Lessons Learned from Implementing an App-Based Resilience Training Program in a Naval Operational Setting

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Introduction

- Enhancing resilience and reducing stress are critical to increasing readiness of military personnel in operational settings.
- Resilience programs can improve service members' ability to manage stress during normal and extreme operational conditions and enhance safety at sea.¹⁻²
- Implementing an efficient and effective app-based training program in a military setting has unique challenges, such as restrictions on the use of some technologies in secure environments and minimizing intrusion on the command's training time.

Objective

- Describe lessons learned from user engagement measures (i.e., usage, self-reported utility, and satisfaction) while implementing an app-based resilience intervention program for active duty service members in a shipboard setting.

Intervention

- An enhanced version of the Stress Resilience Training System (SRTS)³ was implemented into the operating environment of a naval vessel.
- At the core of the system was an iPad based app used for biofeedback and training support. Other system components included an introductory training and mentoring.
- Each crew member was provided an SRTS app equipped iPad and a heart rate monitor to use with the app.
- Participants were asked to use the app and the techniques from the training, and to meet with their mentor over an 8-week study period.

Methods

- N=56 crew members
- Measures:**
 - Participants' satisfaction with the components of SRTS was assessed with a questionnaire using a rating scale after the 8-week study period.
 - Total time spent using the app and time spent in specific sections of the app was recorded.

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Results

- Participants ratings of the program (0=strongly disagree, 4=strongly agree):
 - Users learned information from the SRTS app (M=2.97, SD=0.99)
 - The app was easy to use (M=2.66, SD=1.08)
 - Would recommend the app to fellow service members (M=2.53, SD=1.03)
 - The workshop instructors were credible (M=3.22, SD=0.92)
 - Overall workshop was relevant to readiness (M=2.68, SD=0.95)
- Usage of the app was low and highly variable (M=42.26, SD=60.53; median = 20.33; range = 0 to 312.54 minutes)
- 75% of users spent less than a minute in the section of app focusing on the techniques taught in the classroom training
- Anecdotal evidence was gathered post hoc from crew members and mentors willing to discuss the study. They indicated that:
 - Using the app on an iPad was cumbersome
 - While an internet connection was not required for using the app, the overall utility of the iPad was minimized as the internet was often inaccessible in their workspaces
 - Crew members tended not to use the iPad

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Conclusions

- Participant ratings were highest for the workshop instructors and relevance, and somewhat positive for the app.
- App usage was low with many users opting not to use it at all.
- User ratings and participant commentaries suggested that the technology was not the successful component of the program.
- The iPad format was not conducive to the operational setting. The inconvenience may have deterred participants from using it in settings where a personal or compact device may have been more appropriate.
- Recommendations going forward include:
 - Making the app component available for personal smartphone use
 - Incorporating more engaging content, gamification, and tracking and reporting user progress

References

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