

2020 APhA Final Report

Title:

Evaluation of Patient Perceptions of a Standardized Curriculum for Opioid and Naloxone Counseling

Introduction:

According to the Centers for Disease Control and Prevention, prescription opioid deaths were five times higher in 2017 compared to 1999. The addition of synthetic opioids into the marketplace contributed to a six-fold increase in the overall number of overdose deaths compared to 1999.¹ Literature describes how prescription opioid patients do not perceive themselves at risk for overdose, and how they do not see naloxone as an important medication to have. Prescription opioid patients were reported to display less concern about members of their family/social network accidentally overdosing on their prescription opioids compared to patients that use opioids illicitly.²

Even though the most recent data regarding the number of prescription opioids written in Florida is lower than it has been in the past (2018: 53.7 prescriptions per 100 persons vs. 2006-2016: ranges from 66.6-87.6 prescriptions per 100 persons), dispensing frequencies for Florida remain above average compared to the rest of the United States.³ The high volume of patients receiving opioid prescriptions prompts pharmacists to effectively counsel patients and to help relay important information to the public. Especially in the community pharmacy setting, there can be several barriers to overcome to provide effective opioid counseling. A survey published in the *Journal of American Pharmacists Association* identified naloxone counseling barriers in community pharmacies to include: inadequate training, workflow issues, and lack of support from management. The survey also showed that participating pharmacists were interested in strategies for initiating patient discussion.⁴ Another survey reported that pharmacist's lack of self confidence in opioid misuse/abuse counseling as an inhibitory factor in counseling patients.⁵ As community pharmacists are considered the "most accessible" health care provider, it is imperative that the barriers listed above can be reduced to provide the quality patient care.

Since opioids are frequently dispensed by community pharmacists, a standardized counseling tool can help pharmacists relay important information while boosting confidence in counseling skills. By utilizing patient feedback, an effective approach for standardizing the opioid and naloxone knowledge survey and counseling curriculum can be identified. It is reasonable to hypothesize that a standardized approach to counseling on opioids and naloxone could produce a beneficial effect on the opioid crisis, because patients would have a better understanding of their risk for medication misuse and potential adverse effects.

The primary objective of this study is to develop a counseling tool to aid pharmacists in providing a standardized curriculum for opioid and naloxone counseling. The secondary objective is to utilize patient feedback on delivery of the standardized curriculum to refine content.

Methods:

Study Setting:

This study was conducted at Atlantis Pharmacy in southern Florida. Atlantis Pharmacy is an independent community pharmacy that fills an average of 260 prescriptions per day and is located in proximity to a teaching hospital and multiple specialty physician offices. The pharmacy's mission is to work collaboratively with healthcare professionals to provide optimal pharmaceutical care to all patients through participating in Florida's Community Pharmacy Enhanced Service Network (CPESN). Atlantis Pharmacy provides enhanced clinical services including; medication therapy management, medication synchronization, immunizations, compounding, blood pressure monitoring and point of care testing. The pharmacy's patient population includes many individuals with chronic pain and some who participate in an opioid abuse recovery program.

Study Design:

The study consists of three parts: 1) a knowledge pre-survey to gather demographic information and current opioid and naloxone knowledge, 2) standardized patient counseling session on opioid prescriptions with subsequent naloxone education, and 3) post-counseling patient questionnaire on how the counseling is perceived. The standardized counseling curriculum has been adapted from the Substance Abuse and Mental Health Services Administration (SAMSHA) Opioid Overdose Prevention Toolkit and the Narcan Nasal Spray Instructions for Use.^{6,7} The knowledge pre-survey is used to help guide the pharmacist in delivering the standardized counseling curriculum. The post-counseling questionnaire is intended to provide valuable patient perceptions, which can help guide changes to the knowledge pre-survey and standardized counseling session to mold the encounter into a beneficial informative session for all patients. The study design is approved by the international review board of Palm Beach Atlantic University.

Participants:

Patients are included into the study if they are 18 years of age or older and are: taking any medication with an opioid component, taking prescriptions for substance abuse, taking concurrent medication that can increase overdose risk (hypnotics, muscle relaxants, benzodiazepines), suffering from a disease state that puts the patient at increased risk for respiratory depression (e.g. COPD), or a family member/caregiver of an eligible patient. Patients were excluded if they are less than 18 years old or receiving opioids for hospice or active cancer therapy.

Study Process:

In order to identify patients eligible for inclusion into the study, the pharmacist reviewed partially filled medications from the day before and prescriptions in the “will-call” bin for patients who may be coming into the pharmacy to retrieve their opioids. The schedule for enhanced services (INR monitoring, blood pressure monitoring program, or MTM program) was also reviewed each day for eligible patients. Patients who bring in new prescriptions into the pharmacy to be filled are also assessed for inclusion into the study. The pharmacist utilized pharmacy’s dispensing software to perform a medication review and determine if the patient meet the inclusion criteria. Once a patient is identified as eligible, the pharmacist inputs a “pickup note” in the dispensing software to help staff notify the pharmacist when the patient arrives for retrieval of medication.

At medication pick-up, the pharmacist asks the patient to volunteer in the study; however, if consent was not given due to lack of time, the pharmacist asks for participation at later date more convenient for the patient. Once the patient agreed to participate in the study, the knowledge pre-survey was provided to the patient to complete. The pharmacist utilized the knowledge pre-survey results to tailor the standardized counseling curriculum. Each missed question on the knowledge pre-survey prompted the pharmacist to educate the patient on the correlating section (**Table 1**) in the standardized counseling curriculum. Once the counseling session was over, the pharmacist and patient entered an open discussion post-counseling questionnaire to assess how the patient perceived the counseling.

Table 1. Knowledge Pre-Survey Questions and Corresponding Standardized Curriculum Topics

| Topic of the knowledge pre-survey question | # of questions | Corresponding topic from the standardized counseling curriculum |
|--|----------------|--|
| Morphine milligram equivalents (MME) | 1 | Discussing MME and how it is used by healthcare providers |
| Opioid overdose | 2 | How to identify a person experiencing overdose Providing examples of medications/disease states that can increase overdose risk |
| Opioid examples | 1 | Reviewing different opioid medications |
| Tolerance vs dependence | 1 | Defining tolerance vs. dependence |
| Proper disposal of opioids | 1 | Reviewing recommended opioid disposal for Florida |
| Mild vs. Moderate vs. Severe pain | 1 | Explaining the “1-10” pain scale and opioid action on pain |
| Narcan Nasal Spray administration | 2 | Explaining naloxone’s mechanism and demonstrating administration technique |

Evaluation Strategy:

Data collected during this study was de-identified and transposed into a password-protected Microsoft Excel file on a password-protected computer. Descriptive statistics were used to analyze data. Data elements collected included: demographic information, survey results, and patient responses to post-counseling questionnaire.

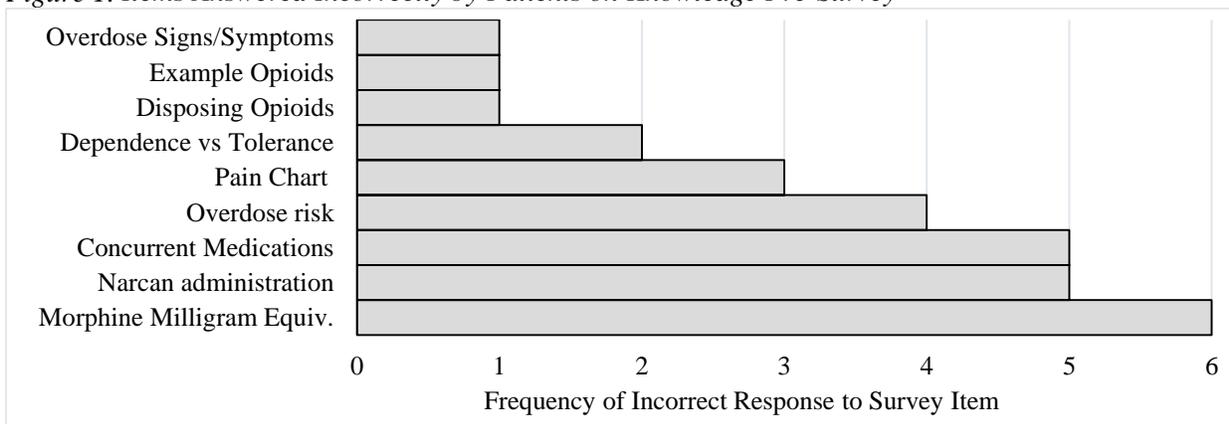
Results:

Eleven patients met inclusion criteria and six patients participated in the study. Reasons for declining study participation were being unfamiliar with the pharmacist (20%, n=1), already comfortable with current level of opioid knowledge (40%, n=2), and time limitations (40%, n=2). The mean age of the included patients was 63 years (± 13.4 SD). A majority of participants were female (n=4, 66.7%) and none of the participating patients were caregivers of a person using opioids. Fifty percent (n=3) had an MME greater than 50 and 60% (n=4) of patients reported taking medications that can increase risk of opioid overdose. One encounter was performed via phone and the remaining were conducted face-to-face.

Knowledge Pre-Survey:

Items answered incorrectly on the knowledge pre-survey are depicted in **Figure 1**. Identified knowledge deficits for the majority of patients included: identifying moderate pain from the universal pain chart, identifying overdose risk and medications that can increase it, placing naloxone administration in the correct order, and choosing the correct MME value that can increase overdose risk.

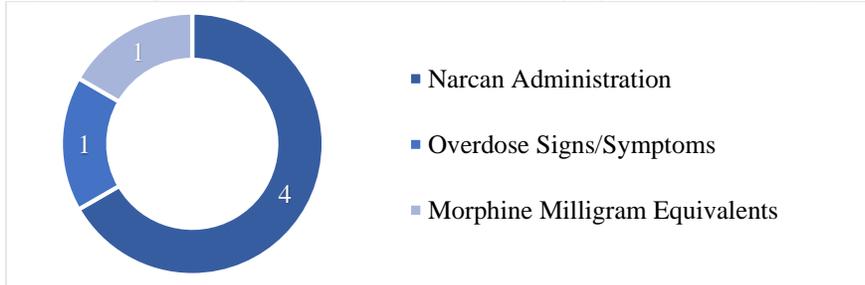
Figure 1. Items Answered Incorrectly by Patients on Knowledge Pre-Survey



Post-counseling Questionnaire Final Results:

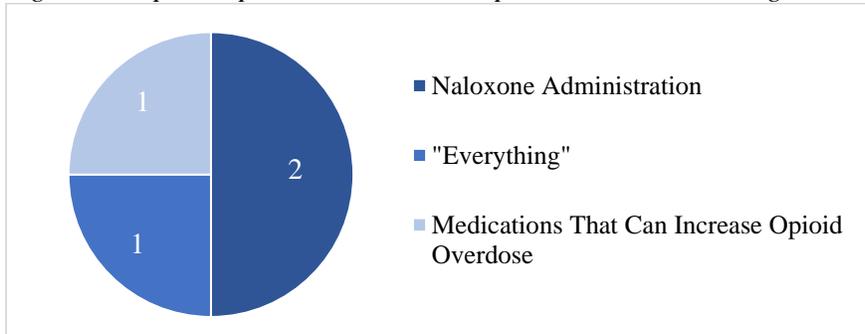
The post-counseling questionnaire was completed by 83.3% (n=5) of patients. One patient declined to complete the post-counseling questionnaire due to time limitations. Topics that participants reported were the most challenging to understand are reported in **Figure 2**. Eighty percent of participants (n=4) reported naloxone administration as the hardest topic to understand. The participants also reported several items as important topics covered in the counseling session (**Figure 3**), including: medications that can increase risk of overdose, explaining that naloxone nasal spray only works on opioid reversal, and how to appropriately administer naloxone. One patient reported that all information discussed was important.

Figure 2: Topics Reported as the Most Challenging to Understand by Patients



*Note: labels within the graph represent frequency of topic reported

Figure 3: Topics Reported as the Most Important to Cover During Counseling by Patients



*Note: labels within the graph represent frequency of topic reported

Discussion

Half of the patient population answered the majority of the pre-counseling knowledge survey correctly, which signifies that patients of Atlantis Pharmacy have some baseline knowledge of opioids. A majority of patients lacked knowledge on how to correctly administer naloxone nasal spray; interestingly, the same patients reported it as one of the important topics on the post-counseling questionnaire. This may suggest that naloxone administration should be an increased area of focus in future iterations of the opioid counseling curriculum. All patients reported that counseling on opioids should be done in a semi-private area to help the patient feel more comfortable in discussing their medications. Similar to the descriptive report written by Tewell et. al⁸, many participating patients expressed positive feelings towards the standardized counseling session for opioids and naloxone.

The post-counseling patient questionnaire responses provided valuable information for the authors to perform adjustments to the pre-knowledge survey. The adjustments included: rephrasing questions to allow for better understanding by the patient, changing verbiage to portray a more culturally appropriate outlook on opioid use for pain (i.e., "opioid user" was changed to "a person who uses opioids for pain management"), and consolidating two questions regarding naloxone administration to reduce repetitive questioning. Due to the high rate of incorrect answers on the question pertaining to the importance of

MMEs in determining opioid overdose risk, and after contemplation on patient responses, authors recommend to remove MME questions from the pre-counseling survey but keep the information in the standardized counseling curriculum.

Similar to the studies conducted by Rudolph and Hagemeyer et al^{4,5}, time restraints and staff availability were limitations of this study. Since the PGY1 Community-based Pharmacy Resident was the main data collector, some patient encounters were missed due to the resident's schedule. Comparable to the report by Tewell et. al⁸, patient recruitment was inhibited by lack of willingness to receive opioid and naloxone education for reasons including: not feeling comfortable with discussing medications with a pharmacist they were not familiar with, currently comfortable with existing opioid and naloxone knowledge, and not having the time.

Conclusion

An opioid and naloxone pre-counseling knowledge survey tool was successfully created. The survey aided community pharmacists in assessing patients' opioid/naloxone knowledge to personalize patient counseling. The survey assisted the pharmacist in identifying topics that patients struggled to understand including: naloxone administration, MMEs, and opioid overdose signs and symptoms. The post-counseling questionnaire provided insight into topics patients deemed as important including, medications that can increase overdose risk and naloxone administration.

Citations

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