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PR171449PI

TITLE: Eating Disorders in Veterans: Prevalence, Comorbidity, Risk, and Health Care Use

PRINCIPAL INVESTIGATOR: Zafra Cooper

CONTRACTING ORGANIZATION: Yale University
New Haven, CT 06519-1611

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Fort Detrick, Maryland 21702-5012

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Eating Disorders in Veterans: Prevalence, Comorbidity, Risk, and Health Care Use

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Zafra Cooper

E-Mail: zafra.cooper@yale.edu

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5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Yale University
105 Wall Street
New Haven CT 06511-8917

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13. SUPPLEMENTARY NOTES

14. ABSTRACT

This application focuses on eating disorders (EDs) and addresses several FY17 PRMRP Areas for Encouragement, including prevalence of diagnosable EDs and other clinically significant disordered eating, associations between ED symptoms and military-unique behaviors and conditions, and treatment patterns of individuals with EDs. We will establish a cohort of post-9/11 Veterans who were separated from service within the past year in order to: (1a) Examine the prevalence of full/subthreshold EDs among male and female Veterans. (1b) Examine the proportion of full/subthreshold EDs among vulnerable subgroups of Veterans. (1c) Examine temporal associations among EDs and comorbid disorders, including PTSD, depression, anxiety, and alcohol and substance use disorders. (2a) Document treatment patterns and healthcare preferences among male and female Veterans with probable full/subthreshold ED diagnoses. (2b) Compare treatment patterns for Veterans with probable full/subthreshold ED diagnoses to Veterans without ED diagnoses. (2c) Identify barriers to care for Veterans seeking mental health treatment in general and for EDs specifically. (3) Identify the impact of general and military/Veteran-specific risk/maintenance factors for ED symptoms and investigate gender differences. (4) Validate and compare two existing, scalable, screening measures of EDs in a Veteran sample.

Data collection will begin in January 2020.

15. SUBJECT TERMS

Eating disorder in Veterans; risk factor assessments; comorbid disorders; health care use; survey assessments; interview assessments

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
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1. **INTRODUCTION:** *Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.*

The specific aims of the project are to recruit a nationally representative cohort of post-9/11 veterans in order to (1a) Examine the prevalence of full and subthreshold eating disorders (EDs) among male and female Veterans. (1b) Examine the proportion of full and subthreshold EDs among vulnerable subgroups of Veterans. (1c) Compare temporal associations among EDs and comorbid disorders, including PTSD, depression, anxiety, and alcohol and substance use disorders. (2a) Document treatment patterns and healthcare needs/preferences among male and female Veterans with probable full or subthreshold ED diagnoses. (2b) Compare treatment patterns for Veterans with probable full and subthreshold ED diagnoses to Veterans without ED diagnoses. (2c) Identify barriers to care for Veterans seeking mental health treatment in general and for EDs specifically. (3) Identify the impact of general and military/Veteran-specific risk factors for ED symptoms. (4) Validate and compare two existing screening measures of EDs in Veterans.

2. **KEYWORDS:** *Provide a brief list of keywords (limit to 20 words).*

Eating disorders, veterans, military stressors, comorbid disorders, risk factors

3. **ACCOMPLISHMENTS:** *The PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction.*

What were the major goals of the project?

List the major goals of the project as stated in the approved SOW. If the application listed milestones/target dates for important activities or phases of the project, identify these dates and show actual completion dates or the percentage of completion.

Major Task 1: Prepare Research Protocol	**Target date**	**Completion date or %**
Milestone Achieved: Local IRB approval at VABHS, Yale	10/30/18	10/29/18
Major Task 2: Hiring and Training of Study Staff	**Target date**	**Completion date**
Milestone Achieved: Research staff trained	3/30/19	75%
Major Task 3: Participant Recruitment and Survey Mailing	**Target date**	**Completion date**
Milestone Achieved: 1st participant returns completed survey	3/30/19	0%
Milestone Achieved: Survey mailing completed	6/30/20	0%
Milestone Achieved: Survey database will be cleaned, finalized, and provided to the Initiating PI	9/30/20	0%
Major Task 4: Interview Assessments	**Target date**	**Completion date**
Milestone Achieved: all interviews completed.	9/30/20	0%
Milestone Achieved: data collection completed.	9/30/20	0%
Major Task 5: Data Analysis	**Target date**	**Completion date**

Milestone achieved: report prevalence of EDs.	12/30/20	0%
Milestone achieved: report treatment patterns of Veterans with EDs and barriers to care.	12/30/20	0%
Milestone: report military-specific risk/maintenance factors for EDs in Veterans.	3/30/21	0%
Milestone: report validity of screening measures for EDs.	6/30/21	0%
Milestone Achieved: Report results from data analyses	9/30/21	0%

What was accomplished under these goals?

For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings, developments, or conclusions (both positive and negative); and/or 4) other achievements. Include a discussion of stated goals not met. Descriptio n shall include pertinent data and graphs in sufficient detail to explain any significant results achieved. A succinct description of the methodology used shall be provided. As the project progresses to completion, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments.

Major Task 1: Prepare Research Protocol

- *Obtain IRB approval*: Both study teams obtained IRB approval from their respective institutions and have subsequently submitted continuing reviews that have been approved.
- *Refine assessment battery:* The study team has collaborated on further refining the survey instrument to be used for data collection. Interview assessment drafts finalized after team discussion in preparation for interviewer training and piloting before interviews begin in early 2020.
- *Refine and edit interview assessment protocol:* Interview assessments are finalized and will be discussed with the team ready for training staff that will begin at the end of October.
- *Pilot test survey and diagnostic interview*: The study team has pilot tested the survey at VA Boston and the interview will be piloted once research staff are fully trained at Yale.

Major Task 2: Hiring and Training of Study Staff

- *Hire and train staff*: Dr Sursatie Frazier was hired as a post-doctoral assistant and started in October after her appointment was confirmed by Yale. Three internal Yale candidates and four external applicants were interviewed for a research assistant post and Andrea Gould (a Yale internal candidate) has been appointed in accordance with Yale guidelines. Training will begin immediately now that both new staff members are in place. Please see discussion of intentional delay in Yale hiring below.

Major Task 3: Participant Recruitment and Survey Mailing

- *Coordinate with sites and survey research firm for all study steps and data collection methods:* After extensive discussion with VA Boston Information Security Officers, the Data Use Agreement has been signed. A contract has been drafted and is being reviewed by the legal teams at the Boston VA Research Institute and at Westat and will be signed imminently. Westat has provided a timeline with survey data collection beginning in January 2020. Discussions are underway about the hand-over of data required to contact participants for the interview stage of the study.

What opportunities for training and professional development has the project provided?
If the project was not intended to provide training and professional development opportunities or there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe opportunities for training and professional development provided to anyone who worked on the project or anyone who was involved in the activities supported by the project. "Training" activities are those in which individuals with advanced professional skills and experience assist others in attaining greater proficiency. Training activities may include, for example, courses or one-on-one work with a mentor. "Professional development" activities result in increased knowledge or skill in one's area of expertise and may include workshops, conferences, seminars, study groups, and individual study. Include participation in conferences, workshops, and seminars not listed under major activities.

Nothing to report

How were the results disseminated to communities of interest?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how the results were disseminated to communities of interest. Include any outreach activities that were undertaken to reach members of communities who are not usually aware of these project activities, for the purpose of enhancing public understanding and increasing interest in learning and careers in science, technology, and the humanities.

Nothing to report

What do you plan to do during the next reporting period to accomplish the goals?
If this is the final report, state "Nothing to Report."

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

We will begin collecting data in January 2020, and the survey should be complete by March 2020. The interviews will begin as soon as the survey research firm is able to select people for interview and transfer the required contact details to the Yale group. We anticipate that interviews will begin in February 2020. Datasets will be prepared by the survey research firm and Dr. Cooper as the interview data becomes available. Survey and interview data will be merged by Dr. Mitchell. Data analyses will begin during the second funding year.

4. **IMPACT:** D*escribe distinctive contributions, major accomplishments, innovations, successes, or any change in practice or behavior that has come about as a result of the project relative to:*

What was the impact on the development of the principal discipline(s) of the project?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how findings, results, techniques that were developed or extended, or other products from the project made an impact or are likely to make an impact on the base of knowledge, theory, and research in the principal disciplinary field(s) of the project. Summarize using language that an intelligent lay audience can understand (Scientific American style).

Nothing to report

What was the impact on other disciplines?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how the findings, results, or techniques that were developed or improved, or other products from the project made an impact or are likely to make an impact on other disciplines.

Nothing to report

What was the impact on technology transfer?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe ways in which the project made an impact, or is likely to make an impact, on commercial technology or public use, including:

- *transfer of results to entities in government or industry;*
- *instances where the research has led to the initiation of a start-up company; or*
- *adoption of new practices.*

Nothing to report

Describe how results from the project made an impact, or are likely to make an impact, beyond the bounds of science, engineering, and the academic world on areas such as:

- *improving public knowledge, attitudes, skills, and abilities;*
- *changing behavior, practices, decision making, policies (including regulatory policies), or social actions; or*
- *improving social, economic, civic, or environmental conditions.*

Nothing to report

5. CHANGES/PROBLEMS: *The PD/PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction. If not previously reported in writing, provide the following additional information or state, "Nothing to Report," if applicable:*

Nothing to report

Actual or anticipated problems or delays and actions or plans to resolve them
Describe problems or delays encountered during the reporting period and actions or plans to resolve them.

There have been delays in launching the survey due to regulatory permissions and administrative delays. This has meant that the more time-consuming interviewing phase of the study has of necessity been delayed. Given these unavoidable delays, Yale staff were only hired towards the end of the first year of funding so as to conserve funds to complete the study. However, the timeline for collecting the survey data will be shorter than anticipated, as data will be collected primarily online, rather than by paper-and-pencil mailed surveys. We hope that, although delayed, interviews will be able to be completed in a timely manner within a year.

Changes that had a significant impact on expenditures
Describe changes during the reporting period that may have had a significant impact on expenditures, for example, delays in hiring staff or favorable developments that enable meeting objectives at less cost than anticipated.

We have finalized the contract with the survey research firm (Westat). The contract will be signed and paid by the end of 2019, and data collection will begin by January 2020.

As noted above there was an intentional delay in hiring Yale staff in order not to incur salary costs until we were close to being able to interview study participants.

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

Describe significant deviations, unexpected outcomes, or changes in approved protocols for the use or care of human subjects, vertebrate animals, biohazards, and/or select agents during the reporting period. If required, were these changes approved by the applicable institution committee (or equivalent) and reported to the agency? Also specify the applicable Institutional Review Board/Institutional Animal Care and Use Committee approval dates.

Significant changes in use or care of human subjects

1. Edits were made to the Study Fact Sheet (Boston survey) (approved 10/29/18)
2. Certificates of Confidentiality were obtained by the Boston and Yale group
3. Requested an increase in number of potential participants by 10% in order to account for bad addresses (approved 2/25/19)
4. Submitted a revised version of survey (approved 4/8/19)
5. Yale amendments in preparation

Significant changes in use or care of vertebrate animals

Significant changes in use of biohazards and/or select agents

Nothing to report

6. PRODUCTS: *List any products resulting from the project during the reporting period. If there is nothing to report under a particular item, state "Nothing to Report."*

- **Publications, conference papers, and presentations**
  Report only the major publication(s) resulting from the work under this award.

  Journal publications. *List peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Identify for each publication: Author(s); title; journal; volume: year; page numbers; status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

Nothing to report

Books or other non-periodical, one-time publications. *Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings of a one-time conference or in the report of a one-time study, commission, or the like. Identify for each one-time publication: author(s); title; editor; title of collection, if applicable; bibliographic information; year; type of publication (e.g., book, thesis or dissertation); status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

Nothing to report

Other publications, conference papers and presentations. *Identify any other publications, conference papers and/or presentations not reported above. Specify the status of the publication as noted above. List presentations made during the last year (international, national, local societies, military meetings, etc.). Use an asterisk (*) if presentation produced a manuscript.*

Nothing to report

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

List the URL for any Internet site(s) that disseminates the results of the research activities. A short description of each site should be provided. It is not necessary to include the publications already specified above in this section.

Nothing to report

- **Technologies or techniques**

Identify technologies or techniques that resulted from the research activities. Describe the technologies or techniques were shared.

Nothing to report

- **Inventions, patent applications, and/or licenses**
  Identify inventions, patent applications with date, and/or licenses that have resulted from the research. Submission of this information as part of an interim research performance progress report is not a substitute for any other invention reporting required under the terms and conditions of an award.

Nothing to report

- **Other Products**
  Identify any other reportable outcomes that were developed under this project. Reportable outcomes are defined as a research result that is or relates to a product, scientific advance, or research tool that makes a meaningful contribution toward the understanding, prevention, diagnosis, prognosis, treatment and /or rehabilitation of a disease, injury or condition, or to improve the quality of life. Examples include:
  - *data or databases;*
  - *physical collections;*
  - *audio or video products;*
  - *software;*
  - *models;*
  - *educational aids or curricula;*
  - *instruments or equipment;*
  - *research material (e.g., Germplasm; cell lines, DNA probes, animal models);*
  - *clinical interventions;*
  - *new business creation; and*
  - *other.*

Nothing to report

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

Provide the following information for: (1) PDs/PIs; and (2) each person who has worked at least one person month per year on the project during the reporting period, regardless of the source of compensation (a person month equals approximately 160 hours of effort). If information is unchanged from a previous submission, provide the name only and indicate "no change".

Name: Karen Mitchell
Project role: Initiating PI
Researcher Identifier: 0000-0002-1516-7239
Nearest person month worked: .75
Contribution to the project: Dr. Mitchell has been working with survey research firms and VA Information Security to plan the data collection.

Name: Megan Sienkiewicz
Project role: Research Assistant
Nearest person month worked: 1.5
Contribution to the project: Ms. Sienkiwicz has assisted with survey refinement, IRB amendments, and literature searches.

Name: Zafra Cooper
Project role: Partnering PI
Researcher Identifier: 0000-0001-7963-656X

Nearest person month worked: 1.50
Contribution to the project: Dr. Cooper has worked with the Yale recruitment system to advertise widely for project staff and set up a new research group to undertake the project. She has drawn up a shortlist of candidates and interviewed candidates. Both research staff appointments have been made. She has purchased computers and other supplies through the Yale purchasing system. She has finalized drafts of the eating disorder diagnostic and risk factor interviews for further discussion as well as modify the SCID interview to assess comorbid disorders. She has devised a training schedule to begin training the new staff and prepared and submitted IRB continuing reviews and modifications.

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

If the active support has changed for the PD/PI(s) or senior/key personnel, then describe what the change has been. Changes may occur, for example, if a previously active grant has closed and/or if a previously pending grant is now active. Annotate this information so it is clear what has changed from the previous submission. Submission of other support information is not necessary for pending changes or for changes in the level of effort for active support reported previously. The awarding agency may require prior written approval if a change in active other support significantly impacts the effort on the project that is the subject of the project report.
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Now active (Dr Mitchell -PI)	IIR 17-030	2019-2021
Source: VA Health Services Research &Development Service		
Project: Eating Disorders in Veterans: Risk, Resilience, and Service Use		

Describe partner organizations – academic institutions, other nonprofits, industrial or commercial firms, state or local governments, schools or school systems, or other organizations (foreign or domestic) – that were involved with the project. Partner organizations may have provided financial or in-kind support, supplied facilities or equipment, collaborated in the research, exchanged personnel, or otherwise contributed.

Provide the following information for each partnership:
Organization Name:
Location of Organization: (if foreign location list country)
Partner's contribution to the project (identify one or more)

- *Financial support;*
- *In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff);*
- *Facilities (e.g., project staff use the partner's facilities for project activities);*
- *Collaboration (e.g., partner's staff work with project staff on the project);*
- *Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site); and*
- *Other.*

Minneapolis VA Healthcare System
1 Veterans Drive CCDOR(152)
Minneapolis, MN 55417

Contribution: facilities and collaboration

VA Connecticut Research and Education Foundation/ VA Connecticut Healthcare System
Campbell Avenue
West Haven CT 06516
Collaboration and advice in assessing Veterans from Dr Robin Masheb

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS:
QUAD CHARTS:

Quad chart submitted with this report.

9. APPENDICES

None