

## A systematic review of interventions to reduce illicit drug use in female drug-dependent street sex workers

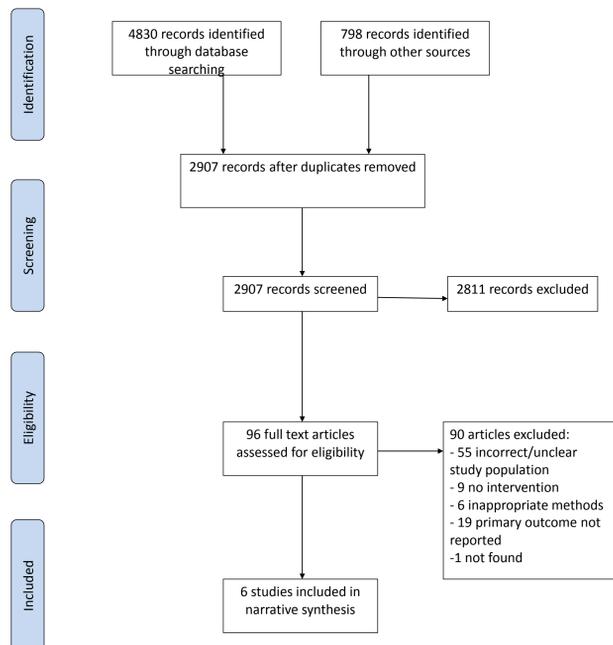
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### METHODS

**Medline on Ovid**

1. prostitution
2. prostitut\*.tw
3. sex adj1 work\*.tw
4. substance-related disorders
5. amphetamine-related disorders
6. cocaine-related disorders
7. crack cocaine
8. heroin dependence
9. morphine dependence
10. opioid-related disorders
11. street drugs
12. substance abuse, intravenous
13. 1 or 2 or 3
14. 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
15. 13 and 14

### Prisma flowchart



### RESULTS

#### Included studies and risk of bias

First author (Year)	Country	Setting	Participants	Participant age	Study design	Follow up	Risks of bias
Surrat (2010)	USA	Community	806 410 intervention 396 control	36.8yrs (mean) (SD 8.2)	RCT	3 & 6 months	- no detail of randomisation or allocation process - no blinding participants or personnel - self-reported non-blinded outcome measures - unclear whether analysis decisions were prospective eg dichotomisation of outcome results - follow up rates calculated by combining attendance at either of follow up appointments which increased follow up rates - intention to treat analysis not undertaken
Litchfield (2010)	UK	Community	34	Not stated	Before/after Clinical records	12 months	- all participants received intervention and no control group - self-reported non-blinded outcome measures - missing data not accounted for
Sherman (2006)	USA	Community	54	39yrs (median) (IQR 34-45)	Before/after survey	3 months	- all participants received intervention and no control group - self-reported and non-blinded outcome measures - missing data not accounted for
Yahne (2002)	USA	Community	27	37.8yrs (mean) (SD 8.1)	Before/after survey	4 months	- all participants received intervention and no control group - self-reported and non-blinded outcome measures - follow up in settings likely to influence outcomes and act as confounder
Bellis (1993)	USA	Outpatient	41	31.8yrs (mean)	Before/after	12 months	- all participants received intervention and no control group - self-reported non-blinded outcome measures - no data on participants lost to follow up
Gunne (1986)	Sweden	In-patient	34	28.1years (mean) (SD 5.8)	Before/after Clinical records	1 – 220 months	- all participants received intervention and no control group - self-reported non-blinded outcome measures

#### Interventions

Manuscript	Intervention focus	Intervention type	Novel aspect of intervention	Additional available elements
Surrat (2010)	HIV risk reduction	<b>Educational (2X60min sessions 2 weeks apart)</b> - sexual risk - drug use risk	Sex worker focussed - content: - violence - HIV myths - oral sex risks - delivery: - language - peer delivery	- hygiene risk reduction kit - blood-borne virus testing - facilitated access to health and social services in the community
Litchfield (2010)	Sex work reduction	<b>Substitute prescribing</b> - outpatient	SSW-specific service	On site access to - general & sexual healthcare - key working - psychosocial interventions
Sherman (2006)	HIV risk reduction	<b>Educational (6X2hr sessions over 3 weeks)</b> - sexual risk - drug use risk	Combined with teaching jewellery-making and marketing skills to generate alternative source of income	- opportunity to sell jewellery and make money - focussed discussion on local job training
Yahne (2002)	HIV risk reduction	<b>Psychological (30min M.I. interview)</b>	Motivational interviewing	- facilitated access to health and social services in the community
Bellis (1993)	HIV risk reduction	<b>Substitute prescribing</b> - outpatient	Free service in private-based system	On-site access to: - general & sexual healthcare - psychiatric services - individual and group counselling - education session on sexual and drug HIV risk reduction - key working
Gunne (1986)	HIV risk reduction	<b>Substitute prescribing</b> - inpatient	Methadone maintenance to support cessation of illicit drug use rather than just stopping	None listed

#### Intervention effects

	PRESCRIBING-BASED INTERVENTIONS		
	Litchfield (2010)	Bellis (1993)	Gunne (1986)
<b>Number of participants</b>	34	25	34
<b>Study design</b>	before/after	before/after	before/after
<b>Intervention type</b>	<b>Substitute prescribing</b>	<b>Substitute prescribing</b>	<b>Substitute prescribing</b>
<b>Levels of illicit drug use</b>	% urines testing positive for non-prescribed drugs at baseline: 87% (95% CI 75.7% to 98.3%) at 12 months: 72% (95% CI 56.91% to 87.09%)	% urines testing positive for non-prescribed drugs at baseline: 80% (95% CI 64.32% to 95.68%) at 12 months: 51% (95% CI 31.4% to 70.6%)	women with urine samples consistently testing negative for non-prescribed drugs at baseline: 0% (95% CI 0% to 0%) up to 220 months: 71% (55.75% to 86.25%)
<b>Involvement in sex working</b>	Women reporting sex working at baseline: 100% (95% CI 100% to 100%) at 12 months: 33% (17.19% to 48.81%)	Not reported	Women not involved in sex work at baseline: 0% (95% CI 0% to 0%) up to 220 months: 71% (55.75% to 86.25%)
<b>Levels of income from sex work</b>		% income from sex work at baseline: 78% (95% CI 61.76% to 94.24%) at 12 months: 20% (95% CI 4.32% to 35.68%)	
<b>Levels of homelessness</b>	Not reported	Not reported	Not reported
	NON PRESCRIBING-BASED INTERVENTIONS		
	Surrat (2010)	Sherman (2006)	Yahne (2002)
<b>Number of participants</b>	806	50	27
<b>Study design</b>	RCT	before/after	before/after
<b>Intervention type</b>	<b>Educational</b>	<b>Educational</b>	<b>Psychological (MI)</b>
<b>Levels of illicit drug use</b>	3 months: OR 1.17 (0.84-1.66) 6 months: OR 1.14 (0.8-1.61)	% women reporting daily drug use: at baseline: 76% (95% CI 64.16% to 87.84%) at 3 months: 55% (95% CI 41.21% to 68.79%)	Reported days abstinent in last 30days at baseline: 15% (95% CI 1.53% to 28.47%) at 4 months: 51% (95% CI 32.14% to 69.86%)
<b>P value (where given)</b>		0.003	<0.001
<b>Involvement in sex working</b>	3 months: OR 0.944 (0.67-1.32) 6 months: OR 1.14 (0.79-1.65)	Median clients/month at baseline: 9 at 3 months 3	% days sex worked in last 30days at baseline: 59% (95% CI 40.45% to 77.55%) at 4 months: 17% (95% CI 2.83% to 31.17%)
<b>P value (where given)</b>		0.025	<0.0001
<b>Levels of homelessness</b>	Women reporting homelessness at study entry usual care: 42.9% intervention group: 41%	27% reported homelessness in 3 months prior to study	Not reported

### CONCLUSIONS

There is currently no strong evidence for effectiveness of interventions to reduce illicit drug use in female SSWs with problematic drug use. Thus, the development and robust evaluation of effective interventions should be a priority if recovery-orientated goals are to become more achievable for this group.