

Are Prescription Opioids Creating a New Type of Heroin User?

Robert L. DuPont, MD (corresponding author), Katherine Garcia-Rosales, BS, Corinne L. Shea, MA, Helen DuPont, MBA, Michael D. Campbell, PhD, George Kolodner, MD, Eric D. Wish, PhD

Abstract

Self-report data was collected through an anonymous pencil-and-paper survey of 157 patients prescribed buprenorphine for opioid use disorders by a private, multi-site treatment program located in the Washington, DC/Baltimore region. Forty-three percent reported ever using only prescription opioids, 51% had used prescription opioids + heroin and 6% used heroin but no prescription opioids. Differences existed among the patients who used prescription opioids only and those who used prescription opioids + heroin. Prescription opioid + heroin users were more likely to misuse other drugs, to initiate drug use earlier, and to engage in polydrug use. Findings suggest that efforts to reduce heroin use among prescription opioid users would be well-served by identifying patients with a prior history of polydrug use and early nonmedical drug use.

Key words: opioids, heroin, polydrug use

Introduction

The prescription drug epidemic in the United States is hypothesized to be fueling a surge in heroin use and overdose (Hedegaard, Chen, & Warner, 2015; Center for Behavioral Health

Statistics and Quality, 2015). One of the factors attributed for this development is “an increasing number of people primed for heroin addiction because they’re addicted to or exposed to prescription opioid painkillers” (Centers for Disease Control and Prevention, 2015). Implicit is the notion that the use of prescription opioids is leading persons who would never have used heroin to take up the drug. This idea of a “novice” heroin user contrasts with Lee Robins’s conclusions from her study of heroin use by Vietnam veterans, that, “heroin’s bad reputation may limit its use to the kinds of people who are very likely to have social problems----the use of heroin is associated with the use of many other drugs” (Robins, Helzer, Hesselbrock, & Wish, 1980). To study the possibility of the emergence of a new type of less drug-involved heroin user we examined drug use in prescription opioid-using patients being prescribed buprenorphine for opioid use disorders, classified by whether they had ever used heroin.

Method

Following IRB approval, self-report data were collected through an anonymous pencil-and-paper survey developed by researchers. The survey was administered at a private, multi-site treatment program located in the Washington, DC/Baltimore region to patients prescribed buprenorphine for opioid use disorders. Counselors from the six sites distributed questionnaires and accompanying privacy envelopes to all interested patients. Those patients signed a consent form and turned in the completed questionnaires in sealed envelopes. A total of 162 surveys were obtained. The analysis presented is based on 157 surveys for which patients could be classified by whether they had used prescription opioids or heroin in the past.

Results and Discussion

In the sample of 157 patients, 43% (n=68) reported ever using only prescription opioids, 51% (n=80) had used prescription opioids + heroin and 6% (n=9) used heroin but no prescription opioids. (Patients with no history of prescription opioid use were excluded from further analysis, leaving 148.)

The majority of both groups were males: 54% of prescription opioid users and 68% of prescription opioid + heroin users. About one-half (53%) of prescription opioid + heroin users were age 25 or younger compared with 16% of non-heroin users (Table 1). Over three quarters (78%) of the prescription opioid + heroin users had used prescription opioids prior to initiating heroin use and they initiated prescription opioid use at a younger age. They also were more likely to have used marijuana before age 15 (49% vs. 25%, $p<.01$), five times more likely to have used PCP (45% vs. 9%, $p<.001$), and more likely to have used buprenorphine (65% vs. 26%, $p<.001$) and/or methadone (38% vs. 10%, $p<.001$) without a prescription. Prescription opioid + heroin users were more than twice as likely to have used 3+ drugs (79% vs. 30%, $p<.001$) in addition to prescription opioids and heroin (Table 2).

These descriptive analyses identified two distinct populations of prescription opioid users among patients prescribed buprenorphine: prescription opioid users who have used heroin and those who have not. The prescription opioid + heroin users were more likely to misuse other drugs, to initiate drug use earlier, and to engage in polydrug use. These patients, many of whom used prescription opioids before they first used heroin, engaged in drug-using behaviors leading them toward developing substance use disorders *before* they used prescription opioids and heroin.

Limitations

One limitation of the study is that these findings were obtained from patients enrolled in a single, though multi-site and multi-faceted, treatment program using buprenorphine for opioid use disorders. Another is that these data were solely based on self-report and the survey was limited in scope.

Conclusion

Similar to Robins's findings on heroin use, the current findings suggest that efforts to reduce heroin use among prescription opioid users would be well-served by identifying patients with a prior history of polydrug use and early nonmedical drug use. Monitoring for other drug use by urine or hair testing might also be considered. Such a policy could provide a more effective response to the current rise in heroin use and associated deaths.

References

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Table 1. Demographic characteristics and age of onset of heroin use, by group (n=148)

	Used Rx Opioids Only (n=68)	Used Rx Opioids & Heroin (n=80)
Gender	%	%
Male	54%	68%
Age		
15 to 20	1	10
21 to 25	15	43
26 to 30	19	15
31 to 40	31	14
41 to 50	22	11
51 and older	12	7
Total	100	100
Age of First Heroin Use		
Median Age 1st Used Heroin	N/A	20 yrs.
1st Used Heroin Before Age 30	N/A	89%
Began Rx Opioids Before Heroin	N/A	78%
Age of First Rx Opioid Use With & Without Rx		
Median Age 1st Used Rx Opioids	(n=65) 24 yrs.	(77) 18 yrs.
1st Use Before Age 20	32%	66%
1st Use Before Age 30	66%***	88%***

**p<.01

Table 2. Total number of drugs ever used, by group (n=148)

Total Number of Other Drugs Used* (of 5)	Used Rx Opioids Only (n=68)	Used Rx Opioids & Heroin (n=80)
0	6%	0%
1	18	6
2	46	15
3	25	30
4-5	5	49
Total	100%	100%

*Drugs counted: marijuana, PCP, buprenorphine without a prescription, and methadone without a prescription, or other non-opioid prescription drugs without a prescription. Excludes heroin and OxyContin or other prescription opioids.

***p<.001

About the Author

All authors meaningfully contributed to the development of this manuscript. The original study, including self-report survey instrument, was conceptualized and developed by Robert L. DuPont, MD; Corinne Shea, MA, Helen DuPont, MBA, and Michael D. Campbell, PhD. George Kolodner, MD oversaw the administration of the survey at Kolmac Clinic sites. Eric D. Wish, PhD and Katherine Garcia-Rosales, BS completed the data analysis.

Dr. DuPont serves as President of the Institute for Behavior and Health, Inc. (IBH), Ms. Shea as Director of Programs and Communications, Mrs. DuPont as Executive Director and Dr. Campbell as Research Consultant. Dr. Wish is Associate Professor and Director of the Center for

Substance Abuse Research (CESAR). Ms. Garcia-Rosales served as Research Assistant at CESAR. Dr. Kolodner is Medical Director of Kolmac Outpatient Recovery Centers.

Conflict of Interest

The authors declare no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in the manuscript entitled *Are Prescription Opioids Creating a New Type of Heroin User?* except the following: Dr. Koloder is Medical Director of Kolmac Outpatient Recovery Centers.

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