

Students Use "STAMP-OUT" Program to Advance Seniors' Knowledge of Drug Misuse

Gabrielle Cozzi, Elisa Torres, Robert G. Wahler, Jr.

This program assessed the impact of student presentations on 30 seniors and sought to improve their knowledge of prescription drug misuse and abuse. The six pharmacy students used the ASCP Foundation's "STAMP Out Prescription Drug Misuse and Abuse Tool Kit." Information presented to senior audiences included descriptions of drug misuse and abuse and preventive measures to uphold medication safety. Students assessed seniors' prior knowledge about the topics through audience participation. Afterwards, a self-assessment quiz was given that examined participants' learning about safe medication practices.

Before the presentation, only 36% of participants recognized the difference between prescription drug misuse and abuse. The self-assessment quiz results showed that following the three presentations, all 30 participants received perfect scores: The results showed an improvement in knowledge after attending the student presentations. This program demonstrates advancement of the pharmacy profession through educating seniors on proper medication use to prevent drug abuse and improve medication safety.

KEY WORDS: Abuse, Education, Elderly, Medication, Medication safety, Misuse, Over-the-counter, Pharmacy, Seniors, Student, University of Buffalo.

ABBREVIATION: OTC = Over-the-counter, UB SPPS: University at Buffalo School of Pharmacy and Pharmaceutical Sciences.

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Background/Objectives

As the use of medications increases in the United States each year, the risk of improper medication use becomes more prevalent, especially among adults 65 years of age and older. Although older adults only account for 13% of the population, they consume about one-third of all prescription drugs in the United States.¹ These individuals are highly vulnerable to both medication misuse and adverse effects. Prescription **misuse** is defined as taking medications differently than directed, intentionally or not. Prescription **abuse** is defined as taking medications wrongly on purpose (i.e., more or more often than prescribed, for no medical reason, or mixing medicine with illegal substances or alcohol). It is estimated to occur in 12% to 15% of seniors who seek medical attention. Substance abuse is commonly associated with younger adults; however, experts suggest a significant prevalence occurs in the elderly as well and may be underdiagnosed since traditional indicators of drug abuse do not necessarily correlate to seniors. A major contributor to these problems is the lack of information given to patients by providers and health care professionals about their prescriptions.^{2,3} Patient education is a key component in preventing drug-related problems and incidents of medication misuse and abuse. This can be combated at not only the pharmacist level, but also at the student level. Therefore, in this program, students aimed to assess the impact of their presentations on improving the geriatric population's knowledge of prescription drug misuse and abuse.

The "STAMP Out Prescription Misuse and Abuse Tool Kit" is a presentation-based toolkit developed by the American Society of Consultant Pharmacists (ASCP) Foundation to assist pharmacists and providers in enhancing medication safety by educating seniors, caregivers, and their families on recognizing prescription misuse and abuse.² Students at the University at Buffalo School of Pharmacy and Pharmaceutical Sciences (UB SPPS) aimed to assess the impact of these presentations on improving the knowledge of prescription misuse and abuse in the elderly population.

Methods

Representatives from the UB SPPS ASCP chapter attended the 2014 ASCP annual meeting, where they learned about the “STAMP Out” program. It was introduced to students as an opportunity to serve the seniors and assess gaps in knowledge regarding proper drug use. These student-led presentations aimed to provide information on recognizing prescription drug misuse and abuse as well as improve medication safety overall. Students adopted “STAMP Out” as a means to engage with seniors in the community and provide materials for them to take home to promote safe medication practices. Results from these initial presentations will also be used as a guide to incorporate this pilot program into the UB SPPS Experiential Education curriculum.

After contacting senior centers in Western New York, three facilities expressed interest in having student presentations. Each senior center received an electronic copy of a flyer to print to advertise the presentations. Each facility had two students, for a total of six, conduct the “STAMP Out” PowerPoint presentation using materials retrieved from the ASCP Foundation’s Web site.² Student presenters were UB SPPS ASCP members who were trained by the faculty advisor to maintain consistency. Presentations were approximately one hour long, and materials included copies of the presentation, self-assessment quizzes, feedback surveys, and key messages to take home. Prior to presenting, students assessed the current knowledge of the attendees by asking if they could differentiate between prescription drug misuse and abuse. Students polled the audience by a show of hands [?] to record the number of seniors that could make this identification. Throughout the presentations, audience participation was encouraged to make an interactive learning experience. Topics discussed included definitions of prescription drug misuse and abuse with examples of each, as well as ways individuals incorrectly use medications, which can be harmful to them or others. Commonly abused medications and how to help someone abusing prescription drugs was also addressed. Participants were taught general medication safety tips, such as cleaning out medicine cabinets, recognizing drug side effects, and asking doctors and pharmacists about

medications. Finally, the presentation outlined how to properly dispose of unused or expired medications by listing local drug-disposal sites. After completing the presentations, students distributed self-assessment quizzes to evaluate knowledge gained.² Quizzes were designed in a fill-in-the-blank format with an answer word bank.² Participants were given 10-15 minutes to complete the quiz, which was collected afterward for analysis. Participants were asked to complete a feedback survey to evaluate the quality of the program.

Each attendee received a “key messages” handout and several UB SPPS-provided medication aids to encourage drug safety, such as blood pressure and glucose monitoring cards, as well as medication recorder cards for prescription and over-the-counter (OTC) drugs. Pillboxes to aid in medication adherence and the Vial of Life program (<http://www.vialoflife.com/>) for recording health information in the event of medical emergencies were also used.⁴

Results

A total of 30 seniors attended the three “STAMP Out” presentations, with a majority of participants acknowledging that they did not know, when asked, the difference between prescription drug misuse and abuse. At the three centers, only 11 of the 30 (36%) participants reported that they understood the difference between drug misuse and abuse. Following the presentations, self-assessment quiz results showed that all 30 participants successfully learned how to distinguish the difference between prescription drug misuse and abuse by receiving perfect scores. Participants correctly matched definitions as well as identified proper ways of upholding medication safety. Feedback surveys from participants focused on the high quality of the program content and the presentation skills of the speakers.

Additionally, attendees actively engaged with the students by asking drug-related questions. Students were able to answer many of their questions and concerns regarding medication use. After the presentation, participants communicated that they felt more comfortable approaching pharmacy students or community pharmacists about their medications prior to the presentation.

Discussion

These series of presentations served as a pilot program to assess the efficacy of the “STAMP Out” program in advancing the knowledge of the geriatric population. Because of the significant success increasing the percentage of participants who recognize prescription misuse and abuse, UB SPPS students will continue to use the “STAMP Out” tools in future presentations. Sustainability of the program was upheld. The program was renewed in 2015-2016 for a second pilot year. Additionally, the ASCP student chapter plans to build on the program to achieve a greater impact. Therefore, the students will seek to work in conjunction with the UB SPPS Experiential Education Office to integrate the program into the Introductory Pharmacy Practice Experience curriculum. The program goal will be that each P3 (third year) student will present the “STAMP Out” presentation in pairs at least twice in an academic year. This would result in approximately 120 presentations per academic year. Extrapolating from the preliminary participant data, this program has the potential to reach 1,200 seniors each year.

The program not only promotes geriatric patient education, but also fosters the growth of student pharmacists. Incorporating programs like this into the experiential education curriculum was successful in other schools as well. The University of Arizona, College of Pharmacy assessed the effect of pharmacy student-led presentations on safe use of OTC medications.⁵ Their presentation covered many different OTC topics, incorporating similar interactive methods used by the “STAMP Out” program. Survey findings demonstrated that more than 90% of participants gained a better understanding of OTC medications. Additionally, 79.3% of those who attended the program stated that they would modify the way they use OTC drugs. Our findings are consistent in showing that presentations to senior audiences are a key component of experiential education. Students are able to apply their knowledge through direct patient interaction and demonstrate professionalism with patients, family members, and health care providers and boost participants’ value of pharmacists.

Limitations on the format of the presentations included the method of evaluating participants on their prior knowledge of prescription drug misuse and abuse. The hand-raising method only assessed a narrow scope of knowledge regarding proper medication use. A written preassessment quiz would demonstrate a more accurate representation of their previous understanding of the topics covered. Use of assessment quizzes before presentations would also allow students to accommodate larger groups of participants where a hand-raising method could be difficult to administer. Additionally, the presentation showed that the results may be limited by the small number of senior citizens who were involved in the program. A single geographic area and setting only represents a small percentage of the total population of senior citizens, and knowledge may differ depending on level of education, economic status, and cognitive ability. Because presentations were conducted in community centers in Buffalo, participants were likely to be relatively healthy and active, with similar economic backgrounds. As students conduct future presentations, more data can be used to display consistency in these results, further supporting the quality and versatility of the program.

Conclusion

Student-led “STAMP Out” presentations effectively educated elderly adults in the Buffalo area about prescription misuse and abuse to improve medication safety. These presentations not only benefited elderly participants, but also benefited pharmacy students by allowing close patient interaction and the opportunity to advance the profession of pharmacy. These presentations have the potential of boosting patient education and minimizing medication misuse and abuse.

Gabrielle Cozzi and **Elisa Torres** are 2017 PharmD candidates, School of Pharmacy and Pharmaceutical Sciences, The State University of New York at Buffalo, Buffalo, New York. **Robert G. Wahler, Jr., PharmD**, is clinical assistant professor, geriatric and palliative care, School of Pharmacy and Pharmaceutical Sciences, The State University of New York at Buffalo.

For correspondence: Robert G. Wahler, Jr., PharmD, School of Pharmacy and Pharmaceutical Sciences, The State University of New York at Buffalo, 211 Kapoor Hall, Buffalo, NY 14214-8033; Phone: 716-645-4777; Fax: 716-829-6092; E-mail: rgwahler@buffalo.edu.

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