The Imperative for Social Competency Prediction

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Overview

- Need for identifying social skills deficits and helping to focus interventions that address those deficits – before adverse events occur.

- Present [simulated] social situations adapted for the given population for individuals to *demonstrate* social skills rather than *describe* attitudes and beliefs.

- Use baseline assessment to be predictive of future behaviors; test using follow-up assessment.

Analyses of Performance

AAR Results

- ❑ Measurements:
  - ❍ Ongoing and after-the-fact
  - ❍ Observe engagement within simulated situations
  - ❍ Monitor path taken through simulation states

- ❑ Categorical – actions might be correct, incorrect, don't care:
  - ❍ Incorrect actions placed into pre-defined categories
  - ❍ What happened – performance measures
  - ❍ Why it happened – performance measure criteria
  - ❍ How it happened – student actions

- ❑ Evaluate overall progress through set of social situations.

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Need for Specific Metrics

❑ Behavioral constructs representative of social skills deficits include:

  ○ Poor emotion expression recognition, impulsivity, insensitivity to penalties, hostility bias, gender stereotyping, acceptance of dating or partner violence, and risky decision making.

❑ Social skills associated with positive health behaviors include:

  ○ Emotional control, information seeking, expressing preferences, negotiation and willingness to compromise, and using non-provocative language.

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3 Representative Studies

- TIO – adolescent social competency

- PreSIT – predeployment stress inoculation

- PHIT – postdeployment health monitoring

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Situated Assessment of Adolescents

- Akin to authentic assessment and situated judgment tasks.
- Assess adolescents':
  - Social/cognitive skills
  - Emotional control
  - Decision-making ability
- Assess technology to:
  - Determine if adolescents' behavior with characters mirrored real-life behavior
  - Performance measures load on two factors corresponding to emotional control, interpersonal communication skills
  - Some support for criterion, construct validity
- Extended to both a different city and a different gender.

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Multimedia Environment for Stressing Warfighters

- Develop training to enhance coping skills and build resilience to the psychological impact of exposure to combat and other traumatic stressors in deploying personnel.

- Elicit a physiological stress response by:

    - Presenting a realistic stressful scenario with normal and unexpected activity

    - Requiring responses to a variety of triggers, including speed/accuracy and GO/NOGO

- Follow-up taking place Summer 2012.
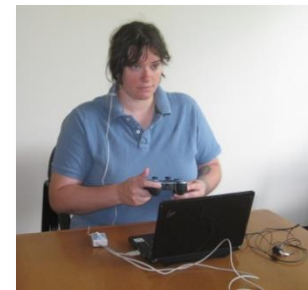
Prevention of Psychological Health Problems through Personalized Health Management

- ❑ Integrate health assessment, momentary behavior capture, and self-help activities in a personal, mobile, smartphone platform.

- ❑ Approach:
  - ❍ Monitor and measure health, behavior, and environment
  - ❍ Periodically assess health and behavior status
  - ❍ Plan and schedule self-help activities, and refined assessments
  - ❍ Provide information, exercises, guidance, reminders, and other activities to improve health, behavior, and social support

Example: Sleep Quality Improvement

Psychophysical Assessments — Sleep Quality Checklist — Virtual Advisor — Stress Relax. Intervention

Secure Data Storage

Actigraphy & Heart rate — Wireless — Personalized Support

"... feel your breath ..."

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Questions?

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