

WILL

Evidence of Effectiveness

T Safer Opioid Use



"An excellent program that shows what patients and visitors see and how your attitudes and behaviors affect patient satisfaction." — Charge Nurse, suburban hospital

willinteractive.com

PHONE (301) 983 – 6006

FAX (301) 983 – 6008

10000 Falls Road, Suite 305
Potomac, MD 20854

The

Preface

This document contains selected examples of evidence of the effectiveness for WILL Interactive's proprietary interactive behavior modification system. It contains:

- Publicly available statistics
- Evaluation summaries WILL is authorized to share

WILL is neither authorized to release the findings of our partners' internal assessments nor collect data from their constituencies except in concert with those partners.

Case Study

Beyond the Front

U.S. Army



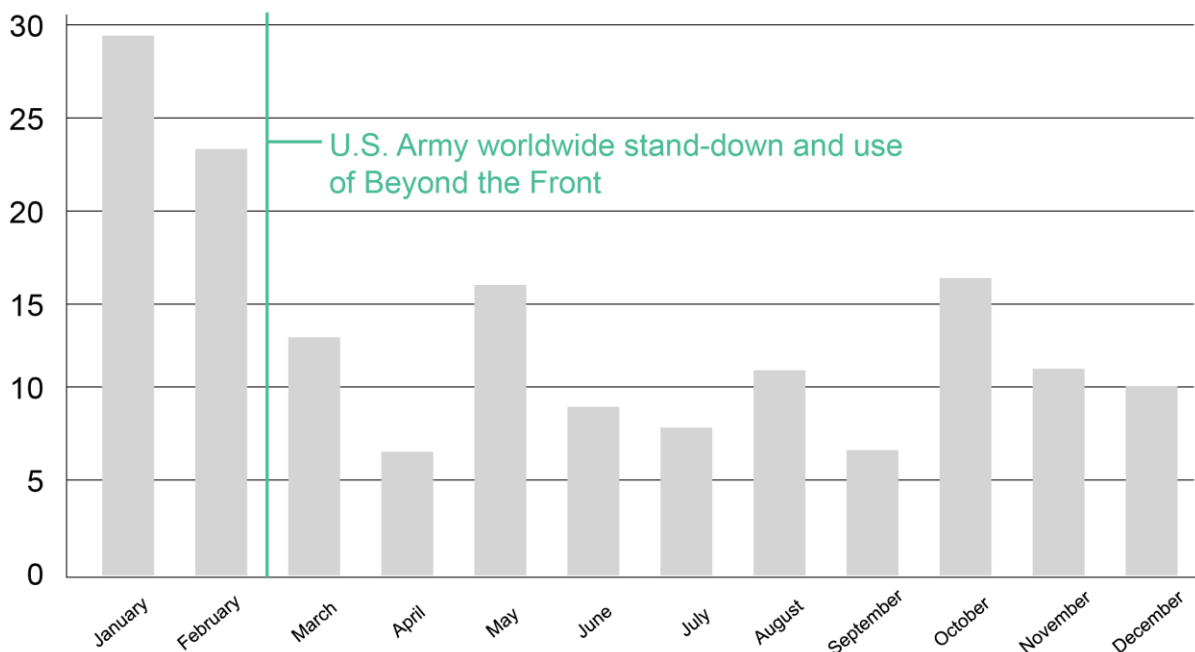
Study Abstract

In 2008 and early 2009, the United States Army was facing a suicide epidemic that averaged over 25 deaths each month.

About *Beyond the Front*

Beyond the Front was created to help prevent suicides by promoting Soldier resilience and mental health, instituting awareness of bystander best practices, and reducing stigma associated with seeking help.

U.S. Army Monthly Suicide Statistics



Army Suicide Statistics

In February 2009, the Army held a stand down during which all Soldiers were required to play *Beyond the Front*. After the use of the program, **the monthly suicide rate decreased by an average of 58.4% for the remainder of the year.**

Letter from the Honorable Pete Geren

Army Suicide Statistics



SECRETARY OF THE ARMY
WASHINGTON
JUL 3 1 2009

Ms. Sharon Sloane
President and CEO
WILL Interactive, Inc.
10008 Falls Road
Potomac, Maryland 20854

Dear Ms. Sloane:

Thank you for producing the video *Beyond the Front*. This video was important to the Army campaign of educating our force on suicide prevention.

Your support and involvement in suicide awareness has made a difference to our Soldiers and their Families. The video is a priceless tool to help our Soldiers better recognize suicidal behavior and intervene decisively to get fellow Soldiers the help they need.

In recognition of your outstanding support, and as a token of the Army's appreciation, I have enclosed a Secretary of the Army coin. Best regards.

Sincerely,

Pete Geren

Enclosure

*P.T. I am confident your work
has saved lives.*

“I am confident your work has saved lives”

- Pete Geren, U.S. Secretary of the Army

Case Study

The Anatomy of Care



Washington Hospital Center, Medstar Health

Study Abstract

For many years, Washington Hospital Center's independent customer service satisfaction scores were at unacceptably low levels. *The Anatomy of Care* was introduced to educate hospital staff regarding customer service.

Study Methodology

Over 6,000 Washington Hospital Center employees completed *The Anatomy of Care* through a combination of facilitated sessions and online access.

About *The Anatomy of Care*

In *The Anatomy of Care*, users become five different hospital team members working at Metro Hospital: a desk clerk, a charge nurse, an environmental services technician, a transporter, and a senior resident.

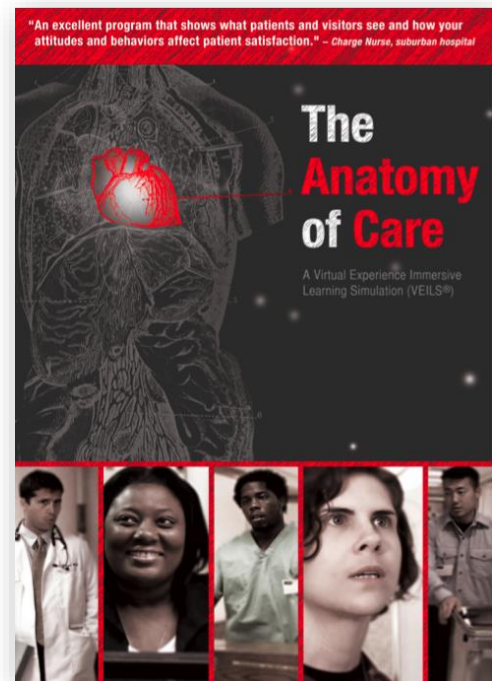
Patient Satisfaction Results

Independent patient satisfaction surveys showed a **satisfaction increase of 30 percentage points** six months after hospital employees completed *The Anatomy of Care*.

Post Course Assessment Results

Based on internal post course assessment surveys, the hospital employees who participated in the program believed it was one of the best learning experiences they had ever had.

95% of the participants rated *The Anatomy*



Of Care either "Excellent" or Very Good."

Case Study

Interactive Nights Out 2

Boston University, School of Public Health



Study Abstract

A quasi-experimental research design was used to conduct a pilot evaluation of the effectiveness of *Interactive Nights Out 2* (INO2), targeting adolescent alcohol and marijuana use.

Study Authors

Jonathan Howland, Ph.D. M.P.H. and Sara Minsky, M.P.H., Boston University, School of Public Health.

About Interactive Nights Out 2

Interactive Nights Out 2 (INO2) helps 12-17 year-olds make educated choices about alcohol and other drugs.

Study Methodology

Subjects were 7th and 8th grade students (N=298) at three urban junior high schools in Cincinnati, OH.

The mean age of the students was 13.6. Fifty-one percent of the subjects were male and seventy-nine percent identified themselves as Black-not Hispanic.

Pre and posttest measures of attitudes and actual and intended alcohol and drug use behaviors were assessed by anonymous self-administered questionnaires.

Post-Intervention Data Results

Relative to comparison students, results indicated effectiveness of the intervention for nine out of ten outcome measures. Four of these attained statistical significance despite the relatively small number of students participating in the study:

- difficulty in saying "no" to a best friend when offered beer or wine (p=0.02);
- difficulty in saying "no" to a best friend when offered marijuana (p=0.01);
- number of drinks would have at a party where alcohol was available (p=0.01); and
- intention to use marijuana in next year (p=0.02).

Study Conclusion

Process evaluation demonstrated a high level of acceptance of the intervention among targeted students, a convenience sample of parents, and convenience sample of teachers.

Evidence from the pilot evaluation indicates that adolescents desired repeated access to the intervention and suggests that repeated exposures to the intervention correlate with positive behavioral change.

Case Study

My Year with Tony

University of Pennsylvania



Study Abstract

Researchers studied the effectiveness of WILL's educational methodology in comparison to traditional "stand-up" training – measuring knowledge and attitudes of professionals before and after training. In two separate published studies (*Journal of School Health*, *International Journal of Education Development Using Information Communication Technology*), WILL's *My Year with Tony*, a 2-hour teacher-education interactive movie, was compared to a 2-day live workshop on the same topic with 120 educators.

Study Authors

Li-Wei Chao, PhD, MD, Population Studies Center, University of Pennsylvania. Mark Pauly, PhD, Health Care Systems Department, The Wharton School, University of Pennsylvania. Jeff Gow, PhD, School of Accounting, Economics and Finance, University of Southern Queensland. Goke Akintola, PhD, Department of Psychology, University of KwaZulu-Natal, Durban, South Africa.

About My Year with Tony

My Year with Tony, an Interactive Year of Teaching helps teachers understand the challenges, roles, and responsibilities of

teaching chronically ill students in a K-12 setting. *My Year with Tony* addresses both cognitive learning objectives (example: blood borne pathogens) and behavior-change learning objectives (example: overcoming stigma).

Users "play" as a teacher in an interactive movie, make key decisions during a fictional year instructing a student with HIV/AIDS, and experience a variety of outcomes based on their choices.

Post Intervention Data Results

The data from the two studies were similar in their positive results for *My Year with Tony*:

- *My Year with Tony* was shown to significantly increase knowledge, attitudes, and self-efficacy in the target audience.
- *My Year with Tony* and the comparison 2-day workshop were roughly equivalent in effectiveness for cognitive outcomes despite the different lengths of training time.
- *My Year with Tony* was superior in achieving affective outcomes (changing attitudes/behavioral intent) and communicating disease transmission risks.

Case Study

Pathways to Safer Opioid Use

U.S. Department of Health and Human Services
Office of Disease Prevention and Health Promotion



Study Abstract

According to the Centers for Disease Control and Prevention, each day, 44 people in the United States die from overdose of prescription painkillers. The prescription opioid epidemic is not only a public health concern but also a concern for the US economy. A 2011 study estimated that nonmedical use of prescription painkillers imposed a cost of \$53.4 billion on the US economy, including \$42 billion in lost productivity, \$8.2 billion in increased criminal justice costs, \$2.2 billion for drug abuse treatment, and \$944 million in medical complications. Health professionals need multiple strategies to ensure safe prescribing of prescription opioids.

Study Authors

Elizabeth Squire, MA, Division of Health Communication and eHealth, HHS, Office of Disease Prevention and Health Promotion, Rockville, MD

Presented at 2016 National Conference on Health Communication, Marketing and Media

About *Pathways*

Pathways to Safer Opioid Use (Pathways) was produced with the DHHS Office of Disease Prevention and Health Promotion

by WILL Interactive. Released in April 2015, *Pathways* is a virtual experience immersive learning simulation program. It uses key principles of health literacy and a team-based approach to promote the safe and effective use of opioids to manage chronic pain. *Pathways* allows the trainee to assume the role of four playable interactive movie characters who make decisions about preventing opioid-related adverse drug events. The playable characters are a primary care physician, a nurse, a pharmacist and a patient.

Evaluation Methods and Results

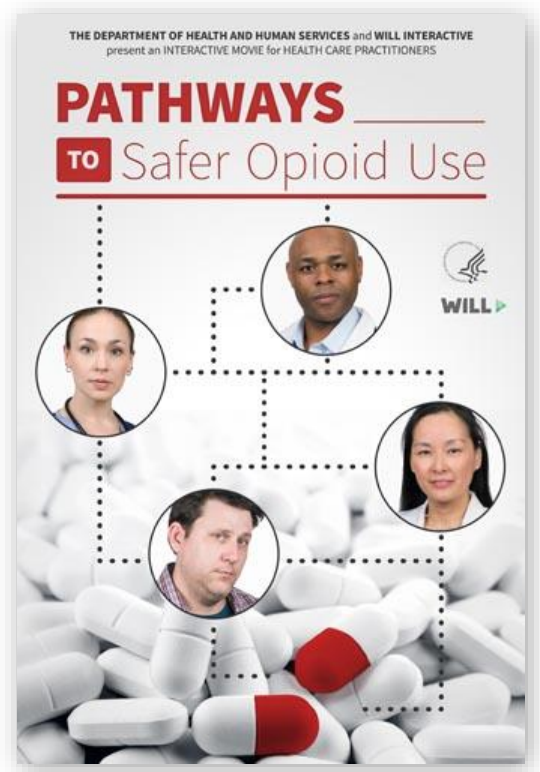
In an evaluation querying over 470 health professionals, 80% of participants reported that they planned on implementing something they learned during the online activity in their job or practice. The evaluation found that interactive movie simulation-based learning is a popular and effective medium for health professional training. The majority of participants (74%) said the lesson met their needs and 76% said the lesson provided useable ideas and/or techniques. In addition, the evaluation captured rich qualitative feedback from participants.

Conclusions

Health care professionals are more likely to adopt appropriate opioid prescribing strategies if they experience patient centered simulation-based learning.

Implications for Research and/or Practice

The opioid crisis, as well as future public health crises, may be lessened using health professional training in a similar simulation format.



Case Study

Pathways to Safer Opioid Use

Wayne State University School of Medicine
Master of Public Health Program



Study Abstract

The opioid overdose epidemic is a serious public health concern in the United States. In Michigan, opioid overdose deaths, many of them related to the use of prescription opioids, increased dramatically over the last decade. Additional training for all healthcare professionals regarding opioid use and addiction has been recommended.

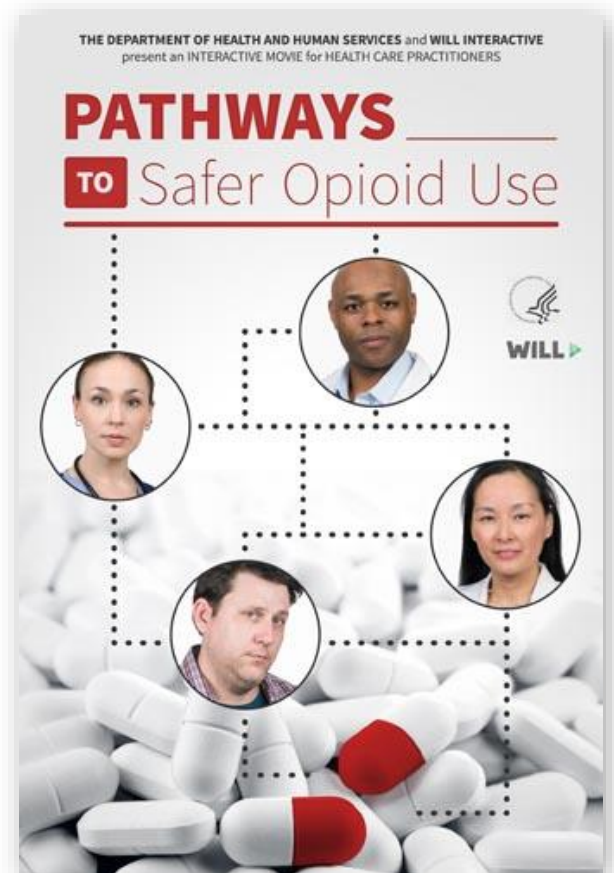
The objective of this study is to increase awareness of opioid overdoses and best practices with safe opioid use using an interactive web-based platform with interprofessional teams of healthcare students.

Study Authors

Daisuke Kobayashi, MD¹; Grenae Dudley, PhD²; Brittany Stewart, RD, PharmD³; Nancy Lewis, PharmD, MPH⁴.

About *Pathways*

Pathways to Safer Opioid Use (Pathways) uses key principles of health literacy and a team-based approach to promote the safe and effective use of opioids to manage chronic pain. *Pathways* allows the trainee to assume the role of four playable interactive movie characters who make decisions about preventing opioid-related adverse drug events. The playable characters are a primary care physician, a nurse, a pharmacist and a patient.



Evaluation Methods and Results

In this pilot training program, participants were grouped into teams made up of professional learners (medical residents, pharmacy, nursing and social work students). They received a 10 minute introductory presentation about the national opioid epidemic and knowledge about opioid use, followed by a 75-minute interactive session with *Pathways*. Pre- and Post-tests were performed to evaluate the knowledge related to opioid overdose. The program concluded with sharing feedback among participants.

A total of 24 participants (8 residents, 5 pharmacy, 5 nursing, 6 social work) completed the program. Pre-/Post-test results showed that participants improved their knowledge about opioid overdose significantly (58% to 89%, $p < 0.001$). The majority of the participants felt that the training objectives were met and the training experience would be useful in their work, with participants expressing the intent to improve patient counseling, implement shared decision making, and increase communication across the health care team.

Conclusions

Our multi-disciplinary pilot training program using an interactive web-based training was well received and successfully implemented. The future plan is to expand this program to a larger scale based on the experience & feedback from this program.

Case Study

Gator Six

U.S. Army Research Laboratory, Human Research and Engineering Directorate



Study Abstract

In support of the Learning with Adaptive Simulation & Training Army Technology Objective, the Army Research Laboratory investigated select cognitive and affective assessment surveys in the training simulation, *Gator Six*. *Gator Six* was chosen because it is used to teach leadership in the Captains Career Course during combat operations and stability and support operations.

Study Authors

Melissa Dixon, PhD, Debbie Patton, Linda Fatkin, MA, Jock Grynovicki, PHD, LTC(R) Charlie Hernandez – Cognitive & Affective Predictors of Simulation Performance

About Gator Six

Gator Six is a virtual experience immersive learning simulation in which students make decisions as Captain Martin, an artillery battery commander in Iraq.

Study Methodology

Thirty-two (32) male Captains enrolled in the U.S. Army Field Artillery Captains Career Course (CCC) at Fort Sill, Oklahoma participated in the study. After an overview of the study, participants completed the following, in chronological order:

- A Volunteer Affidavit Agreement
- An MAACL-R
- State measurements at 32 critical decision points during the simulation
- *Gator Six* in a self-paced manner
- An Exit Survey regarding their experience with *Gator Six*

Study Results

Pearson correlations and linear regression analysis revealed that the desire for change (DFC) subscale was a significant predictor of overall *Gator Six* performance. Changes in Positive Affect (PA) in response to events within Disc 1, Chapters 1 (pre-deployment) and 4 (decisions under time pressure), implied immersion in the scenario. Immersion is also suggested by correlations showing that the ability to assume the role of CPT Martin was greater for those who experienced decreases in PA during the simulation (range: $r = .0481$ to -0.388 , $p < .05$).

Study Conclusion

Results showed that one's trait "desire for change" is predictive of simulation performance and that positive affect is negatively correlated to reported immersion.

Case Study

Interactive Nights Out

Walter Reed Army Institute of Research

WRAIR

Study Abstract

This study was designed to address the need for self-administered individual interactive HIV interventions targeting high-risk personal activities. *Interactive Nights Out 1* (INO 1) was pilot tested in a population of young Army personnel residing on the Walter Reed Army Medical Center (WRAMC) base.

Study Authors

Dr. Dooly Worth, Final Report, Interactive HIV Prevention Intervention in the United States Army - The U.S. Military HIV Research Program, Walter Reed Army Institute of Research and the Henry M. Jackson Foundation for the Advancement of Military Medicine.

About Interactive Nights Out

Interactive Nights Out 1 (INO 1) helps 16-23 year-olds make informed choices about HIV/AIDS, STDs, pregnancy, relationships, alcohol and other drugs.

Study Methodology

More than 231 male and female soldiers, ages 18-29, played INO 1 during a two-month period on the WRAMC campus. Fifty percent of the participants played INO 1 more than once.

Post-intervention data was obtained through focus groups and individual interviews.

Post-Intervention Data Results

The data illustrates that the vast majority of the subjects that played INO 1:

- Reinforced intentions to protect themselves against HIV infection;
- Called into question previous risky behaviors that soldiers had not addressed but were now thinking about as a result of playing the interactive video;
- Made participants aware of their present risk for HIV and behaviors linked to such risk that they needed to address now and in the future;
- Changed participant's behavioral intentions (in a positive way) to protect themselves and their sex partners from exposure to HIV prevention.

Study Conclusion

Findings demonstrated that it is feasible to implement effective HIV prevention utilizing *Interactive Nights Out 1* as a voluntary experience in a free-standing kiosk within a population of soldiers at WRAMC.

Case Study

Dilemmas: Last Call

U.S. Naval Academy, Annapolis, MD



Study Abstract

To date, the U.S. Naval Academy has utilized *Dilemmas: Last Call* for ethical decision-making training for over 2,400 Naval Academy Midshipmen. A study on *Dilemmas: Last Call* was conducted to assess the program's effectiveness and long-term effects on ethical decision making.

About *Dilemmas: Last Call*

Dilemmas: Last Call, created in cooperation with the Stockdale Center for Ethical Leadership at the U.S. Naval Academy, models the consequences of ethical and unethical decision-making.

Post Course Evaluation Results

Statement: This course was an effective way to explore leadership and moral decision-making, and I can apply these ideas in the future.

- 81% agreed or strongly agreed
- 15% were neutral
- 4% disagreed

Longitudinal Follow Up from Class of 2008

- 70% survey reported continue + influence
- 28% neutral
- 2% negative

