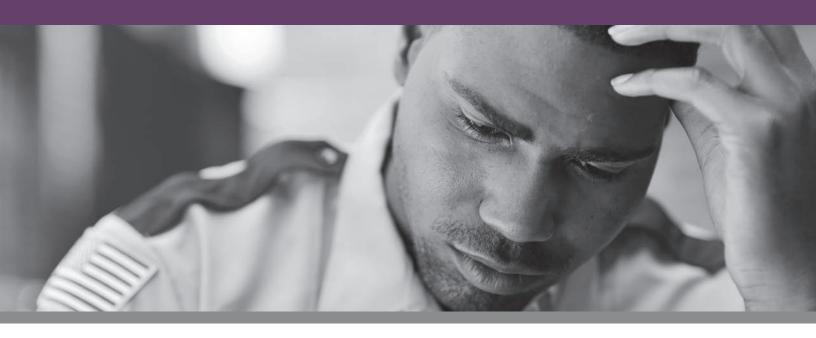




RESILIENCE

FOR FIRST RESPONDERS



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First responders put resilience to the test every day. The ability to "bounce back" is critical to do the work of protecting and saving lives. But the challenges of first responder work hit at the core. Strengthening and maintaining resilience can be the cornerstone of any prevention program. Our vision is to provide first responders with the tools and skills necessary to develop, maintain, and rebuild personal resilience and to overcome the often deliberating effects of stress and trauma they experience from their jobs:

- Poor cardiac health
- Obesity
- Substance abuse
- Burnout
- Depression
- PTSD
- Suicide

The research that informed the mResilience program came from various sources and activities. With our initial focus on the law enforcement community, we sought to more fully understand that community. We looked at resilient factors, interventions that showed promise, and needs of the law enforcement community through a variety of avenues, such as:

- Literature reviews.
- Interviews with front-line officers
- Ride-alongs
- Attending peer support trainings
- Surveying law enforcement officers















We also took into account specific department challenges and built a tool that allowed departments to take control by customizing various app content anytime and anywhere.

- Impact of stress on productivity, performance, and retention
- Cost-effective ways to address the mental challenges of the job
- The stigma against seeking psychological help

Content changes in mResilience immediately update to the app at the click of a button and department administrators can:

- Update their Peer Support roster including team member bios and contact information
- Configure department, local, and national resources to fit department needs
- Keep officer wellness resources up-to-date

First Responder-Focused Study

Regarding research on our specific program, we are in the process of compiling data from an IRB-approved pilot study. We looked at usability and helpfulness of the app and training with two Northwest police departments over three months with a total of 38 participants. We found:

- **94**% of officers felt they gained information in the training that would help them with their job
- 87% believed the mRes mobile app and training filled a need in the law enforcement community
- 79% said they would likely use the app personally
- 84% would recommend the mResilience program to others
- Officers rated the mobile app at the 90th percentile for ease of use
- 100% of the officers kept the app on their phone during the study
- Officers used the app 422 times during the study, viewing on average 20 screens during each use
- Self-regulation tools were accessed most frequently in the app (44% for site 1; 52% for site 2)
- In total, officers completed 218 sessions of meditating, practicing breath control, or listening to sounds

These results suggest many officers found the mResilience training helpful and will use a department-provided wellness mobile app.

Resilience Building—It Works

We chose content for the training and mobile app that had research support and addressed specific resilience-building characteristics. In addition, we considered content that best fit a



digital, mobile platform. For instance, psycho education on stress and trauma is great, but reading lots of text on your phone is not very user-friendly. In addition, we conducted user testing with officers at various stages of app development. Our mobile app tools broadly fit within 3 categories: self-regulation, social support, and motivation. mResilience is customizable, confidential, accessible 24/7, and research-focused to provide:

- A customizable toolkit available 24/7 in responders' back pocket
- Direct and confidential access to department peer support team
- Self-regulation tools to improve the stress response
- Goal-setting to build attainable achievements
- Easy access to department, local, and national resources
- In-person resilience training tailored to department's needs
- Department-managed app content system
- Effective stress management and performance-enhancing tools
- Ways to connect to supportive networks in and beyond the department









Self-Regulation: Breathing, Meditation, And Sounds Tools

Deep breathing, or tactical breathing, has been studied extensively with first responders (Mc-Craty & Atkinson, 2012; Brook, et al, 2013; Page, et al, 2016), often with the additional benefit of biofeedback. We included in-app heart rate capture capability to allow for such immediate feedback. While you don't need an app to train on breath control, having a tool that walks you through the process, shows a visual log of your efforts, and reminds you to practice, provides structure and reinforcement for many people. Meditation, specifically mindfulness training, is growing in use within the law enforcement community. Christopher and colleagues (2016), along with Chopko (2013) and Thieleman (2014) all researched the helpfulness and acceptability of mindfulness training with officers. Breathing and meditation practices have been shown to improve both physical and mental conditions: reducing cortisol levels and blood pressure, as well as improving decision-making, performance, and PTSD-related symptoms.

Our sounds tool is another self-regulation tool, although there is less research on this intervention with first responders. However, listening to music and nature sounds has been shown to improve sleep quality, improve mood after an upsetting event, and help the body's physiological response to stress – all issues of clear value to first responders (De Niet, at al, 2009; Thoma, et al, 2013). Also, through our research with police officers, a sergeant told us that listening to quiet sounds while writing reports helped her to focus and the headphones "made people leave me the hell alone." Such an additional benefit within the context of law enforcement work made Sounds a salient feature to include.





Social Support: Peer Support and Resources Tools

Our focus on social support with the app starts with connecting officers to their department's peer support team, as well as other department, local and national resources. Solid interpersonal relationships and feeling supported by others is one of the best predictors of resilience (Everly, et al, 2015). Research with law enforcement peer support teams showed 88.7% of officers rated peer support as helpful (Digliani, 2018). But we also heard from officers that folks often don't know who their peer support team members are, have trouble finding their peer support roster, and changing the roster on agency intranets is a nightmare. Our Peer Support tool seeks to increase the odds of an officer making that first contact.

Motivation: Quotes, Tips, Goals

Quotes reminds officers about why they do this job and what brings meaning to their life. Being guided by one's values and developing/having a clear moral compass are additional factors that influence resilience (Haglund, et al, 2007). Future editions of the app will allow officers to add their own quotes to the tool, a personalization component that we've heard from officers that they want. Tips provides quick, actionable strategies that officers can do today to build resilience, whether it's improving sleep, addressing work-life balance, or talking about "that call." It's really psychoeducation, but in small bits and chunks. Many of the tips include the research basis and links to supporting articles. Finally, our goal-setting tool allows officers to put all the ideas within the app and the training into practice. One esteemed resilience expert, Dr. George Everly, stated, "What works? What they practice" (Everly, personal communication).

Implementing Positive Change

In addition to the tool, mResilience Training is offered in-person or virtually to first responder agencies directly to their staff or through a train-the-trainer model. The training provides hands-on practice with resilience-building tools and strategies. By integrating mResilience training with existing resources, department's can customize the training to fit their needs. Participants leave the course with the mobile app on their phones and ready to implement a variety of resilience-focused activities.

- Hands-on practice with the mRes mobile app
- Practical, actionable strategies to build resilience
- Focus on the science behind the mRes tools
- Access to additional resources and references

Built by and for First Responders

We are a team of innovators. With 20 years' worth of experience TIAG has developed a leading reputation in researching, designing and developing resilience-based technology products for the military, government and most recently, the first responder communities. Our staff are experts comprising program and project managers, subject matter experts, researchers, designers and developers. Collectively, we bring a comprehensive approach to advising and creating relevant resilience-based technology services, programs and products.





Citations

Brook, R. D., Appel, L. J., Rubenfire, M., Ogedegbe, G., Bisognano, J. D., Elliott, W. J., ... & Townsend, R. R. (2013). Beyond medications and diet: alternative approaches to lowering blood pressure: a scientific statement from the American Heart Association. Hypertension, HYP-0b013e318293645f.

Chopko, B. A., & Schwartz, R. C. (2013). The relation between mindfulness and posttraumatic stress symptoms among police officers. Journal of Loss and Trauma, 18(1), 1-9.

Christopher, M. S., Goerling, R. J., Rogers, B. S., Hunsinger, M., Baron, G., Bergman, A. L., & Zava, D. T. (2016). A pilot study evaluating the effectiveness of a mindfulness-based intervention on cortisol awakening response and health outcomes among law enforcement officers. Journal of police and criminal psychology, 31(1), 15-28.

De Niet, G., Tiemens, B., Lendemeijer, B., & Hutschemaekers, G. (2009). Music-assisted relaxation to improve sleep quality: meta-analysis. Journal of advanced nursing, 65(7), 1356-1364.

Digliani, J. (2018) Peer support team utilization and outcome survey report. Downloaded from *www.jackdigliani.com*

Everly Jr, G., Strouse, D., & McCormack, D. (2015). Stronger: Develop the Resilience You Need to Succeed. Amacom.

Haglund, M., Cooper, N., Southwick, S., & Charney, D. (2007). Keys to resilience for PTSD and everyday stress. Current Psychiatry, 6(4), 23-30.

McCraty, R. & Atkinson, M. (2012). Resilience training program reduces physiological and psychological stress in police officers. Global Advances in Health and Medicine, 1(5), 44-66.

Page, J. W., Asken, M. J., Zwemer, C. F., & Guido, M. (2016). Brief Mental Skills Training Improves Memory and Performance in High Stress Police Cadet Training. Journal of Police and Criminal Psychology, 31(2), 122-126.

Thieleman, K., & Cacciatore, J. (2014). Witness to suffering: Mindfulness and compassion fatigue among traumatic bereavement volunteers and professionals. Social Work, 59(1), 34-41.

Thoma, M. V., La Marca, R., Brönnimann, R., Fin kel, L., Ehlert, U., & Nater, U. M. (2013). The effect of music on the human stress response. PloS one, 8(8), e70156.

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