

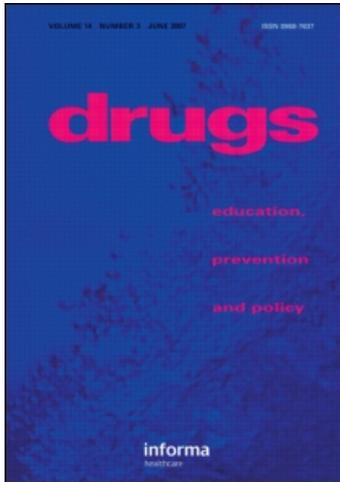
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## Evaluation of a Brief Intervention to Prevent Initiation into Injecting

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**ABSTRACT** *Background: strategies to prevent initiation of non-injectors into injecting are rare. A brief intervention with this aim, offered to current injecting drug users (IDUs), has been evaluated. Methods: baseline behavioural and attitudinal data were collected using structured interviews with 86 IDUs. Participants were re-interviewed immediately after the intervention and at 3-month follow-up (n = 73). Results: it was feasible to deliver the intervention, which was acceptable to both drug users and drug workers. IDUs' disapproval of initiating non-injectors significantly increased after the intervention. Participants injected in front of fewer non-injectors in the subsequent 3 months (falling from 97 to 49). Requests for initiation fell from 36 to 15 and the number of people initiated dropped from 6 to 2. Conclusions: these results, the cheapness and ease with which such an intervention can be delivered, suggest that by incorporating such interventions into drug work it may be possible to reduce the number of people who begin injecting. Areas for further research are suggested.*

### Introduction

Compared to other routes of drug administration, injecting increases the health risks from drug use. Infection from blood-borne viruses (BBVs), venous damage, increased risk of overdose and greater dependence—with its various individual and social consequences—can all arise when drugs are injected (Gossop *et al.*, 1992, 1993a, b).

With apparent success, considerable efforts have been made to reduce the harm from injected drug use during the past decade—a period which has seen harm reduction work endorsed by national governments and incorporated into the mainstream of many drug services (Stimson, 1996). Driven by the need to reduce transmission of HIV, syringe exchange services have been established in the UK, oral methadone maintenance has become more available and outreach services have been developed. Prevention of other BBVs such as Hepatitis B and, more recently, Hepatitis C have also become the target of harm reduction work.

By definition, harm reduction work has restricted goals. Its ethos is to reduce harm rather than emphasizing primary prevention. The importance of the

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contribution to health and welfare made by harm reduction work is hard to dispute, although the corresponding efficacy of prevention strategies is more debatable (Dorn & Murji, 1992). However, in the conceptual mid-ground between harm reduction and prevention strategies, it is possible to consider approaches which do not seek to prevent drug use *per se* but nevertheless try to prevent drug use by a more dangerous route—injecting. Hitherto, there has been little evidence of target efforts to reduce initiation into injecting. This paper describes the evaluation of one such intervention.

### Development of the Intervention

The intervention was developed with reference to previous ethnographic work by one of the authors which identified resistance among injecting drug users (IDUs) to initiating non-injecting drug users (NIDUs) (Shelley *et al.*, 1993). Evidence there and elsewhere identifies the prominent role of current injecting drug users in the initiation of new injectors and the instrumental role of the initiatee in bringing about their own initiation (Crofts *et al.*, 1996; Stenbacka, 1989). In a survey of service users' views (Department of Health, 1995), about two-thirds (62%) of drug users expected drug services to be helpful in stopping injecting. This suggests that interventions with this aim would be acceptable to many drug users.

The intervention can be summarized as follows. It is offered to current injecting drug users. It is premised on evidence that a number of these hold the view that they do not want to encourage others to inject and often prefer not to initiate others. It has five main objectives:

1. To make initiation more topical for the IDU and allow the initiation of others to be better considered and anticipated.
2. To increase the participants' awareness of risks to the initiator and the initiatee when someone injects for the first time.
3. To reduce the occurrence of activities that may increase initiation of others into injecting.
4. To increase competence in managing initiation requests.
5. To increase disapproval of initiation and reluctance to initiate others.

The intervention is brief—it can be delivered in less than an hour—and comprises five main sections which consider: the participant's own initiation, their initiation of others, the risks from initiation for themselves and the initiatee, identification of aspects of their own behaviour that may inadvertently promote injecting, and generation and rehearsal of responses to a series of vignettes describing common initiation scenarios.

### Project Aims

The study had two main aims: (a) to collect further basic research data regarding the social processes of initiation into injected drug use and (b) to assess the feasibility of delivering the intervention in various drug service settings and evaluate its impacts. This report relates to the second aim.

### Method

The study adopted a panel design with follow-up at 3 months. Payments of £10

were made to participants on each of the two occasions. A structured interview was first conducted by a researcher to collect baseline behavioural and attitudinal data. A drug worker then delivered the intervention itself. IDUs were re-interviewed after the intervention to gauge their immediate reaction. Drug workers completed a self-completion questionnaire after delivering each intervention.

Two contact points were nominated by the participant to try to minimize sample attrition. They were provided with a note of the date for follow-up. Telephone or written contact was made 2–3 weeks before the 3 months had elapsed to arrange the second, structured interview. After 3 months, the researcher repeated a range of measures, and data were collected on life events that may have affected the outcomes.

Thirteen drug workers from seven drug services delivered the intervention. They were trained in its use and retained a demonstration video of the intervention. To standardize the intervention, a written guide was provided for use on each occasion. In addition to the questionnaires that they completed after delivering each intervention, the drug workers each participated in a semi-structured interview at the end of the study. At this time they were asked about their general experience of using the intervention, and to identify potential improvements.

## Sample

Eligibility criteria were that the participant had injected within the past month and spoke English. Eighty-six participants were recruited into the study of which 73 were followed up, representing an 85% follow-up rate. Seventy-nine per cent of participants were recruited through drug treatment services. In addition, a smaller non-treatment sub-group were recruited using flyers distributed through a pharmacy syringe exchange. Seventy-eight per cent of participants were male with mean age 29.8 years. Main injected drug was heroin (64%), amphetamine (27%) and methadone (13%). Mean length of time injecting was 9 years (SD = 7.0 years). Participants had injected on a mean number of 18 days in the past month (SD = 9.3). The mean number of daily injections was 3 (SD = 1.6).

During the past year, 21 (24.4%) had received drug-free counselling at a Community Drug Team, 7 (8.1%) had received drug-free counselling from another agency, 11 (12.8%) had been in a residential rehabilitation unit and 45 (52.3%) had received methadone maintenance. Smaller numbers of people had received a range of other treatments such as alternative therapy. Some participants had used several types of service. Twenty-one per cent used no services other than syringe exchange in the past year.

Throughout their injecting careers, 34 (39.5%) of the original sample reported initiating a cumulative total of 72 people into injecting. Nearly half of these (47%) reported initiating just one person. Mean number of initiatees was 2.1 (SD = 1.3). Response categories were 0, 1, 2, 3, 4, 5–10, more than 10. Three people reported initiating between 5 and 10 people. When calculating the values for the mean and standard deviation these have been treated as having a value of five. This may underestimate the number of initiatees for these three cases. No-one reported initiating more than 10 people.

### Acceptability of the Intervention

When asked at follow-up, 71% of the participants reported that receiving the intervention had been worthwhile. Drug workers were asked to assess the relevance of the intervention for each participant. A similar proportion of drug workers considered it useful, assessing it as 'very relevant' for 16% of participants, 'relevant' for 52% and being 'unsure' in 28% of cases. It was considered irrelevant for only 4% of participants.

### Making Initiation More Topical

The topic of initiation had rarely been covered in previous contact with drug workers. Of the 62 IDUs who were currently seeking help for a drug problem only 23% had considered the issue briefly and no-one reported discussing it in detail. So for three-quarters of the sample the intervention was successful at introducing the topic of initiation.

Immediately after the intervention, 69.5% of all participants judged that they were thinking more seriously about how they were acting around NIDUs. At follow-up, half the sample (49%) reported that they had been thinking more seriously about how they generally behave around NIDUs. At this time their views on giving a NIDU their first injection had been thought about 'a lot' by 15%, 'a bit' by 39% and 'not at all' by 46%.

Immediately after the intervention 5.8% thought it 'very likely' that they would 'change the way you act around NIDUs', 23.3% thought it 'likely', 12.8% were unsure, 17.4% 'unlikely' and 40.7% 'not at all likely'.

Of the sample, 10% always injected alone. At follow-up, 46% of the remaining participants judged that they now paid more attention to whether there are NIDUs present when they are injecting.

### Reducing the Occurrence of Activities Which May Increase Initiation of Others into Injecting

The intervention aimed to increase participants' awareness of the effect of several aspects of their behaviour. Primarily this involved the potential for either, talking about injecting with a NIDU or, being observed injecting by NIDUs, to influence people towards trying injecting. Given that requests to initiate someone were generally unwelcome, the intervention also sought to highlight how these activities can also present opportunities for initiation requests.

### Injecting in Front of NIDUs

Participants were less likely to have injected in front of NIDUs in the 3 months after the intervention ( $t = 2.03$ ,  $df = 70$ ,  $p = 0.047$ ). Whereas participants reported injecting in front of 97 NIDUs in the 3 months before the intervention this number halved to 49 in the 3 month period afterwards. This behavioural change was consistent with an attitudinal change concerning injecting in front of NIDUs. At follow-up, significantly more IDUs assessed that watching someone inject can encourage someone to begin injecting ( $t = -2.60$ ,  $df = 65$ ,  $p = 0.012$ ).

### Initiation Requests

By drawing attention to the potential role injecting in front of NIDUs has in causing people to seek initiation, the intervention sought to reduce the number of initiation requests. After the intervention there was a significant reduction in the number of people who requested participants to initiate them from 36 down to 15 ( $t = 2.11$ ,  $df = 70$ ,  $p = 0.038$ ). It is noteworthy that this reduction is of a similar order of magnitude to that for injecting in front on NIDUs.

Regarding situations where an initiation request did occur, immediately after the intervention people considered that their ability to manage those described in 11 vignettes used in the intervention had 'improved a lot'—4%, 'improved'—51%, or was 'no different'—45%. These rates were sustained at follow-up. Self-rated likelihood of resisting a request to initiate someone, as described in the vignettes, was 'more likely'—36%, 'the same'—59% and 'less likely'—5%.

### Talking to NIDUs

The intervention intended to reduce the extent to which injectors talked to non-injectors about injecting. In the 3 months prior to the intervention, 56.2% of participants reported that they had discussed injecting with NIDUs. At follow-up this proportion rose to 65.2%. The difference is not statistically significant (5% level) but is in the opposite direction to the intended effect.

No change was noted in the way that people assessed the influence of talking about injecting overall, on the decisions of NIDUs to try injecting. However, participants became more inclined to suppress talking about an attractive aspect of injecting—the 'rush', and to avoid giving practical information that may enable injecting. In response to five-point Likert-scaled attitude questions, people were significantly more likely to disagree with the statement 'talking about the rush from injecting to someone who takes drugs but does not inject is OK' ( $t = -2.81$ ,  $df = 71$ ,  $p = 0.006$ ), agree that 'you shouldn't talk to drug users who have never injected about the rush from injecting' ( $t = 2.06$ ,  $df = 71$ ,  $p = 0.043$ ) and disagree that 'talking about how to inject safely to someone who does not inject is OK' ( $t = -2.70$ ,  $df = 72$ ,  $p = 0.009$ ).

### Increasing Awareness of Risks from Initiating Someone to the Initiator and the Initiatee

The intervention attempted to increase participants' awareness of both the risks to themselves and people who receive their first injection.

Immediately after the intervention, reported changes in the awareness of risks to the participants themselves increased for 56% of all participants. Awareness of specific risks increased as follows: risk of prosecution (39%), risk of social disapproval (20%), psychological risks, particularly guilt (21%) and awareness of physical risks such as assault by a relative or friend of the initiatee (35%).

Immediately after the intervention, awareness of risk to initiatees increased for 72% of all participants. Awareness of different, specific risks increased

as follows: overdose at the time of initiation (24%) and medical risks from an undiagnosed medical condition such as a person having high blood pressure (72%). At follow-up, two-thirds of the sample (66%) reported being more aware of risks to the initiatee as a consequence of the intervention. Open-ended responses referred to risk of overdose (35%), risk of infection (35%) and risks arising from an undiagnosed medical condition (7%).

The baseline measures indicated that most people already disagreed or strongly disagreed that 'there are rarely any risks in giving someone their first injection' (83.7%) and agreed or strongly agreed that 'someone's first injection is the most dangerous time because you don't know how they will react' (82.5%). From this high baseline, no significant change occurred in strength of agreement with these two items at follow-up.

### **Increasing Disapproval of Initiation and Reluctance to Initiate Others**

Immediately after the intervention 27% of all participants reported an increase in their reluctance to initiate others. This remained the same for 72% and decreased for one person. At follow-up, reported motivation not to initiate someone had increased for 52% of the sample. Compared to the baseline measure before the intervention, there was a significant ( $t = -3.25$ ,  $df = 70$ ,  $p = 0.002$ ) reduction in the way participants assessed the likelihood that they would initiate someone into injecting at follow-up.

From the baseline measures, 12 paired attitude items were examined regarding willingness to initiate others. When factor analysed (image analysis) these produced a one factor solution. Equivalent scores at follow-up (computed by weighting the items by the factor coefficients) demonstrated a strongly significant reduction in willingness to initiate people into injecting ( $t = -4.94$ ,  $df = 71$ ,  $p < 0.001$ ). At follow-up, 57% of participants reported discouraging non-injectors from injecting in the 3 months after the intervention. No-one reported encouraging anyone to inject or offering to initiate a non-injector.

Given the sample size and the period over which behavioural data were assessed it was considered highly unlikely that the evaluation would detect a significant reduction in the number of people actually initiated after the intervention, as this is a relatively rare event. Nevertheless, amongst people who provided a follow-up interview, six had initiated someone in the 3 months prior to the intervention and two had done so in the 3 months prior to the follow-up interview (both in response to requests from NIDUs). This difference is in the desired direction and, using a one-tailed test achieves significance at the 10% level ( $t = 1.42$ ,  $df = 72$ ,  $p = 0.0795$ ). Similarly, the ratio of initiations to requests decreased slightly from 1:6 to 1:7.5 at follow up. This is in the desired direction, but again the small numbers involved clearly mean that caution is necessary in accepting this as an intervention effect.

### **Discussion**

The evaluation data provide good support for the feasibility of delivering such an intervention and cautious support for its efficacy. It is brief and was acceptable to the IDUs and drug workers. In a number of important areas, evidence of attitudinal change and behavioural change was found in the desired directions, although limitations within the sample and possible confounding

factors (discussed below) introduce a degree of uncertainty about these findings. The study lacks a comparison group and this limits the extent to which observed changes can be attributed to the intervention.

Some difficulties can be envisaged in any subsequent work that seeks to evaluate this intervention using controls. Given that initiation is rarely discussed by drug workers and their clients, taking the necessary, detailed baseline measures about initiation and its associated behaviours may itself function to make initiation topical with both arms of a randomized controlled trial and thus obscure any intervention effect.

The rapid transition to injecting as the preferred route of drug administration after people have their first injection has been documented (Griffiths *et al.*, 1994). An intervention which appears to reduce initiation requests by half is likely to hinder initiation and the consequent transition to injecting as the preferred route. As such it may have considerable potential value, given the individual and social costs associated with injecting.

Some issues regarding the targeting of the intervention and its content are identifiable from this study. Within the intervention we attempted to reduce discussions with NIDUs about injecting. This was unsuccessful, although of the 65% of people who had discussions with NIDUs in the 3 months prior to follow-up, over half (57%) reported trying to discourage NIDUs from injecting. Typically people described negative aspects of injecting in these conversations, but would also tend to give an honest account of the pleasures and advantages within this. Selective attention to the benefits of injecting, and a notion of invulnerability for the listener, may mean that this is an ineffective strategy for reducing initiation. Alternatively, the high source-credibility of existing injectors may be potent in discouraging experimentation with injecting. A clearer understanding of the way NIDUs interpret and act on this information would inform this point.

A situation that was difficult to influence was where an IDU judges that the NIDU requesting initiation is resolved to inject and cannot be discouraged. In these circumstances many people felt that assisting with safe initiation was preferable to letting NIDUs initiate themselves and risk harm which could arise from their lack of expertise. It was not possible to evaluate the outcome of these decisions. The judgement may have been accurate regarding the relative risks or they could have been mistaken. Some NIDUs may have decided not to try injecting if no assistance was available. Support for the latter view derives from a number of cases where people employed sophisticated arguments over some time in order to obtain their initiation, rather than initiating themselves. Some people also remain dependent on an accomplished injector for the administration of the drug for some time after their initiation. Enhancing the intervention in this area is desirable. It may be more productive for an intervention to focus on reducing initiation requests rather than trying to increase people's ability to deal with requests after they arise.

Where only one partner in a couple inject some particular problems could occur. There are fewer opportunities to avoid either injecting in front of a cohabitee or discussing injecting. Additionally, for some couples, there was an impulsion for both members to inject as a means of strengthening the relationship. Being discordant with respect to injecting could introduce tensions around use of leisure time, health risks and finances. The non-injecting partner was also excluded from a pleasurable (sometimes) experience enjoyed by the IDU. The

**Table 1.** Assessment guide for use of the intervention

	Approval of initiation	Disapproval of initiation
Low levels of behaviour which promotes injecting	Focus on increasing disapproval by identifying risks associated with initiation	Minimal need for intervention
High levels of behaviour which promotes injecting	Focus equally on increasing disapproval and reducing injecting-promoting behaviour	Focus on reducing injecting in front of NIDUs and taking about injecting (or increasing discouragement)

situation where only one partner injects warrants special consideration within an intervention.

As the study progressed, it became clear that the intervention was poorly targeted within the sample. Many participants already had robust views about the undesirability of initiating others and provided detailed accounts of their competent management of initiation requests. This almost certainly diminished the detectable intervention effects, as screening would have identified and excluded these as people whose attitudes and behaviour already largely corresponded with the intervention objectives. Nonetheless, significant differences before and after the intervention were still found. When considering better targeting of the intervention, it may prove useful to consider the population with respect to two axes: disapproval/approval of initiation and those whose behaviour around NIDUs had a lower or higher likelihood of promoting injecting. These variables are continuous and situational and require careful assessment. A simple model (Table 1) would nevertheless help in identifying priorities within the intervention for each person.

The sample contains identifiable biases that are likely to be relevant. Women injectors are under-represented, as are younger IDUs who have been injecting for a shorter period. Some participants appeared to move from a view of injecting as relatively unproblematic shortly after their initiation—when some would be more inclined to promote injecting—towards a more conservative position later in their 'career'. This sort of intervention may be especially useful earlier in injecting careers, as evidence from the study (Stillwell *et al.*, unpublished paper) indicates that the number of NIDUs present when injecting occurs is negatively correlated with length of time injecting. It therefore seems that there may be more opportunities for initiation at this time. Consequently, it would seem particularly important for further work to test the intervention with larger numbers of IDUs who had started injecting more recently.

The use of payments for interviews and the prevalence of values among some IDUs who generally disapproved of initiating others may have led to some degree of social-desirability responding. However, these influences are likely to be similar at the time of the baseline interview and follow-up as payments were made on both occasions and identical questions were used. Strenuous efforts were made by the researchers to avoid conveying a judgmental view of people who had initiated others—for example the difficulty of avoiding initiating others was acknowledged prior to questions about this.

Some of the observed differences may be explained by changes resulting from treatment-seeking rather than the intervention. The changes to a person's social network that are associated with seeking treatment—trying not to associate with injecting peers—may partially explain some of the findings. Nevertheless, the way that behavioural changes corresponded with attitudinal change supports the view that intervention effects occurred.

Efforts were made to standardize the intervention through the training of the drug workers and the use of a written intervention guide *in situ*. However, it was evident that the quality of the delivery of the intervention varied, as did the relationship between the IDU and the drug worker. Some workers had much more experience than others. As might well be expected, some workers became more proficient at delivering the intervention with practice. This is likely to have influenced its impact, although we have been unable to control for this. It is possible that the inclusion of these earlier (and perhaps less effective) interventions within the evaluation data has diminished the likelihood of detecting an overall intervention effect.

The structured intervention that has been evaluated is brief and designed for one-to-one use by a drug worker. However, the underlying principles on which it is based could be adapted for use in other ways. On a one-to-one level it has already proven possible for one service to use the ideas in a less structured way alongside existing syringe exchange work. It would also be possible to incorporate some of the key ideas within information for IDUs in leaflets and similar, targeted, media. A peer-led approach could also be envisaged.

There are evident opportunities for incorporating such interventions within much existing work with people who inject. The resource implications are modest, amounting to some brief staff training which allows an additional conversation to be incorporated within existing work with IDUs. For this reason there are grounds for considering its use on the basis of the existing evidence. Opportunities should nevertheless be sought for further investigation into: the efficacy of the intervention, differences in the way it works with both different populations and in different service settings and, ways in which it can be more finely targeted and developed.

## Conclusion

Within the limits of this study, a deliverable intervention has been developed. It has good face validity, in that both staff and clients found it acceptable and useful for its intended purpose. Furthermore, while it requires only modest resources, it appeared to produce measurable attitudinal and behavioural change in a number of areas that would be expected to lead to fewer people being initiated into injecting.

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