



Published in final edited form as:

Drugs (Abingdon Engl). 2012 ; 19(2): 144–155. doi:10.3109/09687637.2011.631197.

Patterns of prescription medication diversion among drug dealers

Khary K. Rigg, Steven P. Kurtz, and Hilary L. Surratt

Center for Research on Substance Use and Health Disparities, Nova Southeastern University, 2121 Ponce de Leon Boulevard, Suite #430, Coral Gables, FL 33134, USA

Abstract

This research examined the following questions: (1) how do drug dealers acquire their inventories of prescription medications? and (2) which types of prescription medications do dealers most commonly sell? Data are drawn from a National Institute on Drug Abuse-funded research study that examined prescription drug diversion and abuse in South Florida. In-depth semi-structured interviews ($n = 50$) were conducted with an ethnically diverse sample of prescription drug dealers from a variety of milieus to assess patterns of diversion. Audiotapes of the interviews were transcribed, coded, and thematically analysed using the NVivo 8 software program. Dealers relied on a wide array of diversion methods including visiting multiple pain clinics, working with pharmacy employees to steal medications from pharmacies, and purchasing medications from indigent patients. The type of medication most commonly sold by dealers was prescription opioid analgesics, and to a lesser extent benzodiazepines such as alprazolam. These findings inform public health policy makers, criminal justice officials, the pharmaceutical industry and government regulatory agencies in their efforts to reduce the availability of diverted prescription drugs in the illicit market. Specifically, these data support the need for statewide prescription drug monitoring programs and increased training for healthcare workers who have access to controlled medications.

INTRODUCTION

While prescription drug diversion is not a new problem, it has received increased attention from policymakers and the research community due to an unprecedented rise in prescription drug abuse. Diversion, which is defined as the transfer of a prescription drug from a lawful to an unlawful channel of distribution or use, has been estimated by the Drug Enforcement Administration to be a \$25 billion a year industry (National Drug Safety Network, 1996; US General Accounting Office, 2003), and yet it remains a phenomenon that in many respects is poorly understood (Inciardi, Surratt, Kurtz, & Cicero, 2007). Researchers have had a difficult time acquiring empirical data on certain aspects of the diversion system, partly due to the plethora of players in the industry, including: physicians, pharmacists and other health care professionals; drug dealers and abusers, patients, students, and white collar criminals; tourists, night club owners and all types of service personnel (Inciardi, Surratt, Lugo, & Cicero, 2007). In fact, the term 'disorganized crime' was coined precisely to describe the abstruseness of the diversion problem (Inciardi, Surratt, Lugo, et al., 2007).

Copyright © 2011 Informa UK Ltd.

Correspondence: K. K. Rigg, Center for Research on Substance Use and Health Disparities, Nova Southeastern University, 2121 Ponce de Leon Boulevard, Suite #430, Coral Gables, FL 33134, USA. Tel: 305-529-1911. Fax: 305-529-2501. kharyrigg@gmail.com.

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

More recently, diversion has been referred to as a ‘black box’ because of the lack of clarity that exists on how the preponderance of prescription drugs make their way to the illicit market and who the major diverters are (Inciardi et al., 2009b). The ‘disorganized crime’ and ‘black box’ monikers not only speak to the complexity of the diversion process, but also to its hidden nature. These attributes have presented challenges to researchers attempting to systematically examine the problem, and the result is an understanding of diversion with numerous knowledge gaps. One of those gaps is the paucity of data on the activities of prescription drug dealers/sellers, an aspect of the diversion system about which little is known. Which prescription medications do street dealers typically sell, and more importantly how do they acquire them? This study aims to answer these questions, and in so doing fill an important void in the diversion literature.

Dealers are among the most frequently mentioned access points for diverted prescription medications. A search of the literature revealed numerous studies that confirm the strong presence of drug dealers across the diversion landscape. For example, previous research studies examining drug use among methadone maintenance patients (Rosenblum et al., 2007), active street drug users (Davis & Johnson, 2008; Inciardi, Surratt, Kurtz, et al., 2007), drug treatment clients (Cicero et al., 2011), club drug users (Inciardi, Surratt, Kurtz, et al., 2007) and commercial sex-workers (Surratt, Inciardi, & Kurtz, 2006) have all found dealers to be an important source for prescription medications. Drug dealers are also a popular source for prescription drugs among high school students. In fact, in a study that included 80% of all 11th graders in the state of Delaware, over 70% of the sample reported purchasing controlled medications from street dealers (Inciardi et al., 2009b). A study looking at students (age 10–18) in a Detroit area public school district also found that dealers were among the most common sources of illegally obtained prescription drugs (Boyd, McCabe, & Teter, 2006). Additionally, available data indicate that some college students obtain prescription medications through dealers (McCabe, Cranford, Boyd, & Teter, 2007; Srnick, 2007). And while dealers appear to be utilized to a lesser extent by the general population, surveillance data from 2006 to 2009 show an upward trend in the amount of prescription opioid abusers who reported dealers as a source for pain relievers (SAMHSA, 2009).

Although data overwhelmingly point to dealers as important players in the world of prescription drug diversion and a point of access for a wide range of drug using populations, little is known about the methods through which dealers typically acquire their stocks of medications (Inciardi & Cicero, 2009; Inciardi, Surratt, Cicero, & Beard, 2009a). On this point, several diversion experts have recently called for further investigation into the role of dealers in the overall diversion puzzle (Davis & Johnson, 2008; Inciardi & Cicero, 2009; Inciardi, Surratt, Lugo, et al., 2007; Rosenblum et al., 2007), as this information may establish a foundation for new initiatives aimed at reducing the illicit availability of prescription drugs. Answers to the questions of where and how dealers obtain their supply of prescription medications would not only inform criminal justice officials, but also public health policy makers, the pharmaceutical industry and government regulatory agencies. By focusing prevention/intervention efforts specifically at the diversion mechanisms of dealers, this would facilitate the direction of scarce prevention resources towards the diversion arteries that contribute most heavily to the illicit supply of prescription medications on the black market. To this end, this study aims to address this critical knowledge gap by examining the following research questions: (1) how do prescription drug dealers acquire their inventories of prescription medications? and (2) which types of prescription medications do dealers most commonly sell?

METHODS

The data are drawn from a 4-year research study funded by the National Institute on Drug Abuse. The study's overarching goal is to examine and describe the complex mechanisms and players that connect illicit supplies of prescription drugs to abusers in South Florida. This study utilized a three-pronged approach to examine the diversion problem by collecting data from prescription drug dealers, abusers and drug diversion investigators. In the component of the study that targeted prescription drug dealers, the primary goal was to obtain rich, detailed information on the dynamics of prescription drug diversion through in-depth interviews with individuals who are active distributors in the diversion market. These participants represent the focus of this analysis.

South Florida

The study was conducted in South Florida (Miami-Dade, Broward, and Palm Beach Counties), a prime location for investigating diversion. Recently, South Florida has received attention from media outlets and lawmakers for being an active area for prescription drug diversion, suggesting that the locale is appropriate for the study of this phenomenon (LaForgia, 2009; LaMendola, 2009). Indeed, many law enforcement officials believe a great deal of the prescription drugs being abused nationwide, especially in the northeast and Appalachian states, can be traced back to South Florida, indicating that the data from this study should have relevance for other parts of the country (Hiaasen, 2009). Finally, South Florida is largely metropolitan and ethnically diverse, with 44.5% non-Hispanic whites, 33.6% Hispanics and 18.9% Blacks, which may serve to maximize the generalizability of the findings to other urban areas in the USA (US Census Bureau, 2000).

Recruitment

A variety of recruitment techniques were used to locate active sellers of prescription drugs. Some participants were selected from the survey component of the larger study that focused on prescription drug abusers. Abusers who identified themselves as dealers or reported selling a large quantity of prescription medications were referred to be screened for dealer interviews. Additionally, the researchers were able to recruit some dealers through previously established networks of key informants based on prior work in South Florida. These informants were typically participants in other ongoing studies conducted by the authors, or customers/associates of prescription drug dealers who agreed to make recruitment contact on the researchers' behalf. Informants essentially 'vouched' for the research team and then had dealers call the study phone number to be screened. At no time were informants asked to reveal identifying information about these dealers. We also established recruitment partnerships with local drug treatment centres, whereby staff agreed to refer clients with histories of prescription drug selling/abuse to the research team for further screening. Finally, we used chain-referral as a recruitment tool, where each participant who completed an interview was also invited to refer anyone they thought would be eligible for the study. Participants were paid a \$30 incentive for referring eligible individuals who completed an interview.

Screening and eligibility criteria

All participants were screened for eligibility prior to being scheduled for the in-depth interview. Interested individuals called the study phone number and were screened over the phone. To be eligible for the study, individuals needed to be 18 years of age or older and report selling at least 100 pills of prescription opioids, sedatives and/or stimulants within the last 30 days. This cut-off point was chosen in an attempt to discriminate dealers from 'users who sell'. Eligibility was determined by their responses to a series of questions pertaining to the types and quantities of prescription drugs they sold, the method in which the drugs were

obtained, and their knowledge of street prices. If they were found eligible, prescription drug sellers were scheduled for an interview. In some cases, prescription drug sellers were identified by treatment staff upon conducting a brief screener of all new weekly admissions. A brief screening tool helped identify clients with a history of prescription drug selling/abuse. Someone from the treatment staff would then contact a member of the research team to schedule an interview for the client at the treatment facility. Prescription drug sellers were also selected for diversity across the following parameters: gender, race/ethnicity, transaction volume, primary prescription drug sold and customer type. All study protocols and instruments were reviewed and approved by the University of Delaware's Institutional Review Board (IRB).

Interview procedures

A total of 50 prescription drug sellers from diverse networks were interviewed between September 2008 and August 2010. Interviews were conducted in private, at a research field office or treatment centre. The interviewer used a standard interview guide to direct the semi-structured interview. The interview guide included the following questions/prompts: tell me about which prescription drugs you sell and why; how much do you buy/sell each medication for; how do you obtain the medications that you sell; can you give me some general information about the types of customers you have. Open-ended questions were asked to allow for the emergence of unanticipated themes and to provide participants an opportunity to be as detailed as possible in their explanation of their diversion behaviours. Interviews typically lasted for 60 min. Upon completion of the in-depth interview, participants were paid a \$50 stipend for their participation. Each interview was recorded using a digital voice recorder, but identity data were not included on the audio file. In an effort to minimize risks to participants in the study, the University of Delaware's IRB approved a waiver of signed consent so as to maintain anonymity of participants.

Data analyses

All interviews were conducted and analysed by the first author. The digitally recorded interviews were transcribed verbatim by a professional transcriber and subsequently imported into NVivo 8, a qualitative data analysis computer software program. The use of this software package's search engine and query functions enhanced the ability to identify trends, examine diversion patterns, and search for salient themes in the data. Although the interview guide targeted several aspects of prescription drug selling, the analyses presented here focus on: (1) identifying and describing the most important themes related to how dealers obtained their inventories of prescription drugs and (2) determining which types of medication that dealers most commonly sold. While the analysis was approached with an awareness of the diversion literature, there were no *a priori* coding categories as themes were allowed to emerge from the data. The coding categories were largely descriptive, and reoccurring patterns within the data were identified in an inductive or 'bottom up' manner.

Thematic analysis was selected as the preferred method for analysing the interview transcripts. This is a widely used method for identifying, analysing and reporting patterns and themes within text data (Braun & Clarke, 2006). It was chosen because it is a flexible technique that is relatively accessible and can be used to analyse data obtained under a number of qualitative theoretical frameworks (Braun & Clarke, 2006; Douglas, Hamilton, & Grubs, 2009). The use of thematic analysis is appropriate in cases such as this, where the research topic is understudied and there are insufficient data in the literature to create a coding scheme (Douglas et al., 2009). Additionally, the method is particularly useful when the research question is broad in nature and the goal is to identify and richly describe the important themes relating to a phenomenon of interest.

Although, grounded theory and thematic analysis bear some resemblance in their analytic frameworks, the manner in which themes, concepts and categories are managed vary considerably (Braun & Clarke, 2006). As theory development was not a goal of this research, grounded theory was not chosen to guide this investigation. Analysis was theoretically informed by a subtle realist paradigm, which assumes that we can only understand a phenomenon from our own perspective of it (Guba & Lincoln, 1994). Subtle realists state that even though all research involves subjective perceptions and observations, this subjectivity does not preclude the existence of independent phenomena (Hammersley, 1992; Kirk & Miller, 1986). Furthermore, the experiences and behaviours of individuals can be studied by systematically examining the language that people use, which enable us to reflect and articulate our experiences (Duncan & Nicol, 2004). The following paragraph provides a brief summary of the analytic method used for this research, Braun and Clarke's (2006) six-step process for conducting thematic analysis.

During the first phase, the researcher became familiar with the data by reading each transcript twice. On the second reading, initial ideas for coding were noted in the memo feature of the software program (analogous to writing observations in the margins). The second phase is where initial codes were generated. The researcher systematically coded the diversion-related activities of each participant across the entire data set, and collated data relevant to each code. Once all data had been initially coded and collated, step three began. This involved sorting the codes into potential themes and gathering all the text data relevant to each initial theme. Phase four consisted of reviewing and refining the devised set of initial themes by checking if the data cohered together meaningfully within each theme. Phase five is where the specifics of each theme were decided upon, and the overall story of the data emerged, generating clear definitions and names for each theme. In the sixth and final phase, the report was written, and compelling excerpts from study participants were chosen to illustrate each theme (Braun & Clarke, 2006). These themes are further discussed in the following sections.

FINDINGS

General characteristics

The total sample ($n = 50$) included Black/African-American ($n = 15$), White/Anglo ($n = 20$) and Hispanic/Latino participants ($n = 15$), ranging in age from 20 to 53 years (mean = 33 years). A total of 36 men and 14 women comprised the final dealer sample. While some dealers sold only prescription medications (19 of 50), the majority reported having sold both illicit and prescription drugs (31 of 50). Regarding prescription drug distribution practices, dealers tended to sell to two general types of customers: individual drug users and other dealers. Dealers whose customer base consisted of individual users tended to conduct sales by having their customers meet them in public locations, such as shopping malls, parking lots or fast food restaurants. These dealers tended to be on the lower end of the profit spectrum and had to conduct multiple daily transactions in order to sell an entire bottle of pills. However, some dealers did not sell to individual users, claiming it was both unsafe and inconvenient. These participants preferred selling to other dealers because they were more 'business' minded, less likely to snitch, rarely requested drugs at odd hours, and had more resources to purchase larger quantities of medications. Participants who dealt their medications to other dealers typically sold their inventory by the bottle rather than by individual pills, and conducted sales in other dealers' homes rather than in public places.

The analysis of dealer interview transcripts revealed six prevalent themes in relation to diversion: (1) the omnipresence of opioids, (2) pain clinic shopping, (3) sponsorship, (4) buying scripts, (5) using 'a connect', and (6) healthcare fraud. Excerpts from interview transcripts are presented to help illustrate each theme.

The omnipresence of opioids

By far, the type of medication most commonly sold by dealers in this sample was prescription opioid analgesics. Specifically, the highest potency formulations of Roxicodone® (30 mg) and OxyContin® (80 mg) pills were the opioids with the most mentions. According to dealers, this was largely due to demand for high potency medications and their lack of ‘fillers’ such as acetaminophen, ibuprofen or aspirin commonly found in other pain medications. These ‘fillers’ are undesirable by many abusers because they can cause allergic reactions, and damage the stomach and liver when taken in high doses. The opioid of choice was 30 mg Roxicodone pills as this was the medication most frequently sold by dealers. Participants typically referred to these pills by their street name, ‘blues’, ‘Roxy’s’ or ‘30’s’. Dealers claimed that there was a particularly high demand for the ‘blues’ because they provided a ‘nice’ high and were generally cheaper than OxyContin (\$10–\$15 per pill vs. \$25–\$30 per pill). Although OxyContin tended to cost more, these pills were still highly sought after because they came in the highest available dose, 80 mg. Percocet® (10 mg) were also in demand, but because these pills contain acetaminophen, their popularity is diminished some-what. Other type of opioids containing ‘fillers’ such as Vicodin®, Lortab® and Lorcet® were also sold by dealers, but much less commonly than Roxicodone and OxyContin. Although not an opioid, Xanax® pills (2 mg), known as ‘zanny bars’ or ‘footballs’, were also a fairly common medication that dealers reported selling, but this comprised a much lower proportion of their overall sales in comparison to opioids.

Pain clinic shopping

The most widely utilized source through which dealers obtained prescription drugs was pain management clinics (26 of 50). Although the majority of the sample reported being free of chronic pain, visiting numerous pain management clinics for the purpose of obtaining multiple prescriptions was prevalent. Participants frequently boasted about being able to easily obtain a prescription for opioids and benzodiazepines by simply complaining of pain (legitimately or illegitimately) and presenting a magnetic resonance imaging (MRI) report to a pain doctor. This dealer’s experience was typical:

These pain clinics, they don’t check ... you’ll walk back and they’ll be like, ‘Okay, how’s your back?’ You’ll be like, ‘It hurts’. They’re like, ‘From one to 10 how much does it hurt?’ ‘Like 10’. They’ll be like, ‘Alright, then we’ll give you 240’. If you say 5, or a 6 or 7, they’ll give you 160 Oxy’s. So you just go in there and they just take your word for it ... they don’t touch you, they don’t feel your back ... You pretty much just go in with your MRI and walk out with a ’script. (White male, age 26)

Even though most dealers claimed to take an MRI with them to pain clinic visits, it was not uncommon to hear of instances where prescriptions were written to participants who furnished the doctor with only a story:

The doctors, they don’t care. Doctors are supposed to want to help people or whatever, but if somebody like me walks in with no MRI and no nothing, they give me whatever I ask for. You know? I talk nice, look nice, whatever ... I was under the impression that OxyContin was for the terminally ill and people in a lot of pain ... But I can go and get OxyContin just by complaining about my back, nothing to back it up. (Hispanic female, age 36)

Other participants described ‘special arrangements’ between themselves and doctors at pain clinics. In exchange for monthly prescriptions, some participants provided pain management doctors with additional ‘patients’, sexual favours, illicit drugs and/or ‘under the table’ cash

payments. This participant would return methadone to the doctor, in exchange for a monthly prescription of Percocet:

If you can find a doctor that's, pretty much using his own product, you're in there like swimwear ... I got a doctor who's a methadone junky. He can't write himself a script. But let's say you go in and you say, 'Listen, I need you to write me a script for 60 Percocets' ... He'll go ahead on and write me one for 30 methadones, too. Then I get the Percs, he gets the methadone. (Black female, age 30)

Doctor shopping was the norm among dealers who reported pain clinics as a main diversion source. On average, participants who used pain clinics as a diversion source visited four to five clinics every month to stock their inventory of pills. Each visit to the pain clinic, which could cost anywhere from \$100 to \$250, almost always resulted in a prescription for both opioids and benzodiazepines. A typical prescription usually consisted of 160–240 pills of some form of oxycodone (e.g. Roxicodone, Percocet, OxyContin) and 60–90 benzodiazepine pills (usually Xanax).

I'd go to like 10 pain clinics a month and I'd bring the same MRI to every one. It was the same thing ... I was getting 240 pills from like 10 different doctors. I'd sell them for 10 dollars apiece. 240 is just what all the pain clinics in South Florida give ... there's like a chart that they go by and they can give like 240 Roxy blues. And if they give you that then they can give you 90 Oxy 80s on top of that and 90 Xanax bars and that was like my normal 'script. (White male, age 33)

It was not uncommon for participants to be able to get a prescription for two types of pain medications in the same visit, usually under the banner of 'break-through' pain. To the delight of the following participant, his pain management doctor not only wrote him a prescription for Roxicodone, but also gave him a prescription for OxyContin in the same visit:

I've had doctors try to give me like 240 blues (Roxicodone). And then give me like 90 Percocet for breakthrough pain ... so I started telling them I was allergic to Tylenol. So once I told them I was allergic to Tylenol they switched the 90 Percocet to 90 OxyContin 80s. (White male, age 26)

Prescriptions were usually filled at smaller family owned pharmacies or dispensed on-site at the pain clinics. While the on-site pharmacies tended to be slightly more expensive, they offered the convenience of being able to immediately walk out with the drugs and begin selling right away. Large chain pharmacies were avoided for fear of being tracked by computerized databases. This dealer explains how he went about shopping for pain clinics and pharmacies:

Once a month I got 240 pills. That wasn't enough because I started selling them and then the 240 is gone within a couple of days. So then someone tells me to take my MRI to another doctor ... And then I started doctor shopping and I started selling my scripts ... And that's when I got up to 7 doctors ... Going through the doctors (on-site pharmacy), it costs anywhere from like \$1.50 to \$4.50 a pill ... So, I go to a mom and pop pharmacy. They're cheaper and they really don't ask a lot of questions. You have to spread it out too. Seven doctors, I need seven different pharmacies. (White female, age 23)

Sponsorship

Dealers were also able to acquire considerable quantities of prescription drugs by taking part in a practice known as sponsoring (16 of 50). This consisted of the dealer subsidizing the cost of someone else's trip to the pain clinic which included the cost of the visit, the cost to fill the prescription, transportation costs, and if necessary the cost of an MRI (a one time

cost of \$100–\$300 for a counterfeit). In return for sponsorship, the dealer generally required 50–75% of the pills that were prescribed to the sponsored individual (usually a drug abuser). For their role in the endeavour, the sponsored individual was allowed to keep the remaining amount of pills, or was simply paid in cash. Lengthy waiting times at pain clinics and pharmacies often left only enough time for dealers to visit two to three doctors in a given day. But by sponsoring the visits of others, dealers were able to exponentially increase the amount of prescription drugs in their inventory, thereby raising profits. This participant describes the process:

I couldn't afford to keep going to the doctor, so I'd have to get people to sponsor me and I'd have to sponsor people just so that I could keep up the pills that I was using plus make a little bit back so that I could make a next doctor appointment. When I first started off I was good, I would start off with a couple of people. I would take two people to the doctor and sponsor them and then get my own script. So I'd have like 300 pills at all times ... I'll pay for their visit, pay for their drugs, and then I get half of everything that they get. So if they get 100 Roxy 30's, 90 of the (Roxy) 15's, and 90 Xanax, I'm getting half of all that ... which is a pretty good break. It's like 500, 600 dollars ... You make mad profit off of it. So basically it's just sitting there and waiting with them through the doctor visits, I take them to get their scripts, grab their stuff and we go our separate ways. (White male, age 27)

To obtain as many pills as possible, it was typical for dealers to sponsor others, while still visiting pain clinics themselves. However, this participant explains why he eventually stopped visiting pain clinics and opted to just use sponsoring as his sole method of attaining pills:

Do you know how many doctors I'd have to go to in a week? That's doctor shopping. It's such a serious charge, and it's easy to detect these days. If I got four people, that means four times as much and I wouldn't have to go It would be a lot harder for me to do it by myself. I used to go to like 3 doctors in one day. I used to go almost every day, but you couldn't get enough to fill your demand, and to keep your habit going ... You need more than one person to run a habit and still try to make money. You have to have other people doing it for you. (White male, age 52)

The dealers who reported selling the highest number of pills heavily utilized sponsoring as a diversion source. In fact, the most voluminous sellers of pills reported developing large networks of individuals that would visit pain clinics on their behalf. This dealer was able to garner profits of \$40,000 a month by amassing a network of 'employees' that exceeded 25 people:

You pack people up in the car and make trips. Most of the time, I'd rent a van. One trip, I'd take ten, fifteen people down there and they were going to the same clinics. We'd pile up and they go in there, fill out the paper and they wait. Boom! One at a time they go on in there. So then we'll back up and hit the pharmacies. We'd clear one of them pharmacies out and then the people that still had their paper would go to another one, clear that one out. The whole time I keep everything written down because I didn't want to go to the same doctor with a different script, or the same prescription place with a different doctor ... Some of them have in-house (pharmacies). If they have in-house, I'd pay extra just to get it over with. A lot of times we'd buy them out because, if they only get 10,000 pills a day, we were buying out most of them. (White male, age 29)

Buying scripts

Some dealers shied away from doctors and pharmacies altogether, and opted to purchase medications directly from people in their community who were willing to sell (22 of 50). Dealers tended to seek out individuals with reliable monthly prescriptions for medications, and who had low or no income, and/or sizable drug habits. Those who most commonly sold their medications to dealers were veterans, Medicaid/Medicare recipients, crack and heroin addicts, and HIV/AIDS patients. This participant explains why she preferred to buy the medications of crack and heroin addicts:

There's people out there that are crack heads that don't take their pain medication, and then sell them to a crack dealer for \$20 worth of crack for \$50–80 worth of pills. The drug dealer always knows they're making out. Down here, Klonopins, Xanax and Percocet are really big and a lot of people I know have Klonopins and Percs, and they would give me \$100 worth of medicine, and I'd give them \$20–30 worth of crack. I straight got over on them. (White female, age 28)

HIV/AIDS patients were also a preferred source for many dealers, primarily because these patients tended to have regular monthly prescriptions for both opioids and anti-depressants, with costs usually covered by some form of public assistance program (e.g. Ryan White, Medicaid, Medicare). While some participants claimed to be approached by HIV/AIDS patients wanting to sell their medications, most dealers admitted to actively recruiting these patients because they were such a dependable source for prescription drugs. The following participant recalled convincing HIV patients to sell him both their sedatives and pain medications:

We got a lot of AIDS people. They get these things (medications), and they sit on them because they don't know what they have, and then I come into your life, and I go, 'Oh my God. Are you taking your medicines?' ... they've built up all these medicines.' I'm like, 'Damn, you've got all these?' Percocets, Valiums, Xanax ... And remember, they ain't got no money, so I said, 'If you want some money right now then come with me'. (Black male, age 46)

In addition, dealers also bought prescription drugs from veterans who received their medications through the Veterans Affairs (VA) Hospital. Some dealers preferred buying medications from veterans because they tended to have prescriptions for stronger, more in demand medications:

The V.A. That's my main one is the V.A., 'cause they get higher and better quality of prescription drugs than people with the AIDS ... They get the real stuff. But the V.A. is where they get the OxyContin ... They get the real more in demand stuff. So that's my real hook up right there. I deal with like 15 guys over there. I have for years. Last month another of my V.A. friends turned me on to another of his friends who just got in town. (Black male, age 47)

Dealers also tended to purchase the prescription drugs of indigent Medicaid and Medicare patients. Some dealers claimed that patients receiving Medicaid and Medicare were easy targets because they were always in need of extra money.

Using a 'Connect'

Another common method of obtaining prescription drugs was for the dealer to utilize a 'connect', short for connection (19 of 50). The term 'connect' referred to an individual with consistent access to prescription medications by working at a healthcare facility (e.g., pharmacy, physician/dentist office, or hospital). The role of the 'connect' was to provide the dealer with prescription medication and/or prescription pads (blank or signed by a doctor) that were stolen from their worksite. This was usually accomplished by systematically

shorting or undercounting dispensed medications at pharmacies, stealing prescription drug samples from a dentist or doctor office, tearing off blank prescriptions from the doctor's pad, or filing false inventory claims when shipments of prescription drugs came in. By far, the most commonly utilized connect was a pharmacy technician who was willing to provide the dealer with prescription drugs via their access as an employee. This participant explains his partnership with a pharmacy technician who worked in concert with several other dealers:

I've got hook ups from all the way up to all the way down. Oh, the guy I was telling you about he works in pharmaceuticals ... He works in Walgreens, and he's the one who gives out the pills when you go and get them. He's a tech ... But he doesn't get it for me only. He's got a couple of customers (other dealers) ... I really don't know how he does it, and I asked him, 'Man, how the hell do you come up with this?' And he goes, 'I can't tell you, man' ... So he didn't want to tell me, but I think he's stealing ... Because he's the boss of all the techs over there ... He's the one who does inventory and counts everything. (Hispanic male, age 30)

Pharmacy technicians also assisted dealers by not 'calling in' or verifying forged prescriptions, and by providing dealers with 'inside' information such as when shipments of medications were scheduled to come in or details on how to break into the pharmacy undetected. The following is an example where the pharmacy technician did not actually steal medications for the dealer, but facilitated diversion by 'looking the other way' when a fraudulent prescription for OxyContin and Xanax was presented:

There was one guy that was in on the Xanax and the Oxy's thing ... Since day one he knew what was going on. He's a tech. But he would still fill them. Game recognize game ... I gave him \$50 once. And sometimes I would say 'keep them' ... I would get two or three bottles and have him keep one. He'd just leave them on the counter. He was just hooking me up. I was hooking him up. He didn't care where I was going with them, and I appreciated him looking the other way ... You know when you're a kid, and the people at McDonald's might give you some free fries or biggie size, it's the same kind of rapport. (Hispanic female, age 28)

Dealers also claimed to have 'arrangements' with other types of connects such as pain clinic employees, dental hygienists, nurses and hospital staff. Although these connects did not work at traditional pharmacies, they could provide the dealer with access to prescription drug samples and stolen prescriptions pads. Some pain clinic employees had access to medications via on-site prescription drug dispensaries. The dealer would typically compensate the connect in cash, illicit drugs or sometimes sexual favours. The following is an example of a dealer who provided his connect with marijuana and sex in exchange for smuggling prescription drugs out of his father's medical practice where he worked:

His father is a doctor and he's got some pills, because you know doctors they've got sample pills ... So what he does is he steals it from his dad, and then he calls me. He doesn't use it. He smokes (marijuana) and shit. He goes, 'Yo, man, I've got a couple of pills from my dad and stuff,' and he sells it to me ... I buy it from him, but this is the thing. Since he doesn't use them, and since he doesn't sell them, and since the kid's got money – his parents got money – all he wants to do is get some pussy or maybe smoke, so what he says is, 'Yo, hook me up with a bitch and let me get a quarter of crip (high grade marijuana), and I'll give you this bottle.' That's what I did the last time. I gave him a quarter of crip, and he gave me like 100 pills. So sometimes I trade, and sometimes I buy it from him, but most of the time it's trading, because he's got money. (Hispanic male, age 30)

Healthcare fraud

Embedded in many of the participants' diversion behaviours were various types of fraudulent activity. Among the most common types of fraud committed were MRI fraud, prescription fraud and fraud related to Medicare, Medicaid and other types of medical insurance. With MRI fraud, dealers reported obtaining counterfeit or forged MRIs to present to doctors as they attempted to pain clinic shop and sponsor the visits of others. This was done to avoid the cost of obtaining a legitimate MRI, which can cost upward of \$1000 for a single scan. Some participants created counterfeit MRI's using computer software programs such as Microsoft Word, Quark and Adobe Photoshop, others simply put their name on someone else's to make it appear as if it was theirs.

One of my girlfriend's mom was in a car accident and she has a good MRI, so I copied hers and I re-typed my MRI ... she has serious back problems, like serious ... So, I re-typed her report with my name on my computer and scanned it in. Copy, paste, cut, re-type, put my name. Oh, it looked good. A lot of people do that. Some people will even sell you their MRI, and you just re-do it. (White female, 23)

Instead of creating their own MRIs, some dealers purchased them through rogue employees at MRI centres or on the street:

Usually you have to know somebody that works at the MRI place or you can get somebody who knows a little bit about computers and have them do your MRI report which is usually like 200 bucks for an MRI report. (White male, age 27)

Prescription fraud was also prevalent, with many of our participants obtaining stolen prescription pads from connects and presenting them at pharmacies. Additionally, fraud related to Medicare, Medicaid and other types of health insurance providers were committed by participants in their efforts to obtain prescription drugs. While the majority of dealers reported making sizable profits from selling prescription drugs, the cost of obtaining pills was also quite substantial. By fraudulently billing these insurance providers for doctor visits and the filling of prescriptions, some dealers were able to offset their upfront costs, and effectively boost profits. This dealer forged prescriptions, and then billed his father's publicly funded insurance provider to cover the cost of OxyContin pills that he would later sell for profit:

The thing I was scared of was that I stole some prescription pads from the emergency room, and that scared me. I put them in my dad's name. My dad's in the military, so all his prescriptions are three dollars, no matter what they are. I was scared of that, especially for writing prescriptions for Oxys from the emergency room. It was scary, but nobody caught on. I'm still scared. You never know when they're going to catch on. (Hispanic female, age 36)

DISCUSSION

Empirical data on prescription drug diversion are quite limited in the scientific literature. Although a number of studies have documented prescription drug abuse and diversion among health care professionals (Hollinger & Dabney, 2002; Inciardi, Surratt, Kurtz, & Burke, 2006; Trinkoff, Storr, & Wall, 1999; Trinkoff, Zhou, Storr, & Soeken, 2000; Weir, 2000), there are few published reports that explain how vast quantities of abused prescription drugs are reaching the streets, or comprehensively examine particular mechanisms of diversion. Recent data collected from a variety of prescription drug abuser samples suggest that dealers are a primary source for illicitly obtaining prescription drugs, reaching 70–80% among street drug users, treatment clients and methadone maintenance patients (Cicero et al., 2011; Inciardi et al., 2010). Nevertheless, additional data on this phenomenon are generally unavailable – primarily because dealers are a difficult population

to access. To our knowledge, this study provides the first empirical data to elucidate the role of dealers in channeling prescription drugs from the licit to illicit market. Figure 1 summarizes the major diversion mechanisms of the dealers who were interviewed for this study.

The data presented in this study indicate that pain management clinics are a major diversion source for dealers. This is consistent with the findings of previous research that also found evidence of abusers/diverters visiting pain clinics to acquire prescription opioids and sedatives (Cicero & Inciardi, 2005; Inciardi, Surratt, Lugo, et al., 2007; Rigg, March, & Inciardi, 2010). These findings lend support to the creation of Florida's proposed prescription drug monitoring program (PMP), which should increase the ability of law enforcement and healthcare officials to detect and deter doctor shopping (Edwards, 2010). The data presented here suggest that a PMP will have a meaningful impact on reducing the amount of prescription drugs that end up in the hands of dealers, and ultimately abusers. The original PMP start date of 1 December 2010 has been delayed due to a lack of funding to cover 'start up costs' and a well-publicized contractual dispute over the hiring process of the company that was secured to launch the program. Although Florida Governor, Rick Scott, remains publicly opposed to the PMP citing infringements on patient privacy, its creation appears imminent. As of this writing, the Florida Department of Health has given November 2011 as a tentative start date for the PMP (LaMendola, 2011). Until then, Florida remains the largest state without such a program.

Healthcare fraud, namely Medicare/Medicaid fraud, is a national problem that can increase taxes, the cost of medical care and insurance rates. According to recent numbers, South Florida easily ranks number one when it comes to healthcare fraud in the USA, leading the US Attorney's Office to select Miami to launch its first task force to fight Medicare fraud (Burnside, 2010). To date, this task force has indicted 860 people in 567 cases involving \$2.5 billion in Medicare fraud in South Florida alone (Burnside, 2010). The evidence uncovered in this study indicates that there is a connection between the prescription drug diversion problem and the issue of healthcare fraud by revealing healthcare fraud to be a major source of diversion. Efforts to curb healthcare fraud such as the federal taskforce described above should concomitantly combat the prescription drug diversion/abuse problems by targeting an important diversion source for dealers. The study results support the funding of fraud reduction initiatives, as it implies that for every dollar spent combating healthcare fraud, a portion will also go towards reducing diversion. Finally, our findings also highlight the need to further investigate other types of healthcare fraud such as MRI and prescription fraud as these too appear to play a central role in connecting dealers to their illicit supplies of prescription drugs.

Our finding that 'connects' in healthcare settings are playing a key role in facilitating diversion is a serious concern. This may reflect a need for increased training and supervision for healthcare workers who directly (or indirectly) have access to controlled medications, namely those who work in pharmacies, pain management clinics and dentist offices. Pharmacy techs were the 'connect' with the most mentions, indicating that they play a more prominent role vis-à-vis other connects. Based on this, there is a need to expand the diversion component of education/training curriculum and certification standards for pharmacy employees with access to controlled medications such as pharmacy techs. It is important to note that this is consistent with recent recommendations from the National Association of Boards of Pharmacy, who have also documented substantial diversion-related activities among pharmacy technicians (Thompson, 2006; Traynor, 2003).

We also found evidence that patients are illegally selling their medications to dealers, particularly those with crack/heroin habits, HIV patients, Medicare/Medicaid recipients and

veterans. Patient education might also be considered in the areas of safeguarding medications, and understanding the consequences of selling their medications and deceiving physicians and pharmacists (Inciardi et al., 2009a). This should also help to deter the practice of sponsoring, a heavily relied upon diversion mechanism. Indigent, illicit-drug using patients who are consistently prescribed opioids appear to be at higher risk of selling their medications to dealers and/or agreeing to be sponsored by one. Additionally, our findings also suggest that compared to other classes of prescription medications, opioids are most prominent across the diversion landscape in South Florida and likely elsewhere. This is consistent with other research that also found opioids to be popular in street markets (Inciardi, Surratt, Lugo, et al., 2007; Inciardi, Surratt, Kurtz, et al., 2007; Rigg & Ibañez, 2010). The data presented here indicate that efforts at curbing opioid diversion are inadequate and should not only be intensified, but specifically target ‘filler’ free opioids such as OxyContin (80 mg) and Roxicodone (30 mg) which appear to be in higher demand among abusers.

Study limitations and strengths

Our findings should be interpreted within the context of the study limitations. First, it should be noted that we were unable to recruit large scale dealers, and the data presented here likely do not characterize the diversion activities of the most prolific dealers. Second, because face-to-face interviewing was utilized as a means of data collection, interviewer bias may have been a possibility. The inherent limitations of self-report data (e.g. recall bias) also apply to this research. Finally, because this research was conducted in South Florida, a high incidence area for prescription drug abuse/diversion, the authors recognize that the data presented here may not be representative of all drug dealers across the USA; however it is reasonable to assume that South Florida’s diversion landscape is similar to that of other metropolitan areas, even if somewhat more robust.

The study also contained some noteworthy strengths. The authors utilized qualitative methods of data collection and analysis, an approach most felicitous for exploring complex processes and ‘hidden’ phenomenon such as diversion. In particular, the use of in-depth interviewing and inductive analytic methods allowed for new themes to emerge so that a more comprehensive understanding of these previously unexplored aspects of diversion could be achieved. Another major strength of this study is that we were able to access a ‘hard to reach’ population that is not well understood or researched in terms of its diversion activities. The sample size ($n = 50$) is also larger than most qualitative studies, which reduced the chance of discovery failure (DePaulo, 2000) and enhanced our ability to determine that data redundancy/saturation was achieved (Sandelowski, 1995).

Conclusion

Overall, our data on the diversion activities of dealers are important to consider within the context of prevention and intervention strategies for addressing the national epidemic of prescription drug abuse. As this study has documented, a substantial proportion of the illegal channeling of prescription opioids through dealers originates in health care sources (pain clinics, sponsoring, ‘connects’ in pharmacies and health care facilities). This would indicate that legislative and health care systems-level interventions may be highly effective in reducing the availability of prescription drugs through dealers, who clearly serve as a critical access point for a large number of abusers. These data should serve as a guide for making regulatory decisions and for developing educational initiatives for patients, prescribers and dispensers of scheduled medications. It should also inform the creation of future prescription drug diversion and abuse prevention programs.

Acknowledgments

This research was supported by grant number R01DA021330 from the National Institute on Drug Abuse. The authors gratefully acknowledge Dr James A. Inciardi, Principal Investigator of this study through 2009.

REFERENCES

- Boyd CJ, McCabe SE, Teter CJ. Medical and nonmedical use of prescription pain medication by youth in a Detroit-area public school district. *Drug and Alcohol Dependence*. 2006; 8:37–45. [PubMed: 16040201]
- Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006; 3:77–101.
- Burnside J. South Florida Medicare Fraud Task Force making strides: Expecting major new busts in fighting \$2.5 billion Florida fraud rings. Miami NBC News. 2010 Retrieved from <http://www.nbcmiami.com/news/local-beat/US-Attorney-Health-Secretary-praise-South-Florida-medicare-fraud-task-force-98574119.html>.
- Cicero T, Inciardi J. Diversion and abuse of methadone prescribed for pain management. *Journal of the American Medical Association*. 2005; 293:297–298. [PubMed: 15657321]
- Cicero TJ, Kurtz SK, Ibañez GE, Ellis MS, Levi-Minzi MA, Inciardi JA. Multiple determinants of specific modes of prescription opioid diversion. *Journal of Drug Issues*. 2011; 41:283–304. [PubMed: 22287798]
- Davis W, Johnson B. Prescription opioid use, misuse, and diversion among street drug users in New York City. *Drug and Alcohol Dependence*. 2008; 92:267–276. [PubMed: 17913395]
- DePaulo P. Sample size for qualitative research – the risk of missing something important. *Quirks Marketing Research Review*. 2000 Retrieved from <http://www.quirks.com/articles/a2000/20001202.aspx?searchID=154042236&sort=9>.
- Douglas HA, Hamilton RJ, Grubs RE. The effect of BRCA gene testing on family relationships: A thematic analysis of qualitative interviews. *Journal of Genetic Counseling*. 2009; 18:418–435. [PubMed: 19479365]
- Duncan E, Nicol M. Subtle realism and occupational therapy: An alternative approach to knowledge generation and evaluation. *British Journal of Occupational Therapy*. 2004; 67:453–456.
- Edwards A. Rx for danger: Prescription-abuse tracker on hold in Florida: Supporters of the prescription drug monitoring program say it will help Florida's drug abuse epidemic. Orlando Sentinel. 2010 Retrieved from http://articles.orlandosentinel.com/2010-11-28/news/os-prescription-drugs-monitor-program20101128_1_prescription-drug-monitoring-program-oxycodone-drug-abuse-epidemic.
- Guba, EG.; Lincoln, YS. Competing paradigms in qualitative research. In: Denzin, NK.; Lincoln, YS., editors. *Handbook of qualitative research*. Sage; Thousand Oaks, CA: 1994. p. 105-117.
- Hammersley, M. *What's wrong with ethnography?*. Routledge; New York, NY: 1992.
- Hiaasen S. Pain pills from South Florida flood Appalachian states. *The Miami Herald*. Apr 6.2009 Retrieved from <http://www.miamiherald.com/news/broward/v-print/story/986161.html>.
- Hollinger RC, Dabney DA. Social factors associated with pharmacist's unauthorized use of mind altering prescription medications. *Journal of Drug Issues*. 2002; 32:231–264.
- Inciardi J, Cicero T. Black beauties, gorilla pills, footballs, and hillbilly heroin: Some reflections on prescription drug abuse and diversion research over the past 40 years. *Journal of Drug Issues*. 2009; 39:101–114.
- Inciardi J, Surratt H, Cicero T, Beard R. Prescription opioid abuse and diversion in an urban community: The results of an ultrarapid assessment. *Pain Medicine*. 2009a; 10:537–548. [PubMed: 19416440]
- Inciardi J, Surratt H, Cicero T, Kurtz S, Martin S, Parrino M. The 'Black Box' of prescription drug diversion. *Journal of Addictive Diseases*. 2009b; 28:332–347. [PubMed: 20155603]
- Inciardi J, Surratt H, Cicero T, Rosenblum A, Ahwah C, Bailey E, Burke J. Prescription drugs purchased through the internet: Who are the end users? *Drug and Alcohol Dependence*. 2010; 110:21–29. [PubMed: 20227199]

- Inciardi J, Surratt H, Kurtz S, Burke J. The diversion of prescription drugs by health care workers in Cincinnati, Ohio. *Substance Use and Misuse*. 2006; 41:255–264. [PubMed: 16393746]
- Inciardi J, Surratt H, Kurtz S, Cicero T. Mechanisms of prescription drug diversion among drug involved club and street based populations. *Pain Medicine*. 2007; 8:171–183. [PubMed: 17305688]
- Inciardi J, Surratt H, Lugo Y, Cicero T. The diversion of prescription opioid analgesics. *Law Enforcement Executive Forum*. 2007; 7(7):1–14.
- Kirk, J.; Miller, M. *Reliability and validity in qualitative research*. Sage; Newbury Park, CA: 1986.
- LaForgia M. Prescription drug abuse ravaging Palm Beach County. *Palm Beach Post*. Jul.2009 Retrieved from http://www.palmbeachpost.com/localnews/content/local_news/epaper/2009/07/02/0601overdoses.html.
- LaMendola B. South Florida pain centers that promote pill trade face scrutiny. *South Florida Sun-Sentinel*. Apr 7.2009 Retrieved from <http://www.sun-sentinel.com/features/health/sfl-pain-clinics-c040709sbapr07,0,3119476.story>.
- LaMendola, B. Florida officials set to revive stalled pain pill database: Computer system would be used to fight pill mills. Apr 9. 2011 Retrieved from http://articles.sun-sentinel.com/2011-04-09/news/fl-hk-pain-clinic-database-20110408_1_pain-pill-database-database-supporters-attorney-general-pam-bondi
- McCabe S, Cranford J, Boyd C, Teter C. Motives, diversion and routes of administration associated with nonmedical use of prescription opioids. *Addictive Behaviors*. 2007; 32:562–575. [PubMed: 16843611]
- National Drug Safety Network. Prescription drug abuse rivals illicit drug abuse. Some see double standard in law enforcement. *News Briefs-Drug use Trends*. 1996 Retrieved from <http://www.ndsn.org/oct96/prescrip.html>.
- Rigg K, March S, Inciardi J. Prescription drug abuse and diversion: Role of the pain clinic. *Journal of Drug Issues*. 2010; 40:681–702. [PubMed: 21278927]
- Rigg KK, Ibañez GE. Motivations for non-medical prescription drug use: A mixed methods analysis. *Journal of Substance Abuse Treatment*. 2010; 39:236–247. [PubMed: 20667680]
- Rosenblum A, Parrino M, Schnoll S, Fong C, Maxwell C, Cleland C, Haddox J. Prescription opioid abuse among enrollees into methadone maintenance treatment. *Drug and Alcohol Dependence*. 2007; 90:64–71. [PubMed: 17386981]
- SAMHSA. Results from the 2009 National Survey on Drug Use and Health: National findings. 2009. Substance Abuse and Mental Health Services Administration and Office of Applied Studies. (Office of Applied Studies, NSDUH Series H-36, HHS Publication No. SMA 09-4434). Retrieved from <http://oas.samhsa.gov/nsduh/2k9nsduh/2k9Results.pdf>
- Sandelowski M. Sample size in qualitative research. *Research in Nursing Health*. 1995; 18:179–183. [PubMed: 7899572]
- Srnick, J.; Ohio University. Masters thesis. 2007. Illicit prescription drug use among college undergraduates: A study of prevalence and an application of social learning theory. Retrieved from http://etd.ohiolink.edu/send-pdf.cgi/Srnick%20Jennifer%20L.pdf?acc_num=ohiou1172203693
- Surratt H, Inciardi J, Kurtz S. Prescription opioid abuse among drug-involved street sex workers. *Journal of Opioid Management*. 2006; 2:283–289. [PubMed: 17319260]
- Thompson C. Technician registration not a simple matter, regulators find. *American Journal of Health Systems Pharmacists*. 2006; 63:607–610.
- Traynor K. Pharmacy boards struggle with internal theft in pharmacies. *American Journal of Health Systems Pharmacists*. 2003; 60:2184–2186.
- Trinkoff A, Storr C, Wall M. Prescription-type drug misuse and workplace access among nurses. *Journal of Addictive Diseases*. 1999; 18:9–17. [PubMed: 10234559]
- Trinkoff A, Zhou Q, Storr C, Soeken K. Workplace access, negative proscriptions, job strain, and substance use in registered nurses. *Nursing Research*. 2000; 49:83–90. [PubMed: 10768584]
- US Census Bureau. Census: State and county quickfacts: Miami-Dade County, FL. 2000. Retrieved from <http://quickfacts.census.gov/qfd/states/12/12086.html>
- US General Accounting Office. Report to Congressional Requesters, #GAO-04-110. Author; Washington, DC: Dec. 2003 Oxycontin abuse and diversion and efforts to address the problem.

Weir E. Substance abuse among physicians. *Canadian Medical Association Journal*. 2000; 162:1730.
[PubMed: 10870508]

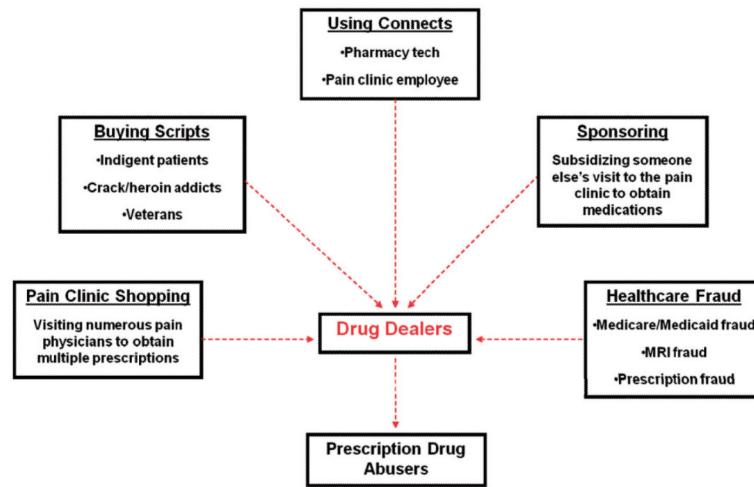


Figure 1.
Diagram of diversion sources utilized by dealers.