Kognito

At-Risk for
UNIVERSITY AND COLLEGE FACULTY AND STAFF
Using Simulated Conversations with Virtual Humans to Build Mental Health Skills among Faculty and Staff
A Longtitudinal Study

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INTRODUCTION

Over 4,600 adolescents ages 15-24 commit suicide each year, making it the third leading cause of death for this age group. Psychological distress including depression and anxiety are also significant problems on campuses. A 2012 study by the American College Health Association found that a substantial percentage of students answered "Yes" when asked whether, over the past 12 months, they felt so depressed that it was difficult to function (14%), felt very sad (22%), felt overwhelming anxiety (18%), and overwhelming anger (17%). The study also found that 6.9% of students seriously considered suicide in the prior 12 months and 1.2% attempted suicide. Unfortunately, the vast majority of these distressed students don't seek help, making it extremely difficult to identify and assist them.

Mental Health education has been established internationally as a critical component of comprehensive suicide prevention strategies and as a method to engage the community in identifying and connecting distressed individuals with support services.

Fig. 1: Snapshot of a simulated conversaton with a virtual student.

Several studies have shown that mental health education is effective in changing knowledge and attitudes but has moderate effect on actual behavior in terms of approaching distressed students and connecting them to support services. One hypothesis to this limited effect is the lack of active learning strategies like role plays and practice in both online and in-person trainings.

This study examines whether an online simulation that includes simulated conversations with virtual students where learners practice approaching and referring distressed individuals can result in significant increases in both mental health skills and behavior, and whether such changes remain significant over time.

Description of Simulation

At-Risk for University and College Faculty and Staff is a 45-minute online professional development simulation. In the simultion, users enter a virtual environment and engage in three conversations with virtual students that exhibit signs of psychological distress including anxiety, depression, and suicidal ideation. In this process, they learn to recognize warning signs and use motivational interviewing tactics to build trust and motivate the student to seek help. To complete the simulation, learners must successfully identify and refer the students to support services.

The simulation was developed by Kognito (www.kognito.com) with input from mental health experts and over 100 faculty and students in the US. Introduced in 2010, the simulation is listed in Section III of the SPRC/AFSP Best Practices Registry and has been adopted by over 300 colleges in the US, Canada, UK, and Australia. A demo can be viewed at www.kognito.com/demos.
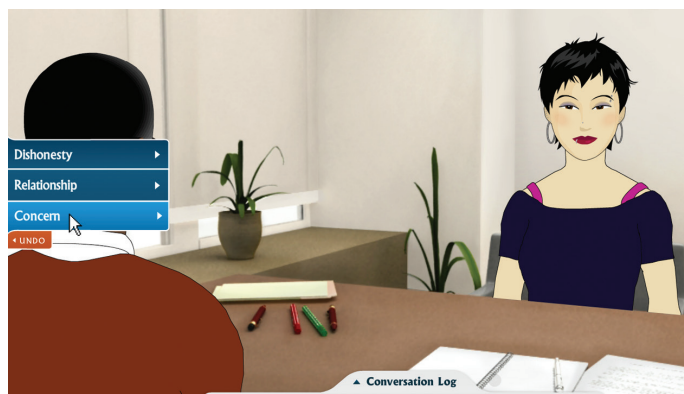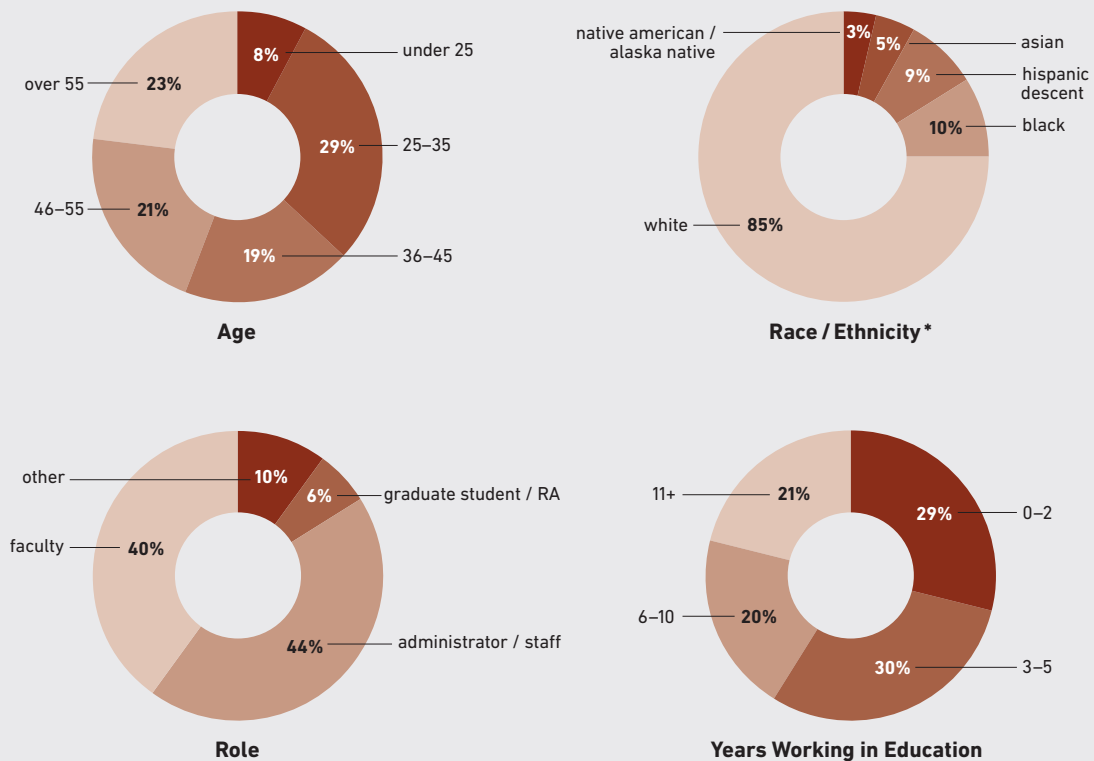
SUBJECTS AND METHODS

The study was conducted between April 2011 and December 2012 with 430 faculty and staff at 63 institutions of higher education (56 colleges/universities and seven community colleges) in 24 US states, including Florida, Texas, Virginia, and Colorado. Seventy-seven percent of participants were females, 13% received prior training as gatekeepers, and 17% received training as mental health providers. Additional demographic information is shown in *Fig. 2*.

Participants first completed a pre-survey (baseline) and the simulation followed immediately by a post-simulation survey. Participants then completed either a 3-month (n=212), 6-month (n=91), or 12-month (n=113) follow-up survey. All surveys were conducted online at a computer of the participant's choosing. Participants were faculty and staff in institutions that purchased the simulation from Kognito and chose to have Kognito embed the survey tools into the simulation to assess its effectiveness. Most participants (75%) learned about the simulation by email sent by the counseling center, provost, or department chair, 15% heard from a colleague. All participants had the option to take the simulation and were not compensated. Study results were analyzed using a repeated measures analysis of variance to determine the change in dependent variables across all three measurement points or a repeated measures t-test for those with only two time points.

Fig. 2: **DEMOGRAPHICS**

Age

under 25 — 8%
25–35 — 29%
36–45 — 19%
46–55 — 21%
over 55 — 23%

Race / Ethnicity*

native american / alaska native — 3%
asian — 5%
hispanic descent — 9%
black — 10%
white — 85%

Role

graduate student / RA — 6%
administrator / staff — 44%
faculty — 40%
other — 10%

Years Working in Education

0–2 — 29%
3–5 — 30%
6–10 — 20%
11+ — 21%

*Participants could identify with more than one race/ethnicity.
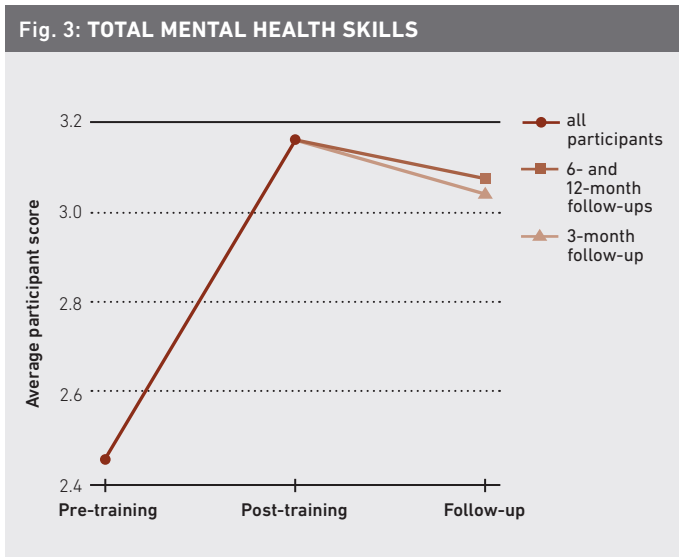
RESULTS

1. Mental Health Skills

The study found a significant increase (p< .05) in Total Mental Health Skills from pre- to post-simulation that remained significant in all three follow-up points *(Fig. 3)*. Total Mental Health Skills included four self-perceived preparedness measures that included: (1) identify when a student's behavior or appearance is a sign of psychological distress, (2) discuss concern with a student, (3) motivate the student to seek help, and (4) make a referral to mental health support services. Participants reported their preparedness to each measure using a 4-point Likert scale from low (1) to very high (4).

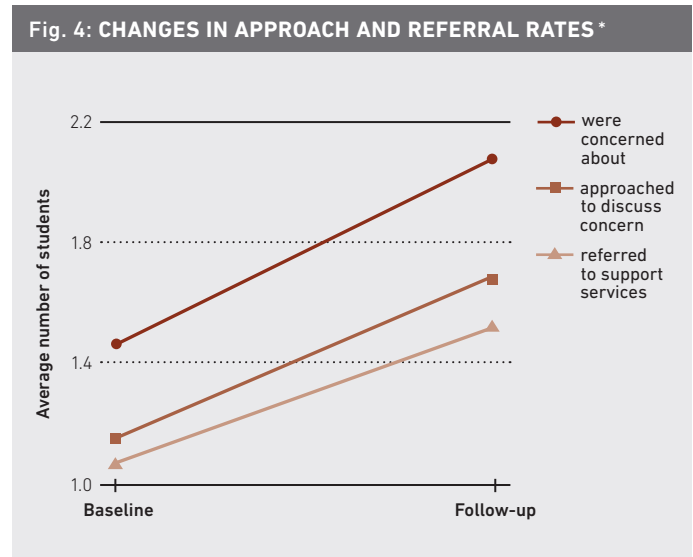### 2. Behavioral Change and Referral Rates

The study found significant and sustainable behavioral changes on two levels:

A. APPROACH AND REFERRAL RATES: Participants reported a significant increase (p<.05) at all three follow-up points in terms of the number of students they were concerned about, approached, and referred to support services during the prior two academic months *(Fig. 4)*. Specifically, there was an increase of 47% in the average number approached by participants and 42% in the number referred by participants to support services *(Table 1)*.

B. SPEAKING WITH COLLEAGUES ABOUT AT-RISK STUDENTS: Sixty percent of all participants and 66% of faculty reported an increase in the number of conversations they had with other faculty, staff, and administrators about students they were concerned about.

Fig. 3: TOTAL MENTAL HEALTH SKILLS

Changes in total mental health skills from pre- to post-simulation to 3-, 6-, and 12-month follow-up points

Fig. 4: CHANGES IN APPROACH AND REFERRAL RATES*

Changes in the average number of students that participants were concerned about, approached, and referred in the prior two academic months

Table 1: CHANGES IN APPROACH AND REFERRAL RATES*			
Average number of students that participants...	**Baseline**	**Follow-up survey**	**Percent change**
Were concerned about	1.46	2.08	42%
Approached to discuss concern	1.15	1.69	47%
Referred to support services	1.07	1.52	42%

*n=115 as we only included answers by participants who completed the pre- and follow-up surveys at least two months into the academic year.

3. Satisfaction and Learning Experience

Participants highly ranked the simulation's learning experience and design. For example, 98% said they would recommend the simulation to their colleagues and 99% said it was based on scenarios relevant to their work with students (*Fig. 5 and Fig. 6*).

Lastly, 97% of participants said that all faculty, staff, and administrators in their school should take the course as well.
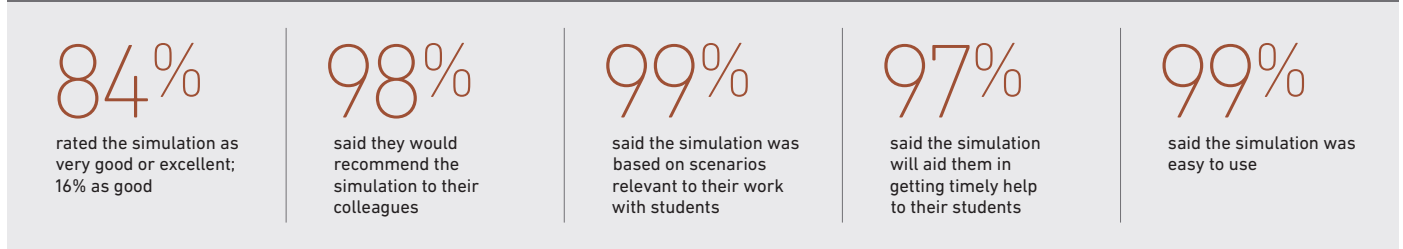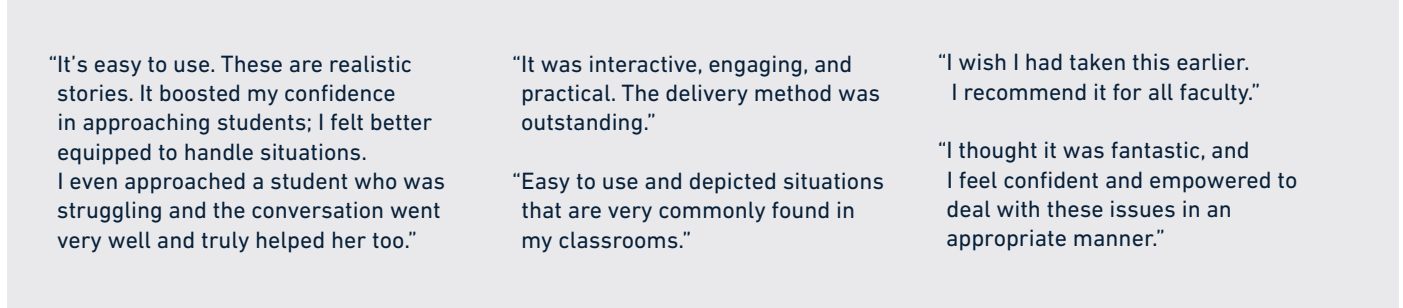
Fig. 5: PARTICIPANT RATINGS

84% rated the simulation as very good or excellent; 16% as good

98% said they would recommend the simulation to their colleagues

99% said the simulation was based on scenarios relevant to their work with students

97% said the simulation will aid them in getting timely help to their students

99% said the simulation was easy to use

Fig. 6: PARTICIPANT FEEDBACK

"It's easy to use. These are realistic stories. It boosted my confidence in approaching students; I felt better equipped to handle situations. I even approached a student who was struggling and the conversation went very well and truly helped her too."

"It was interactive, engaging, and practical. The delivery method was outstanding."

"Easy to use and depicted situations that are very commonly found in my classrooms."

"I wish I had taken this earlier. I recommend it for all faculty."

"I thought it was fantastic, and I feel confident and empowered to deal with these issues in an appropriate manner."

CONCLUSION

This study found that this simulation, which includes simulated conversations where learners practice approaching and referring students exhibiting signs of psychological distress, results in significant increases in mental health skills and changes in behavior and that those changes remain significant at 3-, 6-, and 12-month follow up points.

These findings strongly suggest that *At-Risk for University and College Faculty and Staff* has an immediate and strong enduring impact on:

(1) Building Mental Health Skills: identifying, approaching, and referring students exhibiting signs of psychological distress.

(2) Changing Behaviors: increasing the number of students that learners connect with and approach to discuss their concerns, and, if necessary, refer them to support services as well as discussing concerns about such students with colleagues in school.

Finally, the study showed that participants found the simulation to be easy to use, engaging, realistic, and helpful to them in getting timely help to students. ■

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