

**AWARD NUMBER:** W81XWH-19-2-0001

**TITLE:** Patterns of Alcohol Use and Suicide-related Thoughts Among Recently-Discharged Veterans: Risk Factors Associated with the Military-to-Veteran Transition

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**CONTRACTING ORGANIZATION:** CORNELL UNIVERSITY

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# REPORT DOCUMENTATION PAGE

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<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b>  The combination of alcohol use and negative emotional states has been identified as a particularly toxic combination for suicide risk. The current study proposes to examine changes in (a) alcohol use/misuse and (b) depression (as the primary suicide-related negative emotional state) as soldiers undergo the transition from active duty to veteran status, as well as to prevent/reduce alcohol misuse and depression in this population. To date: the assessments (screening, baseline, pre-separation (delivered up to 2 times) and post-separation (delivered 12 times) are nearing finalization; the internet-delivered brief intervention component (delivered 3 times to a portion of the participants in the study) is also nearing completion.					
<b>15. SUBJECT TERMS</b> Suicide; Veteran; Soldier; Negative Emotional States; Depression; Transition; Risk Factors; PTSD; Alcohol Use/Misuse; Drug Use/Misuse					
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## 1. INTRODUCTION:

The combination of alcohol use and negative emotional states has been identified as a particularly toxic combination for suicide risk. The current study proposes to examine changes in (a) alcohol use/misuse and (b) depression (as the primary suicide-related negative emotional state) as soldiers undergo the transition from active duty to veteran status, as well as to prevent/reduce alcohol misuse and depression in this population. The proposed study has 3 objectives: (1) To empirically quantify the form of changes that occur with respect to alcohol use and depression over the transition; (2) To identify stable individual risk factors (e.g., personality, military experiences) and dynamic risk factors (e.g., changes in stressors and normative contexts over time) that may be associated with differential temporal patterns of suicide-related behavior (i.e., alcohol use/misuse) and cognition (i.e., depression); (3) To determine whether a simple, internet-delivered brief intervention (IDBI) shown to have efficacy in another high-risk population for alcohol misuse (college students transitioning to work) can be applied to soldiers transitioning out of the Army.

## 2. KEYWORDS:

Suicide; Veteran; Soldier; Negative Emotional States; Depression; Transition; Risk Factors; PTSD; Alcohol Use/Misuse; Drug Use/Misuse

### 3. ACCOMPLISHMENTS:

#### What were the major goals of the project?

1. IRB Review from individual universities and USAMRMC Office of Research Protection.
  - A. Pretest IRB review: 100% complete
  - B. Main study IRB review:
    - i. Program Development IRB review: 100% (no human subjects)
    - ii. IRB review for the entire completed protocol: 100%
2. Protocol development
  - A. Pretest: 100%
  - B. Main study:
    - i. Invitation/screener/baseline assessments: 100%
    - ii. Pre- and post-discharge assessments: 100%
    - iii. Programming/coding of assessments: 97%
    - iv. Review/pretest all protocols by SMEs: 97%
3. Internet-based intervention modules
  - A. Development for main study:
    - i. Content development for modules 100%
    - ii. UX design and testing: 100%
    - iii. Front-end development: 100%
    - iv. Backend integration and QA testing: 99%
4. Active study enrollment/study launch
  - A. 80 participants recruited through Prolific.au: Pretest: 100%
  - B. 450 study population: Main study: 0%
5. Intervention deployment: 0%
6. Data collection end: Early Year 4. 0% complete.
7. Data collection cleanup, data analysis, drafting of project findings: 0%

## What was accomplished under these goals?

### Major activities:

#### 1. **IRB Program Approval.**

PI: Samuel Bacharach, Cornell University

During this period we have had many different stages of IRB approval for various phases of the study. As of October 15, 2021, we were fully approved by AHRPO.

#### 2. **Protocol/Assessment development.**

PI: Samuel Bacharach, Cornell University

Partnering PI: Paul Bliese, University of South Carolina

Partnering PI Mary Larimer, University of Washington

The participant interaction with the study can take up to approximately 18 months, from initial contact, screening assessment, baseline assessment, pre-separation assessment (up to 2x), and post-separation assessment (12x). Each delivery of the assessments need to be aligned with the aims of the study but also to coordinate with the internet-delivered brief intervention. Study team meets on a weekly basis.

#### 3. **Intervention development.**

Partnering PI: Mary Larimer, University of Washington

A portion of the participants will be invited to interact with a personalized internet-delivered intervention at three timepoints after separation from service. The intervention will use participant responses gathered from the assessments to provide personalized feedback and suggestions on making healthy and/or less-risky choices. Rapid prototyping was conducted with selected Subject Matter Experts (SMEs) in February 2020. The Research Coordinator then created high-fidelity mock-ups using Figma, a digital design tool, then they were built out by our web developer. Another round of user testing was completed with SMEs from August- October 2020 to test functionality and usability.

#### 4. **Pretest.**

PI: Samuel Bacharach, Cornell University

During the summer of 2020, the baseline instrument was tested for length using a veteran population.

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

Nothing to report.

**How were the results disseminated to communities of interest?**

Nothing to report.

**Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives.**

At the conclusion of Year 3:

1. We expect that recruitment will be well underway or finalized.
  - a. Recruitment activities will include in-class presentations, informal tabling in the lobby of the career center, relationship-building and information sessions for JBLM career counselors, tabling at Job Fairs, and other one-time specific JBLM events.
2. We expect a portion of participants to have entered the study/engaged with the intervention.
  - a. Our team will be continuously monitoring recruitment data to ensure on-track recruitment as well as responding to (1) participant inquiries about the study, (2) technical troubleshooting of any errors or issues encountered, and (3) responding to participants who flag for mental health crises and suicidality according to our safety plan and protocol.

#### **4. IMPACT::**

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

Nothing to report.

**What was the impact on other disciplines?**

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:**

**Changes in approach and reasons for change**

The biggest challenge in Year 2 was COVID-19. Not only did the virus bring up issues of confounding effect but it also posed logistical challenges for recruitment.

A specific battery of questions was included in the assessment instruments that related specifically to COVID (having the diagnoses; knowing people with/dying from COVID; self or spouse losing a job due to COVID, etc.).

Recruitment was complicated by the virus itself and by Washington State’s virus-related response measures, regulations, and restrictions. The University of Washington banned in-person travel, even for research purposes days before we were scheduled to begin in-person recruitment at JBLM. While in the process of applying for a travel waiver, a spike in covid cases caused Washington State to shutdown all in-person gatherings from November 2020 through January 2021. Recruitment efforts have been moved online whenever possible. However, the options for classes being offered online are more limited than our previous in-person arrangements and we have been told that many soldiers have postponed their enrollment in certain courses to wait for in-person options to resume again. In Year 3, our recruitment specialist will be vaccinated and has already received a waiver from University of Washington to travel to JBLM for recruitment activities. With an in-person presence and the ability to be present for both in-class presentations as well as informal tabling in the lobby, we are confident that we will be able to recruit at the expected rate.

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

Many of the COVID-related issues have been resolved and we are expect to be fully on track for Year 3.

**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.**

Nothing to report.

- **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?**

Samuel B. Bacharach	NO CHANGE
Peter Bamberger	NO CHANGE
Paul Bliese	NO CHANGE
Mary Larimer	NO CHANGE
Brittney Hultgren	0.8 CM
Jennifer Cadigan	1CM
Annelise Smith	8CM

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

Nothing to report.

**What other organizations were involved as partners?**

Nothing to report.

## **8. SPECIAL REPORTING REQUIREMENTS**

**COLLABORATIVE AWARDS:**

**QUAD CHARTS:** See attached to this document.

**9. APPENDICES:** 1) Consent document; 2) Screening and Baseline instrument; 3) Preseparation instrument; 4) Postseparation instrument. Note that these will be uploaded to eBrap separately.

# Patterns of Alcohol Use and Suicide-related Thoughts of Recently Discharged Veterans: Risk Factors Associated with Military-to-Veteran Transition

#BA160401 and Task Title Here

W81XWH1920001

PI: Samuel B. Bacharach

Org: Cornell University

Award Amount: \$1,498,264

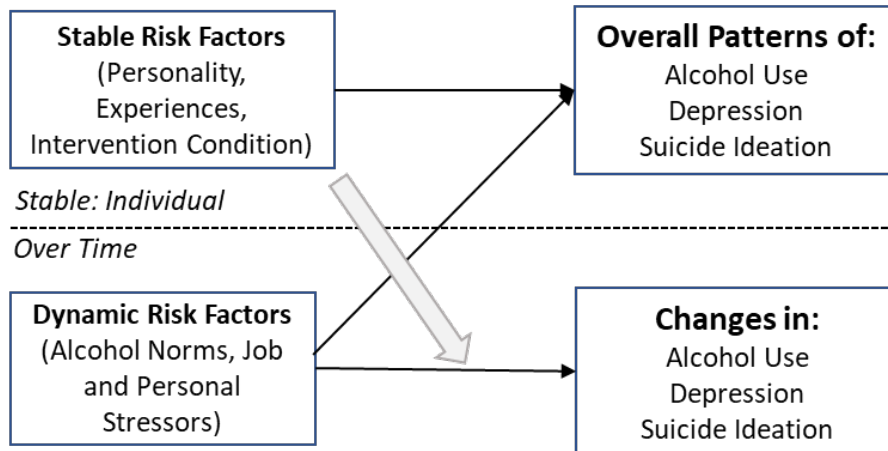


## Study/Product Aim(s)

- Examine patterns of change over 15 months in alcohol use/misuse, depression, and suicide ideation as Service Members transition from active duty to veteran status
- Identify stable (personality, military experiences) and dynamic (changes in personal stressors) risk factors
- Determine whether personalized interventions shown to be efficacious with college students are effective with transitioning Service Members

## Approach

Assess Service Members up to three times pre-discharge and monthly post-discharge (12x). Assess outcomes and relevant risk factors monthly. Test efficacy of two personalized internet/smartphone interventions using randomized trial with control.



Selection of specific predictors and individual difference and employment factors guided by this model.

## Timeline and Cost

Activities	CY	19	20	21	22
Design/develop/program assessments/interventions		█			
Enroll study population (N=450)/begin data collection			█		
Finalize data collection/start analysis				█	
Transfer software files to DOD					█
<b>Estimated Budget (\$K)</b>		<b>\$350</b>	<b>\$400</b>	<b>\$450</b>	<b>\$300</b>

## Goals/Milestones

**CY19 Goal** – Design/develop/program assessments and interventions

**CY20 Goal** – Initiate and continue data collection

**CY21 Goal** – Continue data collection; conduct preliminary analysis

**CY22 Goal** – Finish data collection; finalize analysis; transfer software files to DOD

## Comments/Challenges/Issues/Concerns

Delayed recruitment at JBLM due to COVID travel restrictions in the State of Washington; In-person recruitment expected to begin March 29, 2021.

## Budget Expenditure to Date

Projected Expenditure: \$750,000

Actual Expenditure: \$519,824

Updated: March 26, 2021