HHS Public Access

Author manuscript

Int J Drug Policy. Author manuscript; available in PMC 2023 May 03.

Published in final edited form as:

Int J Drug Policy. 2021 August ; 94: 103200. doi:10.1016/j.drugpo.2021.103200.

"I wanted to close the chapter completely … and I feel like that [carrying naloxone] would keep it open a little bit": Refusal to carry naloxone among newly-abstinent opioid users and 12-step identity

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Abstract

Background: 12-step programs aim to address drug-related harms, like opioid overdose, via abstinence. However, abstaining from opioids can diminish tolerance, which increases risk for overdose death upon resumption. A recent study found that desire to abstain from drugs inhibited willingness to participate in take-home naloxone programming, which was linked to perceptions of harm reduction strategies being tied to drug use. In the present study, we uncovered a similar phenomenon occurring among newly-abstinent participants who were refusing to carry naloxone.

Methods: This study is an analysis of broader qualitative data collected throughout Southern California among persons who use opioids, including those recently abstinent. Preliminary analysis revealed that those newly abstinent refused to accept naloxone at the end of interviews, and so we began probing about this (N=44). We used thematic analysis and author positionality to explicate the emergent phenomenon ad applied social identity theory to conceptualize findings.

Results: Mechanisms underlying naloxone refusal included its tie to a drug-using identity that newly-abstinent participants were attempting to retire. Carrying naloxone was also viewed as pointless due to doubt of witnessing an overdose again. Furthermore, the thought of being equipped with naloxone was not believed to be congruent with an abstinent identity, e.g. "me carrying it [naloxone] is making me feel like I'm going to be hanging out with people that are doing it [using drugs]."

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'Declarations of interest: none'

Dedication

This work is dedicated to Benjamin Dunkle (1992–2012) whose life continues to inspire

Conclusion: Recent detoxification heightens vulnerability to overdose, which other newly-abstinent peers might be positioned to respond to as bonds are formed through 12-step identity formation. However, naloxone is often refused by this group due to perceived 12-step identity clash. While some treatment spaces distribute naloxone, 12-step identity associated behavioral expectations appear to conflict with this strategy. Reframing these disconnects is essential for expanding lifesaving and the naloxone community safety net.

Keywords

Opioids; Overdose; Harm Reduction; Drug Treatment; Abstinence; Social Identity Theory; Qualitative Methods

Introduction

In the United States [U.S.], fatal opioid overdoses have increased dramatically over the past two decades, with reports from 2018 indicating 46,802 lives tragically lost (Wilson, Kariisa, Seth, Smith, & Davis, 2020). Opioids depress respiration, and in sufficient quantities (and/or when consumed in conjunction with other central nervous system depressants as benzodiazepines or alcohol) can stop breathing, resulting in eventual death without intervention (World Health Organization, 2020a). Fluctuating tolerance to opioids as a result of periods of abstinence followed by resuming drug use [relapse] increases physiological vulnerability to overdose and death (Davoli et al, 1993; White & Irvine, 1999; WHO 2018). To prevent overdose fatalities, layperson interventions such as take-home naloxone programs equip persons with knowledge and naloxone, a medication that reverses an opioid overdose, to prevent overdose symptoms that can lead to death (Wheeler et al, 2014, Harm Reduction Coalition, 2020; National Institute on Drug Abuse [NIDA], 2020). People who use drugs (PWUDs) are those most likely to witness opioid overdoses, and are best positioned to rapidly respond to opioid overdoses with naloxone (NIDA, 2018, Wheeler et al, 2014). As such, possessing naloxone among this group is of utmost importance. However, in a recent study among persons who inject opioids, Bowles & Lankenau (2018) found that desire to abstain from using drugs inhibited use of harm reduction strategies such as overdose prevention training, carrying naloxone, and receiving other harm reduction supplies, as those activities symbolized a commitment to a drug using lifestyle, which conflicted with participants' goal to stop using drugs.

Despite recent national efforts in the U.S. to scale up access to medication-assisted treatment [MAT] for opioid use disorder (i.e., methadone, buprenorphine), the most common substance use disorder treatment modality is abstinence-based treatment (NIDA, 2020; Substance Abuse and Mental Health Services Administration, 2018). While treatment programs might differ in their techniques, many abstinence-based programs begin with admission to an inpatient treatment facility. These facilities are expected to provide medically supervised drug detoxification and rehabilitation via various forms of counseling. Abstinence-based facilities are often supplemented by regular onsite or offsite 12-step meetings (NIDA, 2020). 12-step programs rely on the production of an identity that transitions the individual away from active drug use and towards identifying as someone who abstains from alcohol and illicit drugs, which is shaped by abiding to behavioral

expectations established within 12-step culture (Best et al, 2014; Timko, Billow, & DeBenedetti, 2006). Relapse and re-admission are considered a component of the "recovery process,' which is presently particularly concerning given that recent opioid abstinence is a leading risk factor of opioid overdose death (Moos & Moos, 2006; NIDA, 2020). Inpatient treatment episodes are sometimes followed by discharge to a sober living environment [SLE], which are communal housing programs for newly abstinent persons that require attending 12-step meetings (Best et al., 2015; Polcin, Korcha, Bond, & Galloway, 2010).

Background: 12-Step Programs, Behavioral Expectations, and Social Identity Theory

Dominant 12-step programs include Alcoholics Anonymous [AA] and Narcotics Anonymous [NA], which have millions of members globally (AA, 2007). Two authors of the present study collectively have over 20 years of experience with 12-step programs, which was used to inform and confirm some elements of 12-step participation; the positionality of which is discussed in depth below [Methods Section]. Behavioral expectations in 12-step programs often include: working the 12-steps with a sponsor; frequently attending 12-step meetings; service agreements to 12-step meetings; creating social networks with other group members; developing a similar language; spreading the 12-step message; and ceasing use of certain drugs, mostly illicit substances and alcohol. The only written requirement for 12-step membership is "a desire to stop using" (NA, Tradition 3, 2008). However, social acceptance in 12-step programs is predicated on compliance with the above-mentioned activities and conforming to "sober behavior" (Best et al. 2015). Sober behavior includes staying away from "people, places, and things" (AA, 2007 p. 417) tied to drug use. The extent to which one has embraced the philosophy of 12-step programing is demonstrated to others via self-description as an "addict" or "alcoholic" who strives to adhere to these abstinence-reinforcing behavioral expectations and counts continual time abstinent as a marker of successful identity metamorphosis (Best et al., 2015).

Construction of one's identity is partially a product of their relation to a group, like a 12-step program. Social Identity Theory [SIT] states that conforming to group norms and behavioral expectations can be a strong facilitator of acceptance into that social group, known as in-group acceptance (Tajfel, 1974). In 1993, Kellogg examined the identity processes connected to ceasing drug use through 12-step programs and determined "ritual identification" is an important facilitator of negotiating an identity away from active drug use. Best et al. (2014) assert that by abandoning a drug using identity one is freed from the shame of drug-using stigma, and a newfound identity is established though a socially negotiated process with key facilitators including self-determination, empowerment, social learning and control. They highlight that social influence from other 12-step members is a strong predictor of achieving abstinence. Timko, Billow, & DeBenedetti, (2006) found that greater involvement in 12-step ritual and social activities was associated with a higher likelihood of abstinence at 6-month follow up. Maintaining behaviors associated with a drug-using identity - such as not fully discarding "people, places, and things" - can result in social rejection from the ingroup. In SIT, an in-group is accompanied by a comparison group, called the outgroup, against which the in-group's values and achievements can be reified. Members of the in-group may discriminate against members of the outgroup for possessing negative attributes (Tajfel, 1974). One pronounced example of the outgroup is

being on MAT, which can result in social rejection and shunning from 12-step groups as persons on MAT are not considered "fully" abstinent (Timko, Billow, & DeBenedetti, 2006), although persons on MAT are still permitted to attend 12-step meetings "if they have the desire to become clean one day" (NA Statement on MAT, 2019, p. 7).

Similar to MAT, naloxone's symbolic tie to active drug use potentially likens it to representing a "thing" in NA's "people, places, and things" creed. The present study explores data from qualitative interviews with PWUDs who have experience in 12-step treatment modalities, some who were in early stages of abstinence and living in SLEs. A spontaneous and early observation was that study participants who identified as newly abstinent from drug use (i.e., within the past 30 days) and living in an SLE often declined the offer of take-home naloxone at the end of the interview. We applied Social Identity Theory to examine how respondents' identities evolved during their time in 12-step programs, and how identities constructed in relation to 12-step programs may be challenged by the idea of carrying naloxone. We conclude by discussing the implications for structuring overdose risk among newly abstinent people who use opioids, how fluctuating identity influences risk behaviors, and recommendations for improving efforts to prevent overdose fatalities.

Methods

This study draws from qualitative interviews collected in 2017 and 2018 conducted as part of a larger CDC-funded mixed-methods study of the use of non-prescribed pharmaceutical opioids [NPPO] and transitions to heroin use in three suburban and exurban counties in Southern California (CDC/NCIPC U01 CE0022778, PI Davidson). Qualitative interview participants were asked about their awareness of and experience with naloxone. Subsequently, our research team began consistently asking all respondents questions about their attitudes and opinions about treatment, 12-step participation, and naloxone.

There is varying terminology referring to achieving abstinence via 12-step programs such as being "in recovery," "clean," or "sober;" and monikers for sober living environments [SLEs] such as "recovery houses," "halfway houses," and "sober living." For the purposes of this paper, we are discussing the identity associated with active drug use as "drug-user identity," and the identity associated with those who newly ceased drug consumption as "12-step identity".

Setting & Recruitment

The setting for this study spanned three counties in Southern California: San Diego, Orange, and Ventura. Recruitment occurred via street-based engagement in areas known for high volume drug use and areas suggested by participants and chain referrals. Interviewers were trained and experienced in collecting qualitative data and, as described in more detail below, some had personal experience with drug use and 12-step programs, which appeared to assist in rapport building and enhancing trust with participants. Criteria for participation in the study included misusing opioid pain medication (OPM) within the past month or using heroin within the past month and having transitioned to heroin use from OPMs within the past year.

Orange County, the setting where collected data spurred our initial observation of the study phenomenon, has a booming abstinence-based treatment sector, with one of the highest number of licensed SLEs of any county in the United States, and many more which are unlicensed (Rouda 2018, Sforza, 2019; Gerda, 2018; Graham, 2017; Gorn, 2018; Liverpool, 2018; Vega, 2018). As such, our street-based recruitment approach led to enrollment of individuals who fit the inclusion criteria based on their recent opioid use, but were actively in process of adopting a 12-step identity. While we initially made this observation among the Orange County-based participants, participants from other counties were also asked about treatment experiences and naloxone.

Data Collection & Initial Observations

Interviews were open ended and organized around a 'probe sheet,' which included questions about drug use initiation, personal and witnessed overdose experiences, and treatment experiences. Demographic characteristics of participants were also collected using Health & Human Services [HHS] gender and race/ethnicity categories to uncover the potential of differences between groups (2019). Interviews were held in semi-private and private locations, including fast food and coffee businesses, or participants' homes. All participants [n=44] were given $40 cash before the interview for their time so participants knew they were not bound to complete interviews for remittance. At the end of the interview, participants were offered additional harm reduction resources, including naloxone and overdose prevention education. If interviews were conducted in eateries, participants were offered a meal. All interviews were audio-recorded with the participant's permission for transcription by a professional transcriptionist. Field notes were taken by interviewers after each interview.

Ethics

Ethics approval for all study procedures was provided by the University of California San Diego (Protocol #161398). Each participant reviewed the informed consent document with the interviewer prior to interview to let them know their rights, purpose of the study, risks (which were minimal), how to reach the principal investigator and ethics board if needed, and were given a hardcopy of the document. The informed consent process only required verbal agreement; names or contact information were never collected as this was a one-time interview.

Analysis

For this study, we applied Social Identity Theory [SIT] to analyze a set of qualitative interviews among people who were newly abstinent, living in SLEs, or had experience at any point with 12-step programs. Our spontaneous finding of refusal to carry naloxone led to our analytic plan to examine how respondents' identities informed their willingness to carry naloxone as they adopted an identity aligned with 12-step programs. Authors 1 and 5 coded the data by first familiarizing ourselves with the data, reading the transcripts in depth, and using a combination of search terms and manual review we identified participants who had experience with 12-step programs or were living in an SLE, and who spoke about their own willingness to carry naloxone. We used Atlas.ti to code and organize the dataset. Emergent themes led to codes including "refusal," "housing," and "social identity." We also utilized

our field notes to ensure accurate recall of observations that occurred during data collection. We applied Social Identity Theory to emergent themes to further assist in conceptualizing study findings.

Use of Reflexivity and Examination of Positionality

Two authors of this study have lived/living expertise with drug use, including opioids; one with 11-years of ongoing 12-step program experience and the other with a 12-year history in-and-out of 12-step programs. Both were involved with recruitment, data collection, analysis, and writing. We posit that their decades of experience in 12-step programs likely heightened their ability to identify the influence of 12-step program philosophy on participants' willingness (or not) to accept naloxone. To ensure trustworthiness of the analysis, these two authors engaged in a reflexive process of examining their own biases and interrogating whether and how those biases influenced their findings. They conferred regularly with the other co-authors to check biases, probe assumptions, and enhance clarity of emergent themes. In addition, every co-author has devoted time advocating for expanded naloxone availability for PWUDs, and conducting overdose prevention training and providing naloxone to individuals at risk for overdose, including people living in treatment facilities, SLEs, and MAT programs. As such, the authors' personal experiences and socially-constructed interpretations of naloxone distribution and 12-step programs are interwoven in the analysis and discussion.

Results

Demographics

In total, forty-four participants [n=44] were interviewed. Of these, 30 identified as male and 14 as female. Thirty-four participants described their race as non-Hispanic white, 4 as white-Hispanic, 3 as non-Hispanic Black or African American, 1 as Hispanic more than one race, 1 as Pacific Islander or Hawaiian, and 1 as not-Hispanic more than one race. Twelve participants were living in SLEs at the time of interview, however all forty-four participant were asked about experiences in treatment, and each commented on periods of abstinence, treatment, or attempting abstinence at some point since initiating drug use.

Gaining Access to the In-group Through Identity Formulation

Participants who recently abstained from drug use often spoke of their new 12 step-based lifestyle, which included new living arrangements, geographic locations, and social groups. Acceptance into these new abstinence-based social groups is, in part, predicated on accepting certain narratives about one's substance use (such as the trope of 'hitting rock bottom'[Fox, K. J., 1999]) and accepting the label and identity of "addict" or "alcoholic." One participant elaborated on his journey of attempts at abstinence and ultimate acceptance of AA messaging after a particularly difficult drug run,

> I just didn't like the fact that I thought they [12-step group members] were all full of shit. I was like, there's no way people can stop drinking this whole time and so this time around I was like, I was beaten into submission, kind of. I had already been through the wringer and I was just ready to figure out what a solution was so I

> was actually able to listen to what was going on. And so, I take that as like a--that's probably why I liked AA this time around, I think the message was and still is the same, I just didn't have the right ears on to listen to it, you know (Interview 21).

This participant noted that the program had remained the same, but his relationship to it changed, which follows the identity renegotiation and transition process outlined by SIT. Another participant moved to the study setting to seek treatment and described how this move facilitated a new life. Here they recount their adoption into the group after moving to the study setting from a different location, which assisted in their identity reformation:

> Different location, different friends, having to change everything. Change who you hang out with, change where you live, change--just change your hobbies. I try to ride still. It's just, I don't know how to explain it… You know what? My friends are the same, they're just sober. Still the same type of people, they're just sober type of same people (Interview 17).

This participant explained how their network still felt similar with drug use as an important bond, however the new group's central feature was drug abstinence rather than active drug use. Another essential feature for 12-step in-group status is self-recognition of a drug problem. Respondents believed that self-identification as a 12-step member must be determined by oneself, rather than being diagnosed by an outsider. As a result, one's new social identity is shaped and adopted by the individual, and therefore permits one's affiliation with others who identify similarly. One participant stated,

> Let them diagnose themselves as addicts and alcoholics. Give them the definition through somebody else who has done the 12-steps or something like that but I can never be told that I was an addict or alcoholic and have it stick. I would have to admit it myself (Interview 18).

In addition to self-identification as a group member, communal support was noted as another important component of group identity, "they teach you things and I don't know being around other people that are going through the same thing as me, it helps out as well" (Interview22), However, before this support can be received it is noted that one must first hit a point in their drug use of severe consequences (i.e. rock bottom):

> Treatment works but you have to let them hit their bottom first. And so yeah, and if there's someone struggling and they're not ready, the best thing you can do is say I'm here for you, if you ever need anything, that's it (Interview 18).

This participant ties together that while communal support is offered to other PWUDs, he will not intervene in struggles that are perceived to be the impetus of change. Rather, passive support is offered until a person seeks assistance. More intensive support is then offered upon demonstration of assertive participation in 12-step programming.

Maintaining In-group Identify through Participation

Participants noted benefits from 12-step participation such as liking other who attend "I like the people I meet there. Like they're cool people… I like the people I meet" (Interview 23), which might play a role in seeking social acceptance by ascribing to behavioral expectations.

Furthermore, participants reported feeling life improvements without drugs and that they feel a sense of moral obligation to circulate this "freed" and enjoyable new identity:

> Today I feel. Today I realize life is a gift. Today I realize this life was given to me for a reason and there's a reason I haven't been taken out yet. So, I should--that's available to everybody. There's freedom available to everyone, you know what I mean? (Interview 24)

While such positive features are a noteworthy benefit of 12-step program participation, other accounts appeared to describe more contingent benefits. For example, some described following program requirements not necessarily because of their therapeutic value, but because access to critical resources (e.g., housing in an SLE) was dependent on adherence to behavioral expectations:

> I don't know if you know anything about 12-step programs, but they push you to get a sponsor, they push you to do 90 and 90. Those are requirements, so **if you want to live in the house** you have to have a sponsor, you have to get 90 in 90 [A "90 in 90" refers to completing ninety 12-step meetings in ninety days] (Interview 21).

The contingent nature of housing in an SLE is an explicit example of how people who are seeking acceptance in the abstinence-based 12-step group must comply with behavioral expectations of that group. Lack of compliance not only threatens material needs such as housing, but also, in some cases, one's reputation as an ingroup member. As will be shown below, carrying naloxone (an item associated with a drug-user identity, not an abstinent identity) is another such threat to one's ingroup status.

In-group Identity Congruence and Refusal to Carry Naloxone

Several study participants expressed their belief that carrying naloxone was unnecessary now that they are abstinent, because they are not in a position to witness an overdose since they no longer affiliate with people who use drugs:

> I don't associate myself [with active PWUDs] though, you know? If I was back home, hell yeah. But I can't--I haven't been in a position in 106 days where I've been around anybody who OD'd, you know what I mean? I don't put myself in those positions anymore (Interview 24).

> Well, I'm not really trying to chill with people that even do the drug in the first place. So, if me carrying it [naloxone] is making me feel like I'm going to be hanging out with people that are doing it. So why? Ask myself why am I carrying this? Why am I chilling with people that are using heroin, right? So, screw that. I'm not going to even think about that (Interview 17).

> I don't know why I would [carry naloxone]. I'm not around that life anymore. So, I don't know why I would-- I but I don't know why I would need it… It's not going to be I'm at a party and I'm going to need it (Interview 37).

Respondent 24's assertion that they don't put themselves in "those positions anymore," and Respondent 17's claim that carrying naloxone will make them feel as if they are "going to be

hanging out with people that are doing [drugs]" illustrate a component of the prevalent belief that people in recovery should (and often do) avoid "people, places, and things" that may trigger relapse. Thus, to carry naloxone is incongruent with participants' newfound 12-step identity.

In addition to feeling that carrying naloxone was pointless due to no longer being in situations in which drug use is occurring, carrying naloxone also served as a reminder of one's previous social identity as a drug user, from which participants were attempting to separate geographically, socially, and behaviorally:

> I mean, I guess it couldn't hurt anything [to carry naloxone], but at the same time, to me, I want to close this chapter of my life completely [drug use], and I feel like having that would still have at least some sort of opening, because I'd have to look down at it every day… when I come out here, I want it to be a closed chapter, and that's just how I feel… I don't hang out with dudes that do heroin. I'm not. I'm just not going to do it… I don't know anybody in that crowd [drug users] out here. I don't want to know anybody. Wouldn't hurt [to carry naloxone], but like I said, I wanted to close the chapter completely when I came out here, and I feel like that [carrying naloxone] would keep it open a little bit (Interview 36).

In this narrative, carrying naloxone was symbolically linked to the possibility of using drugs again and being around other people who use drugs, which is in conflict with this participant's new identity. His new social identity is threatened by not fully abandoning his old identity. For many participants, carrying naloxone was associated with being an active drug user, the very identity participants were seeking to leave behind through adoption of their new identity as a member of a 12-step program. For these participants, not only does carrying naloxone seem pointless, but it also represents the possibility of relapse, which goes against abstinent group-based behavioral expectations and could lead to social rejection.

In-group Identity Deviations

While less common, some respondents spoke about the importance of carrying naloxone even when people are newly abstinent or participating in treatment centers or SLEs. When asked, "What do you think you would tell your friends about Narcan® [naloxone] if they were hesitant about carrying it(?)," one participant said:

> I would tell them to carry it [naloxone] because it can pretty much happen any time. One of my friends just overdosed the other day actually. He was in a coma … so yeah, I would definitely tell them to carry it (Interview 5).

Another confirmed, "I'm down to carry it sober because I'm sure there's people's lives that I can save" (Interview 24). The following excerpt describes how a group of friends from the same treatment center relapsed and experienced multiple overdoses that were reversed with naloxone:

> Yeah. It was actually really bad this summer. I was with four other people in a hotel room for two or three months, and they overdosed probably more than 10 times. We were all from the same treatment center. We had all relapsed. Usually, if you are an opiate user, they give you the instant Narcan®, not the shot. So we all had a

> bunch of Narcan® on us, which was good, because everyone kept overdosing. So, we would just hit them with that. Sometimes we'd have to do two or three because they weren't coming back and they were blue in the face. I got used to it, but when people overdosed, probably the first few times, I was like, "Oh, my God, they're about to die" (Interview 31).

This narrative demonstrates that this group of individuals were brought together through a treatment center, possibly bonding through purposeful identity formation as part of the recovery process. However, members of this group agreed to carry naloxone and, when they resumed drug use, were situated to respond to overdose emergencies. When further probed about their feelings about naloxone, the same participant stated:

> It's amazing, and it saves lives. People are back and forth about treatment centers giving it to you when you leave, because they're like, "Well, that's just saying that you're going to relapse," but I think that it's the smartest thing. A lot of people do relapse; it just happens, and I feel like better safe than sorry. If we hadn't had the Narcan, a lot of my friends would have been dead (Interview 31).

These participants suggest the importance of carrying Naloxone while abstinent. While many participants found carrying naloxone to be incongruent with their new 12-step identities, these participants demonstrated an ability to reconcile the act of carrying naloxone with their new identity as an abstinent person. A dominant theme in their narratives was the acknowledgement of the potential for relapse as part of the treatment and recovery journey.

Discussion

In the current study, we explored attitudes towards carrying naloxone among a group of people who were newly-abstinent from opioids. We found that many people in early stages of abstinence felt that carrying naloxone suggested an incomplete commitment to staying away from "people, places, and things" tied to drug use, potentially threatening their new identity and acceptance into the abstinence-based social group [the in-group]. Social rejection is especially concerning among persons newly-abstinent as relapse is considered a "normal part of recovery" (NIDA, "Treatment & Recovery," 2020), and fluctuating between abstinence and resumption creates a heightened vulnerability to overdose, and social rejection could function to increase the likelihood of using drugs alone; which is a potentially lethal scenario (Davidson et al., 2003; Winiker, Tobin, Gicquelais, Owczarak, & Latkin, 2020; WHO, 2020). Our findings in this study among newly-abstinent people are consistent with the Bowles and Lankenau (2018) study among people who inject drugs, which found that those who had the goal of abstinence resisted harm reduction resources because they represented a commitment to a drug use. Our findings also reflect the perspectives of some 12-step focused treatment centers, which maintain that harm reduction and abstinence are at odds with each other (Behavioral Health of the Palm Beaches, 2020). However, some respondents in our study also suggested that there is a way to reconcile carrying naloxone with their new identity. Recommendations for leveraging this potential to reconcile is discussed below.

Using SIT, we were able to elucidate some of the social mechanisms by which newly abstinent people form a new social identity, and explain how and why carrying naloxone is inconsistent with that identity. Dingle, Cruwys, & Frings (2015) discuss two emergent pathways following abstinence-based treatment: the loss of a previous "spoiled" identity (Goffman, 1963), and the simultaneous gain of a new identity congruent with one's altruistic "true self." Dingle et al (2015) also highlight the critical role played by social support in this process. Our study revealed that for newly-abstinent people engaged in the process of casting aside their previous drug-using identities and transitioning to a new identity as a 12-step member, gaining access to the in-group required strict adherence to abstinence-based social norms. Peer acceptance and support - and sometimes housing – were predicated on the success of this transition and ongoing maintenance of behavioral expectations consistent with the attitudes and beliefs of this new social group. In this context, carrying naloxone not only seemed unnecessary, since they were no longer associating with people who used drugs, but also represented an incomplete commitment to embracing 12-step behavioral expectations, which is critical for in-group acceptance among 12-step groups.

Rather than a complete transformation, however, our findings also showcase how drug user-identity is a fluctuating conceptualization of "self," and that some people who have embraced an abstinent identity were able to reconcile that identity with carrying naloxone. For these individuals, the role of PWUD was not entirely cast aside, rather it was reconceptualized with the legacy of drug use as a critical component. In contrast to 12-step or abstinence-based approaches, medical and harm reduction approaches tend to view drug use as a spectrum or continuum (Harm Reduction Coalition [HRC], "Principles," 2020; International Classification of Diseases, 2004), with more acceptance of the potential for relapse and fewer social sanctions resulting from acknowledging that potential and/or associating with other people who may continue to use drugs. Existing research has examined various facilitators, barriers, and potential conflicts that influence naloxone uptake and use among PWUDs (Bowles, Smith, Verdugo, Wagner, & Davidson, 2020; Bowles & Lankenau, 2018; Farrugia, et al. 2019a & 2019b; Fomiatti, Farrugia, Fraser, Dwyer, Neale, & Strang, 2020; Wagner et al, 2014), but this has not yet been thoroughly explored among newly-abstinent individuals. It may be that for some newly-abstinent individuals, adopting the role of "overdose responder" and being prepared to respond to overdoses by carrying naloxone became consistent with the "altruistic true self" represented by their new identity. This reveals an important opportunity for incorporating harm reduction tools such as naloxone into the cultural and behavioral expectations of abstinence-based communities.

Programmatic Implications

Because naloxone is unlikely to be self-administered, it is critical that people in close proximity to individuals who use opioids or who might reinitiate use of opioids be equipped with naloxone. Take-home naloxone training programs are supported by over a decade of research (Clark, Wilder, & Winstanley, 2014; Lankenau, Wagner, Silva, Kecojevic, Iverson, McNeely, et al, 2013; Strang, Manning, Mayet, Best, Titherington, Santana, et al., 2008; Tobin, Davey-Rothell, & Latkin, 2018; Wagner, Valente, Casanova, Partovi, Mendenhall, Hundley, et al., 2009; Wheeler, Jones, Gilbert, & Davidson, 2015). Notably, some 12

step-oriented centers in Southern California keep naloxone onsite for use by staff and/or offer low-barrier naloxone distribution to all clients (Solace Foundation, 2020).

While the present study has revealed an important disconnect between the prevailing cultural norms in abstinence-based settings like SLEs and the harm reduction practice of naloxone distribution, it also identified some opportunities for reconciling this disconnect. First, there is an opportunity within 12-step and recovery communities to reframe the meaning of carrying naloxone. Specifically, it may be useful to acknowledge that for some, carrying naloxone is less a symbol of one's own commitment to ongoing drug use, and more of a commitment to saving lives and enhancing the community safety net. The end instruction of the 12-step approach is to "carry the message to those who still suffer," (Alcoholic Anonymous, 12th Step, 2001). We suggest that harm reduction strategies such as carrying naloxone be reconceptualized as behaviors that support and align with 12-step identity by demonstrating a commitment to group safety and wellbeing of those "who still suffer."

Second, there is an opportunity for the harm reduction and public health communities to reconsider how take-home naloxone programs are framed for treatment settings. Historically, harm reduction approaches have framed take-home naloxone programs as being developed by and for PWUDs (NIDA, 2019; Wheeler et al., 2014), since they are those most likely to witness overdoses and be in a position to respond (Bennett et al., 2018). However, as demonstrated by our data, 12-step settings, although intended to promote abstinence, do not always succeed, and therefore could represent additional settings for lifesaving action, especially in the event that members resume drug use together. Naloxone training programs for treatment- and abstinence-based settings may be better framed as "overdose first aid training" for people who might witness an overdose, and could de-emphasize the focus on people's own drug use and address the role stigma plays in impeding take-home naloxone uptake (Fomiatti et al., 2020). Research on the effects of naloxone training programs has identified many benefits associated with take-home naloxone uptake including enhanced confidence, feelings of heroism, and senses of empowerment and mastery of an important new skill that could save lives (2014); these benefits may also be experienced by those early in the recovery process and might even improve treatment outcomes. However, it is critical not to ignore the reality of relapse and accompanying increased risk of fatal overdose facilitated by lowered or diminished tolerance, especially as relapse is an expected part of the recovery process (Jones, Einstein, & Compton, 2018; NIDA, 2020; WHO, 2020).

Finally, in the U.S., recognizing PWUDs as experts in overdose prevention and as overdose first responders has been a critical strategy in the fight to end fatal opioid overdoses (Wheeler et al, 2014; Food and Drug Administration; 2017; NIDA; 2017). However, the present study shows that this framing may not speak to people who have transitioned away from a drug using identity, but who may still be at risk of overdose death themselves or in a position to respond to witnessed overdoses. Therefore, similar to the recommendation above for treatment settings, acknowledging drug use as a continuum (HRC, 2020) and that PWUDs at all points along that continuum can be effective overdose responders has the potential to reduce the identity threat posed by carrying naloxone for abstinence-seeking PWUDs or PWUDs otherwise in a process of identity transition. Future research on the uptake of take-home naloxone by drug users on the spectrum of drug use – from actively

using to abstinent – could inform efforts to get naloxone into the hands of those most likely to overdose or witness overdoses and save lives.

It is important to acknowledge that naloxone functions to counteract the effects of an opioid overdose and can prevent an overdose-related fatality if administered in a timely fashion. However, naloxone administration does not, in and of itself, prevent the overdose. As overdose rates continue to climb, and as PWUDs are increasingly being trained as overdose responders, we must also recognize the burden and stress of responding to potentially fatal overdoses among an already marginalized and stressed community such as PWUDs (Kolla & Strike, 2019). In addition to ensuring widespread access to naloxone, other structural changes should be undertaken to reduce the incidence of potentially fatal overdoses. This includes the implementation of overdose prevention sites, safe supply initiatives, drug decriminalization, and stable housing that does not have the prerequisite of abstinence from drugs such as housing-first programs and, as piloted and evaluated in Canada, housing overdose prevention sites (Bardwell, Fleming, Collins, Boyd, & McNeil, 2019; Bardwell, Collins, McNeil, & Boyd, 2017; Kolla & Strike, 2019; Maghsoudi, Bowles, Werb, 2020) These reforms could not only reduce overdose rates, but could also reduce stigma and shame associated with drug use and relapse.

Limitations

Our study is subject to limitations. Because qualitative research derives from a constructivist/interpretivist paradigm, it is believed to be inherently influenced by the subjectivity of the researcher. That is, in qualitative research the researcher is believed to be an instrument of the data collection and analysis, and complete objectivity or impartiality are unlikely and unnecessary (Morgan & Druwy, 2003). To address this inherent quality of the research methodology, our positionality statement attempts to make transparent our process of uncovering the findings in this study, and to describe how certain authors' experiences might have impacted that process. To guard against bias and improve trustworthiness, findings were discussed amongst the entire study team, and biases were checked by other authors who assisted in guiding the analysis and discussion. Finally, although the present data was collected in a localized setting in Southern California, a large proportion of participants noted being from elsewhere in the U.S. and sent to Southern California for its expansive treatment center and SLE networks. This might, in turn, address *transferability* of the present findings (Lincoln & Guba, 1985).

Conclusion

We found that some newly-abstinent PWUDs are reluctant to carry naloxone, which we argue is a consequence of incongruity between abstinence-based culture and the framing and meanings ascribed to naloxone. Abstinence-based programs aim to improve quality of life through peer support and assisting people in achieving their goal of abstinence, which largely occurs through the production of a new social identity aligned with 12-step programs. Fear of losing in-group acceptance may prevent newly-abstinent PWUDs from utilizing protective harm reduction strategies, such as carrying naloxone. We have identified three opportunities for aligning naloxone distribution efforts with the cultural and behavioral

expectations of 12-step programming. These include reframing the meaning of carrying naloxone (to represent a commitment to group safety and the wellbeing of those "who still suffer"), relabeling naloxone training programs in substance use disorder treatment settings as "overdose first aid" and focusing on the opportunities that trainees have to participate in lifesaving activities, and re-targeting naloxone distribution efforts to include persons at any phase of their drug use, including abstinence. Importantly, increasing uptake of naloxone among PWUDs is only a partial solution to the opioid overdose epidemic and additional structural reforms are needed.

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