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Research paper

Heroin–gel capsule cocktails and groin injecting practices among ethnic Vietnamese in Melbourne, Australia

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ABSTRACT

Background: Evidence of harms associated with temazepam gel capsule injecting among injecting drug users in Australia led to its withdrawal from manufacture in Australia. Subsequently, diphenhydramine gel capsule injecting was identified among a subset of ethnic Vietnamese injecting drug users.
Methods: Observational fieldwork around an active street-based illicit drug marketplace together with targeted purposive sampling enabled 66 ethnic Vietnamese injecting drug users to be recruited for in-depth interview.
Results: Data revealed that the injection of gel capsules increases exposure to non-viral infections. Analysis of participant interviews show how participants have established their own ways of reducing these harms including thinning the drug solution by jacking regularly during injection. Controversially, femoral vein administration of diphenhydramine–heroin cocktails was also seen as a harm reduction strategy by participants.
Discussion: Health education campaigns to address the potentially negative consequences of gel capsule groin injection will not be successful unless health workers and policy makers work with drug users and incorporate local understandings and meanings of risk in health promotion activities.

Introduction

Studies of injecting drug users (IDUs) in Melbourne during the late 1990s and early 2000s confirmed that heroin–temazepam gel capsule injecting was directly associated with injection-related harms such as vascular damage (Aitken & Higgs, 2002; Fry & Bruno, 2002). Regular heroin–gel capsule[1] cocktail injecting has been identified in ethnic Vietnamese heroin-using populations in Melbourne (Kelsall, Higgs, & Crofts, 1999; Kelsall, Higgs, Hocking, Aitken, & Crofts, 2001). In 2002, in response to increased awareness of injection-related harms (Dobbin, Martyres, Clode, & Champion De Crespigny, 2003; Feeney & Gibbs, 2002), the Australian Pharmaceutical Advisory Council (a consultative forum providing advice to the health Minister) recommended that temazepam gel capsules be restricted to an authority script which required doctors to obtain permission before issuing a subsidised prescription (Breen, Degenhardt, Bruno, Roxburgh, & Jenkinson, 2004). Within 2 years of this recommendation, the production of temazepam gel capsules had ceased in Australia (Zimmer, 2005).

Injection of temazepam gel is not unique to Australia. During the late 1980s in the United Kingdom, partially as a response to reports that the injection of liquid from temazepam capsules (sometimes with heroin as a cocktail) was associated with increased HIV risk (Klee, Faugier, Hayes, Boulton, & Morris, 1990), liquid-filled capsules were replaced with semi-solid gel capsules, ostensibly to prevent the drug being injected (Fountain, Griffiths, Farrell, Gossop, & Strang, 1999). Temazepam in gel form was withdrawn several years later in response to continuing evidence of harms among injectors (Ruben & Morrison, 1992; Strang, Griffiths, Abbey, & Gossop, 1994). One direct impact of the withdrawal was an increase in the purchase and injection of diphenhydramine gel, an antihistamine sleep-aid, available over-the-counter (OTC) in capsules at

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[1] References to gel capsules in the paper include generic names (temazepam; diphenhydramine), brand names (Normison; Unisom) and local terms (normie; uni). Local terms are italicised in the text.

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pharmacies (Matheson, Bond, & Pitcairn, 2002; Pates, McBride, Li, & Ramadan, 2002; Roberts, Gruer, & Gilhooly, 1999). Despite published reports that suggested diphenhydramine had a low abuse potential (Jaffe et al., 2004), Thomas, Nallur, Jones, and Deslandes (2008) found evidence of its misuse.

Among Melbourne-based ethnic Vietnamese heroin injectors, a similar increase in the use of diphenhydramine gel capsules – locally known by their Australian brand name, Unisom – also occurred as a direct outcome of the reduced supply and subsequent withdrawal, of temazepam gel capsules. In a study conducted in 2003 (Hellard et al., 2006), at least monthly injecting of heroin in combination with either temazepam gel capsules or diphenhydramine gel capsules was reported by 28% of ethnic Vietnamese heroin users. Apart from a 2006 study which found that 71% (32/45 participants) of ethnic Vietnamese injectors and 23% (13/56) of other participants recruited in Melbourne reported injecting heroin–diphenhydramine cocktails in the month preceding interview (Dwyer et al., 2007) there are no other published reports of this.

Combined heroin and gel capsule (temazepam and/or diphenhydramine) injecting has become a common practice among a sub-group of ethnic Vietnamese injectors who are regular participants in an active street-based drug market located in the Melbourne suburb of Footscray. This environment has been previously associated with high levels of drug-related harm (Aitken, Moore, Higgs, Kelsall, & Kerger, 2002). In this paper we explore the emergence of the injection of diphenhydramine gel capsules in this population. The first section explains the origins of this practice with a focus on the street scene, as well as describing the transition from temazepam to diphenhydramine injecting. Secondly, we present data on the practice of groin injecting and its links with diphenhydramine injecting. Thirdly, data on the perceived risks and benefits of diphenhydramine injecting are presented. Finally, we document localised harm reduction strategies employed by participants to minimise the perceived harms associated with this practice.

Methods

Data were collected between January 2004 and June 2007 as part of a larger study investigating culture and risk among IDUs of Vietnamese ethnicity in Melbourne ($n = 84$). Participants were eligible for the study if they reported injecting drugs in the previous 6 months and were recruited through snowball sampling based on street and social networks (Watters & Biernacki, 1989). Initial interest in gel capsule injecting emerged inductively through fieldwork observations. Data include field notes based on observations and conversations with drug market participants, and transcripts of in-depth interviews with ethnic Vietnamese heroin users. Interview participants were reimbursed $AUD20 for time and travel expenses. Interviews lasted between 15 and 45 min and were digitally recorded and transcribed. Informed consent was obtained from all participants and ethical approval for the study was obtained from the Department of Human Services (Victoria) Human Research Ethics Committee and the Monash University Standing Committee on Research Involving Humans.

Data analysis followed the general tenets and principles of grounded theory (Strauss & Corbin, 1990). Field note and interview transcripts were read and re-read and emerging themes discussed and refined by the authors to develop an initial coding scheme. Data were formally coded by the first and senior authors using both open and axial coding to clarify, confirm and consolidate field-derived themes. Data from 62 participants, all of whom reported injecting heroin in combination with diphenhydramine gel capsules, were included in the analysis. All names used for participants are pseudonyms. Twenty-one participants were interviewed on more than one occasion (range 1–5 interviews); participants were aged between 18 and 40 years (median age 27 years); and women constituted one-quarter of the group ($n = 16$). Participants reported injecting heroin–diphenhydramine cocktails for an average of 29 months (range 6–96 months), and over 75% reported a combined heroin–diphenhydramine cocktail as the last drug injected.

Origins of diphenhydramine injecting

Several simultaneously occurring conditions led to the increased and widespread injection of Unisom by ethnic Vietnamese heroin injectors in the Footscray street scene. The well-documented disruption to the heroin supply in Australia in late 2000–early 2001, produced a general increase in temazepam use (Fry & Bruno, 2002) among heroin injectors. In Melbourne, the practice was particularly prevalent among ethnic Vietnamese and continued in this group after the heroin supply increased. Fieldwork suggested that its continuation was, in part, accounted for by ethnic Vietnamese injectors' position in the heroin marketplace. Many among this group supported their heroin use through street level dealing. By supplementing heroin with temazepam, participants had more heroin available for resale. During 2003–2004, when restrictions on temazepam resulted in reduced availability of the gel capsules, ethnic Vietnamese injectors in Footscray began substituting temazepam with diphenhydramine as a 'back-up' drug. Heroin availability remained generally stable, although fieldwork indicated there were regular short-lived interruptions to supply.

In a study of temazepam and heroin injection conducted in this same drug marketplace (Dwyer, 2007), ethnic Vietnamese heroin users drew a direct link between the heroin shortage and their use of temazepam. When heroin was in short supply and purity was low, temazepam was used as a supplement to increase feelings of intoxication. In our study, some participants made similar linkages between periods of reduced availability and the injection of Unisom:

> [Why did you start injecting Unisom?] Because of that drought. Not the first drought in 2000, but the most recent one now [August 2006]. Because of that. Someone said 'have a whack with this [Unisom]'. (Luong, male, 20 years)

Unisom were generally mixed with heroin—typically a single capsule per injection. Participants reported being taught how to inject gel capsules by friends:

> This guy got money and shout me [pay for the drugs] so I go with him. I was short [didn't have sufficient money] that day and if you're hanging [craving heroin] then you're like just looking for anyone you know who can afford to shout. It was lucky. Like, that day he has some Unisom as well and tells me to 'Try this, it makes it last longer'. So I did, and it gets you more tired and so you are *phe* [intoxicated] longer. (Cuong, male, 22 years)

While Normison was only one of three brands of temazepam gel capsule preparations available in Australia during the late 1990s and early 2000s, ethnic Vietnamese participants almost exclusively referred to all temazepam capsules as *normies* (Dwyer, 2007). When speaking Vietnamese, they used the word *trung* (egg) because the capsules are the same shape as eggs. The word *trung* was also used when referring to Unisom. Both temazepam and Unisom were also referred to as *thuoc ngu* (Western sleep medicine). This categorisation of drugs from two different drug classes – benzodi-