THE USE OF MEDITATION TO PROMOTE RESILIENCE IN DEPLOYED MEDICAL PERSONNEL

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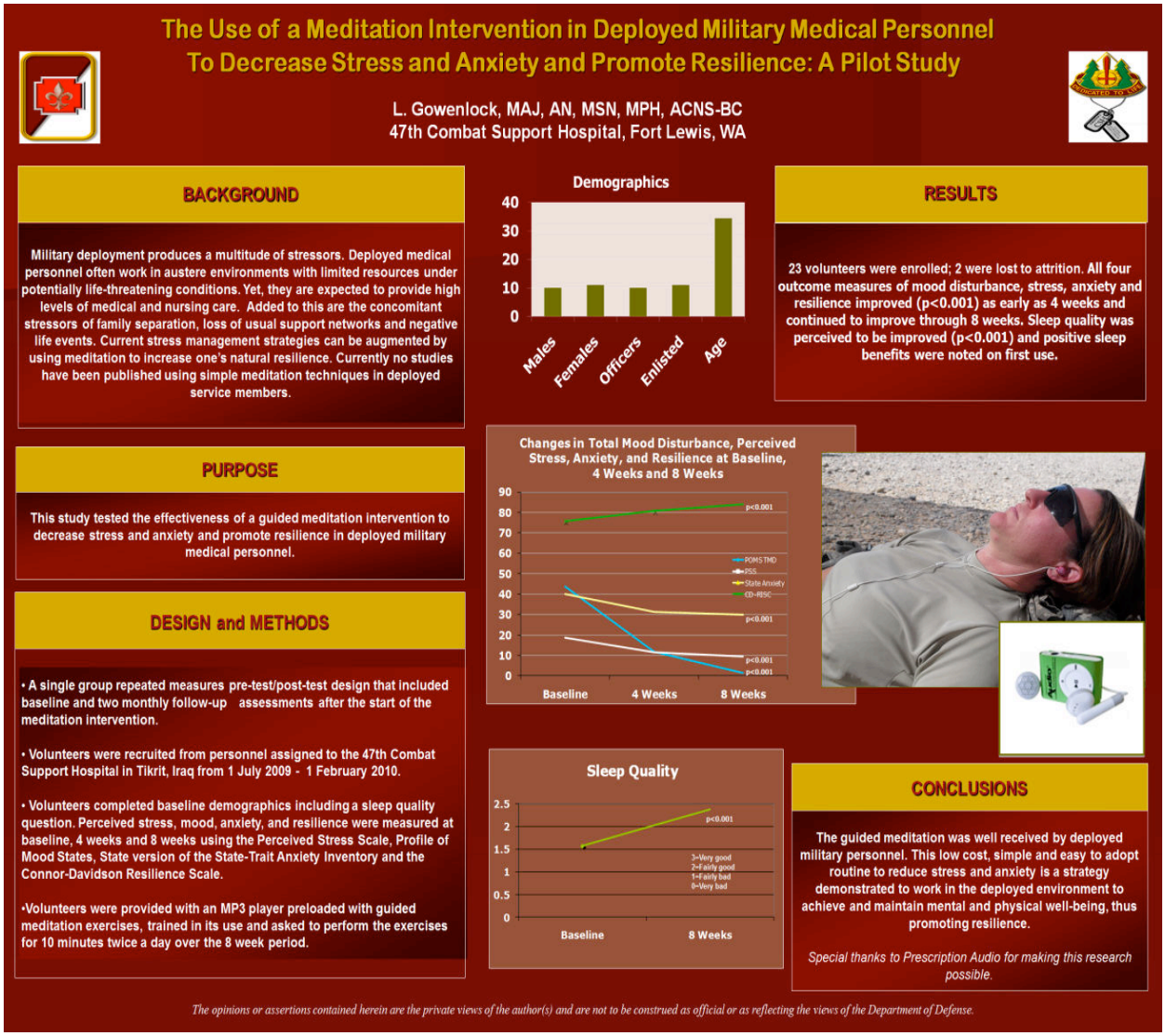
Poster



PURPOSE/AIMS: The purpose of this pilot study was to test the effectiveness of a guided meditation intervention to decrease stress and anxiety and promote resilience in deployed military medical personnel. The mind/body framework of Dr. Herbert Benson was used to develop this protocol.

DESIGN: The study was a single group repeated measures pre-test/post-test design that included a baseline and two monthly follow up assessments after the start of the meditation intervention.

SAMPLE STUDIED: Military medical personnel assigned to the 47th Combat Support Hospital located in Tikrit, Iraq from 1 September 2009-1 February 2010 were eligible to participate in this study.

METHODS: Participants were recruited using group announcements, email and flyers posted in common and work areas. At baseline, subjects completed a demographic survey, a single sleep quality item, and Section A (Pre-deployment Life Events) and B (Childhood Experiences) of the Deployment Risk and Resilience Inventory. Additionally, perceived stress, mood, anxiety and resilience were measures at baseline, 4 weeks and 8 weeks using the following instruments: 10-item Perceived Stress Scale, 65-item Profile of Mood States Standard Form, 20-item State version of the State-Trait Anxiety Inventory and the 25-item Connor-Davidson Resilience Scale. Completion of surveys required about 20 minutes of uninterrupted time for participants. Subjects were then provided with an MP3 player (provided by Prescription Audio) preloaded with guided meditation exercises. They were trained in its use and then instructed to perform the exercises a minimum of 10 minutes twice a day for eight weeks. Subjects maintained a daily log of meditation sessions and report frequency of sessions along with overall sleep quality upon study completion.

RESULTS: 23 volunteers were enrolled; 2 were lost to attrition. 52% were male and 48% were female. 52% were officers and 48% were enlisted. The mean age was 34 years. All four outcome measures of mood disturbance, stress, anxiety and resilience improved ($p<0.001$) as early as 4 weeks and continued to improve through 8 weeks. Sleep quality was perceived to be improved ($p<0.001$) and positive sleep benefits were noted on first use.

CONCLUSIONS: The guided meditation was well received by deployed military personnel. This low cost, simple and easy to adopt routine to reduce stress and anxiety is a strategy demonstrated to work in the deployed environment to achieve and maintain mental and physical well-being, thus alleviating stress and promoting resilience.

IMPLICATIONS: Guided meditation using portable electronic devices may provide a simple, easy-to-adopt routine to reduce stress and anxiety associated with deployment for Soldiers in various types of units.

FROM/TO TIME PERIOD OF STUDY: 1 September 2009 – 1 February 2010

FUNDING: In kind – 47th Combat Support Hospital; MP3 players provided by Prescription Audio

Key Data Points

Iraq Research in Deployed Unit

Demographics				
	Males	11		
	Females	10		
	Officers	11		
	Enlisted	10		
	Age		**34.4 years**	

Resiliency

25-item Connor-Davidson Resilience Scale				
CD-RISC			**Resiliency Improvement % - baseline to 8 weeks**	
	Baseline	75.76		
	4 Weeks	80.76		
	8 Weeks	84.14	**11.1%**	8.38

Sleep Improvement

Sleep			**Sleep Quality Improvement % - baseline to 8 weeks**	
	Baseline	1.57		
	8 Weeks	2.38	**48.4%**	2.38

Stress, anxiety, mood swings

			Symptom Reduction % - baseline to 8 weeks	Raw point change
	65-item Profile of Mood States Standard Form			
	POMS			
	Baseline	43.76		
	4 Weeks	11.81		
	8 Weeks	1.33	**97.0%**	-42.43
	10-item Perceived Stress Scale			
	PSS			

	Baseline	18.62		
	4 Weeks	11.48		
	8 Weeks	9.52	**48.9%**	-9.1
20-item State version of the State-Trait Anxiety Inventory STAI				
	Baseline	40.1		
	4 Weeks	31.38		
	8 Weeks	29.86	**25.5%**	-10.24
	Average symptom reduction over all three instruments		***57.1%***	