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TITLE: Peer to Peer Programs for Military Suicide Prevention

PRINCIPAL INVESTIGATOR: Craig J. Bryan, Psy.D., ABPP

CONTRACTING ORGANIZATION: University of Utah, Salt Lake City, UT

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14. ABSTRACT In this study a proposed peer-to-peer (P2P) program, called Airman's Edge, is evaluated for its effectiveness as a suicide prevention intervention. Airman's Edge is a hybrid model that includes both group-based peer educator and individual-based peer support components; these P2P program models have demonstrated the strongest outcomes with respect to changing attitudes, perspectives, and behaviors. The Airman's Edge program is comprised of several skills-based strategies that have been shown to directly reduce suicidal thoughts and behaviors (i.e. sleep habits, firearm safety procedures, crisis response planning), and targets population-level contextual variables known to reduce suicide risk (i.e. purpose and meaning in life, social support). The mechanisms by which these strategies reduce suicidal behavior align with an empirically-supported conceptual model, the suicidal mode, which has guided recent advances in suicide prevention.								
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1. INTRODUCTION:

In this study a proposed peer-to-peer (P2P) program, called Airman's Edge, is evaluated for its effectiveness as a suicide prevention intervention. Airman's Edge is a hybrid model that includes both group-based peer educator and individual-based peer support components; these P2P program models have demonstrated the strongest outcomes with respect to changing attitudes, perspectives, and behaviors. The Airman's Edge program is comprised of several skills-based strategies that have been shown to directly reduce suicidal thoughts and behaviors (i.e. sleep habits, firearm safety procedures, crisis response planning), and targets population-level contextual variables known to reduce suicide risk (i.e. purpose and meaning in life, social support). The mechanisms by which these strategies reduce suicidal behavior align with an empirically-supported conceptual model, the suicidal mode, which has guided recent advances in suicide prevention.

2. KEYWORDS:

Peer-to-peer, military suicide prevention, peer mentoring, crisis response plan, lethal means counseling

3. ACCOMPLISHMENTS:

What were the major goals of the project?

Major Goals

1. To test the efficacy of a P2P program for the reduction of suicidal behavior among military personnel.
2. To identify moderators and mediators of the P2P program's effects on suicidal behavior.

Project Milestones

1. Obtain University of Utah IRB approval (Initial Approval received on 4/3/19; Amended on 8/23/19 following HRPO recommended changes). 100% complete
2. Amendment to Statement of Work: Removal of requirement to execute a Cooperative Research and Development Agreement (CRADA) with Whiteman Air Force Base. Approved on 8/28/2019. 100% complete.
3. Obtain HRPO approval (Initial review received on: 7/17/2019; Approved on 9/13/2019). 100% complete.
4. Project Coordinator trained (Completed: 3/30/2019). 100% complete.
5. Research Associate trained (Target: 9/30/2019). 100% complete.
6. Complete database build (Completed: 3/30/2019). 100% complete.
7. Begin enrollment (Target: 1/31/2020). 100% complete, Phase 1 of 5 survey roll out completed on 2/29/2020.

8. Begin P2P training workshops, program implementation (Target: 9/1-9/3/2020):100% complete.
9. Begin follow-up assessments (Target: 6/1/2020): 100% complete, expected completion by 6/30/2020
10. Complete follow-up assessments (Target: 9/30/2021). 0% complete, expected completion by 9/30/2021.
11. Complete P2P training workshops (Target: 10/21/2021). 0% complete.
12. Complete data analyses (Target: 11/30/2021). 0% complete, expected completion by 11/30/2021.

What was accomplished under these goals?

The primary focus of this second year was to begin study enrollment and data collection. At the beginning of the new year we launched the initial survey base wide at Whiteman with 1,117 participants completing the survey. We felt this was a successful launch of the survey. Unfortunately, the COVID-19 pandemic struck a few short weeks after our initial survey launch. The pandemic delayed the second survey by one month and participation was significantly lower as a result of the pandemic and inability to recruit in person. We had about 270 participants take the survey either for the first or second time in June 2020. The first training for the peer mentors was also delayed from June to September due to social distancing regulations and flight restrictions. We had a successful turnout of nine participants to become trained peer mentors for their respective squadrons. Participants were highly receptive of the training and reported being excited to implement their new skills within their units. We are preparing the third iteration of the base wide survey starting November 2nd. Our team met with base leadership in August to brainstorm ways to increase participation in the survey in light of continued COVID-19 restrictions. The second peer mentor training is set to occur in December.

What opportunities for training and professional development has the project provided?

We trained nine Airmen to be peer mentors for their individual squadron. Training consisted of Motivational Interviewing techniques, Airman Edge specific curriculum, and Crisis Response Planning.

How were the results disseminated to communities of interest?

Nothing to report.

What do you plan to do during the next reporting period to accomplish the goals?

Continue to push forward with participant recruitment and data collection. We will continue surveys and peer mentor training over the next 16 months.

4. IMPACT:

What was the impact on the development of the principal discipline(s) of the project?

Nothing to report.

Nothing to report.

What was the impact on technology transfer?

Nothing to report.

What was the impact on society beyond science and technology?

Nothing to report.

5. CHANGES/PROBLEMS:

The timeline for initiating peer mentor training has been pushed back a few months due to the effects of the COVID-19 pandemic.

Additionally, three amendments were made to the protocol over the course of the past year.

1. AM_00036693 Approved 1/24/2020 Added Tina Shelnut, our Research Associate, to the IRB.
2. AM_00038078 Approved 7/9/2020. Change Dr. Brian Baucom to the PI at the University of Utah, as Dr. Craig Bryan transitioned to The Ohio State University.
3. AM_00039317 Approved 10/20/2020. Added a post peer-mentor training survey to allow the peer mentors to provide feedback on the three day workshop.

Actual or anticipated problems or delays and actions or plans to resolve them

There were delays as mentioned above due to the COVID-19 pandemic. Corrective action in partnership with base leadership is in place to ensure timely completion of the study.

Changes that had a significant impact on expenditures

Nothing to report.

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Significant changes in use or care of human subjects

Nothing to report.

Significant changes in use or care of vertebrate animals

Nothing to report.

Significant changes in use of biohazards and/or select agents

Nothing to report.

6. PRODUCTS:

- **Publications, conference papers, and presentations**

Journal publications.

Nothing to report.

Books or other non-periodical, one-time publications.

Nothing to report.

Other publications, conference papers and presentations.

Baker, J.C., Bryan, A.O., Button, C., Hummel, K., Corso, K., Baucom, B., & Bryan, C.J. (2020, April). *Peer to peer programs for military suicide prevention: Preliminary roll-out*. Poster session presented at the 2020 American Association of Suicidology Annual Conference, Portland, OR.

- **Website(s) or other Internet site(s)**

Nothing to report.

- **Technologies or techniques**

Nothing to report.

- **Inventions, patent applications, and/or licenses**

Nothing to report.

- **Other Products**

Nothing to report.

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

Name: Craig J. Bryan, Psy.D., ABPP
Project Role: Principal Investigator
Researcher Identifier (e.g. ORCID ID): 0000-0002-9714-0733
Nearest person month worked: 2.4
Contribution to Project: Dr. Bryan has performed work in the areas of collaborating with base leadership related to survey roll out, data collection, and participant recruitment, preparation of conference presentation, weekly administrative meetings, and bimonthly project coordinator meetings.

Name: AnnaBelle Bryan, M.S.
Project Role: Co-Investigator
Researcher Identifier (e.g. ORCID ID): 0000-0002-6192-4229
Nearest person month worked: 1.2
Contribution to Project: Ms. Bryan has performed work in the areas of weekly administrative meetings, bimonthly project coordinator meetings, preparation of conference presentation, training of peer-mentors, and participant recruitment and data collection.

Name: Brian Baucom, Ph.D.
Project Role: Co-Investigator
Researcher Identifier (e.g. ORCID ID): 0000-0002-0263-3763
Nearest person month worked: 0.6
Contribution to Project: Dr. Baucom has recently changed roles to Principal Investigator in light of Dr. Bryan's move to The Ohio State University. Dr. Baucom has assisted with all IRB amendments in preparation for this transition.

Name: Justin C. Baker, Ph.D.
 Project Role: Project Coordinator
 Researcher Identifier (e.g. ORCID ID): 0000-0001-7010-5009
 Nearest person month worked: 12.0
 Contribution to Project: Dr. Baker has performed work in the areas of participant recruitment, data collection, and coordination with site leadership. He oversees the daily operations of the project, including supervising the onsite research associate. Assisted with training of the peer-mentors and preparation of the conference presentation. Attends weekly meetings with the Research Associate, in addition to weekly administrative meetings with the PI, and bimonthly project coordinator meetings.

Name: LTCOL Chris Button, PhD, ABPP
 Project Role: Consultant
 Researcher Identifier (e.g. ORCID ID): N/A
 Nearest person month worked: 0.6
 Contribution to Project: LTCOL Button has continued to assist with liasoning with base wide leadership and providing day-to-day oversight for our onsite research associate.

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

Dr. Bryan reports the following active support since the last reporting period:

W81XWH-18-2-0064 (PI: Bryan) 07/14/2020 –
 09/29/2021 2.4 calendar
 Department of Defense
 USA

Peer to Peer Programs for Military Suicide Prevention
 The objective of the study is to test the effectiveness of a peer-to-peer program for the reduction of suicide attempts and suicide ideation.
 Role: PI

W81XWH-18-2-0022 (PI: Bryan) 07/01/2018 – 06/30/2023
 2.4 calendar
 Department of Defense USA

Brief Cognitive Behavioral Therapy (BCBT) Replication Trial
 The primary objective of this project is to test the efficacy of the brief cognitive behavioral therapy (BCBT) for the prevention of suicide attempts as compared to present centered therapy (PCT) among active duty military personnel.
 Role: PI

W81XWH-16-2-0004 (PI: Brown)	07/01/2020– 03/31/2021 0.18 calendar
Department of Defense	USA
<i>Suicide Risk and Sleep in Treatment: An Intensive Daily Sampling Study</i>	
This study will determine the dynamic, longitudinal associations among disruptions in normal sleep and circadian rhythms and suicidal ideation (i.e., psychological health) in a diverse sample of active duty military personnel.	
Role: Co-I	
W81XWH-16-2-0003 (PI: Anestis)	01/01/2017– 12/30/2021 0.6 calendar
Department of Defense	USA
<i>Project Safe Guard</i>	
The study aims to test the acceptability and efficacy of firearm safety counseling on the willingness to safely store firearms in their homes.	
Role: Co-Investigator	
R01MH117600 (PI: Bryan)	09/01/2020– 6/30/2021 1.8 calendar
NIH	USA
<i>Identifying suicidal subtypes and dynamic indicators of increasing and decreasing suicide risk</i>	
The study will conduct secondary analyses on archived datasets in order to advance our understanding of temporal processes associated with the escalation and resolution of suicide risk.	
F19C-007-0170 (PI: Bryan)	07/06/2020– 01/06/2021 0.12 calendar
IntelliGenesis	USA
<i>STTR: Human behavior analytics tool -Phase I (Watchtower/AF19CT007)</i>	
The goal of this project is to develop a novel machine learning-based software solution for the purposes of identifying military personnel at elevated risk for suicide mortality, and demonstrate proof of concept using simulated data based on employment and personnel-related variables.	
10049890 (PI: Bryan)	09/01/2020- 08/31/2022 0.12 calendar
Boeing	USA
<i>Suicide and Trauma Reduction Initiative for Veterans (STRIVE)</i>	
STRIVE aims to reduce suicidal behavior, facilitate long-term recovery from posttraumatic stress, and identify the most efficient methods for treating posttraumatic stress and suicide risk among military personnel and veterans. The primary aim of this project is to provide training to 1,000 clinicians in the delivery of crisis response planning and to provide PTSD treatment to 200 veterans and service members.	

R61MH125759 (PI: Bryan)
08/31/2022
NIH

09/01/2020 –
2.4 calendar

USA

Mechanisms underlying the association of firearm availability and vulnerability to suicide

The proposed project is designed to identify novel mechanisms by which firearm ownership and possession may increase risk of suicide mortality. Our results will improve our understanding of firearm suicide and inform the development and refinement of firearm injury and mortality prevention programs by identifying potential factors that could reduce the negative effects of firearm availability, to include preventive interventions that could be implemented outside healthcare systems.

What other organizations were involved as partners?

Xcelerate Innovations, 32050 Lilac Ln, North Ridgeville, OH 44039.

Kent Corso with Xcelerate Innovations will be assisting us with statistical analyses for the project. He and his team at Xcelerate Innovations have developed a highly specialized non-linear analytical software tool explicitly intended for analyzing change in low base-rate phenomena such as suicide. To date, they have identified a set of variables that we will be collecting from Whiteman AFB as part of our system level data analyses. This past year they have worked closely with base leadership to help facilitate the collection of installation level data for these planned analyses.

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: *None*

QUAD CHARTS: *See attached*

9. APPENDICES: *None*