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Development and Validation of a Resilience Training Model at the Academy

About this BOLO

The U.S. Department of Justice, Office of Community Oriented Policing Services (COPS Office) presents the BOLO series, supporting the publication and dissemination of experiences and implications discovered during ongoing research in the field, with the goal of regularly communicating these resources to the law enforcement community at large. “Be on the lookout” for these field-driven, evidence-based resources that will help illuminate the nature, function, context, costs, and benefits of community policing innovations.

For questions about this specific report and the officer resilience training model, contact Dr. Sandra Ramey, principal investigator, at sandra-ramey@uiowa.edu or Dr. Patrice Howard, social science analyst, the COPS Office, at patrice.howard@usdoj.gov.

Introduction

Most law enforcement officers (LEO) begin their careers in good physical condition and health. However, job-related stress disorders can cause many to retire early or die prematurely (Waters and Ussery 2007; Joseph et al. 2009; Ramey et al. 2012). Compared to the general population, police officers tend to have a worsened metabolic profile¹ and a higher prevalence of cardiovascular disease (CVD) and risk factors (Hartley et al. 2011; Ramey, Downing, and Franke 2009; Ramey et al. 2011; Wright, Barbosa-Leiker, and Hoekstra 2011). Because stress appears to be virtually unavoidable in the law enforcement profession, it is critical that officers develop the ability to recover from recurrent stressors if physiological and psychological health are to be maintained (Johnson et al. 2014). This capacity to prepare for, recover from, and adapt in the face of stress, adversity, trauma, or challenge is defined as resilience (McCraty and Atkinson 2012).

1. The metabolic profile refers to a person's levels of cholesterol, blood pressure, and glucose, all of which tend to be higher in police officers than in the general population.

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Stress and Health Status Within the Law Enforcement Profession

LEOs are regularly exposed to several different types of stress including critical incidents (e.g., threats of danger, homicides, death, and exposure to accidents) and organizational stressors (e.g., extended work hours, shift work, rigid organization structure). A recent study (Violanti et al. 2016) revealed that the five most stressful events among LEOs are (1) exposure to battered or dead children, (2) killing someone in the line of duty, (3) fellow officer

killed in the line of duty, (4) situations requiring use of force, and (5) physical attacks on one's person. The study also identified the most frequently occurring stressors. These included dealing with family disputes and crisis situations, responding to a felony in progress, fellow officers not doing their jobs, making critical on-the-spot decisions, and insufficient manpower to adequately handle a job.

Repeated and chronic exposure to highly intense stressors can produce dysfunctions within the stress response system, ultimately leading to a diseased state (Andrew et al. 2017). The demands of the law enforcement occupation place daily psychological and physiological stress on officers, consequently increasing their risk for illness and diseases associated with stress (Violanti et al. 2006). Compared to the general population, some studies show that retired law enforcement officers have a 70 percent higher risk of developing CVD (Ramey, Franke, and Downing 2009) and an increased risk for metabolic syndrome (27.4% versus 24% in the general population; Humbarger et al. 2004). Post-traumatic stress disorder (PTSD), which is associated with a traumatic experience (Thomas, Saumier, and Brunet 2012), is also higher among law enforcement (8.3%; Bowler et al. 2010) than among the general population (3.5%; Kessler et al. 2005). Other health risks include depression (Lilly and Pierce 2012; Regehr et al. 2013), acute distress disorder (Trachik et al. 2015), and—unfortunately—suicide (O'Hara et al. 2013). It is apparent that the law enforcement occupation remains in need of strategies and techniques to enhance its members' ability to cope with stress. Resilience training is one option to address coping with stress using self-regulation.

Compared to the general population, retired law enforcement officers have a 70 percent higher risk of developing CVD.

Resilience Training in Recruits

Study site: Milwaukee Police Department Police Academy

The Milwaukee Police Department Police Academy conducts approximately three classes each year with 35 to 65 new recruits in each group. For this study, the projected number of recruits is 120 (approximately 60 recruits in each of two classes).

Study design and data collection procedure

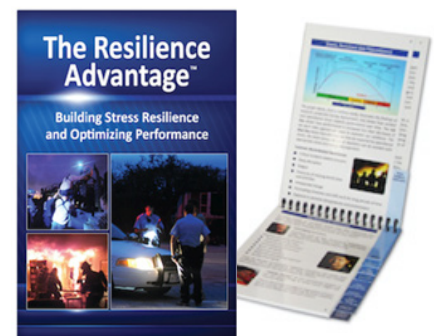
The resilience training activities commence in the last few weeks of recruit training. From the very beginning of this study, the Health and Wellness Coordinator at the Academy has worked with our team to build organizational capacity by learning how to incorporate this training into the current Academy curriculum. The intervention has three major components: (1) education, (2) practice, and (3) mentoring.

For each session, recruits attend an initial educational class 120 minutes in duration, taught by Dr. Sandra Ramey and one consultant from HeartMath.² The class content

2. HeartMath is a series of tools and techniques developed at the Institute of HeartMath to provide a systematic process that enables people to shift into the coherent state and increase their resilience and ability to better self-regulate stress, improve performance, and maintain their composure in real-time, highly challenging situations (McCraty & Nila 2017).

includes three sections: (1) the physiology of stress, triggers of stress, and awareness of changes in the anterior chest area when encountering stressful situations; (2) instruction and practice on how to modify the autonomic response to stress by altering breathing and heart rate with biofeedback; and (3) techniques to improve decision-making by focusing on positive rather than negative emotions (e.g., anger and frustration normally associated with stress) to change the physiologic response to stress. Class discussion among attendees is encouraged to incorporate real life events and situations.

All participants are given an instructional book and a pocket flip chart (shown in the illustration) that encompass the class content. At the class, all recruits receive an iPad with the HeartMath Inner Balance application preloaded and an earlobe sensor to use with the application. This application will allow recruits to practice techniques learned in the class to alter breathing and heart rate with visible feedback using the iPad screen. The intervention is based on the methodology successfully employed in the military (Laraway and McCraty 2010; Laraway and McCraty 2011) using best practices (Linden and Moseley 2006; Olsson et al. 2010; Palomba et al. 2011; Wang et al. 2010; Xu et al. 2007).



Approximately 10 days after the initial educational class, the recruits attend (in small groups of 10 to 14) the first of four 50-minute tele-mentor sessions. The sessions are led by two mental health experts and conducted via phone conferencing, scheduled approximately three weeks apart. The goals of these mentor sessions include reinforcing course content, improving coherence³ using supported practices, facilitating mentoring among group members, and providing a venue for recruits to discuss situations they may encounter (on and off the job) where they might apply and use the methods or tools imparted in the class. Further, these sessions will model benefits for recruits to do check-ins regarding mental health, especially because they are facilitated by mental health professionals. The iPad allows continual monitoring of recruit practice sessions electronically by Dr. Ramey and facilitates communication via email with the recruits while at the Academy and for the two months after graduation.

Measuring results

All participants complete comprehensive self-reported paper-and-pencil measures of stress at three time points: (1) baseline (during the first week of resilience training), (2) graduation from the academy, and (3) two months after the recruits began their duties as working police officers. These self-reported stress measures are designed to assess both personal and occupational stressors, a component missing in previous studies. The iPads capture recruits' heart rate

variability⁴ during their practice sessions. These data will be used to determine the effects and to measure expected outcomes of the training. Biological data are triangulated with the surveillance data.

Approximately three months after the academy resilience training, focus group sessions are held with recent academy graduates as they begin their jobs; sessions last approximately one hour and are held at all districts. The sessions are tape-recorded, and the tapes are later transcribed. The transcriptions are then analyzed to identify recurring themes within the discussions. Conducting focus groups with the recruits approximately three months after the intervention will not only explore how officers are applying what they learned in the resilience training to stressful situations they encounter on the job but also discover other anecdotal experiences that may have occurred (from the recruit perspective) post-intervention that cannot be captured by the quantitative analysis. This feedback loop will be used to hone and improve the training.

Preliminary survey and focus group results

In a recent Milwaukee Police Department academy class of 42 cadets ranging in ages from 21 to 53 years, greater job satisfaction of police officers three months after their graduation from the academy was statistically significantly associated with lower emotional stress ($p < .001$) and lower perceived stress

($p = .01$). For a different cohort—38 working police officers with greater longevity on the job, ages 22 to 54 years, who participated in an earlier similar study in Milwaukee—the associations were not statistically significant for emotional and perceived stress before nor after the resilience training. It appears from these early results that the timing of this intervention matters and implementation with recruits at the academy is likely the most effective time to deliver this training.

Thus far in the study, recruits report important benefits from use of the techniques. Reports from recruits include feeling calmer in training situations (like firearms and active shooter scenarios) with improvement in the clarity of their thinking. Recruits also are using the breathing techniques at home and in their personal lives outside of the work environment—for example, at the gym during workouts and in rush hour traffic.

Our preliminary analyses of focus group data further illuminate officer perspectives and differences in how recruits and officers with greater longevity on the job approach community situations. Community perspectives about LEOs' role clearly matter greatly to the new officers; they wonder how their communities will view them. However, they recognize it will take time to overcome or change some community perceptions. Moreover, new officers become acutely aware that LEOs with greater tenure on the job sometimes handle situations differently. More needs to be gleaned about LEOs' and correctional officers' perspectives on stress and how these constructs impact their resilience, perceived stress, health, and job performance.

3. Physiological coherence or heart coherence is the ability of the heart's rhythm pattern to become more ordered (McCraty & Nila 2017).

4. Heart rate variability (HRV) is the measure of the heart's naturally occurring changes in beat-to-beat heart rate. While too much variability is harmful to physiological functioning, too little variation indicates a diseased state. HRV is also an important indicator of psychological resiliency and behavioral flexibility as well as the ability to effectively adapt to changing social or environmental demands (McCraty & Nila 2017).

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The end result of this study will be (1) development of a model to guide effective delivery of resilience training at the academy and (2) validation of the effectiveness of this training for recruits. Training and mentoring staff at the academy to deliver these types of interventions after the departure of the researcher is essential to cost effectively provide resilience training as a regular part of the academy curriculum. If department members can begin their careers effectively managing personal and emotional stress, they likely will not only be healthier and make better decisions but may also experience increased job satisfaction.

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