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Addiction and sociality: Perspectives from methamphetamine users in suburban USA

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Introduction

This article contributes to a growing body of literature that emphasizes the social nature of both drug use and addiction, specifically the central role of drug-using networks (Adams, 2008, Davies, 1998; Cloud & Granfield, 2004; Gibson, Acquah & Robinson, 2004; Graham, Young, Valach & Wood, 2008; Halkitis & Shrem, 2006; Hammersley & Reid, 2002; Hughes, 2007; May, 2001; Pilkington, 2007). Here we focus our lens on those aspects of drug use and addiction that are less often invoked in academic discussions or policy scenarios but are foremost in the voices of those who use drugs (Davies, 1998; Reinarman, 2005). In doing so we add to the literature on the social relationships within which drug use is experienced (Campbell, 2010).

While most experts agree that addiction derives from a combination of physiological, psychological and social aspects, the implications of the strengths of these separate arguments have high stakes since identifying where addiction resides, whether in the body or the mind, necessarily comes at the expense of the other site (Davies, 1998). Addiction can be discussed as a physical dependence (Dole, 1980); cognitive choice (Biernacki, 1986): emotional immaturity (Milkman & Sunderwirth, 1995); psychological malfunction (Miller, 1995); neuroadaptation (Kuhar, 2010); disease (Leshner, 1997); or a function of moral autonomy (Preble & Casey, 1969; Winick, 1962). The sociological theory of drug addiction proposed by Lindesmith (1938) was based on opiate addiction, although Biernacki maintains that Lindesmith's definition of opiate addiction was multifaceted, consisting of social, physiological and psychological elements. Others call attention to the tendency within the addiction sciences to presuppose that to study addiction is primarily to study an individual's pathology while limiting attention paid to the social environment and the role of sociality (Granfield, 2004; Dunbar, Kushner, & Vrecko. 2010; Hammersley & Reid, 2002; Hughes, 2007). In this article we enhance the argument for greater focus on the role of sociality in the phenomenon called addiction.

Sociality is defined as the tendency to form social groups that is fundamental to being human. In this article we seek to contribute to current understandings of the social influences involved in addiction and how these influences are affected by a popular understanding of addiction among practitioners, such as treatment workers, and academic discussion on what addiction means (Graham et al., 2008; Pilkington, 2007; Ward & Fox, 2008). We draw on the data from interviews with current and former methamphetamine users in the suburbs of

Atlanta, Georgia (USA). Given the study sample, our analysis necessarily focused on methamphetamine trajectories; however, the findings may also be relevant for other drug use trajectories. We discuss a drug trajectory framed as a "career" (Faupel, 1991) and not as the development of a substance use disorder (SUD). The career framework incorporates the social aspects of drug use and addiction, often obscured in discussing the developmental aspects of a disease or disorder. Our analysis of the interview data revealed that participants overwhelmingly referred to social influences when discussing their drug use and addiction; therefore, the career framework, with its emphasis on the social roles, relationships, and life transitions, makes it more appropriate for explaining the study findings than trajectory, which places our focus on a path. First we briefly review the major models of addiction that provide the basis for contemporary addiction discussion and then clarify our conceptualization of addiction as employed in this article.

Models of Addiction

Addiction as disease or chronic medical illness is a model that privileges the individual's brain when investigating the nature of why people become addicted to substances. Foddy and Savulescu (2007) note that all substances of abuse hijack the dopaminergic system, the biological pathways that are central to reward-based learning and that also generate pleasure. When the dopaminergic system functions properly, the determination of salience (learning to appreciate) is possible (Robinson & Berridge, 2000; Schultz, 1998). For example, the agent visits this bush, eats something delicious, a dopamine spike occurs, and the agent learns that this bush is a good place to find food; or this watering hole is a good place to find a mate. *In extremis*, a biological determinist approach understands all human behavior as actions in response to the release of dopamine in the brain.

One step toward attenuating a strict biological determinism in the disease model, the psychological model of addiction privileges a chemically-induced malfunction in the biology as the culprit, thereby describing the matter in terms of substance-related disorders rather than disease. The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association, 1994) categorizes substance-related disorders into two major groups: substance use disorders (SUDs) and substance-induced disorders. The SUDs are further categorized by substance dependence and substance abuse. Each category has a set of criteria to help the practitioner make the proper diagnosis. The criteria focus on the effects of substance use, bestowing greater importance to the psychological and physiological outcomes, contingent always upon semantic constructs (Davies, 1998). A more moderate combination of both positions is found in the biopsychosocial model.

The biopsychosocial model combines many of the above insights to the process of becoming addicted to a substance. Milkman and Sunderwirth (1995) view addiction as a learned behavior that changes the chemical functioning of the brain. The authors suggest that childhood experiences combined with genetic disposition are the foundations of adult compulsion to abuse drugs, and the drug of choice is the one that best fits with the individual's way of coping. The authors also note the consistently strong correlation between one's drug use and concurrent use by friends—a finding that suggests greater support for a sociological understanding of addiction.

Sociological contributions to addiction models range from those proposing a strict social construction explanation to those that give greater importance to the environment (Faupel, 1991; Reinarman & Levine, 1997; Stephens, 1991). The social construction explanation posits that addiction is meaningful only within the conceptual categories available within culture and framed by social context (Becker, 1953); therefore, the "particular features of and the meanings attributed to drug experiences, as well as the behavior thought to follow

from them, are culturally specific" (Reinarman, 2005, p. 316). Numerous discussions on the social construction of the addiction-as-disease model have been published in this journal (see Cohen, 2000; Reinarman, 2005; Stockwell, Single, Hawks & Rehm, 1997). Yet, in spite of the compelling evidence shown in previous research that addiction has culturally specific and socially constructed meaning, sociological contributions to the conceptual understanding of addiction tend to be underemphasized or used mainly in policy arguments (Nadelmann, 2004). Recent research provides additional insight on the biological link between social and physiological explanations of addiction.

Studies examining substance use by monkeys show a need for greater focus on the social environment when examining addiction processes (Czoty, McCabe, & Nader, 2005). Morgan et al. (2002) found that dominant and subordinate monkeys did not differ in their cocaine addiction when individually housed. However, when socially housed, dopamineD2 receptors increased in the brains of the dominant monkeys but not in subordinate monkeys, which may result in the non-dominant monkeys becoming more vulnerable to cocaine addiction.

While human social environments and hierarchical systems are quite different from those of monkeys, these studies suggest that social forces have a major role to play in the addiction process. We recognize that these models pose different, but complimentary, realities and they start out from different, but complimentary, perspectives. However we are not alone in acknowledging that social aspects receive less attention in the current debate and in the development of substance abuse treatment. Hughes (2007, p. 673) proposes a "social conceptualization" of addiction emphasizing drug abuse, "as a set of embodied social practices." Others call for more attention paid to the material and social environments of those populations most vulnerable in society (Acker, 2010; Bourgois & Schonberg, 2007).

Conceptualization of Addiction

Addiction has been called a "troublesome concept" (Akers, 1991) that entails the compulsive use of a range of drugs (Bailey, 2005; Granfield, 2004; Weinberg, 2000). Addiction, disorder, dependence and abuse are sometimes used interchangeably., although the DSM-IV discussed previously posits a clear distinction between these. Although any definition of addiction is likely to result in heated contestation, we feel most comfortable discussing addiction in the manner put forward by Volkow and Li (2004), which distinguish between chemical dependence and a broader phenomenon characterized by repeated problematic use and an impaired ability to cease this activity.

While not denying the importance of dependence and disorder as conceptually used in the literature, in this article we highlight the social nature of drug use and abuse practices. Abuse is used here to indicate *problematic* use (Reinarman, 2005). This encompasses related health issues, such as chronic weight loss, and psychological problems, such as craving anxiety, and/or social difficulties, such as interference with family life, relationships, or work. We use addiction here to refer to continued problematic use (abuse) despite awareness of its negative impact on the individual user. Although we recognize that the conceptual and theoretical explanations of drug abuse and addiction are much more complex, our working definitions are sufficient for our purposes here.

Using the stories recounted by current and former methamphetamine users, we seek to contribute an in-depth, intuitive, insiders' perspective to add to our understanding of addiction. We found that our participants overwhelmingly indicated a relational incentive for drug use, abuse, and addiction as a major influence on their drug-using career. Yet, as they attempted to stop their use-practices, they were usually told by treatment workers, and often internalized, that the focus was on them as individuals with a personal problem or

disease. For example, respondents used common terms they heard in treatment or in 12-step groups, such as "I have an addictive personality," or, "I hit my rock bottom" (Vanderstaay, 2005). Recovery conceptualized as addiction necessitates acceptance by the addict of individual culpability. Yet, the qualitative analysis of their narratives revealed primarily social influences and relational factors impacting the turning points in their drug-use toward cessation. As Weinberg (2000) found in his ethnographic study in treatment settings, the objective was for the addicted individuals to acknowledge their unconscious complicity in their disease and that they are powerless without the help of a higher power and/or group support. We found that the social help mentioned by our study participants extended well beyond support groups.

In this article we report the result of our in-depth exploration of the drug use career that emerged from a qualitative analysis of user stories. We are not ignoring that drug use and addiction are a complex phenomenon and complimentary factors influence drug trajectories. Our aim here is to add to the literature on the relational aspects of drug use, drug abuse, and addiction in order to expand our understanding of this phenomenon past disciplinary boundaries.

Methods

Our sample of methamphetamine users was drawn from suburban communities of Atlanta, Georgia, in the United States. This area has seen a steady increase in methamphetamine use in the last decade, and methamphetamine was identified as the state's "biggest problem" with drugs (Williams & Miller, 2006). The data collection involved participant observation and face-to-face interviews that included drug history survey data, and audio-recorded indepth life histories. We used a combination of targeted, snowball, and theoretical sampling methods to recruit non-institutionalized participants from a wide range of social networks (Strauss & Corbin, 1998; Watters & Biernacki, 1989). The University's Institutional Review Board approved the study protocol. Oral consent was obtained before collecting information, and all data was protected by a certificate of confidentiality granted by the National Institute on Drug Abuse. This certificate protected the data and research staff from court subpoena. The research team consisted of the principal investigator (PI) and trained student research assistants. We first used a screening process to ensure that participants passed the eligibility criteria: being 18 years of age or older and having used methamphetamine in the suburbs. No identifying material was collected. Interviews were conducted in a private location agreed upon by the interviewer and participant. Typical interview sites included the participant's home, private library rooms, hotel rooms, and the interviewer's car.

Quantitative drug history data on the last 30 days, last 6 months, and lifetime use was collected with article and pencil by the interviewers. Qualitative audio-recorded data was collected on the specific details in the drug use trajectory within the context of the users' life history. During the in-depth interviews we focused on the roles, meanings, descriptions, and definitions of the situation as perceived by the user, specifically during transitions in the drug trajectory. Transitions and trajectories are conceptual tools used within a life course perspective (Giele & Elder, 1998; Laub & Sampson, 2003). The drug history data collection lasted about one-half hour and the in-depth interviews lasted between 1 and 2 hours. Ethnographic fieldwork and interviews were conducted between July 2007 and December 2008.

The drug history data were entered into the SPSS computer program for management of numerical data, and the audio-recorded interviews were transcribed and entered into the NVivo computer program for qualitative data management. The PI and at least two other coders coded the qualitative data. We used an iterative model of triangulation in the data

analysis that was consistent with the "constant comparative analysis" found in grounded theory methods, (Boeri, 2007; Strauss & Corbin, 1998). Using inductive reasoning, we employed a posteriori instead of a priori thinking to analyze the data, thereby allowing the findings to emerge from the analysis (Lash, 2009). While a semi-structured interview guide focused on the drug trajectory in terms of introduction, continuation, cessation and relapse of drug use, the open-ended format allowed the participants to diverge into other areas. For example, we did not ask questions specifically on the social aspects of drug use, but instead asked participants to talk about how they started drug use, continued using and stopped using, if applicable. The social aspects of the drug trajectory emerged during the interview process as the participant described their use. Any periods of problematic use were further explored during the interviews. Transcripts included both the questions and responses. We note that the social and relational aspects of drug use were not prompted by original interviewer questions but in response to probing questions asked to obtain more details. Coding began with the first 10 interviews, and ongoing findings were more thoroughly explored in subsequent interviews. We compared the results of our coding of the qualitative data with the survey drug histories and observational field notes to achieve greater validation and reliability.

The final sample of 100 participants included 50 former and 50 current methamphetamine users. Current use was defined as using methamphetamine in the past 30 days. The majority of participants were white (84%), with 11 African American and 5 Hispanic/Latino. Males were 65% of the sample. The ages ranged from 18 to 65, with a mean age of 34.4 (SD 11.6) and a median age of 34. Participants' socio-economic status ranged from the homeless and unemployed to college students and owners of small businesses. All were polydrug users. Methamphetamine (100%) and marijuana (100%) were the most popular drugs ever used followed by cocaine (95%), prescription pills (69%), crack (67%), and heroin (39%). Routes of methamphetamine administration included smoking (90%), nasal, a.k.a. "snorting" (87%), oral (47%), and injection (43%). The most frequently reported mode of administration of methamphetamine among active users was smoking. More than half reported injection of some drug (54%) in their lifetime. While the study was qualitative and not designed to be representative of all methamphetamine users, the sample demographics correspond to epidemiological reports showing that methamphetamine users tend to be white males, polydrug users, and smoking and injecting methamphetamine are popular routes of administration (National Institutes of Health, 2005).

Our coding for this article focused on descriptions of the trajectories of use, abuse, cessation and relapse as reported by the participants. Due to the study's focus on methamphetamine users, trajectories of methamphetamine received greater attention; however, we also coded initiation, cessation and relapse of other drugs when they were mentioned. Here we present quotes that represent findings reported by most participants. We use nearly verbatim quotes but delete unnecessary conversational repetitions or terms, such as "like," "uh," and "you know," when these terms distract from the content addressed. For brevity we use ellipses (...) to indicate a group of words deleted because the participant digressed from the main point or repeated the same thought. To maintain confidentiality, we identify quotes only by the participant's age and gender.

We first used a free coding method in which coders read and coded quotes without an established framework, also known as "open coding" (Strauss & Corbin,1998). In the NVivo program, we identified these as free codes, called "nodes" in Nvivo. We found many more references for free codes that could be defined as social rather than biological/physical or psychological aspects that influenced drug use. For example, the free code called "needing energy," a physical motivation for using methamphetamine, resulted in 16 referenced quotes, and "withdrawal," a biological reason for relapse, resulted in 41 referenced quotes.

"Craving" and "feeling great," both psychological aspects for using drugs, resulted in 46 and 26 referenced quotes respectively. Additionally, we found free codes that referred to social influences, such as users' friends, family, and social settings, we called "social aspects," that resulted in 397 referenced quotes. Employing a modified version of grounded theory coding (Charmaz, 2001), we began developing a coding framework drawing from our open coding and knowledge gleaned from the literature on drug use trajectories. We grouped all free codes referencing influences on the drug trajectory under a coding category called "drug career." Transcripts were recoded by at least two coders using the coding scheme. We read all drug career quotes and discussed them in terms of physiological, psychological and social influences identified in the literature on addiction cited previously. We found that the coding for the social aspects were mentioned by more respondents and provided thicker descriptive data than coding for other aspects.

We found social influences, as opposed to physiological or psychological influences, were mentioned more often in each phase of the drug trajectory. The larger sections of transcripts coded under social aspects, as compared to other aspects, provided evidence that the focus on social aspects were derived from the participants and not from our own interpretation or reflexivity. We follow the examples of Charmaz (2001), Malterud (2001) and Straus and Corbin (1998) as models for qualitative coding.

Three influential social network relations were identified: family, friends, and co-workers. Once initiated by a family, friend, or co-worker, these social relationships influenced continued use of methamphetamine. Cessation of use typically involved a new social relationship or change in social setting. Relapse was often triggered by a crisis in a social relationship, loss of a salient social role (work, parent, etc.), or a return to an old drug-using network. In the following, we present our findings by the social relations discussed in each specific phase of their drug use trajectory. Those quotes were chosen that best illustrate the social experiences of numerous participants. Although participants also mentioned other influences, such as psychological issues (depression) or individual shortcomings (not being smart enough to avoid use or quit using), these were few in comparison to the overwhelming mention of social influences. We present a sampling of those quotes here. A brief discussion follows the presentation of the quotes to facilitate a more parsimonious understanding of how addiction dialogue might constrain the social aspects of this phenomenon (Davies, 1998).

Findings

Initiation and Progression of Methamphetamine Use

Initiation into methamphetamine, according to our participants, always occurred in familiar social networks: family (including live-in partners), friends (including romantic and sexual relationships), and co-workers. In this section, we describe these sites of sociality as reported by our participants. Our discussion is based not only on the quotes presented but also on a triangulation of the data, as explained in the methods, and our careful reading and re-reading of the entire life history transcripts.

The role of family and friends—Our participants frequently cited the family as a site of initiation into methamphetamine use. Sometimes the introduction to drug use was an indirect effect of our participant's home environment during childhood and adolescence due to the parents' social networks. For example, one 34-year-old male describes how his father and one of his father's friends introduced him to methamphetamine:

So all my dad's friends were junkies. They were shooting Demerol, everything you could shoot. Well, I was probably about 18 and I hadn't experimented a whole lot

in drugs but just a little bit, and I came in one day and they were at my dad's house and everybody was drinking. And actually he was my dad's—supposed to be my dad's best friend—well he had some stuff they called crank, and from the time I was twelve I'd seen these dudes firing dope, shooting dope up until I was eighteen years old...But one day I come in and I said let me try some of that. I poured some in a spoon, shot some water in it—the dude was trying to tell my dad, "You need to help him or let me help him or something." Before he had it out I had it pulled up and fired it in my arm just like a champ. Just like I was a professional at it.

Another participant, a 22-year-old female who explained that her step-grandmother and mother introduced her to methamphetamine when she was 15, reported a similar experience: "It was with my step-grandmother...she handed me some in my hand and said, 'eat it,' and I did and it kept me up for a while."

Initiation patterns into methamphetamine use are not unilateral from the older generation to the younger but also can be the inverse, with users being introduced to the drug by their children. For example, a 48-year-old male described how his stepdaughter introduced him to two forms of methamphetamine:

My stepdaughter and her live-in boyfriend introduced us to it in crank form. We did it in crank form. At that time basically it was a weekend kind of recreation. There was some during the weekdays but I never thought crank was as good as the ice that we later discovered. But it was more of a weekend type thing until about 2002. In 2002 they showed me ice, and, boy, it hit the ceiling from there.

The family also provided intra-generational transmission of drug-using behaviors. In our study we saw this confirmed by a 25-year-old female participant who stated it was the fundamental trust in her brother that facilitated her introduction to methamphetamine use. When asked if she had any insights on methamphetamine use and young people, she replied, "They're very impressionable. Like, if they trust you, they'll do it. I know that's why I started. My brother—I didn't think anything he did was wrong. He was perfect to me."

In light of the data we feel it is necessary to re-examine risky behavior being negotiated. What is at risk is not simply the outcome of consuming substances of abuse (i.e., having a hang-over in the morning, starting injection practices, developing methamphetamine dependence); rather, what is risked in drug use and abuse is more profound. The data suggests that social identity itself is at risk. In establishing and developing these drug using practices one understands and cultivates in these practices "who they are" as they are fundamentally located and negotiated in the social sphere (Pilkington, 2007). Participants in our study indicated that camaraderie and acceptance were a major incentive for participating in all drug use, and initiation to methamphetamine was typical of this pattern.

[Interviewer]: Tell me about the first time.

[Participant]: I think it was crank that I probably used first, just snorted it.

[Interviewer]: Tell me who gave it to you. Where were you?

[Participant]: I was over at a friend's house, we were down in his basement and he said, "Try this"... so I tried it and I liked it.

Similarly, other users started methamphetamine because it was a drug commonly used in a well-established network, a new network, or with a boyfriend or girlfriend. A 23-year-old male reported: "I started dating a new girl, hanging out with some new friends, and they were all drug users. They were all meth users specifically."

While we do not have space to delve into the socio-psychological literature that explains social identity, what this quote points out is that an identity is not fixed but is dynamic and responsive to the social environment in which the participants find themselves. Drugseeking behavior is a necessary precondition for understanding chemical dependence and in certain clinical settings (particularly in treating chronic pain) is critical in determining the proper dispensation of substances of abuse. This clinical understanding of drug-seeking behavior, however, can become problematic in developing policy (where social conceptions of addiction are often relegated). The majority of our participants indicated that rather than seeking-out methamphetamine the first time, the drug was introduced to them in their social networks. This underscores the influence of the sociality and suggests that at a foundational level, identities are performative and contingent upon their social environment.

Our respondents reported that drug use provided the introduction to and/or the social cohesion with new friends or social groups to whom they previously had not had access. Drug use often appeared to be the test of compatibility between people and groups. A 21-year-old male indicated that historically he was a loner with no real social group to whom he felt connected until he began his drug-using career. When asked if he ever socialized with other people he stated, "Not really, not until I started doing drugs." Another participant in our study recalled the difficulties experienced in switching enrollment from a private to a public school and his concomitant transition from being a popular kid to an unpopular kid. Drugs became his ticket to new friends and attention:

I guess having it [attention] in the private school, you know, and I guess being popular then and not being as popular in public school, that was a reason to do things I did to get that attention as the crazy guy or the class clown again. I guess doing drugs—it was new at the time, you know. Hanging out with these people, these new people, I found acceptance in them I guess (30-year-old male).

While the young man above was seeking acceptance (rather than drugs), it was not until he started to "hang out" with a drug-using network in this new social environment that he began to use the drugs that created the conditions for him to feel popular again. Popularity was crucial for a 22-year-old male college student who described how his drug-using lifestyle started and escalated into dealing:

I wasn't popular, like, at all. You know, I was just pretty much a face that disappeared in the crowd. But then when I came up here, it was a fresh start. All these people liked me. I wasn't considered like shy or geeky or anything like that and...especially when I was the guy who could get them stuff [drugs] they wanted, you know, that just made my popularity keep... I came up here [to college] with an empty phone and within two months I had like ninety numbers. And it was constantly ringing... If someone threw a party, they wanted me to be there. They wanted what I could get. And it's all superficial. They didn't give a rat's ass about me, you know. They just wanted what I had. But I didn't really care.

This theme of acceptance can be confused with "seeking" drug behavior, which indicates that seeking is prior to drug use, but as we re-read this quote in the context of his entire life course and drug trajectory, we found that the individual was not seeking drug use *per se* but instead seeking acceptance in a social network. It seemed that the social network's use of drugs is peripheral to the respondent seeking social acceptance.

These networks of friends that are consistently using drugs together provide the culture and norms that are conducive to continued drug use. Initiation to methamphetamine tended to either establish drug-using networks or strengthen networks that are already set in place. The social fabric provided the people and connections to access methamphetamine (or other drugs), granted access to various settings in which to conduct illicit drug use, and provided

social solidarity among the individuals involved. For example, one 26-year-old male explained: "Yeah, my friends always got it [methamphetamine]. I never had to worry about getting it." The easy access to methamphetamine is precisely the nature of a culture that implies a communal managing of responsibilities among the social group.

Representative of the experience for many of the users who were initiated to methamphetamine by friends was this 19-years-old who, when asked if he noticed any differences in his life after he started using methamphetamine, responded, "Well, I started getting a whole bunch of more friends than I [previously] had." In contrast, continued use of illegal drugs can lead to involvement with the criminal justice system, which often constrains social relationships. Indicative of this, a 21-year-old male who was asked about his lack of social life mentioned that his criminal justice record dampened his social prospects as he continued to use:

[Interviewer]: You said there was of course the social difficulties

[Participant]: Well, I mean getting arrested countless times is definitely...a kind of a pain in my ass.

[Interviewer]: How did getting arrested affect your life, I mean other than it being a pain in the ass?

[Participant]: Let's see at 17... I got arrested, I spent a little bit in jail, not too long because my parents bailed me out, but I was on like extreme restriction... I got arrested the next time when I was 19 and... I was kicked out of my parents house...Withdrew from school...

Here we see the tragic irony of methamphetamine use: although problematic use was precipitated by an increase in methamphetamine-using friends, typically it led to a decrease in stable friendships, as casual and occasional users left the network and heavy users disappeared temporarily due to health issues or involvement in the criminal justice system. The loss of friends and family became more evident when examining cessation patterns and is further explored in the next section.

The above quote also highlights the unfortunate state of affairs in collecting knowledge about drug use in general—that the primary organ of the state that senses the presence of drug use is typically the criminal justice system. The occasional drug user is often hidden from public and scientific scrutiny while we focus on the more problematic users. Rarely do we aim our lens on the occasional or even frequent users of drugs as long as their social lives remain functional, as was the case for many of our participants who started methamphetamine in the workplace.

The role of the work environment—Initiation on the job by co-workers was very common among methamphetamine users who participated in our study. Initiation to methamphetamine in this setting was often rationalized by claiming functional reasons. Methamphetamine use offers a perceived increase in energy, alertness, or focus. This perceived increase in energy and alertness provided a certain economic rationale for those that were paid by the hour. Methamphetamine was often offered in the workplace as an aid for keeping up with the demands of a long workday. For example, this 41-year-old male was introduced to methamphetamine by his supervisor:

And we were working and I guess working overtime and I was really exhausted, really tired and he said, "Here, I got something to make you feel better." So therefore we went into his office and I did it with him, and he showed me how he did it. He rolled up a dollar bill, and I was like well shit, and I tried it and I liked

it... It just made me want to work harder mainly. It made me more motivated. It made my mind work you know, faster. The effects of it were you could get more hours out of the day sort of thing when you're trying to maintain a family and a job, you could still, you know, get home in the evenings and still have enough strength or...energy to do your home chores and stuff like that.

The continued use of methamphetamine in the workplace for increased endurance often led to use of other drugs so as to counter the negative effects of daily stimulant use. As a 40-year-old male participant explained, his week was consumed by uppers and downers:

Well, I would use [methamphetamine] all week, 'cause I was working. And then like, maybe on Thursday or Friday depending, like if I was off on a Friday I would go get a whole bunch of pain pills—oxycontin or codeine or something like that—and then I would get a fifth of rum and drink that just to try to knock myself out. And sometimes it would work, sometimes it wouldn't work. I would try to at least get some rest on the weekends.

As shown in the collection of quotes above, drug use is often initiated and may be continued within a circle of family, friends or co-workers and rarely sought by the individual prior to initiation. To think of this primarily as drug-seeking by the individual fails to give an account of a more complex phenomenon. These participants' stories instead demonstrate an interest in maximizing the ability to work in a fixed amount of time as well as managing the effects of different drugs. Individual drug-seeking behavior also fails to describe the reciprocity and trust that is necessary in these work and drug-using settings

Typically, there is an intimacy that becomes established within drug-using social networks, as one 23-year-old female described, "I had really low self esteem, and whenever you're doing meth, it's always with a tight knit circle of friends that you could almost call family." Here the drug use appears to be a side effect of the social "cure" that she had found for what might be considered a psychological problem. The details of her story indicated that her friendship helped alleviate her low esteem, and methamphetamine use was part of that friendship. Tragically, this same participant later indicated that her social network was a barrier to cessation of use: "I guess being in her house and staying with her, we were all like a family and that's just what we did and I liked it. I liked the way it made me feel." We suggest that what made her feel so good was not simply the effect of the methamphetamine, but also the familiarity and intimacy of using with her close friends.

The intimate social relations that form among drug-using networks is reinforced in the continued practice of using methamphetamine not only among the same friends but also in other social contexts and with other users. Whether participants were using methamphetamine with their family, friends whom they consider family, or co-workers, as long as the social goals of these drug-using relationships were maintained, their drug use would continue. This insight is crucial to understanding patterns of cessation and relapse.

Cessation and Relapse of Methamphetamine Use

Our findings on cessation and relapse of methamphetamine support the primacy of sociality in drug use and addiction. Participants frequently referenced their need to break social ties in order to discontinue their drug use. Similarly, reconnecting with old drug-using networks often led to relapse. Moreover, among participants who reported to have quit "cold turkey" (instantaneous cessation of drugs), whether through a rehabilitation program, a spiritual intervention, or on their own, a critical factor to successful long-term cessation included breaking away from old social networks or establishing new non-using social networks.

The role of social relationships in cessation—Typically, participants indicated that maintaining connections with drug-using networks provided the convenience for using, as one 34-year-old male revealed: "I've always been a user of more convenience than anything." This same participant indicated he had a need for a good support network when attempting to overcome his addiction to methamphetamine: "What I've found is to find a good support system... I've really enjoyed Freedom Club [a 12-step group] an awful lot."

Suspicion is a significant part of methamphetamine use particularly as a result of prolonged use, but also as a function of group maintenance. Suspicions started to arise when one person in a drug-using network quit the substance in question, often leading to accusations that the "quitter" was an undercover narcotics officer, colloquially, "a narc." Similarly, when the drug-using network was completely broken, a former user has a difficult time finding the drug, especially with a drug like methamphetamine, which is not typically sold in what is known as "open-drug markets" (street corners). For example, when asked how he maintained his sobriety, a 22-year-old male explained:

The biggest thing is I have no idea where to get this stuff from anymore. I've cut off ties with everyone that I used to know that did it... if I wanted to go and use right now, I probably physically couldn't because I don't know anyone to get it from.

Many of our participants who self-defined as "meth addicts" suggested they needed to get away from the people they knew in order to quit. Others who had already quit explained that leaving their social group had aided in their continued cessation of use. Breaking away from these drug-using social networks that provided the conditions for using appeared to be a successful route to cessation. However finding new social networks that could support drug-use cessation was also necessary.

Some participants found the support they needed in a recovery program. The most frequently mentioned among our sample was the 12-step program:

The best way to get off of meth, is to get into a 12-step program, CMA, crystal meth anonymous... Just show up. Secondly, when you show up into these meetings these people will embrace you and accept you, and then all you got to do is cut the ties with those old friends, because they're not friends. They're not people that care about you. Cut those ties with them. Leave them alone. (37-year-old male)

While 12-step programs (a.k.a. self-help groups) encourage individual responsibility and choice, the social nature of 12-step was clearly a major factor in maintaining abstinence. The pains of losing old friends and the fear of losing newly-acquired friends in a 12-step group were expressed by more than one former user. For example, a 27-year-old male disclosed his desire not to relapse:

[God's] been giving me health. He's been blessing my finances. He's been blessing me in every way. When I need something he gives it to me. I prayed for it, but I always receive everything I need. I don't need, I lack nothing right now. I mean, I'm in a shelter, but that's only a temporary thing. I lack nothing. Now if I sin, and there's a separation between me and my Father, my higher power, then all my blessings stop. My finances will stop. The smooth ride through life that I'm experiencing stops. Then I also have guilt, I have regrets and remorse and I start hating myself and want to do that again. All my friends that I have in AA, the people that I call up and say, "Hey man what are you doing tonight? Oh nothing. Do you want to get a bite to eat and go to a meeting? Go hang out and play some video games?" They're going to be, like, "Oh, B---'s using. You know, my sobriety is important so I'm not going to hang around B--- because he's back out fucking

around again. So, you're still my friend B---, but we're dealing with you with a long-handled spoon."

Here we see that while his "higher power" is being given the credit for his [relative] success, he admits that, given his current homelessness, many of the blessings are still conditioned upon on faith in something transcendental. His social relations with these new "AA friends" are an immanent reality that is clearly reinforced by his continued cessation behavior. This suggests that while a "higher power" may provide spiritual strength to remain drug-free, the fear that he will lose his only material social network appears more persuasive in preventing his relapse.

The self-help groups, by defining a "recovering addict" identity, aided those who wanted to overcome their addiction by embracing a new social identity. Participants in 12-step groups indicated a migration away from their self-identification as an "addict" when given the opportunity to exercise significant moral autonomy, as illustrated by one 48-year-old male: "I benefited from it because I knew—once I admitted and once I knew that I was an alcoholic—I knew where I was headed when I went back to drinking." Based on our participants' accounts of their self-help group participation, being a recovering addict meant being part of a social network that did not use drugs or alcohol.

However, not all former users who were introduced to the 12-step program benefitted from the social support it provided. While a 47-year-old man indicated he knew of the self-help groups, he preferred to remain socially-isolated during his recovery process:

The things that they told me in treatment that I found out was true...they said, "You know, there's two ways to go about this. You can go join self-help groups or whatever—or you do it your way and you'll wind up being isolated. Cause you'll get rid of the people you had [and] you'll have to meet new people." I've never met any new people, and I pretty much went into isolation for all those years. Maybe 20 years of isolation. Just being, going home, going to work. I stayed off the stuff, but I didn't have much of a life going. You know, not really. No social life.

This kind of former user was unique in our study. While most of those we interviewed indicated that the social relations found in self-help groups provided a means of promoting and maintaining cessation of drug use and abuse, a few who attended 12-step groups bristled at what appeared to be an overwhelming social obligation, such as one 19-year-old female:

I'm like doing all the crap AA recommends me to do. I'm getting tired of AA recently. 'Cause I feel like I can't think for myself...I can't think for myself anymore. I've noticed that recently—that I can't think for myself. Like everything I think is something AA told me to think. You ever been to an AA meeting?...They sit around, they tell you everything. Over, and over, and over, and over again. I can't think for myself. When I have to make a decision, I have to call my sponsor or someone else for everything. I never make my own decisions. And that's part of AA—not making your own decisions, and I don't want that.

Others criticized what they considered to be de-personalized social relations among self-help peers. For example, when asked if he participated in a 12-step group, one 34-year-old male replied:

No, I did while I was in drug court and a little bit afterwards, but I was never a fan of the AA, NA, whatever A system. For one, being an atheist has a big thing to do with it. I have trouble with a higher-power concept. Two, if I'm having a problem I want to dialogue with someone. I don't want to monologue to a group. I want feedback. I want constructive criticism, you know? I don't see the point of going to

a room full of people and talking and not getting a response. I might as well go talk to a plant, you know. It doesn't help me.

In this case, the former user indicated that while 12-step provides a social network, it did not provide the type of social intimacy he desired. Moreover, while participants expressed diverse accounts of their experiences with such groups, consistently reported by those attending these groups was the need to embrace a "higher power." As expressed above, some questioned the necessity of displacing one's agency onto this "higher power" while overcoming problematic usage. Moreover, while those who accepted the need for a higher power extolled its influence, it was the social "fellowship" (as 12-step groups are often called) that emerged as influential to their cessation.

Some of our participants indicated that a romantic relationship was instrumental in stopping use. Often the fear of losing a partner prompted incremental changes in other areas of the user's social life. For example, a 26-year-old male participant feared losing his wife:

Really, my wife gave me a talk. She was about to leave, you know, and I really just had my son then, and I didn't want to lose my family...It was at the point where I was hitting rock bottom, but I figured if I lost my family there'd be no way of coming back up. So it's kind of my final chance to get away from this. And I drank a little bit—after the crack, I drank and smoked weed. I smoked weed for a little bit until I finally quit that—and that kind of just kept me away from it—and just spent more time with the family. Got a job working during the day and changed my atmosphere.

Similarly, others indicated that the combination of a close relationship and change in social settings was instrumental in their cessation efforts. One 25-year-old female stated that her boyfriend's support for her "getting clean" [drug-free] through drug-free activities was critical to her success. Her example also illustrates the importance of promoting new ways of social interrelating as key to cessation efforts:

He [boyfriend] is just a completely positive character. He would just calm me down a lot of times. And he had, like, more of a life. Instead of waking up every day, like, how am I going to get high today—his was, you know, "Let's go do this, let's go do that." It was more of like—activity was a way of trying not to think about it. He was taking me everywhere. We'd go to Saint Simons Island. We'd go to Lake Lanier, everywhere.

This participant reveals that a new romantic relationship provided access to new social settings that were crucial to her cessation of methamphetamine use, as were the new social settings and the activities introduced to her through her new relationship. We found that social relationships and settings were instrumental in relapse experiences as well.

The role of social relationships in relapse—Many of our participants revealed that relapse occurred when they reconnected with former drug-using networks or individuals within that familiar network. Reuniting with old drug-using friends either happened accidentally or because the former users thought they could handle being around them without reuniting with drug-use. However, these reconnections tended to lead to relapse, as one 37-year-old female reported:

I guess I get around some of my friends, and usually as long as I stay away from my friends I can leave it alone. But if I get around some of my friends, or my friends come around me, and they'll usually bring it [methamphetamine]...it's just one of those things you can't resist.

Participants were very aware that their drug-using networks were a trigger for them, evoking in them a need to use drugs. The temptation to use when around friends who were using was overpowering for many, as reported by a 48-year-old male:

[Participant]: The only hard thing about it is if I'm around it, I see somebody hitting on a pipe, it will create a Jones [craving] and I got to get up and get the devil out of there—because if I don't I know I'm going to eventually try to rationalize it away in my mind where I can do it a little.

[Interviewer]: So you don't crave it when you're by yourself?

[Participant]: No, no, no, no, no. But if I get around it, it's a problem. If I get around it it's too much of a temptation.

In the above, we see how the craving, which is often identified in the literature as a reason for relapse, was triggered here by the social environment. Others also indicated that craving for drugs did not occur on their own but when in social company.

Many, such as the following participant, revealed that once solidarity is formed around a substance of abuse, it becomes difficult to maintain close interpersonal connections with that network when their own drug use ceases:

[Participant]: I thought before I could go back to smoking pot and drinking and never do the hard stuff, but, you know, it went okay for a little while like that, but I started being around the wrong people, wrong things, and I do the wrong things. So it's something I know, it's a life-long thing now that I have to commit my life to: I can't drink, I can't smoke pot, I can't be around them kind of people. I have to be around recovery and get back into a career and be a father for my son. That's my main thing.

[Interviewer]: So it's not necessarily the drug that's pulling you?

[Participant]: It's the people. It is. I hate the drug. I mean, I know what's going to happen if I get around them people.

This response suggests that the social aspects of relapse were not necessarily apparent to the participant until he further explored what influences his use. At first he cited the use of any drug, be it alcohol or marijuana, as a temptation to relapse to methamphetamine use; however, he eventually focused the blame on the "kind of people" who use drugs and not the drug itself. We see again the role of sociality in drug use relapse.

Others reported that being in proximity to those social settings where they once used methamphetamine often triggered a desire to relapse. Sometimes returning to the town where they once had connections to drug-using friends would result in a relapse to drug-use patterns. For example, one 48-year-old current methamphetamine user recalled that he quit his cocaine use unintentionally by moving away from the city where he once used it. When asked why this strategy did not work for his current methamphetamine use, his response revealed the difficulty of leaving a social environment where methamphetamine use is ubiquitous: "Yeah, I tried it...it does work till you get back home."

Another current user, a 37-year-old female, stated that simply being around a "hidden" user was enough to trigger a relapse. This woman and her husband were both long-term methamphetamine users and decided to stop together. They were successful until she suspected a friend of her husband's was secretly providing him methamphetamine:

I would see things [in him] that would remind me of other people and I knew that these other people were doped out of their mind. And finally I told him, you know, in the kitchen. My husband went in the bathroom and I told him. I said "I know what you're doing," and he had that deer-in-the-headlights look, you know. And he said "What are you talkin' about?" And I'm like "I know what you do." Like that. And I remember the look between us. I knew he knew, and he knew that I knew. You know what I'm saying? I recognized it…. He started coming around a lot more and as it turned out later on I was right. He got my husband high.

In the above quote, the woman reveals that she was influenced not only by seeing open drug use, as were many of the participants cited previously, but also by her insider knowledge that allows her to identify a "hidden user." In her case, the hidden users are her husband and his friend. Her close social proximity to him eventually led to influence her relapse.

As shown in the selection of quotes above, social networks and relations asserted a great impact on cessation and relapse. Yet these relations are not always easily identified, and users often reported an individual cause for their cessation (such as belief in a higher power) or relapse (such as a craving). Typically, these were influences that users learned in treatment and appeared to internalize. Using in-depth qualitative analysis of the life history transcripts we usually found underlying social influences. Often, former users and relapsed users revealed the social influences as they continued to talk about their experiences.

Discussion

We submit that the privileging of medical models drive the discussion of addiction to the point of obscuring what may be influential and informative aspects of addiction for many users (Acker, 2010; Campbell 2010; Reinarman, 2005). The in-depth life histories recounted by our participants clearly indicated the importance of sociality *vis-a-vis* drug use, abuse and addiction. As shown, initiation of methamphetamine was often predicated on camaraderie or identity-formation with drug-using groups composed of peers, family members or coworkers. Our findings support Hughes (2007) concept of "purposeful drug-using relationships in which users produce and reproduce the conditions for continued [drug] use" (p. 673). We join Graham et al. (2008) in a call for an "integrative understanding of addiction" that can combine insights from both the individual's neurobiology as well as the material social relations of problematic usage.

The popular focus on the individual may inadvertently conceal the social nature of drug use. If it is an individual's problem, then it is up to the individual to ensure that proper control is exercised (Gibson et al., 2004). Moreover, treatment for addiction often privileges the biological, physiological and psychological components of drug use over the social components of cessation and relapse (Davies, 1998; Lyons, 2010; Reinarman, 2005; Weinberg, 2000). We, like others, submit that the role of sociality has been largely ignored except in the 12-step group model. In the self-help groups, drug users form new social bonds as a social group of "recovering addicts." As such, they are cultivating a structure of support to overcome the physical and emotional pains of withdrawal as well as forming a new identity. However, as shown in the quotes above, while some participants identified with the recovering addict identity, others effectively migrated to an identity that did not retain the addict label. We found that both those who successfully ceased drug use in a recovering addict fellowship as well as those who ceased or minimized use in other ways indicated the primacy of social relations in their success. Therefore, while not denying the success of selfhelp groups, we cannot ignore the data showing success without them. Our findings support that aspects of sociality, such as new and steadfast social relations, prevented relapse for most of the former users, whether in a self-help group or in another social/relational environment.

Our findings suggest that a renewed focus on the social practices that constitute problematic drug use is useful to fully assimilate all views in our expanding discussion of addiction that crosses disciplinary boundaries (Acker, 2010). While we emphasize the social nature of drug use and problematic use in this article, we do not deny the biological, physiological, and/or psychological mechanisms that are harnessed in what can lead to addiction as dependence. Yet, we provide preliminary qualitative evidence that the entire drug trajectory is intertwined with, and impacted by, sociality for the majority of drug users in our sample. Moreover, the findings of our study increase our understanding of multiple routes to recovery and are consistent with recent studies on recovery capital, which emphasize the social nature of recovery (Cloud & Granfield, 2004; Granfield & Cloud, 2001; Lyons, 2010; Matto, Miller, & Spera, 2007).

Based on these findings of how methamphetamine users ceased problematic use, we propose conceptualizing recovery in terms of *social* recovery in addition to the current individualized conceptualization of recovery that sanctions a perpetual recovering addict status. In doing so, we join the call for a greater endorsement of the sociological insights on the nature of addiction and support the effort by some in the scientific community to raise the importance of sociality in addiction discourse (Campbell, 2010; Davies, 1998; Hammersley & Reid, 2002; Hughes, 2007; Reinarman, 2005). We do not propose another one-dimensional characterization of the influences on drug use and addiction but rather contribute to the engagement of research from "different evidentiary assumptions... [that] bridge the disciplinary divides within addiction studies by engaging each other's claims and methods" (Dunbar et al., 2010, p. 2).

Limitations

We acknowledge a number of limitations in our study. First, we limited our analysis to methamphetamine use because of the study's criterion for inclusion. We noted, however, that all our participants were polydrug users, and their stories show that social influences on their drug use were important for the different drugs they used. Second, our findings are limited by the small sample size and restricted geographic location of the study. Therefore, the findings cannot be generalized, and we do not claim it is representative of all drug users. However, a small sample size with triangulated, in-depth interview methods allowed us to meet our goal of providing greater insight on the influences of addiction trajectories from the users' perspective (Carlson, Siegal, & Flack, 1995; Sexton, Carlson, Leukenfeld, & Booth, 2008; Strauss & Corbin, 1998). Third, our sample draws from the community of drug users and not from institutions, such as prisons or treatment facilities, which might reveal more physiological or psychological influences than those presented by our community sample. Unfortunately, drug users in institutions (especially those involved in the criminal justice system) tend to be those who come under scrutiny while casual and/or socially functioning users living in the community are often unnoticed by legal authorities, treatment providers and those researchers who draw samples from these institutional populations. Additionally, institutionalized drug users are offered or required treatment employing a medical or psychological model in conjunction with the 12-step programs that highlight individual aspects over social aspects, which may affect how they view and discuss their addiction. Such discussions were less obvious in our sample drawn from the community, even though many had been in treatment in the past. Finally, intervening influences, such as differences by age, race/ethnicity, and gender, were not examined here due to the limitations imposed by the sample size and article length considerations.

Future Research

Future research is needed to build on the findings presented here. We recommend more indepth research on the trajectories and turning points in the use, abuse and addiction patterns of other drugs, and more research focused on long-term polydrug users. Longitudinal data collected in large random samples is required to allow a more thorough examination of social relations and the influence of sociality over time. Differences in drug trajectories by age, race and gender need further exploration, as well as the different influences of diverse social groups on these trajectories. More research also is needed on the social support strategies employed by users outside treatment and after leaving self-help groups. In future studies, we hope to further develop our conceptualization of sociality and social recovery as proposed here.

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