Preventive Medicine Reports 2 (2015) 524–528

Contents lists available at ScienceDirect

Preventive Medicine Reports

journal homepage: http://ees.elsevier.com/pmedr

Utilization of the Arkansas Prescription Monitoring Program to combat prescription drug abuse

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ARTICLE INFO

Available online 11 June 2015

Keywords:
Prescription monitoring program
Substance abuse
Health care practice
Arkansas
Public health

ABSTRACT

Objective. The Arkansas Prescription Monitoring Program (AR PMP) was implemented in 2013 to combat prescription drug abuse. All enrollees were invited to participate in a user survey available in February 2014, to identify makeup of users, utilization of the program, and changes made to health care practices after implementation of the program.

Methods. Of the 3694 individual enrollees invited to participate, 1541 (41.7%) completed the survey. Data collected were analyzed to identify changes in health care practices by program frequency of use and user profession.

Results. Medical doctors, advanced practice nurses, and pharmacists are the professions who use the program most frequently. Daily AR PMP users are considerably more likely than infrequent users to be prompted to access the program by the involvement of a controlled substance (CS) prescription or by office/facility policy requirements. Increased frequency of use of the AR PMP results in positive impacts on CS prescribing and dispensing practices.

Conclusion. Compelling more users of the AR PMP to be prompted to access the program by the involvement of a CS prescription or by requirements per office/facility policy may increase frequency of use of the program and thereby changes in health care practices to combat prescription drug abuse.

Introduction

Prescription drug abuse is defined as using prescription drugs for nonmedical/nonprescribed purposes, such as intoxication or mood alteration. This illegal and dangerous health behavior has increased over the past two decades. Overdose deaths due to prescription painkillers quadrupled from 1999 to 2010, going from 4030 to 16,651, and were more prevalent than overdose deaths from heroin and cocaine combined in 2010 (National Vital Statistics System, 2012). As of 2010, 60% of all drug overdose deaths were from prescription drugs, with opioids being involved in 3 of every 4 of these deaths. Prescription drug abuse in the United States is now described by the Centers for Disease Control and Prevention (CDC) as an epidemic (National Vital Statistics System, 2012). The significant increase in prescription drug abuse can largely be attributed to the increased availability of prescription drugs. Although these prescription medications are prescribed for legitimate medical purposes, a portion of them become subject to drug diversion for recreational, non-medicinal use. Increased prescribing and the availability of these drugs are directly correlated to increased overdose deaths (Vital Signs, 2011). This paper describes an intervention to address this critical public health issue.

The CDC's Injury Center has made combating prescription drug abuse a principal focus of its strategic plan. Among other proposed interventions, they recommend the implementation of state run Prescription Drug Monitoring Programs (PDMP) to help mitigate this public health epidemic (Vital Signs, 2011). Through utilization of electronic databases, these programs allow enrollees the ability to track where and when patients are acquiring controlled substance (CS) medications, thereby assisting health care professionals in identifying drug seeking patients who may be abusing prescription drugs. PDMPs have the potential to drastically decrease the amount of drug diversion in the United States, which in turn can directly affect the rates of prescription drug abuse and overdose.

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http://dx.doi.org/10.1016/j.pmedr.2015.06.006

A PDMP was first authorized in Arkansas through passage of Act 304 of 2011 and implemented in 2013 as the Arkansas Prescription Monitoring Program (AR PMP) (Arkansas Department of Health, 2013). The program is administered by the Arkansas Department of Health (ADH) with the following goals:

- To enhance patient care by providing prescription monitoring information that will ensure legitimate use of controlled substances in health care;
- To help curtail the misuse and abuse of controlled substances;
- To assist in combating illegal trade in and diversion of controlled substances;
- To enable access to prescription information by practitioners, law enforcement agents and other authorized individuals and agencies (Arkansas Department of Health, 2013).

The AR PMP collects, stores, and monitors the dispensing of CS in Schedules II, III, IV, and V, as well as other state-controlled drugs (Arkansas Department of Health, 2013). Dispensers report patient name, address and date of birth, physician identification, pharmacy identification, prescription number, drug name, strength, quantity and date prescribed. Collection of this data began on March 1, 2013 and must be reported by prescription drug dispensers to the ADH on a weekly basis. Through authorized access to the AR PMP database, practitioners may view the CS dispensing history of their patients, including the exact quantity of medication prescribed by each prescriber and dispensed at each pharmacy, in order to make more informed prescribing and dispensing decisions.

Our objective in this study was to better understand the utilization and performance of the AR PMP during the first year of its implementation. Specifically, we sought to describe (1) the makeup of AR PMP users; (2) the utilization of the AR PMP; and (3) the performance of the program in regard to changing prescribing and dispensing practices. The results of the study survey were used to evaluate how access to the AR PMP is changing health care practices in efforts to address the public health epidemic of prescription drug abuse.

Methods

Procedure

A web survey was developed and administered via SurveyMonkey (online web based survey tool). All enrolled Arkansas prescribers and dispensers (n = 3694) were invited by email to participate in the study survey, which was available for 30 days from February 4 to March 5, 2014. Two reminder emails with the survey link invitation were sent out on days 14 and 28. The survey was designed with seven questions to take no more than 2 min to complete at the individual's convenience over the course of 30 days. The survey was anonymous and e-mail addresses were deleted at the end of the survey period. The ADH reviewed and determined that the survey project did not require human subject review.

Measures

Survey questions were designed by investigators of the study after review of other states' PDMP surveys and upon solicitation of AR PMP staff suggestions and statistical expert opinions. All survey questions were closed-ended (Appendix A). The AR PMP User Survey was created with three objectives. The first study objective, to describe the makeup of AR PMP users, was addressed by the following: "Which of the following best describes your profession?" and "Where is your primary practice located?" The second study objective, to identify the utilization of the AR PMP, was answered by the following: "How often do you use the AR PMP?", "When do you use the AR PMP?" and "What prompts you to access the AR PMP?" The last study objective, to identify how the AR PMP has changed prescribing and dispensing practices, was answered by the last two survey questions in order to determine the performance of the program over the past year. One question was more patient specific: "After reviewing the AR PMP, how has a patient encounter been altered?" and the other more practice specific: "How has access to the AR PMP changed your prescribing/dispensing practices?" All statistical data analyses for this study were generated using SAS® software, Version 9.3 of the SAS System for Windows.

Table 1
Arkansas Prescription Monitoring Program 2014 User Survey respondents who completed the survey.

	n	Percentage	Actual percentage[a]
Profession (n = 1541)			
Medical doctor	536	34.8	37.0
Advanced practice nurse	210	13.6	12.2
Pharmacist	631	41.0	39.9
Other	164	10.6	10.9
Region (n = 1541)			
Central	**546**	**35.4**	
Medical doctor	220	40.3	
Advanced practice nurse	64	11.7	
Pharmacist	208	38.1	
Other	54	9.9	
Northeast	**321**	**20.8**	
Medical doctor	92	28.7	
Advanced practice nurse	57	17.8	
Pharmacist	130	40.5	
Other	42	13.1	
Northwest	**446**	**28.9**	
Medical doctor	153	34.3	
Advanced practice nurse	53	11.9	
Pharmacist	186	41.7	
Other	54	12.1	
Southeast	**107**	**6.9**	
Medical doctor	32	29.9	
Advanced practice nurse	20	18.7	
Pharmacist	47	43.9	
Other	8	7.5	
Southwest	**121**	**7.9**	
Medical doctor	39	32.2	
Advanced practice nurse	16	13.2	
Pharmacist	60	49.6	
Other	6	5.0	
Frequency of access (n = 1541)			
Daily	325	21.1	
2-3 times weekly	353	22.9	
At least once a week	394	25.6	
Less than 3 times a month	403	26.2	
Never	66	4.3	
Timing of access (n = 1475)[b]			
Before issuing/dispensing a CS rx[c]	1187	80.5	
After issuing/dispensing a CS rx	65	4.4	
During patient consultation	159	10.8	
Not applicable	64	4.3	
Reasons for access (all that apply) (n = 1475)[b]			
Any time involving a CS rx	348	23.6	
Any time involving a C-II CS rx	220	14.9	
Any suspicion of misuse/drug diversion	1342	91.0	
Requests from other prescribers/pharmacists	414	28.1	
Required per office/facility policy	163	11.1	
Not Applicable	10	0.7	

[a] The actual overall AR PMP user composition, calculated in March 2014 by the ADH.
[b] 66 participants who answered "Never" to the frequency of access question were excluded.
[c] CS: controlled substance, rx: medical prescription.