

Burnout of Radiologists in the United States: Current Status & Trends in the Last Decade

Pedram Keshavarz, Sara Emamzadehfard, John Michael Moriarty, Aarti Luhar, David SK. Lu, Steven S. Raman, David M. Yousem

Background

This study aimed to review studies that reported the burnout of practicing and training radiologists based on the Maslach Burnout Inventory-Human Services Survey.

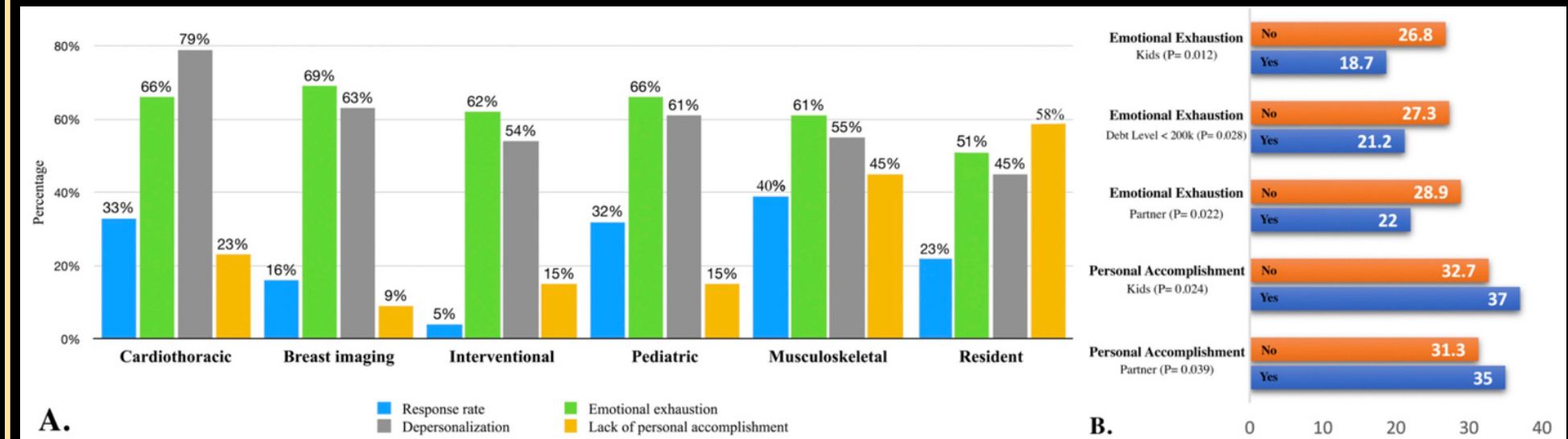
Materials and Methods

A systematic search of PubMed, Web of Science, Scopus, Embase, and Google Scholar was performed based on PRISMA guidelines (February 18th, 2023). Random-effects proportion meta-analysis was conducted. The sensitivity analysis and meta-regression were used to explore the influence of categorical variables on heterogeneity. Cochrane's Q test and the I² statistic were utilized to determine heterogeneity.

Results

Nine studies (15,135 participants) including 13,257 (87.6%) practicing radiologists with subspecialty training in pediatric (1,453, 9.6%), musculoskeletal (1,248, 8.2%), cardiothoracic (874, 5.8%), breast (2,280, 15.1%), and interventional radiology (7,402, 48.9%), as well as residents/trainees (1,878, 12.4%), were included. The highest and lowest response rate was observed in musculoskeletal 40% (95% confidence interval [CI] 0.37-0.43) and interventional radiologists 5% (95%CI .04-.05), respectively. Trainees including residents had the highest rate of lack of personal accomplishment (PA) at 58% (95%CI .51-.65).

Results



Results

The lowest PA with the highest emotional exhaustion was reported in breast imaging radiologists 9% (95%CI 0.06-0.12) and 69% (95%CI 0.64-0.74). The pooled proportion rate for depersonalization was high in the cardiothoracic 79% (95%CI 0.74-0.83) followed by breast imaging 63% (95%CI 0.58-0.68), and pediatric radiologists 61% (95%CI 0.56-0.66), respectively. Having a partner, child, and debt level < \$200,000 was significantly associated with lower emotional exhaustion and higher personal accomplishment, especially among R3 diagnostic or interventional radiology residents.

Conclusion

Major problems such as emotional exhaustion and depersonalization are widespread among radiologists and trainees. Moreover, we observed that residents/trainees are a moderate burnout risk group with the highest rate of low personal accomplishment compared to other sub-cohorts.