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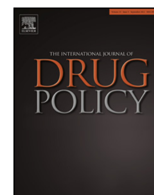

Short report

Anabolic–androgenic steroids and heroin use: A qualitative study exploring the connection

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Introduction

Anabolic–androgenic steroids (AAS), colloquially called 'steroids', are commonly used drugs by young males (McVeigh, Beynon, & Bellis, 2003). Known associations with AAS use include poor peer relations and poor self-esteem (Kindlundh, Hagekull, Isacson, & Nyberg, 2001), physical abuse, mental abuse and social disadvantage (Skarberg & Engstrom, 2007). Various studies have also noted the association with illicit drugs including heroin and other opiates (Buckman, Farris, & Yusko, 2013; Dodge & Hoagland, 2011; Hakansson, Mickelsson, Wallin, & Berglund, 2012; Kindlundh et al., 2001; McCabe, Brower, West, Nelson, & Wechsler, 2007; Petersson, Bengtsson, Voltaire-Carlsson, & Thiblin, 2010).

There are several possible explanations for the association with opiate use. One possible explanation is a common association with criminality and deprivation (Gårevik & Rane, 2010; Skarberg & Engstrom, 2007). A second possible explanation is that heroin might depress gonadotropin-releasing hormone, reduce endogenous testosterone (Quaglio et al., 2008) and therefore predispose the individual to replacement through AAS. A further possible explanation is that both may share similar hedonistic neuropathways; this has been suggested as the reason for the high prevalence of opiate users in a group of AAS users with features of dependence compared to a group of AAS users without features of dependence (Kanayama, Hudson, & Pope, 2009).

Further reasons though for the association between heroin and AAS use may lie in the social and cultural context in which heroin is used. This paper draws on findings from a qualitative study of AAS users to provide socio-cultural explanations for the link between AAS and heroin use.

Method

This was a qualitative study of focus groups and individual interviews. The setting was a needle exchange service in a relatively deprived, urban area in the North East of England.

We used a purposive sampling technique to identify in advance members of the groups. The initial three focus groups comprised a range and mixture of individuals including individuals contemplating AAS use but not yet started, individuals using AAS for a long period of time, individuals using AAS with heroin and with other drugs, students using AAS, casual users of AAS and heavy users of AAS. To develop the analysis further, we then invited individuals to specific groups, one of which consisted of past or current users of heroin. For the purpose of this paper the other groups provide data for comparisons and contrasts with the heroin users. Table 1 provides details of the groups. Semi-structured interviews with two needle exchange workers provided additional information on the use of AAS in this setting.

Of the 41 individuals invited to participate, 30 agreed and attended one of eight focus groups. All were white male with the exception of two who were British Asian. In total the groups included eight current or previous heroin users, one person who was contemplating use, one who had not used AAS for a considerable time, two previous crack cocaine users and one other problematic stimulant user, one involved previously in rugby at a high level, two currently involved in American Football, three in mixed martial arts, two in bodybuilding competitions, five students and three ex-offenders. All participants were invited by two full time AAS workers at the needle exchange service and were offered £20.00 for participation. The age range was 20–40.

The venue of the interviews varied according to the convenience of the participants. One was conducted in a local hostel (for the opiate users), two at the needle exchange facility (for the young people and ex-offenders), one in a local gym (sports participants) and the remainder at the local university. The interviews were facilitated by two of us (CSC and either AN or JK).

The interview schedule was developed through discussion with the staff at the needle exchange service and included views about why AAS are used, how they are obtained and used, why individuals continue to use them, family and friend influences, worries about use and reasons for associations with other drugs.

The interviews lasted between 30 and 75 min. All were tape recorded and fully transcribed. Analysis followed the descriptions provided by Miles and Huberman (1994, p. 55). 'Codes' – labels describing 'units of meaning' (p 56) – were identified from each transcript. The Codes included purely descriptive codes arising

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Table 1
Description of the participants in the focus groups.

Focus group number	Description	Number invited	Number participants	Age range
1	Mixed		7	20–30
2	Mixed		4	22–27
3	Mixed	4	1[1]	21
4	Heroin users	7	6	20–40
5	Body builders	4	2	30 s
6	Young people	5	2[2]	21, 22
7	Ex-offenders	5	3	30–35
8	Sports purposes		3	30–39

[1] In effect, a semi-structured interview with one participant.
[2] In addition, the young person's drug service worker took part in this group.

directly from the transcripts and more interpretive codes. A 'scatter diagram' (Riley, 1990) was made by writing all codes on large sheets. Form this, 'pattern codes' or themes bringing together groups of descriptive and interpretive codes (Miles & Huberman, 1994, p. 57) were identified. Constant comparative analysis was used by re-reading the transcripts to determine how the emerging analysis fitted in with existing data (Fitzpatrick & Boulton, 1994). All transcripts were analysed jointly by two of us (CC and JK) and the results of the analysis compared. After writing up, all transcripts were re-read looking for data which did not fit the analysis.

Results

For heroin users, AAS were particularly important in counteracting weight loss and for intimidation purposes.

Hiding weight loss: the stigma of heroin use

The well-recognised stigmatising effect of heroin use was demonstrated in much of the discussion within several groups, including the groups without heroin users. So for instance, participants from all groups reported that family members might be alarmed that steroids could be injected like heroin, or alternatively reassured on learning that the drug was not heroin. The participants reported that younger people used steroids predominately in tablet form, which in part they attributed to younger people wishing to distance themselves from associations with heroin use.

There was evidence from the discussion amongst the heroin users themselves of the stigma attached to heroin use. Heroin use is associated with weight loss; recovery from heroin, weight gain. They reported therefore that recovery involved stopping heroin, going to the gym, eating more and becoming larger and more muscular. Just as members in other groups regarded steroids as a means to accelerate the weight gain and muscular development achievable through training and exercise, heroin users also regarded steroids as an easier and quicker route to success. Indeed the workers in the individual interviews thought that heroin users were particularly likely to use steroids with minimal attention to training compared to other AAS users. This heroin user illustrates these points:

> A quick way to make yourself look healthy, isn't it, without being embarrassed about being on heroin, do you know what I mean. It does take a lot of your confidence away don't it and like I say, especially, I lose weight pretty fast when I'm on heroin, do you know what I mean. It is a quick way to just make yourself look healthy again, isn't it

As for participants in other groups, the feeling of well-being from increased muscularity, increased weights lifted, positive comparisons with others and improved confidence resulted in steroids being described in terms of a stimulant drug. This heroin user, presumably well used to the effects of a wide variety of drugs, describes steroid use as a 'rush', a term normally used for the effect of stimulant drugs:

> You cannot match it; especially with testosterone because it just goes from your feet all the way through your body and you just feel that rush all the time.

The interviews with the heroin users revealed indirectly the adverse consequences of their addiction on family members and the family members' resultant sensitivity to noticing signs of relapse or, conversely, recovery. Again weight loss or weight gain provided obvious signs. Therefore this heroin user was using steroids partly at least to encourage his family:

> When I come off heroin and that like I've just gone on steroids basically for my parents and that do you know what I mean. You lose all your weight when you're on heroin and things like that.

Others used steroids, not only to reassure family members that they were no longer taking heroin, but also to continue to use heroin, as shown in this discussion:

> when I first started taking gear at night, it's like a dirty sheet, you know what I mean, you don't want people to know you're on heroin. It's not something you're on about telling your gaffer [father], you know what I mean, you try and keep it to as less people as possible.
> You don't have it as often though do you?
> I don't know, because I was putting a bit of weight on, I thought I'll get away with it more, do you know what I mean

Although perhaps less likely to use training and gyms conscientiously, the heroin users did use gyms and trained with associates. Other groups noted the social activity of steroid and other drug use – using steroids as a group and then partying and snorting cocaine powder together. Heroin users also described injecting steroids together as a group, or injecting each other with steroids, and presumably also used other drugs together. Long-term consequences of steroid use, apparently of little concern to other participants, were even less relevant to them, given the high level of previous abuse, as described by this participant:

> ...with what I've done to my body I don't think I'll survive other stuff, never mind that.

Intimidation purposes

The increased strength, but also the increased physical size, served important purposes for certain heroin users to function well within their social context. In order to survive and function within a group where violence and physical intimidation are normalised, strength and physicality assume a level of importance not apparent in other social groups. This is needed both to ensure that others do not take advantage of the individual, but also to enable the individual to take advantage of others. The following excerpt of a discussion shows the importance of being and appearing a local 'hard man' and describes using 'steroids' both for intimidation purposes and for progression to being a more effective drug-dealer:

> I think more about getting a bit of size of on you and going round taxing [i.e. taking financial advantage of] people and that, and stuff like that or... selling drugs and... it's the same, yeah...

When you get bigger that's when you get approached off older lads who say right, do you want do you want this laying on, [providing drugs for selling on in return for a fixed return, and less financially risky to the provider if he knows the seller is 'large' and therefore likely to be successful in selling on] to sell this other drug, crack, heroin or whatever. So as soon as you get that big size and they think you don't want to do the stashing, [i.e. you don't hold the drugs yourself if you are a bigger drug dealer] do you know what I mean? As soon as you get big... people start trusting you, [i.e. not taking advantage of you] do you know what I mean?
No one's going to tax you.

The increased size and strength for protection and intimidation were relevant to prisons. There was also an additional reason for use though within prisons. Goals of becoming ever larger, and lifting ever increasing weights, were noted as important reasons for continuing steroids (and avoiding the weight loss following stopping). Those who had been in prison noted that the limited opportunities to develop oneself in other ways and boredom contributed to such goals assuming greater importance. This excerpt is from a non-heroin user, but likely to be relevant given the strong associations between heroin use and incarceration:

I think its, like I say, it's like a two fingers up choice, you know. Lock me up for however many years, I'm getting out and I'm getting out healthier and bigger and better!

The considerable time to train within prisons due to lack of other opportunities to productively use time meant that such gains were very achievable.

Discussion

According to the past or present users of heroin, AAS are used to reverse the weight loss associated with heroin. Participants in many of the groups, including the heroin users themselves, regarded heroin use with considerable stigma. Weight loss provided an obvious sign of heroin use. Weight gain associated with AAS provided a reassurance to the individual that he was recovering from heroin addiction, provided reassurance for other family members and indeed might also be used to cover up heroin use. The increased size also had an intimidation function which appeared likely to be of particular use within the social groups associated with heroin use, and which included effective drug dealing.

A survey of 175 patients in treatment for substance abuse found AAS were used for reasons such as becoming brave and, in one patient, hiding the effects of heroin (Petersson et al., 2010). This study confirms that there are likely to be important socio-cultural reasons for the association between heroin and AAS use which include the need to function through 'intimidation' and to hide the stigma associated with heroin use; these explanations are in keeping with the evidence that AAS usually follows rather than pre-dates heroin use (Gårevik & Rane, 2010).

Recruitment through a needle exchange facility was an appropriate setting to identify joint heroin and AAS users, but had limitations in identifying other types of AAS user and perhaps contributed to the poorer success in recruitment to the young person's group and those using AAS for sports purposes. Therefore there are limitations in comparing the use of AAS in heroin users with the full range of AAS users.

The current provision of advice about 'steroid' use through needle exchange facilities may not be ideal in reaching certain groups, given the stigma attached to heroin use (and its association with needle exchange services). Of these groups, younger users may be particularly important, and for them also, the reported use of tablet rather than injection forms of AAS needs confirming.

Most AAS users will not be users of heroin, and conversely many heroin users will not use AAS; we did not recruit heroin users who had not used AAS. Interesting areas for further study may include determining which heroin users are at risk of using AAS, and of those using AAS, who are at greatest risk of becoming dependent.

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