

AWARD NUMBER: W81XWH-20-1-0801

TITLE: Identifying Gaps in Patient-Provider Communication and Improving Care for Veterans with Gulf War Illness

PRINCIPAL INVESTIGATOR: Maxine Kregel, Ph.D.

RECIPIENT: Boston Va Research Institute, Inc., Boston, MA

REPORT DATE: October 2022

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Development Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT:
Approved for Public Release; Distribution unlimited.

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202- 4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE October 2022		2. REPORT TYPE Annual		3. DATES COVERED 30Sep2021-29Sep2022	
4. TITLE AND SUBTITLE Identifying Gaps in Patient-Provider Communication and Improving Care for Veterans with Gulf War Illness				5a. CONTRACT NUMBER W81XWH-20-1-0801	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Maxine Kregel, Ph.D. E-Mail: mhk@bu.edu				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Boston VA Research Institute, Inc. 5 Post Office Sq #16-28, Boston, MA, 02109-3901, United States.				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Development Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <p>Research has shown that there are gaps in knowledge that Primary Care Physicians (PCPs) have regarding Gulf War Illness (GWI), etiology, and potential treatments. It is essential to provide awareness of the leading theories of GWI and how etiologic factors have led to biologic markers and specific treatments, so that clinicians can more effectively communicate with their Gulf War veteran (GWW) patients and provide appropriate care. The goals of this project are to identify the gaps in the Department of Veterans Affairs (VA) and community Primary Care Physicians' (PCPs) knowledge about GWI, etiology, and current treatments and address those gaps through a training module.</p> <p>The specific aims of this proposal are (1) Assess PCPs knowledge of GWI, patient provider communication approaches, and diagnostic strategies. (2) Create the educational training for PCPs based off the gaps identified in Aim 1. (3) Assess PCPs knowledge of GWI, patient provider communication approaches, and diagnostic strategies after having reviewed the training materials provided. (4) Implement sustainment plan. This proposal consists of three phases: Pre-Test, Training, and Post-Test. The Pre-Test Survey will contain 3 structured clinical vignettes, questions pertaining to treating veteran illnesses, and demographics about PCPs training and experiences. Three months after the completion of the Pre-Test Survey, PCPs will receive another survey containing a 25-minute video training module followed by comprehension questions. Three months after the training module has been completed, PCPs will receive the Post-Test survey containing 3 additional structured clinical vignettes and questions pertaining to treating veteran illnesses. We will assess the efficacy of the training module by comparing the PCPs performance on the clinical vignettes before and after training.</p> <p>There are no results as of yet.</p>					
15. SUBJECT TERMS: Gulf War Illness, Health symptoms, Gulf War, Toxicant Exposures, Patient-provider, Primary care physicians.					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U	UU	14	USAMRDC
					19b. TELEPHONE NUMBER <i>(include area code)</i>

TABLE OF CONTENTS

	<u>Page No.</u>
1. Introduction	4
2. Keywords	4
3. Accomplishments	4
4. Impact	6
5. Changes/Problems	7
6. Products	9
7. Participants & Other Collaborating Organizations	12
8. Special Reporting Requirements	14
9. Appendices	14

1. INTRODUCTION:

Research has shown that there are gaps in knowledge that Primary Care Physicians (PCPs) have regarding Gulf War Illness (GWI), etiology, and potential treatments. Recently, researchers have been studying the gaps by interviewing GW veterans (GWVs). This proposal goes one step further by assessing and designing training materials for PCPs to increase their knowledge of GWI. It is essential to provide appropriate training modules, so that clinicians can more effectively communicate with their GWV patients and provide appropriate care. Overarching Challenges: The goals of this project are to identify the gaps in the Department of Veterans Affairs (VA) and community Primary Care Physicians' (PCPs) knowledge about GWI with the use of clinical case examples. PCPs will be asked for their care plan and treatment initiatives. The gaps found will be used to target training materials, which will be sent to these PCPs. Objective/Hypothesis: The main objective is to provide PCPs with a training module aimed at increasing their knowledge of GWI, the etiology, and potential treatments. We will assess the efficacy of the training module by comparing PCPs knowledge pre and post training. Our team at VA Boston are clinicians and researchers who have strong ties to communities who serve GWVs. Through our work with the GW treatment and biorepository consortia and their veteran advisory board, we will strategically include our new training module for use in VA and community wide programs. This proposal will have a major impact on the care given to GWVs by serving as a conduit from the research realm to directly impacting clinical care and improving the quality of life of ailing GWVs.

2. KEYWORDS:

Patient provider, Gulf War Illness, Veterans, Gulf War, Health symptoms, Health status, Chronic Fatigue Syndrome, Patient Provider

3. ACCOMPLISHMENTS:

What were the major goals of the project?

- The major goals of the project as stated in the approved SOW for year 1 is listed in the table below. Specifically, during year 1, the primary goals were to submit paperwork for VA Boston Healthcare and Boston University School of Public Health IRB and to obtain approvals at each site. In addition, we have submitted the paperwork for HRPO approval.
- Additionally, we have received approval to use a Qualtrics format at BUSPH and have been working with the technology team to set up the protocol. Milestones/target dates for important activities or phases of these dates are listed in the table and actual completion dates are listed below.

STATEMENT OF WORK

Site 1: VA Boston Healthcare System

Site 2: Boston University School of Public Health

150 South Huntington Ave, Boston, MA 02130

715 Albany Street Boston, MA 02118

PI: Dr. Maxine Krengel

PI: Dr. Kimberly Sullivan

Specific Aims: Aim 1: Assess PCPs knowledge of GWI, patient provider communication approaches, and diagnostic strategies. Aim 2: Create the educational training for PCPs based off the gaps identified in Aim 1. Aim 3: Assess PCPs knowledge of GWI, patient provider communication approaches, and diagnostic strategies after having reviewed the training materials provided. Aim 4: Implement sustainment plan.

Tasks Timeline

	Months
Task 1. Obtain necessary authorization prior to initiation of human subjects	
1a. Obtain Institutional Review Board (IRB) approval for VA Boston Healthcare System for protocols	1-4
1b. Obtain DOD Human subjects Research Protections Office (HRPO) Approval	5-7
1c. Complete hiring of necessary staff and ensure all mandatory IRB research related trainings are completed by all staff members	1-8
Task 2. Preparations for Study Procedures	Months
2a. Set up Qualtrics platform web page design	7-12
2b. Update and finalize pre-test and post-test vignettes and scoring procedure	1-6
2c. Present vignettes to GWV panel and ask for suggests and edits and update accordingly.	7-10
2d. Pilot the vignettes with physicians who are familiar with assessing and treating GWVs. Update vignettes and scoring procedures with physician feedback.	10-12
Task 3. Recruitment and pre-assessment of Patient Care Providers (PCPs)	Months
3a. Obtain a list of PCPs addresses and emails from American Medical Association	7-12
3b. Assess 50 PCPs and obtain demographics, vignettes responses, and current GWI knowledge responses for Pre-Test Survey.	12-18
Task 4. Creation and Dissemination of Training Materials to PCPs	
4a. Collaboration with Drexel University, WRIISC, and veteran advisory panel to create necessary training program.	8-15
4b. Review the training program with physicians involved in clinical assessment of GWVs. Update as needed with physician feedback.	12-15
4c. Disseminate the training to PCPs	15-24
Task 5. Post-assessment of PCPs	Months
5a. Assess PCPs vignette responses	18-27
5b. Determine GWI knowledge post-training	18-27
Task 6. Perform Interim Data analyses	
6a. Interim statistical analyses of data obtained from vignettes and GWI knowledge scores will be performed periodically.	18-30
6b. Annual reports of progress will be written.	12-24
Task 7. Perform Final Data Analysis, Prepare Manuscripts for Publication	Months
7a. Perform analyses comparing pre-assessment vignette and GWI knowledge to post-assessment vignette and GWI knowledge.	27-36
7b. Write final study report	27-36
7c. Present findings at scientific meetings and prepare manuscripts for submission	27-36

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? ”

We have sent out the first 200 letters to primary care providers and are awaiting the first 25 providers to complete the initial surveys. This will allow us to start the training protocol.

4. IMPACT:

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

We have revised the training protocol using guidelines from the WRIISC protocol for VA providers. This has allowed us to use the most up to date research on neurotoxicant exposures and long-term health impacts in order to assist PCPs in their practices.

What was the impact on other disciplines?

Once we have validated our new treatments with PCPs, we will be able to provide this knowledge for use in the VA system as well.

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

Nothing to report.

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

Nothing to report.

Changes that had a significant impact on expenditures

We had to move the data collection of the project to Boston University School of Public Health because of the IRB concerns of using VA redcap for non-utilizers of the VA system. However, we are on target to finish the procedures in the next reporting timeline.

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.

Significant changes in use of biohazards and/or select agents

N/A

6. PRODUCTS:

- **Publications, conference papers, and presentations**
Journal publications.

Nothing to report

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

Other publications, conference papers, and presentations.

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

N/A

- **Technologies or techniques**

We will have a training module for us in VA and non-VA health systems upon completion of the project.

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

- **Other Products**

RedCap has been set up for use with PCPs to determine the initial interest and experience with Gulf War Illness.

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?

Dr. Kimberly Sullivan from Boston University School of Public Health has been working on developing the RedCap protocol.

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

n/a

What other organizations were involved as partners?

n/a

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS:

QUAD CHARTS:

9. APPENDICES: