



Original article

Adolescents' Access to Their Own Prescription Medications in the Home

Paula Lynn Ross-Durow, Ph.D.^{a,*}, Sean Esteban McCabe, Ph.D.^a, and Carol J. Boyd, Ph.D.^b^aInstitute for Research on Women and Gender, University of Michigan, Ann Arbor, Michigan^bSchool of Nursing, University of Michigan, Ann Arbor, Michigan

Article history: Received September 5, 2012; Accepted February 15, 2013

Keywords: Adolescents; Prescription medications; Prescription drugs; Controlled medications; Parental supervision; Parental monitoring; Medication storage; Diversion; Interview; Epidemiology

A B S T R A C T

Purpose: The objective of this descriptive study was to determine adolescents' access to their own medications at home, specifically prescription pain, stimulant, antianxiety, and sedative medications.

Methods: Semistructured interviews were conducted with a cohort of 501 adolescents from two southeastern Michigan school districts. Participants were asked what medications had been prescribed to them during the previous 6 months; if they had received prescription medications, they were asked in-depth questions about them, including how medications were stored and supervised at home.

Results: The sample was comprised of adolescents in the 8th and 9th grades, and 50.9% were male. Participants were primarily white (72.9%, $n = 365$) or African-American (21.6%, $n = 108$). Slightly less than half of the adolescents (45.9%, $n = 230$) reported having been prescribed medications in the previous 6 months. Of this group, 14.3% ($n = 33$) had been prescribed pain medications, 9.6% ($n = 22$) stimulants, 1.7% ($n = 4$) antianxiety medications, and .9% ($n = 2$) sedatives. In total, 57 adolescents were prescribed medications in the pain, stimulant, antianxiety, or sedative categories (including controlled medications), and the majority (73.7%, $n = 42$) reported that they had unsupervised access to medications with abuse potential.

Conclusions: The majority of adolescents who were prescribed medications in the pain, stimulant, antianxiety, or sedative categories during the previous 6 months had unsupervised access to them at home. It is critical that clinicians educate parents and patients about the importance of proper storage and disposal of medications, particularly those with abuse potential.

© 2013 Society for Adolescent Health and Medicine. All rights reserved.

**IMPLICATIONS AND
 CONTRIBUTION**

This investigation revealed that 73.7% ($n = 42$) of adolescents, recently prescribed medications in controlled categories, reported unsupervised access to them at home. This finding suggests the need for clinicians to educate adolescent patients and their parents about the proper storage, disposal, and supervision of medications with abuse liability.

Over the past two decades, there has been a significant increase in the prescribing of controlled medications to adolescents in the United States [1–3]. Concomitantly, the nonmedical use of prescription medications (NUPM) has been an increasing problem among adolescents and young adults [4–6]. Between 2004 and 2008, it was estimated that among patients younger than 21 years of age, emergency room visits for

nonmedical use of prescription narcotic pain relievers alone more than doubled [7]. In 2009, the Centers for Disease Control and Prevention documented that in 15–19-year-olds, death by poisoning (in part due to prescription drug overdoses), was the second leading cause of death, reflecting a 91% increase between 2000 and 2009 [8].

Several studies have shown that adolescents are more likely to obtain controlled medications for nonmedical use from family members or friends rather than from drug dealers/strangers or the Internet [5,9–13], and growing evidence indicates adolescents and young adults are *most likely* to obtain these medications from their peers [5,11,12,14]. Further,

* Address correspondence to: Paula Lynn Ross-Durow, Ph.D., Institute for Research on Women and Gender, University of Michigan, 204 S. State St., Ann Arbor, MI 48109.

E-mail address: rossdurow@umich.edu (P.L. Ross-Durow).

Johnston and colleagues found that between 35% and 40% of high school seniors, who reported nonmedical use of prescription opioids in the past 12 months, had obtained these medications from their own previous prescriptions [5]. Despite the availability of controlled medications among adolescents, there is a lack of research examining the storage practices of controlled medications within adolescents' homes. Safety with these medications is of particular concern because of their potential for abuse and dependence, as well as their additive effects with alcohol and other drugs, which oftentimes leads to overdose or poisoning [7,8,15–17].

To more fully understand the problem of NUPM, the objective of our study was to determine adolescents' access to their own prescription medications at home, with particular attention to those listed by the Controlled Substances Act (CSA), since these have high potential for abuse and dependence, as well as unintentional death through overdose or mixing with other medications or alcohol [7,8,15–17]. The CSA is a federal drug policy under which certain substances are regulated by law, including, but not limited to, their distribution, use, and possession [18]. We focused on four classes of controlled medications—opioid analgesics, stimulants, antianxiety, and sedative/sleep medications—but we also examined other categories of prescribed medications to determine whether there were differences in adolescents' access between controlled medications and those not in this group.

Methods

The 5-year prospective, longitudinal study on which this investigation was based is funded by the National Institute for Drug Abuse specifically to examine “Non-Medical Use of Prescription Medications by Adolescents” (Principal Investigator, C.J. Boyd), with protocols approved by the Human Subjects Review Board at the University of Michigan. Consent was sought from parents of all 7th–12th grade adolescents in two school districts (one “near urban” and the other “suburban/semi-rural”) to participate in an annual Web-based survey, the *Secondary Student Life Survey* (SSLS), during school hours. Surveys were completed by 2,744 consented adolescents during the 2009–2010 academic year. Parents of all 7th and 8th grade adolescents who completed the Web survey during that first year received an additional consent form seeking permission for their children to participate in the “interview” arm of the study. A total of 501 adolescents (then in the 8th and 9th grades) participated in the semistructured interviews in the Fall of 2010, and provided the data on which this paper is based.

The semistructured interviews were conducted during the participants' school lunch periods by one of two licensed clinicians trained in the research protocols. In the event that adolescents had moved out of the school districts during the study period, interviews were conducted by phone. Prior to the start of each interview, adolescents provided assent. Participants received a gift card of \$5 for completion of the first interview, \$10 beginning with the second interview, and \$15 during the final year of the study. The *Youth Interview Guide* (developed by C.J. Boyd) contained two questions asked of all adolescents, with additional follow-up ones based on their responses to the initial questions. One question asked participants: “In the past 6 months, have you used any prescription medications for medical problems that you received from a doctor, dentist, nurse practitioner, or other medical professional?” If they responded in the

affirmative, they were asked “What are the names of the medicines; what are they used for; and how are they prescribed?” They were also asked “How are the medicines stored at home?” and “Is the storage supervised? Supervised storage was measured subjectively. Interviewers asked respondents if they were able to freely access their medications to take them when required, or whether access to their medications was supervised by an adult. Medications were recorded as “supervised” if respondents indicated that they were dispensed or laid out for adolescent self-administration by an adult. These questions formed the basis of the study reported here.

A content analysis was conducted on the responses of the 230 adolescents who had been prescribed medications in the past 6 months ($n = 374$ medications mentioned), as well as the storage locations of these medications in their homes ($n = 270$ locations mentioned). (Some respondents were prescribed more than one medication, or cited more than one storage location.) After reading all responses, the first author constructed 10 mutually exclusive categories for medication classification, and 11 mutually exclusive categories for the storage locations of medications. After creating these categories, the first author coded all of the adolescents' responses to these two questions.

In cases where respondents were unable to specifically name their prescribed medications, they were classified based on the reasons adolescents stated they were prescribed. Fifty-seven adolescents were prescribed medicines that were categorized in the pain reliever/antianxiety/stimulant/sedative categories. Just over half of these respondents (50.9%, $n = 29$) named specific medications covered under the CSA, while the remainder described their prescribed medications and the reasons they were given. For example, when medications were not specifically named, they were classified in the “pain” category when adolescents were prescribed them for pain for reasons such as “a broken leg,” “a broken shoulder,” “a broken thumb,” “a broken foot,” “mouth surgery,” or “extraction of four wisdom teeth.” Medications were placed in the antianxiety category for reasons such as “tranquilizer prior to gum work procedure” or “medication for emotional sensitivity.”

After the initial coding was completed, the data were given to another clinician to independently code responses on the same two questions using the categories previously constructed by the first author. This procedure was important because some respondents were unable to specifically name their prescribed medications, but could identify reasons why they were prescribed. Using every case, interrater reliability was determined by percent agreement on the categorization of variables by the two independent coders. The index of agreement for categorization of medications was determined by summing the 10 attained percent agreements, and then dividing the total by 10. The average percent agreement for medication categorization was 98.4%. Likewise, the index of agreement for categorization of storage locations of medications was determined by summing the 11 attained percent agreements, and then dividing the total by 11. The average percent agreement for storage location categorization was 98.1%.

Results

Data from 501 participants were collected from September 2010 through January 2011. Approximately 51% (50.9%, $n = 255$) of the sample was male. White participants made up the majority at 72.9% ($n = 365$), with 21.6% ($n = 108$) African-American, and

Download English Version:

<https://daneshyari.com/en/article/10511576>

Download Persian Version:

<https://daneshyari.com/article/10511576>

[Daneshyari.com](https://daneshyari.com)