[2015]

Psychosocial interventions for the management of psychostimulant dependence [2015]

SCOPING QUESTION: Which psychosocial interventions are effective in the treatment of psychostimulant dependence for adults and young people?

BACKGROUND

The United Nations Office on Drugs and Crime (UNODC) estimated that between 172 and 250 million people aged 15–64 years had used an illicit drug at least once in 2010 (UNODC, 2012). The global use of cocaine is as high as 19.5 million people, with amphetamine-like substances being used by up to 52.5 million people and ecstasy by up to 28 million people. Combined annual prevalence of use of these three psychostimulants in 2010 was between 0.8% and 2.2%, with their use more common in North America, Europe and Oceania (UNODC, 2012). Substance use affects societies by causing productivity losses and costs associated with drug related crime, in addition to the associated negative health and social outcomes (UNODC 2012).

The motivation for using psychoactive substances is, in part, related to effects of psychostimulant drugs on mood, cognition and behaviour (Silva et al., 2013). Patients with substance use disorders frequently present a long history of repeated episodes of intoxication and withdrawal, with a chronic course of disease (Wood et al., 2014).

Several interventions (including psychotropic medication and psychosocial techniques) have been used for this condition, but conclusive data are missing. Although there have been some promising trial results, overall medications for stimulant dependence have not been shown to be better than placebo. While there have been many trials of psychosocial approaches to stimulant dependence published, it is also not clear which approaches are more effective versus no treatment and which ones are more effective than others. The aim of this scoping question is to determine which psychosocial interventions are best suited for treatment of psychostimulant dependence by incorporating current and available evidence.

PART 1: EVIDENCE REVIEW

Population/ Intervention / Comparison / Outcome (PICO)

- **Population:** Adults and young people with psychostimulant dependence
- **Interventions:** Structured psychosocial interventions
- **Comparison:** No interventions, waiting list, other active interventions

- **Outcomes:**
  - **CRITICAL –** Drug use
  - **IMPORTANT** – Treatment retention, psychosocial functioning

Data collection and analysis

Systematic searches were run in the following databases in Autumn 2014: Web of Science, Cochrane Database of Systematic Reviews, EMBASE, MEDLINE, PsychINFO, Database of Abstracts of Reviews of Effects – Wiley Interscience Interface and the Cochrane Central Register of Controlled Trials. Please see Appendix 1 for more information on search strategies used.

Given its good quality, the National Institute for Health and Care Excellence (NICE) 2008 Guideline was chosen for use as the basis for this evidence profile, with the aim of updating the guideline's evidence review. There were 208 studies identified as having been published after the 2008 NICE Guideline, of which 25 are included in this evidence profile. These studies were used to update existing comparisons in the NICE Guideline's *Drug Misuse Psychosocial Interventions*, using the same outcomes and the same data extracted in the guidelines. In addition, the comparisons with each other treatment type were extracted into a separate analysis. New meta-analyses were performed utilizing the Cochrane methodology. Heterogeneity between trial results for each outcome was tested using a chi-squared test. If possible, using the same outcomes as the 2008 NICE guidelines and measured using same methods, the results from the different trials were combined to obtain a summary estimate of effect (and the corresponding confidence interval [CI]). Relative risk (RR) for dichotomous measures and mean difference (MD) for continuous measures were used. This search strategy is in line with GRADE working group recommendations, for all new comparisons.

Two members of the research team independently assessed randomized controlled trials (RCTs) for inclusion. Outcome data was also extracted. Any disagreements were resolved by discussion.

The methodological quality of each trial was assessed using the following items of the Cochrane Risk of Bias tool: randomization method, baseline comparability of the trial arms, blinding and whether the published data permitted an intention-to-treat (ITT) analysis. Data were independently extracted by two review authors and cross-checked. Data was also sought on the number of participants with each outcome event by allocated treatment group in order to allow an ITT analysis.

Reviews and studies included in NICE guidelines (pre-2008)

- National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.

- Carroll KM, Rounsaville BJ, Gawin FH (1991). A comparative trial of psychotherapies for ambulatory cocaine abusers: relapse prevention and interpersonal psychotherapy. The American Journal of Drug and Alcohol Abuse.17(3):229–247.

- Crits-Christoph P, Siqueland L, Blaine J, Frank A, Luborsky L, Onken LS, Muenz LR, Thase ME, Weiss RD, Gastfriend DR (1999). Psychosocial treatments for cocaine dependence. Archives of General Psychiatry.56(6):493–502.

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- Higgins ST, Wong CJ, Badger GJ, Ogden DE, Dantona RL (2000). Contingent reinforcement increases cocaine abstinence during outpatient treatment and 1 year of follow-up. J Consult Clin Psychol.68(1):64-72.

- Jones HE, Johnson RE, Bigelow GE, Silverman K, Mudric T, Strain EC (2004). Safety and efficacy of L-tryptophan and behavioral incentives for treatment of cocaine dependence: a randomized clinical trial. The American Journal on Addictions.13(5):421-437.

- Maude-Griffin PM, Hohenstein JM, Humfleet GL, Reilly PM, Tusel DJ, Hall SM (1998). Superior efficacy of cognitive-behavioural therapy for urban crack cocaine abusers: main and matching effects. Journal of Consulting and Clinical Psychology.66(5):832–837.

- McKay JR, Lynch KG, Shepard DS, Ratichek S, Morrison R, Koppenhaver J, Pettinati HM (2004). The effectiveness of telephone-based continuing care in the clinical management of alcohol and cocaine use disorders: 12-month outcomes. Journal of Consulting and Clinical Psychology.72(6), 967-979.

- Monti PM, Rohsenow DJ, Michalec E, Martin RA, Abrams DB (1997). Brief coping skills treatment for cocaine abuse: substance use outcomes at three months. Addiction.92(12):1717-1728.

- Petry NM, Alessi SM, Marx J, Austin M, Tardif M (2005a). Vouchers versus prizes: contingency management treatment of substance abusers in community settings. Journal of Consulting and Clinical Psychology.73(6):1005-1014.

- Petry NM, Peirce JM, Stitzer ML, Blaine J, Roll JM, Cohen A, Obert J, Kelleen T, Saladin ME, Cowell M et al (2005b). Effect of prize-based incentives on outcomes in stimulant abusers in outpatient psychosocial treatment programs: a national drug abuse treatment clinical trials network study. Archives of General Psychiatry.62(10)1148–1156.

- Petry NM, Tedford J, Austin M, Nich C, Carroll KM, Rounsaville BJ (2004). Prize reinforcement contingency management for treating cocaine users: how low can we go, and with whom? Addiction.99(3):349-360.

- Rawson RA, McCann MJ, Flammino F, Shoptaw S, Miotto K, Reiber C, Ling W (2006). A comparison of contingency management and cognitive-behavioral approaches for stimulant-dependent individuals. Addiction.101(2):267-274.

- Roll JM, Petry NM, Stitzer ML, Brecht ML, Pierce JM, McCann MJ, Blaine J, MacDonald M, DiMaria J, Lucero L, Kellogg S (2006). Contingency management for the treatment of methamphetamine use disorders. The American Journal of Psychiatry.163(11):1993-1999.

- Shoptaw S, Reback CJ, Peck JA, Yang X, Rotheram-Fuller E, Larkins S, Veniegas RC, Freese TE, Hucks-Ortiz C (2005). Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. Drug and Alcohol Dependence.78(2):125-134.

References to INCLUDED studies in the update (post-2008)

- Chen KW, Berger CC, Gandhi D, Weintraub E, Lejeuz CW (2013). Adding integrative meditation with ear acupressure to outpatient treatment of cocaine addiction: a randomized controlled pilot study. Journal of Alternative and Complementary Medicine.19(3):204-210. doi:10.1089/acm.2011.0311.

- Crits-Cristoph P, Gibbons MB, Ring-Kurtz S, Gallup R, Present J (2009). A pilot study of community-friendly manual-guided drug counselling. Journal of Substance Abuse Treatment.37(1):8-16. doi: 10.1016/j.jsat.2008.09.004.

- Garcia-Fernandez G, Secades-Villa R, Garcia-Rodriguez O, Pena-Suarez E, Sanchez-Hervas E (2013). Contingency management improves outcomes in cocaine-dependent outpatients with depressive symptoms. Experimental and Clinical Psychopharmacology.21(6):482-489. doi:10.1037/a0033995.

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- Garcia-Rodriguez O, Secades-Villa R, Higgins ST, Fernandex-Hermida JR, Carballo JL, Errasti Perez JM, Al-halabi Diaz S (2009). Effects of voucher-based intervention on abstinence and retention in an outpatient treatment for cocaine addiction: a randomized controlled trial. Experimental and Clinical Psychopharmacology.17(3):131-138. doi:10.1037/a0015963.

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- Kertesz SG, Mullins AN, Schumacher JE, Wallace D, Kirk K, Milby JB (2007). Long-term housing and work outcomes among treated cocaine-dependent homeless persons. Journal of Behavioural Health Services & Research.34(1):17-33. doi:10.1007/s11414-006-9041-3.

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- McKee SA, Carroll KM, Sinha R, Robinson JE, Nich C, Cavallo D, O'Malley S (2007). Enhancing brief cognitive-behavioral therapy with motivational enhancement techniques in cocaine users. Drug and Alcohol Dependence.91(1):97-101.

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- Petry NM, Barry D, Alessi SM, Rounsaville BJ, Carroll KM (2012). A randomized trial adapting contingency management targets based on initial abstinence status of cocaine-dependent patients. Journal of Consulting and Clinical Psychology.80(2):276-285. doi:10.1037/a0026883.

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- Schmitz JM, Mooney ME, Moeller FG, Stotts AL, Green C, Grabowski J (2008). Levodopa pharmacotherapy for cocaine dependence: choosing the optimal behavioral therapy platform. Drug and Alcohol Dependence.94(1-3):142-150. doi:10.1016/j.drugalcdep.2007.11.004.

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- Secades-Villa R, García-Rodríguez O, García-Fernández G, Sánchez-Hervás E, Fernandez-Hermida JR, Higgins ST (2011b). Community reinforcement approach plus vouchers among cocaine-dependent outpatients: twelve-month outcomes. Psychology of Addictive Behaviors.25(1):174-179. doi:10.1037/a0021451.

- Secades-Villa R, García-Rodríguez O, Higgins ST, Fernández-Hermida JR, Carballo JL (2008). Community reinforcement approach plus vouchers for cocaine dependence in a community setting in Spain: six-month outcomes. Journal of Substance Abuse Treatment.34(2):202-207

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- Secades-Villa R, García-Fernández G, Peña-Suárez E, Garcia-Rodriguez O, Sanchez-Hervas E, Fernandez-Hermida JR (2013). Contingency management is effective across cocaine-dependent outpatients with different socioeconomic status. Journal of Substance Abuse Treatment.44(3):349-354. doi:10.1016/j.jsat.2012.08.018.

- Smout MF, Longo M, Harrison S, Minniti R, Wickes W, White JM (2010). Psychosocial treatment for methamphetamine use disorders: a preliminary randomized controlled trial of cognitive behavior therapy and Acceptance and Commitment Therapy. Substance Abuse.31(2):98-107. doi:10.1080/08897071003641578.

- Stahler GJ, Kirby KC, Kerwin ME (2007). A faith-based intervention for cocaine-dependent Black women. Journal of Psychoactive Drugs.39(2):183-190.

- Stein MD, Herman DS, Anderson BJ (2009). A motivational intervention trial to reduce cocaine use. Journal of Substance Abuse Treatment.36(1):118-125. doi:10.1016/j.jsat.2008.05.003.

- Van Horn DH, Drapkin M, Ivey M, Thomas T, Domis SW, Abdalla O, Herd D, McKay JR (2011). Voucher incentives increase treatment participation in telephone-based continuing care for cocaine dependence. Drug and Alcohol Dependence.114(2-3):225-228. doi:10.1016/j.drugalcdep.2010.09.007.

Studies EXCLUDED from update

Higgins ST, Heil SH, Dantona R, Donham R, Matthews M, Badger GJ (2007). Effects of varying the monetary value of voucher-based incentives on abstinence achieved during and following treatment among cocaine-dependent outpatients. Addiction.102(2):271-281.
REASON FOR EXCLUSION: Both intervention and control groups received contingency management approaches.

McKay JR, Lynch KG, Coviello D, Morrison R, Cary MS, Skalina L, Plebani J (2010). Randomized trial of continuing care enhancements for cocaine-dependent patients following initial engagement. Journal of Consulting and Clinical Psychology.78(1):111-120. doi:10.1037/a0018139.
REASON FOR EXCLUSION: Participants were not cocaine-dependent at baseline and more than 50% were alcohol dependent at baseline.

McKay JR, van Horn D, Ivey M, Drapkin ML, Rennert L, Lynch KG (2013). Enhanced continuing care provided in parallel to intensive outpatient treatment does not improve outcomes for patients with cocaine dependence. Journal of Studies on Alcohol and Drugs.74(4):642-651.
REASON FOR EXCLUSION: Non-dependent sample, with less than 60% of participants had used cocaine in the month prior to the study.

Menza TW, Jameson DR, Hughes JP, Colfax GN, Shoptaw S, Golden MR (2010). Contingency management to reduce metamphetamine use and sexual risk among men who have sex with men: a randomized controlled trial. BMC Public Health.10:774. doi:10.1186/1471-2458-10-774.
REASON FOR EXCLUSION: Non-dependent sample.

Milby JB, Schumacher JE, Wallace D, Vuchinich R, Mennemeyer ST, Kertesz SG (2010). Effects of sustained abstinence among treated substance-abusing homeless persons on housing and employment. American Journal of Public Health.100(5):913-918. doi:10.2105/AJPH.2008.152975.
REASON FOR EXCLUSION: This is the same study as Milby et al. (2008), which has been included in the analysis.
Najavits LM, Harned MS, Gallop RJ, Butler SF, Barber JP, Thase ME, Crits-Christoph P (2007). Six-month treatment outcomes of cocaine-dependent patients with and without PTSD in a multisite national trial. Journal of Studies on Alcohol and Drugs.68(3):353-361.
REASON FOR EXCLUSION: This is the same study as Crits-Christoff et al. (1999), which was already included in the NICE guideline's evidence review.

Perngparn U, Limanonda B, Aramrattana A, Pilley C, Areesantichai C, Taneepanichskul S (2011). Metamphetamine dependence treatment rehabilitation in Thailand: a model assessment. Journal of the Medical Association of Thailand.94(1):110-117.
*REASON FOR EXCLUSION:*This was not an RCT.

Petry NM, Alessi SM and Hanson T (2007). Contingency management improves abstinence and quality of life in cocaine abusers. Journal of Consulting and Clinical Psychology.75(2):307-315.
REASON FOR EXCLUSION: Included additional analysis of three other trials (not a separate study).

Shoptaw S, Klausner JD, Reback CJ, Tierney S, Stansell J, Hare CB, Gibson S, Siever M, King WD, Kao U, Dang J (2006). A public health response to the methamphetamine epidemic: the implementation of contingency management to treat methamphetamine dependence. BMC Public Health.18:214. doi:10.1186/1471-2458-6-214.
REASON FOR EXCLUSION: This study was uncontrolled.

Vandrey R, Bigelow GE, Stitzer ML (2007). Contingency management in cocaine abusers: a dose-effect comparison of goods-based versus cash-based incentives. Experimental and Clinical Psychopharmacology.15(4):338-343. doi:10.1037/1064-1297.15.4.338.
REASON FOR EXCLUSION: Used cross over study design.

Wechsberg WM, Zule WA, Riehman KS, Luseno WK, Lam WK (2007). African-American crack abusers and drug treatment initiation: barriers and effects of a pretreatment intervention. Substance Abuse Treatment, Prevention and Policy.2:10.
REASON FOR EXCLUSION: The pre-treatment intervention aimed at increase motivation in treatment entry for African Americans.

Worley M, Gallop R, Gibbons MB, Ring-Kurtz S, Present J, Weiss RD, Crits-Cristoph P (2008). Additional treatment services in a cocaine treatment study: level of services obtained and impact on outcome. The American Journal on Addictions.17(3):209-217. doi:10.1080/10550490802021994.
REASON FOR EXCLUSION: This was not an RCT.

PICO Table

Intervention	Comparison	Outcome	Studies included analysis	Relevant GRADE table
Cognitive behavioural therapy (CBT)	Attention placebo	Drug use	Monti et al. (1997)	Table 1
CBT	Twelve Step facilitation (TSF)	Drug use	Maude Griffin et al. (1998)	Table 2
CBT	Individual counselling	Drug use	Crits-Christoph et al. (1999)	Table 3
CBT	Psychodynamic therapy	Drug use	Crits-Christoph et al. (1999)	Table 4
CBT	Contingency Management (CM)	Drug use	*Schmitz et al. (2008) Rawson et al. (2006) Shoptaw et al. (2005)	Table 5
CBT	Clinical management	Drug use	*Schmitz et al. (2008)	Table 6
CBT	Community reinforcement approach (CRA) + CM	Drug use	*Garcia-Rodriguez et al. (2009)	Table 7
CBT + CM	CM	Drug use	Milby et al. (2008) Shoptaw et al. (2005) Rawson et al. (2006)	Table 8
CBT + CM	CBT	Drug use	Shoptaw et al. (2005) Rawson et al. (2006)	Table 9
CBT + TSF group counselling	TSF counselling	Drug use	Crits-Christoph et al. (1999)	Table 10
CBT after treatment	Telephone monitoring after treatment	Drug use	McKay et al. (2004)	Table 11
CBT after treatment	Counselling + TSF after treatment	Drug use	McKay et al. (2004)	Table 12
CBT+ telephone monitoring after treatment	Counselling after treatment	Drug use	*McKay et al. (2013)	Table 13
CBT+ telephone monitoring + CM after treatment	Counselling after treatment	Drug use	McKay et al. (2013)	Table 14

CBT	ACT	Drug use	Smout et al. (2010)	No difference. Lack of evidence of equivalence.
CM	Control	Drug use	Higgins et al. (1993) Higgins et al. (1994) Higgins et al. (2000) Jones et al. (2004) Petry et al. (2004) Petry et al. (2005b) Petry et al. (2006) *Petry et al. (2012) Roll et al. (2006) Shoptaw et al. (2006) *Schmidtz et al. (2008)	Table 15
CRA + CM	Standard treatment	Drug use	*Garcia Rodriquez et al. (2009) *Sanches Hervas et al. (2008) *Secades-Villa et al. (2007) *Secades-Villa et al. (2008) *Secades-Villa et al. (2011b)	Table 16
CRA	Standard treatment		*Secades-Villa et al. (2011a)	Single study (favours CRA)
CRA +CM	TSF +CM		*Schottenfeld et al. (2011)	Single study
CRA + CM	CRA	Drug use Retention in treatment	*Garcia-Fernandez et al. (2011) *Secades-Villa et al. (2013)	Meta-analysis not possible
Brief Motivational enhancement therapy (MET) + CBT	Brief CBT	Drug use	McKee et al. (2007)	Single study (no difference)
HIV adherence motivational interviewing (MI)	Antiretroviral (ART) adherence video	ART adherence Drug use	*Ingersoll et al. (2011)	Single study (outcomes improved in both groups – underpowered to show differences)

Employment + housing intervention	Employment + no housing	Drug use Accommodation Employment	Kertesz et al. (2007)	Single study (effect but underpowered)
Contingent housing	Contingent housing + CBT	Drug use Retention	Milby et al. (2008)	Single study (better outcomes with contingent housing plus behavioural therapy_
Housing + employment + CBT	Housing + employment	Drug use Housing Employment	*Milby et al. (2010)	Single study – less Drug use in the CBT arm
Bridges programme	Treatment as usual (TAU)	Retention Drug use	Stahler et al. (2007)	Significant improvement of drug use outcomes with Bridges programme.
TAU + telephone support with vouchers	TAU + telephone support	Retention	*Van Horn et al. (2011)	Single study - significant increase in participation with vouchers. No Drug use measures.
Integrated meditation and ear acupressure (IMEA)	TAU	Drug use Retention	*Chen et al. (2013)	Single study – improvement in retention and Drug use with IMEA
TSF counselling (individual and group)	TSF Group	Drug use	*Crits-Christoph et al. (2009)	Single study (no difference)

**Studies included as an update to the evidence and were not included in the NICE 2008 guidelines.*

Overview of the design elements of the analyzed studies

Study name	Study design	Participants	Group 1	Group 2	Groups 3 and 4
Carroll et al. (1991)	RCT	N=42 Outpatients who met DSM-III criteria for cocaine abuse	Relapse prevention (RPT)	Interpersonal psychotherapy (IPT)	
Chen et al. (2013)	RCT unblinded	N=72 Cocaine-dependent outpatients	Group 1 (N=37) Supported meditation with ear acupressure 12 weeks: Week 1-2 biweekly meetings; weeks 3-12 weekly meetings	Group 2 (N=35) TAU Week 1-2 biweekly meetings; weeks 3-12 weekly meetings	
Crits-Christoph et al. (1999)	RCT	N=487 Cocaine-dependent patients (assessed by DSM-IV)	Group 1 (N=121) Individual drug counselling plus group drug counselling (GDC) 36 individual 50-minute sessions (twice a week for first 12 weeks, then weekly up to week 24) and 24 90-minute group sessions over 6 months.	Group 2 (N=119) Cognitive therapy (CT) plus GDC Duration of CT unclear; 24 90-minute group sessions over 6 months.	Group 3 (N=124) Supportive-expressive (SE) therapy plus GDC Duration of SE unclear; 24 90-minute group sessions over 6 months. Group 4 (N=123) GDC alone 24 90-minute group sessions over 6 months.
Crits-Christoph et al. (2009)	RCT unblinded	N=41 Cocaine-dependent patients	Group 1 (n=20) Individual drug counselling + Group Drug Counselling Treatments were 3 months in duration. IDC sessions were held twice per week for the first month and then once per week for the remaining 2 months. GDC sessions were held once per week for the 3 months (12 sessions total). Individual counselling sessions were 50 minutes long; group sessions were 1.5 hours long.	Group 2 (n=21) Group Drug Counselling alone See combined condition.	
Garcia-Fernandez et al. (2011)	RCT	N=58 Active cocaine dependence according to DSM-IV-R	Group 1 (N=29) CRA + vouchers CRA as in "CRA alone" condition. Urine specimens 3x per week, patients informed straight away	Group 2 (N=29) CRA alone Urine specimens twice a week. CRA implemented in two 90-minute group-based sessions per	

			and received incentives in exchange for abstinence.	week and in case of need one weekly individual session. CRA made up of 5 components: drug avoidance skills; lifestyle change; relationship counselling; other substance abuse; and other psychiatric problems.	
Garcia-Fernandez et al. (2013)	RCT	N=108 Cocaine-dependent by DSM-IV-R criteria	Group 1 (N=59) CRA	Group 2 (N=49) CRA + CM	
Garcia-Rodriguez et al. (2009)	RCT Unblinded	N=96 Cocaine-dependent adults seeking outpatient treatment; active cocaine dependence diagnosed by DSM-IV-TR	Group 1 (N=52) Standard outpatient treatment Two 90-minute sessions a week for 24 weeks; group CBT.	Group 2 (N=15) CRA + low monetary value vouchers	Group 3 (N=29) CRA + high monetary value vouchers
Ghasemi et al. (2014)	RCT	N=285 Metamphetamine-dependent individuals in recovery	Group 1 (N=95) Users education	Group 2 (N=95) Family education	Group 3 (N=95) Control
Higgins et al. (1993)	RCT Blinding unclear	N=38 Diagnosis: 100% cocaine-dependent by DSM-III-R	Group 1 (N=19) Day treatment: intensive (>60hr/wk) with outpatient - $5 for each urine sample provided. Counselling: one 2.5-hour group session and one 1-hour individual session/week for first 12 weeks. Then one group or individual therapy session per week for weeks 13-24. Based on a Twelve Step model	Group 2 (N=19) CM: CRA (community reinforcement approach) with outpatient - CM: First 12 wks: $2.50 first -ve, increase of $1.25 for consecutive -ve, $10 bonus for 3 consecutive. Second 12wks: $1 lottery tickets, CRA: 1hr x 2/wk for 12 wks, then 1hr/wk. CRA: skills training, relationship and employment counselling, recreation.	
Higgins et al. (1994)	RCT Blinding unclear	N=40 Diagnosis: 100% cocaine-dependent by DSM-III-R	Group 1 (N=20) 12: started with $2.50, increase of $1.25 each consecutive negative sample, bonus of $10 for 3 consecutive negative samples.	Group 2 (N=20) CM: CRA (community reinforcement approach) - 1 hour twice a week for weeks 1-12 and 1 hour per week for weeks 13-24. Sessions included relationship	

			Weeks 13-24: $1 lottery ticket for negative sample. CM: CRA (community reinforcement approach) with outpatient - 1hr twice a week for weeks 1-12 and 1hr/week for weeks 13-24. Sessions included relationship counselling, recognising antecedents and consequences of cocaine use, skills training, employment counselling and helping to develop new recreational activities.	counselling, recognising antecedents and consequences of cocaine use, skills training, employment counselling and helping to develop new recreational activities. CM control: no vouchers with outpatient - Weeks 1-12: slips of paper given with result for each urine sample. Weeks 13- 24: $1 lottery ticket for each negative sample.	
Higgins et al. (2000)	RCT	N=70 Cocaine dependence by DSM-III-R	Group 1 (N=36) CRA + vouchers (contingency reinforcement)	Group 2 (N=34) CRA + vouchers (non-contingent)	
Ingersoll et al. (2011)		N=54 Crack cocaine use; HIV positive with detectable viral loads (log VL 2.97).	Group 1 (N=28) Motivational interviewing plus feedback and skills building (MI+)	Group 2 (N=28) Video information plus debriefing (*Video+*)	
Jones et al. (2004)	RCT blinding unclear	N=183 100% cocaine-dependent by DSM-IV	Group 1 (N=49) Tryptophan with outpatient. Mean dose 8 g / day - 4-9 days in residential setting were stabilised on medication and achieved cocaine abstinence, then 16 weeks in outpatient setting. Participants received tryptophan plus 2 teaspoons of confectioner's sugar plus 4 grams of powdered cocoa mix. NCM (non-contingent management) with outpatient - Received voucher schedule generated by a participant in the contingent condition -- to control for the amount and pattern of payments received.	Group 2 (N=37) Placebo with outpatient – Lactose monohydrate plus 0.14 mg of denatonium benzoate to mimic bitter taste of tryptophan, 4 grams of cocoa mix also added to produce equivalent taste, 5 mg diphenhydramine hydrochloride. NCM (non-contingent management) with outpatient - Received voucher schedule generated by a participant in the contingent condition -- to control for the amount and pattern of payments received.	Group 3 (N=42) CM: vouchers with outpatient – Received $2.50 voucher for first cocaine-negative sample, vouchers for subsequent negative samples increased by $1.50, $10 bonus for three consecutive negative samples. A cocaine-positive sample reset payment schedule to initial value ($2.50). Maximum $1155. Tryptophan with outpatient. Mean dose 8 g/day - 4-9 days in residential setting where stabilised on medication and achieved cocaine abstinence,

					then 16 weeks in outpatient setting. Participants received tryptophan plus 2 teaspoons of confectioner's sugar plus 4 grams of powdered cocoa mix. Group 4 (N=55) CM: vouchers with outpatient – Received $2.50 voucher for first cocaine-negative sample, vouchers for subsequent negative samples increased by $1.50, $10 bonus for three consecutive negative samples. A cocaine-positive sample reset payment schedule to initial value ($2.50). Maximum $1155. Placebo with outpatient – Lactose monohydrate + 0.14 mg of denatonium benzoate to mimic bitter taste of tryptophan, 4 grams of cocoa mix also added to produce equivalent taste, 5 mg diphenhydramine hydrochloride.
Kertesz et al. (2007)	RCT Unblinded	N=195 Homeless persons having used cocaine at least once in previous 2 weeks; >90% qualified for cocaine dependence diagnosis	Group 1 (N=63) Abstinence-Contingent Housing Housing provided depending on 2 consecutive negative urine tests – for free during phase I, paying rent during phase II Phase I – day treatment, months 1-2 Phase II – paid work therapy; weekly aftercare groups, months 3-6	Group 2 (N=66) Nonabstinence-Contingent Housing Same therapy as group 1, only housing was provided regardless of urine test results.	Group 3 (N=66) No Housing Same therapy as groups 1 and 2, no housing provided.

			Phase III – once weekly aftercare group meetings and individual counselling if desired		
Maude Griffin et al. (1998)	RCT	N=128	Group 1 Cognitive-behavioural therapy 12 weeks	Group 2 TSF 12 weeks	
McKay et al. (2004)	RCT Not blinded	N=359 Participants dependent on cocaine (n=268) or alcohol (n=91), having finished intensive outpatient programmes	Group 1 (N=102) Telephone-based monitoring and brief counselling intervention (TEL). One 15-minute phone call per week with counsellor; support group during first 4 weeks to ease transition from face-to-face counselling.	Group 2 (N=135) Relapse prevention (RP) One individual session and one group session per week; manual guided: identifying and anticipating high risk situations, improving coping responses.	Group 3 (N=122) Standard Twelve Step group counselling (STND) Two sessions per week; group therapy with a mix of addictions counselling and Twelve Step practices
McKay et al. (2010)		N=100 Cocaine-dependent patients	Group 1 Cognitive-behavioural relapse prevention (RP)	Group 2 CM	Group 3 RP + CM
McKay et al. (2013)	RCT	N=321 Cocaine-dependent patients using cocaine or alcohol at intake or in the first few weeks of intensive outpatient treatment; 83.2% met the criteria for current cocaine dependence and 38.9% had current alcohol dependence (assessed by DSM-IV)	Group 1 (N=108) TAU Intensive Outpatient Treatment (IOP) consisted of 9 hours of group-based treatment per week for 3-4 months; if programme completed, offered 2-3 more months of standard outpatient treatment (one group counselling session per week)	Group 2 (N=106) TAU plus telephone monitoring and counselling (TMC) TMC started on week 3 of IOP; one or two face-to-face sessions in first week; 20-min calls for up to 24 months: weekly for first 8 weeks, every other week for next 44 weeks, once a month for following 6 months and every other month for final 6 months	Group 3 (N=107) TAU plus TMC plus incentives (TMC+) Same as TMC with added incentives for attending sessions (gift coupons for each regularly scheduled or step care session attended in first year, plus bonus coupon for 3 completed consecutive sessions
McKee et al. (2007)	RCT	N=74 Met DSM-IV criteria for cocaine abuse (11%) or dependence (89%)	Group 1 (N=38) MET + CBT Three 60-minute weekly sessions; session one focused on motivational interviewing techniques; thus, the therapist sought to increase the participant's commitment to change by raising their awareness of personal consequences resulting from their Drug use. Following the MET session, the	Group 2 (N=36) CBT only Three 60-minute weekly sessions; session one covered the rationale for CBT and high-risk situations for resumption of cocaine use. Session two addressed managing cocaine-related craving, and session three addressed general problem-solving skills.	

			CBT sessions covered the rationale for a cognitive-behavioral approach, high-risk situations for resumption of cocaine use, and coping with craving (session 2) and problem solving skills (session 3). During these CBT sessions, however, therapists were instructed to maintain a MET style throughout, by asking open-ended questions, rolling with resistance, and encouraging commitment to change.		
Milby et al. (2008)	RCT	N=206 Cocaine-dependent homeless people; cocaine dependence diagnosed by DSM-IV, with self-reported cocaine use within two previous weeks	Group 1 (N=103) CM Free housing with food provided on week 1; on weeks 2-8 free housing dependent on drug abstinence; abstinence-contingent housing with modest rent on weeks 9-24; vocational training intervention, 3.5h, 4 days a week from week 1 with hourly stipends contingent on abstinence.	Group 2 (N=103) CM + CBT, therapeutic goal management and other intervention components (CM+). Same as CM plus behavioural day treatment, 4 mornings a week; also one meeting with individual counsellor per week.	
Monti et al. (1997)	RCT Blinding unclear	N=128 Clients met cocaine misuse (2%) or dependence (98%) criteria according to DSM-III-R and had used cocaine at least once in the 6 months prior to treatment	Group 1 (N=60) Cocaine-specific coping skills training (CST) package plus comprehensive treatment programme.	Group 2 (N=68) Attention placebo control plus comprehensive treatment programme.	
Petry et al. (2004)	RCT	N=120 100% cocaine misuse by DSM-IV (85% dependent)	Group 1 (N=45) CM Mean dose $80 - Drew slips from a bowl, 50% of slips said 'good job' but provided no prize, 50% of slips provided prizes: 43.6% mini prizes ($0.33),	Group 2 (N=37) Group therapy with outpatient 3-5 days/week for 3-4 weeks, then 2-3 days/week for weeks 4-6, 1 day/week for	Group 3 (N=38) CM Mean dose $240 - Drew slips from a bowl, 50% of slips said 'good job' but provided no prize,

			6% medium prizes ($5), 0.4% jumbo prize ($100).	last 6 weeks. Sessions included Twelve Step oriented treatment, CBT, health education, AIDS prevention and life skills training.	50% of slips provided prizes: 43.6% mini prizes ($1), 6% medium prizes ($20), 0.4% jumbo prize ($100).
Petry et al. (2005a)	RCT	N=415 84% other stimulant misuse by DSM-IV	Group 1 (N=209) CM Chances to win prizes for negative sample for cocaine, (meth)amphetamine and alcohol. Drew from container of 500 chips: 50% stated 'good job', 8% small ($1) prizes, 8% large ($20) prizes, 0.2% jumbo ($80-100) prizes. Draws increased by 1 each consecutive week.	Group 2 (N=206) Control: enhanced TAU Primarily group counselling but in some clinics also individual and family counselling. Also received immediate feedback on urinalysis results.	
Petry et al. (2005b)	RCT	N=142 Cocaine or heroin-dependent patients	Group 1 Standard treatment (ST) 12 weeks	Group 2 ST + vouchers 12 weeks	Group 3 ST + prizes 12 weeks
Petry et al. (2006)	RCT Blinding unclear	N=131 1% cocaine dependence by DSM-IV; 22% opioid dependence by DSM-IV	Group 1 (N=44) CM Prize draws contingent on submitting urine samples negative for drug. 500 cards in a prize bowl - 55% no monetary value, 39.8% worth up to $1, 5% worth up to $20, 0.2% worth up to $100.	Group 2 (N=47) CM Prize draws contingent on completing scheduled activities. 500 cards in a prize bowl - 55% no monetary value, 39.8% worth up to $1, 5% worth up to $20, 0.2% worth up to $100.	Group 3 (N=40) Control (standard care) Standard intensive outpatient treatment: RP, coping and life skill training, AIDS education, Twelve Step treatment.
Petry et al. (2012)	RCT	N=333 Cocaine-negative patients N=109 Cocaine-positive patients	Group 1 Standard care	Group 2 Standard care + CM reinforcing abstinence	Group 3 Standard care + CM reinforcing attendance
Rawson et al. (2006)	RCT	N=177 Stimulant-dependent individuals (90% with cocaine dependence by DSM-IV and 10% with other stimulant dependence)	Group 1 (n=60) CM 16 weeks; participants received vouchers for each stimulant-free urine sample	Group 2 (n=58) CBT 16 weeks; three 90-minute group sessions per week	Group 3 (n=59) CM + CBT 16 weeks; both of the previous treatments combined
Roll et al. (2006)	RCT	N=113 100% other stimulant dependence by DSM-IV	Group 1 (N=51) Contingency management	Group 2 (N=62) Control: TAU	

			At each urine test -ve for all 4 target drugs (cocaine, meth/amphetamine and alcohol) allowed chance to draw chips denoting prizes of various values. Each -ve sample gained 1 extra chip, reset to 1. Follow-up: 3 and 6 months for any positive. Large prize for first 2 consecutive weeks abstinence.	Varied between sites. Most participants received Matrix model, others received mix of CBT and RP. All sites encouraged Twelve Step participation.	
Sanches-Hervas et al. (2008)	RCT	N=24 Cocaine-dependent according to DSM-IV-TR	Group 1 (N=11) ST 1-6 months; individual therapy once a week, intervention based on relapse prevention; urine tests twice a week	Group 2 (N=13) CRA 24 weeks; one session of therapy per week on skills training, lifestyle change, relationship counselling, other substance use and other psychological problems; urine tests twice a week	
Schmitz et al. (2008)	Randomized, placebo-controlled, double-blind (for medication condition) trial	N=161 Cocaine-dependent participants enrolled at outpatient treatment clinic; inclusion dependent on DSM-IV criteria for current cocaine dependence and self-reported recent use of cocaine	Groups 1/4 Clinical Management (ClinMan) Weekly 10-15 minute sessions for 12 weeks Group 1 (N=27) ClinMan + Placebo Group 4 (N=25) ClinMan + Levodopa	Groups 2/5 CBT 12 weeks, number of sessions not specified Group 2 (N=31) CBT + Placebo Group 5 (N=28) CBT + Levodopa	Groups 3/6 Voucher-based reinforcement therapy (VBRT) Vouchers for negative urine samples, 12 weeks Group 3 (N=27) VBRT + Placebo Group 6 (N=23) VBRT + Levodopa
Secades-Villa et al. (2007)	RCT	N=37 Cocaine-dependent according to DSM-IV-TR	Group 1 CRA + vouchers (N=14) 12 months programme CRA made up of 5 components: drug avoidance skills; lifestyle change; relationship counselling; other substance abuse; and other psychiatric problems; contingency management component - vouchers given for abstinence	Group 2 ST (N=23) 18 months programme Twice weekly 90-minute group sessions; extra individual session available if needed. Therapy components are: information on drugs, knowledge on addiction, dealing with emotions, problem-solving and relapse prevention.	
Secades-Villa et al. (2008)	RCT	N=43	Group 1 (N=15) CRA + vouchers	Group 2 (N=28) Standard program	

		Dependent by DSM-IV criteria			
Secades-Villa et al. (2011b)	RCT unblinded	N=64 Active cocaine dependence according to DSM-IV-R	Group 1 (N=29) CRA plus vouchers	Group 2 (N=35) Standard care	
Secades-Villa et al. (2013)	RCT	N=118 Cocaine-dependent outpatients	Group 1 (N=50) CRA + vouchers	Group 2 (N=68) CRA	
Secades Villa et al. (2011a)	RCT unblinded	Cocaine-dependent	Group 1 (n=47) CRA	Group 2 (n=35) Standard behavioural based standard outpatient treatment	
Shoptaw et al. (2005)	RCT Blinding unclear	N=162 100% metamphetamine-dependent (DSM-IV) gay and bisexual men	Group 1 (N=40) Standard CBT Three 90-min per week for 16 weeks. Based on Matrix model, with education on internal and external triggers, stages of recovery, identification of emotional states that can signal relapse, craving management and adoption of healthy lifestyles.	Group 2 (N=42) CM 16 weeks of voucher-based reinforcement therapy. Contingencies placed on 3 weekly urine samples: each successive methamphetamine negative sample yielded $2.50, with three consecutive negative samples yielding a $10 bonus. Vouchers exchanged for goods or services promoting a pro-social, nondependent lifestyle.	Group 3 (N=40) CBT+CM 16 weeks (both previous interventions combined) Group 4 (N=40) Culturally tailored CBT (GCBT). Three 90-min per week for 16 weeks with contents specific to gay and bisexual community Manual guided. Integrated core concepts from standard CBT with culture-specific elements, addressing HIV sexual risk behaviours and gay referents associated with methamphetamine use (e.g. sex parties).

Van Horn et al. (2011)	RCT	N=195 Cocaine-dependent patients already receiving intensive outpatient treatment	Group 1 (n=100) Intensive outpatient treatment plus telephone support with voucher payments contingent in participation in the telephone sessions.	Group 2 (n=95) Intensive outpatient treatment plus telephone support without voucher payments.	

GRADE Tables

Table 1. CBT vs. attention placebo for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: **Should CBT or attention placebo be used for treatment of psychostimulant dependence?**
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- Monti PM, Rohsenow DJ, Michalec E, Martin RA, Abrams DB (1997). Brief coping skills treatment for cocaine abuse: substance use outcomes at three months. Addiction.92(12):1717-1728.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT	Attention placebo	Relative (95% CI)	Absolute		
Subjects with continuous abstinence at 3-months follow-up (assessed with objective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	24/60 (40%)	24/68 (35.3%)	RR 1.13 (0.72 to 1.77)	46 more per 1000 (from 99 fewer to 272 more)	⨁◯◯◯ VERY LOW	CRITICAL
								35.3%		46 more per 1000 (from 99 fewer to 272 more)		
Days of cocaine use at 3-months follow-up (measured with subjective; range of scores: 1-90; better indicated by lower values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	36	44	-	MD 7.59 lower (13.87 to 1.31 lower)	⨁◯◯◯ VERY LOW	CRITICAL

[1] Dropout rate higher than 30%.
[2] N = 128 participants.
[3] N = 80 participants.

Table 2. CBT vs. TSF for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT or TSF be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- Maude-Griffin PM, Hohenstein JM, Humfleet GL, Reilly PM, Tusel DJ, Hall SM (1998). Superior efficacy of cognitive-behavioural therapy for urban crack cocaine abusers: main and matching effects. Journal of Consulting and Clinical Psychology.66(5):832–837.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT**	**TSF**	**Relative (95% CI)**	**Absolute**		
Number of subjects with continuous abstinence for 4 weeks at 3-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	26/59 (44.1%)	22/69 (31.9%)	RR 1.38 (0.88 to 2.17)	121 more per 1000 (from 38 fewer to 373 more)	⨁⨁⨁◯ LOW	CRITICAL
								31.9%		121 more per 1000 (from 38 fewer to 373 more)		

[1] Unblinded study.
[2] Wide confidence interval of estimate of effect.

[2015]

Table 3. CBT vs. individual counselling for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT or individual counselling be used for for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- Crits-Christoph P, Siqueland L, Blaine J, Frank A, Luborsky L, Onken LS, Muenz LR, Thase ME, Weiss RD, Gastfriend DR (1999). Psychosocial treatments for cocaine dependence. Archives of General Psychiatry.56(6):493–502.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT**	**Individual counselling**	**Relative (95% CI)**	**Absolute**		
Subjects with 1 month of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	64/119 (53.8%)	86/121 (71.1%)	RR 0.76 (0.62 to 0.93)	171 fewer per 1000 (from 50 fewer to 270 fewer)	⨁⨁⨁◯ LOW	CRITICAL
								71.1%		171 fewer per 1000 (from 50 fewer to 270 fewer)		
Subjects with 2 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	43/119 (36.1%)	51/121 (42.1%)	RR 0.86 (0.62 to 1.18)	59 fewer per 1000 (from 160 fewer to 76 more)	⨁⨁⨁◯ LOW	CRITICAL
								42.2%		59 fewer per 1000 (from 160 fewer to 76 more)		
Subjects with 3 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	27/119 (22.7%)	46/121 (38%)	RR 0.6 (0.4 to 0.89)	152 fewer per 1000 (from 42 fewer to 228 fewer)	⨁⨁⨁◯ LOW	CRITICAL
								38%		152 fewer per 1000 (from 42 fewer to 228 fewer)		

[1] Unblinded study.
[2] Wide confidence interval of estimate of effect.

[2015]

Table 4. CBT vs. psychodynamic therapy for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT or psychodynamic therapy be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- Crits-Christoph P, Siqueland L, Blaine J, Frank A, Luborsky L, Onken LS, Muenz LR, Thase ME, Weiss RD, Gastfriend DR (1999). Psychosocial treatments for cocaine dependence. Archives of General Psychiatry.56(6):493–502.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT	Psychotherapy	Relative (95% CI)	Absolute		
Subjects with 1 month of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	64/119 (53.8%)	71/123 (57.7%)	RR 0.93 (0.74 to 1.17)	40 fewer per 1000 (from 150 fewer to 98 more)	⨁⨁◯◯ LOW	CRITICAL
								57.7%		40 fewer per 1000 (from 150 fewer to 98 more)		
Subjects with 2 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	43/119 (36.1%)	52/123 (42.3%)	RR 0.85 (0.62 to 1.17)	63 fewer per 1000 (from 161 fewer to 72 more)	⨁⨁◯◯ LOW	CRITICAL
								42.3%		63 fewer per 1000 (from 161 fewer to 72 more)		
Subjects with 3 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	27/119 (22.7%)	33/123 (26.8%)	RR 0.85 (0.54 to 1.32)	40 fewer per 1000 (from 123 fewer to 86 more)	⨁⨁◯◯ LOW	CRITICAL
								26.8%		40 fewer per 1000 (from 123 fewer to 86 more)		
Number of subjects with 3 weeks of continuous abstinence at 3-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1,3]	No serious inconsistency	No serious indirectness	Very serious[4]	None	9/21 (42.9%)	4/21 (19%)	RR 2.25 (0.82 to 6.18)	238 more per 1000 (from 34 fewer to 987 more)	⨁◯◯◯ VERY LOW	CRITICAL
								19.1%		239 more per 1000 (from 34 fewer to 989 more)		

[1] Unblinded study.
[2] Wide confidence interval of estimate of effect.
[3] Dropout rate higher than 30%.
[4] N = 42 participants.

[2015]

Table 5. CBT vs. CM for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT or CM be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
Studies included:

- Rawson RA, McCann MJ, Flammino F, Shoptaw S, Miotto K, Reiber C, Ling W (2006). A comparison of contingency management and cognitive-behavioral approaches for stimulant-dependent individuals. Addiction.101(2):267-274.
- Schmitz JM, Mooney ME, Moeller FG, Stotts AL, Green C, Grabowski J (2008). Levodopa pharmacotherapy for cocaine dependence: choosing the optimal behavioral therapy platform. Drug and Alcohol Dependence.94(1-3):142-150. doi:10.1016/j.drugalcdep.2007.11.004.
- Shoptaw S, Reback CJ, Peck JA, Yang X, Rotheram-Fuller E, Larkins S, Veniegas RC, Freese TE, Hucks-Ortiz C (2005). Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. Drug and Alcohol Dependence.78(2):125-134.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT**	**CM**	**Relative (95% CI)**	**Absolute**		
Subjects with continuous abstinence at 1-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[1]	None	1/40 (2.5%)	13/40 (32.5%)	RR 0.08 (0.01 to 0.56)	299 fewer per 1000 (from 143 fewer to 322 fewer)	⨁⨁⨁◯ LOW	CRITICAL
								32.5%		299 fewer per 1000 (from 143 fewer to 322 fewer)		
Subjects with continuous abstinence at 2-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[1]	None	1/40 (2.5%)	5/40 (12.5%)	RR 0.2 (0.02 to 1.64)	100 fewer per 1000 (from 123 fewer to 80 more)	⨁⨁⨁◯ LOW	CRITICAL
								12.5%		100 fewer per 1000 (from 123 fewer to 80 more)		
Subjects with continuous abstinence at 3-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[2]	None	0/40 (0%)	2/40 (5%)	RR 0.2 (0.01 to 4.04)	40 fewer per 1000 (from 49 fewer to 152 more)	⨁⨁⨁◯ LOW	CRITICAL
								5%		40 fewer per 1000 (from 49 fewer to 152 more)		
Subjects with 30 days of continuous abstinence at 4-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	16/47 (34%)	27/45 (60%)	RR 0.57 (0.36 to 0.9)	258 fewer per 1000 (from 60 fewer to 384 fewer)	⨁⨁⨁◯ LOW	CRITICAL
								60%		258 fewer per 1000 (from 60 fewer to 384 fewer)		
Subjects with point abstinence at 4-months follow-up (assessed with Objective)												

1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	30/40 (75%)	35/42 (83.3%) 83.3%	RR 0.9 (0.72 to 1.13)	83 fewer per 1000 (from 233 fewer to 108 more) 83 fewer per 1000 (from 233 fewer to 108 more)	⨁⨁⨁◯ LOW	CRITICAL
Subjects with point abstinence at 6-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	31/40 (77.5%)	32/42 (76.2%) 76.2%	RR 1.02 (0.8 to 1.29)	15 more per 1000 (from 152 fewer to 221 more) 15 more per 1000 (from 152 fewer to 221 more)	⨁⨁⨁◯ LOW	CRITICAL
Subjects with point abstinence at 12-months follow-up (assessed with 0bjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	34/40 (85%)	30/42 (71.4%) 71.4%	RR 1.19 (0.94 to 1.5)	136 more per 1000 (from 43 fewer to 357 more) 136 more per 1000 (from 43 fewer to 357 more)	⨁⨁⨁◯ LOW	CRITICAL
Days of use in the past 30 days at 4-months follow-up (measured with subjective; range of scores: 1-30; better indicated by lower values)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	40	42	-	MD 0.5 lower (2.82 lower to 1.82 higher)	⨁⨁⨁◯ LOW	CRITICAL
Days of use in the past 30 days at 6-months follow-up (measured with subjective; range of scores: 1-30; better indicated by lower values)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	40	42	-	MD 1.1 lower (2.77 lower to 0.57 higher)	⨁⨁⨁◯ LOW	CRITICAL
Days of use in the past 30 days at 12-months follow-up (measured with subjective; range of scores: 1-30; better indicated by lower values)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	40	42	-	MD 0.9 higher (1.67 lower to 3.47 higher)	⨁⨁⨁◯ LOW	CRITICAL

[1] Unblinded study.
[2] N = 80 participants.
[3] N = 92 participants.
[4] N = 82 participants.

[2015]

Table 6. CBT vs. clinical management for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT or clinical management be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
Studies included:

- Schmitz JM, Mooney ME, Moeller FG, Stotts AL, Green C, Grabowski J (2008). Levodopa pharmacotherapy for cocaine dependence: choosing the optimal behavioral therapy platform. Drug and Alcohol Dependence.94(1-3):142-150. doi:10.1016/j.drugalcdep.2007.11.004.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT	Clinical management	Relative (95% CI)	Absolute		
Subjects with continuous abstinence at 1-month follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	1/40 (2.5%)	5/41 (12.2%)	RR 0.2 (0.03 to 1.68)	98 fewer per 1000 (from 118 fewer to 83 more)	⨁⨁⨁◯ LOW	CRITICAL
								12.2%		98 fewer per 1000 (from 118 fewer to 83 more)		
Subjects with continuous abstinence at 2-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	1/40 (2.5%)	3/41 (7.3%)	RR 0.34 (0.04 to 3.15)	48 fewer per 1000 (from 70 fewer to 157 more)	⨁⨁⨁◯ LOW	CRITICAL
								7.3%		48 fewer per 1000 (from 70 fewer to 157 more)		
Subjects with continuous abstinence at 3-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	0/40 (0%)	2/41 (4.9%)	RR 0.2 (0.01 to 4.14)	39 fewer per 1000 (from 48 fewer to 153 more)	⨁⨁⨁◯ LOW	CRITICAL
								4.9%		39 fewer per 1000 (from 49 fewer to 154 more)		

[1] Unblinded study.
[2] N = 81 participants.

[2015]

Table 7. CBT vs. CRA + CM for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT or CRA + CM be used for treatment of psychostimulant dependence?
Bibliography:

- National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
- Garcia-Rodriguez O, Secades-Villa R, Higgins ST, Fernandex-Hermida JR, Carballo JL, Errasti Perez JM, Al-halabi Diaz S (2009). Effects of voucher-based intervention on abstinence and retention in an outpatient treatment for cocaine addiction: a randomized controlled trial. Experimental and Clinical Psychopharmacology.17(3):131-138. doi:10.1037/a0015963.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT	CRA + CM	Relative (95% CI)	Absolute		
Subjects with continuous abstinence at 1-month follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Very serious[2]	None	36/45 (80%)	38/42 (90.5%)	RR 0.88 (0.74 to 1.05)	109 fewer per 1000 (from 235 fewer to 45 more)	⨁◯◯◯ VERY LOW	CRITICAL
								90.5%		109 fewer per 1000 (from 235 fewer to 45 more)		
Subjects with continuous abstinence at 3-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	12/28 (42.9%)	23/37 (62.2%)	RR 0.69 (0.42 to 1.13)	193 fewer per 1000 (from 361 fewer to 81 more)	⨁◯◯◯ VERY LOW	CRITICAL
								62.2%		193 fewer per 1000 (from 361 fewer to 81 more)		
Subjects with continuous abstinence at 6 months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Very serious[4]	None	4/19 (21.1%)	9/28 (32.1%)	RR 0.65 (0.24 to 1.82)	113 fewer per 1000 (from 244 fewer to 264 more)	⨁◯◯◯ VERY LOW	CRITICAL
								32.1%		112 fewer per 1000 (from 244 fewer to 263 more)		

[1] Dropout rate higher than 30%; unblinded study.
[2] N = 87 participants.
[3] N = 65 participants.
[4] N = 47 participants.

[2015]

Table 8 CBT + CM vs. CM for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark, J Vieira Flores
Question: Should CBT + CM or CM alone be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
Relevant studies:

- Milby JB, Schumacher JE, Vuchinich RE, Freedman MJ, Kertesz S, Wallace D (2008). Toward cost-effective initial care for substance-abusing homeless. Journal of Substance Abuse Treatment.34(2):180-191.
- Rawson RA, McCann MJ, Flammino F, Shoptaw S, Miotto K, Reiber C, Ling W (2006). A comparison of contingency management and cognitive-behavioral approaches for stimulant-dependent individuals. Addiction.101(2):267-274.
- Shoptaw S, Reback CJ, Peck JA, Yang X, Rotheram-Fuller E, Larkins S, Veniegas RC, Freese TE, Hucks-Ortiz C (2005). Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. Drug and Alcohol Dependence.78(2):125-134.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT+CM**	**CM**	**Relative (95% CI)**	**Absolute**		
Subjects with 1 month of continuous abstinence at 2-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	81/103 (78.6%)	75/103 (72.8%)	RR 1.08 (0.92 to 1.26)	58 more per 1000 (from 58 fewer to 189 more)	⨁⨁⨁◯ MODERATE	CRITICAL
								72.8%		58 more per 1000 (from 58 fewer to 189 more)		
Subjects with 1 month of continuous abstinence at 4-6 months follow-up (follow-up mean 5 months; assessed with subjective)												
2	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	100/149 (67.1%)	88/148 (59.5%)	RR 1.13 (0.95 to 1.34)	77 more per 1000 (from 30 fewer to 202 more)	⨁◯◯◯ LOW	CRITICAL
								59.6%		77 more per 1000 (from 30 fewer to 203 more)		
Subjects with point abstinence at 4-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	37/40 (92.5%)	35/42 (83.3%)	RR 1.11 (0.94 to 1.3)	92 more per 1000 (from 50 fewer to 250 more)	⨁◯◯◯ VERY LOW	CRITICAL
								83.3%		92 more per 1000 (from 50 fewer to 250 more)		
Subjects with point abstinence at 6-months follow-up (assessed with objective)												
1	Randomized trials	No serious risk of bias	No serious inconsistency	No serious indirectness	Very serious[3]	None	31/40 (77.5%)	32/42 (76.2%)	RR 1.02 (0.8 to 1.29)	15 more per 1000 (from 152 fewer to 221 more)	⨁◯◯◯ LOW	CRITICAL
								76.2%		15 more per 1000 (from 152 fewer to 221 more)		
Subjects with point abstinence at 12-months follow-up (assessed with objective)												

1	Randomized trials	serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	29/40 (72.5%)	30/42 (71.4%) 71.4%	RR 1.01 (0.77 to 1.33)	7 more per 1000 (from 164 fewer to 236 more) 7 more per 1000 (from 164 fewer to 236 more)	⨁⨁⨁◯ LOW	CRITICAL
Days of use in the past 30 days at 4-months follow-up (measured with subjective; range of scores: 1-30; better indicated by lower values)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	40	42	-	MD 1 lower (3.11 lower to 1.11 higher)	⨁⨁⨁◯ LOW	CRITICAL
Days of use in the past 30 days at 6-months follow-up (measured with subjective; range of scores: 1-30; better indicated by lower values)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	40	42	-	MD 0.7 lower (2.45 lower to 1.05 higher)	⨁⨁⨁◯ LOW	CRITICAL
Days of use in the past 30 days at 12-months follow-up (measured with subjective; range of scores: 1-30; better indicated by lower values)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Very serious[3]	None	40	42	-	MD 0.3 higher (1.84 lower to 2.44 higher)	⨁⨁⨁◯ LOW	CRITICAL

[1] Unblinded study.
[2] Wide confidence interval of estimate of effect.
[3] N = 82 participants.

[2015]

Table 9. CBT + CM vs. CBT for treatment of psychostimulant dependence

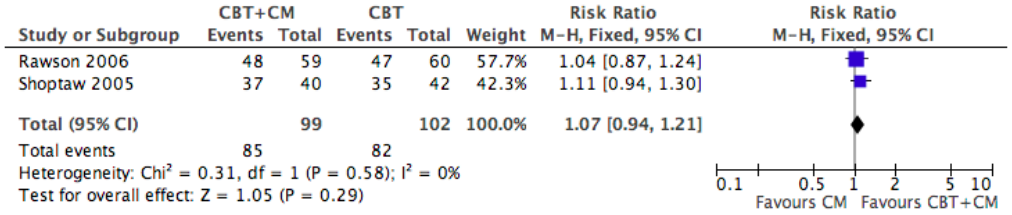
Author: N Clark
Question: Should CBT + CM or CBT alone be used for treatment of psychostimulant dependence?
Bibliography: [New meta-analysis]

- Rawson RA, McCann MJ, Flammino F, Shoptaw S, Miotto K, Reiber C, Ling W (2006). A comparison of contingency management and cognitive-behavioral approaches for stimulant-dependent individuals. Addiction.101(2):267-274.
- Shoptaw S, Reback CJ, Peck JA, Yang X, Rotheram-Fuller E, Larkins S, Veniegas RC, Freese TE, Hucks-Ortiz C (2005). Behavioral treatment approaches for methamphetamine dependence and HIV-related sexual risk behaviors among urban gay and bisexual men. Drug and Alcohol Dependence.78(2):125-134.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT+CM	CBT	Relative (95% CI)	Absolute (95% CI)		
Subjects with point abstinence at 4-months follow-up												
2	Randomized trials	Serious [1]	Not serious	Not serious	Not serious	None	85/99 (85.9%)	82/102 (80.4%)	**RR 1.07** (0.94 to 1.21)	56 more per 1000 (from 48 fewer to 169 more)	⊕⊕⊕O MODERATE	CRITICAL
								80.8%		57 more per 1000 (from 48 fewer to 170 more)		
Subjects with point abstinence at 6-months follow-up												
2	Randomized trials	Serious [1]	Not serious	Not serious	Not serious	None	73/99 (73.7%)	78/102 (76.5%)	**RR 0.96** (0.82 to 1.13)	31 fewer per 1000 (from 99 more to 138 fewer)	⊕⊕⊕O MODERATE	CRITICAL
								76.4%		31 fewer per 1000 (from 99 more to 138 fewer)		
Subjects with point abstinence at 12-months follow-up												
2	Randomized trials	Serious [1]	Not serious	Not serious	Not serious	None	70/99 (70.7%)	79/98 (80.6%)	**RR 0.88** (0.75 to 1.03)	97 fewer per 1000 (from 24 more to 202 fewer)	⊕⊕⊕O MODERATE	CRITICAL
								80.9%		97 fewer per 1000 (from 24 more to 202 fewer)		

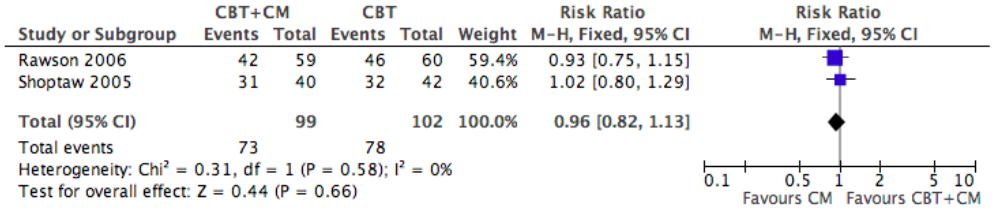
1. Unblinded studies.

Figure 1. Forest plots of comparison: CBT + CM vs. CBT



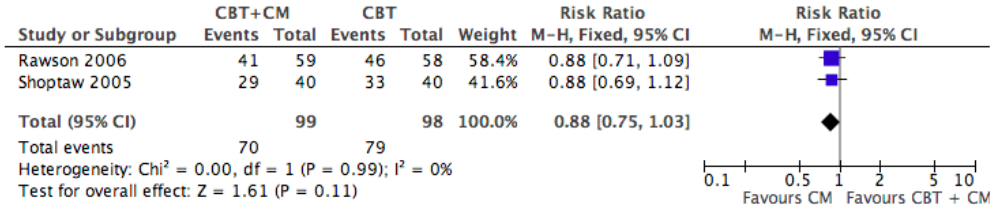
Caption

Forest plot of comparison: 13 CBT+CM vs CBT, outcome: 13.4 subjects with point abstinence at 4 months follow up.



Caption

Forest plot of comparison: 13 CBT+CM vs CBT, outcome: 13.5 subjects with point abstinence at 6 months follow up.



Caption

Forest plot of comparison: 13 CBT+CM vs CBT, outcome: 13.6 subjects with point abstinence at 12 months follow up.

[2015]

Table 10. CBT + group counselling vs. group counselling alone for treatment of psychostimulant dependence

Authors: S Minozzi**, L** Amato, N Clark
Question: Should CBT together with group counselling or group counselling alone be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- Crits-Christoph P, Siqueland L, Blaine J, Frank A, Luborsky L, Onken LS, Muenz LR, Thase ME, Weiss RD, Gastfriend DR (1999). Psychosocial treatments for cocaine dependence. Archives of General Psychiatry.56(6):493–502.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CBT + group counselling	Group counselling	Relative (95% CI)	Absolute		
Subjects with 1 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	64/119 (53.8%)	71/123 (57.7%)	RR 0.93 (0.74 to 1.17)	40 fewer per 1000 (from 150 fewer to 98 more)	⨁⨁⨁◯ MODERATE	CRITICAL
								57.7%		40 fewer per 1000 (from 150 fewer to 98 more)		
Subjects with 2 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	43/119 (36.1%)	52/123 (42.3%)	RR 0.85 (0.62 to 1.17)	63 fewer per 1000 (from 161 fewer to 72 more)	⨁⨁◯◯ LOW	CRITICAL
								42.3%		63 fewer per 1000 (from 161 fewer to 72 more)		
Subjects with 3 months of consecutive abstinence at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	27/119 (22.7%)	33/123 (26.8%)	RR 0.85 (0.54 to 1.32)	40 fewer per 1000 (from 123 fewer to 86 more)	⨁⨁◯◯ LOW	CRITICAL
								26.8%		40 fewer per 1000 (from 123 fewer to 86 more)		

[1] Unblinded study.
[2] Wide confidence interval of estimate of effect.

[2015]

Table 11. CBT after treatment vs. telephone monitoring after treatment for treatment of psychostimulant dependence

Authors: S Minozzi, **L** Amato, N Clark
Question: Should CBT after treatment or telephone monitoring be used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- McKay JR, Lynch KG, Shepard DS, Ratichek S, Morrison R, Koppenhaver J, Pettinati HM (2004). The effectiveness of telephone-based continuing care in the clinical management of alcohol and cocaine use disorders: 12-month outcomes. Journal of Consulting and Clinical Psychology.72(6), 967-979.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT after treatment**	**Telephone monitoring after treatment**	**Relative (95% CI)**	**Absolute**		
Number of subjects abstinent at 3-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	87/127 (68.5%)	65/98 (66.3%)	RR 1.03 (0.86 to 1.24)	20 more per 1000 (from 93 fewer to 159 more)	⨁⨁⨁◯ LOW	CRITICAL
								66.3%		20 more per 1000 (from 93 fewer to 159 more)		
Number of subjects abstinent at 6-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	66/120 (55%)	59/97 (60.8%)	RR 0.9 (0.72 to 1.14)	61 fewer per 1000 (from 170 fewer to 85 more)	⨁⨁⨁◯ LOW	CRITICAL
								60.8%		61 fewer per 1000 (from 170 fewer to 85 more)		
Number of subjects abstinent at 9-months follw up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	61/113 (54%)	52/95 (54.7%)	RR 0.99 (0.77 to 1.27)	5 fewer per 1000 (from 126 fewer to 148 more)	⨁⨁⨁◯ LOW	CRITICAL
								54.7%		5 fewer per 1000 (from 126 fewer to 148 more)		
Number of subjects abstinent at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	53/115 (46.1%)	46/91 (50.5%)	RR 0.91 (0.69 to 1.21)	45 fewer per 1000 (from 157 fewer to 106 more)	⨁⨁⨁◯ LOW	CRITICAL

								50.6%		46 fewer per 1000 (from 157 fewer to 106 more)		
% days abstinence in past 3 months at 3-months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	127	98	-	MD 1.64 higher (2.38 lower to 5.66 higher)	⨁⨁⨁◯ LOW	CRITICAL
% days abstinence in past 3 months at 6 -months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	120	97	-	MD 0.94 lower (6.6 lower to 4.72 higher)	⨁⨁⨁◯ LOW	CRITICAL
% days abstinence in past 3 months at 9-months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	113	95	-	MD 0.31 lower (6.36 lower to 5.74 higher)	⨁⨁⨁◯ LOW	CRITICAL
% days abstinence in past 3 months at 12 months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	115	91	-	MD 2.26 lower (9.32 lower to 4.8 higher)	⨁⨁⨁◯ LOW	CRITICAL

[1] Outcome assessor not blind.

[2015]

Table 12. CBT after treatment vs. counselling + TSF after treatment for treatment of psychostimulant dependence

Authors: S Minozzi **and L** Amato
Question: Should CBT after treatment or counselling + TSF after treatmentbe used for treatment of psychostimulant dependence?
Bibliography: National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society. Relevant study:

- McKay JR, Lynch KG, Shepard DS, Ratichek S, Morrison R, Koppenhaver J, Pettinati HM (2004). The effectiveness of telephone-based continuing care in the clinical management of alcohol and cocaine use disorders: 12-month outcomes. Journal of Consulting and Clinical Psychology.72(6), 967-979**.**

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT after treatment**	**Counselling + TSF after treatment**	**Relative (95% CI)**	**Absolute**		
Number of subjects abstinent at 3-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	87/127 (68.5%)	72/120 (60%)	RR 1.14 (0.95 to 1.38)	84 more per 1000 (from 30 fewer to 228 more)	⨁⨁⨁◯ LOW	CRITICAL
								60%		84 more per 1000 (from 30 fewer to 228 more)		
Number of subjects abstinent at 6-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	66/120 (55%)	53/116 (45.7%)	RR 1.2 (0.93 to 1.56)	91 more per 1000 (from 32 fewer to 256 more)	⨁◯◯◯ VERY LOW	CRITICAL
								45.7%		91 more per 1000 (from 32 fewer to 256 more)		
Number of subjects abstinent at 9-months follow-up (assessed with subjective)												

1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	61/113 (54%)	53/116 (45.7%)	RR 1.18 (0.91 to 1.53)	82 more per 1000 (from 41 fewer to 242 more)	⨁⨁⨁◯ VERY LOW	CRITICAL
								45.7%		82 more per 1000 (from 41 fewer to 242 more)		
Number of subjects abstinent at 12-months follow-up (assessed with subjective)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	53/115 (46.1%)	50/115 (43.5%)	RR 1.06 (0.8 to 1.41)	26 more per 1000 (from 87 fewer to 178 more)	⨁⨁⨁◯ VERY LOW	CRITICAL
								43.5%		26 more per 1000 (from 87 fewer to 178 more)		
% days abstinence in past 3 months at 3-months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	127	120	-	MD 1.17 higher (2.46 lower to 4.8 higher)	⨁⨁⨁◯ LOW	CRITICAL
% days abstinence in past 3 months at 6-months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	120	116	-	MD 2.18 higher (3.71 lower to 8.07 higher)	⨁⨁⨁◯ LOW	CRITICAL
% days abstinence in past 3 months at 9-months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	113	116	-	MD 6.92 higher (0.04 to 13.8 higher)	⨁⨁⨁◯ LOW	CRITICAL
% days abstinence in past 3 months at 12-months follow-up (measured with subjective; range of scores: 0-100; better indicated by higher values)												
1	Randomized trials	Very serious[1]	No serious inconsistency	No serious indirectness	No serious imprecision	None	115	115	-	MD 3.61 higher (3.73 lower to 10.95 higher)	⨁⨁⨁◯ LOW	CRITICAL

[1] Outcome assessor not blind.
[2] Wide confidence interval of estimate of effect.

Table 13. CBT + telephone monitoring after treatment vs. counselling after treatment for treatment of psychostimulant dependence

Authors: S Minozzi, L Amato, N Clark
Question: Should CBT + telephone monitoring after treatment or counselling after treatment alone be used for treatment of psychostimulant dependence?
Bibliography:

- National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
- McKay JR, Van Horn DHA, Lynch KG, Ivey M, Cary MS, Drapkin ML, Coviello DM, Plebani JG (2013). An adaptive approach for identifying cocaine dependent patients who benefit from extended continuing care. Journal of Consulting and Clinical Psychology.81(6):1063-1073. doi:10.1037/a0034265.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT + telephone monitoring after treatment**	**Counselling after treatment**	**Relative (95% CI)**	**Absolute**		
Subjects with positive urine at 3-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[1]	None	17/83 (20.5%)	28/89 (31.5%)	RR 0.65 (0.39 to 1.1)	110 fewer per 1000 (from 192 fewer to 31 more)	⨁⨁⨁◯ LOW	CRITICAL
								31.5%		110 fewer per 1000 (from 192 fewer to 32 more)		
Subjects with positive urine at 12-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	20/73 (27.4%)	28/76 (36.8%)	RR 0.74 (0.46 to 1.2)	96 fewer per 1000 (from 199 fewer to 74 more)	⨁⨁⨁◯ LOW	CRITICAL
								36.8%		96 fewer per 1000 (from 199 fewer to 74 more)		
Subjects with positive urine at 24-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[3]	None	26/75 (34.7%)	26/69 (37.7%)	RR 0.92 (0.6 to 1.42)	30 fewer per 1000 (from 151 fewer to 158 more)	⨁⨁⨁◯ LOW	CRITICAL

								37.7%		30 fewer per 1000 (from 151 fewer to 158 more)		

[1] Unblinded study.
[2] N = 172 participants.
[3] N = 144 participants.

Table 14. CBT + telephone monitoring + CM after treatment vs. counselling after treatment for treatment of psychostimulant dependence

Authors: S Minozzi, **L** Amato, N Clark
Question: Should CBT + telephone monitoring + CM after treatment or counselling after treatment alone be used for treatment of psychostimulant dependence?
Bibliography:

1. National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
2. McKay JR, Van Horn DHA, Lynch KG, Ivey M, Cary MS, Drapkin ML, Coviello DM, Plebani JG (2013). An adaptive approach for identifying cocaine dependent patients who benefit from extended continuing care. Journal of Consulting and Clinical Psychology.81(6):1063-1073. doi:10.1037/a0034265.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CBT + telephone monitoring + CM after treatment**	**Counselling after treatment**	**Relative (95% CI)**	**Absolute**		
Subjects with positive urine at 3-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[2]	None	17/83 (20.5%)	28/89 (31.5%)	RR 0.65 (0.39 to 1.1)	110 fewer per 1000 (from 192 fewer to 31 more)	⨁⨁◯◯ LOW	CRITICAL
								31.5%		110 fewer per 1000 (from 192 fewer to 32 more)		
Subjects with positive urine at 12-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[3]	None	20/73 (27.4%)	28/76 (36.8%)	RR 0.74 (0.46 to 1.2)	96 fewer per 1000 (from 199 fewer to 74 more)	⨁⨁◯◯ LOW	CRITICAL

								36.8%		96 fewer per 1000 (from 199 fewer to 74 more)		
Subjects with positive urine at 24-months follow-up (assessed with objective)												
1	Randomized trials	Serious[1]	No serious inconsistency	No serious indirectness	Serious[4]	None	26/75 (34.7%)	26/69 (37.7%)	RR 0.92 (0.6 to 1.42)	30 fewer per 1000 (from 151 fewer to 158 more)	⨁⨁⨁◯ LOW	CRITICAL
								37.7%		30 fewer per 1000 (from 151 fewer to 158 more)		

[1] Unblinded study.
[2] N = 172 participants.
[3] N = 149 participants.
[4] N = 144 participants.

Table 15. CM vs. control (cocaine or opiates) for treatment of psychostimulant dependence

Authors: N Clark and L Amato
Question: **Should CM be used for treatment of psychostimulant dependence when compared to controls (cocaine or opiates)?**
Bibliography: [New meta-analysis.]

- National Collaborating Centre for Mental Health (NCCMH). 2008. Drug Misuse – Psychosocial Interventions: NICE Clinical Guideline. [CG51]. Leicester: British Psychological Society.
- Higgins ST, Budney AJ, Bickel WK, Hughes JR, Foerg F, Badger G (1993) Achieving cocaine abstinence with a behavioral approach. The American Journal of Psychiatry.150(5):763–769.
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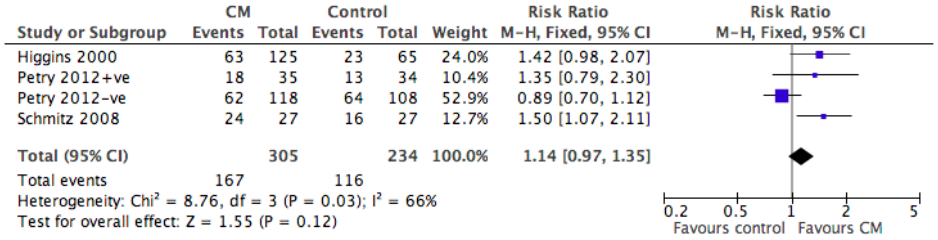
- Schmitz JM, Mooney ME, Moeller FG, Stotts AL, Green C, Grabowski J (2008). Levodopa pharmacotherapy for cocaine dependence: choosing the optimal behavioral therapy platform. Drug and Alcohol Dependence.94(1-3):142-150. doi:10.1016/j.drugalcdep.2007.11.004.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CM	Control (cocaine or opiates)	Relative (95% CI)	Absolute (95% CI)		
Abstinence from cocaine (follow-up)												
4	Randomized trials	Serious [1]	Serious [2]	Not serious	Serious [3]	None	167/305 (54.8%)	116/234 (49.6%)	**RR 1.14** (0.97 to 1.35)	69 more per 1000 (from 15 fewer to 174 more)	⊕OOO VERY LOW	CRITICAL
								48.8%		68 more per 1000 (from 15 fewer to 171 more)		
Abstinence from cocaine (weeks)												
3	Randomized trials	Serious [1]	Serious [2]	Not serious	Not serious	None	431	257	-	MD **1.86 higher** (1.34 higher to 2.38 higher)	⊕⊕OO LOW	CRITICAL
Continuous abstinence for 12 weeks												
1	RCT	Serious[1]	Not serious	Not serious	Serious [3]	Strong association (RR>2)	66/286 (23.1%)	15/282 (5.3%)	RR 4.24 (2.52 to 7.15)	139 more per 1000 (from 71 more to 233 more)	⊕⊕OO LOW	CRITICAL
Continuous abstinence for 9 weeks												
4	RCT	Serious[1]	Not serious	Not serious	Serious [3]	Strong association (RR>2)	88/286 (30.8%)	30/282 (10.6%)	RR 2.90 (1.98 to 4.23)	202 more per 1000 (from 104 more to 344 more)-	⊕⊕OO LOW	CRITICAL
Continuous abstinence for 6 weeks												
2	RCT	Serious[1]	Not serious	Not serious	Serious [3]	Strong association (RR>2)	27/57 (47.4%)	7/56 (12.5%)	RR 3.79 (1.80 to 8.01)	349 more per 1000 (from 100 more to 876 more)	⊕⊕OO LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CM	Control (cocaine or opiates)	Relative (95% CI)	Absolute (95% CI)		
Continuous abstinence for 3 weeks												
3	RCT	Serious[1]	Not serious	Not serious	Not serious	None	118/266 (44.4%)	62/262 (23.7%)	RR 1.87 (1.45 to 2.42)	206 more per 1000 (from 106 more to 336 more)	⊕⊕⊕O MODERATE	CRITICAL
Abstinence from methamphetamine												
2	RCT	Serious[1]	Not serious	Not serious	Serious[4]	None	37/105 (35.2%)	27/117 (23.1%)	RR 1.44 (0.98 to 2.12)	102 more per 1000 (from 5 fewer to 258 more)	⊕⊕⊕O MODERATE	CRITICAL

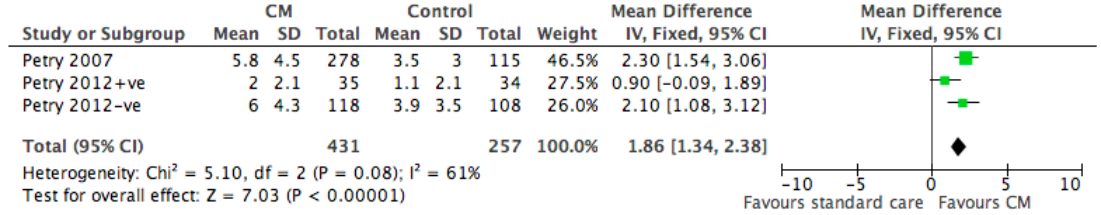
1. Unblinded.
2. Significant heterogeneity.
3. Wide confidence interval.
4. $I^2 \sim 50\%$.

Figure 2. Forest plots of comparison: CM vs. control (cocaine or opiates)



Caption

Forest plot of comparison: 2 CM versus control: cocaine, outcome: 2.2 Abstinence from cocaine (follow up).



Caption

Forest plot of comparison: 2 CM versus control: cocaine or opiates, outcome: 2.8 Abstinence from cocaine (weeks).

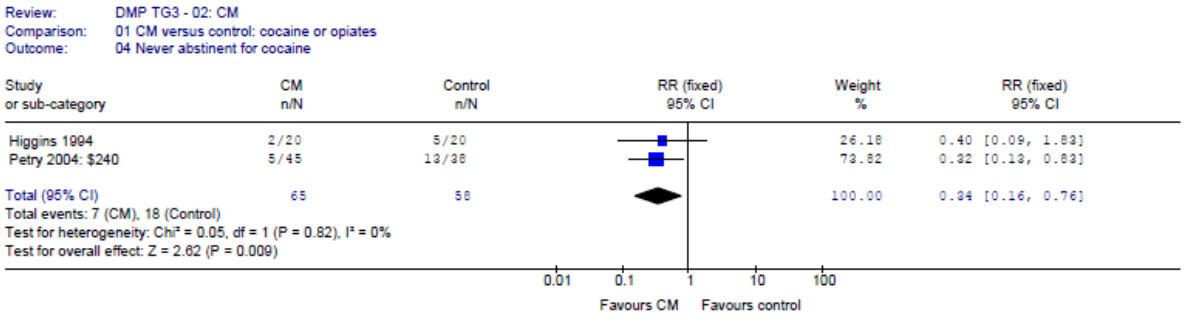


Figure 3. Forest plots of comparison: CM vs. control (Part II)

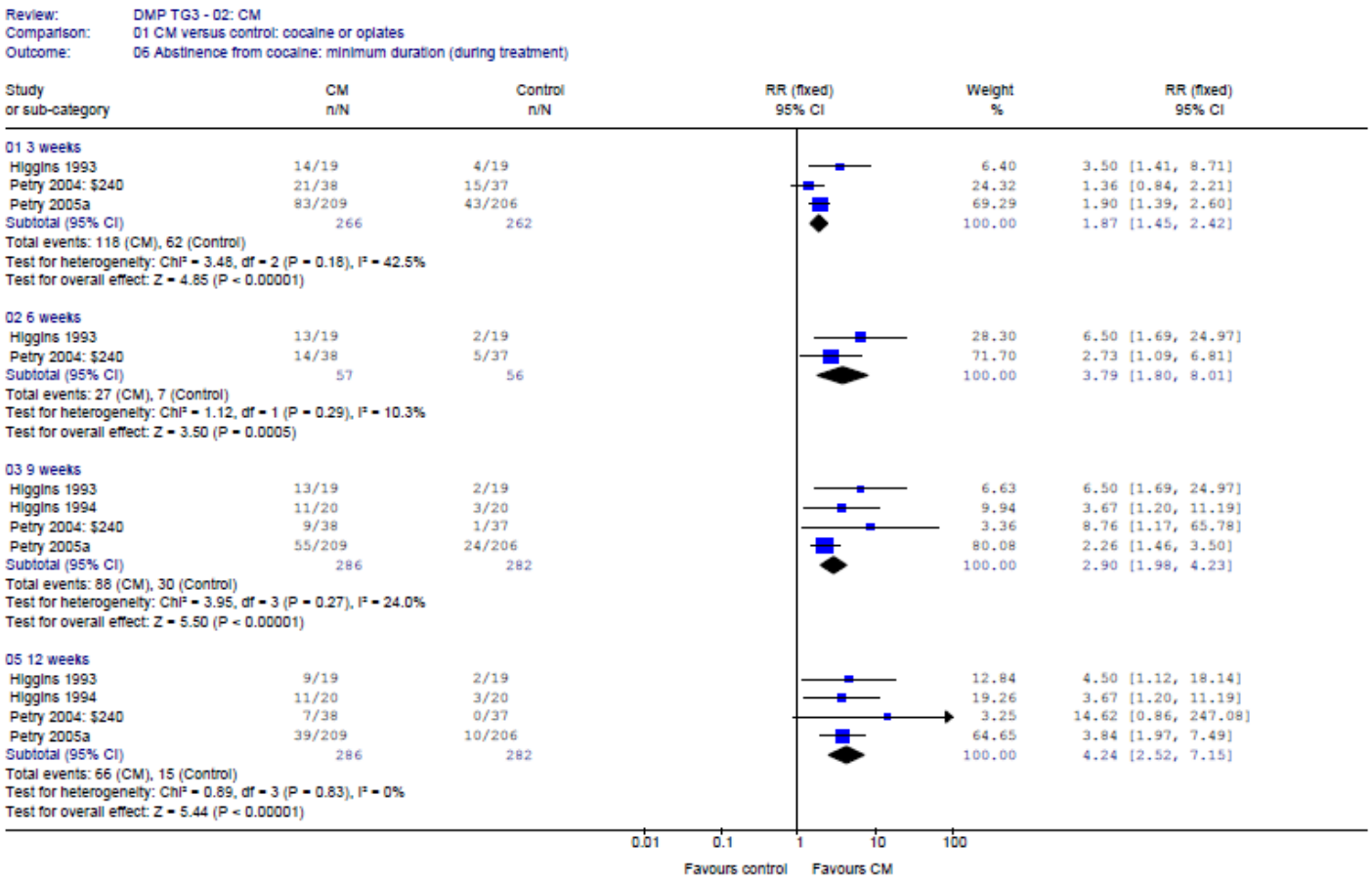
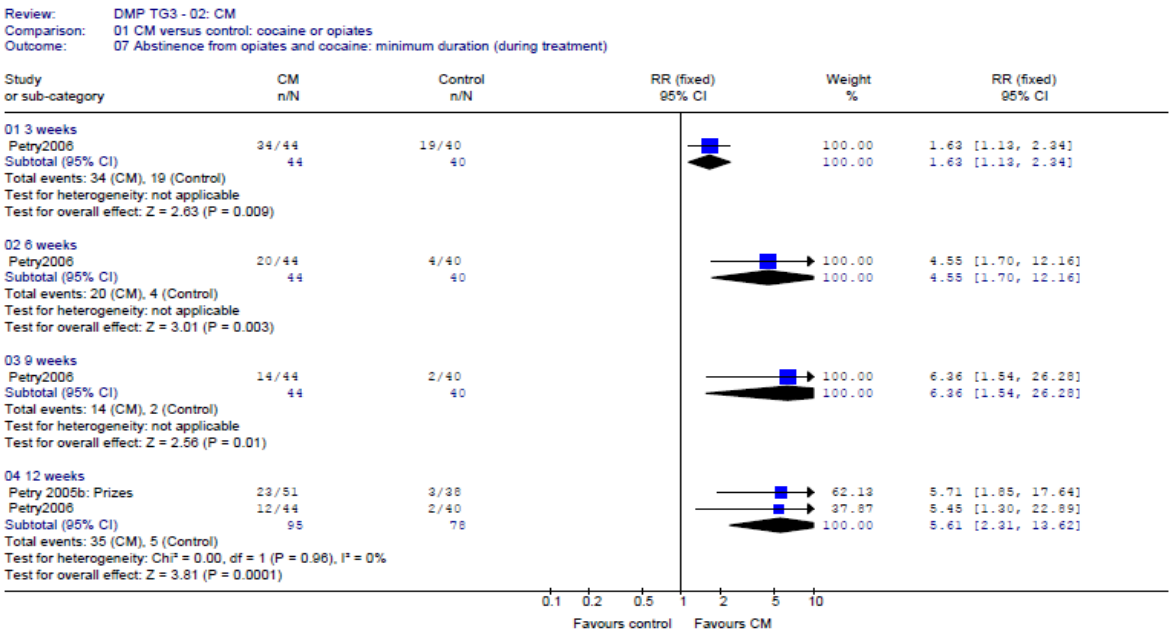
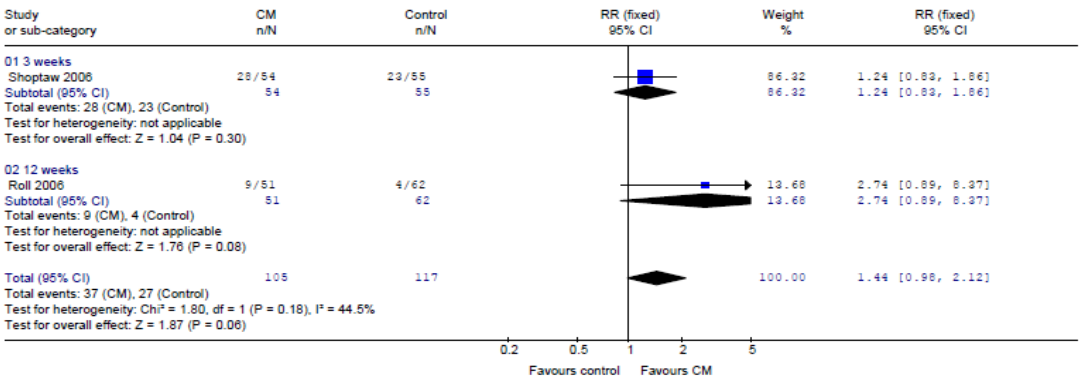


Figure 4. Forest plots of comparison: CM vs. control (Part III)



[2015]

Review: DMP TG3 - 02: CM
Comparison: 02 CM versus control: metamphetamine
Outcome: 08 Abstinence for methamphetamine: minimum duration (during treatment)



[2015]

Table 16. CRA + CM vs. standard treatment for treatment of psychostimulant dependence

Author: N Clark
Question: Should CRA + CM or standard treatment be used for treatment of psychostimulant dependence?
Bibliography: [New meta-analysis.] Studies:

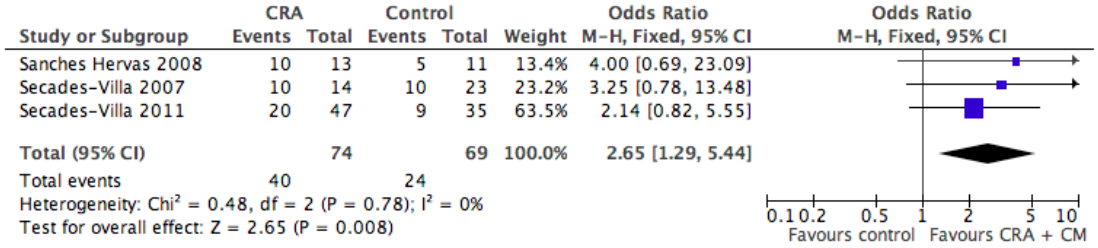
- Garcia-Rodriguez O, Secades-Villa R, Higgins ST, Fernandex-Hermida JR, Carballo JL, Errasti Perez JM, Al-halabi Diaz S (2009). Effects of voucher-based intervention on abstinence and retention in an outpatient treatment for cocaine addiction: a randomized controlled trial. Experimental and Clinical Psychopharmacology.17(3):131-138. doi:10.1037/a0015963.
- Sanchez-Hervas E and Zacares Romaguera F (2008). Programa de reforzamiento comunitario (CRA) para adictos a la cocaína: implantación en un dispositivo sanitario público. Anales de Psiquiatria.24(4):153-158.
- Secades-Villa R, García-Rodríguez O, Higgins ST, Fernández-Hermida JR, Carballo JL (2008). Community reinforcement approach plus vouchers for cocaine dependence in a community setting in Spain: six-month outcomes. Journal of Substance Abuse Treatment.34(2):202-207
- Secades-Villa R, García-Rodríguez O, García-Fernández G, Sánchez-Hervás E, Fernandez-Hermida JR, Higgins ST (2011). Community reinforcement approach plus vouchers among cocaine-dependent outpatients: twelve-month outcomes. Psychology of Addictive Behaviors.25(1):174-179. doi:10.1037/a0021451.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	**Study design**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other considerations**	**CRA + CM**	**Standard treatment**	**Relative (95% CI)**	**Absolute (95% CI)**		
Abstinence at completion of study												
3	Randomized trials	Serious [1]	Not serious	Not serious	Serious [2]	Strong association	40/74 (54.1%)	24/69 (34.8%)	**OR 2.65** (1.29 to 5.44)	238 more per 1000 (from 60 more to 396 more)	⊕⊕⊕O MODERATE	CRITICAL
								43.5%		236 more per 1000 (from 63 more to 372 more)		
Continuous abstinence for duration of study												
5	Randomized trials	Serious [1]	Not serious	Not serious	Serious [2]	None	55/147 (37.4%)	39/156 (25.0%)	**OR 1.92** (1.16 to 3.18)	140 more per 1000 (from 29 more to 265 more)	⨁⨁⨁⨁ LOW	CRITICAL
								22.9%		134 more per 1000 (from 27 more to 257 more)		
Retention in treatment												
5	Randomized trials	Serious [1]	Not serious	Not serious	Serious [2]	Strong association	87/133 (65.4%)	65/149 (43.6%)	**OR 2.68** (1.62 to 4.42)	238 more per 1000 (from 120 more to 338 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	CRA + CM	Standard treatment	Relative (95% CI)	Absolute (95% CI)		
								42.9%		239 more per 1000 (from 120 more to 340 more)		

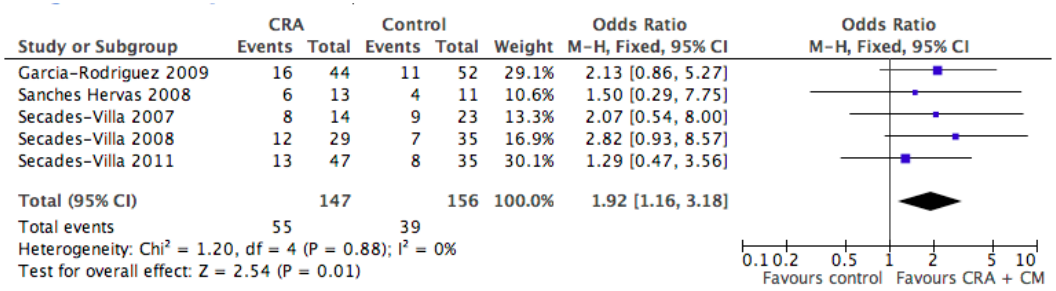
1. Unblinded.
2. Wide confidence interval.

Figure 5. Forest plots of comparison: CRA + CM vs. standard care



Caption

Forest plot of comparison: 5 CRA + CM vs standard care, outcome: 5.1 Abstinence at completion of study.

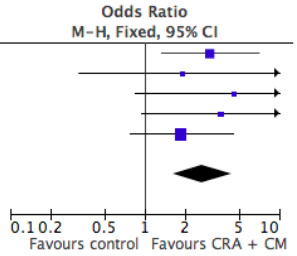


Caption

Forest plot of comparison: 5 CRA + CM vs standard care, outcome: 5.2 Continuous abstinence for duration of study.

Study or Subgroup	CRA Events	CRA Total	Control Events	Control Total	Weight	Odds Ratio M-H, Fixed, 95% CI
Garcia-Rodriguez 2009	28	44	19	52	33.5%	3.04 [1.32, 7.00]
Sanches Hervas 2008	10	13	7	11	9.3%	1.90 [0.32, 11.31]
Secades-Villa 2007	12	14	13	23	7.4%	4.62 [0.84, 25.49]
Secades-Villa 2008	11	15	12	28	11.8%	3.67 [0.93, 14.39]
Secades-Villa 2011	26	47	14	35	38.0%	1.86 [0.76, 4.51]
Total (95% CI)		**133**		**149**	**100.0%**	**2.68 [1.62, 4.42]**
Total events	87		65			

Heterogeneity: $Chi^2 = 1.47$, $df = 4$ ($P = 0.83$); $I^2 = 0\%$
Test for overall effect: $Z = 3.84$ ($P = 0.0001$)



Caption

Forest plot of comparison: 5 CRA + CM vs standard care, outcome: 5.3 Retention in treatment.

PART 2: FROM EVIDENCE TO RECOMMENDATIONS

Summary of evidence table

CBT vs. attention placebo	CBT vs. TSF	CBT vs. individual counselling	CBT vs. psychodynamic therapy	CBT vs. CM
Subjects with continuous abstinence at 3-months follow-up RR 1.13 (0.72 to 1.77) Favours CBT VERY LOW quality	**Number of subjects with continuous abstinence for 4 week at 3-months follow-up** RR 1.38 (0.88 to 2.17) Favours CBT LOW quality	**Subjects with 1 months of consecutive abstinence at 12-months follow-up** RR 0.76 (0.62 to 0.93) Favours individual counselling + TAU LOW quality	**Subjects with 1 months of consecutive abstinence at 12-months follow-up** RR 0.93 (0.74 to 1.17) Favours Psych theraphy + TAU LOW quality	**Subjects with continuous abstinence at 1 months follow-up** RR 0.08 (0.01 to 0.56) Favours CM LOW quality
Days of cocaine use at 3-months follow-up MD 7.59 lower (13.87 to 1.31 lower) Favours CBT VERY LOW quality		**Subjects with 2 months of consecutive abstinence at 12-months follow-up** RR 0.86 (0.62 to 1.18) Favours individual counselling +TAU LOW quality	**Subjects with 2 months of consecutive abstinence at 12-months follow-up** RR 0.85 (0.62 to 1.17) Favours Psych theraphy + TAU LOW quality	**Subjects with continuous abstinence at 2 months follow-up** RR 0.2 (0.02 to 1.64) Favours CM LOW quality
		Subjects with 3 months of consecutive abstinence at 12-months follow-up RR 0.6 (0.4 to 0.89) Favours individual counselling +TAU LOW quality	**Subjects with 3 months of consecutive abstinence at 12-months follow-up** RR 0.85 (0.54 to 1.32) Favours Psych theraphy + TAU LOW quality	**Subjects with continuous abstinence at 3-months follow-up** RR 0.2 (0.01 to 4.04) Favours CM LOW quality
			Number of subjects with 3 weeks of continuous abstinence at 3 month follow-up RR 2.25 (0.82 to 6.18) Favours Psych theraphy + TAU VERY LOW quality	**Subjects with 30 days of continuous abstinence at 4 months follow-up** RR 0.57 (0.36 to 0.9) Favours CM LOW quality
				Subjects with point abstinence at 4 months follow-up RR 0.9 (0.72 to 1.13) Favours CBT LOW quality
				Subjects with point abstinence at 6 months follow-up RR 1.02 (0.8 to 1.29)

				No difference LOW quality
				Subjects with point abstinence at 12 months follow-up RR 1.19 (0.94 to 1.5) No difference LOW quality
				Days of use in the past 30 days at 4 months follow-up MD 0.5 lower (2.82 lower to 1.82 higher) Favours CBT LOW quality
				Days of use in the past 30 days at 6-months follow-up MD 1.1 lower (2.77 lower to 0.57 higher) Favours CBT LOW quality
				Days of use in the past 30 days at 12-months follow-up MD 0.9 higher (1.67 lower to 3.47 higher) Favours CM LOW quality

CBT vs. clinical management	CBT vs. CRA + CM	CBT + CM vs. CM	CBT + CM vs. CBT	CBT + group counselling vs. group counselling
Subjects with continuous abstinence at 1-month follow-up RR 0.2 (0.03 to 1.68) Favours clinical management LOW quality	**Subjects with continuous abstinence at 1-month follow-up** RR 0.88 (0.74 to 1.05) Favours CRA +CM VERY LOW quality	**Subjects with 30 days abstinence at 2-months follow-up** RR 1.08 (0.92 to 1.26) MODERATE quality	**Subjects with point abstinence at 4-months follow-up** RR 1.07 (0.94 to 1.21) No difference MODERATE quality	**Subjects with 1-months of consecutive abstinence at 12-months follow-up** RR 0.93 (0.74 to 1.17) Favours Group counselling MODERATE quality
Subjects with continuous abstinence at 2-months follow-up RR 0.34 (0.04 to 3.15) Favours clinical management LOW quality	**Subjects with continuous abstinence at 3-months follow-up** RR 0.69 (0.42 to 1.13) Favours CRA +CM VERY LOW quality	**Subjects with 30 days abstinence at 4-6-months follow-up** RR 1.13 (0.95 to 1.34) No difference LOW quality	**Subjects with point abstinence at 6 months follow-up** RR 0.96 (0.82 to 1.13) No difference MODERATE quality	**Subjects with 2-months of consecutive abstinence at 12-months follow-up** RR 0.85 (0.62 to 1.17) Favours Group counselling LOW quality

Subjects with continuous abstinence at 3-months follow-up RR 0.2 (0.01 to 4.14) Favours clinical management LOW quality	**Subjects with continuous abstinence at 6-months follow-up** RR 0.65 (0.24 to 1.82) Favours CRA +CM VERY LOW quality	**Subjects with point abstinence at 4-months follow-up** RR 1.11 (0.94 to 1.3) No difference VERY LOW quality	**Subjects with point abstinence at 12-months follow-up** RR 0.88 (0.75 to 1.03) Favours CM MODERATE quality	**Subjects with 3-months of consecutive abstinence at 12-months follow-up** RR 0.85 (0.54 to 1.32) Favours Group counselling LOW quality
		Subjects with point abstinence at 6-months follow-up RR 1.02 (0.8 to 1.29) LOW quality		
		Subjects with point abstinence at 12-months follow-up RR 1.01 (0.77 to 1.33) No difference LOW quality		
		Days of use in the past 30 days at 4-months follow-up MD 1 lower (3.11 lower to 1.11 higher) LOW quality		
		Days of use in the past 30 days at 6-months follow-up MD 0.7 lower (2.45 lower to 1.05 higher) No difference LOW quality		
		Days of use in the past 30 days at 12-months follow-up MD 0.3 higher (1.84 lower to 2.44 higher) No difference LOW quality		

CBT after treatment vs. telephone monitoring after treatment	**CBT after treatment vs. counselling + TSF after treatment**	**CBT + telephone monitoring after treatment vs. counselling after treatment**	**CBT + telephone monitoring + CM after treatment vs. counselling after treatment**
Number of subjects abstinent at 3-months follow-up RR 1.03 (0.86 to 1.24) No difference	**Number of subjects abstinent at 3-months follow-up** RR 1.14 (0.95 to 1.38) No difference	**Subjects with positive urine at 3-months follow-up** RR 0.65 (0.39 to 1.1) Favours CBT + Telephone	**Subjects with positive urine at 3-months follow-up** RR 0.65 (0.39 to 1.1) Favours CBT + TEL +CM

LOW quality	LOW quality	LOW quality	
Number of subjects abstinent at 6-months follow-up RR 0.9 (0.72 to 1.14) No difference LOW quality	**Number of subjects abstinent at 6-months follow-up** RR 1.2 (0.93 to 1.56) No difference VERY LOW quality	**Subjects with positive urine at 12-months** RR 0.74 (0.46 to 1.2) Favours CBT + Telephone LOW quality	**Subjects with positive urine at 12-months follow-up** RR 0.74 (0.46 to 1.2) Favours CBT + TEL +CM
Number of subjects abstinent at 9-months follow-up RR 0.99 (0.77 to 1.27) No difference LOW quality	**Number of subjects abstinent at 9-months follow-up** RR 1.18 (0.91 to 1.53) No difference VERY LOW quality	**Subjects with positive urine at 24-months follow-up** RR 0.92 (0.6 to 1.42) Favours CBT + Telephone LOW quality	**Subjects with positive urine at 24-months follow-up** RR 0.92 (0.6 to 1.42) Favours CBT + TEL +CM
Number of subjects abstinent at 12-months follow-up RR 0.91 (0.69 to 1.21) No difference LOW quality	**Number of subjects abstinentt at 12-months follow-up** RR 1.06 (0.8 to 1.41) No difference VERY LOW quality		
% days abstinence in past 3 months at 3-months follow-up MD 1.64 higher (2.38 lower to 5.66 higher) No difference LOW quality	**% days abstinence in past 3 months at 3-months follow-up** MD 1.17 higher (2.46 lower to 4.8 higher) No difference VERY LOW quality		
% days abstinence in past 3 months at 6 -months follow-up MD 0.94 lower (6.6 lower to 4.72 higher) No difference LOW quality	**% days abstinence in past 3 months at 6-months follow-up** MD 2.18 higher (3.71 lower to 8.07 higher) No difference VERY LOW quality		
% days abstinence in past 3 months at 9-months follow-up MD 0.31 lower (6.36 lower to 5.74 higher) No difference LOW quality	**% days abstinence in past 3 months at 9-months follow-up** MD 6.92 higher (0.04 to 13.8 higher) VERY LOW quality		
% days abstinence in past 3 months at 12-months follow-up MD 2.26 lower (9.32 lower to 4.8 higher) No difference LOW quality	**% days abstinence in past 3 months at 12-months follow-up** MD 3.61 higher (3.73 lower to 10.95 higher) VERY LOW quality		

CM vs. control	CRA + CM vs. standard treatment
Abstinence from cocaine RR 1.14 (0.97 to 1.35) No difference VERY LOW quality	**Abstinence at completion of study** OR 2.65 (1.29 to 5.44) Favours CRA + CM MODERATE quality
Abstinence from cocaine (weeks) MD 1.86 higher (1.34 higher to 2.38 higher) Favours CM LOW quality	**Continuous abstinence for duration of study** OR 1.92 (1.16 to 3.18) Favours CRA + CM LOW quality
Continuous abstinence for 12 weeks RR 4.24 (2.52 to 7.15) Favours CM LOW quality	**Retention in treatment** OR 2.68 (1.62 to 4.42) Favours CRA + CM MODERATE quality
Continuous abstinence for 9 weeks RR 2.90 (1.98 to 4.23) Favours CM LOW quality	
Continuous abstinence for 6 weeks RR 3.79 (1.80 to 8.01) Favours CM LOW quality	
Continuous abstinence for 3 weeks RR 1.87 (1.45 to 2.42) Favours CM MODERATE quality	
Abstinence from methamphetamine RR 1.44 (0.98 to 2.12) Favours CM MODERATE quality	

Evidence to recommendation table

Benefits	***Comparisons with inactive controls*** There were no comparisons against inactive controls. ***Comparisons with active controls showing benefit*** Contigency Management (CM) was found to be better than control, with a large effect size (RR 1.5-5). This evidence was assessed as MODERATE quality. CM + Community reinforcement approach (CRA) was found to be better than Cognitive Behavioural Therapy (CBT)-based active control treatment, with a large effect size (RR 1.92-2.68). This evidence was assessed as MODERATE quality. Contingent housing + CBT was found to be better than contingent housing alone in a single study. Housing + employment + CBT was found to be better than housing and employment alone in a single study. CM-based telephone support was found to be better than telephone support without CM in a single study. CRA was found to be better than standard treatment in a single study. Family interventions were found to be better than psychoeducation, with a small effect size (RR0.76). This evidence was assessed as LOW quality. Behavioural couples therapy was found to be better than CBT, with a moderate effect size (SMD 0.34-0.52). Psychodynamic therapy was found to better than control in two studies, with a moderate effect size. This evidence was assessed as LOW quality.

	Vocational interventions was found to be better than control in two studies, with a moderate effect. This evidence was assessed as LOW quality. The "Bridges" programme was found to be better than treatment as usual (TAU) in a single study. Meditation and ear acupressure was found to be better than TAU in a single study. ***Head to head comparisons showing equivalence - Comparisons of therapies with those found to be effective*** CBT was found to be equivalent to psychodynamic therapy. Group therapy in young people was found to be equivalent to family treatments. CBT + CM was found to be equivalent to CBT alone. CBT + CM was found to be equivalent to CM alone.
Harms	None of included studies assessed adverse events.
Summary of the quality of evidence	The quality of evidence varies from moderate to low across the comparisons considered.

Value and preferences	
In favour	Generally patients value being able to talk to people about their drug use and related psychological and social problems. CBT, family therapies and motivational enhancement therapies (MET) are generally well accepted. CM and the systematic application of positive reinforcement strategies has a positive side benefits by decreasing commonly used punitive practices and the use of sanctions as a way of modifying behaviors.

Against	Some people find it difficult to talk about their drug use and related psychological and social problems and value their privacy more. CM can be viewed by some as "bribing patients" to not use drugs. This can be seen as an unacceptable approach.
Uncertainty or variability?	The lack of studies in different countries makes assessment of variability difficult. It is assumed that there may be significant variability in the response to psychosocial interventions in different settings.

Feasibility (including resource use considerations)	CBT-like interventions require specific training but are being implemented in many low- and middle-income countries. Although CM studies have used monetary and other incentives that could be cost prohibitive in low- and middle-income countries, the principle of using a variety of inexpensive positive reinforcers and/or incentives (such as food, praise, certificates of accomplishment, etc.) can be used contingently to increase treatment retention and reduce drug use. It is very important to adapt this approach to align with cultural norms and use practical and feasible incentives. If food or food vouchers are to be used as reinforcers, it is important that the target population is not food deprived.
Uncertainty or variability?	The lack of studies in different countries makes assessment of variability in feasibility difficult. The ability to deliver psychosocial interventions in resource-restricted settings is uncertain.

Recommendation and remarks

Recommendation

Psychosocial interventions including contingency management, cognitive behavioural therapy (CBT) and family therapy can be offered for the treatment of psychostimulant dependence.

Rationale: Although the quality of the evidence is very low, the benefits of psychosocial interventions outweigh their harms. Generally, there is belief that people would value being able to talk to others about their drug use and related psychological and social problems, however some value their privacy more. Non-specialist health care providers require training in and supervision for delivery of psychosocial interventions.

Remarks

Although many of the research trials use monetary reinforcement, use of contingency management should be adapted to the culture and population with input from patients.

Judgements about the strength of a recommendation

Factor	Decision
Quality of the evidence	□ High □ Moderate □ Low **X Very low**
Balance of benefits versus harms	**X Benefits clearly outweigh harms** □ Benefits and harms are balanced □ Potential harms clearly outweigh potential benefits
Values and preferences	□ No major variability **X Major variability**

Resource use	□ Less resource-intensive **X More resource-intensive**
Strength	**CONDITIONAL**

OTHER REFERENCES

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Silva K, Kecojevic A, Lankenau SE (2013). Percevied drug use functions and riskreduction practices among high-risk nonmedical users of precscription drugs. Substance Abuse.43(4):483-496. doi:10.1177/0022042613491099.

United Nations Office on Drugs and Crime (UNODC). World Drug Report: 2011. Vienna: UNODC; 2012. Available from: http://www.unodc.org/documents/data-and-analysis/WDR2012/WDR_2012_web_small.pdf (accessed Fall 2014).

APPENDIX 1

Search Strategies

MEDLINE-PubMed interface

1. psychosocial*[tiab] OR Psychotherap*[tiab] OR psychotherapy[MeSH] OR cognitive behavio*[tiab] OR EMDR[tiab] OR cognitive therapy [MeSH] OR behaviour therapy [MeSH] OR CBT [tiab] OR rational emotive[tiab] OR reality therapy [tiab] OR mindfulness [tiab] OR dialectic therapy[tiab] OR dialectic behavior therapy[tiab] OR directive counselling [MeSH] OR motivation*[tiab] OR coping skills[tiab] OR social skill* [tiab] OR brief psychotherapy [tiab] OR Brief intervention[tiab] OR brief therapies[tiab] OR animal assisted therapies[MeSH] OR animal assisted therapies[tiab] OR supportive expressive therap*[tiab] OR relapse prevention[tiab] OR relaxation therapy[tiab] OR aversive therapy[MeSH] OR aversive therapy[tiab] OR Self-Control Training [tiab] OR cue exposure treatment[tiab] OR community reinforcement approach[tiab] OR voucher[tiab] OR incentive*[tiab] OR Psychoeducation[tiab] OR counselling[tiab] OR narrative therapy[tiab] OR couples therapy[tiab] OR drama therap*[tiab] OR family therap*[tiab] OR family intervention*[tiab] OR interpersonal therap* [tiab] OR twelve-step

[tiab] OR Twelve Step [tiab] OR meditation [tiab] OR self-help [tiab] OR self-help groups [MeSH] OR bibliotherapy [tiab] OR telemedicine [tiab] OR telephone support[tiab] OR SMS therapy [tiab] OR E-medicine [tiab] OR M-medicine [tiab] OR minimal intervention[tiab] OR case management [MeSH] OR (contingen*[tiab] AND (management[tiab]

2. (rehabilitation[tiab] AND (service*[tiab] OR program*[tiab])) OR (Rehab[tiab] OR Vocational rehabilitation [MeSH] OR Employment support [tiab] OR Employment scheme [tiab] OR Supported employment [MeSH] OR Training program* [tiab] OR Training scheme [tiab] OR Training support [tiab] OR Education*[tiab] OR Education, Professional [MeSH] OR professional training [tiab] OR Education, Professional, Retraining [MeSH] OR retraining [tiab] OR Literacy training [tiab] OR Literacy program* [tiab] OR Social welfare [tiab] OR Community integration [MeSH] OR community integration [tiab] OR Occupational therapy [MeSH] OR Occupational therapy [tiab] OR Public housing [tiab] OR Housing support [tiab] OR Leisure activit* [tiab] OR hobbies [tiab])
3. #1 OR #2
4. ((((((cocaine[tiab] OR psychostimulant[tiab] OR stimulants[tiab] OR amphetamine[tiab] OR mdma[tiab] OR ecstasy[tiab]) AND (abstin*[tiab] OR abstain*[tiab] OR abus*[tiab] OR addict*[tiab] OR dependen*[tiab] OR disorder*[tiab]))) OR "Cocaine-Related Disorders"[Mesh]) OR "Amphetamine-Related Disorders"[Mesh]) OR (((drug*[ti] OR substance[ti] OR polydrug[ti] OR polysubstance[ti]) AND (abus*[ti] OR abstin*[ti] OR dependen*[ti] OR addict*[ti] OR disorder*[ti] OR misuse[ti])))
5. #3 AND #4
6. (((((meta analysis[Publication Type] OR meta analysis[Title/Abstract] OR meta analysis[MeSH Terms] OR review[Publication Type] OR search*[Title/Abstract]))) OR systematic review[tiab])) NOT ((animals[MeSH] NOT humans[MeSH]))
7. #5 AND #6

Embase Search Results

1. ((drug* OR substance OR amphetamine* OR mdma OR ecstasy OR methamphetamine* OR cocaine OR stimulant OR polydrug OR polisusbstance) NEAR/3 (abus* OR abstin* OR dependen* OR addict* OR disorder* OR misuse)):ab,ti
2. 'cocaine dependence'/exp
3. 'street drug'/exp
4. #1 OR #2 OR #3
5. 'psychotherapy'/exp OR (cogniti* NEAR/3 (behavio* OR intervention* OR technique* OR therap* OR treat*)):ab,ti OR (behavio* NEAR/3 (behavio* ORintervention* OR technique* OR therap* OR treat*)):ab,ti OR cbt:ab,ti OR 'counselling'/exp OR 'animal assisted therapy'/exp OR ((coping OR social) NEAR/2 skill*):ab,ti OR (family NEAR/2 intervention*):ab,ti OR ((family OR couple OR interpersonal) NEAR/2 therap*):ab,ti OR ((brief OR minimal OR early) NEAR/3 (intervention* OR therap* OR interview* OR advice)):ab,ti OR 'self help'/exp OR 'self

help':ab,ti OR 'case management'/exp OR ((social OR peer OR group) NEAR/2 support):ab,ti OR (relaxation NEAR/2 (therapy OR therapies OR technique OR techniques)):ab,ti OR psychosocial*:ab,ti OR psychotherap*:ab,ti OR emdr:ab,ti OR 'rational emotive':ab,ti OR 'reality therapy':ab,ti OR mindfulness:ab,ti OR 'dialectic therapy':ab,ti OR 'animal assisted therapies':ab,ti OR 'relapse prevention':ab,ti OR 'aversive therapy':ab,ti OR 'self-control training':ab,ti OR 'cue exposure treatment':ab,ti OR 'community reinforcement approach':ab,ti OR motivation*:ab,ti OR voucher*:ab,ti OR incentive*:ab,ti OR psychoeducation*:ab,ti OR counselling:ab,ti OR 'twelve-step':ab,ti OR 'Twelve Step':ab,ti OR meditation:ab,ti OR bibliotherapy:ab,ti OR telemedicine:ab,ti OR 'telephone support':ab,ti OR 'sms therapy':ab,ti OR 'e-medicine':ab,ti OR 'm-medicine':ab,ti OR ((narrative OR drama) NEAR/2 therap*):ab,ti OR (contingen* NEAR/2 (management OR reinforcement OR prize)):ab,ti OR 'vocational rehabilitation'/exp OR ((drug OR substance) NEAR/3 rehab*):ab,ti OR (rehab* NEAR/2 (service* OR program*)):ab,ti OR (employment NEAR/2 (support* OR scheme)):ab,ti OR (training NEAR/2 (program* OR scheme OR support)):ab,ti OR 'continuing education'/exp OR 'professional training':ab,ti OR (literacy NEAR/2 (training OR program*)):ab,ti OR 'community integration'/exp OR 'social welfare':ab,ti OR 'occupational therapy'/exp OR 'occupational therapy':ab,ti OR 'housing'/exp OR hausing:ab,ti OR (lesure NEAR/2 activit*):ab,ti OR hobbies:ab,ti OR education*:ab,ti

6. #4 AND #5
7. 'meta analysis' OR 'systematic review' OR 'search':ab
8. #6 AND #7
9. #4 AND #5 AND ([cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim)
10. #8 OR #9
11. #8 OR #9 AND [humans]/lim

Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effects– Wiley Interscience interface

#1 MeSH descriptor: [Psychotherapy] explode all trees
#2 (cogniti* near/3 (behavio* or intervention* or technique* or therap* or treat*)):ab,ti
#3 (behavio* near/3 (behavio* or intervention* or technique* or therap* or treat*)):ab,ti
#4 cbt:ab,ti
#5 "counselling":ti,ab,kw (Word variations have been searched)
#6 'animal assisted therapy':ti,ab,kw (Word variations have been searched)
#7 ((coping or social) near/2 skill*):ab,ti or (family near/2 intervention*):ab,ti or ((family or couple or interpersonal) near/2 therap*):ab,ti or ((brief or minimal or early) near/3 (intervention* or therap* or interview* or advice)):ab,ti
#8 "self-help":ti,ab,kw (Word variations have been searched)
#9 'case management':ti,ab,kw (Word variations have been searched)
#10 ((social or peer or group) near/2 support):ab,ti or (relaxation near/2 (therapy or therapies or technique*)):ab,ti
#11 psychosocial*:ab,ti or psychotherap*:ab,ti or emdr:ab,ti or (rational next emotive):ab,ti or (reality next therapy):ab,ti or mindfulness:ab,ti or (dialectic next therapy):ab,ti or (relapse next prevention):ab,ti or (aversive next therapy):ab,ti or (self near/2 training):ab,ti or 'cue exposure treatment':ab,ti or (community next reinforcement):ab,ti or motivation*:ab,ti or voucher*:ab,ti or incentive*:ab,ti or psychoeducation*:ab,ti or

counselling:ab,ti or (twelve next step):ab,ti or (12 next step):ab,ti or meditation:ab,ti or bibliotherapy:ab,ti or telemedicine:ab,ti or (telephone next support):ab,ti or 'sms therapy':ab,ti or 'e-medicine':ab,ti or 'm-medicine':ab,ti
#12 ((narrative or drama) near/2 therap*):ab,ti
#13 (contingen* near/2 (management or reinforcement or prize)):ab,ti
#14 MeSH descriptor: [Rehabilitation] explode all trees
#15 (rehab* near/2 (service* or program*)):ab,ti
#16 ((drug or substance) near/3 rehab*)
#17 (employment near/2 (support* or scheme)):ab,ti or (training near/2 (program* or scheme or support)):ab,ti
#18 "education":ti,ab,kw (Word variations have been searched)
#19 'professional training':ab,ti or (literacy near/2 (training or program*)):ab,ti
#20 MeSH descriptor: [Community Integration] explode all trees
#21 'social welfare':ab,ti
#22 housing:ti,ab,kw (Word variations have been searched)
#23 (lesure near/2 activit*):ab,ti or hobbies:ab,ti
#24 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23
#25 (drug or substance or polidrug or alcohol* or cannabis or marihuana or marijuana or cocaine or amphetamine or methamphetamine or MDMA or ecstasy) near (abus* or dependen* or addict* or disorder* or misus*)
#26 "alcoholism":ti,ab,kw (Word variations have been searched)
#27 MeSH descriptor: [Alcohol Drinking] explode all trees
#28 #25 or #26 or #27
#29 #24 and #28

Web of Science
Indexes=SCI-EXPANDED, SSCI, A&HCI Timespan=All years
#1 TI=(counsel* OR psychoeducat* OR educat* OR (psychological AND (therap* OR treatment*)) OR psychotherap* OR psychosocial* OR psychoanalytic OR ((social OR peer OR group) AND support) OR (self AND help) OR (cognitive AND (therap* OR behav*)) CBT OR mindfulness OR relax* OR ((family OR couple) AND therap*) OR bibliotherap*)
#2 TS=(telemedicine OR 'telephone support' OR 'sms therapy' OR 'e-medicine' OR 'm-medicine')
#3 TS=((contingen*) NEAR/5 (voucher* OR incentive* OR prize*)) OR TS=(contingen* NEAR/2 management)
#4 TS=((drug OR substance) NEAR/3 rehab*)
#5 TS=(rehab* NEAR/2 (service* OR program*))
#6 TS=(employment NEAR/2 (support* OR scheme))
#7 TS=(literacy NEAR/2 (training OR program*)) OR TS=(lesure NEAR/2 activit*) OR TS= hobbies

#8 TS=('occupational NEAR/2 therapy')
#9 TS=(housing NEAR/2 support)
#10 #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1
#11 TI= ((cannabis OR cocaine OR drug* OR marihuana OR marijuana OR mdma OR ecstasy OR methamphetamine* OR stimulant OR polydrug OR substance) AND (abus* OR abstin* OR dependen* OR addict* OR disorder* OR misuse))
#12 TI=Drug use*
#13 TI=(alcohol AND (drink* OR use* OR abus* OR misus* OR risk* OR consum* OR treat* OR therap* OR excess* OR reduc* OR cessation OR intervention*))
#14 TI=alcoholism
#15 #14 OR #13 OR #12 OR #11
#16 TS=meta analysis
#17 TS=systematic review
#18 #17 OR #16
#19 #18 AND #15 AND #10#1 MeSH descriptor: [Psychotherapy] explode all trees
#2 (cogniti* near/3 (behavio* or intervention* or technique* or therap* or treat*)):ab,ti
#3 (behavio* near/3 (behavio* or intervention* or technique* or therap* or treat*)):ab,ti
#4 cbt:ab,ti
#5 "counselling":ti,ab,kw (Word variations have been searched)
#6 'animal assisted therapy':ti,ab,kw (Word variations have been searched)
#7 ((coping or social) near/2 skill*):ab,ti or (family near/2 intervention*):ab,ti or ((family or couple or interpersonal) near/2 therap*):ab,ti or ((brief or minimal or early) near/3 (intervention* or therap* or interview* or advice)):ab,ti
#8 "self-help":ti,ab,kw (Word variations have been searched)
#9 'case management':ti,ab,kw (Word variations have been searched)
#10 ((social or peer or group) near/2 support):ab,ti or (relaxation near/2 (therapy or therapies or technique*)):ab,ti
#11 psychosocial*:ab,ti or psychotherap*:ab,ti or emdr:ab,ti or (rational next emotive):ab,ti or (reality next therapy):ab,ti or mindfulness:ab,ti or (dialectic next therapy):ab,ti or (relapse next prevention):ab,ti or (aversive next therapy):ab,ti or (self near/2 training):ab,ti or 'cue exposure treatment':ab,ti or (community next reinforcement):ab,ti or motivation*:ab,ti or voucher*:ab,ti or incentive*:ab,ti or psychoeducation*:ab,ti or counselling:ab,ti or (twelve next step):ab,ti or (12 next step):ab,ti or meditation:ab,ti or bibliotherapy:ab,ti or telemedicine:ab,ti or (telephone next support):ab,ti or 'sms therapy':ab,ti or 'e-medicine':ab,ti or 'm-medicine':ab,ti
#12 ((narrative or drama) near/2 therap*):ab,ti
#13 (contingen* near/2 (management or reinforcement or prize)):ab,ti
#14 MeSH descriptor: [Rehabilitation] explode all trees
#15 (rehab* near/2 (service* or program*)):ab,ti
#16 ((drug or substance) near/3 rehab*)

#17 (employment near/2 (support* or scheme)):ab,ti or (training near/2 (program* or scheme or support)):ab,ti
#18 "education":ti,ab,kw (Word variations have been searched)
#19 'professional training':ab,ti or (literacy near/2 (training or program*)):ab,ti
#20 MeSH descriptor: [Community Integration] explode all trees
#21 'social welfare':ab,ti
#22 housing:ti,ab,kw (Word variations have been searched)
#23 (lesure near/2 activit*):ab,ti or hobbies:ab,ti
#24 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23
#25 (drug or substance or polidrug or alcohol* or cannabis or marihuana or marijuana or cocaine or amphetamine or methamphetamine or MDMA or ecstasy) near (abus* or dependen* or addict* or disorder* or misus*)
#26 "alcoholism":ti,ab,kw (Word variations have been searched)
#27 MeSH descriptor: [Alcohol Drinking] explode all trees
#28 #25 or #26 or #27
#29 #24 and #28

RCTs search in CENTRAL

1. MESH DESCRIPTOR Substance-Related Disorders
2. MESH DESCRIPTOR Alcoholism EXPLODE ALL TREES
3. MESH DESCRIPTOR Alcohol Drinking EXPLODE ALL TREES
4. MESH DESCRIPTOR Amphetamine-Related Disorders EXPLODE ALL TREES
5. MESH DESCRIPTOR cocaine-related disorders EXPLODE ALL TREES
6. MESH DESCRIPTOR marijuana abuse EXPLODE ALL TREES
7. ((drug or substance or polidrug or alcohol* or cannabis or marihuana or marijuana or cocaine or amphetamine or methamphetamine or MDMA or ecstasy) near (abus* or dependen* or addict* or disorder* or misus*)):TI,AB,KY
8. #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7
9. MESH DESCRIPTOR Psychotherapy EXPLODE ALL TREES
10. (cogniti* near3 (behavio* or intervention* or technique* or therap* or treat*)):ab,ti
11. (behavio* near3 (behavio* or intervention* or technique* or therap* or treat*)):ab,ti
12. cbt:ab,ti
13. counselling:TI,AB,KY
14. 'animal assisted therapy':ti,ab

15. ((coping or social) near2 skill*):ab,ti
16. "self-help":ti,ab
17. 'case management':ti,ab
18. ((social or peer or group) near2 support)
19. ((social or peer or group) near2 support):ab,ti or (relaxation near2 (therapy or therapies or technique*)):ab,ti
20. psychosocial*:ab,ti or psychotherap*:ab,ti or emdr:ab,ti or (rational next emotive):ab,ti or (reality next therapy):ab,ti or mindfulness:ab,ti or (dialectic next therapy):ab,ti or (relapse next prevention):ab,ti or (aversive next therapy):ab,ti or (self near2 training):ab,ti or (cue next exposure next treatment):ab,ti or (community next reinforcement):ab,ti or motivation*:ab,ti or voucher*:ab,ti or incentive*:ab,ti or psychoeducation*:ab,ti or counselling:ab,ti or (twelve next step):ab,ti or (12 next step):ab,ti or meditation:ab,ti or bibliotherapy:ab,ti or telemedicine:ab,ti or (telephone next support):ab,ti or 'sms therapy':ab,ti or 'e-medicine':ab,ti or 'm-medicine':ab,ti
21. ((narrative or drama) near2 therap*):ab,ti
22. (contingen* near2 (management or reinforcement or prize)):ab,ti
23. (rehab* near2 (service* or program*)):ab,ti
24. ((drug or substance) near3 rehab*)
25. (employment near2 (support* or scheme)):ab,ti or (training near2 (program* or scheme or support)):ab,ti
26. education:TI,AB,KY
27. (professional next training):ab,ti or (literacy near2 (training or program*)):ab,ti
28. MESH DESCRIPTOR Community Integration EXPLODE ALL TREES
29. ('social welfare'):TI,AB,KY
30. housing:TI,AB,KY
31. (lesure near2 activit*):ab,ti or hobbies:ab,ti
32. #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31
33. #8 AND #32