncture groups (n=10 in each group). Drug addiction model was established by i.p. of methamphetamine (5 mg/kg), once a day for 15 days. Manual acupuncture stimulation was applied to "Baihui" (GV 20) and "Dazhui" (GV 14) once daily for 10 days. The contents of hippocampal 5-HT, DA, acetylcholine (ACh), AChE were measured by ELISA. The expressive levels of hippocampal 5-HT mRNA, DA mRNA and AChE mRNA were determined by fluorescence quantitative RT-PCR.

RESULTS:

In comparison with the normal control group, the contents of 5-HT, DA, ACh and AChE and the expression levels of 5-HT mRNA, DA mRNA and AChE mRNA were significantly increased in the model group ($P<0.01$, $P<0.05$). After acupuncture intervention, the levels of the above-mentioned 7 indexes were uniformly and significantly down-regulated in the manual acupuncture group ($P<0.01$, $P<0.05$).

CONCLUSION:

Manual acupuncture stimulation of GV 20 and GV 14 can adjust methamphetamine addiction-induced changes of some hippocampal monoamine neurotransmitters and expression levels of 5-HT, DA and AChE genes.

PMID: 25518108 [Indexed for MEDLINE]

[Zhongguo Zhen Jiu](#). 2014 Mar;34(3):219-24.

[Comparative study on effects between electroacupuncture and auricular acupuncture for methamphetamine withdrawal syndrome].

[Article in Chinese]

[Liang Y](#), [Xu B](#), [Zhang XC](#), [Zong L](#), [Chen YL](#).

Abstract

OBJECTIVE:

To observe the efficacy difference of electroacupuncture and auricular acupuncture in the treatment of methamphetamine withdrawal syndrome.

METHODS:

Ninety male patients of methamphetamine addiction were randomized into an electroacupuncture group, an auricular acupuncture group and a control group, 30 cases in each one. In the electroacupuncture group, Neiguan (PC 6), Shenmen (HT 7), Zusanli (ST 36), Sanyinjiao (SP 6), Jiaji (EX-B 2) at T5 and L2 were selected bilaterally. In the auricular acupuncture group, jiaogan (AH(6a)), shenmen (TF4), fei (CO14) and gan (CO12) were selected unilaterally. The treatment was given 3 times a week, totally 12 treatments were required. In the control group, no any intervention was applied. Separately, before treatment and after 1, 2, 3 and 4 weeks treatment, the scores of methamphetamine withdrawal syndrome, Hamilton anxiety scale and Hamilton depression scale were observed in each group.

RESULTS:

The total score of methamphetamine withdrawal syndrome, anxiety score and depression score were obviously reduced in 2, 3 and 4 weeks of treatment as compared with those before treatment in the electroacupuncture group and the auricular acupuncture group (all $P < 0.05$), and showed a trend of gradual decline as the extension of treatment. In 1,2,3,4 weeks of treatment, the total score of withdrawal syndrome, anxiety score and depression score in the electroacupuncture group and auricular acupuncture group were lower significantly than those in the control group (all $P < 0.05$), in which, the total score of withdrawal syndrome in the electroacupuncture group was lower significantly than that in the auricular acupuncture group in the 4th week of treatment (3.69 ± 2.446 vs 5.73 ± 3.169 , $P < 0.05$); the anxiety scores were lower significantly than those in the auricular acupuncture group in 3 and 4 weeks of treatment (8.19 ± 4.57 vs 9.65 ± 4.24 , 5.27 ± 2.89 vs 7.38 ± 3.10 , both $P < 0.05$); the depression scores were lower significantly than those in the auricular acupuncture group in 2, 3 and 4 weeks of treatment (15.35 ± 5.64 vs 19.81 ± 5.37 , 10.96 ± 4.52 vs 15.00 ± 4.53 , 7.96 ± 2.69 vs 12.35 ± 3.59 , all $P < 0.05$).

CONCLUSION:

Electroacupuncture at the body points and auricular acupuncture play the therapeutic role in the treatment of methamphetamine withdrawal syndrome, anxiety and depression. The longer time the treatment is with electroacupuncture at the body points, the more obvious the efficacy will be on the above symptoms.

PMID: 24843957[Indexed for MEDLINE]

[J Subst Abuse Treat.](#) 2000 Sep;19(2):199-205.

Acupuncture for addicted patients with chronic histories of arrest. A pilot study of the Consortium Treatment Center.

[Russell LC](#)¹, [Sharp B](#), [Gilbertson B](#).

[Author information](#)

1

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Abstract

Auricular acupuncture continues to gain popularity as an adjunct to substance abuse treatment. This report describes an outcomes study in a treatment center tailored to the needs of chronic repeat offenders. Thirty-seven patients who received acupuncture (AC) during the early weeks of treatment were followed for 180 days postadmission. Data were collected for four parameters: (1) program retention, (2) new arrests incurred, (3) drug-positive urinalysis results, and (4) number of days needed to progress from entry level to secondary level treatment. These data were compared to archived information from 49 no-acupuncture (NA) patients who had entered the program before acupuncture became available. Chi-square tests determined that AC patients exhibited significantly higher program retention than NA patients at 30 ($p < 0.0001$), 60 ($p < .002$), 90 ($p < .001$), 120 ($p < .007$), and 150 ($p < .031$) days. At 180 days, a higher percentage of AC patients than NA patients remained in treatment, but the difference was not significant. Kaplan-Meier survival analysis determined that AC patients had significantly higher cumulative probability of remaining in treatment than did NA patients ($p < .0021$). In AC patients, there were decreased numbers of new arrests, drug-positive urinalysis results, and days needed to advance in treatment, but the differences were not significant. Fifty-one percent of all patients named methamphetamine as their primary drug of choice. Regardless of treatment group, methamphetamine-addicted patients exhibited significantly lower program retention than patients addicted to all other drugs ($p < .035$). In methamphetamine-addicted patients, acupuncture improved program retention only up to 30 days ($p < .021$). These findings support addition of acupuncture to substance abuse treatment for criminal justice clients and indicate a need for acupuncture research focusing on withdrawal from methamphetamine.

AND FOR THOSE WONDERING ABOUT THE USE OF ACUPUNCTURE FOR OPIATE ADDICTION, HERE ARE TWO IMPORTANT STUDIES:

Vickers, A. J., Cronin, A. M., Maschino, A. C., Lewith, G., MacPherson, H., Foster, N. E., ... & Acupuncture Trialists' Collaboration, F. T. (2012). Acupuncture for chronic pain: individual patient data meta-analysis. *Archives of internal medicine*, 172(19), 1444-1453. It's a meta-analysis of 20,000+ treatments in more than two dozen big double-blind studies. It proves two things for sure:

1, real acupuncture definitely for sure has an effect over and above placebo acupuncture, it's about 0.23, comparable to taking an advil for pain.

2, placebo acupuncture alone is about 50% stronger than that. So when you get them together (ie 'effectiveness' compared to no treatment, versus 'efficacy' compared to placebo) it's a really strong treatment. For example, in the comparative effectiveness trial versus morphine in the emergency department, it has comparable effect on pain with many fewer side effects

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