NON-MEDICAL USE OF FENTANYL PATCHES IN RURAL AUSTRALIA

A RESEARCH SNAPSHOT

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Using qualitative methods, this study explored how and why people use fentanyl transdermal patches for non-medical reasons in rural NSW.

The research was conducted by a team from Lyndon Community, Murrimbidgee Local Health District, Albury-Wodonga Health & Penington Institute. The research project was funded by Lyndon Community.

Fentanyl is a synthetic opioid with powerful pain killing and tranquillising properties which is approximately 100 times stronger than morphine. Increasing concern over fentanyl misuse has been documented in North America and Europe. Australia has seen a steady increase in the prescribing and non-medical use of prescription opioids, most recently fentanyl, in the form of long-acting fentanyl transdermal patches. From 2000 onwards the deaths in Australia associated with fentanyl have increased. Additionally, these deaths are over-represented in rural areas and mostly attributable to individuals who have not been prescribed opioids. Non-medical use of fentanyl can involve high risk preparation and administration methods. There is an urgent need to increase capacity of frontline workers and policy makers to understand fentanyl and its illicit use so that harms can be reduced.

"Opiate users are desperate, and desperate human beings go to desperate measures to seek what they desperately need."

METHOD: Semi-structured interviews exploring rural fentanyl users' experiences of obtaining, preparing and using fentanyl were conducted. The study was advertised on flyers in rural drug and alcohol services including needle and syringe and opioid treatment programs. To be included in the study people had to have used fentanyl for non-medical purposes on more than one occasion and usually reside in a rural area of NSW or Victoria. Fourteen participants were interviewed between March 2014 and June 2014. One interview was later excluded because the participant did not usually live in a rural area. One interview was stopped because the participant had not used fentanyl more than once. Twelve interviews were transcribed and imported into NVIVO10. A narrative analysis identified themes that included the participant's practices of obtaining and using fentanyl, and the dialogue around the risks and benefits of fentanyl use.

FINDINGS: Participant demographics (n=12)

SEX		LIVING CIRCUMSTANCES		CULTURAL BACKGROUND	
M	8	Regularly housed	8	Non Indigenous	9
F	4	Homeless	4	Aboriginal	3
PREFERRED DRUG		**MAIN SOURCE OF INCOME**		**CURRENT DRUG TREATMENT**	
Fentanyl	4	Unemployment benefits	6	Residential Withdrawal	5
Heroin	6	Parenting benefits	3	Opioid Treatment	5
Poly substances	1	Full-time employment	2	Residential Rehab	1
Methamphetamines	1	Disability payments	1	Outreach services	1
NSW REGION OF USUAL RESIDENCE		**AGE**			
Murrumbidgee	5	Age range	24-55		
Western NSW	5	Mean age	35		
New England	2				

All participants described long-term opioid use, physical and psychological opioid dependence and an ever increasing opioid tolerance.

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DIVERSION: Participants described a variety of ways that fentanyl is diverted for non-medical use. The most common sources were friends or drug dealers. Participants discussed doctor shopping their associates had engaged in. However, most of the participants stated that they had never been prescribed fentanyl themselves. One of the participants discussed diversion from pensioners, such as older people being groomed by drug users to seek pain medication from their doctors and pensioners selling their prescriptions to supplement their income. Home invasions and identity theft were also described by some study participants as methods of obtaining fentanyl.

PREPARATION METHODS: All study participants used fentanyl intravenously. All preferred vinegar as an extraction substance and heated the mixture. Participants described inaccurate information they were applying to their drug preparation and use (see table below). Participants were getting their information about the drug and preparation techniques from other drug users. Participants did not seek information from drug and alcohol services even though they were all connected with one; or from internet sites or medical literature.

"I've always used it through people who've got it themselves. I haven't got it personally, but I know it's easy to get"

Q: Have you ever looked on the internet or anything like that about it?
A: I did once, and there were so many different sorts of fentanyl patches or different ways that they were saying to draw it out, but I just went with what knew

"They just said, "This is how you do it," and I just done it myself... That's all I've heard, yeah. Yeah, that's all, and these guys have been on it the whole time, so no one has ever told me any different."

EXAMPLES OF PARTICIPANT KNOWLEDGE ABOUT FENTANYL

PARTICIPANT BELIEF	PREVAILING MEDICAL KNOWLEDGE
"And you don't even have to filter it, with the old Oxies you had to filter them even still, but with the fentanyl you don't need to filter, it's just so straight forward."	Being a "drug in adhesive" product, it is likely that adhesive particle matter could detach in the preparation of the injection, making filtering desirable. Additionally, filtering with a micron filter can help prevent bacteria being introduced to the blood-stream.
Q: You said that other people are preparing Fentanyl wrong. What do you mean? **A: "Well they get something, usually say like a knife, and scratch the glue off the bottom of the patch, and think that that's where the Morphine is. Well it's actually in between the sticky stuff and the front of the patch. I could make the deadliest shot and then just pull the thing out and stick it to the fridge with all the sticky stuff still back on it on the back."**	Fentanyl and morphine, while both opioids, are different molecules. Fentanyl patches do not contain morphine. Fentanyl patches in Australia are of the "drug in adhesive" where the drug is in the 'sticky stuff'.
"Well there was a bit of a misunderstanding with it. Everyone thought that the patch could just be cut up and sold off as little bits, but I think there's only one little area that's actually got the drug in it. I'm not sure but, some people were getting sold parts of the patch that weren't doing anything, and yeah, some guys figured out that it was only in one little area, so yeah, you mix up the whole thing just put it in."	Fentanyl is evenly distributed throughout the adhesive. A whole 100mcg fentanyl patch has approximately 16.8mg of fentanyl =1680mg of morphine.
"If you punch holes in the quarter it brings the morphine out a bit more." **"If you bend that patch it will automatically let all of it release."**	Holes are not required to release the drug. The drug is not morphine. The patch is designed to be flexible.
Q: So you're thinking the vinegar causes big vein damage? **A: "My veins, especially five centimetres either way from my injecting site are hard, I can feel them at all times whereas I can't feel my veins on any other part of my body to be hard."**	Intravenous injection causes sclerosis (hardening) of the veins. Acidic injections (using vinegar or lemon juice) increase the risk of vein damage, abscesses and infections.

"I didn't want to go to near it because you would have to administer it, like you cook it up and then mix it up, but when I couldn't get anything that was the last resort... I went to a friend's house and that's all they had, and I was hanging out so I didn't question anything, he just cut me off half a one"

"Once people go to fentanyl, they make that change, they can't go back because they just want stronger, stronger, stronger, and so fentanyl is the strongest. They can't go back, you know, the Oxies are shit."

"It takes all your dignity away, you've got no dignity left. You'll rob anyone for a fentanyl shot. It's one of the worst drugs that I've ever come across, put it that way, and I've used a lot of drugs in my time and that there is just by far the worst drug, and it's a drug where you don't see it in yourself, it takes control of your mind and everything."

How many people do you reckon you've known have died from using the patches?
A: My missus, two cousins... about five of them."

Since the fentanyl come out I've been sharing needles all the time, just because if I don't have money and I need that hit, or if I do have money and I can't get that fentanyl I would use someone else's spoon they've double dipped in, or I would even use their dirty needles, that's how strong the hold is that it has on you.

I would pay $200 for a 100ml patch, you can then cut it up into $500 to $600 worth of pieces, which is 10 to 12 pieces, $50 each. A $50 piece is enough per person... So, where it would take $200 worth of Heroin to get one good hit, for $50 of fentanyl you get one great hit, a second not so great hit, and a third hit that stops the cravings - for 50.

REASONS FOR USE: All participants discussed having used opioids intravenously prior to being introduced to fentanyl. All participants described long-term opioid use, physical and psychological opioid dependence, an ever increasing opioid tolerance, cravings and withdrawal symptoms. Participants described severe physical and psychological dependence on opioids as the key driving factor in why they used fentanyl. These reasons were closely aligned with an increased tolerance to opioids and the strength of fentanyl. Whilst some participants disliked the idea of using fentanyl, in instances where their preferred opioid was not available, dependence meant that participants perceived no choice than to use fentanyl. The strength of fentanyl posed as a "catch 22" for many participants. Several participants cited the strength of fentanyl as a highly attractive feature, particularly in terms of their higher levels of tolerance, however go on to describe the strength of fentanyl as one of the problems associated with the substance (i.e. in terms of overdose risk). Other themes that emerged about reasons for use was the perceived cleanliness and quality of fentanyl, its easy availability, and its instantaneous effect compared to using other opioids.

INJECTING DRUG USE HISTORY

	MEAN	RANGE
Age at time of interview	35	24 - 55
Age when first used opioids	17	14 - 23
# of years since first use of opioids	15	6 - 23
# of years since first using fentanyl	4	1 - 5

PROBLEMS ASSOCIATED WITH USE: Participants discussed a variety of concerns associated with fentanyl use. These concerns included physical health complications, financial problems, social and family problems, problems with the criminal system, the unpredictable nature of the drug, overdose and physical dependence. All participants discussed overdose at length. Many of the participants had overdosed from fentanyl or have seen someone else overdose. All of the participants knew of someone who had died from a fentanyl overdose. When discussing overdose and death, several participants attribute not only the strength and the unpredictable nature of fentanyl but also other elements, such as lack of user knowledge, and/or the user not using the necessary precautions and good preparation methods. This perception seems to be rationalising overdose deaths because knowledge of precautions and safe use is mostly unfounded.

CONCLUSION

The lack of knowledge about fentanyl and misinformation about how to prepare and use the drug is resulting in overdoses frequently causing death. The key mechanism of peer-to-peer information sharing about fentanyl indicates that erroneous health knowledge is perpetuated, amplified and distorted by peer networks.

Safer methods of fentanyl preparation and administration are shared in on-line drug user sites and at harm reduction services such as the Medically Supervised Injecting Centre in Sydney. Rural fentanyl users are isolated from this wider drug using community and either do not or cannot access good information about safer drug use. The rural context has dispersed populations, distance and risks associated with disclosing illicit drug use that are significant barriers to disseminating harm reduction information. The paradox is that fentanyl was described as relatively easy to get.

A clear message of this project has been the overpowering hold substance dependence has on individuals injecting opioids and related drugs. The participants in this study had all experienced a long history of opioid dependence. The reason why fentanyl was being used was primarily related to satisfying opioid dependence.

Peer to peer information sharing is a well-established culture in substance using populations. The concept of peer-to-peer education in harm reduction is an empowering, efficacious and cost-effective way of reaching individuals who would not typically seek information from health workers. A peer-to-peer process of information dissemination would provide a logical and effective method of distributing information about fentanyl and harm reduction strategies related to its use.

KEY FINDINGS:

1. A key reason why participants used fentanyl was because of opioid dependence
2. Fentanyl is easy to obtain in rural areas
3. Overdose from fentanyl was a common occurrence but did not reduce the likelihood of use
4. Haphazard preparation techniques and incorrect drug information are shared across drug user groups in rural areas and result in overdose and injury
5. Properly informed peer networks could disseminate correct information aimed at reducing harm from fentanyl use and potentially other drugs as well

RECOMMENDATION: To develop a peer education program for injecting drug users that will be delivered via rural needle and syringe programs and Lyndon residential and community programs. The program will include;

- Drug information
- Safer preparation methods
- Resuscitation techniques

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