Commentary on "Training family members to manage heroin overdose and administer naloxone: Randomised trial of effects on knowledge and attitudes"

The notion of providing heroin users or their peers with naloxone, a pure opioid antagonist, as an emergency intervention for heroin overdose has a long history (1). Reports of implementation and evaluation of take-home naloxone (THN) programs often mention 'family members' among potential overdose witnesses in their target audience (2) or for training programs (e.g. 3) with Strang and colleagues the first to focus on family members as an overlooked group of potential overdose witnesses (7). Training family members and others who are non-injecting drug users (IDUs) may be important in increasing the pool of trained responders, as some IDUs may withdraw from their peers due to trauma associated with witnessing overdoses (4). However, many THN programs have tended to train peer IDUs rather than their family members (e.g. 5, 6).

Take-home naloxone programs are increasingly being evaluated and implemented around the globe. Therefore, the development and validation of the Opioid Overdose Knowledge Scale (OOKS) and Opioid Overdose Attitudes Scale (OOAS) will facilitate the comparison of results across studies. We thank the authors for the rigor they have applied to this work (8,9). However, the psychometric properties of the OOKS and OOAS were assessed among family members and relevant health care professionals. As has been noted, family members have not been routinely included in overdose prevention and management. It is not entirely clear what proportion, if any, of the sample in the current paper were active IDUs, but regardless, it would be important for researchers to now validate the OOKS and the OOAS with peer opioid users.

In the current study participants were instructed in a two-stage process that involved injecting half of a pre-filled syringe, withdrawing the needle, placing the uncapped syringe back in its box and observing recovery for two minutes. If no response was observed, the remainder of the naloxone would be injected (9). Whilst we understand the argument that the two-dose pre-filled syringe may be attractive from a cost point of view, and recognise that this is an important consideration in maximising coverage of naloxone, there are obvious concerns about the risk of needle stick injuries and transmission of blood borne viruses. In Australia, naloxone programs are now using two 0.4mg/ml 1ml pre-filled minijets® of naloxone. We also note the use of 2.0mg/2ml intranasal forms of naloxone in a number of states in the USA (10). Although there are calls for more research on the pharmacokinetics of intranasal (IN) naloxone (10), the advantages are that it removes the risk of needle stick, simplifies the training as there is no need to cover intramuscular (IM) injection and managing sharps, and is a less daunting prospect for use by non-IDU potential overdose witnesses such as family members and others. We note that given this, items in the OOKS which currently only refer to the IM injection route of administration will need to be altered to accommodate the IN route (11).

As the author's note, whilst knowledge and attitudes are important, a stronger outcome measure would be the number of overdose events successfully managed at follow-up but a far larger study design would be required to demonstrate such a change (1). Nevertheless, in the current study with only 3 months of follow-up, 13 overdoses were observed, mostly victims were appropriately put in the recovery position and an ambulance called: in two cases THN was used to reverse opiate overdoses whilst naloxone was administered by ambulance personnel in a further six cases. Training family members or peers in overdose management also means that they may be able to recognising symptoms of overdose and enact emergency procedures such as calling an ambulance, checking airways, rescue breathing and placing people in the recovery position even in the absence of naloxone.

The excellent work done by Williams and colleagues in the development of the OOAS and the OOKS should now be applied to future evaluations of overdose prevention programs incorporating naloxone. These should have the sample sizes necessary to demonstrate the link between knowledge change, attitude change and behavioural outcomes to support the growing evidence base for this important intervention to reduce opioid related morbidity and mortality.

This randomised trial of THN by Williams and colleagues makes a further important contribution to the evidence base supporting the provision of naloxone outside of medical settings and makes the timely case that family members should routinely be afforded training in overdose prevention incorporating naloxone (9).

Declaration of interest

We have no competing interests to declare

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