

Assessment of Posttraumatic Stress Disorder Among Emergency Medical Services: A Survey Study



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Introduction

- 10 million American Adults have unmet mental health needs
- Approximately 19.11% of Louisiana adults suffer from some mental illness
- Posttraumatic stress disorder (PTSD) is characterized by anxiety, dysfunction, re-experience, and depression following exposure to trauma
- Natural disasters have been shown to increase posttraumatic symptoms (PTS) and distress
 - Adults are 2.11x more likely to develop PTSD after a disaster
- Emergency medical services (EMS) is a high-stress, fast-paced, and burdensome occupation
 - EMS are considered to have generally higher rates of PTSD and depression
- Studies show that physicians who cared for suicide bombing victims portrayed significantly higher signs of anxiety, depression, negative coping strategies, and burnout
- The goal of the current study is to identify PTS in EMS New Orleans (NOEMS) personnel who worked during Hurricane Katrina and the COVID-19 pandemic and see if previous exposure to trauma builds resilience

Hypotheses

1. Compared to the general population, signs and symptoms of PTSD are higher in individuals who worked in EMS
2. Compared to previous studies estimating PTSD, signs and symptoms of PTSD are higher in EMS workers during Hurricane Katrina or COVID
3. Previous experiences of traumatic events during EMS work (such as Hurricane Katrina) build resiliency for following traumatic events

Methods and Materials

Inclusion Criteria

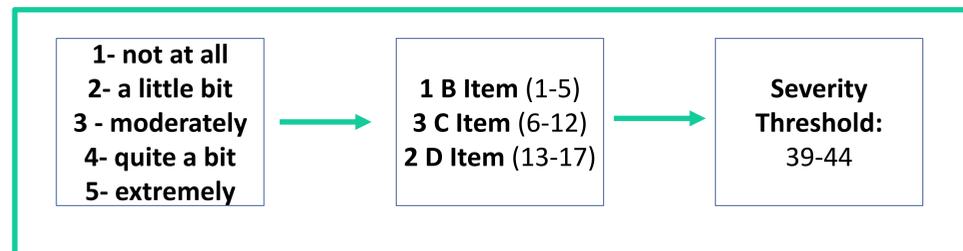
- 18+ years old
- Employed by NOEMS by June 8, 2020
- Worked during COVID-19 and/or Katrina



Survey

- 31 item questionnaire
- Demographics
- Work experience and training
- PTSD Checklist – Civilian Version (PCL-C) DSM IV

PTSD Scoring



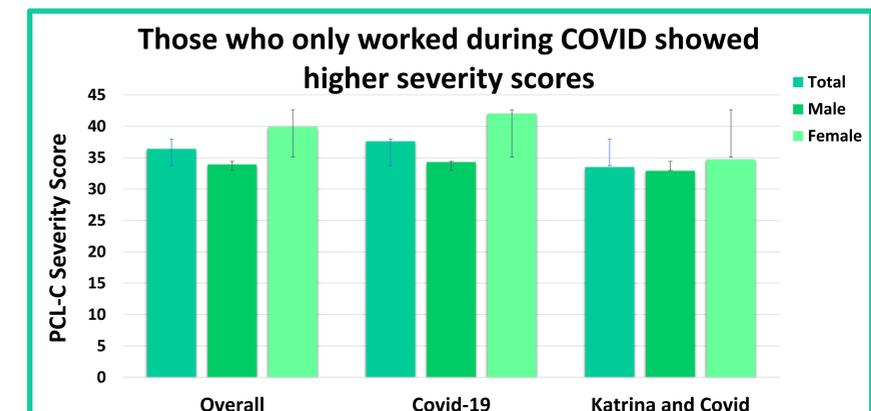
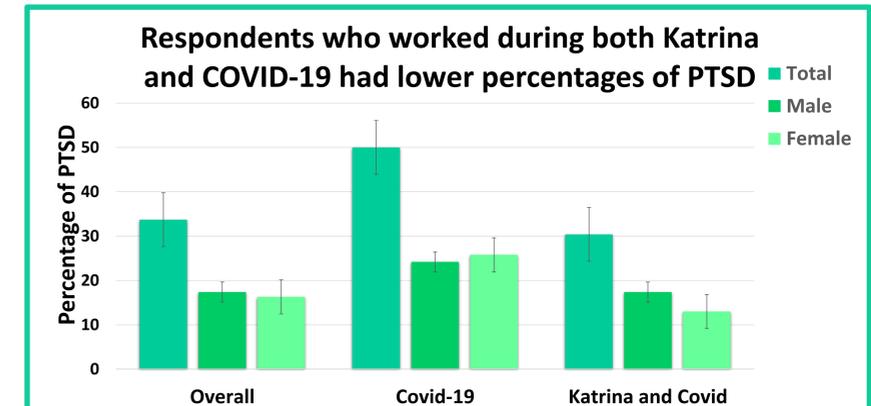
Survey Results

| Variable | N= | % |
|---------------------------|----|------|
| Gender | | |
| Male | 55 | 59.8 |
| Female | 37 | 40.2 |
| Race | | |
| White | 65 | 70.7 |
| Black or African American | 21 | 22.8 |
| More than one | 3 | 3.3 |
| Other | 3 | 3.3 |
| Ethnicity | | |
| Hispanic or Latino | 7 | 7.6 |
| Not Hispanic or Latino | 70 | 76.1 |
| Unknown/not reported | 15 | 16.3 |
| Marital Status | | |
| Single | 34 | 37.0 |
| Living with partner | 18 | 19.6 |
| Married | 29 | 31.5 |
| Separated | 3 | 3.3 |
| Divorced | 7 | 7.6 |
| Widowed | 1 | 1.1 |
| Children | | |
| Yes, live at home | 39 | 42.4 |
| Yes, do not live at home | 17 | 18.5 |
| None | 36 | 39.1 |

| Variable | N= | % |
|--|----|------|
| Professional Training | | |
| EMR | 0 | 0 |
| EMT | 26 | 28.6 |
| AEMT | 3 | 3.3 |
| Paramedic | 62 | 68.1 |
| Not Reported | 1 | 1.1 |
| Cohorts | | |
| Cared for patients during Katrina | 3 | 3.4 |
| Cared for patients during COVID-19 | 62 | 67.4 |
| Cared for patients during both disasters | 23 | 25 |
| Met Diagnostic Criteria | | |
| Those who worked during Katrina | 0 | 0 |
| Those who worked during COVID-19 | 31 | 50 |
| Those who worked during both | 7 | 30.4 |
| Additional Info | | |
| Lived in NOLA Post Katrina | 55 | 60.4 |
| Sought Therapy for Katrina | 9 | 9.9 |
| Sought Therapy for COVID | 10 | 10.9 |
| PTSD Screening | | |
| Screening Criteria | 37 | 40.2 |
| Diagnostic Criteria | 31 | 33.7 |

| Survey Variable | Average | Standard Dev |
|---------------------|---------|--------------|
| Age | 35.5 | 1.14 |
| Experience | 12 | 0.89 |
| Severity Score | 36.4 | 1.44 |
| PTS Variable | | |
| Average | | |
| Age | 32.8 | 1.77 |
| Experience | 10.5 | 1.26 |
| Severity Score | 51.9 | 1.93 |

Data Analysis



Summary and Conclusions

- 33.7% of the respondents met PTSD diagnostic criteria
- Of those, the majority were white, male, lived in NOLA post Katrina, and trained paramedics
- Respondents who worked during both Hurricane Katrina and COVID-19 showed a lower percentage of PTSD compared to those who only worked during COVID
- Respondents who worked during both Katrina and COVID-19 had a lower average of severity scores
- Results from this study will be used for potential future interventions to reduce PTSD in EMS