

Abstract Title: Relationship Between Empathy and Burnout: A Cross-Sectional Study of Anesthesiologists in Wisconsin

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Background/Introduction: The term “burnout” in the context of healthcare providers has been coined as a work-related syndrome in which a provider depersonalizes patients, displays greater emotional exhaustion, and a decreased sense of personal accomplishment within their career. Research suggests higher burnout levels are associated with lower empathy towards patients, yet the causality of this relationship remains unclear. Our objective is to better understand the prevalence, variables contributing to physician anesthesiologist burnout, the impact of the COVID pandemic, and what measures need to be further researched to inform effective intervention.

Methods: The Health Sciences IRB at the University of Wisconsin approved this study. Surveys were sent via email members of the Wisconsin Society of Anesthesiologists in the state of Wisconsin before and during the COVID-19 pandemic. To assess the relationship between empathy and burnout we designed a survey consisting of modified versions of the Maslach Burnout Inventory and Jefferson Scale of Physician Empathy. Statistical analysis was accomplished through use of Statistical Package for the Social Sciences. Spearman correlation analysis was performed between burnout and empathy scores. Demographic and workplace variables were compared to empathy and burnout using multivariate logistics analysis. Data from 2019 were compared to data from 2020 using regression analysis to assess the significance of COVID-19 on empathy and burnout score patterns.

Results: Survey results indicated a consistent statistically significant negative correlation between empathy and burnout in both 2019 and 2020. However, burnout subtype significance changed from pre-COVID to COVID survey data. Data from 2019 reveal significance in depersonalization and diminished accomplishment burnout subtypes, whereas 2020 data highlight significance in depersonalization and emotional exhaustion burnout subtypes.

Conclusion: Understanding the relationship between physician burnout and empathy is an important component in addressing the needs of healthcare providers. The strength of correlation between empathy and burnout remained stable in light of the COVID pandemic. It appears that the COVID pandemic worsened overall empathy among anesthesiologists and increased the relationship between empathy and emotional exhaustion. Further studies will be required to determine demographic factors related to diminished empathy levels and strategies to improve empathy among healthcare providers.

2019 Data	Empathy Correlation	95% CI	p-value
Burnout Total	-0.29	[-0.46, -0.11]	0.0018
Accomplishment	-0.47	[-0.60, -0.31]	<0.0001
Depersonalization	-0.36	[-0.51, -0.18]	0.00014
Emotional Exhaustion	-0.02	[-0.21, 0.17]	0.81

Figure 1: Burnout scores from abbreviated modified burnout inventory compared to empathy scores in 2019.

2020 Data	Empathy Correlation	95% CI	p-value
Burnout Total	-0.30	[-0.52, -0.05]	0.021
Accomplishment	-0.19	[-0.43, 0.06]	0.14
Depersonalization	-0.25	[-0.48, 0.01]	0.055
Emotional Exhaustion	-0.31	[-0.52, -0.05]	0.018

Figure 2: Burnout scores from abbreviated modified burnout inventory compared to empathy scores in 2020.