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Risk, shame and the public injector: A qualitative study of drug injecting in South Wales

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Abstract

Drug injecting in public places is associated with elevated health harm among injecting drug users (IDUs). Yet there is little research exploring the lived experience of injecting in public places, and specifically, a need to explore the interplay of public injecting environments, risk practices and social marginalisation. We undertook 49 qualitative interviews with IDUs in South Wales, UK, in six locations. Analyses focused on injectors' narratives of injecting in public places and risk identity. Findings show how the lived experience of public injecting feeds a pervasive sense of risk and 'otherness' among street injectors, in which public injecting environments act as contextual amplifiers of social marginalisation. Injecting in public places was characterised by urgency associated with a fear of interruption, a need to maintain privacy to prevent public exposure, and an awareness or sense of shame. We argue that daily interactions involving public exposure of injecting status, combined with the negative social meanings ascribed to public places used for injection, are experienced as potentially degrading to one's sense of self. We conclude that the public injecting environment is experienced in the context of other forms of public shaming in the lives of street injectors, and is thus productive of symbolic violence. This highlights tensions between strategies seeking to create safer communities and environmental interventions seeking to reduce drug-related health harm, including recent innovations such as the 'drug consumption room' (DCR).

Keywords: UK; Place; Injecting drug use; Stigma; Symbolic violence; Risk

Introduction

The field of harm reduction is closely aligned to that of health promotion more broadly which characterises risk and health decision making as largely a responsibility of individuals, articulated as inherently risk averse, autonomous, health conscious citizens (Higgs, 1998; Petersen, 1998). Alongside an emphasis on the individuation of risk, 'new public health' rhetoric emphasises the significance of the environment and of interventions creating 'enabling environments' for behaviour change (Petersen & Lupton, 1996). For example, health promotion discourses have emphasised the city as a means of governing health risk in urban environ-

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ments, including through neighbourhood, civic and built environment initiatives (Ashton & Seymour, 1988; Duhl, 1986). This combines with an increased emphasis in crime reduction on 'community safety' and the protection of public spaces and communities from disorder, including that associated with drug use (Nolan, Conti, & McDevitt, 2004; Raco, 2003; Sampson & Raudenbush, 1999; Fitzpatrick & LaGory, 2000).

The public injecting environment

The public injecting environment has received particular attention as an environment of risk (Rhodes et al., 2006). A largely North-American literature associates the "shooting gallery", the "crack house" as well as public injecting more generally with injecting risk behaviour and drug-related harm, including blood-borne and bacterial infections (Carlson, 2000; Celentano et al., 1991; Deren, Kang, Colon, Andia, & Robles, 2004; Fuller et al., 2003; Koester, Glanz, & Baron, 2005; Klein & Levy, 2003; Latkin et al., 2004; Thorpe, Ouellet, Levy, Williams, & Monterroso, 2000). Evidence highlights interplay between public injecting, elevated viral risk, and social-material factors, principally unstable housing and homelessness (Bourgois, Lettiere, & Quesada, 1997; Klein & Levy, 2003; Navarro & Leonard, 2004).

The extent of public injecting in the UK is largely unknown. In a recent survey of 102 homeless injectors in London, 68% reported that their last injection was in a public place (usually a public toilet or street/park) (Rhodes et al., 2006). By comparison, in a longitudinal study of injectors in London who were not homeless (Judd et al., 2005a), only 15% last injected in a public place (with 55% last injecting in their own home and 23% in a home of another), although 66% of this total sample had experienced homelessness. A survey of 349 syringe exchange clients in London, Leeds and Glasgow found that 42% reported public injecting in the last month (Hunt, Lloyd, Kimber, & Tompkins, 2007). Over a quarter of injecting drug users (IDUs) ($n = 497$) followed up in a recent survey in South Wales had injected in a public place in the last year (Craine, personal communication).

Qualitative research emphasises local variation in what constitutes a shooting gallery, crack house or public injecting environment, and additionally identifies public injecting environments as potentially safe havens as well as locales of risk (Bourgois, 1998; Carlson, 2000; Dovey, Fitzgerald, & Choi, 2001; Ouellet, Jimenez, Johnson, & Wiebel, 1991; Page & Llausa-Cestero, 2006). Some injecting environments may offer some perception of safety or protection from a hostile risk environment, for instance by enabling off-street injection where the risk of arrest or public disturbance is reduced (Metsch et al., 1999; Page & Llausa-Cestero, 2006). At the same time, qualitative evidence links injecting in public places with hasty injection, increasing the risk of 'missed hits' and disruptions to safety and hygiene routines (Aitken et al., 2002; Bluthenthal et al., 1999; Fitzgerald, Dovey, & Dietze, 2004; Koester, 1994; Small, Kerr, Charette, Wood, Schechter, & Spittal, 2006; Small, Rhodes, Kerr, & Wood, 2007).

Safer environment interventions

A health promotion discourse of citizenship responsibility for health in combination with environmental change finds affinity in the UK with a policy focus in crime reduction on 'community safety', and the creation of 'safer communities' and 'defensible space' through neighbourhood renewal as well as urban design (Brantingham & Brantingham, 1998; Clarke, 1997; Crowe, 2000; Raco, 2003). The recently launched National Community Safety Plan for England and Wales, for example, envisages the reduction of crime and anti-social behaviour made possible through the creation of safer environments to "protect the public", by creating places "where people like to be because they feel safe and secure and where the neighbourhood and those who live in it are shown respect" (HM Government, 2005, p. 6).

If we are to understand better how place—and here, public injecting environments—are productive of risk and social identity, it is important to appreciate potential connections to wider discourses of community and urban safety which serve to define boundaries of risk and inclusion (Rose, 1999). Projects to create safer cities, for example, emphasise the city as a place of attractiveness, especially in terms of economy, consumption and leisure, wherein drug markets and drug users may constitute social problems to which urban regeneration and area development initiatives seek to remove (Punch, 2005; Smith, 1996). This has led to contestations over what constitutes genuine public space, with some initiatives said to foster the purification or gentrification of public space, as

well as surveillance of it, through environmental intervention (Judd, 1995; Raco, 2003). Such approaches build on the now infamous 'broken windows' hypothesis that visible signs of disorder are the seeds of more serious crime as well as acting to shape perceptions of community belonging and safety (Wilson & Kelling, 1982). Drawing on notions of 'defensible space' (Newman, 1973), there is strong emphasis in UK crime reduction on seeking to design-out social disorder through surveillance, 'access control' and 'territorial reinforcement' by a combination of surveillance cameras, street and sensor lighting, alley gating and fencing, security patrol, opening up secluded space, and area-targeted policing (Brantingham & Brantingham, 1998; Crowe, 2000). These initiatives also target public injecting environments:

> Places used for drug use and the disposal of materials discarded after drug use can be an issue that needs to be tackled. Public space such as old garages, empty storage space, common areas of blocks of flats and stairwells, are all public spaces used by drug users. Control and management of these areas can include door entry systems, CCTV, demolition, well-sited caretakers or wardens' offices…'' (Home Office, 2002: 33)

Spatial programming initiatives are at once social interventions. A feature of policy thinking in the UK is that change to the built environment fosters 'natural policing' among residents to protect their shared territory (Brimicombe & Li, 2005). Citizenship duty overlaps with social cohesion among community members which taken together is said to contribute to the collective social control of public space (Brimicombe & Li, 2005; Sampson & Raudenbush, 1999). While spatial programming works through the built environment, spatial inclusion or exclusion is shaped through a variety of social symbols and codes influencing perceptions of space, including in relation to access and ownership (Madanipour, 1990; Rose, 1999). Genuinely public space disappears into spatially and socially demarcated areas for privileged members as space deemed to be colonised by the disorderly is taken back (Mitchell, 1995; Wacquant, 1989). When deployed against drug use, situational crime prevention through spatial programming results not only in the geographical redistribution of drug users but also in their social marginalisation, distancing from local health services, as well as in potential elevated health harm (Dovey, 2000; Fischer & Poland, 1998; Fitzgerald et al., 2004; Punch, 2005; Wallace, 1990).

This study

There is recent acknowledgement in drug use research of the need to understand how micro physical environments—such as public places of drug injection—shape risks and harms in relation to injecting drug use (Dovey et al., 2001; Fitzgerald et al., 2004; Rhodes, 2002; Rhodes et al., 2006; Singer et al., 2000). Yet there is little research exploring the lived experience and social meaning of injecting in public places. Consequently, there is a need to explore the potential role of public injecting environments as contextual factors in the creation and reproduction of personal and social identities in relation to risk. Important here also, are how discourses of community safety and the safer city may contribute to images of the public injector and public injecting environments. We report here on findings from qualitative research among drug injectors in South Wales. We focus specifically on the potential role of place as a contextual amplifier of risk and social marginalisation in the everyday lives of street injectors.

Methods

In mid-2005, we undertook 49 qualitative interviews among IDUs in South Wales, with the aim of exploring drug injectors' accounts of their drug injecting and of the social and structural factors perceived by them to influence access to syringe distribution services. The study was thus funded as a piece of policy research with explicit attention given to a priori-defined topics of policy interest. During the study, the themes of 'public injecting' and 'shame' emerged, and it become possible to see connections between these themes, and we therefore followed up on these areas of interest to the extent that our interviews enabled. This paper provides a thematic analysis of injector accounts of public injecting. The study had ethical approval from the Multi-Site Ethics Review Committee of Wales.

Sampling

The study comprised people who were current IDUs (that is, had injected drugs in the past 4 weeks). The study adopted a purposive sampling approach, seeking to recruit injectors in urban,

semi-rural and rural areas of South Wales, and with minimum quotas adopted on account of: female IDUs; those aged under 30 years; and those injecting for under 5 years. Previous studies have noted that syringe distribution access can be shaped by its geographic coverage, a concern in rural areas, as well as by gender, age and injecting experience (Bastos & Strathdee, 2000; Keene, Stimson, Jones, & Parry-Langdon, 1993; Singer et al., 2000). Interviews took place in six locations: Cardiff ($n = 19$); Merthyr ($n = 16$); Bridgend ($n = 6$); Abergavenny ($n = 5$); Pontypridd ($n = 2$); and Cwmdare ($n = 1$). There was no a priori attempt to include indicators of unstable housing or homelessness in purposive sampling, though Cardiff has a visible population of street-based injectors. Cardiff is the capital city of Wales, Merthyr Tydfil an industrial town, Bridgend a manufacturing town, Abergavenny an outlying market town, and Pontypridd and Cwmdare are small industrial towns. These sites enabled recruitment of injectors living in urban, semi-rural and rural areas; there was no aim to explore differences at the individual site level.

Recruitment took place at local syringe exchange projects, and through snowballing within existing IDU networks. Four trained fieldworkers, with previous experience of undertaking observational and semi-structured interview studies among IDUs, undertook recruitment and data collection. Recruitment and data collection were undertaken in two waves to enable provisional coding to inform the focus of ongoing recruitment and data collection. It was at this mid-point that the team noted the prominence in accounts of the themes of public injecting (and homelessness) as well as privacy and shame. The study adopted an a priori initial target of 60 interviews within a fixed data collection period which enabled 49 interviews to be undertaken.

Data collection and analysis

Data collection was via semi-structured interviews, facilitated by a topic guide, and designed to explore participants' accounts. Key areas of interview discussion included: injecting equipment use, access and availability, injecting locations, and health and service need/experience. Core structured questions were asked in relation to sample characteristics, history of drug injection and service use. All 49 interviews were tape recorded with informed consent. An additional 11 unrecorded and informal interviews were undertaken which are not included in the thematic analysis presented here, but which nonetheless informed data interpretation. Interview fieldnotes recording interview dynamics and interviewer reflections were also kept. Interviews took place in local syringe exchange services, participant homes and living spaces, quiet outdoor spaces (including injecting locations) and cars, and lasted between 30 and 90 min.

All interviews were transcribed verbatim for coding and analyses. Data coding was descriptive and thematic with an emphasis towards typological description rather than conceptual refinement or grounding theory. As with most thematic and framework analyses (Ritchie & Spencer, 1994), our first stage of coding drew upon a combination of a priori themes reflected in the study topic guide and inductive codes. Initial first-level coding was undertaken by multiple researchers, and was considerably refined as a result. Second-level coding largely sought to break down first-level coded data into smaller units. Coding worked predominately at the level of participant description and meaning, though some theme areas—including risk, shame, privacy, and hygiene—were more concept driven. As noted above, team reflection on the key themes emerging was enabled by conducting fieldwork in two phases with provisional coding having been undertaken at mid-point. The team comprised researchers in different academic disciplines (sociology, psychology, public health) with different analytical interests (thematic interpretive, discursive constructionist). Team members' differential theoretical sensitivities to particular concepts became an apparent and explicit feature of the coding and draft writing process (despite coding driven by description rather than abstraction), with the analyses for this paper leading from a perspective of interpretive critical realism and a prior interest in the drug injecting 'risk environment' (Rhodes, 2002; Rhodes, Singer, Bourgois, Friedman, & Strathdee, 2005). While organised and categorised using word processing software, data coding was undertaken without the assistance of qualitative analysis computer software.

Sample characteristics

The interview sample comprised 49 IDUs who averaged 31 years (range 18–47 years) and were predominately male (69%). In the 4 weeks prior to interview, almost all (92%) reported that their most frequently injected drug was heroin, with most

(80%) reporting daily injection. A mean of 7.2 years of injection was reported, with the average age at initiation to injection 22 years. Most (62%) reported either living in their own (rented or owned) home (36%) or that of someone else (their parents, a relative or a friend) (25%) in the year prior to interview, although 35% reported living in unstable accommodation or had been homeless for most of this period (more specifically, 26% of no-fixed abode and 9% living in a hostel). Over two-thirds (72%) of the homeless injectors were recruited in Cardiff and Merthyr.

When asked to identify the main source of needles and syringes in the 4 weeks prior to interview, over half (58%) identified non-pharmacy syringe exchange projects, 16% pharmacy-based syringe exchanges, and 22% either friends or sexual partners. A fifth (22%) of the sample reported injecting with a needle or syringe previously used by someone else in the last 4 weeks. Most (73%) reported previous experience of drug treatment, and just under half (42%) were currently receiving substitution treatment.

Findings

We summarise findings in relation to perceptions of public injecting and their implications for articulations of self and identity, including in relation to the emerging themes of privacy and shame.

Public injecting

There was a consensus in accounts that injecting in non-public environments was preferred. Injecting was viewed as ostensibly private behaviour requiring discretion. Injecting in non-public environments was also associated with cleanliness:

> Although they don't allow that [injecting] here [hostel], it's in my room. It's clean and private [male, #22, Merthyr].
>
> I always go in the flat, nowhere else. I try and keep myself a little bit discrete. Not many people know, so I am awfully cagey. I don't show people. I tend to hide it [male, #35, Cardiff].
>
> I'd rather use a house, because you're not worrying about getting caught or nothing. And it's cleaner [male, #40, Merthyr].

While injecting in a place of privacy was preferred, public injecting was described as a situational necessity. This was clearly the case for those who were homeless and whose access to private space was limited. Three other situational factors influencing public injecting were also cited: opportunity (''If I'm out, and they say 'Oh do you want a sort out', yeah, you do it on the stairs or something''); immediacy (''We just couldn't wait to take it''; ''We've got to get it in us as soon as possible''); and craving (''We would inject in the street, say if we were really sick''; ''Toilets, if I'm clucking [withdrawing]. If I'm really ill, then I don't care, I go behind a wall or in a car park''). As others commented of withdrawal:

> If I'm in town and I'm bad—clucking—I'll sneak into an alley and I'll go and do it in the alley or the pubic toilets, I'll go in the toilets and do it. It depends how bad you are [male, #24, Merthyr].

''Anywhere and everywhere'' constituted sites of injection in public space, characterised by one person as ''empty spaces, empty buildings and back-street lanes''. The following places were mentioned: user squats, derelict buildings, alleyways, stairwells, car parks, cars, buses, trains, toilets, streets, behind trees and bushes, parks, fields, in the woods, down by the river, round the back of shops, behind a wall, cafés, back gardens, garden sheds, railway tracks, telephone boxes, and the betting office. Significantly, many accounts emphasised that injecting in public space was an outcome of constraint or need rather than choice, and was even described by some as 'wrong':

> Inside toilets, parks where there are kids playing opposite. It's wrong, but there is no where to do it. Car parks, steps, in the middle of a field if there is a few of you, put up a coat to block the wind. If I had children and I knew someone was using drugs or needles, I wouldn't like that at all. Because it's about respect at the end of the day [female, #14, Cardiff].
>
> He [injector] was in the gulley [alley between houses] like. It's a bit rude isn't it? It's not fair on other people is it? [male, #13, Cwmdare].

Urgency and privacy

Our findings highlight interplay between urgency (largely borne out of a fear of being interrupted when injecting in public), privacy (balancing a need for privacy with a lack of it in many public injecting locations), and hygiene/safety (sometimes con-

strained by the physical environment through a combination of debris, contaminated surfaces, and lack of facilities such as running water). When using public space, the need to inject quickly was of paramount concern. The need here was to find "places where you can go and just be quick", irrespective of type of place: "It's just anywhere to get in quick you know. Get yourself sorted like". Such sense of urgency may encourage rushed injections which may increase injecting-related vein damage or disruption to safety routines (Dovey et al., 2001; Fitzgerald et al., 2004; Small et al., 2007):

> Behind a tree or in a car park you got to rush. And you could damage yourself by rushing. You could damage and hurt yourself so it does make a difference to your injecting site [male, #17, Cardiff].

The sense of urgency when injecting in public spaces was linked to a pervasive risk of interruption. While injectors spoke of fearing interruption from residents, those passing by or from other drug users, these concerns were most commonly articulated in relation to the police:

> Quick innit, in case the police come. Last week I went down the shed [abandoned building] to have a whack and the police come. They didn't actually catch me, but my hand was bleeding and that. I managed to put my pin [needle and syringe] down the side of some boxes. Then we waited until there were no police around and went back in the shed and done the same thing. That's the way it is [female, #45, Merthyr].

> I was stopped in the lane across the road with a pin full of heroin and a half [gram of heroin] in my hand. Police car pulls up, jumps out, and obviously I had to squeeze it all in. I missed [the vein], so I lost all that [male, #2, Cardiff].

> The police are round the toilets all the time, they're up the buildings all the time, so more and more people are going round the back of this Chinese shop… They [the police] come on to me down by the toilets, and it's not just me, they say

> 'You know the rules, you got to be searched if you are hanging around by here'… They are doing it all the time. [female, #45, Merthyr].

> It is really hard when you're homeless because there is police always on your back, and you have to be careful the police don't catch what you are doing. You normally end up going to a park somewhere [male, #4, Cardiff].

A second theme depicting the public injection was a need for privacy. The need here was to find "anywhere that is out of the way". Public toilets were commonly mentioned: "I do it in the toilets of the Central [station]. Always out of the way from people, always make sure I'm away from people". A yearning for privacy was likewise linked with a pervasive risk of interruption:

> You're paranoid aren't you? You're afraid people are going to come around the corner. No, it's not very nice [male, #13, Cwmdare].

The emphasis placed upon privacy—or lack of it—was associated not simply with a fear of interruption but of *public exposure*. Crucially, this was linked by some with a sense of personal shame or embarrassment:

> I go in the subway and do it there like. You do get a bit paranoid like, just in case someone sees you. It's embarrassing like. You don't want them to see you having a hit. Someone might pass and see you doing it, it's shaming isn't it? [male, #36, Merthyr].

Hygiene

Whereas injecting in private space enhanced "cleanliness", injecting in public spaces used by multiple injectors were described in stark terms not only as "dirty" but as "horrible", "disgusting" and "stinking". The following extracts describing an abandoned building in Merthyr are examples:

> There are needles everywhere. There's a mattress on the floor that's been burnt to smithereens, only the springs sticking up. And there's needles poking out everywhere, dirty filters, dirty cookers everywhere [female, #20, Merthyr].
>
> There's needles everywhere—all used. It's stinking in there. Needles, cookers, citric, everything… I've seen boys going in there, like a friend of mine, he's been so bad he's found a needle on the floor, he's picked it up and used it without boiling it or whatever, but that's how desperate they've been [female, #20, Merthyr].

Such stark description in accounts may not only accentuate just how 'bad' such environments can be, but can also serve to distance interviewees from their stories or experiences of such environments.

The self is presented as to some extent removed from public injecting sites characterised as most dirty or degrading. As the following extract illustrates, distinctions are drawn between self and others in the context of some public injecting environments (emphasis added):

> *They* do use derelict places. *I* don't go there. Last time I went there was a *couple of weeks ago*. The state of it was unbelievable. Needles everywhere [male, #38, Merthyr].
>
> It's absolutely stinking, it's a derelict building, you walk in—I have been in there *but I've never injected in there*—you walk in over bricks and whatever else is on the floor. You walk in, and it's bricks everywhere and crap. One room in the front is full of pins, needles everywhere, so that's where they are doing it [female, #46, Merthyr].

Creating distance between descriptions of public injecting environments and one's relation to them may be viewed as a technique to preserve one's presentation of self as 'clean' (Riessman, 1990). Irrespective of the functions served by this accounting, this highlights a consciousness among injectors of how physical location communicates symbolic meaning about one's place in the world.

There are other instances when accounting serves to create distance between self and others in the context of public injecting environments. This was especially common when emphasising one's self as hygienic, either in relation to syringe sharing or more often in relation to the safer disposal of injecting equipment:

> I always make sure I got clean pins. I know certain people who will go and pick up a pin from the building. I know loads of people who are doing that. Stinking that is [female, #45, Merthyr].
>
> Most of the people are bad. They just chuck the needles on the floor… I put mine in the bins straight away—'cin bins'—and I take them back every time. But I know loads of people who just chuck them, even on the street, and it's disgusting to be honest [male, #24, Merthyr].

A distinction was drawn between 'addicts' with responsibility for caring for hygiene and the environment and irresponsible 'smackheads':

> I know we are addicts, yeah, but smackheads are different. They don't even put the tops on their needles, and throw them anywhere. Kids could walk and pick them up. We've got cin bins that we can put our needles in. We bring our needles back in here [syringe exchange] whenever we are finished with them. So we know that no-one is getting hurt by them [male, #9, Cardiff].
>
> They sit there blatantly outside [the night shelters] and do it [inject]…They just chuck them [needles, syringes]. Or you do get the odd decent person like myself, I will pick them up and get rid of them properly [female, #19, Cardiff].
>
> I don't see why they can't go back to [syringe exchange], it's only across the road. A little kid could come up that alleyway not knowing and pick it up and catch anything. To be honest, I think it's quite sick. They're too lazy basically. They can't wait to get it in them and go looking for the next tenner, for another fix like [female, #20, Merthyr].

The 'responsible' injector has a sense of citizenship or 'respect' and not only takes care of his or her equipment and environment, but also cleans up after others:

> We've both walked up the street and seen a few pins on the floor, by a park or something. My husband's gone up to them—he makes sure he's got something on his hands—and he picks them up and chucks them down the drain. To be honest, I think it's disgusting if you're going to leave dirty pins on the floor for kids to get hold of [female, #11, Cardiff].
>
> You walk down the street and there are needles on the floor. I've seen kids playing over the other side of the road. I pick it up with a piece of paper and drop them down the drain because I don't think it's right. I don't do it, and I don't see why anyone else should. Respect isn't it? [male, #17, Cardiff].

Shame

Meaning is found in the environments we inhabit. The physical injecting environment is not simply a set of geographic coordinates but contributes toward identity in relation to risk, responsibility and citizenship. Overriding thematic features of descriptions of the public injecting environment as embodied space, as noted above, included shame and the fear of being publicly exposed an injector.

These characteristics of lived experience are contextualised more broadly by what is described, especially among homeless injectors, as relentless

hassle, arguably interpretable as a form of degradation in relation to the subordination of the vulnerable (Bourdieu & Wacquant, 1992). This was most often cast as a source of hassle from the police. Homeless injectors spoke of police being "on your case everyday, even if you've done nothing wrong", of being "constantly hassled", of police who "won't leave you alone", of having "no where to go" as a consequence. Whilst not necessarily the norm, there were multiple accounts of public situations in which police actions were experienced as acts of humiliation, and where interview accounts attempted to resist (or repair) such depictions of degraded self:

> If they catch you, they'll tip them out in the middle of town with people walking past with their kids. They like embarrassing us. The police make us out to be really horrible people and we're not [male, #17, Cardiff].
>
> The way he speaks to you, the way he looks down at you, the way he stops you in the middle of the street in front of everybody and empties your bag all over the floor, thinking you've got things in there—and then your blankets are tipped all over the floor, your underwear—he just doesn't care. He'd just empty it all on the floor in the middle of town. And he doesn't care [female, #11, Cardiff].
>
> They searched him in town and because he had syringes on him they tipped it out in front of everyone in town. And it was a Tuesday, which is market day. He felt terrible. They try to belittle you and make you feel dirty [female, #30, Abergavenny].

Such police actions may be interpreted (and felt) as forms of shaming ritual. They are effective in this respect not only because they are public but because they take place in small towns wherein injectors' pervasive fears of unwanted public disclosure are easily exploited ("They [the police] will do anything to show the public you are a drug addict"):

> They [the police] know every smackhead in Merthyr. That's why they are always on our cases, searching us and this and that. It's embarrassing. It's not nice. If I had my kids with me, you don't want to have the police stopping me and searching me like [female, #45, Merthyr].

These experiences are compounded by other forms of contact with the police which reinforce lived power inequalities, even perceptions of worthlessness: "Because we're drug users they think we're scum". But while the police are cast as a primary force of such public shaming, it is important to note that accounts point to public shaming from multiple sources, including other drug users, which vary in their intensity and forms:

> Down the Wharf you see people huddled around saying "Junkies". You actually get the dealers, the people that actually sell it, they are the ones doing all the shunning, dissing and cussing, the ones that sell it to us [male, #2, Cardiff].
>
> [They call us] "Smack rat!" All sorts of stuff. The way they look down on you and that, they all take the piss [female, #27, Cardiff].
>
> When you're walking down the street and people have seen you begging or sleeping in a car park or whatever, they just go "Ugh, you dirty Gippo, you dirty Smackhead" [female, #11, Cardiff].

Such experiences of shaming are also felt or invoked in the context of some drug-related helping services, such as the pharmacy when collecting clean injecting equipment:

> They're afraid to touch you which puts up a barrier straight away. You can't do anything unless they put gloves on… I suppose because they're not well up on it, it terrifies them… They tend to look down on you... They say they don't victimise, but when you go into the exchanges you can see they try to be alright but it's not a genuine thing [male, #49, Pontypridd].
>
> Every time I went in there I felt the same—embarrassed and a bit uncomfortable. There was this one [woman]. You were like an alien to her, and you had to stay put on the spot, which I can understand because of the shoplifting and stuff, but there are quite a lot of people... [female, #34, Abergavenny].

Central to descriptions of the pharmacy as an amplifier of difference was once again an overriding fear of public exposure: "It's not a thing you want to broadcast is it?"; "I try my hardest for people not to know that I'm banging up. I tell them that I smoke it. It's nothing to be proud of". Accessing a pharmacy was described as at once an act of potential public disclosure and source of risk or anxiety in relation to presentation of self: "People didn't know that I was a user…You don't want everyone knowing you're a junky". While accessing dedicated syringe exchanges was preferred,

pharmacies were more likely to be viewed as a threat to maintaining boundaries between private and public, especially in smaller towns and rural settings: "I never go in, in case I ever see my mother, friend or anything"; "There are people going in there to get prescriptions and that, and they could be one of my family and they could say 'Your boy was in here earlier getting needles'". In a similar fashion to injecting in a public place, assessing the pharmacy-based syringe exchange risks publicly exposing the private self, and may be experienced as a form of shaming:

> There's a big queue waiting, and so they hold them [needles, syringes] out like that so every fucker in the chemist can see what they are. They just hold them out as if you're contaminated or something [male, #49, Pontypridd].
>
> It's embarrassing. You got to get them [needles, syringes] in the queue with the normal shopper. You know, there's no privacy. They are pretty rude to us users. I've gone in there and asked for the syringes, and you know, they speak in pretty loud voices so the normal shoppers can hear. It's quite embarrassing [male, #29, Abergavenny].
>
> You have to queue up with other people getting normal prescriptions, and they hear what you're asking for. There's no privacy at all, so it does make you feel dirty [female, #30, Abergavenny].

Taken together, a 'public injector' identity associated with depictions of public injecting environments—and self in the context of such environments—as 'dirty' or 'worthless' appears rooted in a wider habituated social marginalisation of street-based injectors which finds its expression in multiple forms of interaction, including between drug users and in the context of some harm reduction services. While some injectors may appear accepting of this ("It is a bit degrading [but] I had a big heroin habit and things like that don't particularly bother you then, I'd been on it for a while and it didn't bother me"), it is important not to underestimate the potential personal effects of internalised everyday social violence:

> Nobody understands what us homeless people go through. It's hard to live on the streets. People walk past you like you're worthless, as if you're dirty—a stinking tramp off the street. But at the end of the day, we're just human like everybody else. Just because we haven't got anywhere to live does not mean we are any lesser of a human [female, #11, Cardiff].
>
> I'm quite a strong character. It could have been someone really vulnerable. I say I'm strong, but I'm weakened now. I can't sort anything out today, I haven't got the strength in me. Thirty-four and I'm finished [female, #6, Cardiff].

Discussion

An ethnographic understanding helps uncover social meanings ascribed to place, thus unpacking how place interplays as part of the production and reproduction of identity in relation to risk, health and citizenship. Our findings highlight how the lived experience of public injecting feeds a pervasive sense of risk and otherness among street injectors, in which public injecting environments act as contextual amplifiers of social marginalisation. This has implications for the configuration of environmental intervention, both in relation to safer city or safer community initiatives and in relation to the reduction of health and social harm among drug injectors specifically.

Place as an amplifier of risk and shame

We found that injecting in public places fostered an awareness of a pervasive risk of interruption and public exposure, leading to a heightened sense of urgency when injecting, which may in turn mitigate against safer injecting practices (Fitzgerald et al., 2004; Small et al., 2006, 2007) . We also found that injecting in public places may link with a sense of shame (Dovey et al., 2001, p. 324; Friedman, Curtis, Neaigus, Jose, & Des Jarlais, 1999, p. 58). Concerns in being publicly exposed an injector arise from difficulties managing ostensibly private behaviour in public space, and public exposure fears arise from, and feed, an awareness or sense of shame. Whether articulated as felt shame or presented as an awareness of injecting deemed shameful, our findings emphasise how place, and one's association with it, acts as a contextual amplifier of identity. We find that public exposure as an injector reproduces an injector identity as 'matter out of place' (Douglas, 1966).

This sense of being matter out of place, and of knowing one's place, is reflected in injector

accounts, which tend to emphasise no real claims or belonging to public space but more of a furtive nomadic existence characterised by being hassled and on the run. Moreover, occupying public injecting places, especially those used by multiple injectors, was commonly characterised as dirty or disgusting, and linked to expressions of self-shame. Accounts in some cases served to resist such depictions (''People walk past you as if you're worthless… but we're human like everybody else''). We find that injecting in public places—and also, negotiating the public space of the pharmacy when obtaining injecting equipment—complicates the risk management of self in relation to private/public boundaries, with the perceived risks of public exposure and consequent felt-shame considerable.

There is a growing body of research which shows links between the environments the vulnerable occupy, their relative health inequalities, and the embodiment of social conditions, including through perceptions of self worth, autonomy and efficacy (Glass & McAtee, 2006; Marmot, 2005; Siegrist, 2000). For example, upon finding links between low self-esteem (as well as elevated health harm) and the use of public injecting environments in a Chicago survey of 1,113 injectors, Klein and Levy (2003, p. 762) noted ''It is not surprising that the abandoned and run-down buildings that form the shooting galleries of urban locations become the habitat of people who are marginalised and subject to low self-esteem''. Recent qualitative work in Melbourne notes that some female drug injectors may avoid what they consider to be ''junkie spaces'', such as ''junkie toilets'', in an attempt to resist association with a 'junkie identity' and all that this invites regarding associations of dirtiness, disease and irresponsibility (Malins, Fitzgerald, & Threadgold, 2007).

Place as a site of symbolic violence

That shame is invoked in accounts of public injecting illuminates place as productive of symbolic violence in the everyday lives of street injectors (Bourdieu & Wacquant, 1992; Bourgois et al., 1997). Experiencing public injecting as shameful was contextualised in accounts by reference to habituated public shaming, taking multiple forms, and arising from interactions with the police, general public, drug dealers, other drug users and health professionals. That other individuals involved in drug dealing or drug use were cited as among those ''doing all the shunning, dissing and cussing'' highlights how those marginalised can become complicit in their ongoing subordination (Bourdieu & Wacquant, 1992). Symbolic violence is generated through discourses and practices of cultural systems and is a feature of large-scale social forces such as discrimination, stigmatisation and poverty which become reproduced in lived experience (Bourdieu, 1984; Bourdieu & Wacquant, 1992; Farmer, Connors, & Simmons, 1996). The internalisation of such symbolic violence acts as a kind of social suffering (Kleinman, Das, & Lock, 1997), and can find its expression in terms of psychological or emotional harms, such as fatalism, self-shame, worthlessness or powerlessness, and health risk behaviour (Farmer, 1997; Parker & Aggleton, 2003; Wilkinson, 2006). Symbolic violence ''can lead to a kind of systematic self-depreciation, even self-denigration'' (Bourdieu & Wacquant, 1992, p. 339).

A feature of symbolic violence is that it serves to uphold and reproduce dominant social systems over time without generating strong resistance, or even consciousness, by virtue of the subordinated internalising the symbolic violence to which they are habitually subjected (Bourdieu & Wacquant, 1992). Bourdieu writes that the socially marginalised, whether unwittingly or unwillingly, contribute to their own domination ''by tacitly accepting the limits imposed'' through the expression of ''bodily emotions'' such as ''shame, humiliation, timidity, anxiety, guilt'' (Bourdieu & Wacquant, 1992, p. 341). We believe this is what may be reflected in injector accounts. This cautions against interpreting epidemiological evidence linking elevated health harm with public injecting as simple products of individual cognition and behaviour, and equally, as simply a product of material or physical location. Rather, we would encourage an emphasis on spatial practices incorporating interplay between risk practices and identities, subjective space, representations of space and built form (Lefebvre, 1991; Madanipour, 1990).

This emphasises a need for thinking about environmental intervention not simply in material terms—as changes to the built environment—but as social interventions to create safer spaces in which wider forces of discrimination or stigmatisation are tamed. It also highlights the potential symbolic and health harms to the vulnerable associated with spatial programming practices, for example of safer

city and safer community initiatives (Dovey, 2000; Punch, 2005; Raco, 2003; Wallace, 1990). While inevitably a fine balance juggling 'centre community' interests with the interests of those living on the margins, such initiatives may be interpreted as seeking to create 'cleaner' communities, free of social disorder, thus reproducing the drug injector subject as matter out of place.

The 'drug consumption room' as a safer space for injection

It follows that it is important to reflect upon the social impact of environment interventions currently promoted within the harm reduction field, such as the drug consumption room (Fischer, Turnbull, Poland, & Haydon, 2004). The drug consumption room (DCR) is a legally sanctioned facility, either purpose built or physically incorporated into existing services, enabling the hygienic consumption of pre-obtained drugs under professional supervision (Dolan et al., 2000; Kimber, Dolan, van Beek, Hedrich, & Zurhold, 2003). There is considerable evidence in support of DCRs as a component of harm reducing interventions (Hedrich, 2004; Joseph Rowntree Foundation, 2006; Kerr, Tyndall, Li, Montaner, & Wood, 2005). There are over 60 such initiatives operating in 40 countries. DCRs are linked with reductions in the prevalence of public injecting and reported public nuisance as well as reduced health harms associated with injecting, including in relation to vein care, overdose, blood-borne and bacterial infections (Kerr et al., 2005; Kimber et al., 2003; van Beek, Kimber, Dakin, & Gilmour, 2004).

In part promoted as a means of reducing public injecting and associated litter and nuisance in locations with dense populations of street injectors, DCRs may unwittingly contribute to the ghettoisation of drug using populations from public space (Fischer & Poland, 1998; Fischer, Turnbull et al., 2004). The community and political acceptability of DCRs feed on wider community safety concerns (and fears) as much as scientific evidence (Wodak, Symonds, & Richmond, 2003). There are tensions in the discourses of safer community and regeneration projects and those of more narrowly defined harm reduction initiatives targeting the socially disadvantaged. While research emphasises that DCRs can help restore a sense of dignity among street-based injectors by removing the need for injecting in public places (Kimber & Dolan, 2007), they may nonetheless also feature as sites of governmentality in a wider context of intervention regulating public conduct and space (Fischer, Turnbull et al., 2004). It has been noted elsewhere that environmental interventions targeting substance misuse may act as sites of governmentality (Wilton & DeVerteuil, 2006). For instance, in their ethnographic case study, the organisational practices of an alcohol recovery intervention were "drawn into the service of state efforts to regulate 'problem' groups" through "cooperation with municipal authorities to facilitate the expulsion of homeless people from the local environment" (Wilton & DeVerteuil, 2006, p. 660).

Conclusion

We emphasise the need for social environment interventions in addition to spatial programming in the built environment. Places can provide contexts in which individuals successfully resist the governmental intentions of others or learn to cultivate alternative subjectivities (Wilton & DeVerteuil, 2006). The aim of such social intervention is to offer scope for new and different identities which are not subjected to everyday punitive regulation. Castells refers to such identities as a combination of 'resistance identities', as "generated by those actors that are in positions/conditions devalued and/or stigmatised by the logic of domination", and 'project identities', where actors "build a new identity that redefines their position in society", arguably contributing to the "transformation of overall social structure" (Castells, 1997, p. 8; Parker & Aggleton, 2003, p. 19).

Bourdieu cautions that it is "quite illusory to believe that symbolic violence can be overcome with the weapons of consciousness and will alone", but that breaking a cycle of symbolic violence in which the marginalised become complicit requires a "radical transformation of the social conditions" (Bourdieu & Wacquant, 1992, p. 342). There are a number of examples of peer and social intervention creating safer public injecting environments, through a combination of peer outreach, enhanced amenity (through availability of water, light, safe injecting equipment disposal), and 'peer supervised' injecting environments (Fitzgerald et al., 2004; Kerr et al., 2006; Ouellet et al., 1991; Page & Llausa-Cestero, 2006; Rhodes et al., 2006). Such interventions may enhance safety from the health harms associated with public injecting, though may have

more limited effect in resisting the lived experience of symbolic violence and social exclusion as amplified through place.

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References

Ashton, J., & Seymour, H. (1988). *The new public health*. Milton Keynes: Open University Press.

Bastos, F. I., & Strathdee, S. A. (2000). Evaluating effectiveness of syringe exchange programmes: Current issues and future prospects. *Social Science & Medicine*, *51*, 1771–1782.

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Cambridge: Cambridge University Press.

Bourdieu, P., & Wacquant, L. (1992). *An invitation to reflexive sociology*. Cambridge: Polity.

Bourgois, P., Lettiere, M., & Quesada, J. (1997). Social misery and the sanctions of substance abuse: Confronting HIV risk among homeless heroin addicts in San Francisco. *Social Problems*, *44*, 155–173.

Brantingham, P. J., & Brantingham, P. L. (1998). Environmental criminology: From theory to urban practice. *Studies in Crime and Crime Prevention*, *7*, 31–60.

Brimicombe, A. J., & Li, Y. (2005). *Thames gateway crime and design project: Crime analysis and modelling*. University of East London: Centre for Geo-Information Studies.

Carlson, R. G. (2000). Shooting galleries, dope houses, and injection doctors: Examining the social ecology of HIV risk behaviours among drug injectors in Dayton, Ohio. *Human Organization*, *59*, 325–333.

Celentano, D. D., Vlahov, D., Cohn, S., Anthony, J. C., Solomon, L., & Nelson, K. E. (1991). Risk factors for shooting gallery use and cessation among intravenous drug users. *American Journal of Public Health*, *81*, 1291–1295.

Clarke, R. (Ed.). (1997). *Situational crime prevention: Successful case studies* (2nd ed). New York: Harrow and Heston.

Crowe, T. D. (2000). *Crime prevention through environmental design*. Oxford: Butterworth-Heinemann.

Deren, S., Kang, S.-Y., Colon, H. M., Andia, J. F., & Robles, R. R. (2004). HIV incidence among high-risk Puerto Rican drug users. *Journal of Acquired Immune Deficiency Syndromes*, *36*, 1067–1074.

Dolan, K., Kimber, J., Fry, C., Fitzgerald, J., MacDonald, D., & Trautmann, F. (2000). Drug consumption facilities in Europe and the establishment of supervised injecting centres in Australia. *Drug and Alcohol Review*, *19*, 337–346.

Douglas, M. (1966). *Purity and danger*. London: Routledge.

Dovey, K. (2000). Redistributing danger. *The Australian Planner*, *37*, 10–13.

Dovey, K., Fitzgerald, J., & Choi, Y. (2001). Safety becomes danger: Dilemmas of drug use in public space. *Health and Place*, *7*, 319–331.

Duhl, L. (1986). The healthy city: Its function and its future. *Health Promotion*, *1*, 55–60.

Farmer, P. (1997). On suffering and structural violence: A view from below. In A. Kleinman, V. Das, & M. Lock (Eds.), *Social suffering*. Berkeley, CA: University of California Press.

Farmer, P., Connors, M., & Simmons, J. (1996). *Women, poverty and AIDS: Sex, drugs and structural violence*. Monroe, Maine: Common Courage Press.

Fischer, B., & Poland, B. (1998). Exclusion, risk and governance: Reflections on 'community policing' and 'public health'. *Geoforum*, *29*, 187–197.

Fischer, B., Turnbull, S., Poland, B., & Haydon, E. (2004). Drug use and urban order: Examining supervised injection sites as 'governmentality'. *International Journal of Drug Policy*, *15*, 357–365.

Fitzgerald, J., Dovey, P., & Dietze, G. (2004). Health outcomes and quasi-supervised settings for street injecting drug use. *International Journal of Drug Policy*, *15*, 247–257.

Fitzpatrick, K., & LaGory, M. (2000). *Unhealthy places: The ecology of risk in the urban landscape*. London: Routledge.

Friedman, S. R., Curtis, R., Neaigus, A., Jose, B., & Des Jarlais, D. C. (1999). *Social networks, drug injectors' lives, and HIV/AIDS*. New York: Kluwer Academic/Plenum Publishers.

Fuller, C. M., Vlahov, D., Latkin, C. A., Ompad, D. C., Celentano, D. D., & Strathdee, S. A. (2003). Social circumstances of initiation of injection drug use and early shooting gallery attendance. *Journal of Acquired Immune Deficiency Syndromes*, *32*, 86–93.

Glass, T., & McAtee, M. (2006). Behavioral science at the cross roads in public health: extending the horizons, envisioning the future. *Social Science & Medicine*, *62*, 1650–1671.

Hedrich, D. (2004). *European report on drug consumption rooms*. Lisbon: European Monitoring Centre for Drugs and Drug Addiction.

Higgs, P. (1998). Risk, governmentality and the reconceptualisation of citizenship. In G. Scambler, & P. Higgs (Eds.), *Medicine, modernity and health*. London: Routledge.

HM Government. (2005). *National community safety plan, 2006–2009*. London: Home Office, and Community Safety and Local Government Unit.

Home Office. (2002). *Tackling drugs as part of neighbourhood renewal*. London: Home Office.

Hunt, N., Lloyd, C., Kimber, J., & Tompkins, C. (2007). Public injecting among UK needle and syringe programme (NSP) attendees and willingness to use a drug consumption room. *International Journal of Drug Policy*, *18*, 62–65.

Joseph Rowntree Foundation. (2006). *Report of the independent working group on drug consumption rooms*. York: Joseph Rowntree Foundation.

Judd, D. (1995). The rise of the new walled cities. In H. Liggert, & D. Perry (Eds.), *Spatial practices*. Thousand Oaks: Sage.

Judd, A., Hickman, M., Jones, S., McDonald, T., Parry, J. V., Stimson, G. V., et al. (2005a). Incidence of hepatitis C virus (HCV) among new injecting drug users in London. *British Medical Journal*, *330*, 24–25.

Keene, J., Stimson, G. V., Jones, S., & Parry-Langdon, N. (1993). Evaluation of syringe-exchange for HIV prevention among injecting drug users in rural and urban areas of Wales. *Addiction*, *88*, 1063–1070.

Kerr, T., Small, W., Peace, W., Douglas, D., Pierre, A., & Wood, E. (2006). Harm reduction by a "user-run" organization: A case study of the Vancouver area network of drug users (VANDU). *International Journal of Drug Policy*, *17*, 61–69.

Kerr, T., Tyndall, M., Li, K., Montaner, J., & Wood, E. (2005). Safer injection facility use and syringe sharing in injection drug users. *Lancet*, *366*, 316–318.

Kimber, J., & Dolan, K. (2007). Shooting gallery operation in the context of establishing a medically supervised injecting centre: Sydney, Australia. *Journal of Urban Health*, *88*, 255–266.

Kimber, J., Dolan, K., van Beek, I., Hedrich, D., & Zurhold, H. (2003). Drug consumption facilities: An update since 2000. *Drug and Alcohol Review*, *22*, 227–233.

Klein, H., & Levy, J. (2003). Shooting gallery users and HIV risk. *Journal of Drug Issues*, *33*, 751–767.

Kleinman, A., Das, V., & Lock, M. (Eds.). (1997). *Social suffering*. Berkeley, CA: University of California Press.

Koester, S., Glanz, J., & Baron, A. (2005). Drug sharing among heroin networks: Implications for HIV and hepatitis B and C prevention. *AIDS and Behavior*, *9*, 27–39.

Lefebvre, H. (1991). *The production of space*. Oxford: Blackwell.

Madanipour, A. (1990). Social exclusion and space. In A. Madanipour, G. Cars, & J. Allen (Eds.), *Social exclusion in European cities*. London: Jessica Kingsley Publishers.

Malins, P., Fitzgerald, J. L., & Threadgold, T. (2007). Spatial 'folds': The entwining of bodies, risks and city spaces for women injecting drug users in Melbourne's central business district. *Gender Place and Culture*, *13*, 509–527.

Marmot, M. (2005). Self esteem and health. *British Medical Journal*, *327*, 574–575.

Metsch, L. R., McCoy, C. B., Shutz, J. M., Page, J. B., Philippe, E., & McKay, C. (1999). Gender comparisons of injection drug use practices in shooting galleries. *Population Research and Policy Review*, *18*, 101–117.

Mitchell, D. (1995). The end of public space? People's park, definitions of the public, and democracy. *Annals of the Association of American Geographers*, *85*, 108–133.

Navarro, C., & Leonard, L. (2004). Prevalence and factors related to public injecting in Ottawa, Canada: Implications for the development of a trial safer injecting facility. *International Journal of Drug Policy*, *15*, 275–284.

Newman, O. (1973). *Defensible space*. London: Architectural Press.

Nolan, J. J., Conti, N., & McDevitt, J. (2004). Situational policing: Neighbourhood development and crime control. *Policing and Society*, *14*, 99–117.

Ouellet, L. J., Jimenez, A. D., Johnson, W. A., & Wiebel, W. W. (1991). Shooting galleries and HIV disease: Variations in places for injecting illicit drugs. *Crime and Delinquency*, *37*, 64–85.

Page, J. B., & Llausa-Cestero, R. (2006). Changes in the "get-off": Social process and intervention in risk locales. *Substance Use and Misuse*, *41*(6/7), 1017–1028.

Parker, R., & Aggleton, P. (2003). HIV and AIDS-related stigma and discrimination: A conceptual framework and implications for action. *Social Science & Medicine*, *57*, 13–24.

Petersen, A. (1998). Risk, governance and the new public health. In A. Petersen, & R. Bunton (Eds.), *Foucault, health and medicine*. London: Routledge.

Petersen, A., & Lupton, D. (1996). *The new public health: Health and self in the age of risk*. London: Routledge.

Punch, M. (2005). Problem drug use and the political economy of urban restructuring: Heroin, class and governance in Dublin. *Antipode*, *37*, 754–772.

Raco, M. (2003). Remaking place and securitising space: Urban regeneration and the strategies, tactics and practices of policing in the UK. *Urban Studies*, *40*, 1869–1887.

Rhodes, T. (2002). The 'risk environment': A framework for understanding and reducing drug-related harm. *The International Journal of Drug Policy*, *13*, 85–94.

Rhodes, T., Kimber, J., Small, W., Fitzgerald, J., Kerr, T., Hickman, M., et al. (2006). Public injecting and the need for 'safer environment interventions' in the reduction of drug-related harm. *Addiction*, *101*, 1384–1393.

Rhodes, T., Singer, M., Bourgois, P., Friedman, S. R., & Strathdee, S. A. (2005). The social structural production of HIV risk among injecting drug users. *Social Science & Medicine*, *61*, 1026–1044.

Riessman, C. K. (1990). Strategic uses of narrative in the presentation of self and illness. *Social Science & Medicine*, *30*, 1195–1200.

Ritchie, J., & Spencer, L. (1994). Qualitative data analysis for applied policy research. In A. Bryman, & R. G. Burgess (Eds.), *Analysing qualitative data* (pp. 173–194). London: Routledge.

Rose, N. (1999). *Powers of freedom*. Cambridge: Cambridge University Press.

Sampson, R. J., & Raudenbush, S. W. (1999). Systematic social observation of public spaces: A new look at disorder in urban neighbourhoods. *American Journal of Sociology*, *105*, 603–651.

Siegrist, J. (2000). Place, social exchange and health. *Social Science & Medicine*, *51*, 1283–1294.

Singer, M., Stopka, T., Siano, C., Springer, K., Barton, G., Khoshmood, K., et al. (2000). The social geography of AIDS and hepatitis risk. *American Journal of Public Health*, *90*, 1049–1056.

Small, W., Kerr, T., Charette, J., Wood, E., Schechter, M. T., & Spittal, P. (2006). Impacts of intensified police activity on injection drug users: Evidence from an ethnographic investigation. *International Journal of Drug Policy*, *17*, 85–89.

Small, W., Rhodes, T., Kerr, T., & Wood, E. (2007). Public injection settings in Vancouver: Physical environment, social context and risk. *International Journal of Drug Policy*, *18*, 27–36.

Smith, M. (1996). *The new urban frontier*. London: Routledge.

Thorpe, L. E., Ouellet, L. J., Levy, J. R., Williams, I. T., & Monterroso, E. R. (2000). Hepatitis C virus infection: Prevalence, risk factors and prevention of opportunities among young injection drug users in Chicago, 1997–1999. *Journal of Infectious Diseases*, *182*, 1588–1594.

van Beek, I., Kimber, J., Dakin, A., & Gilmour, S. (2004). The Sydney medically supervised injecting centre: Reducing harm associated with heroin overdose. *Critical Public Health*, *14*, 391–406.

Wacquant, L. (1989). The ghetto, the state and the new capitalist economy. *Dissent*, 508–520.

Wallace, R. (1990). Urban desertification, public health and public disorder: "Planned shrinkage," violent death, substance abuse and AIDS in the Bronx. *Social Science & Medicine*, *31*, 801–813.

Wilkinson, I. (2006). Health, risk and 'social suffering'. *Health Risk and Society*, *8*, 1–8.

Wilson, J. Q., & Kelling, G. L. (1982). Broken windows: Police and neighbourhood safety. *Atlantic Monthly*, *249*, 29–38.

Wilton, R., & DeVerteuil, G. (2006). Spaces of sobriety/sites of power. *Social Science & Medicine*, *63*, 649–661.

Wodak, A., Symonds, A., & Richmond, R. (2003). The role of civil disobedience in drug policy reform: How an illegal "safer injection room" led to a sanctioned "medically supervised injecting centre". *Journal of Drug Issues*, *33*, 609–624.