

[Prehospital Emergency Care](#) >

Volume 17, 2013 - Issue 3

2,946

Views

51

CrossRef citations to date

16

Altmetric

Original Articles

An Assessment of Depression, Anxiety, and Stress Among Nationally Certified EMS Professionals

Melissa A. Bentley, MS, NREMT-P, J. Mac Crawford, PhD, RN, J. R. Wilkins, III, BCE, DrPH, Antonio R. Fernandez, PhD, NREMT-P & Jonathan R. Studnek, PhD, NREMT-P

Pages 330-338 | Received 08 Jun 2012, Accepted 06 Dec 2013, Published online: 15 Feb 2013

Download citation <https://doi.org/10.3109/10903127.2012.761307>

Sample our
Medicine, Dentistry, Nursing
& Allied Health Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

[Full Article](#)[Figures & data](#)[References](#)[Citations](#)[Metrics](#)[Reprints & Permissions](#)[Get access](#)

Abstract

Objectives. The primary objective of this study was to estimate the prevalence and severity of depression, anxiety, and stress among a cohort of nationally certified emergency medical services (EMS) professionals. The secondary objective was to determine whether there were differences between individuals who were experiencing depression, anxiety, or stress and those who were not. **Methods.** This was a questionnaire-based, case-control analysis of nationally certified emergency medical technician (EMT)-Basics and paramedics who applied for national recertification in 2009. The three outcome variables of interest included measures of depression, anxiety, and stress, and were assessed using the Depression Anxiety Stress Scale-21 (DASS-21). Descriptive statistics and investigator-controlled backwards-selection logistic regression modeling were utilized to quantify the prevalence of depression, anxiety, and stress and to predict the association of demographic and work-life

characteristics with each outcome. Results. A total of 64,032 individuals were eligible to renew their national certification and 34,340 (53.6%) individuals returned a questionnaire. The DASS-21 classified 1,589 (6.8%, 95% confidence interval [CI] = 6.4%–7.1%) EMS professionals as depressed, 1,406 (6.0%, 95% CI = 5.7%–6.3%) as anxious, and 1,382 (5.9%, 95% CI = 5.6%–6.2%) as stressed. Multivariable logistic regression estimates showed that paramedics (odds ratio [OR] = 1.31, 95% CI = 1.22–1.39), those working in county or municipal services (OR = 1.36, 95% CI = 1.16–1.60) or private services (OR = 1.32, 95% CI = 1.14–1.52), and those with ≥ 16 years of EMS experience (OR = 1.28, 95% CI = 1.01–1.62) had an increased odds of depression. A stepwise increase was found when estimating the effects of self-reported general health on the odds of anxiety (very good, OR = 1.84, 95% CI = 1.53–2.22; good, OR = 3.88, 95% CI = 3.32–4.67; fair/poor, OR = 10.81, 95% CI = 8.14–14.34). Likewise, paramedics (OR = 1.32, 95% CI = 1.23–1.42), those working in a private EMS system (OR = 1.35, 95% CI = 1.16–1.56), and those with ≥ 16 years of EMS experience (OR = 1.67, 95% CI = 1.28–2.18) had an increased odds of stress. Conclusions. This study was able to estimate the prevalence of depression, anxiety, and stress among a large cohort of nationally certified EMS professionals and identified statistically significant demographic and work-life characteristics that predicted depression, anxiety, and stress. Future research should attempt to follow EMS professionals prospectively to determine specific characteristics associated with occupational traumatic exposure and the development of depression, anxiety, and stress.

Key words: : [emergency medical services](#) [out-of-hospital](#) [depression](#) [anxiety](#) [stress](#)



Related research

People also read

Recommended articles

Cited by
51

[Death by Suicide—The EMS Profession Compared to the General Public](#) >

Neil H. Vigil et al.
Prehospital Emergency Care
Published online: 14 Sep 2018

[Association of Burnout with Workforce-Reducing Factors among EMS Professionals >](#)

Remle P. Crowe et al.

Prehospital Emergency Care

Published online: 25 Aug 2017

[Work-Related Stress and Posttraumatic Stress in Emergency Medical Services >](#)

Elizabeth Donnelly

Prehospital Emergency Care

Published online: 5 Jan 2012

[View more](#)

Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

Keep up to date

Register to receive personalised research and resources by email

 [Sign me up](#)



[Copyright © 2022 Informa UK Limited](#) [Privacy policy](#) [Cookies](#) [Terms & conditions](#)

[Accessibility](#)

 **Taylor & Francis Group**
an **informa** business

Registered in England & Wales No. 3099067
5 Howick Place | London | SW1P 1WG