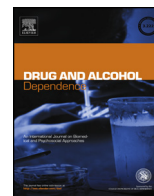




Contents lists available at ScienceDirect

Drug and Alcohol Dependence

journal homepage: www.elsevier.com/locate/drugalcdep



Review

Acupuncture for substance use disorders: A systematic review and meta-analysis

Sean Grant*, Ryan Kandrack, Aneesa Motala, Roberta Shanman, Marika Booth, Jeremy Miles, Melony Sorbero, Susanne Hempel

RAND, 1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138, USA

ARTICLE INFO

Article history:

Received 18 September 2015
Received in revised form 18 January 2016
Accepted 20 February 2016
Available online xxx

PROSPERO number for protocol:
PROSPERO number for protocol:
CRD42015016040

Keywords:

Acupuncture
Systematic review
Meta-analysis
Substance use disorder

ABSTRACT

Background: This systematic review aims to estimate the effects of acupuncture for adults with substance use disorders (SUDs).

Methods: We searched 7 electronic databases and bibliographies of previous studies to identify eligible randomized trials. Two independent reviewers screened citations, extracted data, and assessed risks of bias. We performed random effects meta-analyses. We assessed quality of evidence using the GRADE approach.

Results: We included 41 studies with 5,227 participants. No significant differences were observed between acupuncture and comparators (passive controls, sham acupuncture, treatment as usual, and active interventions) at post-intervention for relapse (SMD -0.12; 95%CI -0.46 to 0.22; 10 RCTs), frequency of substance use (SMD -0.27; -2.67 to 2.13; 2 RCTs), quantity of substance use (SMD 0.01; -0.40 to 0.43; 3 RCTs), and treatment dropout (OR 0.82; 0.63 to 1.09; 22 RCTs). We identified a significant difference in favor of acupuncture versus comparators for withdrawal/craving at post-intervention (SMD -0.57, -0.93 to -0.20; 20 RCTs), but we identified evidence of publication bias. We also identified a significant difference in favor of acupuncture versus comparators for anxiety at post-intervention (SMD -0.74, -1.15 to -0.33; 6 RCTs). Results for withdrawal/craving and anxiety symptoms were not significant at longer follow-up. Safety data (12 RCTs) suggests little risk of serious adverse events, though participants may experience slight bleeding or pain at needle insertion sites.

Conclusions: Available evidence suggests no consistent differences between acupuncture and comparators for substance use. Results in favor of acupuncture for withdrawal/craving and anxiety symptoms are limited by low quality bodies of evidence.

© 2016 Published by Elsevier Ireland Ltd.

Contents

1. Introduction.....	00
1.1. Needle acupuncture for SUDs.....	00
1.2. Efficacy and safety of needle acupuncture for SUDs.....	00
2. Materials and methods.....	00
2.1. Objective.....	00
2.2. Search strategy.....	00
2.3. Eligibility criteria.....	00
2.4. Inclusion screening.....	00
2.5. Data extraction.....	00
2.6. Data synthesis.....	00
2.7. Quality of the body of evidence.....	00
3. Results.....	00

* Corresponding author.
E-mail address: sgrant@rand.org (S. Grant).

3.1.	Search results.....	00
3.2.	Included studies.....	00
3.2.1.	Design.....	00
3.2.2.	Setting.....	00
3.2.3.	Participants.....	00
3.2.4.	Interventions.....	00
3.2.5.	Comparators.....	00
3.2.6.	Outcomes.....	00
3.3.	Risks of bias.....	00
3.4.	Efficacy of acupuncture for SUDs.....	00
3.4.1.	Substance use relapse.....	00
3.4.2.	Frequency of substance use.....	00
3.4.3.	Quantity of substance use.....	00
3.4.4.	Withdrawal/craving symptoms.....	00
3.4.5.	Treatment dropout.....	00
3.4.6.	Anxiety symptoms.....	00
3.4.7.	Health-related quality of life.....	00
3.5.	Safety of acupuncture for SUDs.....	00
4.	Discussion.....	00
4.1.	Other reviews in this area.....	00
4.2.	Strengths and limitations.....	00
4.3.	Implications for future research and practice.....	00
	Author disclosure.....	00
	Conflicts of interest.....	00
	Contributors.....	00
	Acknowledgments.....	00
Appendix A.	Supplementary data.....	00
	References.....	00

1. Introduction

Substance use disorders (SUDs) are common, highly disabling, and associated with significant consequences. In the U.S., twelve-month prevalence rates for alcohol use disorder (AUD) and other SUDs are 13.9% and 3.9%, respectively, while lifetime prevalence rates for AUD and other SUDs are 29.1% and 9.9%, respectively (Grant et al., 2015, 2016). Worldwide, at least 150 million people have used an illicit drug such as cannabis, opioids, or cocaine (Degenhardt and Hall, 2012), while individuals aged 15 years or older drink 6.2 liters of pure alcohol on average per year (World Health Organization, 2014). SUDs are associated with various physical health problems—contagious diseases, cardiovascular disease, liver and pancreatic disease, neurologic impairment, diabetes, cancer, and physical injury (Cargiulo, 2007; Degenhardt and Hall, 2012; Rehm, 2011). Persons with SUDs also often have comorbid psychiatric disorders such as major depressive disorder, bipolar I disorder, specific phobias, antisocial personality disorder, and borderline personality disorder (Grant et al., 2015, 2016). In addition to health problems, SUDs are associated with significant social and economic consequences, such as interpersonal and relationship issues, lost productivity, homelessness, poverty, violent and property crime, and incarceration (National Drug Intelligence Center, 2011; NIDA, 2008; Rehm et al., 2009; World Health Organization, 2014). Given their prevalence and societal impact, addressing SUDs is currently a policy priority.

Improving access to high quality healthcare is a key facet of SUD policy reform. The Patient Protection and Affordable Care Act, and the Mental Health Parity and Addiction Equity Act, have provided several million more people in the U.S. with coverage for SUDs services. This substantial increase in access to care has consequently led to greater emphasis on identifying effective interventions for SUDs in the healthcare system (IOM, 2015). Despite the sizeable evidence base for interventions, SUDs often go untreated: only 7.7% and 13.5% of those with 12-month AUD and other SUDs sought treatment or help for these disorders, possibly reflecting continued skepticism in the effectiveness of SUD treatments (Grant et al.,

2015, 2016). These data highlight the need to systematically synthesize high-quality evaluation data on prominent or popular SUD interventions to underpin their coverage and scale-up in health systems (IOM, 2015).

1.1. Needle acupuncture for SUDs

Integrative medicine, which combines conventional Western medicine with complementary and alternative medicine (CAM) approaches, has been gaining traction as a healthcare service modality in the U.S. (IOM, 2009). Acupuncture for treating SUDs is one CAM intervention that has increased in popularity in recent decades (Lu et al., 2009). According to Traditional Chinese Medicine (TCM), balancing the flow of energy in the body (known as “Qi”), which flows through meridian points and connects bodily organs and systems, can help to improve health. Acupuncture protocols generally involve inserting and manipulating thin solid needles into specific documented meridian points in order to relieve blockages in the flow of Qi and thereby create a positive therapeutic impact on bodily organs, systems, and functions (Lin et al., 2012).

As a treatment for SUDs, acupuncture primarily involves inserting and stimulating needles at meridian points primarily thought to be associated with regulating dopamine and decreasing cortisol, thereby aiming to bring balance to dopamine levels affected by substance use and ultimately producing a decrease in craving and withdrawal symptoms (Lua and Talib, 2012). Recent research has been conducted on animals to assess the neurochemical and biological basis of acupuncture, with the purported primary mechanism for SUD treatment as the modulation of dopamine neurons along the mesolimbic pathway, which leads to negatively reinforcing the effects of drugs (Yang et al., 2008). Acupuncture appears to have first emerged as a treatment for SUDs in 1972 when a doctor in Hong Kong reported that acupuncture relieved symptoms of opioid withdrawal (Cui et al., 2008). It began to be adopted in Western clinical settings in the 1980s via the US National Acupuncture Detoxification Association (NADA) protocol, which involves bilateral acupuncture of one to five specific ear points (i.e., kidney,

Download English Version:

<https://daneshyari.com/en/article/7503821>

Download Persian Version:

<https://daneshyari.com/article/7503821>

[Daneshyari.com](https://daneshyari.com)