

mResilience™
POWERED BY TIAG



**RESILIENCE
TECHNOLOGY
THAT TRANSFORMS**



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THAT TRANSFORMS

Now more than ever, law enforcement officers and first responders are routinely exposed to traumatic events and crises that challenge their emotional, psychological, physical and mental resilience. To significantly improve health and wellness among their ranks, public safety departments and agencies need reliable and readily available resilience-based tools.

Documented health risks associated with first responder professions range from stress, hypertension, heart conditions and obesity to depression, alcoholism, posttraumatic stress disorder (PTSD) and suicide. But seeking help is not easy, and access to psychological-based resources, services and tools is limited.

As recommended in ***An Occupational Risk: What Every Police Agency Should Do To Prevent Suicide Among Its Officers*** published by the Police Executive Research Forum, agencies should offer confidential, easy-to-ac-

cess tools, such as online tools and mobile applications, that empower officers to assess their well-being. Answering that call, TIAG's mResilience program was developed to provide flexible resilience training options, together with the customizable mRes mobile application that reinforces resilience, anywhere, anytime.

Designed by and for First Responders

With evidence-based policing gaining more popularity and legitimacy in the policing profession, an innovative approach was needed to address wellness with first responders. The increasing surge of mass shootings, bombings and other tragic incidents prompted TIAG to develop tools for law enforcement officers and first responders who protect and serve our communities. In this work, TIAG applied expertise from its prior support of the National Center for Telehealth & Technology, a component of the U.S. Department of Defense Centers of Excellence for Psychological Health and Traumatic



Brain Injury. That's where TIAG had previously brought together a multi-disciplined team of psychologists, technologists, analysts, user experience researchers, designers, software and mobile application developers, and other experts to design digital self-help resources that benefitted U.S. service members and veterans. These resources included websites, online courses, mobile applications and other tools—all of which help manage stress, PTSD and depression, while simultaneously building resilience.

Drawing on insights gained from in-depth research, surveys, ride-alongs and interviews with front-line law enforcement officers and first responders and supervisors, TIAG's user-experience and software teams created the design and content for the training and companion mobile app. During various stages of application development, TIAG conducted usability testing and evaluation with officers to ensure user satisfaction. Addressing support and specific resilience-building characteristics, TIAG focused on content best suited to digital and mobile platforms.

Resilience Influencers: Self-regulation, Social support + Motivation

TIAG's mRes mobile app tools fit within three categories: self-regulation, social support, and motivation. Deep breathing—also known as tactical breathing—is an important part of self-regulation that's been studied extensively with first responders, often with the additional benefit of biofeedback. To provide immediate feedback within the mRes app, TIAG included heart rate capture capability. For structure and reinforcement, the app walks the user through

breath control, in addition to logging user effort and offering practice reminders.

Deep breathing, meditation, and mindfulness training practices are gaining increasing popularity within law enforcement and first-responder communities. These proven self-regulation methods enhance physical and mental well-being while reducing cortisol levels and blood pressure. Equally beneficial, these methods have a positive influence on decision-making, performance, and PTSD-related symptoms. The sounds tool within the mRes app serves as yet another helpful self-regulation resource. First responders report that listening to music and nature sounds tends to improve their focus, minimize physiological responses to stress, elevate one's mood after an upsetting event, and enhance sleep quality.

Relevant to social support, one of the best predictors of resilience is the ability to establish solid interpersonal relationships, and the feeling of being supported by others. Research with law enforcement peer support teams showed that 88.7% of officers rated peer support as helpful. But many officers reveal they don't know who their peer support team members are, and outdated information on agency intranets is a frequent barrier to support. TIAG's focus on social support within the mRes app begins with connecting officers to their department's peer support team, in addition to other departments, along with local and national support resources.

Having a deep connection with one's values, beliefs and morals also influences resilience. Motivational quotations are effective in the aim to embrace those elements that lift us up. A



quotations tool within the mRes app helps to remind first responders why they choose the serve, and why their job is important to them and those within communities they protect and serve. Similarly, the tips tool within the mRes app delivers quick, actionable insights that help officers build resilience. Ranging from strategies for improved sleep and work-life balance, to reflecting upon “that call,” numerous tips within the app link to supporting articles and research. Equally helpful, a goal-setting tool within the app empowers officers to put the app’s training and knowledge into practice.

Powerful Impacts

After initial development of the mRes app, TIAG invited 38 officers from two police departments in Oregon and Washington State to evaluate the mobile application during a 13-week longitudinal study. Their participation included in-person resilience training, a series of weekly assignments to explore the mRes application on their own time, followed by a time period during which they all used the application as they saw fit. The goal was to determine if the mResilience program actually increased resilience outcomes for officers, and whether they gained a deeper understanding of the acceptability, satisfaction and helpfulness of the training and mobile application.

The pilot study yielded robust usability data that helped evaluate program offerings. Overall, participating law enforcement officers expressed high regard for the mResilience program — which includes training along with the mobile

app. A total of 86% said they would recommend the training to others; 94% rated the instructor as knowledgeable of the material and how it related to their jobs; 80% said they gleaned valuable information pertinent to their careers; and 86% concurred that the mRes mobile application filled a need for law enforcement.

Officers rated the usability and learnability of the mobile app through the Systems Usability Scale (SUS). Usability scores for individual features ranged from 80 – 84.6, while learnability ranged from 84.3 to 92.4. The average SUS score combining all features was 83.86. This far exceeded established SUS standard scores that hover around 68. Officers who participated in the online surveys also assessed the app’s level of helpfulness. The results showcased a favorable agreement toward helpfulness for most of the app features.

A thematic analysis was also conducted to assess officers’ feedback to open-ended questions given throughout the study. Questions centered on what the officers liked, disliked and wanted to add or change for each app feature. Overall, officers reported the tools were easy to use and offered a variety of resources and content options. Officers also expressed interest in adding content to the meditations, tips, sounds and resource features. Advanced personalization features can increase user engagement and has become a leading trend in consumer digital products for a wide range of industries including behavioral health and online education.



Through the design study and data collection efforts, TIAG captured vast insights about what works well for some and what challenges others might experience. Insightful participant feedback gave the mResilience Team a more detailed roadmap of recommendations for updates, changes and future feature sets to consider.

The Need for Resilience will only Increase

This technology for officer wellness is fairly new, so there's a growing need to build a foundation in the literature to its overall effectiveness with police officers. We know the generation of today are very tech savvy, and the generation of the future will rely heavily on technology as it progresses. Making sure the tools and outlets

for those resources are available to those who need it, is vital for today's law enforcement official. Seeing a mental health professional still has a stigma associated with it in the law enforcement field. Utilizing this technology is one way to break through those barriers in helping our first responders out. Even with the successes we've had at TIAG, having this technology implemented and evaluated in police departments everywhere is needed, especially in today's world where officers are under more stress than ever.

Originally featured as American Society of Evidence Based Policing blog post published Feb 2020. Reposted in Blue Line online and in November 2020 print edition.

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