Differences in treatment outcomes by frequency and drug preference for dual users of heroin and crack in opiate substitution therapy – a pilot study

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Background

Research evidence shows that dual users of heroin and crack/cocaine have poorer treatment outcomes. In the UK, national statistics on drug use document an increase in the prevalence of dual use of heroin and crack/cocaine among drug users in opiate substitution therapy (OST). Clinical treatment guidelines recommend that the crack use needs to be addressed in addition to the pharmacological treatment for heroin dependency. However, dual users are frequently regarded as a homogeneous group.

Aim

To compare retention as well as heroin and crack use in OST among heroin users with different patterns of dual use.

Methods

Participants: Drug users starting OST between November 2014 and March 2015 in one community drug service in London, UK. N=42; Age: 39.8 ± 9.4 [20–59] years; Gender: 78.6% male; Nationality: 66.7% UK; Ethnicity: 37.5% White British, 33.4% White Other; 19% injecting heroin; 7.1% injecting crack; OST type: 61.9% methadone, 38.1% buprenorphine; OST daily dose: 48.5±17.1 [30-90] mg for methadone and 9.2±4.4 [2-16] mg for buprenorphine (% or average ± standard deviation and range).

Data collection: Clinical records; Questionnaires assessing drug use and preference before OST start and drug use at three months follow-up; Urine drug screens.

Patterns of drug use before OST start: Participants were divided into four groups: heroin-only (no crack use) (n=6), occasional crack use (n=14), daily dual use with preference for crack (n=5), daily dual use with no preference (N=17) (All participants used heroin daily).

Statistical analyses: Descriptive statistics, Kendall's tau.

Results and Discussion

Heroin-only users

High retention: 100% (3M), 83% (6M)

Average H abstinence: 33% (3M)

Avg MTD dose: 50 mg
Avg BUP dose: 5 mg

Dual users of heroin and crack

Lower retention: 61% (3M), 39% (6M)

Low H abstinence: 22% (3M)

Low C abstinence: 11% (3M)

Avg MTD dose: 48 mg
Avg BUP dose: 10 mg

Dual users of heroin and crack have poorer treatment outcomes (retention and abstinence)

Heroin-only users

Highest retention: 100% (3M), 83% (6M)

Average H abstinence: 33% (3M)

Avg MTD dose: 50 mg
Avg BUP dose: 5 mg

- under titration?
- stability rather than abstinence?

Occasional C users

Lowest retention: 50% (3M), 21% (6M)

Lowest H abstinence: 7% (3M)

Average C abstinence: 36% (3M)

Avg MTD dose: 58 mg
Avg BUP dose: 8 mg

- heterogeneity in crack use
- accuracy? (under-reported C use?)
- C use to make H more pleasurable (participants' comments)
- further segmentation?

Daily C users – no preference

Average retention: 65% (3M), 48% (6M)

Average H abstinence: 24% (3M)

Average C abstinence: 24% (3M)

Avg MTD dose: 43 mg
Avg BUP dose: 12 mg

- enjoyment of combination
- OST reduces the use of both to the same extent (see Figure 1)
- for *some* people an increase in OST dose helps to stop the use of both drugs
- could outcomes improve with interventions addressing the *combination* rather than H and C separately?

Daily C users – preference for C

High retention: 80% (3M), 60% (6M)

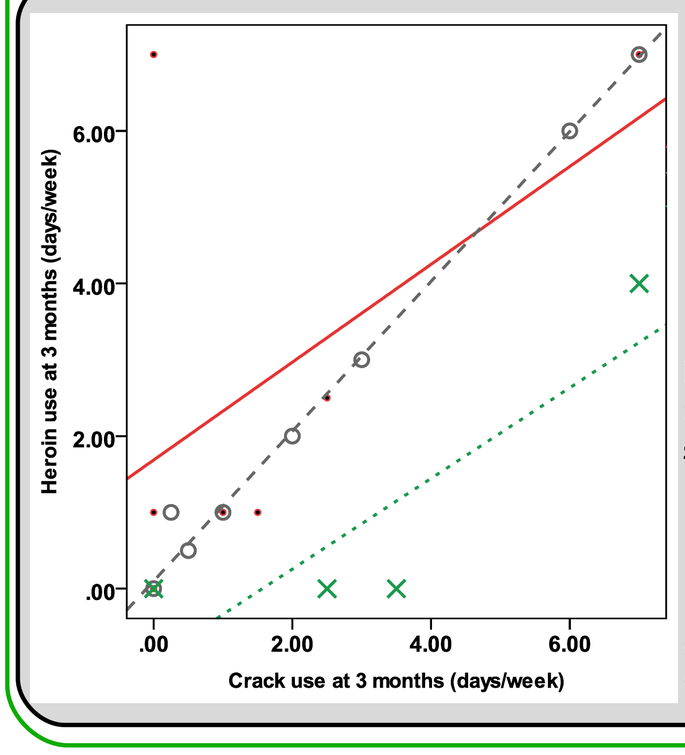
Highest H abstinence: 60% (3M)

Lowest C abstinence: 20% (3M)

Avg MTD dose: 51 mg
Avg BUP dose: 12 mg

- H dependency secondary ('to come down')
- less psychological attachment to H?
- OST to 'come down'
- early interventions addressing crack use
- if OST reduction while still C use → relapse in H use?

LOW — Retention and H abstinence — HIGH



Daily C users with no preference either stop using both drugs or reduce their use to the same extent

Figure 1: Correlations between heroin and crack use at 3 months after treatment start.

Further observations:

- ***All* participants who injected C were in the no preference group, and were still using both drugs at 3M**
- **The no preference group included not only intravenous users of both drugs but also smokers of both drugs, and participants smoking C and injecting H → psychological attachment to the combination regardless of the route**
- **The participants in the preference for C group generally started using crack at a younger age than heroin**

Conclusions

- **When on OST medication, daily dual users with preference for crack were able to stop using heroin while continuing to use crack, while dual users with no particular preference could not separate the two drugs. These results suggest that daily dual users might not be a homogeneous group, and the stabilisation of clients on medication could be improved by applying different strategies depending on their patterns of dual use.**
- **Studies with higher numbers are needed to assess significance, to further segment the group of occasional users, and to define clear outcome patterns to inform the development of tailored interventions for subgroups of dual users.**

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