Characteristics of reviewed studies: Brief interventions

Comparisons Included in this Clinical Question

CBT: Six sessions versus TAU
ONEILL1996

CM versus outreach
MALOTTE1998
MALOTTE1999
MALOTTE2001
SEAL2003
SORENSEN2006

CM versus supportive counselling
ROSEN2007

HIV: motivational interviewing versus TAU
BAKER1993
GIBSON1999
TUCKER2004A

HIV: psychoeducation versus standard education
AVANTS2004
COLON1993
ELDRIDGE1997
EPSTEIN2003
HARRIS1998
KOTRANSKI1998
MALOW1994
MARGOLIN2003
SCHILLING1991
SIEGAL1995
SORENSEN1994
STERK2003

HIV: psychoeducation versus waitlist
BAKER1994
WECHSBERG2004

HIV: psychoeducation versus women-focused psychoeducation
WECHSBERG2004

Motivational interviewing versus TAU
BAKER2005
BERNSTEIN2005
CARROLL2006A
COPELAND2001
KIDORF2005
MARSDEN2006
MCCAMBRIDGE2004
MILLER2003
MITCHESON2007
STEPHENS2000
STEPHENS2002
STOTTS2001

Characteristics of Included Studies

Methods	Participants	Outcomes	Interventions	Notes
AVANTS2004 Study Type: RCT (randomised controlled trial) Type of Analysis: ITT (analysed if attended >=1 session) Blindness: Open Setting: US MMT programmes	n= 220 Age: Mean 37 Sex: 151 males 69 females Diagnosis: 100% opioid dependence by DSM-IV	**Data Used** Reduced risk behaviours	**Group 1 N= 108** Psychoeducation with outpatient - 90-min harm-reduction group weekly sessions for 12 weeks. Focused on information, motivation and skills. Sessions included reducing harm of injection drug use, reducing sexual harm, negotiating harm	Study quality: 1++

Notes: RANDOMISATION: by computer Info on Screening Process: 251 approached; 224 gave consent (4 dropped out during intake phase); 220 randomised Study Type: RCT (randomised controlled trial)	46% cocaine dependence by DSM-IV Exclusions: - <18 years - injection drug user - actively suicidal, homicidal, psychotic Notes: PRIMARY DIAGNOSIS: MMT participants. 75% misused cocaine (by urine or DSM-IV abuse/dependence) ETHNICITY: 66% white, 15% African American, 17% Hispanic Baseline: (Control/psychoeducation) Years' opioid use: 12.3 / 12.8 Years' cocaine use: 11.5 / 12.1 n= 95		reduction with partners and preventing relapse to drugs. **Group 2 N= 112** Control: standard care with outpatient - 2 hours' counselling and case management per month and a single session on HIV risk reduction. This session included a motivational enhancement therapy style, 30-minute video on HIV education and a harm-reduction kit.	
BAKER1993 Blindness: Single blind. Analysis: per protocol. Duration (days): Mean 42 Followup: 6 months Setting: Australia, MMT programme Notes: RANDOMISATION: Stratified on sex and HIV status. Within each couple, both partners allocated to same group to avoid confounding treatment effects.	Age: Mean 31 Sex: 44 males 51 females Diagnosis: 100% opioid dependence by eligibility for/receipt of MMT 100% IDU (injection drug use) by self-report Exclusions: - not injected drugs in last 6 months - not agreed to HIV testing - diagnosis of schizophrenia, bipolar disorder, psychosis, organic brain damage Baseline: HIV status: Six were HIV-positive	**Data Used** Reduced risk behaviours	**Group 1 N= 31** CBT: RP (relapse prevention) with outpatient - six sessions, each 60-90 minutes, conducted individually. First session motivational interview. Second to sixth sessions focused on specific techniques to reduce injecting and sexual risk behaviour. Opioid agonist: MMT with outpatient **Group 2 N= 31** AMI (adapted motivational interviewing): MI with outpatient - single session lasting 60-90 minutes. Aimed to raise motivation to change needle use and unsafe sexual behaviour. Major aim to have participant express concerns about high risk behaviours and express desire to change. Opioid agonist: MMT with outpatient **Group 3 N= 33** Control: TAU (treatment as usual) with outpatient - Advice about HIV risk behaviours normally available from staff at methadone programmes and via an education leaflet. Opioid agonist: MMT with outpatient.	Study quality: 1+
BAKER1994 Study Type: RCT (randomised controlled trial) Study Description: Follow-ups conducted by RA blind to study conditions Type of Analysis: Per protocol Blindness: Single blind Duration (days): Mean 1 Followup: 3 and 6 months Setting: Australia: general medical clinic for homeless people, pharmacy Notes: Stratified randomisation	n= 200 Age: Mean 29 Sex: 159 males 41 females Diagnosis: 100% IDU (injection drug use) by self-report Exclusions: - had not injected drugs in past 6 months - lack of literacy in English - did not agree to HIV testing Baseline: Drug use in past month: injection drug use = 92.5%; injected heroin = 80.5%; borrowed injection equipment = 19%; re-used injection equipment without bleach = 80.2% Sexual risk behaviour: unprotected sex with regular partner = 72/82 (87.8%); casual partner = 31/67 (46.3%); customer	**Data Used** Reduced risk behaviours Notes: DROPOUTS at 3 months: MI (motivational interviewing) = 42/100 (42%); control = 37/100 (37%) 6 months: MI = 58/100 (58%); control = 54/100 (54%)	**Group 1 N= 100** Control: TAU (treatment as usual) with outpatient **Group 2 N= 100** AMI (adapted motivational interviewing): MI with outpatient - one session for 30 minutes. Interactive and objective feedback on health and other risks related to their behaviour. Various MI strategies used including: advantages and disadvantages of sharing injection equipment and sexual risk taking.	Study quality: 1+

	= 3/13 (23.1%)			
BAKER2005 Study Type: RCT (randomised controlled trial) Type of Analysis: Intention to treat Blindness: Single blind Duration (days): Mean 1 Followup: 6 months Setting: Australia Notes: RANDOMISATION: independent clinical trials researcher Info on Screening Process: 282 screened, 68 excluded	n= 214 Age: Mean 30 Sex: 134 males 80 females Diagnosis: 100% other stimulant misuse Exclusions: - suicidality - acute psychosis - current treatment for amphetamine use - acquired cognitive impairment - irregular amphetamine use (<once a week) Notes: PRIMARY DIAGNOSIS: Regular amphetamine use, 1/3 in treatment for other drugs, rest recruited through: word of mouth, needle exchange service, GPs, other community agencies Baseline: Duration of regular use = 8.98 (6.99) Mean daily level of amphetamine use (OTI) = 1.50 (1.65)	**Data Used** Abstinence at 6 months Notes: DROPOUTS: two-session CBT = 18/74, four-session CBT = 25/66 Dropouts from 6-month follow-up: two-session CBT = 20/74, four-session CBT = 15/66,	**Group 1 N= 74** Control: TAU (treatment as usual) with outpatient - received the same self-help booklet as in the intervention groups **Group 2 N= 66** CBT (cognitive behavioural therapy) with outpatient - four sessions: first session motivational interview, following sessions focused on coping and relapse prevention skills. Second session involved relaxation and coping self-talk, third session controlling thoughts about amphetamines fourth session on lapses. **Group 3 N= 74** CBT (cognitive behavioural therapy) with outpatient - two sessions: sessions lasting 45-60 minutes included role plays and take-home exercises for practising skills. First session motivational interview, second session learning coping and relapse preventions skills.	Study quality: 1+
BERNSTEIN2005 Study Type: RCT (randomised controlled trial) Blindness: Single blind Duration (days): Mean 1 Followup: 3 and 6 months Setting: US inner-city walk-in clinic Notes: RANDOMISATION: cards generated by computerised randomisation programme and sealed in opaque envelopes Info on Screening Process: 23669 screened, 1232 eligible, 1175 enrolled	n= 1175 Age: Mean 38 Sex: 829 males 346 females Diagnosis: 100% drug misuse (non-alcohol) by self-report Exclusions: - did not use cocaine and/or heroin in last 30 days - <3 on the Drug Abuse Screening Test (DAST) - <18 years of age - in drug misuse treatment - unable to speak English, Spanish, Haitian Creole or Portuguese Creole Notes: PRIMARY DIAGNOSIS: Self-reported cocaine and/or heroin use Ethnicity: Black = 61.5%, White = 13.8%, Hispanic = 24.1%, Other = 0.7%; Control - Black = 62.5%, White = 14.6%, Hispanic = 22.3%, other = 0.5% Baseline: GROUPS: MI / CONTROL DAST scores: 8.0 (1.7) / 7.9 (2.6) ASI: Drug: 0.26 (0.13) / 0.24 (0.14)	**Data Used** Abstinence at 6 months Hair analysis	**Group 1 N= 590** AMI (adapted motivational interviewing): MI with outpatient - one session for average 20 minutes (range 10-45 mins). Involved establishing rapport, exploring pros and cons of drug use, and readiness to change. Finally provided a leaflet as in control group. Ten days later booster phone call (5-10 mins). **Group 2 N= 585** Control: TAU (treatment as usual) with outpatient - Received a leaflet saying "based on your screening responses you would benefit from help with your drug use" and given a list of treatment options: detox, AA/NA, acupuncture, residential treatment, harm reduction information etc	Study quality: 1++
CARROLL2006A Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Mean 1 Followup: 28 days and 84 days Setting: US, 5 community-based settings Notes: RANDOMISATION: Urn randomisation programme Info on Screening Process: 640 screened, 217	n= 423 Age: Mean 33 Sex: 240 males 183 females Diagnosis: Not given Exclusions: - did not speak English - did not seek outpatient treatment for substance use problems at least once in last 28 days - <18 years - not sufficiently medically or psychiatrically stable	**Data Used** Retention: weeks remained in treatment Drug use: days per month Notes: DROPOUTS: 24% dropped out before 1-month follow-up, 27% dropped out before 3-month follow-up	**Group 1 N= 202** Control: TAU (treatment as usual) with outpatient - 2-hour assessment collected standard information according to agency guidelines, e.g. participants' history and current level of substance use, and then referred to standard group treatment.	Study quality: 1+

excluded: no substance use in last 28 days (n=95); seeking detox, MMT or inpatient treatment (n=34); lack of sufficient housing (n=15); moving or going to prison (n=12); psychiatrically unstable (n=12); not willing to be randomised (n=5)	- seeking detox only, MMT or residential inpatient treatment Baseline: Primary substance: alcohol = 50.3% - exclude?, cocaine = 5.9%, marijuana = 20.2%, opioids = 4.8%, methamphetamine = 18.1%		**Group 2 N= 198** AMI (adapted motivational interviewing): MI with outpatient - 2-hour assessment incorporating MI strategies (empathy, providing choice, removing barriers, providing feedback, clarifying goals).	
COLON1993 Study Type: RCT (randomised controlled trial) Type of Analysis: Per protocol Blindness: Open Duration (days): Not given Followup: 7 months Setting: Four communities in Puerto Rico, US Notes: RANDOMISATION: Poor - based on day of admission Info on Screening Process: 2144 enrolled; 1866 available to follow-up at 7 months	n= 1866 Age: Mean 33 Sex: 1488 males 378 females Diagnosis: 100% IDU (injection drug use) by self-report Exclusions: - not injected in the previous 6 months - not registered on a drug treatment programme in last 30 days Baseline: GROUPS: Psychoeducation / standard education Injected for >=10 years: 56% / 54% Frequency of injection: 81.3% / 83.1% Use of shooting galleries: 79.5% / 78.1% Borrowing of needles: 40.5% / 41.8% Sharing cookers: 75.7% / 77.7% Bleaching needles not always: 91.3% / 93% Use of condoms not always: 87.8% / 87.8%	**Data Used** Reduced risk behaviours Condom use Notes: DROPOUTS: Standard = 11.5%, standard + enhanced = 56.4%	**Group 1 N= 880** Psychoeducation with outpatient - Standard street outreach and referral programme and 3-session educational component. Educational component delivered by trained ex-addict included: basic information about HIV, taught needle bleaching, obstacles to risk reduction, meaning of HIV test results. **Group 2 N= 986** Outreach with outpatient - Outreach workers identified networks of IDUs and introduced programme. Provided instrumental and emotional support with risk reduction and help-seeking efforts.	Study quality: 1+
COPELAND2001 Study Type: RCT (randomised controlled trial) Blindness: Single blind Duration (days): Not given Followup: 24 weeks Setting: Australia Info on Screening Process: 1075 screened, 565 excluded; of 510 eligible, 225 did not make appointments to attend and 47 didn't turn up for assessment; prior to randomization, 9 exceeded criteria for alcohol misuse	n= 229 Age: Mean 32 Sex: 159 males 70 females Diagnosis: 96% cannabis dependence by DSM-IV Exclusions: - no desire to cease cannabis use - > weekly use of drugs other than cannabis, nicotine, or alcohol in past 6 months (AUDIT scores >15) - received formal treatment for cannabis dependence in previous 3 months Baseline: Mean years of weekly cannabis use = 13.9	**Data Used** Abstinence at 6 months Abstinence: days drug free Drug use: days per month Notes: DROPOUTS at 6-month follow-up: 6 CBT = 20%, 1 MI (motivational interviewing) =25%	**Group 1 N= 82** AMI (adapted motivational interviewing): MI with outpatient - 1 session for 90 mins. Combined principles of MI and CBT. **Group 2 N= 78** CBT with outpatient - six session for 1 hour each. First session based on MI principles, second session discussed urge management strategies, third on withdrawal management, fourth on cognitive strategies and skill enhancement, fifth on strategy review and sixth on relapse prevention.	Study quality: 1+
ELDRIDGE1997 Study Type: RCT (randomised controlled trial) Study Description: Cluster randomised by 3-week admission blocks Blindness: Not given Duration (days): Not given Followup: 2 months Setting: US, inpatient - criminal justice Info on Screening Process: 117 screened, 13 discharged early or irregularly	n= 104 Age: Mean 34 Sex: all females Diagnosis: Not given Exclusions: - men - HIV seropositive Notes: Ethnicity: White = 54.8%, African American = 43.4%, Native American = 1.9% Baseline: Self-reported STI: past 12 months = 18.6%, lifetime = 52.9% Self-reported drug use: injected drug in past 2 months = 13.6%, crack cocaine = 61.2%	**Data Used** Condom use Notes: 99/117 (85%) completed, 57 (57%) completed 2-month follow-up	**Group 1 N= 48** HIV education with inpatient - Two 90-minute sessions of HIV education standard part of drug treatment programme. **Group 2 N= 51** Psychoeducation with inpatient - Received standard intervention and four additional behavioural skills sessions. This included modelling, rehearsal, feedback on correct use of condom, communication and assertiveness training, and correct needle cleaning.	Study quality: 1+
EPSTEIN2003				

Study Type: RCT (randomised controlled trial) Blindness: No mention Duration (days): Mean 84 Followup: 12 months Setting: US Info on Screening Process: 286 screened	n= 193 Age: Mean 39 Sex: 110 males 83 females Diagnosis: 41% cocaine dependence by DSM-III-R Exclusions: - <18 years or >65 years - not intravenous opioid user - not cocaine user - current psychotic, bipolar or major depressive disorder - current physical dependence on alcohol or sedatives - unstable medical illness - pregnancy and breastfeeding Baseline: Mean years of cocaine use = 11 (7.5) Mean cocaine use = 18.3 (10.1) of last 30 days	**Data Used** Cocaine use: days Notes: DROPOUTS: Control = 12/49, CM = 9/47 CBT = 10/48, CBT + CM = 15/49	**Group 1 N= 49** CM: vouchers with outpatient - Earned vouchers for each urine specimen that was negative for cocaine. Vouchers began at $2.50, increasing by $1.50 for each consecutive voucher earned. For three consecutive negative urines a $10 bonus was earned. CBT: RP (relapse prevention) with outpatient - Combined elements of relapse prevention, coping methods, behavioural reinforcement methods and methods of generalising to the environment. IDC (individual drug counselling) with outpatient. Opioid agonist: MMT (methadone maintenance) with outpatient. Mean dose 70 mg - Within first week participants stabilised on 70 mg/day could request increase of up to 80 mg/day. **Group 2 N= 47** CM: vouchers with outpatient - Earned vouchers for each urine specimen that was negative for cocaine. Vouchers began at $2.50, increasing by $1.50 for each consecutive voucher earned. For three consecutive negative urines a $10 bonus was earned. IDC (individual drug counselling) with outpatient. Opioid agonist: MMT (methadone maintenance) with outpatient. Mean dose 70 mg - Within first week participants stabilised on 70 mg/day could request increase of up to 80 mg/day. Control: social s.upport group with outpatient **Group 3 N= 48** CBT: RP (relapse prevention) with outpatient - Combined elements of relapse prevention, coping methods, behavioural reinforcement methods and methods of generalising to the environment. IDC (individual drug counselling) with outpatient. Opioid agonist: MMT (methadone maintenance) with outpatient. Mean dose 70 mg - Within first week participants stabilised on 70 mg/day could request increase of up to 80 mg/day. NCM (non-contingent management) with outpatient.	Study quality: 1+

			Group 4 N= 49 IDC (individual drug counselling) with outpatient. Opioid agonist: MMT (methadone maintenance) with outpatient. Mean dose 70 mg - Within first week participants stabilised on 70 mg/day could request increase of up to 80 mg/day. NCM (non-contingent management) with outpatient. Control: social support group with outpatient.	
GIBSON1999 Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Mean 1 Followup: 3 and 12 months Setting: US, entering detox treatment	n= 295 Age: Range 20-49 Sex: 204 males 91 females Diagnosis: 100% opioid dependence by previous participation in treatment Exclusions: None reported Notes: PRIMARY DIAGNOSIS: Just completed opioid detoxification Baseline: (Study 1 / Study 2) History of MMT: 34% / 40% Traded sex in past month: 13% / 25%	**Data Used** Reduced risk behaviours	**Group 1 N= 105** HIV education - 50-minute session of problem solving. Reviewed situations where participant engaged or tempted to engage in high-risk practices and explore strategies to reduce injection risk (e.g. disinfecting syringes and reducing sharing) and sexual risk (e.g. safer sex). **Group 2 N= 115** Control: TAU (treatment as usual) - Provided with a brochure on HIV.	Study quality: 1+
HARRIS1998 Study Type: RCT (randomised controlled trial) Type of Analysis: Per protocol Blindness: Open Duration (days): Mean 120 Followup: 3 months Setting: 4 US methadone maintenance clinics Info on Screening Process: 204 screened, 130 included	n= 204 Age: Mean 36 Sex: all females Diagnosis: 100% opioid dependence by eligibility for/receipt of MMT Baseline: Age first had sex: 15.0 (12.7) Two or more current sex partners: 11.5%	**Data Used** Reduced risk behaviours Notes: DROPOUTS: Treatment group = 9/107, control = 13/97	**Group 1 N= 97** Control: standard care with outpatient - Standard services within MMT. **Group 2 N= 107** HIV education with outpatient - 16-week intervention (first 8 weeks 2 hours/day, last 8 weeks 1hour/day) developed especially for use with women drug misusers. Deigned to empower participants by increasing sense of inner control, improving self-esteem and improving relationships with others.	Study quality: 1+
KIDORF2005 Study Type: RCT (randomised controlled trial) Blindness: No mention Duration (days): Mean 1 Followup: 1 year Setting: US, mobile needle exchange programme Info on Screening Process: 532 screened; 193 excluded: not opioid dependent (n=12), arranged other drug treatment (n=32), current mental disorder (n=3), too old or too young (n=2), failed to complete study assessments (n=144). 339 randomized, 37 did not return for study.	n= 302 Age: Mean 39 Sex: 205 males 97 females Diagnosis: 100% opioid dependence by DSM-IV 79% cocaine dependence by DSM-IV 69% alcohol dependence by DSM-IV Exclusions: - arranged for drug misuse treatment before study - current organic mental disorder - too old or too young	**Data Used** Engagement in treatment Notes: No data provided - write to authors	**Group 1 N= 96** Control: enhanced TAU (treatment as usual) with outpatient - one session for 50 minutes to address job-seeking readiness. Participants reviewed their work history and discussed jobs they were interested in pursuing. Interventionist and participant worked together to develop a list of jobs. **Group 2 N= 98** AMI (adapted motivational interviewing): MI with outpatient - 1 session for 50 mins. Explored the positive and negative aspects of drug use, shared feedback from study assessments and elicited participant response, discussed discrepancy between current level of functioning and future goals.	Study quality: 1+

	Baseline: (MI/job readiness/standard care) Previous methadone treatment: 32% / 32% / 27% Any opioid treatment: 72% / 74% / 70% Lifetime comorbid Axis I disorder: 32% / 31% / 38%		**Group 3 N= 108** Control: TAU (treatment as usual) with outpatient - Participants asked to contact the needle exchange programme if they were interested in pursuing substance misuse treatment. Designed as a usual treatment for participants in needle exchange programmes.	
KOTRANSKI1998 Study Type: RCT (randomised controlled trial) Type of Analysis: Per protocol Blindness: No mention Duration (days): Mean 21 Followup: 6 months Setting: US Notes: RANDOMISATION: poor - time or arrival (every other person went into enhanced condition) Info on Screening Process: 684 enrolled > 417 completed study	n= 417 Age: Mean 39 Sex: 265 males 152 females Diagnosis: IDU (injection drug use) drug misuse (non-alcohol) Exclusions: - <18 years of age - not used injected drugs and/or crack (self-report, urinalysis, fresh injection marks) - participated in drug treatment Notes: Ethnicity: African American = 85% Baseline: GROUPS: Standard / Psychoeducation Years of cocaine, heroin or speedball use:16.3 / 17.3 Years of crack use: 6.5 / 5.5 Ever had STI: 57% / 55%	**Data Used** Reduced risk behaviours Condom use Notes: DROPOUTS at follow-up: enhanced intervention = 233/327 (71%), standard = 184/268 (69%)	**Group 1 N= 184** HIV education with outpatient - two sessions inc.HIV pre-test counselling, voluntary HIV test, information on HIV, drug and sexual risk reduction, discussion and rehearsal of condom use. **Group 2 N= 233** Psychoeducation with outpatient - Received standard intervention and one additional session on the same day as last standard session. Provided info on STI symptoms, prevention and barriers to risk reduction; made STI risk more personal using self-assessment of behaviours and risks.	Study quality: 1+
MALOTTE1998 Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Setting: Long Beach, CA, US Notes: Randomisation stratified by recruitment source Info on Screening Process: 1004 enrolled	n= 1009 Age: Range 18-69 Sex: 684 males 325 females Diagnosis: drug misuse (non-alcohol) by urinalysis Exclusions: Clear history of positive TB skin test Baseline: HIV+: 4% No prior TB exposure: 90% Unemployed: 78% Ever been in drug treatment: 56% Drug use in past 30 days: injection only: 24%, crack only: 41%, crack and injection: 23%	**Data Used** Completion rate	**Group 1 N= 203** AMI (adapted motivational interviewing): MI with outpatient - 5-10-minute motivational educational session based on theory of reasoned action. CM (contingency management) with outpatient - $10 cash reward contingent on participant returning for skin-test reading. **Group 2 N= 198** AMI (adapted motivational interviewing): MI - As per group 1 CM (contingency management) - $5 cash reward contingent on participant returning for skin test reading. **Group 3 N= 99** AMI (adapted motivational interviewing): MI - Motivational session only, no incentives. **Group 4 N= 100** Control: TAU (treatment as usual) - The importance of returning for skin-test reading was stressed, but no motivational session. **Group 5 N= 204** CM (contingency management) - As per control group, but with $5 cash reward for returning.	Study quality: 1++

			Group 6 N= 200 CM (contingency management) - As per control group, with $10 cash incentive for return	
MALOTTE1999 Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Mean 1 Setting: US Notes: RANDOMISATION: Method not reported Info on Screening Process: 1078 recruited	n= 1078 Age: Sex: 837 males 241 females Diagnosis: 100% drug misuse (non-alcohol) by self-report Exclusions: Not users of injection drugs, crack cocaine or both Notes: ETHNICITY: 2% Native American, 64% African American, 8% Latino, 21% Caucasian, 5% other Baseline: Prior TB exposure: 10% Ever injected: 42% Ever used crack: 97% Ever been in drug treatment: 50% Current drug use (past 90 days): injection: 10.9, crack: 77.0, crack and injection: 12.1	**Data Used** Engagement in treatment	**Group 1 N= 217** CM (contingency management) with outpatient - $10 cash for returning for TB skin-test reading. **Group 2 N= 217** CM (contingency management) with outpatient - $10 of grocery store coupons for returning for TB skin-test readings. **Group 3 N= 218** CM (contingency management) with outpatient - Chose either bus passes or fast-food-chain vouchers worth $10 for returing for TB skin-test reading. **Group 4 N= 211** AMI (adapted motivational interviewing): MI with outpatient - 5-10-minute session based on theory of planned behaviour focused on behavioural beliefs and subjective norms that were most related to their behavioural intention to return for TB testing. **Group 5 N= 215** Control: TAU (treatment as usual) with outpatient - Just warned of importance of having TB skin tests read.	Study quality: 1+
MALOTTE2001 Study Type: RCT (randomised controlled trial) Study Description: Allocation concealed by opaque sealed envelopes Type of Analysis: Per protocol Blindness: Open Duration (days): Range 180-365 Setting: Storefront facility in California, US Notes: Randomisation in blocks of 18 Info on Screening Process: 325 had a positive tuberculin test, 224 completed further assessment, 202 offered isoniazid; 169 gave consent to take part in study, 6 excluded (2 previous history of INH therapy, 3 prolonged elevated liver function test readings, 1 positive septum test)	n= 163 Age: Mean 42 Range 23-69 Sex: 134 males 29 females Diagnosis: 27% IDU (injection drug use) by self-report 82% other stimulant misuse by self-report Exclusions: Evidence of potential active disease or medical contraindications to isoniazid Notes: PRIMARY DIAGNOSIS: Injection or crack cocaine use ETHNICITY: 71% African American, 9% Hispanic, 14% White, 7% other Baseline: Unemployed: 88% Unstable living status: 29% Prior TB exposure: 12% Some binge drinking in past month: 58% Previous drug/alcohol treatment: 55%	**Data Used** Completion rate	**Group 1 N= 55** Outreach with outpatient - Twice weekly directly observed therapy (DOT) for TB drug, supplied by outreach worker at location chosen by participant. CM (contingency management) - $5 cash incentive at each visit. **Group 2 N= 55** Outreach - As per Group 1, but with no incentives. **Group 3 N= 53** CM (contingency management) - DOT provided at community site with no active outreach. $5 cash incentive for each visit.	All participants prescribed isoniazid, 15 mg/kg (max 900 mg) twice weekly for 6 or 12 months (depending on HIV status) Study quality: 1++
MALOW1994 Study Type: RCT (randomised controlled trial) Blindness: Not given Duration (days): Mean 3 Followup: 3 months	n= 152 Age: Mean 35 Sex: all males	**Data Used** Reduced risk behaviours Condom use	**Group 1 N= 76** Psychoeducation with inpatient - Three 2-hour sessions on consecutive days designed to a) foster acceptance of HIV risk reduction b) stress risk reduction can	Study quality: 1+

Setting: US Veterans Affairs Treatment Program Info on Screening Process: 235 screened, 83 excluded	Diagnosis: 100% cocaine dependence by DSM-III-R Exclusions: - not African American male - <20 years or >50 years of age - IQ <80 - visual or hearing deficit - HIV seropositivity - plans to move 60 miles from New Orleans Baseline: No statistics reported	Notes: DROPOUTS: Psychoeducation = 30.3%, information group = 29%	be achieved c) develop communication and behavioural skills for safe sex and syringe use d) address barriers to changing behaviour. **Group 2 N= 76** Control: enhanced TAU (treatment as usual) with inpatient - Similar content and time frame as psychoeducation condition -- contained pre-recorded audiovisual and printed material but minimal patient-therapist interaction.	
MARGOLIN2003 Study Type: RCT (randomised controlled trial) Type of Analysis: ITT: missing data imputed:expectation maximisation Blindness: No mention Duration (days): Mean 180 Followup: 9 months Setting: US, MMT programme Notes: Randomisation procedures not reported	n= 90 Age: Mean 41 Sex: 63 males 27 females Diagnosis: 100% opioid dependence by eligibility for/receipt of MMT 100% cocaine misuse 100% IDU (injection drug use) by self-report Exclusions: - unconfirmed HIV-seropositive status - not IDU Notes: ETHNICITY: 49% African American, 36% White, 16% Hispanic Baseline: 94% unemployed		**Group 1 N= 45** Opioid agonist: MMT (methadone maintenance) with outpatient. Mean dose 80 mg/day - Included counselling and case management. HIV education with outpatient - six session HIV risk reduction intervention: motivational interview, video demonstration of cleaning needles, practice cleaning a needle, harm reduction negotiation role play, harm reduction kit. **Group 2 N= 45** Opioid agonist: MMT (methadone maintenance) with outpatient. Mean dose 80mg/day - Included counselling and case management. Control: TAU (treatment as usual) with outpatient - Group counselling included: relapse prevention, improving emotional, social and spiritual health.	Study quality: 1+
MARSDEN2006 Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Mean 1 Followup: 6 months Setting: UK community agencies in Newham, Thamesmead and Sutton Notes: RANDOMISATION: By trial statistician Info on Screening Process: 369 screened, 342 randomised	n= 342 Age: Mean 18 Sex: 227 males 115 females Diagnosis: cocaine misuse by self-report other stimulant misuse by self-report Exclusions: - <16 years or >22 years - primary substance not ecstasy, cocaine powder, or crack cocaine - use of either of above susbtances <4 times in last month - not able to provide two personal contacts - lifetime treatment for non-medical opioid drug use - current dependence - >1 injection of illicit drugs in last year Notes: PRIMARY DIAGNOSIS: Self-reported cocaine, crack cocaine and/or ecstasy use Baseline: GROUP: MI / CONTROL Cocaine use (90 days): 101/111 Crack use (90 days): 53/61 Cannabis use (90 days):150/157	**Data Used** Drug use Abstinence: no use for 3 months Notes: Lost to follow-up: MI (motivational interviewing) = 21/166, control = 22/176	**Group 1 N= 166** AMI (adapted motivational interviewing): MI with outpatient - 45-60-minute disucssion: 1) framing and initiating conversation 2) general lifestyle 3) stimulant and alcohol use 4) perception of good and bad aspects of stimulant use 5) problems with stimulant use 6) plans for behaviour change 8) local health **Group 2 N= 176** Control: TAU (treatment as usual) with outpatient - Given same written health-risk information as intervention group.	Study quality: 1++
MCCAMBRIDGE2004				

Study Type: RCT (randomised controlled trial) Study Description: Colleague not involved in study performed non-computerised randomisation of clusters, stratified by college; interviewer blind to study conditions Type of Analysis: Cluster randomised Blindness: Single blind Duration (days): Mean 1 Followup: 3 months, 12 months Setting: 10 further education colleges in London Notes: Participants recruited by any given individual recruiter were all assigned to the same group	n= 200 Age: Range 16-20 Sex: 118 males 82 females Diagnosis: cannabis misuse by self-report cocaine misuse by self-report Exclusions: - < weekly use of cannabis or stimulants within previous 3 months - opioid and injecting drug use Notes: Ethnicity: intervention group - White = 32%, Black = 61%, Asian/other = 8%; control - White = 46%, Black = 37%, Asian/other = 20% Baseline: GROUPS: MI / TAU Cannabis use weekly: 35% / 28% Cannabis use daily: 49% / 48% Simulant use irregularly: 19% / 18% Stimulant use monthly: 8% / 23%	**Data Used** Cannabis use: days in past 3 months Notes: DROPOUTS: 7.5% MI (motivational interviewing), 13.7% control	**Group 1 N= 95** Control: TAU (treatment as usual) with outpatient - Education as usual. Completed baseline and follow-up assessments only. **Group 2 N= 105** AMI (adapted motivational interviewing): MI with outpatient - 1 session lasting up to 60 mins. Intervention adapted from work by Miller on MI including reflective listening, affirmation, open questions and eliciting 'change talk'.	Study quality: 1+
MILLER2003 Study Type: RCT (randomised controlled trial) Blindness: No mention Duration (days): Mean 1 Followup: 12 months Setting: US: 56 inpatients, 152 outpatients Info on Screening Process: 294 screened, 129 declined to participate	n= 208 Age: Mean 33 Sex: 118 males 90 females Diagnosis: Not given Baseline: Most common drug problem: cocaine (53%), heroin (29%)	**Data Used** Drug use: days per month Notes: No outcomes extractable	**Group 1 N= 104** AMI (adapted motivational interviewing): MI with inpatient and outpatient - A single session lasting up to 2 hours; standard brief motivational intervention format offering feedback in an empathic way. Control: standard care with inpatient and outpatient - Standard care in the treatment services: outpatient - 23% MMT, 76% RP, 88% coping skills training inpatient - 60% medical detoxification, most received RP, AIDS counselling, 12-step facilitation. **Group 2 N= 104** Control: standard care with inpatient and outpatient - Standard care in the treatment services: outpatient - 23% MMT, 76% RP, 88% coping skills training inpatient - 60% medical detoxification, most received RP, AIDS counselling, 12-step facilitation.	Study quality: +1
MITCHESON2007 Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Not given Notes: Cluster-randomised: clinic staff were randomised to MI (motivational interview)/delayed training; clients of those trained were assigned to MI group	n= 29 Age: Mean 39 Sex: 19 males 10 females Diagnosis: 100% opioid dependence by eligibility for/receipt of MMT 100% cocaine misuse by urinalysis Exclusions: No cocaine use in past 30 days (by urinalysis) Notes: PRIMARY DIAGNOSIS: Crack cocaine Baseline: (Control / MI) Time in treatment (years): 2.9 / 4.9 Unemployed: 83% / 94%	**Data Used** Cocaine use: times in past month Cocaine use: max consecutive days Cocaine use: grams, self-report Cocaine use: days Notes: Outcomes are for crack-cocaine use DROPOUTS: None reported	**Group 1 N= 12** Control: TAU (treatment as usual) with outpatient - Exposing clients to the crack awareness initiative (leaflets about consequences of crack-cocaine use, poster display in clinic reception). **Group 2 N= 17** AMI (adapted motivational interviewing): MI with outpatient. Mean dose 1 session - Engaging in discussion with client about his/her crack cocaine use: eliciting concerns, exploring and amplifying ambivalence about use. If appropriate: at end of session, prompting client to consider whether to change behaviour and options for doing so.	Study quality: 1+

ONEILL1996 Study Type: RCT (randomised controlled trial) Type of Analysis: Completers Blindness: Single blind Duration (days): Mean 42 Setting: 'Centres' in Australia. No further details Notes: RANDOMISATION: Adaptive sampling for settling temporary imbalances in group sizes due to practical constraints Info on Screening Process: 92 enrolled	n= 92 Age: Mean 26 Sex: all females Diagnosis: 100% IDU (injection drug use) by eligibility for/receipt of MMT Exclusions: Not pregnant women Notes: PRIMARY DIAGNOSIS: Only included IDU in past 6 months Baseline: Age first injected: 17.3 Self-reported drug use in past month: heroin: 85%, other illicit opioids: 16%, alcohol: 32%, cannabis: 59%, cocaine: 15%, amphetamine: 10% HIV+: 0% Sex work: 53% (lifetime), 21% (past 6 months) IDU partner: 76% Pregnancy weeks: 22	**Data Used** Reduced risk behaviours Notes: DROPOUTS: Treatment group = 7/47, control = 5/45; at follow-up: treatment group = 10/47, control = 9/45	**Group 1 N= 40** CBT: RP (relapse prevention) with outpatient - six sessions lasting for 60-90 minutes. First session motivational interview. 2-6 identifying high-risk situations, problem-solving strategies, coping with craving, relaxation techniques and coping with lapses. **Group 2 N= 40** Control: TAU (treatment as usual) with outpatient.	Study quality: 1+
ROSEN2007 Study Type: RCT (randomised controlled trial) Type of Analysis: Completers Blindness: No mention Duration (days): Mean 224 Setting: Outpatients Info on Screening Process: 141 assessed, 131 met study inclusion criteria. 99 completed 4 week baseline assessment. 33 had baseline adherence over 80% dose-time threshold, 10 discontinued for other reasons, 56 randomised	n= 56 Age: Mean 44 Sex: 33 males 23 females Diagnosis: Exclusions: - not currently taking antiretroviral medication - not willing or able to use MEMS-compatible bottles - never used an illicit drug weekly for a year - Mini Mental State Score of less than 23 Notes: ETHNICITY: African American 58% Hispanic 28% Caucasian: 14% Baseline: CM: Baseline compliance 58%, Cocaine use 67%, Cannabis use 33%, Opioid use 44% Supportive counselling: Baseline compliance 58%, Cocaine use 63%, Cannabis use 37%, Opioid use 37%	**Data Used** Self-report % doses taken Viral load Side effects Compliance with medication Urinalysis: positive for any illicit drug	**Group 1 N= 28** CM: prizes - CM prizes earned each time medication capsule opened within 3 hours of schedule. 26.7% chance to earn $1 card, 7.6% chance for $20 card, 0.2% chance for $100 card. Cards exchanged for prizes such as bus tokens, clothing, small appliances. - One draw per day when all medication taken. Chance to earn 5 more draws when all of weeks doses taken. Ten draws for 2 weeks medication completion, 15 draws for 3 weeks, 20 draws for 4+ weeks. Draws reset to 5 for non compliance. Potential earnings $800. - Weekly counseling attendance encouraged to discuss issues re: missed doses and adherence and offered support. Onsite urine toxicology testing for cannabis, opioid and cocaine metabolites at each session. **Group 2 N= 28** Supportive counselling - Counsellor did not review MEMS data nor conduct urine toxicology. Initial review of self-reported substance abuse & referral to available treatment. Monthly letters sent stating self-reported adherence. Weekly counselling attendance encouraged to discuss issues re: missed doses, adherence and offered support	Study Quality 1+
SCHILLING1991 Study Type: RCT (randomised controlled trial) Blindness: Not given Duration (days): Not given Setting: US methadone maintenance clinics Info on Screening Process: 115 eligible 24 did	n= 91 Age: Range 21-42 Sex: all females Diagnosis: not given Exclusions: - not Black or Hispanic	**Data Used** Reduced risk behaviours	**Group 1 N= 48** Psychoeducation with outpatient - Five 2-hour sessions by female drug counsellors. First two sessions on providing info on AIDS transmission and prevention to enable participants to identify high-risk behaviours. Sessions 3-5 on condom use,	Study quality: 1+

not wish to participate	- < 3 months of MMT Notes: Ethnicity: Hispanic = 64.3%, Black = 35.7% Baseline: GROUPS: Intervention / Control Heroin use: 15.2% / 15.8% Cocaine use: 43.5% / 42.1% Injection use: 71.3% / 76.3% Unemployed: 91.3% / 89.5%	Notes: DROPOUTS: intervention = 2/48 (4.2%), control = 5/43 (12%)	communication and assertiveness training, problem solving. **Group 2 N= 43** HIV education with outpatient - AIDS information routinely provided in the clinic.	
SEAL2003 Study Type: RCT (randomised controlled trial) Blindness: Open Duration (days): Mean 180 Setting: Two inner-city neighbourhoods, San Francisco, US Notes: Block randomisation Info on Screening Process: 366 screened, 149 eligible, 96 returned for enrolment	n= 96 Age: Mean 43 Sex: 69 males 27 females Diagnosis: 100% IDU (injection drug use) Exclusions: Not negative for all three hepatis B virus seromarkers. No isolated hepatitis B core antigen antibody Notes: Injected in past 30 days: heroin: 74%, speedball: 51%, speed: 16% ETHNICITY: 46% African American, 31% White, 15% Latino, 8% other Baseline: Homeless: 47% Years IDU: 21 Heavy alcohol use (>=5 drinks/day): 15% Had drug treatment in past year: 49%	**Data Used** Completion rate	**Group 1 N= 48** CM (contingency management) with outpatient - Once per month for 6 months $20 incentive for returning to community site. Second and third doses of hepatitis B virus vaccine given at months 1 and 6. **Group 2 N= 48** Outreach with outpatient - Outreach worker attempted weekly contact to provide safe injection information and appointment reminders; duration of each contact not reported. Second and third doses of hepatitis B virus vaccine given at months 1 and 6.	Study quality: 1+
SIEGAL1995 Study Type: RCT (randomised controlled trial) Blindness: Not given Duration (days): Mean 30 Followup: 6 months Setting: Needle exchange programmes in US Notes: RANDOMISATION: Poorly addressed -- by alternation Info on Screening Process: 907 screened, 214 excluded	n= 381 Age: Mean 37 Sex: 282 males 99 females Diagnosis: Not given Exclusions: - had not injected drugs in previous 6 months - <18 years of age - attended a drug treatment programme in last 30 days Notes: Ethnicity: African-American (n= 184), White (n=42), other (n=6) Baseline: 61% heroin injection, 77% cocaine injection, 43% speedball (heroin and cocaine mixture), 68% crack users HIV+: 1.5%	**Data Used** Reduced risk behaviours Notes: DROPOUTS during treatment: enhanced education = 51%; at follow-up: standard = 113/345 (33%), enhanced = 22/171 (13%)	**Group 1 N= 232** Control: enhanced TAU (treatment as usual) with outpatient - 1-hour standard intervention: 1) in-depth details on HIV and how it is transmitted 2) behavioural strategies to reduce HIV risk, e.g. proper condom use, needle cleaning with bleach. Received HIV tests results and risk-reduction kit and pamphlets. **Group 2 N= 149** Psychoeducation with outpatient - three additional education sessions for 1-2 hours: 1) pathology of HIV and AIDS 2) drug addiction 3) safer sex and relationships - men's version and women's version.	Study quality: 1+
SORENSEN1994 Study Type: RCT (randomised controlled trial) Blindness: Not given Duration (days): Mean 7 Followup: 3 months Setting: US Notes: CONCEALMENT OF ALLOCATION: Sealed envelopes	n= 148 Age: Mean 39 Sex: 89 males 59 females Diagnosis: Not given Exclusions: - <20 years of age - HIV antibody positive Notes: Ethnicity: MMT - White = 54%, Black = 18%, Hispanic = 20%, Other = 8%; detox - White = 44%, Black = 20%, Hispanic = 26%, other = 10% Baseline: SAMPLES: MMT / DETOX 0 years of amphetamine use: 62% / 56% 3+ years of amphetamine use: 22% / 26% 0 years of cocaine use: 44% / 38%	**Data Used** Unsterile needle use Condom use Notes: DROPOUTS: MMT: education = 5/25; detox: education = 17/32	**Group 1 N= 25** Psychoeducation with outpatient - MMT group: 3 sessions for 2 hours within a week. Involved didactic presentations on AIDS transmission, group discussions designed to personalise the threat of AIDS, and social interaction among members and leaders. **Group 2 N= 28** HIV education with outpatient - Control for detox group: information only **Group 3 N= 22** HIV education with outpatient - Control for MMT group: information only	Study quality: 1++

	3+ years of cocaine use: 36% / 45%		**Group 4 N= 32** Psychoeducation with outpatient - Detox group: 2 sessions - first session for 2 hours and second session for 1 hour. Involved didactic presentations on AIDS transmission, group discussions to personalise the threat of AIDS, and social interaction among members and leaders.	
SORENSEN2006 Study Type: RCT (randomised controlled trial) Study Description: Randomised by statistician and placed in sealed envelopes Type of Analysis: ITT - maximum likelihood estimation Blindness: Open Duration (days): Mean 84 Followup: 4 weeks Setting: Two MMT clinics in San Francisco, US Notes: Computerised stratified randomisation Info on Screening Process: 181 screened -- 78 ineligible (primarily as a result of not being prescribed antiretroviral for >1 month). 86 gave consent; 66 still interested and eligible, and randomised.	n= 66 Age: Mean 43 Sex: 35 males 31 females Diagnosis: 100% HIV positive by current participation in treatment 100% opioid dependence by eligibility for/receipt of MMT Exclusions: - not receiving MMT - not HIV+ - not been prescribed HIV antiretroviral medication for at least one month - participating in other adherence improvement - >=80% medication adherence during 4-week baseline phase Notes: ETHNICITY: 36% Caucasian, 32% African-American, 12% Latino, 20% other/mixed 4 'female' participants were male to female transsexual Baseline: (CM / control) Employed full/part time: 9% / 0% Homeless/no stable residence: 35% / 41% Opioid positive urine: 35% / 41% Cocaine positive urine: 53% / 50% Methadone dose (mg): 85.4 / 73.3	**Data Used** Compliance with medication Notes: Monitoring of adherence twice daily (i.e. via electronic bottle cap at each of two daily antiretroviral doses) DROPOUTS: 12.5% vouchers, 6% control	**Group 1 N= 34** CM: vouchers - Voucher earned each time medication cap opened within 2 hours of schedule. $1 per day in first 5 days, $1.40 bonus with each successive day complied. Day 6 onwards: increase of $0.20 per day for each day complied. On any day, reset to $1 if not complying. Control: standard care with outpatient - Medication coaching: meeting with nurse/RA once every 2 weeks, who gave copy of electronic bottle cap adherence data; assessment and personalisation of current antiretroviral schedule, providing support to improve adherence. Antiretroviral taken twice daily. **Group 2 N= 32** Control: standard care with outpatient - Medication coaching and twice daily antiretroviral, as per CM group.	Study quality: 1++
STEPHENS2000 Study Type: RCT (randomised controlled trial) Blindness: No mention Duration (days): Not given Followup: 1, 4, 7 and 13 months Setting: US Info on Screening Process: 601 screened, 183 excluded (cannabis used <50 times in 90 days (n=24), alcohol or other drug misuse in last 90 days (n=149), severe psychological distress (n=8), other formal treatment (n=2)). Of eligible sample, 127 did not complete pre-treatment session.	n= 291 Age: Mean 34 Sex: 224 males 67 females Diagnosis: Not given Exclusions: - cannabis used <50 times in last 90 days - alcohol or other drug misuse in last 90 days - severe psychological distress - receiving other formal treatment Baseline: Years of use = 17.35 (5.21), days of use past 90 days = 74.64 (18.54)	**Data Used** Cannabis use: days in past 3 months Notes: DROPOUTS: CBT = 19%, MI (motivational interviewing) = 8%, waitlist = 8%	**Group 1 N= 117** CBT: group RP (relapse prevention) with outpatient - 14 x 2-hour CBT: RP group sessions over an 18-week period. Sessions 1-10 weekly, 11-14 every other week. Weeks 1-4 involved building motivation for change and high-risk situations identified, 5-10 building coping skills, 11-14 coping with rationalisations. **Group 2 N= 88** AMI (adapted motivational interviewing): MI with outpatient - Two 90-min individual sessions. Involved MI (e.g. reflective listening, affirmation and reframing) and CBT techniques (identifying high-risk situations). Second session (1 month after) reviewed previous session and feedback received. **Group 3 N= 86** Control: waitlist with outpatient - Waitlist of 4 months until treatment.	Study quality: 1+

STEPHENS2002 Study Type: RCT (randomised controlled trial) Blindness: Not given Duration (days): Not given Followup: 4 and 9 months Setting: Three US urban areas Notes: RANDOMISATION: Conducted centrally at the the Center for Substance Abuse Treatment using URN randomisation programme Info on Screening Process: 1211 screened, 398 excluded (dependence on other drugs (31%), unwilling to accept random assignment (21%), currently receiving therapy (20%), did not provide contact person (20%), legal status (16%)); 363 eligible but did not complete assessment	n= 450 Age: Mean 36 Sex: 306 males 144 females Diagnosis: 100% cannabis dependence by DSM-IV Exclusions: - <18 years - dependence on other drugs or alcohol - inability to provide a person who could assist in contact at follow-up - legal status that would disrupt treatment - currently receiving therapy Notes: Ethnicity: White = 69.3%, Hispanic = 17.3%, African American = 12.2%, Other = 1.1% Baseline: Proportion of days drug used in last 90 days = 0.88, hours high per day = 6.62, ounces of cannabis per week = 0.40, number of joints per day = 2.89	**Data Used** Cannabis use: days in past 3 months Abstinence: no use for 3 months Notes: DROPOUTS: MI (motivational interviewing) = 18/146 (12.3%), CBT = 23/156 (15%), waitlist =11/148 (7.5%)	**Group 1 N= 148** Control: waitlist with outpatient **Group 2 N= 146** AMI (adapted motivational interviewing): MI with outpatient - Two 1-hour sessions 1 and 5 weeks after randomisation. Discussed a personal feedback report to motivate participant to make changes -- attitudes favouring and opposing change, treatment goals etc; in second session efforts to reduce cannabis use reviewed. **Group 3 N= 156** CBT: coping skills training with outpatient - 9 sessions over a 12-week period. First 8 sessions weekly, 9th session 4 weeks after 8th session to review changes. Combined motivational aspects with CBT and case management.	Study quality: 1+
STERK2003 Study Type: RCT (randomised controlled trial) Type of Analysis: Per protocol - only those available to follow-up Blindness: Open Duration (days): Mean 30 Setting: US inner-city neighbourhood outreach	n= 68 Age: Mean 41 Range 20-54 Sex: all females Diagnosis: 100% IDU (injection drug use) by self-report Exclusions: - <18 years - in drug treatment - not proficient in English - HIV positive - not had sex with a man in last month - intoxicated or high at time of interview Baseline: GROUPS: Standard interventions / motivation intervention / negotiation intervention Mean days' crack use: 14.0 (13.3) / 10.0 (12.1) / 10.2 (12.5) Mean days' cocaine powder: 8.3 (11.9) / 10.4 (12.3) / 5.4 (8.1) Mean days' heroin use: 16.6 (12.9) / 14.1 (13.1) / 12.2 (10.7) Mean days' speedball: 12.2 (14.3) / 6.4 (9.7) / 6.7 (10.5)	**Data Used** Reduced risk behaviours	**Group 1 N= 27** HIV education with outpatient - Standard 2-session: first session emphasised HIV epidemic and the importance of reducing injection and sexual risk. Second session focused on further development of HIV knowledge and risk and protective behaviour. **Group 2 N= 20** HIV education with outpatient - 4-session motivational: in first session HIV education & tailored to race and gender issues, in second session short- and long term goals discussed, in third short-term behaviour change reviewed along with ambivalence & in fourth risk reduction discussed. **Group 3 N= 21** HIV education with outpatient - 4-session negotiation: in 1st session HIV education & skills training, in 2nd possible behaviour changes reviewed & general communication & assertiveness discussed, in 3rd short-term goals discussed & in 4th developed negotation and conflict resolution.	Study quality: 1+
STOTTS2001 Study Type: RCT (randomised controlled trial) Type of Analysis: ITT Blindness: Open Duration (days): Mean 10 Setting: University-medical-centre-based research unit, Texas, US Notes: RANDOMISATION: Stratified by MI (motivational interviewing) condition	n= 105 Age: Mean 35 Sex: 84 males 21 females Diagnosis: 100% cocaine dependence by DSM-IV Exclusions: - age outside range 18-50 years - not in good physical and psychiatric health - not free of legal problems Notes: - Recruited through radio, television, newspaper advertising	**Data Used** Completion rate Cocaine use: no use versus some use Notes: Completion of treatment: MI = 50%, no M= 49%	**Group 1 N= 53** AMI (adapted motivational interviewing): MI with outpatient - Two 1-hour interventions on days 1 and 4 of cocaine detoxification. Session 1 focussed on building motivation for change and exploring ambivalence about change; session 2 consisted of personal feedback reassessing commitment to change. **Group 2 N= 52** Control: standard care with outpatient.	Study quality: 1+

	- Received 12 weeks of relapse prevention after cocaine detoxification Baseline: Mean duration of cocaine use: 10 years Mean frequency of cocaine use in last 30 days: 12.8			
TUCKER2004A Study Type: RCT (randomised controlled trial) Type of Analysis: Intention to treat Blindness: Single blind Duration (days): Mean 1 Followup: 1 month Setting: Australia Notes: RANDOMISATION: By an independent researcher; randomisation outcome was concealed in a sealed envelope Info on Screening Process: 239 screened, 23 excluded, 70 did not attend interview, 24 excluded after interview	n= 145 Age: Mean 31 Sex: 107 males 38 females Diagnosis: 100% IDU (injection drug use) by self-report 75% opioid misuse by self-report Exclusions: - <18 years - injecting < once per week for last 6 months - not willing to be contacted for follow-up interview Notes: PRIMARY DIAGNOSIS: heroin was primary drug for 75% Baseline: 64% positive for hepatitis C virus	**Data Used** Reduced risk behaviours	**Group 1 N= 73** Psychoeducation with outpatient - 30-min individually tailored intervention aimed to increase awareness of risk practices in relation to hepatitis C, to enhance motivation and to change high-risk practices. Non-confrontational and supportive style used. **Group 2 N= 72** Control: TAU (treatment as usual) with outpatient - Providing the participant with written literature on hepatitis C and briefly highlighting various sections of the bookle	Study quality: 1++
WECHSBERG2004 Study Type: RCT (randomised controlled trial) Blindness: No mention Duration (days): Mean 42 Followup: 3 and 6 months Setting: US Info on Screening Process: 938 screened, 176 did not return for second assessment; 762 randomised	n= 620 Age: Mean 37 Sex: all females Diagnosis: 100% other stimulant misuse by self-report Exclusions: - not African American women - <18 years - did not engage in unprotected sex during last 90 days - crack use <13 times in last 90 days - enrolled in substance misuse treatment within past 30 days Notes: PRIMARY DIAGNOSIS: Crack misuse Baseline: Drug use behaviours: number days smoked crack in past 30 days = 17.1; ever injected = 10.7% Sexual risk behaviours: engaged in unprotected sex in past 30 days = 88.5%, ever traded sex for money or drugs = 66.7%, traded sex for money or drugs = 42.8%	**Data Used** Condom use Notes: DROPOUTS: Woman-focused group = 33%, standard group = 35%	**Group 1 N= 207** Control: waitlist with outpatient **Group 2 N= 213** Psychoeducation with outpatient - Women focused: two individual and two group sessions including HIV education, behavioural skills training and printed materials. Intervention was delivered within a gender- and culture-specific focus. **Group 3 N= 199** Psychoeducation with outpatient - Standard: contained most of the components of the other interventions, such as HIV education, behavioural skills training and printed materials but did not have the gender-specific and culture-specific focus.	Study quality: 1++

Characteristics of Excluded Studies

Reference ID	Reason for Exclusion
BAKER2001	Small sample size
BOATLER1994A	Not an RCT
BOOTH1996	Cluster-randomised; no extractable data (regression analysis)
BOOTH2004	Outcomes not reported by treatment condition
BRAINE2004A	Primary focus on alcohol
CHOOPANYA2003	Cohort study
COMPTON1998A	Cohort study
COMPTON2000A	Cohort study
CONROD2000A	Primarily alcohol misusers

DAVIS2003	Primary focus on alcohol
DONOVAN2001	No extractable drug outcomes
ELBASSEL2005	Cohort study
FISHER2003	Not psychosocial intervention
HEIL2005A	No relevant outcomes (study reported HIV knowledge)
HERSHBERGER2003	Not an RCT
KWIATKOWSKI1999	Subgroup analysis only
LASH2005	No extractable outcomes
LINDENBERG2002A	Small proportion of sample were drug users
MALOW1992	Did not directly assess harm-reduction outcomes
MARSCH2004A	Not relevant comparison
MARTIN2001A	Did not assess required outcomes
MCCUSKER1992A	Data not broken down by groups
ONDERSMA2005	No drug-use outcomes assessed
RILEY2000A	Not intervention
ROHSENOW2004	Outcomes not reported by assigned groups
SAUNDERS1995	No extractable outcomes
SCOTT2001	Motivational interviewing greater than two sessions
SHERMAN2006	No control group
STARK2005	Not a psychosocial intervention
STEIN2002B	Primary focus on alcohol misuse
STEPHENS2004	Did not assess required outcomes
STERK2003B	Subgroup analysis only

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Characteristics of reviewed studies: Brief interventions versus standard interventions

Comparisons Included in this Clinical Question

Motivational interviewing versus CBT
BAKER1993
COPELAND2001
STEPHENS2000
STEPHENS2002

Characteristics of Included Studies

Methods	Participants	Outcomes	Interventions	Notes
BAKER1993 Study Type: RCT (randomised controlled trial) Type of Analysis: Per protocol Blindness: Single blind Duration (days): Mean 42 Followup: 6 months Setting: Australia, MMT programme Notes: RANDOMISATION: Stratified on sex and HIV status. Within each couple, both partners allocated to same group to avoid confounding treatment effects.	n= 95 Age: Mean 31 Sex: 44 males 51 females Diagnosis: 100% opioid dependence by eligibility for/receipt of MMT 100% IDU (injection drug use) by self-report Exclusions: - not injected drugs in last 6 months - not agreed to HIV testing - diagnosis of schizophrenia, bipolar disorder, psychosis, organic brain damage Baseline: HIV status: 6 were HIV-positive	**Data Used** Reduced risk behaviours	**Group 1 N= 31** CBT: RP (relapse prevention) with outpatient, six sessions, each 60-90 mins, conducted individually. First session motivational interview. Second to sixth sessions focused on specific techniques to reduce injecting and sexual risk behaviour. Opioid agonist: MMT (methadone maintenance) with outpatient. **Group 2 N= 31** AMI (adapted motivational interviewing): MI with outpatient - Single session lasting 60-90 mins. Aimed to raise motivation to change needle use and unsafe sexual behaviour. Major aim to have participant express concerns about high risk behaviours and express desire to change. Opioid agonist: MMT (methadone maintenance) with outpatient. **Group 3 N= 33** Control: TAU (treatment as usual) with outpatient - Advice about HIV risk behaviours normally available from staff at methadone programmes and via an education leaflet. Opioid agonist: MMT (methadone maintenance) with outpatient.	Study quality: 1+
COPELAND2001 Study Type: RCT (randomised controlled trial) Blindness: Single blind Duration (days): Followup: 24 weeks Setting: Australia Info on Screening Process: 1075 screened, 565 excluded; of 510 eligible, 225 did not make appointments to attend and 47 didn't turn up for assessment; prior to randomisation, 9 exceeded criteria for alcohol misuse	n= 229 Age: Mean 32 Sex: 159 males 70 females Diagnosis: 96% cannabis dependence by DSM-IV Exclusions: - no desire to cease cannabis use - > weekly use of drugs other than cannabis, nicotine, or alcohol in past 6 months (AUDIT scores >15) - received formal treatment for cannabis dependence in previous 3 months Baseline: Mean years of weekly cannabis use = 13.9	**Data Used** Abstinence at 6 months Abstinence: days drug free Drug use: days per month Notes: DROPOUTS at 6-month follow-up: 6 CBT = 20%, 1 MI (motivational interviewing) =25%	**Group 1 N= 82** AMI (adapted motivational interviewing): MI with outpatient, one session for 90 mins. Combined principles of MI and CBT. **Group 2 N= 78** CBT (cognitive behavioural therapy) with outpatient, six sessions for 1 hour each. First session based on MI principles, second session discussed urge management strategies, third on withdrawal management, fourth on cognitive strategies and skill enhancement, fifth on strategy review and sixth on relapse prevention.	Study quality: 1+
STEPHENS2000				

Study Type: RCT (randomised controlled trial) Blindness: No mention Duration (days): Not given Followup: 1, 4, 7 and 13 months Setting: US Info on Screening Process: 601 screened, 183 excluded (cannabis used <50 times in 90 days (n=24), alcohol or other drug misuse in last 90 days (n=149), severe psychological distress (n=8), other formal treatment (n=2)). Of eligible sample, 127 didn't complete pre-treatment session.	n= 291 Age: Mean 34 Sex: 224 males 67 females Diagnosis: Not given Exclusions: - cannabis used <50 times in last 90 days - alcohol or other drug misuse in last 90 days - severe psychological distress - receiving other formal treatment Baseline: Years of use = 17.35 (5.21), days of use past 90 days = 74.64 (18.54)	**Data Used** Cannabis use: days in past 3 months Notes: DROPOUTS: CBT = 19%, MI (motivational interviewing) = 8%, waitlist = 8%	**Group 1 N= 117** CBT: group RP (relapse prevention) with outpatient - 14 x 2-hour CBT: RP group sessions over an 18-week period. Sessions 1-10 weekly, 11-14 every other week. Weeks 1-4 involved building motivation for change and high-risk situations identified, 5-10 building coping skills, 11-14 coping with rationalisations. **Group 2 N= 88** AMI (adapted motivational interviewing): MI with outpatient - Two 90-min individual sessions. Involved MI (e.g. reflective listening, affirmation and reframing) and CBT techniques (identifying high-risk situations). Second session (1 month after) reviewed previous session and feedback received. **Group 3 N= 86** Control: waitlist with outpatient - Waitlist of 4 months until treatment.	Study quality: 1+
STEPHENS2002 Study Type: RCT (randomised controlled trial) Blindness: Not given Duration (days): Not given Followup: 4 and 9 months Setting: Three US urban areas Notes: RANDOMISATION: Conducted centrally at the the Center for Substance Abuse Treatment using urn randomisation programme Info on Screening Process: 1211 screened, 398 excluded (dependence on other drugs (31%), unwilling to accept random assignment (21%), currently receiving therapy (20%), did not provide contact person (20%), legal status (16%)); 363 eligible but did not complete assessment.	n= 450 Age: Mean 36 Sex: 306 males 144 females Diagnosis: 100% cannabis dependence by DSM-IV Exclusions: - <18 years - dependence on other drugs or alcohol - inability to provide a person who could assist in contact at follow-up - legal status that would disrupt treatment - currently receiving therapy Notes: Ethnicity: White = 69.3%, Hispanic = 17.3%, African American = 12.2%, Other = 1.1% Baseline: Proportion of days drug used in last 90 days = 0.88, hours high per day = 6.62, ounces of cannabis per week = 0.40, number of joints per day = 2.89	**Data Used** Cannabis use: days in past 3 months Abstinence: no use for 3 months Notes: DROPOUTS: MI (motivational interviewing) = 18/146 (12.3%), CBT = 23/156 (15%), waitlist =11/148 (7.5%)	**Group 1 N= 148** Control: waitlist with outpatient **Group 2 N= 146** AMI (adapted motivational interviewing): MI with outpatient - Two 1-hour sessions 1 and 5 weeks after randomisation. Discussed a personal feedback report to motivate participant to make changes -- attitudes favouring and opposing change, treatment goals etc; in second session efforts to reduce cannabis use reviewed. **Group 3 N= 156** CBT: coping skills training with outpatient - nine sessions over a 12-week period. First eight sessions weekly, ninth session 4 weeks after eighth session to review changes. Combined motivational aspects with CBT and case management.	Study quality: 1+

Characteristics of Excluded Studies

Reference ID	Reason for Exclusion
BAKER2002	Psychiatric population
BUDNEY2000	n<10 per group

References of Included Studies

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