

**Evaluation of Multisite E-learning
CAMS Training for VA Mental
Health Providers**

Presentation

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Acknowledgments

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- Jeff Walker



Presentation Outline

- Introduction
- Methodology
- Preliminary results
- Conclusions
- Next steps



Introduction



Study:

Patient and Provider Outcomes of e-Learning Training in CAMS

Objective:

to develop and test the effectiveness of an electronic learning alternative to the *Collaborative Assessment and Management of Suicidality (CAMS)* in-person approach.

VA HSR&D EDU 08-424 funded health education research

3 year, multisite study

Background:

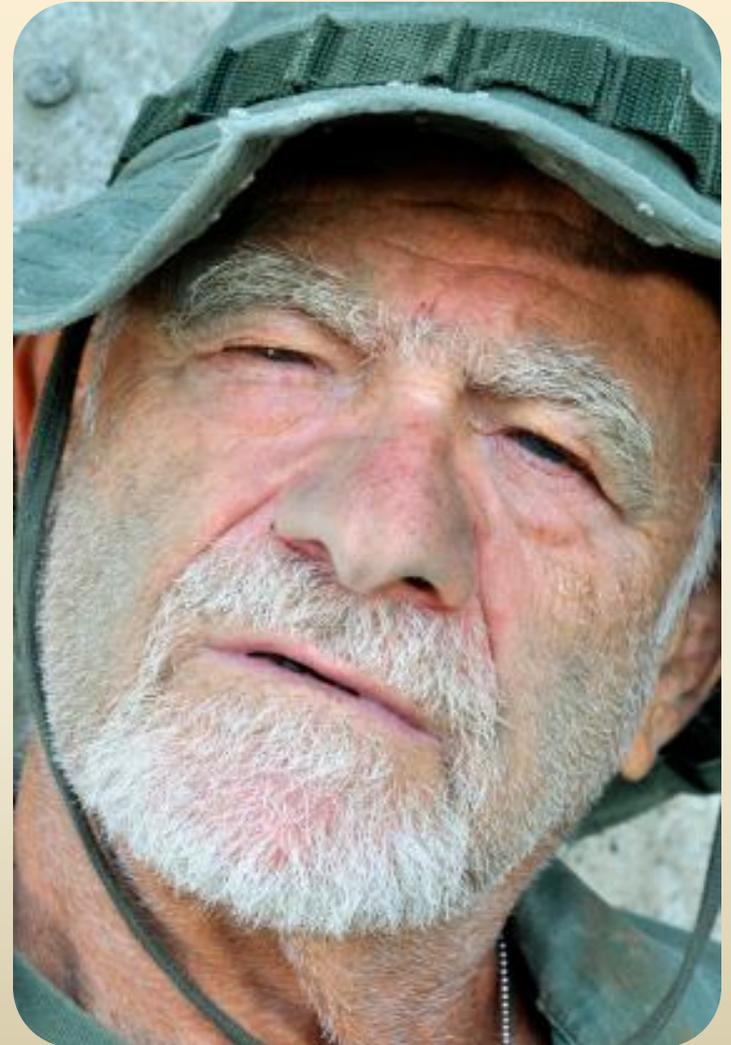
Veterans are at high risk for suicide

The VA has identified suicide in Veterans as a priority.

The risk for suicide in Veterans is:

- higher than for non-Veterans.
- certain subgroups of Veterans are at higher risk.

The risk in military populations is highest in the Army (inclusive of the National Guard) and the Marines.



Suicide in the U.S.

(2008 CDC data)

Suicide is the **Tenth** leading cause of death:

- 33,000 suicides occur each year in the U.S.
- 91 suicides occur each day
- One suicide occurs every 16 minutes
- For every two victims of homicide, there are three suicides
- Twice as many deaths due to suicide than due to HIV/AIDS
- 75% of elderly persons had visited their physician in the prior month

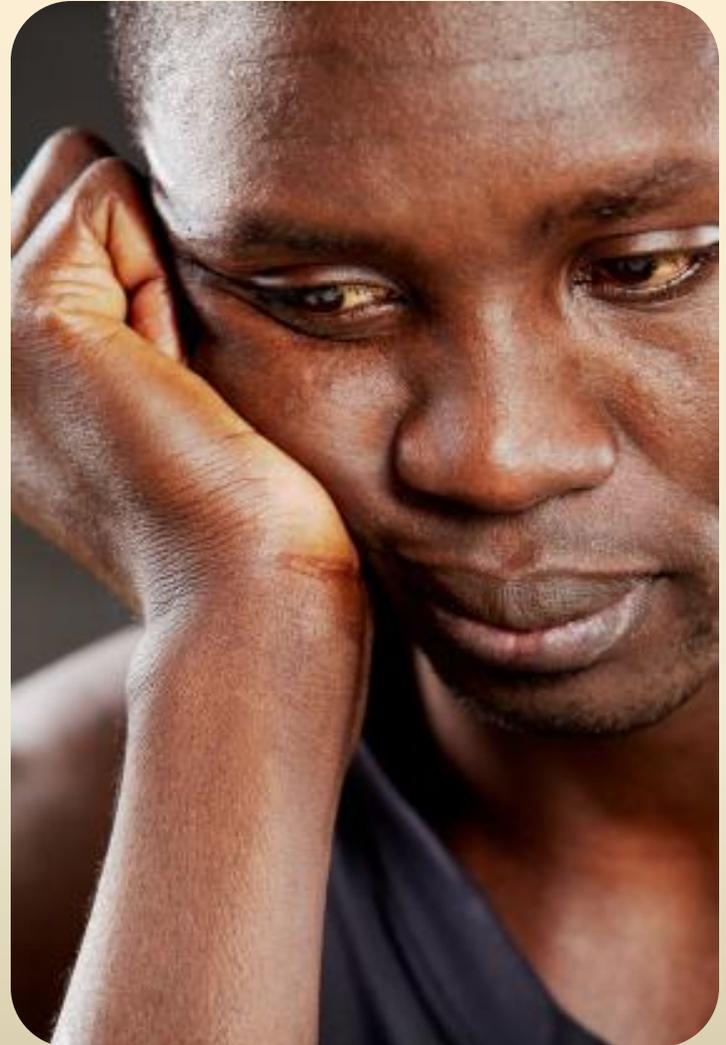


Background: Consider a VA- specific study of suicide

A retrospective review by Dr. Valenstein , et. al. (2009) of 887,859 Veterans receiving depression intervention in VA medical centers found:

Significantly elevated rates of suicide:

- 48 weeks after hospitalization
- 12 weeks after hospitalization for 61-80 year olds (highest suicide rate group)
- 12 weeks after medication changes



Empirical Support for CAMS

CAMS is used in multiple settings

5 published correlational studies supporting feasibility and clinical use of CAMS and the SSF with suicidal outpatients, one inpatient psychiatric study and an Army study is in process.



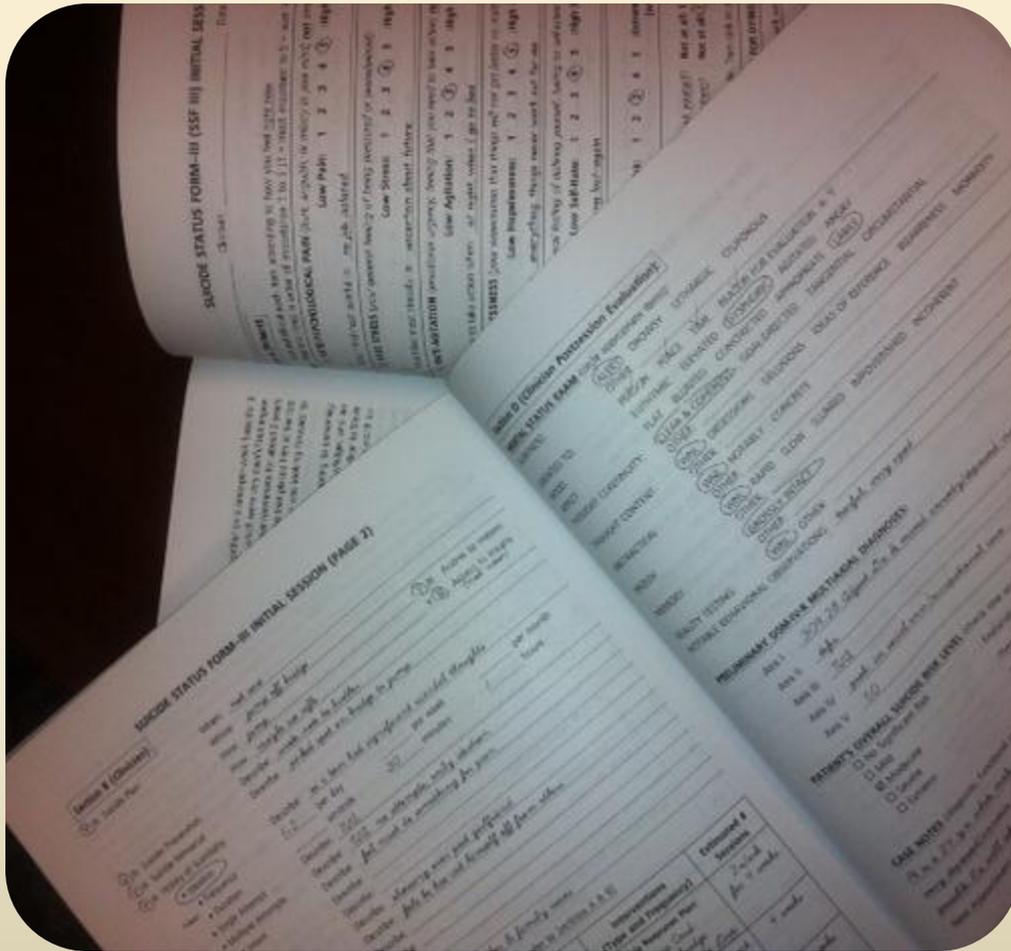
Targeted Intervention: CAMS

The Collaborative Assessment and Management of Suicidality (CAMS) is an overall process of clinical assessment, treatment planning, and management of suicidal risk including outcomes.

The SSF serves as a roadmap for guiding the clinician and patient, providing crucial and comprehensive documentation.



Suicide Status Form



The Suicide Status Form (SSF) document is used for:

1. Assessment
2. Treatment Planning
3. Tracking
4. Outcomes

CAMS is Consistent with...

VA Suicide Prevention
Objectives

VISN7 and VISN2 Centers of
Excellence priorities

Military, VA and NIMH
systematic reviews

National and VA Recovery
Initiatives



Why is training important?



A patient's ambivalence about dying is an opportunity for a provider to save a life.

A systematic method of managing suicidality can alleviate the fear of losing a patient.

Training can help increase confidence and competence and dispel common myths.

Who can benefit from CAMS? (Veterans & Clinicians)

Clinicians can use the theoretical orientation of their choice with the CAMS approach.

Examples include:

- Marital/family counseling
- CBT
- Pain management



Background:

Health Education Research

U.S. Department of Education meta-analysis:

The effectiveness of **eLearning** compared favorably with blended learning, and generally led to **more** learning than traditional face-to-face interaction.



Study Objectives

Describe the process and outcomes related to aims:

- 1) Develop CAMS e-learning including the same material & objectives of In-person training
- 2) Testing effectiveness of the e-Learning compared to In-person in terms of provider evaluation of training



Benefits of Participation

For both eLearning & In-Person

- CAMS Training
- 6.5 hours of CEU credit
- biweekly telephone coaching calls
- CAMS manual



Participant Eligibility

Outpatient mental health
clinicians-

psychiatrist, psychologist,
APRN, PA, social worker,
case manager.

No previous CAMS training



In-Person –vs.- eLearning

Both: 6.5 CEU's

- The Suicide Status Form (SSF)

- The CAMS Approach to Suicide Risk Assessment

- CAMS Intervention (Problem-Focused Treatment)

In-Person:

- CAMS research studies

- CAMS in college population

- Ethics/Malpractice and Next Steps

eLearning:

- Veteran specific

- CAMS video segments

- VA Suicide Prevention Strategy

- 4 Modules



E-learning Design Elements with Empirical Evidence

- Provide evidence-based intervention strategies
- Keep it simple, easy to use
- Make it accessible 24/7
- Make it platform-independent
- Make it self paced
- Make it visually attractive & appeal
- Make it interactive & engaging
- Organized in modules
- Provide resources for help



eLearning Development

Iterative process with multiple paths and revisions

Production stages...

- Development of scripts for main video & vignettes reflecting diversity & short introductions
- One day filming of Dave Jobes and Keith Jennings



Example Vignette



eLearning Development

Continued production...

Revision of eLearning curriculum in order to ensure simplicity and add artistic appeal...



Barriers in Development



- Microphone problems during filming
 - Subtitles developed
- Technology issues with bandwidth
 - Multiple compressions
- Developing new platform associated with TMS vs LMS

Dissemination Barriers



CAMS eLearning training

- Process for TMS approval for e-learning
- Website independent of VA

eLearning CEU accreditation on TMS VA website

- VA satisfactory survey
- eLearning Quiz (Social Workers had the strictest requirements out of all groups)

Delivery of Training

Clinic blocking 6-8 weeks in advance

In-person trainings

- CHS research staff attended each training

E-Learning delivery

- Available same day as in-person
- Accessibility for 3 weeks



Delivery: Coaching Component

The Purpose:

Determine CAMS implementation & increase dissemination

The Format: VANTS call with Dr. Jobes

- Bi-monthly, 6-1 hour sessions (lunch and learn)
- Multiple email reminders

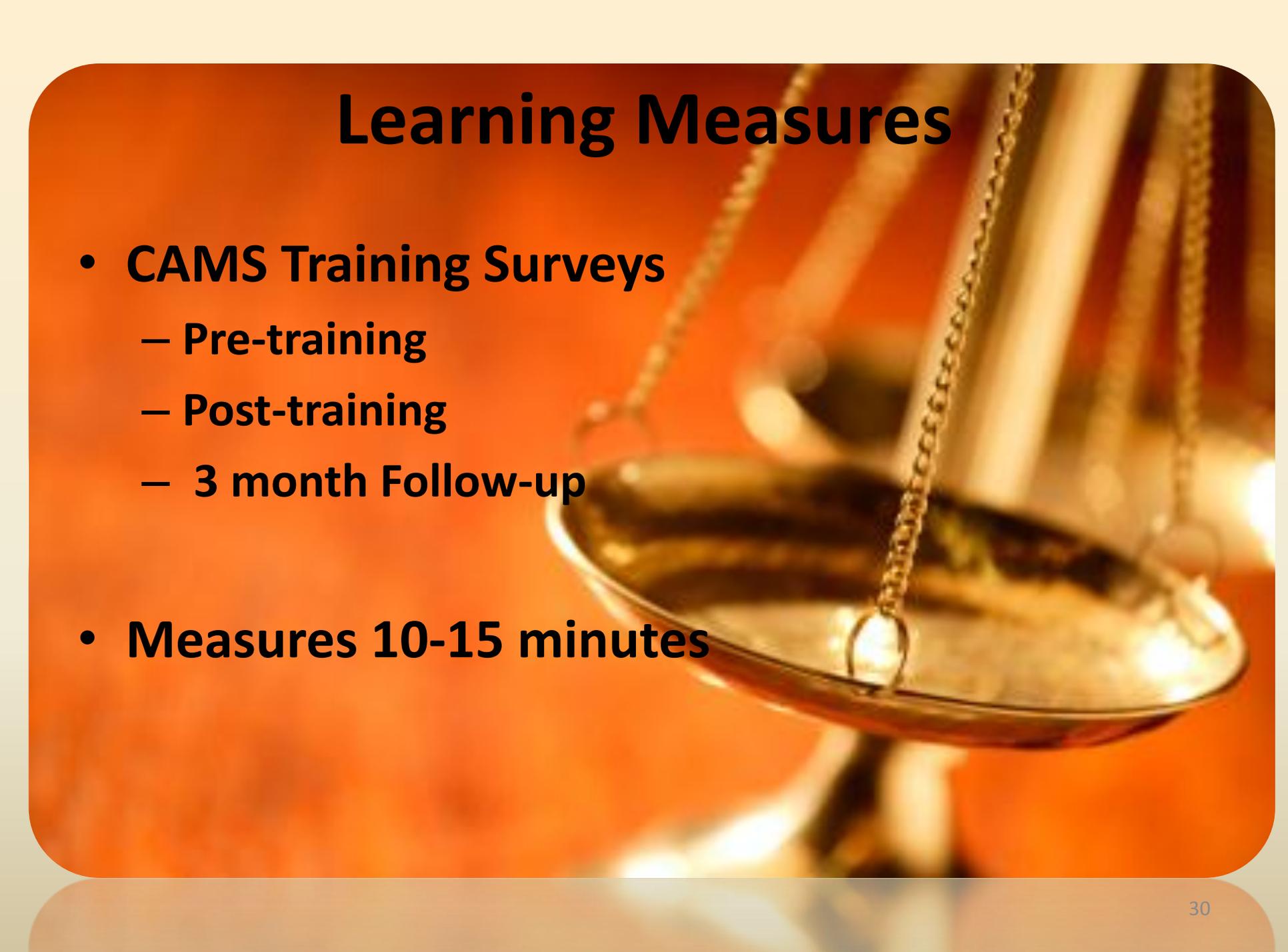
78 % had **NO** attendees

Lessons Learned:

- Little utilization
- Low cost-benefit ratio



Learning Measures



- **CAMS Training Surveys**
 - Pre-training
 - Post-training
 - 3 month Follow-up
- **Measures 10-15 minutes**

CAMS Survey Items

Eleven Items

- Competence
- Reactions
- Beliefs
- Motivations
- Practice
- Delivery mode-satisfaction & preference
- Demographics



Methodology

Study Design

- Multicenter, randomized, parallel group design
- Two Groups: eLearning
 In Person
- Randomization method:
 - stratified permuted blockStratified Factors: Profession & Site

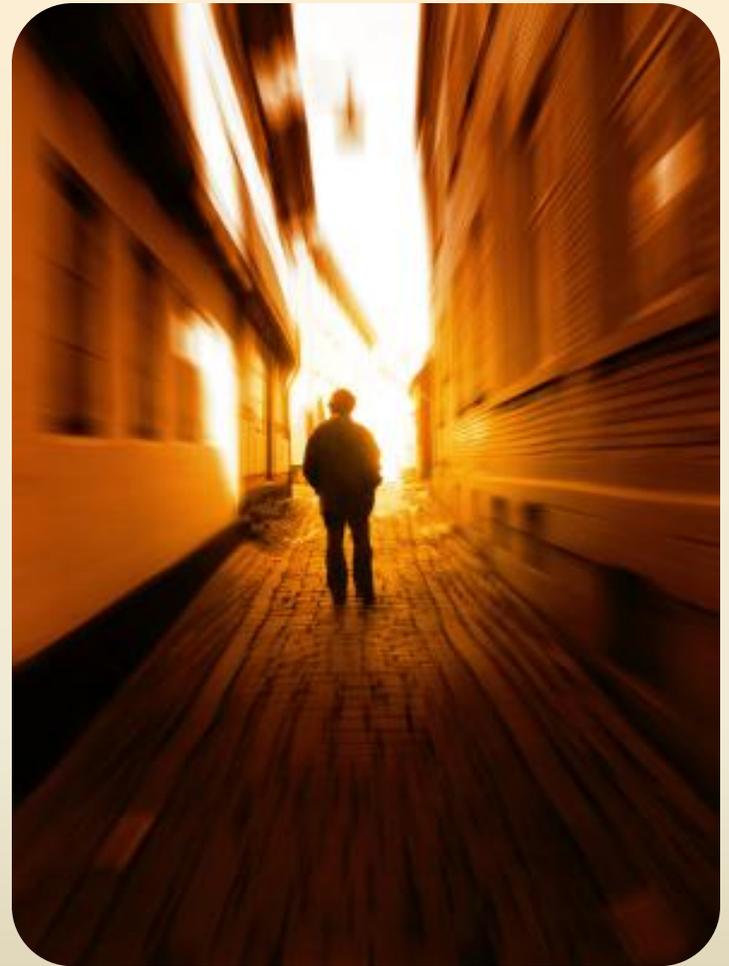


Methodology

Assessment

CAMS Survey:

- Adapted from Jobes, Knox & VISN2 Center of Excellence
- Administered pre and post training
- 11 Items (5 point Likert scale)
- Assesses mental health professionals beliefs & confidence in managing suicidal individuals



Methodology

Statistical Analysis

- Repeated measures analysis using Generalized Linear Mixed Effects Models (GLMM)
- Statistical Model:
Survey Item=
Intervention {eLearning/ In-person} +
Time {Pre/ Post} +
Time by Intervention
- Model takes into account correlation between repeated assessment with a given subject
- p-value from comparison of post survey least squares means from GLMM



Results

LOOK...

Preliminary Results



Demographic Description of Providers (n = 143)

Age	E-learning n (%)	In-person n (%)	Total n (%)
20-29	4 (5.6%)	4 (5.6%)	8 (5.6%)
30-39	22 (31.0%)	23 (31.9%)	45 (31.5%)
40-49	13 (18.3%)	16 (22.2%)	29 (20.3%)
50-59	24 (33.8%)	19 (26.4%)	43 (30.1%)
60-69	8 (11.3%)	10 (13.9%)	18 (12.6%)
Total	71 (100.0%)	72 (100.0%)	143 (100%)

Gender	E-learning n (%)	In-person n (%)	Total n (%)
Female	49 (69.0%)	48 (66.7%)	97 (67.8%)
Male	22 (31.0%)	24 (33.3%)	46 (32.2%)

Demographic Description of Providers (n = 143)

Highest degree	E-learning n(%)	In-person n(%)	Total n (%)
High School	1 (1.4%)	1 (1.4%)	2 (1.4%)
BA or BS (including BSN)	7 (9.9%)	4 (5.6%)	11 (7.7%)
Masters	35 (49.3%)	36 (50.0%)	71 (49.7%)
Doctorate	28 (39.4%)	31 (43.1%)	59 (41.3%)

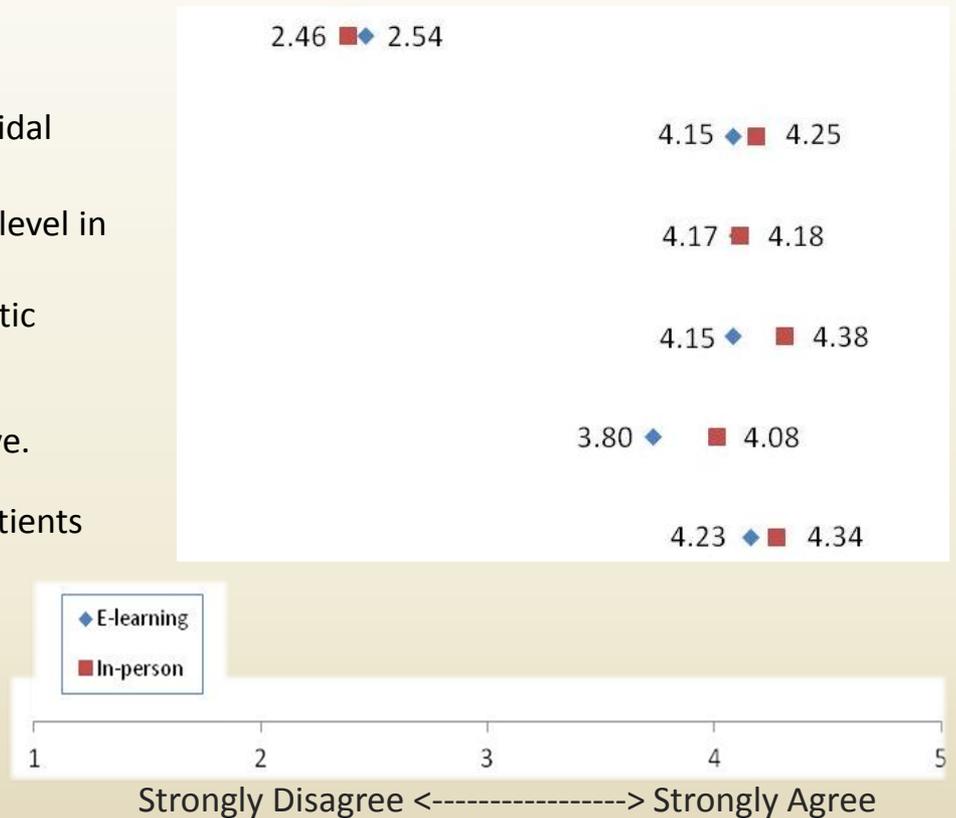
Profession	E-learning n(%)	In-person n(%)	Total n (%)
Psychiatrist	13 (18.3%)	12 (16.7%)	25 (17.5%)
Psychologist	13 (18.3%)	17 (23.6%)	30 (21.0%)
RN, Social worker, etc.	45 (63.4%)	43 (59.7%)	88 (61.5%)

CAMS Post-Survey Adjusted Means by Training Condition

Survey Item

1. I have anxiety about working with suicidal patients.
2. I am confident in my ability to successfully assess suicidal patients.
3. I am confident in my ability to determine suicidal risk level in patients.
4. I am confident in my ability to form a strong therapeutic alliance with a suicidal patient.
5. I am confident that I can help motivate a patient to live.
6. I can develop an adequate safety/coping plan with patients who are at-risk for suicide.

Post-Survey Means



CAMS Post-Survey Adjusted Means by Training Condition

Survey Item

Post-Survey Means*

7. I am not hesitant to ask a patient if s/he is suicidal.

1.25 ■ ◆ 1.39

8. I don't believe that hospitalization is always the best response for suicidal patients.

p = 0.003 1.68 ■ ◆ 2.28

9. I believe that suicidal patients should take an active role in all aspects of their own treatment.

p = 0.029 4.32 ◆ ■ 4.67

10. I believe my current practices are sufficient to protect me from liability in the event one of my patients should complete suicide.

p = 0.040 3.27 ■ ◆ 3.69

11. I am motivated to use what are considered the "best practices" in suicide prevention even if it requires me to do something different in my clinical practice.

4.42 ◆ ■ 4.55

◆ E-learning
■ In-person

1 2 3 4 5

Strongly Disagree <-----> Strongly Agree

* p-values from comparison of least squares post-survey means from MEM

Conclusions- Breaking New Ice

- The complexity of integrating product development, training dissemination, and evaluation of health education
- Little known about health education research that includes assessing patient outcomes



Conclusions- Breaking New Ice

CAMS eLearning appears to
be as effective as CAMS
in-person learning



Next Steps

Patient Level Analyses...

- Multivariable Modeling Strategy
- Non-inferiority analysis
- 3 Month Follow up analysis
- Assessing patient outcomes and provider adherence



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Questions and Comments



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