Effectiveness of a Suicide Prevention Gatekeeper Training with First Year Nurse Anesthesia Residents

Lavonne M. Adams, PhD, RN, CCRN, Monica Jenschke, PhD, CRNA, and Trung Nguyen, MA

Introduction

Suicide is the 2nd leading cause of death in persons aged 15-34[1]

QPR (question, persuade, refer) Gatekeeper Training is an evidence-based program designed to educate individuals for intervention in suspected suicidal individuals[2]

QPR Gatekeeper Training educates people to recognize cues of suicidal ideation (verbal, behavioral, and situational cues) [2]

- Question--how to ask a person if he/she is suicidal
- Persuade the person to get help
- Refer suicidal individuals to appropriate resources (suicide hotline, mental health professionals, law enforcement)

Healthcare professionals are at increased risk for suicide and suicidal ideation[3-6]

Nurse anesthetists and nurse anesthesia residents experience high levels of self-reported stress[4]

In nurse anesthesia graduate students, higher self-reported stress scores were associated with self-reported depression; approximately 1/5 of respondents with self-reported depression admitted to suicidal ideation[5]

QPR Gatekeeper Training is provided to each first year nurse anesthesia resident at Texas Christian University in an effort to bring awareness to suicide risk in nurse anesthesia and healthcare professionals in general

Study Purpose

To determine

(1) if QPR Gatekeeper Training improves self-reported knowledge, competency, and self-efficacy to intervene with suicidal individuals and

(2) if the improvement in these variables persisted over a 9 month period

Materials and methods

Subjects were first year nurse anesthesia residents (n = 64) who completed QPR Gatekeeper Training and consented to participation in the study

Questionnaires adapted with permission from similar QPR Gatekeeper Training evaluation studies[7,8]

Anonymous questionnaires were administered via electronic data collection software (Qualtrics®) and analyzed by SPSS® software

Pre-session questionnaire administered prior to training

- Demographics; self-reported rating of suicide knowledge; beliefs, attitudes, personal competency, and self-efficacy related to suicide

One hour, interactive QPR Gatekeeper Training included

- Background of stress in nurse anesthesia, detrimental effects of stress potentially leading to burnout
- QPR Gatekeeper Training
- Active engagement using an audience response system

Post-session questionnaire administered immediately after training (Post 1) and at 6 months (Post 2) and 9 months (Post 3) after training

Post-session questionnaires 1, 2, and 3 included self-reported rating of suicide knowledge; beliefs, attitudes, personal competency, and self-efficacy related to suicide

Questions regarding use of QPR Gatekeeper Training were included in Post 2 and 3 questionnaires

Knowledge

Subjects rated statements regarding level of suicide knowledge as 5—very high, 4—high 3—medium, 2—low 1—very low	Facts about suicide prevention
	Suicide warning signs
	How to ask someone about suicide
	Persuading someone to get help
	How to get help for someone
	Information about local resources for help with suicide
	General knowledge of suicide and suicide prevention

Table 1. Self-report rating of suicide knowledge.

Each questionnaire instructed subjects to rate level of knowledge for each statement.

Ratings for all seven statements were combined into a single composite score for analysis (Cronbach's alpha, 0.89)

Questionnaire statements

Subjects rated level of agreement with the statements using the scale: 5—strongly agree 4—agree 3—neutral 2—disagree 1—strongly disagree	"If someone I knew was showing signs of suicide, I would directly raise the *question* of suicide with them"
	"If a person's words and/or behavior suggest the possibility of suicide, I would *ask* the person directly if he/she is thinking about suicide"
	"If someone told me they were thinking of suicide, I would *intervene*"
	"I feel *confident* in my ability to help a suicidal person"
	"I don't think I can *prevent* someone from suicide"
	"I don't feel *competent* to help a person at risk of suicide"

Table 2. Self-report rating of beliefs and attitudes about suicide, personal competency, and self-efficacy.

Each questionnaire instructed subjects to rate agreement with each of the statements.

- Note: *question, ask, intervene*, and *confident* are *affirmative statements*; *prevent* and *competent* are *negative statements*

Statements were analyzed individually for each questionnaire's data

Results

Self-reported ratings of suicide knowledge increased after the training session (Post 1) and were maintained at the 6 (Post 2) and 9 month (Post 3) time points (Friedman's Q = 38.046, P = .000, fig 1).

Self-reported ratings of suicide knowledge at Post 2 and at Post 3 were statistically lower than the immediate post-training scores (Post 1).

Ratings for beliefs, attitudes, personal competency, and self-efficacy related to suicide were statistically improved for *question, ask, confident*, and *competent* at Post 1, 2, and 3 compared to pre-training (Pre, fig 2).

Ratings for *intervene* were statistically greater at Post 1 compared to Pre. Ratings for *prevent* were statistically improved at sessions Post 1 and 2 compared to Pre.

Decay in ratings occurred over time for *question, ask, confident, prevent*, and *competent* topics.

The affirmative statement topic *intervene* had a higher rating (4.45) in the Pre session compared to *question* (3.65), *ask* (3.74), and *confident* (3.3).

Post-training ratings for *intervene* were maintained higher than pre-session ratings and failed to exhibit decay with time as seen in the other 5 topics (fig 2).

9/36 and 8/32 subjects in Post 2 and 3 questionnaires respectively indicated they had used QPR Gatekeeper Training
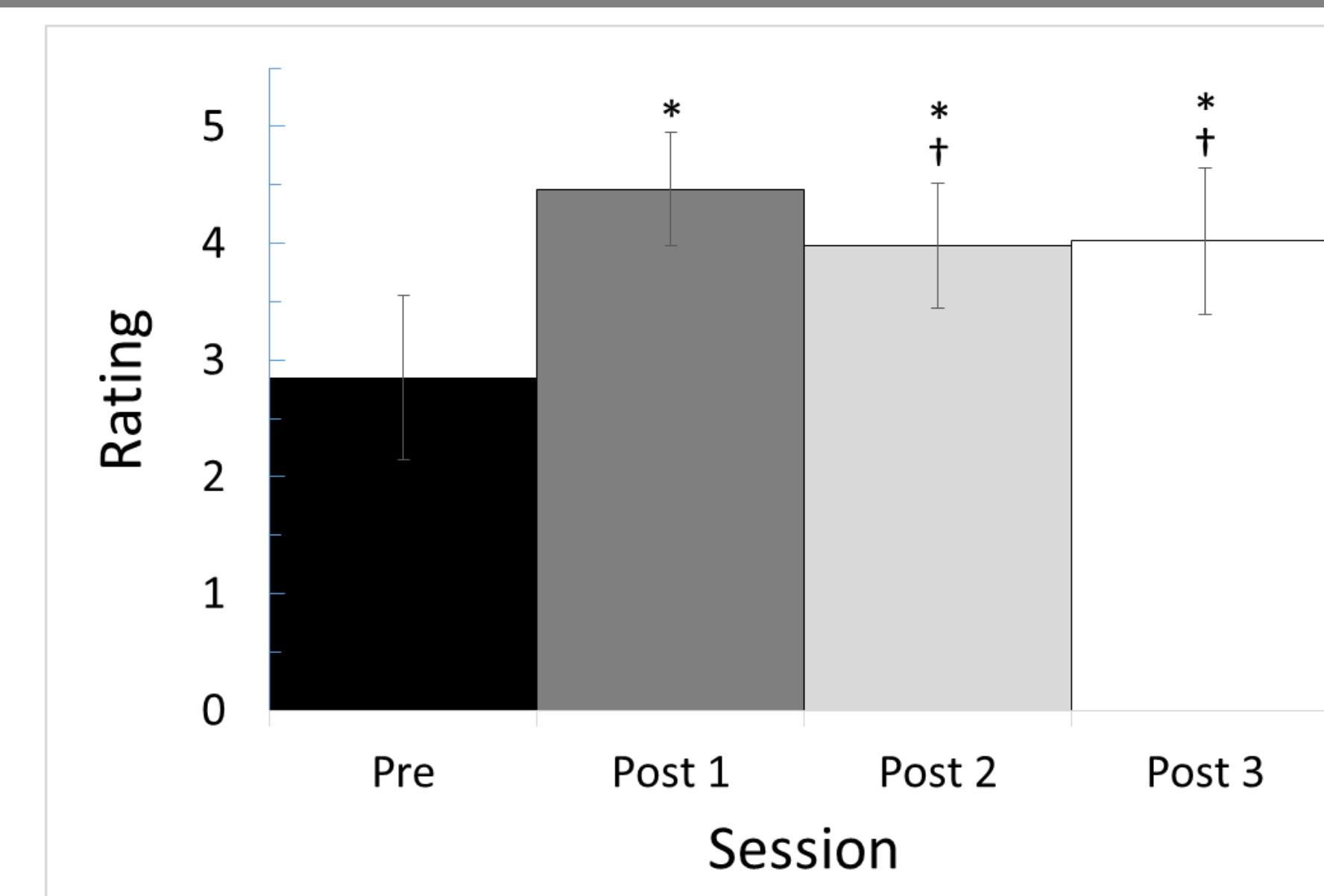

Fig 1. The effect of QPR Gatekeeper Training on self-reported rating of suicide knowledge. Pre-training (Pre), immediately post-training (Post 1), 6 months after training (Post 2), and 9 months after training (Post 3). Data represent 31 (Pre), 40 (Post 1), 31 (Post 2), and 30 (Post 3) subjects. Rating = 5 very high, 4 high, 3 medium, 2 low, 1 very low. Wilcoxon signed rank significant difference, * Pre vs Post 1, 2, or 3; † Post 1 vs Post 2 or 3 ($p \leq .05$).
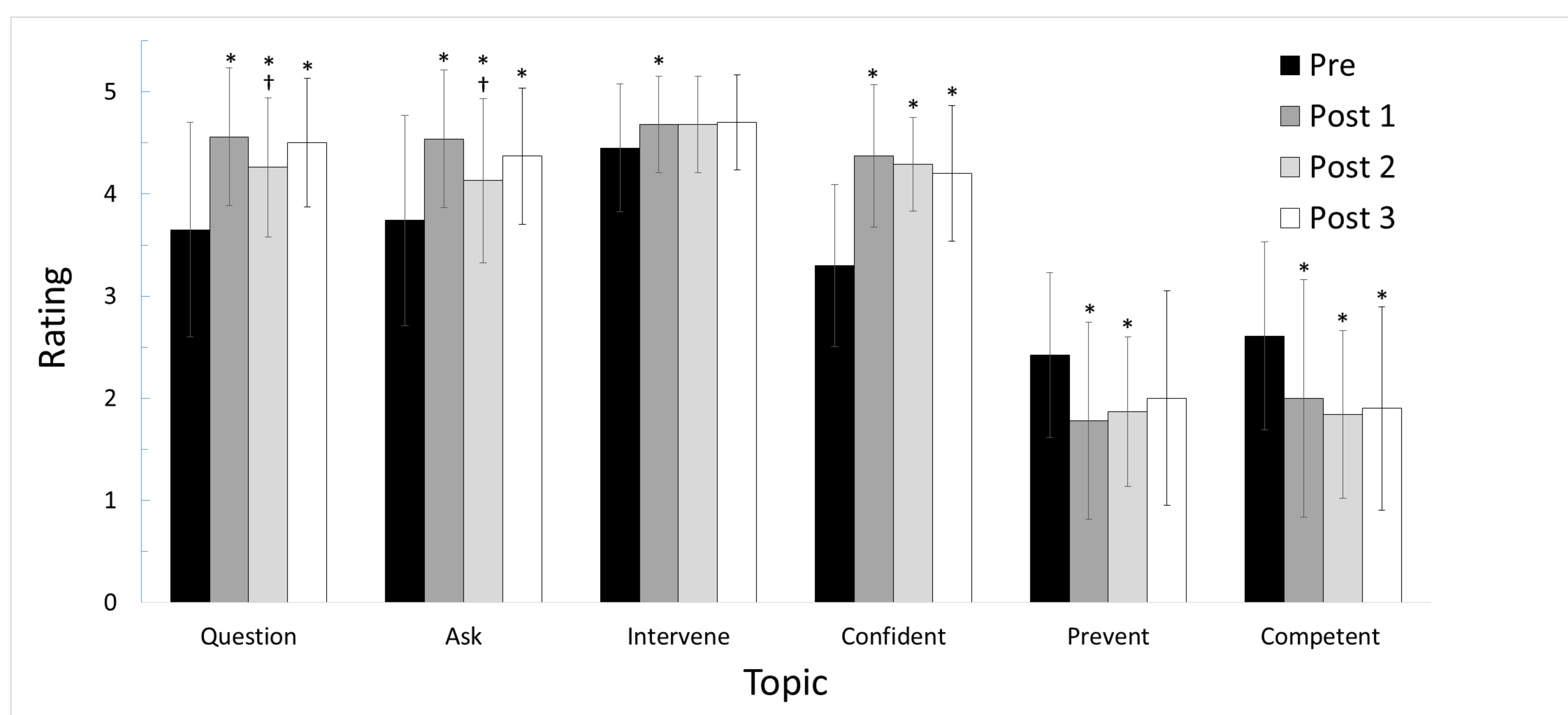

Fig 2. The effect of QPR Gatekeeper Training on beliefs, attitudes, personal competency, and self-efficacy related to suicide. Pre-training (Pre), immediately post-training (Post 1), 6 months after training (Post 2), and 9 months after training (Post 3). Data represent 30-31 (Pre), 40-41 (Post 1), 30-31 (Post 2), and 30 (Post 3) subjects. Ratings = 5 strongly agree, 4 agree, 3 neutral, 2 disagree, 1 strongly disagree. Wilcoxon signed rank significant difference, * Pre vs Post 1, 2, or 3; † Post 1 vs Post 2 ($p \leq .05$).

Conclusions

Results suggest that QPR Gatekeeper Training in first year nurse anesthesia residents improved self-reported ratings for suicide knowledge and in beliefs, attitudes, personal competency, and self-efficacy related to suicide

Greater ratings in knowledge were maintained over the 9 month study period.

Improved ratings for beliefs, attitudes, personal competency, and self-efficacy related to suicide were maintained for most topics during a 9 month study period.

Results of the study support continuation of QPR Gatekeeper Training for nurse anesthesia residents.

Further study is warranted to

- Explore use of QPR Gatekeeper Training by nurse anesthesia residents for identification of high-risk individuals and further suicide intervention
- Explore the initial high rating for the topic *intervene* and its maintenance during the 9 month study period

References

1. Centers for Disease Control and Prevention (CDC). *Web-based Injury Statistics Query and Reporting System (WISQARS)* [Online]. (2013, 2011) National Center for Injury Prevention and Control, CDC (producer). Available from http://www.cdc.gov/injury/wisqars/index.html.
2. Quinnet, P. (2013). *QPR Gatekeeper Training for suicide prevention: The model, theory, and research.* https://www.qprinstitute.com/uploads/QPR%20Theory%20Paper.pdf.
3. Arradilla-Herrero, A., Tomas-Sabado, J., & Gomez-Benito, J. (2014). Associations between emotional intelligence, depression, and suicide risk in nursing students. *Nurse Education Today, 34,* S20-S25. http://dx.doi.org/10.1016/j.nedt.2013/3.07.001.
4. Chipas, A. & McKenna, D. (2011). Stress and burnout in nurse anesthesia. *AANA Journal, 79,* 122-128.
5. Chipas, A., Cordrey, Floyd, D., Grubbs, L., Miller, S., & Tyre, B. (2012). Stress: Perceptions, manifestations, and coping mechanism of student registered nurse anesthetists. *AANA Journal, 80,* S49-S55.
6. DeOliveira Jr., G.S., Chang, R., Fitzgerald, P.C., Almeida, M.D., Santana Castro-Alves, L., Ahmad, S., & McCarthy, R.J. (2013). The prevalence of burnout and depression and their association with adherence to safety and practice standards: A survey of United States anesthesiology trainees. *Anesthesia & Analgesia, 117,* 182-93. DOI:10.1213/ANE.0b013ee182917da9.
7. Tompkins, T.L. & Witt, J. (2009). The short-term effectiveness of a suicide prevention gatekeeper training program in a college setting with residence life advisers. *Journal of Primary Prevention, 30,* 131-149.
8. Wyman, P.A., Inman, J., Guo, J., Brown, C.H., Cross, W, Schmeelk-Cone, K., & Pena, J.B. (2008). Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. *Journal of Counseling and Clinical Psychology, 76,* 104-115.

QPR

Question, Persuade, Refer

Ask a question, save a life

PowerPoint Template ©2009 Texas Christian University, Center for Instructional Services. For Educational Use Only. Content is the property of the presenter and their resources.