



Bring the Breath Overdose Response

Executive Summary

- Animated education modules are the student-preferred method for opioid overdose response training.
- Bring the Breath was designed to instill students with the action protocol to recognize the signs of an opioid overdose and respond with the reversal agent NARCAN® (naloxone).¹
- 308 students observed ranged from 1st to 4th year undergraduates at The University of Southern California.
- Students who watched Bring the Breath reported an average of:

95% Average confidence level to respond to an overdose after *Bring the Breath*

80% Preferred learning via animated video over other forms of video or lecture educational material

98% Average score on comprehension check questions for *Bring the Breath*



Ages: 18–22 years

Education: undergraduate

Lesson: 1 video (4 min)

Curriculum Fit: 1st year orientation, GenEd

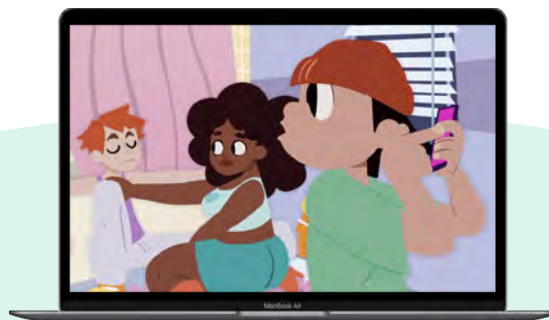


Background

For many students arriving to college campuses, alcohol education is taught and drug education is lived. Without the proper education to protect themselves, this has resulted in unprecedented numbers of accidental overdoses, with drug overdose now being the leading cause of death for Americans 18-45.² This lack of education is due to previous stigmatization that hinders Opioid Overdose Response Training (OORT). Brief, virtual OORT has a comparable impact to that of live lecture format OORT³.

Bring the Breath builds on the virtual format to determine if cartoon animated OORT is more engaging for college students to augment their long-term retention and thereby the program's efficacy⁴. To reduce overdose fatalities on campus, rapid response training and drug education that is relatable - and consequently easily actionable to students - is vital.

Bring the Breath is DopaGE's digital program to enact students in keeping each other safe - regardless of whether or not they individually choose to use drugs. DopaGE modules are developed by emergency medical personnel, neuroscientists, and UX specialists focused on maximizing student engagement.



Lesson Plan

Recognizing

Students learn to identify the telltale signs of an opioid overdose to support early activation of life saving measures.

Good Samaritan Law

Students understand legal protection over those who call 911 for an overdose to diminish fears around seeking emergency medical services.

Responding

Students learn how to provide the opioid overdose reversal agent NARCAN® (naloxone).

“Thank you for educating our students in this very timely and important issue! I hope we can do more next semester.”

~ **Dr. Liana Asatryan, PhD**, Professor of Clinical Pharmacology at the University of Southern California

Method

Data was collected from students who completed the *Bring the Breath* lesson in the classroom during the Fall of 2022. Secondary analyses were conducted on student data collected from post-lesson survey.

Post-lesson survey included questions to assess general retention, confidence, and preference level to the presented style of OORT. General retention questions were adapted from the Opioid Overdose Knowledge Scale (OOKS) questions B, E, F, and H. Confidence questions were adapted from the Opioid Overdose Attitudes Scale (OOAS) questions 1 and 2.⁵ In the *Bring the Breath* survey, both OOKS and OOAS questions were adapted to reflect the introduction of nasal naloxone 2 years after these scales were developed.

Measurement

* Multiple Choice Response
+ Binary Choice Response

Of 308 Responses, Correct answers to represent general retention of material were:

- 97.7% * The BIG 3 signs of a Fentanyl (Opioid) overdose are...
- 96.4% * You can check if someone is breathing by... *
- 96.1% * NARCAN® (naloxone) reverses an Opioid overdose for up to... *
- 100% * After someone's overdose is reversed with NARCAN® (naloxone), they should... *
- 100% + Good Samaritan law says that if you call 911 in the event of an overdose, you and the person overdosing cannot be prosecuted for personal use of illicit drugs.
- 99.4% * Where do you spray NARCAN® (naloxone) into?

Of 308 responses, confidence levels to represent actionable retention were:

- 99.4% + Do you feel more prepared to respond to an overdose than you did before watching this video?
- 91.2% + Do you feel confident in giving someone NARCAN® (naloxone) after this video?

Of 308 Responses, preference levels toward the animated learning format were:

- 79.5% * Responded "Animated videos" to: When learning something new, what are methods that you find most effective and enjoyable?
- 94.5% * Responded "better" or "much better" to: How much did you enjoy this video compared to other substance use education you have received?

Participants

Only students in their 1st - 4th years of undergraduate college education who completed the full lesson and accompanying survey in the Fall of 2022 (n = 308) were included in this research.

Participants were students at The University of Southern California from a wide range of organizations and backgrounds who had no previous history of overdose or substance use disorder.

Comprehension

NARCAN® (naloxone) reverses an opioid overdose for up to

- | | |
|------------------------------------|---|
| <input type="radio"/> A 10 minutes | <input checked="" type="radio"/> B 90 minutes |
| <input type="radio"/> C 2 hours | <input type="radio"/> D 4 hours |

Conclusions

This study illustrates a positive impact of *Bring the Breath* on student knowledge and actionable retention related to opioid overdose education in an animated format. Opioid overdose response training, like NARCAN® (naloxone) training for bystanders has proven to help contribute to mitigating the opioid overdose epidemic. Research is currently being done on what is the best way to provide this education, but the fact is that this education has consistently proven long-term retention and improved participants' attitudes toward naloxone, and is recommended by many public health organizations across the country.

After taking *Bring the Breath*, students demonstrated a strong retention of how to recognize an overdose, respond to an overdose with naloxone, and contact emergency medical personnel, ultimately resulting in saving more lives.

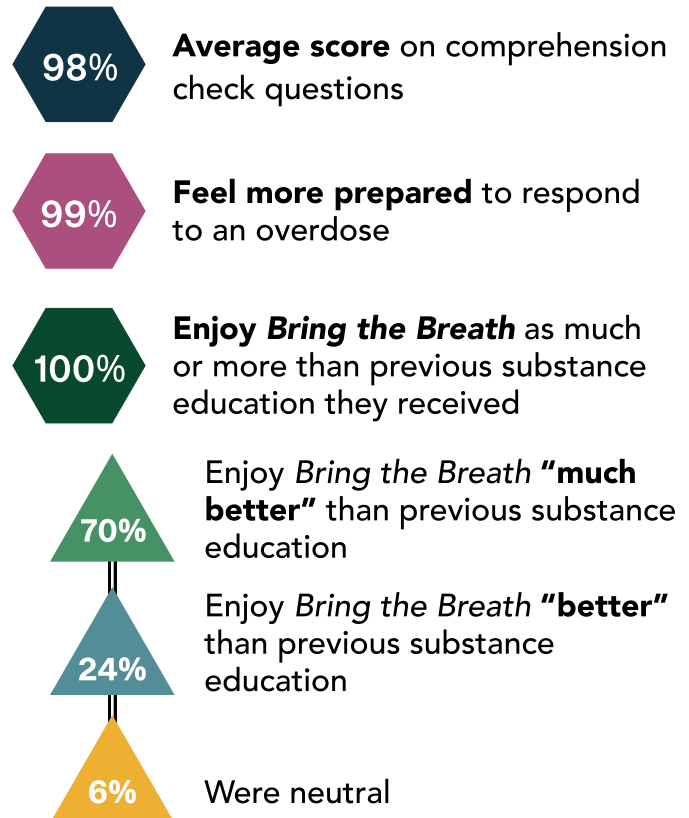
“Thank you for providing this course, I hope every college student gets access to this so they can protect their friends too”

~ **DopaGE *Bring the Breath* Student**

This study presents promising evidence for *Bring the Breath*, and DopaGE as a whole, and its ability to prepare students with the information needed to prevent overdose deaths among their peers at their universities, as well as the mindset to act upon their new knowledge. Addressing all students, even those that may not be partaking in recreational drug use, is vital to save lives in the university community.

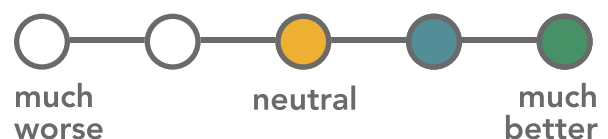


After completing *Bring the Breath*...



Attitude

How much did you enjoy this video compared to other substance use education you have received?



References

1. California OBLIGATIONS IMPOSED BY LAW, section 1714.22
2. Galihier, M. V., & Huffman, M. (2022). Attitude changes following short-form opioid overdose video education: A pilot study. *Harm Reduction Journal*, 19(1). <https://doi.org/10.1186/s12954-022-00696-4>
3. National Center for Health Statistics (NCHS), National Vital Statistics System, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. (2020, February 20). WISQARS leading causes of death reports. Centers for Disease Control and Prevention. Retrieved April 1, 2022, from <https://wisqars.cdc.gov/fatal-leading>
4. Wagner, A. D., Shannon, B. J., Kahn, I., & Buckner, R. L. (2005). Parietal lobe contributions to episodic memory retrieval. *Trends in cognitive sciences*, 9(9), 445–453. <https://doi.org/10.1016/j.tics.2005.07.001>
5. Williams, A. V., Strang, J., & Marsden, J. (2013). Development of opioid overdose knowledge (OOKS) and attitudes (OOAS) scales for take-home naloxone training evaluation. *Drug and Alcohol Dependence*, 132(1-2), 383–386. <https://doi.org/10.1016/j.drugalcdep.2013.02.007>