



GenerationRx
Safe medication practices for life.

Public Report

UPDATED 2023

Generation Rx University

Background

Attending college marks an important milestone in many young people's lives. The transition from the home to a campus environment brings with it many changes. These young adults will have exciting new experiences and opportunities, while also facing new pressures and expectations. The literature demonstrates that prescription drug misuse among this population is linked to growing academic and social pressures. Although most college students do not misuse prescription medication, for this reason they remain a population vulnerable for first misuse, emphasizing the important role of prescription drug misuse prevention efforts on college campuses¹.

- ▶ **Generation Rx (GenRx) develops engaging, research-based resources to teach safe medication practices across the lifespan, and guides others to effectively use those resources in their communities. GenRx, founded at The Ohio State University College of Pharmacy, has been powered through a partnership with the Cardinal Health Foundation since 2009.**



For more than 15 years, GenRx faculty, students, and staff have developed a range of educational resources that discuss the foundational principles of medication safety, using techniques that are both developmentally appropriate and evidence based². *Generation Rx University: Resources for College Students* was created in partnership with college students, for college students, to help prevent prescription drug misuse on college campuses and create campus environments that promote safe medication practices. As a prevention education strategy, this toolkit provides resources to deliver in-person or virtual educational programming through structured, peer-led modules that discuss general medication safety and concerns specific to prescription opioids, stimulants, and sedatives. Thus, learning outcomes center around lowering harms associated with medication misuse behaviors and teaching students how to safely and properly use medication.

This report summarizes the key findings of a multi-institutional pilot study evaluating the effectiveness of the Generation Rx University resources as a prevention education strategy.

HIGHLIGHTS

Safe Medication Practices



Safe Medication Storage & Disposal

GenRx University helped students make significant knowledge gains around safe medication storage and disposal practices.



Following Instructions

GenRx University significantly strengthened student knowledge about the importance of taking medication as instructed and their intention to avoid self-medicating with prescription medications.



Not Sharing Medication

GenRx University supported a positive trend in strengthening existing knowledge about forms of medication misuse, as well as demonstrating positive intentions for responsible use practices.

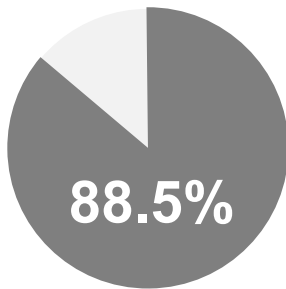


HIGHLIGHTS : Social Norms

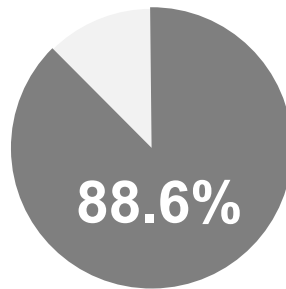
College students often overestimate the prescription drug use behaviors of their peers. GenRx University demonstrated a notable impact on the misperception students held about that behavior. After the programming, students held a more accurate perception of lifetime use.

HIGHLIGHTS : Behavioral Intentions

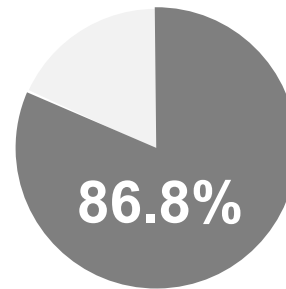
After the GenRx University program, most students agreed not to share their medication (88.5%), not use others' prescriptions (88.6%), and share their learning with others (86.8%).



Will not share their medication



Will not use others' prescriptions



Will share their learning with others

Additionally, the GenRx University program positively impacted students' attitudes. The top three themes that emerged from the self-reported behavioral intentions of students included:



- 1 A commitment to safe medication use.
- 2 An intention to educate others about medication safety.
- 3 A commitment not to share medication with others.

Study Findings: A Closer Look

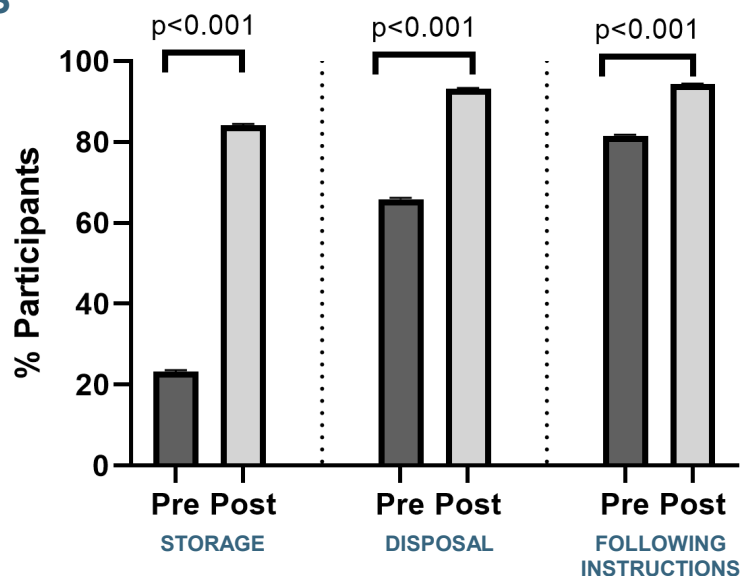
During 2021 – 2023, wellness staff from three campuses across the country administered an online anonymous pre-program survey to a convenience sample of students from a select population (see table). Two weeks after survey completion, wellness staff invited students from the same convenience sample to attend an in-person, 60-minute, educational program that delivered the GenRx University “Safe Medication Practices for Life” presentation (each campus delivered 2 – 3 programs to ensure small group size). Students attending the program completed an online anonymous survey immediately following program completion. Both survey instruments were developed by Generation Rx. For all outcomes, data were aggregated across all three campuses and a two-sided un-paired t-test was used to analyze changes in mean score for relevant questions (sample sizes, up to n=185 pre-program, up to n=130 post-program). Exemption from The Ohio State University IRB review was granted (2022E0887). This study was not sponsored by private or public grant funds.

	Campus A	Campus B	Campus C
Campus Type	Public	Private	Public
Campus Population	> 15,000	< 2,000	> 30,000
Sample Size	(n=60, pre; n=53, post)	(n=55, pre; n=45, post)	(n=70, pre; n=32, post)
Audience Engaged	Student Club Athletes	F/S Life Students	Sorority Students

EVALUATION OUTCOMES

Safe Medication Practices

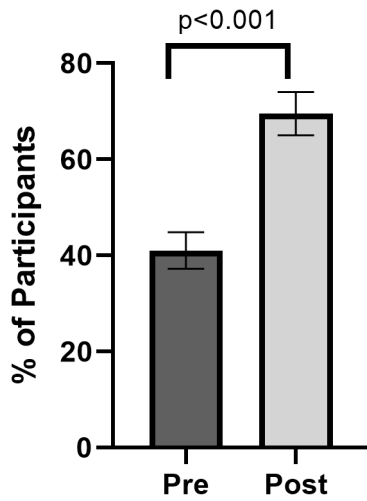
When prompted to handle real-world scenarios involving prescription medication use, post-program participants demonstrated significant knowledge gains related to safe medication storage and disposal practices, as well as intention to avoid self-medicating with their own prescription medication, compared to pre-program participants.



EVALUATION OUTCOMES (cont.)

Social Norms

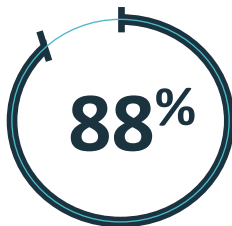
Post-program participants demonstrated a significantly more accurate perception of the percent of college students that reported lifetime prescription drug misuse compared with their pre-program peers.



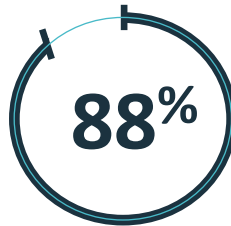
Behavioral Intentions

Across several variables, thematic analysis of student self-reported responses demonstrated that most post-program participants indicated positive behavioral intentions to engage in behaviors that emphasize safe medication practices or that lower risks associated with medication misuse for themselves or others.

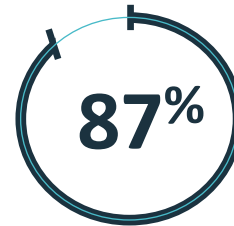
“Because of what I learned today in the Generation Rx Program...”



I will not share my prescription medication with others.



I will not use someone else's prescription medication.



In the next 3 months, I will share what I learned with others.

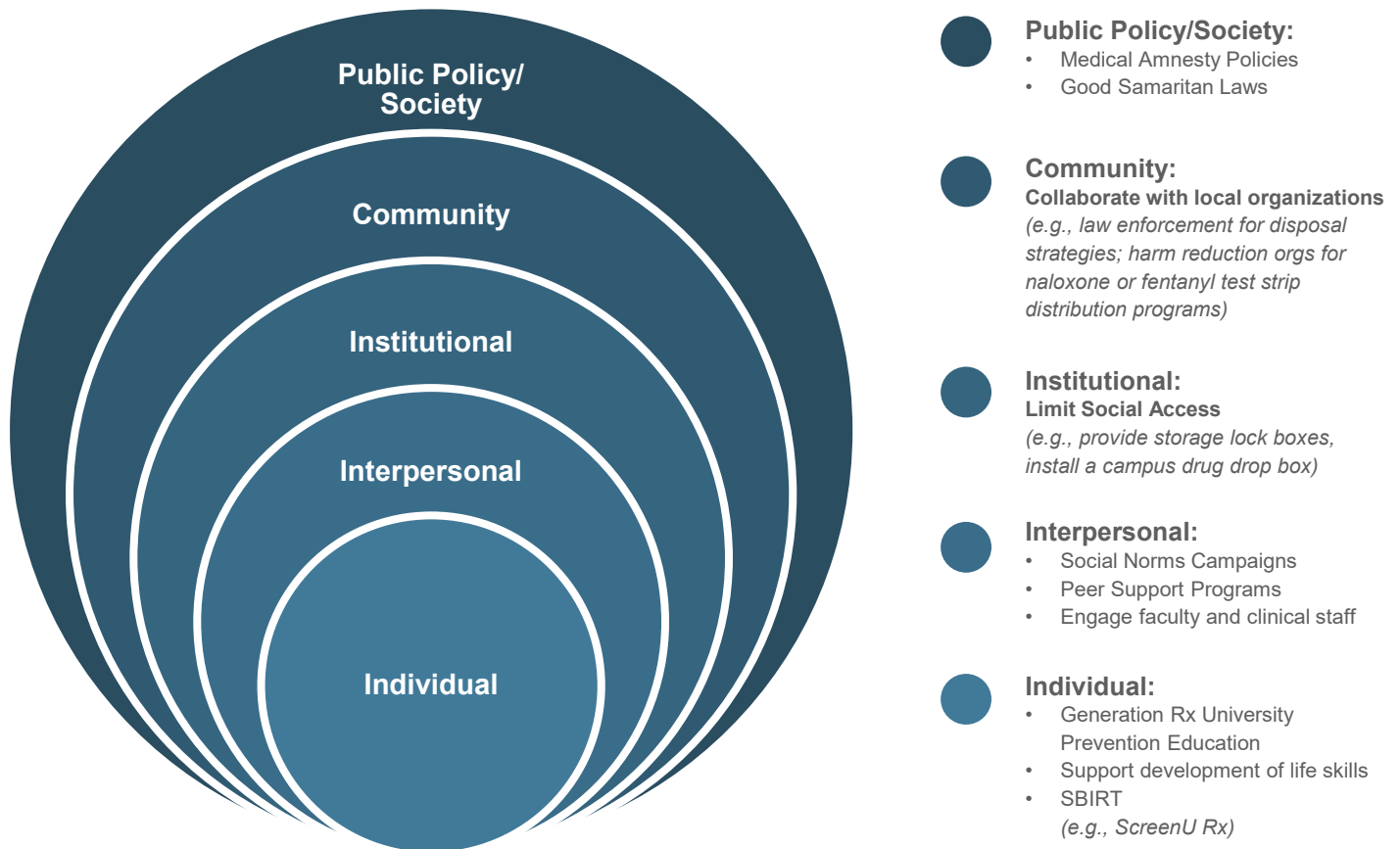
THREE themes emerged from the self-reported behavioral intentions of participants:

- 1** **A commitment to safe medication use.**
“I intend to never use medication that isn't prescribed to me, including [not] mixing alcohol with any medication.”
- 2** **An intention to educate others about medication safety.**
“I intend to share what I learned with my peers who didn't have the opportunity to attend.”
- 3** **A commitment not to share medication with others.**
“I intend to only use my prescriptions and ask my healthcare provider about any questions.”

Implications for Practice

Implementing a Comprehensive Prevention Plan

The multi-institutional study demonstrates several key findings across a range of campus environments—each differing in size, location, and student body profile. We observed significant knowledge gains around several safe medication practices, positive gains related to accurate social norming, and positive intentions related to safe medication use. These outcomes support the use of Generation Rx University resources as an effective prevention education strategy and align with the individual level of the Social Ecological Model for both universal and selective collegiate populations. We encourage campuses to complement Generation Rx education with other evidence-informed or evidence-based strategies that target the remaining levels to implement a comprehensive prevention plan³.



Enhancing Generation Rx Education

Although outcomes reported here are based on a single, stand-alone program, we strongly encourage campuses to support students throughout their academic career with ongoing prevention education, as students will encounter increased academic and social pressures that influence potential misuse behaviors over time. Use social media or other digital platforms to share the Generation Rx key messages, incorporate Generation Rx University into existing substance use programming, or allow Generation Rx University to complement any online medication safety education delivered during the first year.

Acknowledgements

This study would not have been possible without the cooperation and support of many offices and individuals. We extend our gratitude to the College of Pharmacy and the Higher Education Center for Alcohol and Drug Misuse Prevention and Recovery (HECAOD) for their guidance and collaboration in the development and maintenance of the Generation Rx University resources. We further extend our gratitude to Alpha Chi Omega, Kappa Kappa Gamma, Sigma Nu, Pi Kappa Alpha, Pi Kappa Phi, and Zeta Tau Alpha, for their collaboration on the development of resources for fraternity and sorority audiences.

Finally, we would like to acknowledge the following individuals for their support, feedback, and collaboration on the resources and study itself:

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- Dr. Kenneth Hale, Associate Director Emeritus, Higher Education Center for Alcohol and Drug Misuse Prevention and Recovery, The Ohio State University
- Cindy Clouner, MPH, LSW, Managing Director, Higher Education Center for Alcohol and Drug Misuse Prevention and Recovery, The Ohio State University
- Kyle A. Pendleton, Senior Director Harm Reduction and University Relations, Zeta Tau Alpha International Office
- Dr. Emily Baker, PhD
- Our colleagues on the Generation Rx project team

What the students had to say:

...the presentation taught me a few things I didn't know and I would 100% recommend it to the rest of Greek Life chapters.

...I want to make sure my friends and those close to me understand how dangerous misuse can be and how to properly use prescription drugs.





Questions?

Access the free Generation Rx University resources at:
www.GenerationRx.org and email info@generationrx.org with any questions.

Sources

¹Baker, Emily A. and Miracle, Tessa L. (2022). *College Prescription Drug Study Key Findings Report*. College of Pharmacy, The Ohio State University: Columbus, Ohio. Retrieved July 26, 2023 from <https://hecaod.osu.edu/news-research/further-reading/>.

²Summers et.al. (2022). *Generation Rx 15th Anniversary: 2022 Impact Report*. College of Pharmacy, The Ohio State University: Columbus, Ohio. Retrieved July 26, 2023 at www.GenerationRx.org.

³Drug Enforcement Administration. (2020). *Prevention with Purpose: a Strategic Planning Guide for Preventing Drug Misuse among College Students*. Arlington, VA. Retrieved July 26, 2023 from www.campusdrugprevention.gov.

Suggested Citation

Downing, M., Gonzalez, A., Lovatt, B.S., and Kwiek, N. (2023). *Generation Rx University : Integrating Medication Safety Education into Campus Wellness*. College of Pharmacy, The Ohio State University: Columbus, Ohio.

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