



“WRAIR Forward”

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COMMANDER’S CORNER

In November of 2002, the 30TH Medical Brigade Commander requested a tool to monitor disease non-battle injury (DNBI) down to the level of the Battalion Aid Station. We chose as our Requirements Document the morbidity surveillance system that was approved for use by the Surgeon Generals of NATO and Partnership For Peace nations in Brussels in February 1996. For the U.S., DNBI surveillance is mandated by the Joint Chiefs of Staff (JCS) for all deployments of 30 continuous days or more (Reference: CJCS Memo 4 Dec '98). The purpose of the DNBI surveillance program is to detect disease and injury problems before they limit mission effectiveness. The DNBI medical surveillance program is a Force Health Protection tool, and the military unit is the focus of DNBI data trend analysis. USAMRU-E devised a recording system for use on a Personal Digital Assistant with data transmitted via protocols written for Iridium phone and local area network. In addition, a concatenation protocol was provided to merge DNBI information from subordinate units for CORPS level preventive medicine assets to analyze. The system was tested for software operational compliance and human factors optimization by the Quick Response Branch, Special Products and Prototyping Division, US Army RDECOM, CERDEC NVESD. The complete system was delivered to the 30th Medical Brigade in January 2003.

-MAJ James W. Ness

Screening Reviewed by Expert Panel

In February 2003, the Psychological Screening program, study design, and initial results from the content validation study conducted last quarter, were presented by MAJ Ness at the American Institute for Behavioral Sciences (AIBS) Review of the Force Health Protection Research Program (FHPRP). The Military Operational Medicine Research Program hosted this external review by an expert panel in San Diego, CA (24-26 FEB 03).

In addition, a proposed modification to the current screening protocol expands the study to USAREUR/7th Army soldiers deploying as part of Operation Iraqi Freedom. Currently, we are also processing screening data received from units deployed to Operation Enduring Freedom in Afghanistan.

A review of Screening Program research was accepted for presentation at the *NATO Human Factors and Medicine Panel Symposium* in Turkey but the Symposium was cancelled due to world events. (WRAIR protocol #889)

WRAIR Command Inspection 2003

COL Hartman, Director of Overseas Laboratories for the Walter Reed Army Institute of Research, led a Command Inspection Team (CPT Smalls, 1SG Johnson, SSG Baxter, & SSG Patrick) in a site-visit to the USAMRU-E (10-13 MAR 03). The team assessed procedures and record keeping for the unit. SGT Carr served as the unit’s primary contact and coordinator for the inspection.

STARLIGHT Technology:

Situational awareness for Force Health Protection can be defined as a problem of relating data to yield information. The idea is to create a meaningful perception of elements for a valid interpretation of current events for the purpose of predicting or influencing future events. Force Health Protection data are complicated by the qualitative nature of physician’s notes, the scope of antecedent and moderating factors and the varied levels of quantitative information from blood cell counts to neurocognitive assessments. Creating a relational system to yield a meaningful perception of elements is a complex problem. Starlight is a tool designed for extraction and exploration of patterns, anomalies, and gaps in data and text.

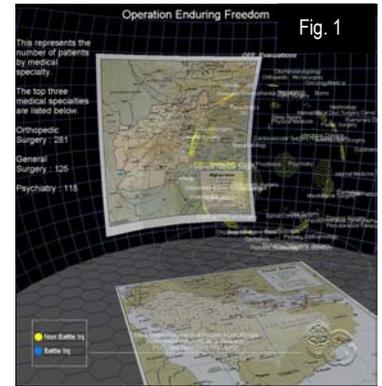


Fig. 1

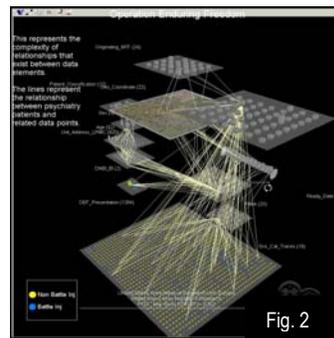


Fig. 2

USAMRU-E has been working with the Department of Energy on visualizing Force Health Protection data. The data represented here are from TRAC2ES and are collected in support of a collaborative effort with Landstuhl Regional Medical Center in order to discern the patient

complex evacuated from Operation Enduring Freedom. The “screen shots” show a number of features of the system. The first figure shows the complex of evacuation categories. The second figure demonstrates the ability of systems to generate “link arrays”, which render relational information in the data set. The third figure demonstrates the construct generation aspect of the system. Here data can be related to render concept plots. The concept plot in the figure is an analytical exploration of symptoms associated with evacuations under the psychiatry evacuation category.

This work is transitioning to West Point because of the multidisciplinary analytical collaboration the Academy can provide to advance this technology.

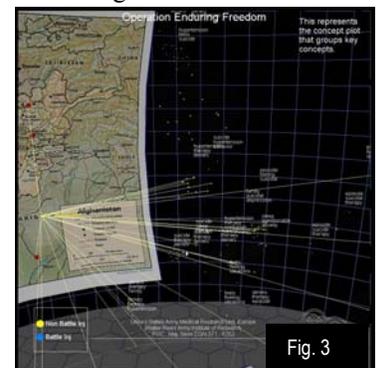


Fig. 3

Debriefing Study: Follow-up to Kosovo



Phase 3 of the Debriefing Study:
Schweinfurt, Germany

As part of the third data collection phase of the Debriefing Study, soldiers from the 1st Infantry Division were asked to complete a survey and had their blood pressure taken at their home station in Schweinfurt, Germany (29-31 JAN 03, 18-21, 24, 26-28 FEB 03). This

data collection came 2-3 months after most of the soldiers redeployed from a 6-month peacekeeping rotation in Kosovo. In all, 1,662 soldiers participated in this phase of the study. The goal of the research is to assess the impact of psychological debriefing compared to a standard stress education class and no formal intervention at all. Outcomes of interest include soldier attitudes toward such interventions as well as their health and well-being. (WRAIR Protocol #862).

The data collection team included Dr. Adler, Sam Kelley, Angela Salvi, Rachel Prayner, Kathleen McConnell, SPC Sinclair, Erica Schroeder, Jessica Ippolito, and Brett Davis.

Brief Updates on USAMRU-E

- **THE POINT:** MAJ Ness met with COL Forsythe, Dean of Academics at West Point, to discuss research plans as part of MAJ Ness' transition to the US Military Academy scheduled for this summer (27-28 Feb 03).
- **SUICIDE:** The final records review of suicide events, collected as part of the USAREUR suicide event surveillance program, was conducted at LRMC on 7 FEB 03 (Ms. Schroeder). This review completed the data collection for active duty Army personnel assigned to USAREUR from MAY 99 through JUN 02.
- **CMTC STUDY:** CPT Thomas met with other CMTC study principals (Dr. Robert Sinclair and Ms. Sommers, Portland State University; MAJ Bliese, WRAIR-NP) to discuss completion of the protocol (Toronto, 20-21 MAR 03).

Consulting on Science in USAREUR

- As part of a consultation on the Balanced Score Card initiative at the Europe Regional Medical Command (ERMC), analytic support was provided to LTC Michael Rogers, Deputy Chief of Staff, ERMC, who assessed perceptions of ERMC held by the Command groups at the three U.S. Army Hospitals in Europe. Feedback was provided to all participants, including a brief to the ERMC-Board-of-Directors in early March 2003. (Dr. Adler)
- USAMRU-E provided support to LTC James Cartwright, Chief of Social Work Services (SWS), Würzburg Army Hospital, in developing a survey to assess commanders' experiences with Würzburg SWS. (Dr. Adler)

PERSONNEL TURNOVER

Anteon ended their contract with their sub-contractor PSS effective 31 MAR 03. All of the unit's PSS employees were affected by this change, which led to the loss of several personnel including: Mr. Brett Davis, Mr. Tommy Jackson, Ms. Sandra Kelly, Ms. Kathleen McConnell, and Mr. Joshua McDonald.

Combat Stress Control

Training for the Mission

At the request of MAJ Arincorayan, Commander of the 254th Combat Stress Control (CSC) Team, headquartered in Miseau, Germany, USAMRU-E staff (MAJ Ness, Dr. Adler, Dr. Wright, Dr. Dolan, Ms. Prayner, and Ms. Schroeder) developed a half-day training on tools for conducting sector sweeps and psychological screening. CSC teams are responsible for sector sweeps, a mechanism to deliver proactive mental health consultation with units in a deployed environment, and the 254th CSC was preparing to support deployed operational units in Southwest Asia. The training was attended by more than 30 members of the CSC team and 1st Armored Division mental health staff in Heidelberg 13 Mar 2003.

State-of-the-Art on Performance

Drafts of chapters for the SOAR on “*Metrics and Methods in Human Performance Modeling*” were reviewed and edited by MAJ Ness (USAMRU-E), LTC (P) Karl Friedl and MAJ Darren Ritzer (MRMC) and Drs. Tori Tepe and Barbara Palmer (IAC) in Boston (20-23 Feb 03).

Showcase for Soldier Adaptation Model

Dr. Robert Sinclair (Portland State University) and CPT Jeffrey Thomas (USAMRU-E) co-chaired a symposium at the American Psychological Association/National Institute for Occupational Safety and Health conference on Work, Stress, and Health in Toronto (20-22 MAR 03). The symposium, *Modeling military stressors: The WRAIR occupational stress research program*, showcased research on the Soldier Adaptation Model conducted at the Division of Neuropsychiatry, and the USAMRU-E, WRAIR. [Abstracts were published as part of the conference proceedings.]

- Adler, A.B., McGurk, D., Stetz, M.C., & Bliese, P.D. (2003, March). *Military occupational stressors in garrison, training and deployed environments.*
- Jex, S.M., Adams, G.D., & Thomas, J.L. (2003, March). *Soldier health and performance: A review of WRAIR research.*
- Sommers, J.A., Sinclair, R.R., & Thomas, J.L. (2003, March). *Contextual effects of occupational stressors on soldiers' health and performance.*

Personnel Updates

- CPL Kaisha Haig, former NCOIC of the unit, PCSed 6 JAN 03.
- Angela Salvi, PSS Contractor, successfully completed Information Assurance Computer Network Defense training, level 1 (2-7 MAR 03) and level 2 (10-14 March 03), in Vicenza, Italy.
- Maria Schwertner, Ph.D., an educational psychologist, began volunteering with the unit under the Red Cross program (28 JAN 03).
- CPT Thomas successfully completed OAC in San Antonio, TX (JAN 03 – MAR 03), earning an award for physical fitness.
- Brett Davis and Kathleen McConnell completed Starlight training in Richland, Washington, 27 JAN-31 FEB 2003.

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