



Full length article

Harm reduction workers and the challenge of engaging couples who inject drugs in hepatitis C prevention

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ABSTRACT

Aims: Despite injecting-equipment sharing between sexual partners leaving them at increased risk of hepatitis C (HCV), there is scant literature available to guide harm reduction workers in their encounters with couples who inject drugs. This article explored workers' understandings of such couples and their accounts of working with them in relation to HCV prevention.

Method: Semi-structured interviews were conducted with 22 staff of harm reduction services located in Sydney and Melbourne, Australia.

Results: Overall, staff represented couples as either absent from the service or as presenting with needs indiscernible from those of individual clients. Responses to questions about HCV and couples were framed primarily in terms of risk. Staff participants questioned 'genuineness' of clients' intimate relationships, instead characterising them as inauthentic and drug-driven. Working with couples was seen to present a number of organisational and clinical challenges. The benefits of recognising and working with such partnerships received scant acknowledgement. Rather, staff tended to perceive couples as being 'impenetrable' to health promotion messaging.

Discussion: The framing and delivery of harm reduction in Australia remains an individualising enterprise with little capacity to recognise the intimate partnerships, including addressing the HCV risks specific to them. More effective harm reduction strategies may be achieved by transitioning to a practice framework that addresses the social context of injecting, including the experience of couples. This would require direct involvement of couples who inject drugs.

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1. Introduction

Sharing of unsterile injecting equipment between sexual partners is a noted risk for hepatitis C (HCV) transmission (De et al., 2007; Famouri et al., 2016; Sherman et al., 2001). Hence, understanding how injecting occurs within couples and how safer injecting interventions could take place in this micro-social space is important. This resonates with the broader literature seeking to examine the extent to which the health behaviour of individuals influence that of their intimate partners (Meyler et al., 2007), including how behavioural change (such as use of sterile injecting equipment) can arise from concern for a relationship and a partner's health (Lewis et al., 2006).

Despite the serious implications for public health and with most sharing of injecting equipment occurring between sexual

partners, very little research to date has focused on sexual partnerships as a site of HCV prevention or transmission (El-Bassel et al., 2014a,b; Fraser, 2013; Rhodes and Quirk, 1998; Seear et al., 2012; Simmons and Singer, 2006). Over the past decade, around one in six participants in the annual Australian Needle Syringe Programme Survey reported recent receptive syringe sharing (Iversen et al., 2014) and in 2013, this study showed that approximately 42% of needle-sharing incidents occurred between regular sexual partners (Iversen et al., 2014) reflecting findings in other samples (Bryant et al., 2010; Cao and Treloar, 2006). In a sample of people on methadone maintenance treatment, participants living with a drug-using partner were ten times more likely to report HCV risk practices than those living alone (Roux et al., 2014).

While couples who inject drugs have received only limited attention in the literature on HCV prevention, a larger, yet still nascent literature is available on couples-based interventions for HIV among drug users (Burton et al., 2010). This research has noted that interventions targeting individuals do not capitalise on partners' motivations to keep their relationship strong and to

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protect each other's health (Rhodes et al., forthcoming). Trials of couples-focused behavioural interventions for HIV risk practices have shown promising results (Burton et al., 2010; El-Bassel et al., 2014a; McMahon et al., 2013). While this literature may provide some direction for similar efforts in HCV, it has also been noted that a “shift” is required for the harm reduction workforce staff to increase their awareness of, and capacity to work within, couples-based approaches (El-Bassel et al., 2014b).

This required shift also needs to be informed by the field of drug use studies in which people who use drugs are commonly presented as failed citizens lacking the capacity to care for others (Cavacuiti, 2004; Seear et al., 2012; Simmons and Singer, 2006). The portrayal of drug-using couples as inauthentic and incapable of genuine care and concern for each other, may be relevant when considering how couples-based, HCV prevention interventions might be received by workers in services where such programs could be implemented.

Our preliminary work noted both the importance of couples in understanding HCV risk and prevention (Fraser et al., 2014; Seear et al., 2012) along with the dearth of appropriately targeted prevention materials (Dwyer et al., 2011). However, the experiences of the harm reduction workforce have also not previously been examined. Here we analyse in-depth interviews with staff of Australian harm reduction services to examine their understandings of couples who inject drugs and their experiences of working with couples in relation to HCV prevention. In doing so, we aim to identify key issues and obstacles in workers' engagements with couples.

2. Method

Invitations to participate in semi-structured interviews were issued via the managers of three harm reduction services (a network of Needle and Syringe Program services in Sydney and two primary care services for people who inject drugs in Melbourne). Staff were not offered any reimbursement for their participation.

Participants were asked about their perceptions regarding sharing within couples and with other PWID; how staff work with couples, or members of a couple; couples' patterns of accessing harm reduction services; and relationship dynamics and the effects of these on drug use and HCV risk and prevention. One researcher (CT) conducted interviews in Sydney. Another conducted interviews in Melbourne. The interviews conducted with Sydney participants included questions relating to another study. The couples component of these interviews ranged from 20 to 40 min in duration. The Melbourne interviews were focused only on topics relating to injecting couples. Interviews were of similar duration.

Interviews were audio recorded and transcribed verbatim. Transcripts were checked for accuracy and identifying information removed. A researcher and two authors (CT, JR) collaborated on development of a coding framework that based on the topics covered in the interview schedule, issues raised in previous research literature, and themes that emerged in the interviews themselves. NVivo coding was conducted by a trained researcher overseen by an author (JR). All authors are highly experienced qualitative researchers. Coded data were read closely and analysis was conducted using a mix of inductive and deductive processes (Braun and Clarke, 2006). Induction enabled the identification of major themes in these data, some of which corresponded with previous research in the drugs field and in understandings of risk negotiation in couples. As this is a relatively new field to explore, deductive analytical processes allowed us to examine how workers' married their approaches to couples with opportunities and constraints from within the professional field. We were particularly attuned to evidence of “treatment ideology” (El-Bassel et al., 2014b; p.49),

and how in turn, this might support or challenge engagement with couples.

This project was approved by human research ethics committees of the University of New South Wales and relevant local health districts. This project conforms to the provisions of the Declaration of Helsinki. To protect anonymity of workers, no attributions will be provided and participants will be referred to by number to disguise gender.

3. Results

Twelve participants were recruited from services in Sydney (representing all of the available staff in this service) and 10 in Melbourne (five from each service). The sample included three team leaders, three staff with allied health qualifications (social work or psychology), six with nursing qualifications and 10 health education officers. Participants included 15 women, and ranged in years of service in the harm reduction field from one to 26 years, with a mean of 5.5 years of experience (two staff did not provide this detail).

Overall, couples were represented as absent from the service or as presenting with needs indiscernible from those of individual clients. Responses to questions about HCV and couples were framed primarily in terms of risk. Couples were seen as organisationally and practically difficult to work with within existing organisational frameworks and couples-focused interactions were perceived as at odds with the professional ethos of harm reduction work. The genuine nature of partnerships between couples was questioned and more typically portrayed as inauthentic. The resources of couples, generally, and in terms of negotiating HCV-related risk specifically, received little attention in interviews with workers; indeed couples were generally perceived as “impenetrable” to these messages.

3.1. Individually-focused harm reduction work

Typically, workers reported little experience or, indeed, awareness of, couples within harm reduction services. Although attendance of couples “does happen” (NSW 7), this was described as “not a really common thing” (NSW 6). This lack of obvious presence within services could be attributed to the attendance of one partner (not both), thus further encouraging workers to focus on “individual” discussions of HCV and other risk.

because I never see a couple together, so that's harder as well, because you're never having a couple discussion around risk factors, you're always having individual discussions and you're always. . . But yeah, its I guess it's not frequent that we have conversations around avoiding transmission within a relationship. (Vic 9)

Workers' conversations with clients were typically embedded within an individual, rather than couple or other social frame of reference. As such, workers implied that their approach to HCV health promotion, along with the resources available to them, were sufficiently robust to be universally applied. The approach taken by workers privileged the protection of the individual from HCV; that is, the person presenting to the service.

Do you talk about hep C differently when you've got a couple at the counter versus an individual at the counter?

No. I don't think so. It all comes down to a blood-borne virus and you know . . . well those couples might ask you questions that relate to the couple you know, “can it be spread by us having sex?” and all that sort of stuff, but I don't think we talk any differently to the couple. (NSW 1)

I would be talking about the same information that I would be talking about with anyone who is sharing, you know. Really, it is really key that they have their own stuff and as they are using stuff, they're cleaning it up and continuing to, kind of, maintain, you know, that everyone's blood is really contagious in any way. So, I mean, yes, great if you want to be injecting together. That's actually an OK practice as long as you are keeping things separate. In fact, you know, [it's] quite legitimate to have your own, injecting it quickly, than to be injecting each other, but then just maintain that level of awareness that you're not crossing over. (Vic 7)

While this individualising logic may hold to some extent, this approach frames risk as fixed and objective rather than relational and shaped by social contexts. It fails to recognise that risk does not merely occur within partnerships but is often produced by the particularities of its dynamic (Montgomery et al., 2012). Using this approach misses the opportunity to engage with clients' motivations to protect their relationship, their health and that of their partner.

3.2. Focusing on risk

The section above posited that workers' interactions with clients were unambiguously focused on the individual. This section focuses on a related issue: workers' preoccupation with risk in their initial reactions to thinking about couples as clients. Frequent and unprompted responses to open-ended questions about couples and HCV emphasised epidemiological categories of risk—rather than emphasising notions of care or concern within couples for each other's health and well-being. For example, workers frequently discussed notions of risk equivalence, that is, the misunderstanding that similar risks are associated with unprotected sex as with the sharing of unsterile injecting equipment (Harris and Rhodes, 2013) and the potential for 'mixed' HCV infection in couples with differing HCV genotypes.

What do you know about hepatitis C in sexual relationships?

I know that in general, in terms of sexual relationships, it's not a very high risk in most sexual relationships unless there are practices which are involving you know potentially opening the skin and blood-to-blood contact. So I mean most sexual partners in relationships don't. But that isn't to say that for some people that's not part of normal activity. So I suppose I would be getting people to think about if they are engaging in things that may be you know opening some kind of . . . friction or causing blood, then they need to be thinking about how that might be transmitted. But in general, I think it's a moderate to low risk I would say. (Vic 7)

I have found that people think that if you've got hep C and your partner's got hep C, it's OK. But then I go into genotypes and let them know that, "please don't do that, I am giving you extra spoons and I am giving you extra cotton balls, please don't do that, because if you have genotype one and your partner has genotype three, not a good mix, let's not do that". (NSW 8)

Beyond sex and the sharing of injecting equipment, workers did acknowledge that there may be aspects of shared life that could confer HCV risk. Talking with clients about razors and toothbrushes, for example, allowed workers to acknowledge other aspects of the couple's life together (rather than only injecting). Nonetheless, the framing of these conversations remained within epidemiological categories of risk (that is, items or practices that provide potential exposure to another's blood) rather than acknowledging other aspects of the relationship that may be of greater relevance or salience to couples.

3.3. Organisational barriers and professional ethos

The harm reduction sector is based on an ethos of low-threshold, non-judgemental care for PWID. Workers typically described their engagement with clients as adaptable and pragmatic: responsive to the demands of "each situation" (NSW 12) and the clients' needs "at the time" (NSW 3). Workers were keen to avoid imposing an agenda that could deter clients from future engagement with the service. In this sense, interactions were client-driven, shaped by the acknowledgement that clients "like to be left alone a bit in the NSP" (Vic 6) and/or by the many "other competing things" (Vic 1) workers might try to prioritise during any given interaction. However, workers also used their professional judgement to take advantage of conversational opportunities to pass on HCV prevention messages as long as this was in accord with their professional ethos for client engagement. This strong professional ethos, along with an orientation to clients as individuals, may prevent workers perceiving that being a partner within a couple is indeed relevant to the clients' needs and presentation to a harm reduction service.

So basically, we've learned just to be supportive at the time and then when everything's changed again the next day, just say, "OK. So that's what happened" and just sort of move on with it. Yeah, and [it's about] what they need at the time. What they say they need at the time is what we focus on rather than. . . what we think they should need. (NSW 3)

3.4. Questioning authenticity

Along with emphasising individual messages of harm reduction and a focus on risk in considering couples who inject, service staff may also fail to acknowledge the legitimacy of some couples, or simply assume that problematic relationship dynamics, such as domestic violence, dominate these relationships. In keeping with the literature, relationships among couples were disparaged by some participants as "co-dependent": "[they] don't really leave each other's side" (Vic 8). Such descriptions fail to acknowledge the love, care and concern that intimacy may entail. Similarly, participant perceptions of couples' relationships as inauthentic were supported by claims that the drug was the dominant partner, and that such relationships are inevitably transitory and instrumental.

For a lot of them you it's like you don't know which is the stronger partner relationship there, the relationship or the relationship with the drugs, or something else (NSW 3)

I think "relationships" is a bit of a passing term in this client group anyways. . . I think often it's just drug buddies who are fucking. . . There are certainly some, no actually there definitely are some couples, so yeah, there are but few and far between (Vic 6)

3.5. Grappling with trust

Workers acknowledged that individuals in couples express high levels of trust in their partners and that often clients repeated "a mantra" (NSW 9) that they share injecting equipment with no one "but my partner" (NSW 5; Vic 3). The trust that partners bring to relationships regarding the sharing of equipment (or drugs) was likened to trust in each other's sexual fidelity. That is, workers perceived that couples mostly considered risk to be generated outside the relationship. Hence decisions to share injecting equipment reflected other decisions made by the couple which prioritised the continuation of the relationship and its perceived protective effects. Workers found this aspect of couples' injecting practice difficult to engage with, reflecting that matters of trust and intimacy seemed indifferent or "impenetrable" to messages of viral safety.

when someone says “I only share with my partner.” So we say “OK, do you know your status, does your partner know their status?” Asking how much someone trusts someone can be a very delicate conversation to have. They might trust their partner not to sleep around on them, but do they trust their partner not to use with anyone else. How do you know? Addiction is a complex issue, the motivations that are there. I see a lot of parallels between people’s drug using intimacy and their sexual intimacy. (Vic 1)

Two participants identified the limitations of the current individually-focused model of harm reduction work and highlighted ways in which aspects of relationships could be integrated into HCV prevention messages. Participant #5 from NSW acknowledged the “rituals” of injecting that couples develop, observing that these rituals are deeply embedded in the meaning of the relationship, reflecting both the intimacy of the couple and the sense of emotional safety and security it provides. This participant felt that individually-focused harm reduction would not resonate with couples’ experiences of life together. Participant #10 from Victoria similarly explained the need for HCV messages that explicitly acknowledge the role of (and motivations stemming from) love and trust between couples. These comments call into question the depiction of couples as “impenetrable”, instead shifting the focus to the adequacy and relevance of existing HCV prevention messages for couples.

there’s all sorts of rituals around using and its rituals about sharing and how they fit into the couple’s sense of connection, togetherness . . . while the message we might be giving is “you should always be considering your safeness as an individual yourself”, for many couples that isn’t their experience. Their experience is “we’re a unit, we’re safe within that unit, we won’t share outside that unit” (NSW 5)

if they use together . . . I guess I try to promote good practice as the kind of trust, loving, thing to do as opposed to you know . . . I don’t know, the other stuff. (Vic 10)

4. Discussion

Harm reduction workers interviewed in this study equated couples with sexual risk, a reaction which rehearses dominant epidemiological risk articulations of HCV prevention discourse evidenced in other contexts (Fraser and Seear, 2011). Further, workers recalled little experience of working with couples in HCV prevention or attending to the care and protection that partnerships can provide. Few had considered how this protection might be effectively woven into existing harm reduction practice. Relationship dynamics were seen as sensitive and difficult to navigate in harm reduction settings, with couples portrayed stereotypically as either inauthentic, or as sharing an intimacy impervious to existing messages. Time limitations, the professional ethos that underpins low-threshold services, and the need to avoid alienating clients with intrusive questions, were cited as further barriers to engaging with couples. These findings support previous research indicating that workers and services require training and development before couples-focused interventions can be effectively employed (El-Bassel et al., 2014b; Jiwatram-Negrón and El-Bassel, 2014).

Nonetheless, these findings should not deter such efforts. Health interventions, such as HCV prevention messages, require ongoing work and increasing levels of sophistication and targeting to remain relevant and credible (Winter et al., 2013). Couples present a demonstrable risk for HCV transmission, but harm reduction practice has as yet provided little in the way of messages and strategies targeted at couples (Dwyer et al., 2011). Most study participants argued that working with couples was the same as

servicing two individuals. The growing literature in this area disputes this view (El-Bassel et al., 2001), with a range of recent trials having demonstrated the greater effectiveness of tailored, couples-focused interventions (Burton et al., 2010).

A recent systematic review reported a limited number of couples-based HIV interventions and very few interventions designed for people who inject drugs (Jiwatram-Negrón and El-Bassel, 2014). We have found only one intervention designed for HCV prevention among couples who inject drugs. Conducted in Kazakhstan, the intervention also targeted HIV and STI prevention (El-Bassel et al., 2014a). This intervention comprised five two-hour sessions in which the first three sessions were single gender groups and the final two were couple sessions. The intervention was underpinned by social cognitive theory and a relationship-oriented ecological framework and achieved a 69% lowering of HCV incidence compared with a five-session wellness promotion intervention. With such limited evidence to guide HCV interventions for couples who inject drugs, it is important to treat the broader literature with caution particularly in relation to issues of program implementation (Jiwatram-Negrón and El-Bassel, 2014; Orne-Gliemann et al., 2010). Further, the criminalisation and stigma associated with drug use has been demonstrated to profoundly shape health workers’ attitudes, and will be necessary to consider in couples-focused interventions (Coffin et al., 2015).

However, harm reduction services delivering brief interventions offer different opportunities and challenges compared with the types of intervention described in the literature which require attendance by both partners over multiple sessions in formal settings (El-Bassel et al., 2003). Settings, such as NSPs, are highly trusted environments for this client group (Merrill et al., 2002; Treloar et al., 2016). This trust depends on strict organisational policies regarding low-threshold interactions and confidentiality, as well as client-driven practices (rather than externally imposed agendas). The elaboration of harm reduction practices to focus on couples must not interfere with these highly-valued aspects of service delivery and the professional ethos among staff. But nor should these factors deter innovation in an area of unmet need.

There is no doubt that the NSP workforce is tasked with a range of complex activities and expectations in working with a client group that can experience multiple vulnerabilities and severe marginalisation (NSW Ministry of Health, 2013). NSPs operate with less funding and a less highly qualified workforce than other health sectors in a system that does not provide clear career pathways (Victorian Department of Human Services, 2010). It is also a workforce that experiences significant stigma by association from other health workers (Treloar et al., 2015). Calls for placing even greater demands on these workers are potentially challenging within such a context. However, the professional ethos of workers may be an instrument for incorporating a focus on couples. While staff in our study strongly identified with the notion that they work with clients “where they are at”, this should include clients’ experience as a partner within a couple.

Clients’ partnerships were not always visible in the professional practice of harm reduction workers, especially when only one partner attended the NSP or where couples were treated as either individuals or illegitimate (or, indeed, as actively harmful). These data suggest that the harm reduction workforce can be supported to be more responsive to, and inclusive of, their clients’ situations. To do this, advice and education resources are required that explicitly address the needs of couples to assist staff to begin conversations. These strategies or tools need not require both members of the couple to be present. Rather, acknowledging a client’s experience, in this case within a couple, could be sufficient to open up conversations about contexts of injecting practice, risk and harm reduction. When there is no opportunity to talk in this way, other mechanisms,

such as injecting equipment or materials designed for couples could support these efforts (Fraser, 2013). An inclusive approach to couples would involve acknowledging issues of trust and intimacy which have long been seen as shaping injecting practice (Rhodes and Quirk, 1998) but have so far been absent from harm reduction practice.

This study involved in-depth interviews with harm reduction workers recruited from services in Australian metropolitan areas. The findings were similar across participant background, services and cities, indicating confidence is warranted in their applicability to other metropolitan services. These results may not be applicable, however, to services and practices in regional areas where relationships between workers and clients may differ.

The settings in which harm reduction work occurs reflect broader, epidemiologically focussed understandings of blood-borne virus risk that focus on the individual. Although there is a long-standing literature that challenges this limited focus and explains the range of factors that can which may impact on injecting practice and risk (Rhodes, 2002), the work of harm reduction in Australia remains an individual, client-focused enterprise with little capacity to recognise couples or address other factors that may shape HCV risk. Work with couples will require an investment to develop beyond current work practices and must be informed through direct participation of couples who inject. Nonetheless, it is achievable and may indeed produce harm reduction interventions more effective than the existing ones.

Conflict of interest

No conflict declared.

Role of funding source

Nothing declared.

Contributors

CT, JB and SF conceived of the study. JR undertook coding and preliminary analysis. CT under took final analysis and drafting of manuscript. All authors reviewed and approved final manuscript.

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References

- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101.
- Bryant, J., Brener, L., Hull, P., Treloar, C., 2010. Needle sharing in regular sexual relationships: an examination of serodiscordance, drug using practices, and the gendered character of injecting. *Drug Alcohol Depend.* 107, 182–187.
- Burton, J., Darbes, L.A., Operario, D., 2010. Couples-focused behavioral interventions for prevention of HIV: systematic review of the state of evidence. *AIDS Behav.* 14, 1–10.
- Cao, W., Treloar, C., 2006. Comparison of needle and syringe programme attendees and non-attendees from a high drug using area in Sydney, New South Wales. *Drug Alcohol Rev.* 25, 439–444.
- Cavacuiti, C.A., 2004. You, me... and drugs—a love triangle: important considerations when both members of a couple are abusing substances. *Subst. Use Misuse* 39, 645–656.
- Coffin, P.O., Rowe, C., Santos, G.-M., 2015. Novel interventions to prevent HIV and HCV among persons who inject drugs. *Curr. HIV/AIDS Rep.* 12, 145–163.
- De, P., Cox, J., Boivin, J.F., Platt, R.W., Jolly, A.M., 2007. The importance of social networks in their association to drug equipment sharing among injection drug users: a review. *Addiction* 102, 1730–1739.
- Dwyer, R., Fraser, S., Treloar, C., 2011. Doing things together?: analysis of health promotion materials to inform hepatitis C prevention among couples. *Addict. Res. Theory* 19, 352–361.
- El-Bassel, N., Witte, S.S., Gilbert, L., Sormanti, M.E., Moreno, C., Pereira, L., Elam, E., Steinglass, P., 2001. HIV Prevention for intimate couples: a relationship-based model. *Fam. Syst. Health* 19, 379–395.
- El-Bassel, N., Witte, S., Gilbert, L., Wu, E., Chang, M., Hill, J., Steinglass, P., 2003. The efficacy of a relationship-based HIV/STD prevention program for heterosexual couples. *Am. J. Public Health* 93, 963–969.
- El-Bassel, N., Gilbert, L., Terlikbayeva, A., Beyrer, C., Wu, E., Chang, M., Hunt, T., Ismayilova, L., Shaw, S.A., Primbetova, S., Rozental, Y., Zhussupov, B., Tukeyev, M., 2014a. Effects of a couple-based intervention to reduce risks for HIV, HCV, and STIs among drug-involved heterosexual couples in Kazakhstan: a randomized controlled trial. *J. Acquir. Immune Defic. Syndr.* 67, 196–203.
- El-Bassel, N., Shaw, S.A., Dasgupta, A., Strathdee, S.A., 2014b. People who inject drugs in intimate relationships: it takes two to combat HIV. *Curr. HIV/AIDS Rep.* 11, 45–51.
- Famouri, M.L., Shaw, S.A., Terlikbayeva, A., Gilbert, L., Hunt, T., Rozental, Y., El-Bassel, N., 2016. Partner notification among HCV-positive couples who inject drugs. *J. Subst. Use* 21, 78–84.
- Fraser, S., Seear, K., 2011. *Making Disease, Making Citizens: The Politics of Hepatitis C*. Ashgate, Farnham, Surrey.
- Fraser, S., Treloar, C., Bryant, J., Rhodes, T., 2014. Hepatitis C prevention education needs to be grounded in social relationships. *Drugs (Abingdon Engl.)* 21, 88–92.
- Fraser, S., 2013. The missing mass of morality: a new fitpack design for hepatitis C prevention in sexual partnerships. *Int. J. Drug Policy* 24, 212–219.
- Harris, M., Rhodes, T., 2013. Injecting practices in sexual partnerships: hepatitis C transmission potentials in a 'risk equivalence' framework. *Drug Alcohol Depend.* 132, 617–623.
- Iversen, J., Chow, S., Maher, L., 2014. Australian Needle and Syringe Program National Data Report 2009–2013. The Kirby Institute, UNSW Australia, Sydney.
- Jiwatram-Negrón, T., El-Bassel, N., 2014. Systematic review of couple-based HIV intervention and prevention studies: advantages gaps, and future directions. *AIDS Behav.* 18, 1864–1887.
- Lewis, M.A., McBride, C.M., Pollak, K.I., Puleo, E., Butterfield, R.M., Emmons, K.M., 2006. Understanding health behavior change among couples: an interdependence and communal coping approach. *Soc. Sci. Med.* 62, 1369–1380.
- McMahon, J.M., Tortu, S., Pouget, E.R., Torres, L., Rodriguez, W., Hamid, R., 2013. Effectiveness of couple-based HIV counseling and testing for women substance users and their primary male partners: a randomized trial. *Adv. Prev. Med.* 2013, 286207.
- Merrill, J.O., Rhodes, L.A., Deyo, R.A., Marlatt, G.A., Bradley, K.A., 2002. Mutual mistrust in the medical care of drug users: the keys to the narc cabinet. *J. Gen. Intern. Med.* 17, 327–333.
- Meyler, D., Stimpson, J.P., Peek, M.K., 2007. Health concordance within couples: a systematic review. *Soc. Sci. Med.* 64, 2297–2310.
- Montgomery, C.M., Watts, C., Pool, R., 2012. HIV and dyadic intervention: an interdependence and communal coping analysis. *PLoS One* 7, e40661.
- NSW Ministry of Health, 2013. *NSW Needle and Syringe Program: Guidelines*. NSW Ministry of Health, Sydney.
- Orne-Gliemann, J., Tchendjou, P.T., Miric, M., Gadgil, M., Butsashvili, M., Eboko, F., Perez-Then, E., Darak, S., Kulkarni, S., Kamkamidze, G., Balestre, E., du LoÛ, A.D., Dabis, F., 2010. Couple-oriented prenatal HIV counseling for HIV primary prevention: an acceptability study. *BMC Public Health* 10, 1–11.
- Rhodes, T., Quirk, A., 1998. Drug users' sexual relationships and the social organisation of risk: the sexual relationship as a site of risk management. *Soc. Sci. Med.* 46, 157–169.
- Rhodes, T., Rance, J., Fraser, S., Treloar, C., forthcoming. Counter-love in partnerships between people who use drugs: deflecting 'co-dependency', enabling social protection.
- Rhodes, T., 2002. The 'risk environment': a framework for understanding and reducing drug-related harm. *Int. J. Drug Policy* 13, 85–97.
- Roux, P., Lions, C., Michel, L., Mora, M., Daulouede, J.P., Marcellin, F., Spire, B., Morel, A., Carrieri, P.M., 2014. Factors associated with HCV risk practices in methadone-maintained patients: the importance of considering the couple in prevention interventions. *Subst. Abuse Treat. Prev. Policy* 9, 37.
- Seear, K., Gray, R., Fraser, S., Treloar, C., Bryant, J., Brener, L., 2012. Rethinking safety and fidelity: the role of love and intimacy in hepatitis C transmission and prevention. *Health Sociol. Rev.* 21, 272–286.
- Sherman, S., Latkin, C., Gielen, A., 2001. Social factors related to syringe sharing among injecting partners: a focus on gender. *Subst. Use Misuse* 36, 2113–2136.
- Simmons, J., Singer, M., 2006. I love you... and heroin: care and collusion among drug-using couples. *Subst. Abuse Treat. Prev. Policy* 1, 7.

- Treloar, C., Hopwood, M., Yates, K., Mao, L., 2015. 'Doing the devil's work': emotional labour and stigma in expanding Needle and Syringe Programs. *Drugs Educ. Prev. Policy* 22, 437–443.
- Treloar, C., Rance, J., Yates, K., Mao, L., 2016. Trust and people who inject drugs: the perspectives of clients and staff of needle syringe programs. *Int. J. Drug Policy* 27, 138–145.
- Victorian Department of Human Services, 2010. *National Needle and Syringe Programs Strategic Framework 2010–2014*. Commonwealth of Australia, Canberra.
- Winter, R., Fraser, S., Booker, N., Treloar, C., 2013. Authenticity and diversity: enhancing Australian hepatitis C prevention messages. *Contemp. Drug Probl.* 40, 505–529.