

UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Measuring Depression, Stress, Anxiety and Resilience Levels During the Covid-19 Pandemic Using Validated Psychometric Testing

Permalink

<https://escholarship.org/uc/item/08x0s6wv>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 23(1.1)

ISSN

1936-900X

Authors

Bella, Sarah
fiessler, frederick
Walsh, Kristen
[et al.](#)

Publication Date

2022

Copyright Information

Copyright 2022 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

active learning methods would be more used and effective.

Methods: In spring 2020, two online surveys were distributed assessing time since last in-person clinical experience, and Likert-scale (1-5) questions regarding use and effectiveness of virtual education modalities. Results were analyzed using descriptive statistics.

Results: 27 EM residencies were recruited, with 311 pre-intern participants. 289 (92.9%) completed pre-surveys, and 240 (77.2%) completed post-surveys. They reported the number of weeks since performing a physical examination (median = 8, IQR 7, 12), attending an in-person didactic (median = 10, IQR 8, 15), and of rotation displacement (median = 4, IQR 2, 6). Common education tools included online modules (n=210), podcasts (n=193), and social-media based education (n=195). Effective tools included podcasts (Mean = 4.116, SD = 0.856), online question bank use (Mean = 4.052, SD = 0.872), and FOAMed resources (Mean = 3.994, SD = 0.904).

Conclusions: Pre-interns are entering residency disconnected from in-person clinical education, reflecting a need for effective remote teaching. Interactive options (podcasts, question banks, and FOAMed) were cited as more effective than traditional offline options (textbook and journal article reading). Identifying popular, effective virtual modalities can guide education initiatives during the present and future pandemics.

Table.

Educational Intervention Effectiveness	Frequency (%)	Mean (SD)	Confidence Interval (95%)
Podcasts	193	4.166 (0.856)	(4.045, 4.287)
Question Banks	77	4.052 (0.872)	(3.857, 4.247)
FOAMed	154	3.994 (0.904)	(3.851, 4.137)
Other Online Study Package	119	3.899 (0.951)	(3.728, 4.07)
Online Videos (YouTube, Other)	161	3.882 (0.736)	(3.768, 3.996)
Problem-Based Learning	114	3.667 (0.928)	(3.497, 3.837)
Other Social Media-Based Education	195	3.631 (0.988)	(3.492, 3.77)
Live Virtual Lectures	187	3.604 (0.906)	(3.474, 3.734)
Team-Based Learning	87	3.506 (0.987)	(3.299, 3.713)
Online Modules	210	3.462 (0.993)	(3.328, 3.596)
Recorded Lectures	115	3.357 (0.91)	(3.191, 3.523)
Textbook Reading	121	3.306 (1.007)	(3.127, 3.485)
Journal Article Reading	168	3.286 (0.856)	(3.157, 3.415)

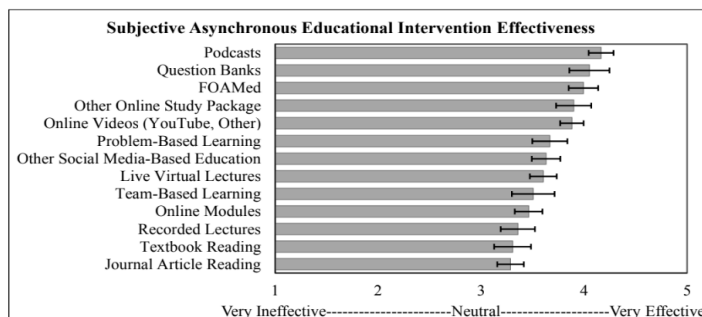


Figure.

42 Measuring Depression, Stress, Anxiety and Resilience Levels During the Covid-19 Pandemic Using Validated Psychometric Testing

Sarah Bella, DO; frederick fiessler, DO; Kristen Walsh, MD; Ashley Flannery, DO; Brian Walsh, MD

Learning Objectives: To describe the prevalence of depression, anxiety, stress and resilience in EM residents during the Covid-19 pandemic

Background: EM residents were already known to be high-risk for depression and burnout; in all likelihood the Covid-19 pandemic has added to this risk. In addition to the understandable work stressors, social isolation caused by the lockdowns likely has affected their support structure negatively.

Objectives: Using validated psychometric testing, we sought to determine the levels of depression, anxiety, stress, and resilience in EM residents in a region severely impacted by the pandemic.

Methods: Setting: An EM residency program in the state with the highest per-capita deaths from Covid-19. All EM residents were surveyed eight months into the pandemic using the Depression, Anxiety, Stress Scales (DASS) and Brief Resilience Scale (BRS). Both studies have been validated in the psychology literature across multiple settings. Surveys were anonymous to promote honesty in answers. Levels of depression, anxiety, stress, and resilience were determined. Demographic information was also collected.

Results: 23 of 27 residents (85%) completed the survey. Using the DASS, 48% (95%CI 27-69) were found to have at least mild depression, with 17% (95%CI 2-33) found to have “severe” or “extremely severe” depression. 35% (95%CI 15-55) were found to have at least mild levels of anxiety, with 4% (95%CI -4 to 13) having “severe” or “extremely severe” anxiety. 52% (95%CI 31-73) were found to have at least mild stress, with 13% (95%CI -1 to 27) found to have “severe” or “extremely severe” stress. Using the BRS, 9% (95%CI -3 to 20) were found to have low levels of resilience.

Conclusion: While we knew EM residents (physicians) are high-risk for depression and burnout, the levels of depression and stress measured by validated psychometric testing during the Covid-19 pandemic were concerning. Although the residency has increased its wellness activities significantly, it appears much more needs to be done to help residents get through this extremely difficult situation.

43 Mitigating the Gender Gap: How “DOCTOR” badges affect physician identity

Jenny Chang, MD; Joshua Silverberg, MD; Michael Jones, MD; John Arbo, MD; Jill Corbo, MD

Learning Objectives: To elucidate the frequency of