



1 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=1&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=1&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=1&pdf=1))



2 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=2&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=2&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=2&pdf=1))

Alcoholism/Stress/Suicide in One of Our Own

By:

Dr. Paul J. Antonellis, Jr.
Merrimack College
North Andover, MA

&

Carol Burroughs, MS, LCPC
Bozeman, MT



ICISF'S 15TH WORLD CONGRESS ON CRISIS, STRESS & HUMAN RESILIENCE
IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | *FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND*
MAY 19-24, 2019 | BALTIMORE, MD | ICISFWorldCongress.org

3 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=3&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=3&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=3&pdf=1))

Dr. Paul Antonellis, Jr.

- Doctor of Education, Master's Degree in Labor & Policy Studies;
- Assistant Professor – Management Department, Girard School of Business, Merrimack College;
- Director of Human Resource Management Program;
- Taught more than 100 undergraduate and graduate courses over the past 10 years;
- Faculty ICISF for more than 19 years;
- Lectured nationally and internationally;
- Authored & Published three Books and more than 40 articles;
- Peer Reviewer for three journals;
- Retired Fire Chief: 20 years in the fire/EMS field.
- 11 Years of experience part-time police officer.

Carol Staben Burroughs, MS, LCPC

- Licensed Clinical Professional Counselor since 1990
- Instructor at Montana State University since 1997
- Instructor at Montana Law Enforcement Academy
- Instructor for ICISF since 1995
- Montana CISM Network
- Gallatin County CISM Team since 1991

Caution!

**Subject matter covered in this course
may cause unexpected personal
reactions.**

Course Objectives:

- Gain insight and ideas about how to minimize and balance the traumatic effects of high risk professions.
- Possess tools to help survivors of ASD and Post Traumatic Stress Disorder **recognize, understand**, and manage symptoms.
- Possess the tools to help coworkers **recognize, understand**, and manage the affects of ASD, PTSD, alcoholism, and suicide.
- Be sensitized to the concepts of mental health, substance abuse, and suicide in high risk professions.

You are NOT alone!

This program will provide a brief overview of exactly what **PTSD** and **ASD** are, including general diagnostic criteria and some brief information on related disorders. The program is **NOT** intended as a diagnostic tool but rather an “**awareness**” of what ASD, PTSD, and alcoholism is and is not, how it will affect people, coworkers, and families.



IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

8 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=8&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=8&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=8&pdf=1))

Current Issues

- **NO** formal tracking system for psychological injuries & retirements.
- Debriefing services, EAP, chaplains, peer support, and mental health services.
- Formal stress management documents.



Current Issues

- Stigma remains a significant problem.
- Back to work issues/concerns.
- Lack of understanding about ASD/PTSD
- Tracking suicide: Police vs Fire Service



This Photo by Unknown Author is licensed under CC BY

IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

10 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=10&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=10&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=10&pdf=1))



Acute Stress Disorder and Post Traumatic Stress Disorder



While high risk professionals are at **increased** risk for developing PTSD as compared to the general population, there remains a cloud of uncertainty surrounding the disorder: uncertainty surrounding which reactions are normal, whether or not they should be spoken of with colleagues and family members, and when and where to seek help.



IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

11 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=11&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=11&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=11&pdf=1))

NOTE!

All of the signs and symptoms of severe **DYSFUNCTION** warrant referral to a mental health professional.





-

What Are The Common Symptoms Of PTSD

- ☑ Reexperiencing/replaying
- ☑ Avoidance/numbing
- ☑ Hyperarousal



(Called *Clusters*)

PTSD Criteria



- **Experiencing an event or being confronted with an event involving actual or threatened death or serious injury or threat to the physical well being of self or others**
- **Intense fear, helplessness or horror**



IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

15 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=15&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=15&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=15&pdf=1))

PTSD #1 Replays

- Re-experiencing event
- Intrusive recollections
- Recurrent dreams
- Distress at exposure to symbolic cues
- **“Flashbacks”** are a red flag
- Physiological reactions to triggers



PTSD #2 - Avoidance

- **Efforts to avoid thoughts, people, feelings associated with event**
- **Avoidance of activities related to trauma**
- **Amnesia surrounding event**
- **Diminished interest in normal activities**
- **Detachment**
- **Restricted Affect**

– **Alcohol is often used to help people avoid*



PTSD #3 Arousal

- ❑ **Sleep Disturbances**
- ❑ **Anger and irritability**
- ❑ **Difficulty concentrating**
- ❑ **Hypervigilance**
- ❑ **Exaggerated “startle response”**



PTSD

- A. Traumatic event
- B. Intrusive memories
- C. Avoidance, numbing, depression
- D. Stress arousal
- E. Symptoms last >30 days
- F. Impaired functioning

Predicting PTSD

- 1) Dose: response relationship with exposure
- 2) Personal identification with event
- 3) Very important beliefs violated

Why Acute Stress Disorder and not PTSD?

- According to the “**Diagnostic and Statistical Manual of Mental Disorders**” each diagnosis requires that a person must have experienced, witnessed, or been involved in a traumatic event involving injury or the threat or death to oneself or another person.
- A person must be **re-experiencing** the incident (flashback episodes, recurrent images, dreams, illusions).
- The person **must** experience distress that results in interference in normal social or occupational functioning (Antonellis, Meshad, Stack 2006).

Acute Stress Disorder or PTSD

- What separates the two is the **durations of the symptoms.**
- ASD can only be diagnosed if it occurs within the **first month** and it last for **two or more days**.
- PTSD can only be diagnosed if the symptoms **last longer than a month in duration** (Antonellis, Meshad, Stack 2006).

Acute Stress Disorder

- The “*Diagnostic and Statistical Manual of Mental Disorders 4th edition*” issued in 2000 included ASD as a “***new***” diagnosis.
- Before this time a diagnosis concerning psychological trauma could only be made **one month or later after symptoms** first appeared.

* *Insurance companies often **refuse** to pay for care if a diagnosis is not provided.*

Some Common Symptoms ASD & PTSD

- Repeated memories, images
- “**Avoidance**” of memories/people/places of the scene/incident.
- Uncontrollable anger/outbursts.
- Disturbing dreams/nightmares.
- Irritable, anger.
- Hyper-alert
- Difficulty concentrating
- Feeling numb to loving/caring feelings

Critical Incident Stress Symptoms

WHAT TO LOOK FOR IN YOURSELF/OTHERS

Uncontrolled Arousal

- ❑ Physical Changes
 - ❑ Anxiety, Elevated PB/heart rate, dizziness, sweating, sleeplessness, fatigue



25 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=25&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=25&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=25&pdf=1))

Critical Incident Stress Symptoms

WHAT TO LOOK FOR IN YOURSELF/OTHERS UNCONTROLLED AROUSAL

- ❑ Cognitive Changes
 - ❑ Memory disruption, confusion, intrusive thoughts, flashbacks, cannot “shut off” brain



26 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=26&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=26&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=26&pdf=1))

What to look for in yourself/others UNCONTROLLED AROUSAL

➤ Emotional Changes

Fear, anger, jumpiness, tension, restlessness, agitation, anxiety, mood changes, sadness or depression, avoidance, outbursts, problems with spouse and/or coworkers, not enjoying things they used to like to do.



Critical Incident Stress Symptoms



What to look for in yourself/others UNCONTROLLED AROUSAL

- Behavioral Changes
 - Withdrawal, decreased hygiene, silence, sleeplessness



IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

28 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlXMTJ8MzMzMyOTcxMDB8LTE=&slideNum=28&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlXMTJ8MzMzMyOTcxMDB8LTE=&slideNum=28&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlXMTJ8MzMzMyOTcxMDB8LTE=&slideNum=28&pdf=1))

Co-morbid Psychological Disorders Commonly Associated with PTSD

- **Major Depression**
- **Substance-Related Disorders**

(drugs or alcohol abuse or dependence)

High risk professionals may become depressed about feeling disconnected from their career or may turn to drugs or alcohol in an attempt to block out intrusive images or reduce the feelings of overwhelming anxiety.

(Everly & Lating, 2004; Frideman, 2001; Green & Kaltman, 2003)

Here are some of the signs to look for:

- Use resulting in failure to fulfill major work or home obligations
- Recurrent use in situations in which it is hazardous
- Recurrent alcohol or drug related legal problems
- Continued use despite knowledge of problems caused or aggravated by use
- Tolerance (needing more alcohol or drugs to become intoxicated)

Here are some of the signs to look for:

- **Withdrawal**
- **Alcohol use for periods longer than intended**
- **Considerable time spent in obtaining or using alcohol or drugs, or recovering from their effects**
- **The discontinuation or loss of important social, work, or recreational activities because of alcohol use**

Alcohol Use/Abuse

- Socially acceptable way to unwind
- “Reward” after days on duty
- Tolerance rises over time
- *“It was the only thing that made me feel better.”*
- Using as a way to feel “normal”
- Addiction – don’t wait for days off to drink
- Interference in personal and professional lives



Alcohol Use/Abuse



Feelings of shame about not being able to control it

Feel helpless to repair the (usually) disruptions their drinking has caused

Suicidal ideation

“Maybe they’d be better off without me”

Making plans to kill themselves

Trajectory of chemical dependence can take months to years

Prescription drug abuse is a major problem

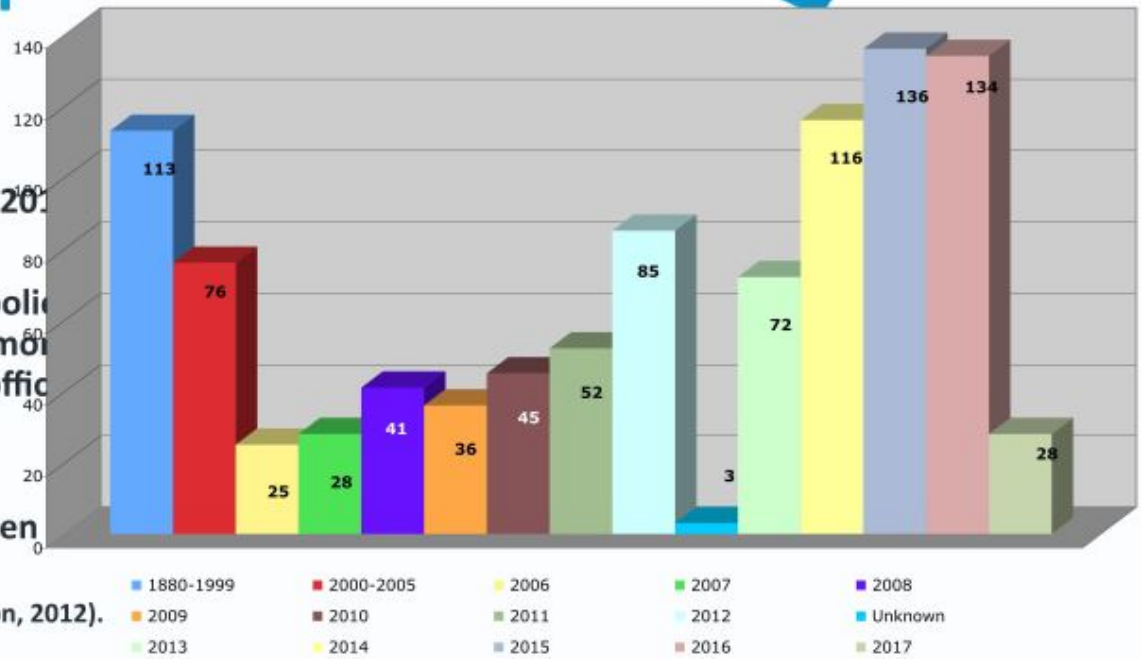
- Prescription drug abuse is a major problem for those who work in high risk professions.
- The daily job activities cause injury and illness very frequently.
- Even when an high risk professional worker is prescribed drugs to take as needed, they are prone to start abusing that medication .



Firefighter Suicides

Suicides By Years

- More than 414 firefighters since 2005
- More than 120 police officers in 2012, more than 140 police officers in 2008.
- 3 times more often than a LODD
- (Antonellis & Thompson, 2012).



At Risk Populations:

Male

Highest rate: 15-24 y/o and over 55 y/o

Previous History

Family History

Severe Guilt

Plan



Suicide

- **One of the top five most difficult CISM interventions**
- **The CISM for suicide is more challenging than most CISM.**
- **Needs experienced team members**
- **Follow-up is essential**

Expected Suicide Issues

- Shock
- Early grief
- Remorse
- Anger
- Frustration
- Why, Why, Why
- But, But, But
- He / she was soooo happy
- “In my religion...”
- Resentment
- Uncertainty
- Disappointment
- Insecurity
- Guilt

Grief Problems



- **Delayed** (*Surfaces Later*)
- **Absent** (*Missing Feelings & Expressions*)
- **Chronic** (*Continues as Permanent & Painful State*)



IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

39 / 56

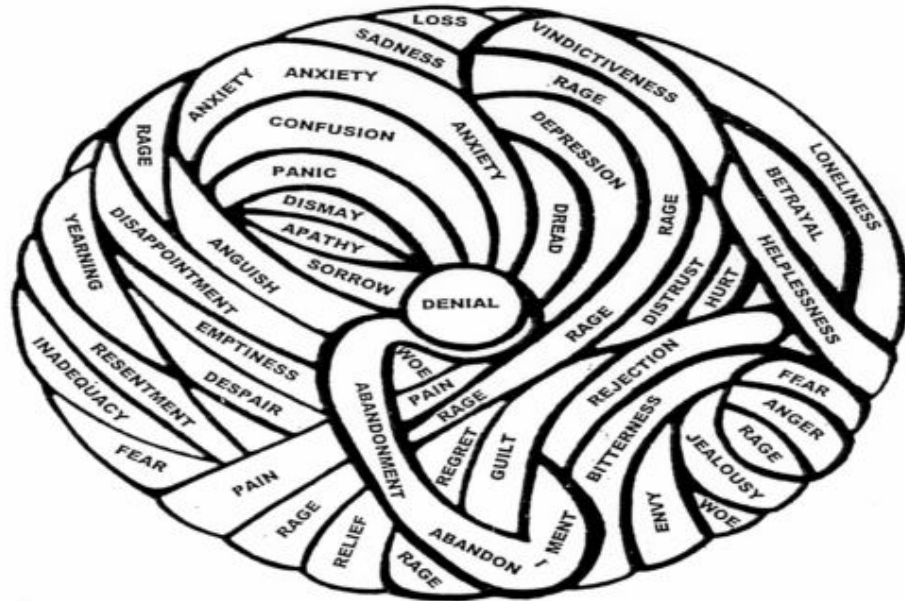
Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=39&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=39&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=39&pdf=1))

GRIEF

A Tangled Ball of Emotions



40 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=40&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=40&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMyOTcxMDB8LTE=&slideNum=40&pdf=1))

What Came First?



IMPACTING COMMUNITIES THROUGH CRISIS INTERVENTION | FINDING A BALANCE: EXPLORE, EMBRACE, EXPAND

41 / 56

Bookmark Share All Share Slide

Export PDF ([http://www.eventscribe.net/tools/planner/BuildSummary?](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=41&pdf=1)

[pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=41&pdf=1](http://www.eventscribe.net/tools/planner/BuildSummary?pres=460673&sfp=NjY3Mnw4MjlxMTJ8MzMzMzMyOTcxMDB8LTE=&slideNum=41&pdf=1))

The Chief's Office...

It may be these secondary disorders that ultimately bring the high risk professional suffering from PTSD to the attention of the supervisor, shift command, chief, or the mental health professional.



How To Help

- ✓ Most co-workers, family members and supervisors are **NOT** trained to confront the affected firefighter.
- ✓ Seek out professional assistance on confronting the affected firefighter, **before** taking any action.
- ✓ The affected person will do everything in his/her power to avoid this topic.



How to Help

- ✓ **Have any of you faced this in your departments?**
- ✓ **What did you do?**
- ✓ **Who helped?**
- ✓ **What were the outcomes?**



Natural Reactions

- After a traumatic incident, it is common for high risk professional to experience feelings of fear or anxiety, anger or sadness but this is **NOT** PTSD.
- Do **NOT** confuse normal feelings of anxiety, anger or sadness after a traumatic incident with having a mental illness.

Natural Reactions

- Leave it for the trained professionals to determine.
- Remember, your job is **NOT** to diagnose the person with ASD or PTSD.

It's Not All Doom...



It is “natural” for the high risk professional to experience some of the symptoms of PTSD after a traumatic incident and while it is recommended that these symptoms be addressed, this does not mean they have PTSD.

It's Not All Doom...



- Firefighters that develop PTSD: We need to **reach out to them and support them** in this battle to regain their emotional stability.
- With **support**, **encouragement**, and **therapy** affected high risk professional will go on to lead productive lives.

Traditional Treatments

“PTSD symptoms fall into three categories: intrusion, avoidance, and arousal. Traditional therapeutic approaches that have shown some success in eliminating these symptoms include **Behavior Therapy**, **Cognitive-Behavior Therapy**, and the use of medications, know as pharmacotherapy” (Antonellis & Mitchell, 2005).

Coping Strategies



- ❑ **Be Active**
- ❑ **Have a “Plan of Action”**
- ❑ **Develop a Support Network**
(family, friends, co-workers)
- ❑ **Limit Your Exposure to Trauma**
- ❑ **Have a Good Belly Laugh**
(humor is important)



Coping Strategies cont.

- Seek Professional Help (licensed professional)
- Do **NOT** Make Any Major Life Changes
- Chances are that the symptoms did NOT start over night so do not expect them to STOP over night.
- Seek legal advise, if needed for employment issues.



Final Thought

As the diagnostic criteria concerning traumatic stress changes, so too will the number of HRP who meet that criteria.

Since the diagnostic criteria for ASD are less stringent, and the exposure of HRP to trauma is so great, we might expect to see higher rates of ASD among HRS, but only if the trauma is actually reported.

Final Thought cont.

Until we can accurately predict an individual HRP's likelihood of developing PTSD, we should assume that **nearly one fifth of our personnel may develop PTSD**, and we should engage in appropriate, departmental-wide “prevention efforts” in order to assist as many of them as possible (*Antonellis & Mitchell, 2005*).

Final Thought cont.

- ❑ The service can not afford to turn a blind eye on PTSD.
- ❑ The financial impact to the firefighter/police/EMS and the community is very costly and can be avoided.
- ❑ PTSD does not have any boundaries; it can strike full-time HRP and call/volunteer HRP, city and small towns, young and old, male or female, HRP rank up to and including chiefs.

Final Thought cont.

The cost of ignoring PTSD will be seen in the quality of the lives of those suffering from PTSD, from their families and loved ones, from their coworkers and their chiefs. It will also ultimately affect the community with which they work.

References

Antonellis, P., & Staben-Burroughs, C. (2014). [*Perceptions of PTSD and Alcoholism in One of Our Own*](#). Fire Engineering, 167(12), Page 45-55.

Antonellis, P., & Thompson, D., (2012). [*A Firefighter's Silent Killer: Suicide*](#). Fire Engineering, 166(12), Page 69-76.

Antonellis, P., (2007). [*Bereavement Leave: Benefits of a Written Policy*](#). Fire Engineering Magazine, 162(3) Page 153-155.

Antonellis, P., (2007). [*Coping with the Challenges of Forced Retirement*](#). Fire Engineering, 160(8). Page 91-100.

Antonellis, P., (2006). [*Supporting Survivors During Line-of-Duty Deaths/Injuries*](#). Fire Engineering, 159(3), Page 111-118.

Antonellis, P., (2002). [*The Dying Truth*](#). The Voice, 31(11), Page 16-17.

© Copyright – Dr. Paul Antonellis, Jr.

Dr. Paul J. Antonellis, Jr. is the owner of “**Perceptions of PTSD & Alcoholism in the Fire Service**” which is protected by copyright. Any unauthorized reproduction, broadcasting, copying, translating, or altering of the contents electronically or otherwise, (in whole or in part) of this website/program are prohibited without the express permission of Dr. Paul Antonellis, Jr., 78 Newfields Road, Exeter, NH 03833, E-Mail PTSDBook@comcast.net .

Content may be reproduced or downloaded for personal use only and explicit reference to Dr. Paul J. Antonellis, Jr. as owner should be made for appropriate acknowledgement. Any reproduction in any other form for commercial usage (ie. Commercial broadcasting, commercial copying, or commercial lending) without prior written consent from Dr. Paul Antonellis, Jr. is strictly prohibited.