

Diazepam, alcohol use and violence among male young offenders: 'the devil's mixture'

Forsyth, Alasdair; Khan, Furzana; McKinlay, William

Published in:

Drugs: Education, Prevention and Policy

DOI:

[10.3109/09687637.2011.563762](https://doi.org/10.3109/09687637.2011.563762)

Publication date:

2011

Document Version

Author accepted manuscript

[Link to publication in ResearchOnline](#)

Citation for published version (Harvard):

Forsyth, A, Khan, F & McKinlay, W 2011, 'Diazepam, alcohol use and violence among male young offenders: 'the devil's mixture'', *Drugs: Education, Prevention and Policy*, vol. 18, no. 6, pp. 468-476.
<https://doi.org/10.3109/09687637.2011.563762>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please view our takedown policy at <https://edshare.gcu.ac.uk/id/eprint/5179> for details of how to contact us.

Diazepam, alcohol use and violence among male Young Offenders: “The Devil’s Mixture”

Alasdair J. M. Forsyth¹ & Furzana Khan
Glasgow Centre for the Study of Violence,
Scottish Centre for Crime & Justice Research
Glasgow Caledonian University

William McKinlay
Governor in charge, HMP Barlinnie
Lee Avenue, Riddrie
Glasgow
Scottish Prison Service

¹ Corresponding author:
Dr Alasdair J M Forsyth
Room M439 George Moore Building
Glasgow Caledonian University
Glasgow, Scotland, G4 0BA
Alasdair.Forsyth@gcal.ac.uk
T +44 (0) 141 331 8301
F +44 (0) 141 331 3636

Abstract

Background: Diazepam is a benzodiazepine which has a history of usage among problem drug using groups. It has also been linked to aggression in laboratory settings. This paper will examine illicit diazepam use and violence amongst predominantly alcohol-orientated offenders. **Methods:** A self-complete survey of male Young Offenders ($n=172$) recruited during their induction into Scotland's only Young Offender's Institution carried-out during 2007. Qualitative interviews ($n=30$) conducted during 2008 on another sample recruited in the same way. **Results:** Survey respondents tended to report alcohol, rather than illegal drugs as being related to their offending behaviour. The exception to this pattern was diazepam, which when used in conjunction with alcohol was associated with violence, including weapon use. The 2008 interviews confirmed this and raised further concerns about the way in which diazepam was being mixed with alcohol, in relation to its mode of action, source of supply, dosage and users' beliefs. **Conclusion:** Although it receives little dedicated research, education or media attention, diazepam was a factor in more (violent) crime among this population than any/all other illegal drugs.

Keywords: benzodiazepines, alcohol, violence, diazepam, young-offenders

Words: 4,020 (excluding data quotes)

Acknowledgements

This research was supported by the Scottish Prison Service. The authors would like to thank the Staff at HMYOI Polmont, particularly Bobby Wilson, and also the prisoners who participated. We would also like to acknowledge the role played by the late Dr David Shewan in facilitating this project.

Disclaimer

The content and comments herein are those of the authors and not the views of the Scottish Prison Service.

Introduction

Diazepam is a long-acting benzodiazepine prescribed as an anxiolytic. When used alone at therapeutic dosages, the sedative properties of this drug might indicate a potential tranquillising effect on aggressive individuals. However, diazepam's paradoxical influence on aggression has been noted in laboratory settings (Berman et al, 2005; Gantner & Taylor, 1988; Wallace & Taylor, 2009). For example Ben-Porath, & Taylor (2002) found that participants given diazepam (at 10mg) could be made more aggressed than controls (placebo). Also that those who were most affected by diazepam's "aggression enhancing effects" were 'high hostile' participants (according to the BDHI, Buss & Durkee, 1957). Similarly, Murphy et al (2008) found that aggressive individuals were less likely to be sedated by low doses (5mg), while at 'high' doses (10-15mg) healthy volunteers could be adversely affected.

Diazepam is prescribed to problem drinkers (e.g. as a sedative during withdrawals), although it is contraindicated with alcohol use. Both of these substances act upon the GABA_A receptors and have similar pharmacological properties such as sedation, amnesia, disinhibition and impaired judgement (Boles & Miotto, 2003; Julien, 2008; Miczek et al 1993). This paper will examine the effects of concurrent diazepam and alcohol use among violent Young Offenders, who reported being able to source this drug illicitly for use at dosages many times what might be ethically permitted in clinical trials or laboratory experiments.

Background

The illicit use of benzodiazepines by offender populations has become a cause for concern in Scotland and elsewhere (Hammersley et al, 1992; Ross et al, 1997; Stark et al, 1987).

However, this concern has focused upon their concurrent use with opioids, particularly in relation to unsafe injection practices (Bleich et al, 1999; Dobbin et al, 2003; Lavelle et al, 1991; Ng et al, 2007; Strang et al, 1994) and overdoses (Best et al, 2000/2001; Gilhooly, 1997; Zador et al, 2005) involving problem drug users (PDUs). This paper will investigate the consequences of concurrent use of diazepam with alcohol, in an offender population quite different from that of opioid dependent samples.

In Scotland the widespread illicit use of benzodiazepines was first noted in the 1980s, at a time when cocktails of prescriptions drugs were used as heroin substitutes (Forsyth et al, 1993; Grey et al, 1989; Sakol et al, 1989). Then, concurrent use of the opioid buprenorphine (as Temgesic®) and the benzodiazepine temazepam (known as “jellies”) all but replaced heroin among Scotland’s PDUs until the former’s prescription was ended. However the opioid-benzodiazepine cocktail has continued to be a feature of Scottish PDUs. Today the drugs involved are heroin and diazepam. This diazepam is known to illicit users by its former brand name Valium® (nickname ‘vallie’) or simply as ‘blues’, from the colour of a 10mg (i.e. high dose) tablet. These have a retail street price of £1.00UK each (DrugScope, 2008). In 2008, when a record number of 574 Scots died from drug use, benzodiazepines were involved in 364 of these fatalities (of which 232 mentioned diazepam). This was more than for any other category of illicit drugs, with heroin/morphine being involved in 339 deaths, cocaine 79, cannabis 44 and ecstasy 7 (GROS, 2009).

During the 1990s there were reports that illicit temazepam use had spread to other groups, including ‘ravers’ who used it as a ‘come-down drug’ after stimulants, and polydrug/alcohol using, petty offending, youths (Forsyth, 1996; Saunders, 1997; Shildrick, 2002). Some of these illicit temazepam users reported very disordered subjective states, including violence

and even the perception of invisibility (Fountain, 1999; Hammersley & Pearl, 1997; Seivewright, 1998).

In the present era there is clearly a potential for illicit diazepam use to become a similar feature among violent non-PDU populations in the same way as temazepam. Anecdotal media reports have indicated this is indeed the case (Adams, 2010; BBC Radio, 2010). However, temazepam is an intermediate acting hypnotic benzodiazepine, with a half-life of 8-20 hours, while diazepam is a longer acting anxiolytic, with a half-life of between 20-100s hours. So it does not follow that the adverse effects will be the same, especially when combined with alcohol (rather than opioids).

This research will examine the hypothesis that diazepam use is problematic among violent non-PDU youths in Scotland. This involved adopting a mixed methods (quantitative and qualitative) approach with Young Offenders in custody. Specifically a self-completion survey carried-out in 2007 and an interview study in 2008.

Methods

The research for this paper is part of an ongoing study into the role of alcohol in young men's offending. It was conducted inside Scotland's only male Young Offenders Institution (YOI), which takes into custody all those aged 16 to 20 years from across the whole country. The YOI's population varies between 600 and 700 prisoners.

Self-completion survey

The self-complete survey comprised a short questionnaire on various aspects of Young Offenders' drinking behaviours and built upon similar surveys using the same methodology

conducted in 1979 and 1996. The 2007 questionnaire differed from the previous survey in that it contained additional items on weapon use and some more detailed questions on illicit drug use while in the community.

The survey recruited Young Offenders during their induction into the YOI. This involved a prison officer giving out the questionnaire to potential respondents at this time and then collecting it when completed. Thus recruitment was by convenience sampling (in a quasi-random fashion) depending on who (i.e. which offender) was being inducted into the institution at the times when the officer concerned was on duty, and able to give out the questionnaires without this impacting upon the smooth running of the YOI. Recruitment continued until the numbers involved in the previous sample (conducted in 1996, $n=154$) had been reached (i.e. exceeded). The number of rejected / non-filled-in questionnaires was seven, leaving a total of 172 for analysis. Thus the sample represents between one quarter and one third of Scotland's total male Young Offender population at the time of the research.

Questionnaires were anonymous and participants were informed that they did not need to answer any question which they wish not to. This self-completion questionnaire method has a number of disadvantages, including the inability of the researcher to prompt and probe for more detailed answers and the potential for incomplete data or poor quality responses. As might be expected the survey suffered from some missed answers or vague responses to open-ended questions. Few questions were answered by every respondent, though it should be stressed that much of this 'missing data' was generated either because the question concerned was not relevant (e.g. some offenders did not drink

alcohol). Thus the base for the percentages reported in this paper is seldom the full 172 Young Offenders who responded to the survey.

Despite these limitations, the survey's findings were concerning, particularly because these suggested the involvement of benzodiazepines in violent offending. In order to confirm these patterns, and to provide more detailed explanation / understanding of this issue, qualitative interviews were carried-out with a further 30 Young Offenders in 2008.

Face-to-face interviews

To be compatible with the quantitative survey, interview participants were also recruited during their induction into the YOI. This time the prison staff who were on duty in the induction hall invited the Young Offenders present to participate in the research and introduced them to the university interviewer.

All interviews were conducted in private, within an interview room, which while out of hearing range of prison staff had a glass frontage, and the interviewer was given a security alarm. As well as being provided with a consent form and an information sheet, potential interviewees were verbally assured of the study's voluntary nature plus the rules of confidentiality by the interviewer, and that they were free to terminate the interview at any time. No Young Offender refused to take-part or withdrew, although one appeared agitated and keen to return to his friends and so he was not interviewed.

The interviews asked the 30 Young Offenders who participated in this phase of the research about their patterns of substance use and offending behaviours while they were in the community. All interviews were taped and later transcribed by the interviewer. On

repeated reading of the transcripts, these data were coded into categories (e.g. diazepam) and then emergent themes and fine grain codes identified. These were then cross-referenced, allowing the coding to be refined into a coherent system. This paper will focus on interviewees' accounts of their experiences with illicit diazepam. Illustrative quotes are provided here for this purpose (with pseudonyms, ages and current offences). Rather than being the primary source of inductive analysis, these qualitative data are primarily used here for confirmation ('triangulation') and explanation ('facilitation') purposes (Bryman, 2006; Greene et al, 1989; Hammersley, 1996) of the survey's diazepam findings. That said, during analysis of the transcripts' content, other relevant emergent themes were identified which generated new information concerning the processes and contexts whereby diazepam, when mixed with alcohol, can be seen by male Young Offenders as having facilitated violence.

Results

Survey Findings

The survey's participants had a mean age of 18.5 years (base=171). Most (91%: base=171) stated that they had drunk alcohol while in the community. There were also high levels of reported cigarette smoking (77%: base=146) and illegal drug use, particularly cannabis (85%: base=157). Of particular interest here was that nearly two-thirds of these Young Offenders (63%: base=158) reported lifetime use of "benzodiazepines" (the examples "Valium/blues" were provided with this option) and that more than three-quarters (79%: base=151) reported mixing alcohol and illegal drugs. These patterns are summarised in Table 1.

<Table 1>

The levels of drug use, including diazepam, in this offender sample are much higher than might be found in a contemporary general population survey. For example, of the 10,962 adults who responded to the *Scottish Crime & Justice Survey 2008-09* (MacLeod et al, 2010) only 26% admitted to any lifetime usage, with just 4% reporting having ever used “Valium” (15% of drug users: base=695).

Young Offenders who admitted to drug use were asked to state which was their ‘main drug’ (not shown in Table 1). Only 14 (9% of drug users) stated that diazepam was their ‘main drug’, behind cannabis, $n=57$ (38%), ecstasy, 24 (16%) and cocaine, 23 (15%, rising to 18% if ‘crack’ is included), but ahead of heroin, 12 (8%).

When their current offences were examined, over half (53%: base=163) reported they were in custody for a ‘serious violent crime’ (i.e. Group 1 Crime) such as Homicide, Armed Robbery or Serious Assault (‘occasioning permanent impairment’, ‘disfigurement’ or ‘danger to life’). When non-serious assaults (17%) and possessing weapons other than firearms (11%) are added, nearly three-quarters (73%) were currently in custody for a violent offence. In contrast fewer than one-in-ten (8%) reported being in custody for a drug offence.

This high proportion of violent offenders, as opposed to say drug offences, is as might be expected from a Scottish Young Offender Sample in the present era. For example, an audit of the YOI population conducted by the prison service on the 6th of May 2008 (i.e. during the time period of this research) recorded that 428 (84%) out of 513 convicted prisoners had an “assault” among their current convictions (ranging from common assault

to murder). In contrast only 48 (9%) prisoners had a drugs crime amongst their current convictions (not necessarily the charge which made their sentence a custodial one).

Respondents were asked whether they believed alcohol, and/or illegal drugs, was to “blame” for their current offence. A majority of drinkers (57%: base=140) attributed their offence to alcohol in this way. This compares with under one third of drug users (30%: base=153) who blamed any drug either alone or, as was more often the case, in combination with alcohol. Among users of alcohol and drugs, 25 (20%: base=124) blamed both, 42 (34%) blamed neither, 45 (36%) blamed only alcohol, and just 12 (10%) blamed only illegal drugs for their current offence.

Those who blamed drugs were asked to specify which substance (or substances) in a supplementary open-ended question (see Table 1). Among the 47 who did so, the most commonly blamed illegal drug was diazepam, $n=24$ (i.e. 51% of those who attributed their offence to an illegal drug blamed this one substance, either alone or in combination with others) followed by heroin, 10 (21%). Only four of the 21 offenders who blamed diazepam for this offence, and who also drank, did not attribute their current offence to alcohol as well.

Table 2 examines these attributions of blame. Here it can be seen that almost two-thirds of prisoners currently in custody for a (any) violent offence blamed such offences on alcohol, compared with only around one quarter of those who were in custody for non-violent offences (65%: 27% respectively; chi-square=14.22, $p < .001$). Group 1 Crimes (i.e. ‘serious violence’) were also significantly more likely to be attributed to alcohol. No corresponding relationships were found between illegal drug use per se and violence.

<Table 2>

From Table 2 it can be seen that Young Offenders who blamed both alcohol and drugs were more significantly more likely to be in custody for a violent offence (or a Group 1 Crime). In contrast those who blamed only illegal drugs (i.e. not in combination with alcohol) were significantly less likely to be in custody for any violent offence (or Group 1 Crime). Those who attributed blame to alcohol only were no more (or less) likely to have committed a violent offence. A majority (52%) of those currently in custody for a non-violent offence attributed no blame to alcohol or drugs.

Table 2 also indicates that those who attributed blame to heroin were less likely to be in custody for any violent offence. Although proportionally more respondents who blamed diazepam had committed a violent offence this did not reach statistical significance. However, those who blamed both alcohol and diazepam were significantly more likely to be in custody for a violent offence (or a Group 1 Crime). All 17 prisoners who blamed both alcohol and diazepam were in custody for a violent offence (in 14 cases this was a Group 1 Crime). The one remaining individual who was in custody for a violent offence and who blamed diazepam did not blame alcohol, although he did state that he had been drinking prior to his offence.

The survey also asked respondents if they had ever used a weapon. A majority (63%: base=148) of respondents indicated that they had. This question did not necessarily refer to their current offence, and it was noteworthy that a majority (53%: base=147) of those who were not in custody for a Group 1 Crime (i.e. 'serious violence', $n=65$) reported having

done so. This was supplemented by an open-ended question asking which substances, if any, the respondent was under the influence of when they “used a weapon to injure somebody”. Although not equating to an attribution of blame (many were likely to have been under the influence of nicotine), as shown in the final column of Table 1, the most often cited substance was alcohol (81%: base=77) and the most often specified illegal drug was diazepam (24%). Almost half (48%) of those who had used a weapon to injure had been under the influence of both alcohol and drugs, including 11 of the 18 who reported being under the influence of diazepam.

Thus a picture was emerging where the benzodiazepine diazepam in combination with alcohol was being attributed to, or associated with, violent offending. However, why this relatively less popular drug should be linked to violence by this population remained unanswered. It was decided to investigate this issue further by in-depth interview.

Interview Findings

The 30 Young Offenders interviewed were very similar to the survey respondents. For example they had a mean age of 18.3 years, and 24 (80%) were in custody for a violent offence, including 18 (60%) for a Group 1 Crime. It was noteworthy that all of those who were currently in custody for non-violent offences (unrelated to substance use) were also able to describe prior involvement in alcohol-related violence. Also, as is illustrated in the quotes below, the link between diazepam and violence including weapon use, inferred from the 2007 survey, was re-iterated time and time again by the 2008 interviewees.

“Valium sends me wild when I take it, that’s when I committed ma first offence in 2006. That’s what I had. I had Valium. I’d never take them again. I had vallies and drink. It was *Morgan Spice* [rum], and *Buckfast* [‘tonic’ wine] I ended up just fighting a boy and took it too far” (‘Duncan’: 17 years-old, Serious Assault)

“It had to be Valium, it gives you confidence. When you mix it, it’s the devil’s mixture. It’s pure evil eh, totally evil, you can do things and you don’t remember doing it or nothing. I always just wake up on them and I’m lying in the cells or something and I can’t remember what I’ve done. Some bits come back to you but there are some things I cannae [cannot] remember at all. I can remember the [current] offence, but I cannae remember using the bottle, but I can remember kicking him in the head and that and stamping him on the head, but I cannae remember hitting him with a bottle.” (‘Murdo’: 17 years-old, Serious Assault)

As the above accounts indicate, diazepam users attributed blame to this drug for their violent offences (e.g. taking it ‘too far’) and, supporting the survey’s findings, this was especially the case when mixed with alcohol.

“I’ve not took Valium for ages but. Mix that with drink and that’s you man. You’ll get the jail guaranteed. You do mad stuff cos’ you’re out of it. It makes you feel violent. If you drink with it you go mad. Mix the two and you get violent. I’ve done more assaults with Valium.” (‘Stevie’: 19 years-old, Assault & Robbery)

“If I’m not drinking, I’m just like if I have a few ‘blues’ I’m all right, but if I drink and I take a few ‘blues’ that’s it, I’m mental. You just go off your head. You want to fight everybody all the time. Everybody is the same as soon as you get ‘blues’ and you mix it with alcohol that’s it. If you just have ‘blues’ through the week and not drink... I would just sit in ma pals house and have smoke [cannabis] and take a few ‘blues’ and then you’re calm and that.” (‘Dougie’: 17 years-old, 2 Serious Assaults)

As the final comment above implies, users of diazepam felt that this drug’s violence inducing effect only happened when it was mixed with alcohol, but crucially not when mixed with other (i.e. illegal) drugs. In this respect diazepam did differ from alcohol, which many participants felt could be a cause of violence on its own without having to mix drink with any other substances. Again this concurs with the survey.

“Hash [cannabis], then ‘blues’. I like it. It’s just laid back it’s just the same as being stoned isn’t it? You only do stuff [violence] when you drink with it but.” (‘Gordon’: 18 years-old, Serious Assault)

“...sometimes, it [diazepam] can be used in ways that it has the effect on you, but it doesn’t affect you in a way that you’re going to end up so violent, but when you’re drinking with it, it affects you like that. Sometimes when you’re smoking cannabis with it, you relax more and like you can have a good time and that.” (‘Roy’: 19 years-old, Attempted Murder)

Additionally, mirroring reports by temazepam users from the 1980s-1990s, these diazepam users felt that one of the effects of this anxiolytic was that it removed any fear for consequences of their actions, making them feel invincible, and in the extreme as if they were invisible.

“They [diazepam tablets] just make you feel like invincible or something, you just want to fight with everyone” (‘Michael’: 17 year-old, serious assault)

“...if you take ‘blues’, ‘vallie’ and drink it’s worse man. ... sometimes you think ‘like see if there was police and there was a Gay there’ that I knew, I would think I could walk up and batter him and no one else would see me. And like you can do anything if you want” (‘Gordon’: 18 years-old, Serious Assault)

Participant’s reported that these effects of diazepam were long-acting, perhaps persisting for days after last use, even although they might not be aware of the consequences of this until after alcohol had been consumed.

“No [diazepam used prior to current offence] but I had 20 the day before, it would have still be in my system... Yes in all of them [offences] I’ve had ‘blues’. It was two serious assaults and a kitchen-devil [knife]. It’s not good, it’s when you start drinking with it [diazepam], it makes it worse.” (‘Gordon’: 18 years-old, Serious Assault)

“When I done that stabbing I took 64 ‘vallies’. I slept for a full day. Like I was ‘vallied’ out ma nut [head] for about a week and then I ended up doing it when I done it with the robbery, that was the first time I ever took Valium... and see like I was all right and it went away in the morning, and then I started drinking it would bring the ‘vallies’ back on... When you mix it with alcohol you just want to kill someone. It makes you go mad. The Valium stays in your system for ages.” (‘Eddie’: 17 years-old, Motorcycle Theft)

Unlike diazepam (or for that matter alcohol), other illegal drugs were not thought by interviewees to be a direct cause of violence. However, these could also be linked to offending simply because their use coincided with times and social settings, where there was an elevated risk of a violent encounter (e.g. at the weekend, going dancing etc.).

“It [cocaine] doesn’t make you want to go out and fight, but if you fight, you’re just on your toes and if someone were to start something you’d go for them.” (‘Adam’: 17 years-old, Racially-aggravated Assault)

“[on ecstasy] if you start fighting and someone knocks you down, you just get back up fighting again. You don’t feel anything. It makes you dance as well.” (‘Stevie’: 19 years-old, Assault & Robbery)

Such accounts would seem to explain why respondents in the survey said they were under the influence of drugs such as cannabis, cocaine, amphetamine or ecstasy during violent incidents (e.g. when using a weapon to injure someone, see Table 1), but did not blame these for their offence in the same way in which they blamed diazepam and alcohol. Indeed, some drugs’ usage was felt to reduce the likelihood of violence. An apparent ‘hierarchy of aggression enhancing substances’ was suggested between, at one extreme, drugs which had either ‘relaxing’ effects (e.g. cannabis) or ‘pro-social’ effects (e.g. ecstasy), at the other, substances thought to increase the likelihood of violence, specifically alcohol and diazepam.

“...coke [cocaine] and eccy [ecstasy] they make you feel brilliant, like ‘loved up’, like wanting to go dancing and that, everyone is your best friend.” (‘Rory’: 20 years-old, Assault & Robbery)

“[ecstasy] just makes you want to talk to people and be nice to folk. If you were on it you wouldn’t be out looking for a fight when you were on it ... ‘Blues’ do yes. They make you go mad, make you do daft things. You can’t remember anything... You’re not out of control but it’s different from every other drug. It does send you loopy. You would go out looking for a fight”. (‘William’: 19 years-old, Serious Assault)

With the exception of diazepam, when describing the effects of illegal drugs, participants tended to feel that they were still in control of their behaviours, to a degree, something which they rarely stated about alcohol. Again, the role of setting of use appeared to be important in mediating violence. In particular, these participants were more likely to view alcohol (rather than illegal substances) as a ‘street drug’. In this scenario, the effects of

alcohol were seen to increase the likelihood of being, or going outside, and being out on the streets was in turn seen as increasing the likelihood of a violent encounter.

“You still know what you’re doing on drugs, but when you’re so drunk you don’t know what you can do” (‘Callum’: 17 years-old, Drink Driving)

“You’re more likely to fight if you’re drinking. I don’t know, if I take drugs I prefer to sit in the house, I don’t walk about the streets.” (‘William’: 19 years-old, Serious Assault)

Participants also described how illegal drugs could be used purposely as an adjunct to their drinking behaviours. For example ecstasy could be used to stay awake during all night drinking / dancing sessions, cannabis could help sleep off a previous drinking bout, cocaine could be used to help sober up (or drink more) and diazepam to become more intoxicated with alcohol.

“I always drink with it [cocaine], but see when you take coke and you start drinking, you cannae [cannot] get drunk, you can drink as much as you want and you can’t get drunk, don’t know how that is. You just can’t get drunk, but if you drink before you take it and you’re drunk before you take it, you will stay drunk for a while, but it sobers you up.” (‘Eddie’: 17 years-old, Motorcycle Theft)

“Soon as I wake up in the morning I smoke grass [cannabis]. I wake up 6.00 AM in the morning, and I don’t want to get up that early in the morning, so I just smoke a joint and go back to sleep and then 10.00 or 12.00 I get up and then go out and get drink. If I’m drinking it’s just Valium I take, but I end up in some state if I take the two of them... I just sit there pure flaked-out wanting to sleep or get ma [my] head down and then get up for another session” (‘Liam’: 20 year-old, Knife Possession)

Despite reporting high levels of involvement with illegal drugs, these violent Young Offenders expressed very negative, if stereotypical, attitudes towards opioids (i.e. heroin or methadone) and PDUs, as is illustrated by the following quotes.

“Smack [heroin], it doesn’t get tolerated in my scheme [area] cos’ it’s junkies [PDUs] and that, they steal and all that. If anyone brought it in they would get battered and flung out.” (‘Colin’: 17 years-old, Serious Assault)

“I’ve been offered heroin. I was offered it in the jail [on remand in adult prison] before I came over here [YOI] eh. I was offered it a few times, but I’ve seen people get themselves in that way and they steal off people and I hate the way they treat people through their drugs stealing off pensioners and that. I can’t stand them” (‘Liam’: 20 years-old, Knife Possession)

The above views are of interest given diazepam’s association with opioids and PDUs. This acceptance of diazepam among interviewees seemed to stem from its use as a prescription drug and because of the belief that it had a low overdose potential.

“Yes my mum and my dad and my aunty they were into ‘smack’ [heroin], ‘blues’, drink. So my aunty died of an overdose a few years back so, it must of affected me yes. Obviously it put me off cos’ she was taking ‘smack’, and I never touch ‘smack’. You get ‘blues’ off the doctor so I don’t see how they are that bad, know what I mean, cos’ they are prescription drugs.” (‘Gordon’: 18 years-old, Serious Assault)

“Valium cannae [cannot] kill you. Like you cannae overdoes on Valium. Like I took 14 and then I swallowed 50 at once.” (‘Eddie’: 17 years-old, Motorcycle Theft)

Finally, although this perceived safety threshold was rooted in diazepam’s medical good-standing, interviewees did not necessarily believe that the tablets which they used had pharmaceutical industry origins.

You get it [diazepam] everywhere, everybody’s selling it. People get it off the doctor, people get it. It’s the same as ecstasy; you cannae [cannot] get that off the doctor, but you can get it off the street. You can get 15 Valium tablets for a tenner [£10.00UK]” (‘Roy’: 19 years-old, Attempted Murder)

“It is a prescribed and they are better than the non-prescribed ones. Like the Valium we were taking like there were ones like the size of wee shrimps, wee tiny tablets and they are the best ones, you have real Valium, but see how the white Valium are the lowest milligram when prescribed, these ones were from Holland and they were the highest ones and they were 10mg....” (‘Eddie’: 17 years-old, Motorcycle Theft)

Discussion

This research found diazepam to be the illegal drug which Young Offenders most often blamed for their crimes. This was despite diazepam being neither the most prevalent drug

in the sample, nor the most popular ('main drug') among users. It was suggested that diazepam was more likely to facilitate violent behaviour when used in conjunction with alcohol.

Limitations

This research was conducted within Scotland's male Young Offenders Institution, and therefore the findings reported here are only representative of more serious young male criminals. However, the popularity of diazepam among illicit users seems to be increasing, both in Scotland and elsewhere (Adams, 2009; BBC News, 2008; DrugScope 2008; West, 2008), and with this in mind the experiences of these offenders should not be ignored.

These findings are based on the self-reports' of prisoners and so their attributions of blame might be questioned. However, this should not detract from the reported differences found between substances. Given the variety of drugs used by this population, the question raised here is, why attribute blame for their aggressive behaviour to this one supposedly 'tranquilising' medically prescribed drug, rather than say a more conveniently demonized illegal substance such as cocaine, cannabis or ecstasy? This attribution may be subjective, based on offenders' expectancies or folklore, but given that their beliefs about the drug were otherwise largely positive (e.g. its medicinal properties), especially when not mixed with alcohol, some pharmacological basis cannot be discounted.

Implications

This research suggests that illegal drug use amongst male Young Offenders in Scotland tends to be an extension of their drinking behaviours, rather than part of an 'alternative' lifestyle choice based on opioid dependence (as in the stereotype portrayed by the 1990's

Scottish movie *Trainspotting*). This relationship was most apparent when examining their offending, particularly violent offending, in that drug-related violence tended to take-place while drunk. This concurrent use could be situational, being coincident with settings which were risky for violence. Nevertheless, the perceived effect of one illegal drug, diazepam when mixed with alcohol, was implicated in such behaviour.

According to the accounts of these offenders, diazepam seemed to increase (potentiate) many of the adverse effects of alcohol, such as losing control, getting involved in violence and yet not being able to remember these incidents. Additionally, the long half-life of diazepam was reflected in interviewees' accounts of being (unknowingly) under its influence for days. This could lead them to underestimate how intoxicated they would become upon drinking alcohol, perhaps with violent consequences.

Interviewees' accounts were very consistent, so some subcultural explanation cannot be discounted, but they also appeared to believe that diazepam was a 'safe' drug because it was prescribed. Their use however was not prescribed, and perhaps also of non-pharmaceutical manufacture (see Pharmed.org, 2007). Moreover, these illicit diazepam users greatly exceeded therapeutic doses (in some cases perhaps by a factor of 50 or more times compared with lab experiments) and they mixed it with alcohol.

Regardless of how it was sourced, the former Roche brand name Valium (withdrawn in 2002) had been retained within this young population to refer to diazepam, as had the street name 'blues'. Whether these 'blues' always contain 10mg of diazepam is questionable and may be considered as an extra risk factor.

Other illegal drugs were not linked to aggression by this violent population. This was apparent from both the quantitative and qualitative phases of the research. If there was a reported relationship between illegal drugs and violence, then for most illicit substances this was a negative one in comparison to alcohol. The sole exception to this pattern was diazepam, which when mixed with alcohol appeared to result in even greater levels of drunkenness and more uncontrolled violence.

Conclusion

There would appear to be a need to investigate the role of diazepam in facilitating violence when combined with alcohol, and to inform all users of these risks, particularly in relation to its long-acting mode of action. On the basis of these findings, any diazepam consumption among drinkers with a history of aggression or anger management problems should be discouraged.

References

- Adams, L. (2009) Drug agencies warn of increased use of valium. *The Herald*, May 11th. Online (accessed June 2010) URL: http://www.theherald.co.uk/news/news/display.var.2506240.0.Drug_agencies_warn_of_increase_in_use_of_valium.php
- Adams, L. (2010) The worst recipe for violence ... just mix alcohol and Valium. *The Herald*, February 7th. Online (accessed June 2010) URL: <http://www.heraldscotland.com/news/crime-courts/the-worst-recipe-for-violence-just-mix-alcohol-and-valium-1.1004388>
- BBC News (2008) Illegal valium trade investigated. Online (accessed June 2010) URL: http://news.bbc.co.uk/1/hi/scotland/south_of_scotland/7529389.stm
- BBC Radio 1 Newsbeat (2010) Young people in Scotland 'are misusing Valium' (accessed June 2010) URL: http://news.bbc.co.uk/newsbeat/hi/health/newsid_10280000/newsid_10281800/10281851.stm
- Ben-Porath, D. D. & Taylor, S. P. (2002) The effects of diazepam (Valium) and aggressive disposition on human aggression: An experimental investigation. *Addictive Behaviors*, 27: 2, 167–177.
- Berman, M. E., Jones, D. E. & McCloskey, M. S. (2005) The effects of diazepam on human self-aggressive behaviour. *Psychopharmacology*, 178: 1, 100–106.
- Best, D., Man, L-H., Zador, D., Darke, S., Bird, S., Strang, J. & Ashton, M (2000/2001) Overdosing on Opiates. *Drug & Alcohol Finding, Causes, Issue 4*, 4-20 & *Prevention, Issue 5*, 4–18.
- Bleich, A., Gelkopf, M., Schmidt, V., Hayward R., Bodner G. & Adelson M. (1999) Correlates of Benzodiazepine Abuse in Methadone Maintenance Treatment. A 1 year prospective study in an Israeli clinic. *Addiction*, 94: 10, 1533–1540.
- Boles, S. M. & Miotto, K. (2003) Substance Use and Violence: A review of the literature. *Aggressive Behaviors*, 8, 155–174.
- Bryman, A. (2006) Integrating Quantitative and Qualitative Research: How is it done? *Qualitative Research*, 6: 1, 97–113.
- Buss, A. & Durkee, A. (1957) An Inventory for Assessing different kinds of Hostility. *Journal of Consulting Psychology*, 21: 4, 84–89.
- Dobbin. M., Martyres R., Clode, D. & Champion De Crespigny, F. (2003) Association of benzodiazepine injection with the prescription of temazepam capsules. *Drug and Alcohol Review*, 22: 2, 153–157

DrugScope (2008) DrugScope Street Drug Trends 2008: Concern as increasing numbers of drug users turn to benzodiazepines. Online (accessed June 2010) URL: <http://www.drugscope.org.uk/ourwork/pressoffice/pressreleases/Street-drug-trends-08.htm>

Forsyth, A. J. M. (1996) Places and Patterns of Drug Use on the Scottish Dance Scene. *Addiction*, 91: 4, 511-521.

Forsyth, A. J. M., Farquhar, D., Gemmell, M., Shewan, D. & Davies, J. B. (1993) The Dual use of Opioids and Temazepam by Drug Injectors in Glasgow (Scotland). *Drug and Alcohol Dependence*. 32: 3, 277-280.

Fountain, J. (1999) Benzodiazepines in Polydrug-using Repertoires: the impact of the decreased availability of temazepam gel-filled capsules. *Drug Education Prevention & Policy*, 6, 1: 61–69.

Gantner, A. B. & Taylor, S. P. (1988) Human physical aggression as a function of diazepam. *Personality and Social Psychology Bulletin*, 14: 3, 479-484

Gilhooly, T. C. (1997) Reduction in use of temazepam is factor in deaths related to overdose. *British Medical Journal*, 315, 1463–1464.

Greene, J. C., Caracelli, V. J. & Graham, W. F. (1989) Toward a conceptual framework for mixed-method evaluation designs. *Educational, Evaluation & Policy Analysis*, 11: 3, 255–274.

Grey, R. F., Ferry, A. & Jauhar, P. (1989) Emergence of Buprenorphine dependence. *British Journal of Addiction*, 84: 11, 1373-1374.

GROS (2009) *Drug-related deaths in Scotland in 2008*. Edinburgh: General Register Office for Scotland.

Hammersley, M. (1996) The Relationship between Qualitative and Quantitative Research: Paradigm loyalty versus methodological eclecticism. In Richardson, J. T. E. (ed.) *Handbook of Research Methods for Psychology and the Social Sciences*. Leicester: BPS Books.

Hammersley, R. H., Lavelle, T. L. & Forsyth, A. J. M. (1992) Predicting the Initiation and Cessation of Buprenorphine and Temazepam Use. *British Journal of Addiction*, 87: 9, 1303-1311.

Hammersley, R. & Pearl, S. (1997) Temazepam misuse, violence and disorder. *Addiction Research*, 5: 3, 213-222.

Julien, R. M. (2008) *A Primer of Drug Action*. New York: Worth.

Lavelle, T. L., Hammersley, R. H., Forsyth, A. J. M. & Bain, D. (1991) The Use of Buprenorphine and Temazepam by Drug Injectors. *Journal of Addictive Disease*, 10: 3, 5–14.

- MacLeod, P., Page, L., Kinver, A., Iliasov, A. & Williams, R. (2010) *2008-09 Scottish Crime and Justice Survey: Drug Use*. Edinburgh: The Scottish Government.
- Miczek, K. A., Weerts, E. M. & De Bold, J. F. (1993) Alcohol, benzodiazepine, GABA_A Receptor Complex and Aggression: Ethological analysis of individual differences in rodents and primates. *Journal of Studies on Alcohol*, 11: 9, 170-179.
- Murphy, S. E., Downham, C. & Cowen, P. J. (2008) Direct effects of diazepam on emotional processing in healthy volunteers. *Psychopharmacology*, 199: 4, 503-513.
- Ng, W. L., Mythily, S., Song, G., Chan, Y. H. & Winslow, M. (2007) Concomitant Use of Midazolam and Buprenorphine and its Implications among Drug Users in Singapore. *Annals Academy of Medicine*, 36: 9, 774–777.
- Pharmer.org (2007) 'squiggly g' fake diazepam from Scotland. Online (accessed June 2010), URL: <http://www.pharmer.org/images/contrib/squiggly-g-fake-diazepam-scotland-diconal-dipipanone-10mg-mrk-f3a>
- Ross, J., Darke, S. & Hall, W. (1997) Transitions between routes of benzodiazepine administration among heroin users in Sydney. *Addiction*, 92: 6, 697–705.
- Sakol, M. S., Stark, C., & Sykes, R. (1989) Buprenorphine and temazepam abuse by drug takers in Glasgow - an increase. *British Journal of Addiction*, 84: 4, 439-441.
- Saunders, N. (1997) *Ecstasy Reconsidered*. Exeter: Nicolas Saunders.
- Shildrick, T. (2002) Young People, Illicit Drug Use and the Question of Normalization. *Journal of Youth Studies*, 5: 1, 35–48.
- Seivewright, N. (1998) Theory and practice in managing benzodiazepine dependence and misuse. *Journal of Substance Use*, 3: 3, 170-177
- Stark, C., Sykes, R. & Mullin, P. (1987) Temazepam abuse. *Lancet*, 2, 802-803.
- Strang, J., Griffiths, P., Abbey, J. & Gossop, M. (1994) Survey of use of injected benzodiazepines among drug users in Britain. *British Medical Journal*, 308, 1082.
- Wallace, P. S. & Taylor S. P. (2009) Reduction of appeasement-related affect as a concomitant of diazepam-induced aggression: evidence for a link between aggression and the expression of self-conscious emotions. *Aggressive Behaviour*, 35: 2, 202-212.
- West, J. (2008) Fears as Tranquilliser Addiction Rises: A shortage of heroin has sent users to the equally dangerous drug known as 'mother's little helper'. *The Observer*, November 30th. Online (accessed June 2010) URL: <http://www.guardian.co.uk/society/2008/nov/30/benzodiazepines-drugs-alcohol-health>

Zador, D., Kidd, B., Hutchinson, S., Taylor, T., Hickman, M., Fahey, T., Rome, A. & Baldacchino, A. (2005) *National Investigation into Drug Related Deaths in Scotland, 2003*. Edinburgh: Scottish Executive.

Table 1: Male Young Offenders' substance use

	Ever used (% of sample) ¹	Attribute 'blame' for current offence (% drinkers / all drug users) ¹ [n specifying drug / % users] ²	Under influence when 'use a weapon to injure someone' (% of weapon users) ²
Alcohol	155 (91%)	79 (57%)	62 (81%)
Cannabis	134 (85%)	[2 (2%)]	12 (16%)
Cigarettes	113 (77%)	-	-
Cocaine (powder)	110 (70%)	[4 (4%)]	8 (10%)
Ecstasy	105 (68%)	[6 (6%)]	12 (16%)
Benzodiazepines	100 (63%)	[Diazepam=24 (25%)]	Diazepam=18 (23%) Temazepam=1 (1%)
Amphetamines	83 (54%)	[2 (3%)]	3 (4%)
LSD	51 (34%)	[0]	0
"Solvents"	40 (28%)	-	-
'Crack' cocaine	32 (21%)	[1 (7%)]	4 (5%)
Heroin	29 (20%)	[10 (35%)]	5 (7%)
Morphine	12 (9%)	[0]	0
Any drug	147 (86%)	46 (30%)	52 (68%)
Mix of alcohol and other drugs	119 (79%)	25 (20%)	37 (48%)

1. Questionnaire offered answer
2. Respondent specified answer

Table 2: Attributions of blame, violence and substance use

Substance blamed (n) ¹	Type of offence attributed to substance use		Chi-square
	All Violent offences (% blaming on substance use)	Non-violent offences (% blaming on substance use)	
Alcohol (134)	65%	27%	14.22 ***
Any drug (104)	32%	22%	1.21
Neither (42)	30%	52%	4.51 *
Alcohol only (43)	38%	26%	1.40
Drugs only (11)	5%	23%	7.25 **
Alcohol and any drugs (25)	27%	0	9.05 **
Alcohol and diazepam (17)	16%	0	6.49 *
Diazepam (22)	17%	10%	1.03
Heroin (10)	4%	15%	5.91 *
	Category of Crime attributed to substance use		Chi-square
	Group 1 Crime (% blaming on substance use)	Non-Group 1 Crime (% blaming on substance use)	
Alcohol (134)	66%	45%	6.08 *
Any drug (104)	33%	25%	1.21
Neither (42)	29%	43%	2.76
Alcohol only (43)	37%	33%	0.18
Drugs only (11)	4%	15%	4.64 *
Alcohol and any drugs (25)	30%	8%	8.84 **
Alcohol and diazepam (17)	17%	5%	4.93 *
Diazepam (22)	18%	11%	1.54
Heroin (10)	4%	11%	2.96

Notes

* $p < 0.05$, $p < 0.01$, *** $p < .001$

1. Drugs or combinations of drugs with less than 10 cases attributing blame are not shown.