

Fiscal Year:	FY 2010	Task Last Updated:	FY 09/14/2010
PI Name:	Cartreine, James A. Ph.D.		
Project Title:	Countermeasure for Managing Interpersonal Conflicts in Space: A Continuation Study		
Division Name:	Human Research		
Program/Discipline:	NSBRI		
Program/Discipline--Element/Subdiscipline:	NSBRI--Neurobehavioral and Psychosocial Factors Team		
Joint Agency Name:	TechPort:	Yes	
Human Research Program Elements:	(1) BHP :Behavioral Health & Performance (archival in 2017)		
Human Research Program Risks:	(1) BMed :Risk of Adverse Cognitive or Behavioral Conditions and Psychiatric Disorders (2) Team :Risk of Performance and Behavioral Health Decrements Due to Inadequate Cooperation, Coordination, Communication, and Psychosocial Adaptation within a Team		
Space Biology Element:	None		
Space Biology Cross-Element Discipline:	None		
Space Biology Special Category:	None		
PI Email:	icartreine@partners.org	Fax:	FY
PI Organization Type:	UNIVERSITY	Phone:	617-851-8913
Organization Name:	Brigham and Women's Hospital/Harvard Medical Center		
PI Address 1:	Program in Behavioral Informatics and eHealth		
PI Address 2:	Department of Psychiatry		
PI Web Page:			
City:	Boston	State:	MA
Zip Code:	02215	Congressional District:	8
Comments:	NOTE: PI moved to Brigham and Women's Hospital; formerly at Beth Israel Deaconess Medical Center, Boston, MA, per info received December 2011 (Ed.) Name change to Cartreine in summer 2008 (from Carter), per NSBRI information (11/08)		
Project Type:	GROUND	Solicitation / Funding Source:	2007 Crew Health NNJ07ZSA002N
Start Date:	09/01/2009	End Date:	08/31/2013
No. of Post Docs:	0	No. of PhD Degrees:	0
No. of PhD Candidates:	0	No. of Master' Degrees:	0
No. of Master's Candidates:	0	No. of Bachelor's Degrees:	0
No. of Bachelor's Candidates:	0	Monitoring Center:	NSBRI
Contact Monitor:	Contact Phone:		
Contact Email:			
Flight Program:			
Flight Assignment:			
Key Personnel Changes/Previous PI:			
COI Name (Institution):	Buckey, Jay (Dartmouth College) Brady, Joseph (Institutes for Behavior Resources, Inc.) Greenhalgh, Leonard (Dartmouth College) Beven, Gary (NASA Johnson Space Center)		
Grant/Contract No.:	NCC 9-58-NBPF01603		
Performance Goal No.:			
Performance Goal Text:			

	<p>Original Aims: Some amount of interpersonal conflict is expected on long-duration (LD) missions, whether between crewmembers or between the crew and the ground; however, severe conflicts can interfere with mission success and even safety. Severe, ongoing conflicts have been reported on LD space missions, Antarctic expeditions, and a recent LD space mission simulation. Nonetheless, empirically-supported tools to help crews prevent, assess, and manage interpersonal conflicts have not been developed.</p> <p>This study will design and produce an interactive media intervention program to assist persons manage real, ongoing conflicts on long-duration missions. A preliminary evaluation of the conflict intervention will be conducted in a variety of settings where individuals live, train, and work together: fire departments and university residence halls. It will also be evaluated in two NSBRI-supported mission simulations, when conflicts arise. The goal of this preliminary evaluation is to gather data on response rate, sample characteristics, and effect size, in preparation for a randomized controlled trial.</p> <ol style="list-style-type: none"> 1. The primary deliverable will be a countermeasure to help crews manage interpersonal conflict. We will produce an interactive media intervention program to assist persons manage real, ongoing conflicts on LD missions. This intervention will be based on cognitive-behavioral therapy and will help individuals to work out strategies with the assistance of a coach, on computer. 2. A second deliverable will be preliminary data about the countermeasure. We will conduct an open trial to obtain data about the intervention's potential effectiveness in settings that share some characteristics of the space setting (group living, small work groups). The open trial will also enable us to develop and assess our procedures and instruments for data collection, and estimate effect size, in preparation for a future randomized controlled trial. <p>Key findings:</p> <p>The principal activity of the first year of this study was to solidify the content of the intervention program, develop its design, and begin interactive media production (with the major production years being grant years 2 and 3).</p> <p>Grant administration problems beyond the Principal Investigator's control required significant attention during this first year. Currently, these problems have still not been solved, and efforts are underway to find a suitable institutional home for the grant work. The project has been on hold since July 1, 2010, after completing 10 months of Year 1.</p> <p>Despite these problems, good progress was made in defining the clinical content of the intervention and the general design of the program.</p> <p>In an earlier study, we had interviewed long duration flyers about interpersonal conflicts in space. Since this countermeasure will be evaluated with firefighters, it was also necessary to interview representatives from fire departments. Interviews were conducted with the San Diego, Houston, and Phoenix fire departments. A structured questionnaire was presented to our contacts at the Fire Departments to assess our approach to conflict and to help us to determine the kinds of conflicts and scenarios that would be most likely to occur in these settings. The content is soundly based in cognitive-behavioral therapy; however, no empirically supported intervention for workplace conflict exists. Therefore, the clinical specifics of the intervention needed to be specified.</p> <p>The research team established agreements with major fire departments: the San Diego Fire Department, the Phoenix Fire Department, and the Houston Fire Department. The intervention is planned to be evaluated in the operational analog of the fire department. These fire departments have agreed to be test sites, review content, and provide consultation as needed. They are a critical component to the research plan, and excellent to bring on board at this early stage.</p> <p>Proposed Research Plan:</p> <p>The first critical step is to identify a suitable organization to accept this grant. Then, to complete the remaining 2 months of work in Year 1, initiate interactive media production, and continue to build out the countermeasure in Year 2.</p>
Rationale for HRP Directed Research:	
Research Impact/Earth Benefits:	<p>Clearly, if effective, this countermeasure could help firefighters and other first responders. It could also be adapted for use in isolated operational environments, such as polar research stations, submarines, commercial ships, oilrigs, and underwater research stations. Furthermore, even greater value could be derived by making similar programs available to the public in other settings such as police departments, secondary schools, social services offices, places of worship, military bases, prisons, public health and mental health centers, and eventually at home or in any location, through broadband Internet.</p>
Task Progress:	<p>The principal activity of the first year of this study was to solidify the content of the intervention program. Because this study involves creating a new clinical intervention, rather than computerizing an existing evidence-based treatment, a great deal of research was needed to determine the most promising clinical elements of the program. Research from the areas of occupational health, mediation and arbitration, assertiveness training, couples therapy, family therapy, and crew resource management was reviewed. The other tasks intended to be completed in Year 1 were to develop the program's design and begin interactive media production (with the major production years being grant years 2 and 3).</p> <p>Grant administration problems beyond the Principal Investigator's control required significant attention during this first year. Currently, these problems have still not been solved, and efforts are underway to find a new institutional home for the grant work. The project has been on hold since July 1, 2010, after completing 10 months of Year 1.</p> <p>Despite these problems, good progress was made in defining the clinical content of the intervention and the general design of the program. Interviews were conducted with the San Diego, Houston and Phoenix fire departments about interpersonal conflicts. A structured questionnaire was presented to our contacts at the Fire Departments to assess our approach to conflict and to help us to determine the kinds of conflicts and scenarios that would be most likely to occur in these settings. The content is soundly based in cognitive-behavioral therapy; however, no empirically supported intervention for workplace conflict exists. Therefore, the clinical specifics of the intervention needed to be specified.</p> <p>Additionally, the research team established agreements with major fire departments: The San Diego Fire Department, the Phoenix Fire Department, and the Houston Fire Department. The intervention is planned to be evaluated in the operational analog of the fire department. These fire departments have agreed to be test sites, review content, and</p>

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Bibliography Type:	Description: (Last Updated: 02/11/2021)
Significant Media Coverage	Salazar J. "Radio interview regarding NSBRI project." National Public Radio, plus syndicated internationally, January 2010., Jan-2010