Enhancing Fire Service Resilience: Implementing Comprehensive Behavioral Health Programs

Sara Jahnke, Ph.D.
Center for Fire, Rescue & EMS Health Research
Science to the Station: A Health & Wellness Alliance
(aka Science Alliance)
NDRI USA, Inc.
Acute Exposures (e.g. LODD, terrorist attack)

Chronic Repeated Exposure to Trauma

Environmental Exposures

Sleep/Circadian Rhythm Disruption

Injury/Disability

Home/Life Stressors

Cancer

Cardiovascular Disease

Depression

Anxiety

PTSD

Suicidal Ideation

Substance Use/Abuse

Epigenetic Changes

Resilience & Post Traumatic Growth
Depression & PTSD

• **Depression**
  • 12-27% in the range of concern in fire service samples
  • Typically <10% in general population

• **PTSD**
  • Wide range but as high as 13-22%
  • 3.5% in general population
Recent survey, nearly half of firefighters report having considered suicide

15.5% reported attempting suicide

Women in protective services (fire, law enforcement, EMS) had the highest rate of suicide of any occupation studied

1.9-8.7% in general population attempt suicide
Behavioral Health Paradigm
What’s Working Well?

- Peer Support
- Camaraderie
- Dark humor
- Social support
- Debriefing
- Family support
- Sharing experiences
- Fire service identity
But What if it Doesn’t?
### TODAY’S FIRE SERVICE

#### Our People

<table>
<thead>
<tr>
<th>Tactical Occupations</th>
<th>% of Racial Minorities(^1)</th>
<th>% of Women</th>
<th>% of LGBTQ+</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Military (Army, Navy, Air Force, Marines)(^3)</td>
<td>39%</td>
<td>16.7%</td>
<td>6.3%</td>
</tr>
<tr>
<td>US Law Enforcement(^4)</td>
<td>30%</td>
<td>12%</td>
<td>??</td>
</tr>
<tr>
<td>US Fire Service</td>
<td>15%(^4,5)</td>
<td>4%, 10%(^2)</td>
<td>??</td>
</tr>
</tbody>
</table>

**Note:**

\(^1\) Racial Minorities = all Non-white, including Hispanic
\(^2\) 4% women career FFs; 10% women volunteer FFs
\(^3\) DoD Health Related Behaviors Survey, 2018
\(^4\) U.S. Bureau of Labor Statistics, 2020
\(^5\) NFPA U.S. Fire Department Profile, 2019
Of 1773 women firefighters surveyed, I have experienced incidents involving...

- Shunning/Isolation: 41%
- Verbal Harassment: 38%
- Sexual Advances: 37%
- Pornography: 25%
- Training Denial or Differences: 21%
- Assault: 5%

Source: 2022 ALTS & Human Relations Conference, Women in the Fire Service
Dr. S. Jahnke, Dr. B. Hollerbach, Dr. M. Koeppel
TODAY’S FIRE SERVICE

Our Health
Impacts of discrimination & harassment on women’s mental health

Increased Discrimination & Harassment = Worse Health

Frequency and Severity of Discrimination/Harassment

- Never
- Moderate
- Often

Source: 2022 ALTS & Human Relations Conference, Women in the Fire Service
Dr. S. Jahnke, Dr. B. Hollerbach, Dr. M. Koeppel
Our Culture
Impacts of discrimination & harassment on women’s job satisfaction

Even with some negative experiences …
Most women still LOVE this job

Frequency and Severity of Discrimination/Harassment

- **Never**
- **Moderate**
- **Often**

Source: 2022 ALTS & Human Relations Conference, Women in the Fire Service
Dr. S. Jahnke, Dr. B. Hollerbach, Dr. M. Koeppel
So What Do We Do?

• Kitchen table for all
• Awkward Conversations
• Awareness
• Training
• Networking
What’s Ahead? Department Resources

• Peer Support Programs (more than just a training)
• Ongoing awareness
• Focus on resilience
• Training in Recruit Academy
• Mental health referral resources (culturally competent)
What’s Ahead? Stigma

- Awareness
- Open conversations
- Leadership buy-in and support
- Stigmatizing language (e.g. Mental health and wellness?)
- Mental health screenings
- Peer/company officer-led activities
- Difficult conversations for leaders
What’s Ahead? Regional Resources

• Local/Regional/State resources
• Trainings
• Tools
• Response plans
• Technology
“Loneliest Job in the Fire Service”
~ Capt. Frank Leto (FDNY, Ret.)

- High Achieving
- Need to be/feel in control
- Years of exposure
- Sense of humor
- Never show weakness
- Never off the job
- Under stress from every angle
Lessons learned from past disasters

Deployable resources for all (e.g. USAR, EMS, dispatch)

Sustained funding

Long term follow-up
What’s Ahead? High Risk Times/Roles

- Workplace incivility
- Racial/Ethnic minorities
- LGBTQ+
- Retirees
Mission
To foster collaboration and communication between subject matter experts and frontline public safety personnel to translate and disseminate evidence informed health, wellness, and safety education and interventions.

Vision
Become the key resource where science informs practice and practice informs science for public safety.
- Repository for evidence-based monographs/study final reports
- Directions to organizational resources from national organizations
- Research related Infographics
- Currently funded research projects
- FAQ
- Online sessions, sessions and more sessions
- Monthly email including –
  - curated list of new research
  - links to new programs
  - upcoming presentations/Pro Q&A/etc.
- Science 360 Reports
A Study Evaluating a Treatment for PTSI, Insomnia, and Nightmares

Treating all three disorders at the same time in an intensive format will help ensure that firefighters receive a full dose of effective treatment.

To determine if this can be successful, we are piloting a 4-day treatment workshop to address symptoms of PTSI, insomnia, and nightmares together.

If you or your colleagues know any firefighters who might be interested or would like to discuss the study further, they can sign-up here:

or contact our project manager, Carrie Sutherland at sutherland@ndri-usa.org
How do we disseminate research results and provide evidence briefs to inform decision making?

Join the fun by scanning ➔ code

Enter code URBAN