Building Resilience in an Urban Police Department
Sandra Ramey (PhD, RN), Yelena Perkhounkova (PhD), Maria Hein (MS), Amanda Anderson (MS)
University of Iowa

Introduction
The prevalence of public health problems, particularly heart disease and stress, are high among law enforcement officers. Stress is a modifiable risk factor that contributes to chronic disease. Our stress-resilience intervention:

- Educates officers on techniques to manage emotional and physical responses to stress.
- Provides practice sessions that use a hand-held, non-invasive heart-rhythm monitor to help officers develop the skills needed to self-regulate responses to stress.
- Focuses on positive rather than negative emotions so heart rate returns more quickly to baseline after stressful events.

Measurements consist of psychological stress and biological variables taken at baseline, 2 months and 4 months. The proposed work is innovative because the focus is not on limiting the officers exposure to stressors but on modifying how they respond to stressful situations.

Aims
After completing a stress-resilience intervention, officers will show:

- Lower levels of psychological stress
- Improved autonomic responses to stress
- Less CVD risk factors associated with stress.

Methods
Intervention
- All participants: • Attended the 3-hour class on Resilience Training • Completed the battery of psychological instruments • Participated in 4 tele-mentor sessions conducted by mental health professional by phone • Practiced heart-focused breathing for 16 weeks

Phase 1
- Used the Em Wave 2 device for practice
- Wore the First beat heart rate monitor at work and on off days.
- Blood work was collected on all officers

Phase 2
- Wait-list control design
- Used iPads for heart-focused breathing practice

Phase 3 (study in progress January, 2018)
- Preliminary Results and Uses identified by recruits: • T-tests comparing baseline data with time point 2 and 8 weeks showed significant improvement in emotional stress (p<.05) and officers reported:
  - Using the breathing techniques before court
  - Practicing before taking an exam
  - Implementing prior to speaking in front of a group
  - Incorporating into family situations
  - Using at bedtime to improve sleep
  - Trend improvement in coherence from baseline was found

Sample

<table>
<thead>
<tr>
<th>Phase</th>
<th>N</th>
<th>Males</th>
<th>Females</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>28</td>
<td>6</td>
<td>25.7 ± 5.9</td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>29</td>
<td>9</td>
<td>41 ± 7.6</td>
</tr>
<tr>
<td>3</td>
<td>47</td>
<td>37</td>
<td>11</td>
<td>30.6 ± 6.9</td>
</tr>
</tbody>
</table>

Conclusions
- Resilience training has several significant effects on both physiological and psychological factors in recruits
- Younger officers appear to change psychologically more readily than older officers
- The Academy is the logical place to teach resilience at the onset of career
- Police agencies need to build community capacity to teach resilience
- The resilience education needs regular reinforcement
- The concept of resilience should be indoctrinated into the culture of the agency
- At the 16 week collection point, the descriptive data for many of the survey variables show change in a positive direction, T-tests will confirm significance
- We conclude these methods help decrease perceived stress and improve coherence.

Acknowledgments
Community Oriented Policing Service at the US Department of Justice Grant Number 2016CKWX0018
Milwaukee Police Academy
Milwaukee Police Department