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Letter to the Editor

Reply to “Impact of COVID-19 on the mental health of radiologists”



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Dear Editor:

Please find below our response to the correspondence by Drs. Triana and Forero titled “Impact of COVID-19 on the mental health of radiologists”¹:

We thank the authors for their thoughtful appraisal of our work investigating the impacts of Coronavirus Disease 2019 (COVID-19) on radiologists in the United States.² We certainly acknowledge that there are more psychological impacts of COVID-19 beyond what was captured by our survey. Our study was not necessarily intended to report a clinical score of anxiety, but rather to invite discussion on the impact of COVID-19 on the mental health of radiologists and to highlight a key area warranting further investigation.

Generally speaking, one must be cautious when conducting extensive subgroup analyses in order to avoid common pitfalls of over-interpretation.³ As previously reported, we did not observe large differences in the β coefficients when we stratified for residents and fellows or private practice radiologists.² However, we do acknowledge the benefit of understanding how COVID-19 is impacting radiologists in different workforce sectors on a more granular level. Thus, per Dr. Triana’s and Dr. Forero’s recommendation, we have elected to run an additional analysis to formally assess the interaction effects of practice environments on factors influencing anxiety.

In contrast to the findings reported by Florin et al.,⁴ we did not observe any statistically significant ($p < 0.05$) interaction effects when we stratified for private versus non-private institutions. However, when we stratified for academic versus non-academic institutions, the interaction terms for the following items were found to be statistically significant: gender ($p = 0.03$), increased use of personal protective equipment (PPE) as an anticipated effect on clinical practice in one year ($p = 0.04$), adequate supply of PPE for patients ($p = 0.03$), and teleradiology as a respondent’s main setting of practice ($p = 0.04$).

Identifying with female gender was found to be a greater risk factor for anxiety at academic institutions (RR: 1.16; 95% CI: 1.06–1.27, $p < 0.01$) as compared to non-academic facilities (RR: 0.94; 95% CI: 0.79–1.11, $p = 0.44$). Similarly, an anticipated increase in PPE usage in one year was also found to be a greater risk factor at academic (RR: 1.09; 95% CI: 1–1.19, $p = 0.05$) versus non-academic centers (RR: 0.9; 95% CI: 0.75–1.09, $p = 0.28$). Conversely, having an adequate PPE supply for patients was found to be more of a protective factor at academic institutions (RR: 0.83; 95% CI: 0.72–0.96, $p < 0.01$) than non-academic institutions (RR: 1.12; 95% CI: 0.9–1.38, $p = 0.31$). Finally, reporting a primary practice setting of teleradiology was found to be more protective at non-academic centers (RR: 0.72; 95% CI: 0.52–0.99, $p = 0.05$) as compared to academic centers (RR: 0.97; 95% CI: 0.81–1.17, $p = 0.78$). These results are similar to recently published data which suggest that female gender/sex and lack of adequate PPE supply were also associated with poorer mental health outcomes in related healthcare professions.^{4–6}

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Declaration of competing interest

None.

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Abbreviations: COVID-19, coronavirus disease 2019; PPE, personal protective equipment.

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Natalie L. Demirjian^{a,b}, Brandon K.K. Fields^a, Steven Y. Cen^{a,c},
Xiaomeng Lei^{a,c}, Ali Gholamrezanezhad^{a,c,*}

- ^a Keck School of Medicine, University of Southern California, Los Angeles, CA 90033, United States of America
- ^b Department of Integrative Anatomical Sciences, University of Southern California, Los Angeles, CA 90033, United States of America
- ^c Department of Radiology, University of Southern California, Los Angeles, CA 90033, United States of America

* Corresponding author at: Department of Radiology Division of Emergency Radiology, Keck School of Medicine, University of Southern California, 1500 San Pablo Street, Los Angeles, CA 90033, United States of America.

E-mail addresses: (N.L. Demirjian), (B.K.K. Fields), ali.gholamrezanezhad@med.usc.edu (A. Gholamrezanezhad).