

# Survey of Physician Stress Due to COVID-19 Vaccine Disparity: Potential of OMT

Jennifer Fischer, PhD; Sherry Jimenez, EdD; Debasis Mondal, PhD; David Tolentino, DO; Sarah Zahl, PhD

## Introduction and Study Design

Physicians, nurses, and other healthcare workers have faced significant mental stress and burn-out associated with their work in overwhelmed COVID-19 clinics, especially during the peak of the pandemic [1, 2]. Although the rapid approval of several vaccines against COVID-19 has slowed disease progression and decreased the initial apprehension, the presence of a large population of unvaccinated patients as well as rapidly changing protocols and procedures within the United States remains a stressful challenge in both physicians and healthcare workers.

### Research objective:

We conducted a survey of physician preceptors, both MDs and DOs, to explore the impact of differences in the patient's and colleague's vaccination status on their wellbeing, stress & burnout, and their experience with the use of adjunct osteopathic manipulative treatment (OMT) on patient recovery.

## Methods

- IRB approved multi-institutional online mixed methods (anonymous) Qualtrics® survey questionnaire was used to collect and analyze data from physicians working as preceptors for multiple academic institutions.
- Permitted to modify version of the expanded Physician Wellbeing Index (ePWBI).
- Demographic information was also collected: Age, Gender, COVID-19 Vaccination Status, United States Region of Medical Practice, and Medical Credentials.
- To analyze potential themes within responses to the open-ended questions, the researchers mapped the data to Excel and used inductive qualitative coding and analysis.. Using this method, a coding schematic was developed based on the emerging data and the underlying themes were documented.

## Results

- Two hundred and eighteen (218) physician preceptors completed the survey.
- After removing incomplete responses, one hundred and ninety six (196) participants' responses were analyzed.
- Using a threshold of  $P \leq .05$ , data analysis revealed many statistically significant relationships between the variables.

Statement	P-Values
Stress levels and burnout characteristics were noted by physicians, both in themselves and in their colleagues.	( $P=0.024$ )
Physicians overwhelmingly felt that all patients (and healthcare workers) should be vaccinated.	( $P<0.001$ )
Physicians experienced more stress when working with unvaccinated patients.	( $P<0.001$ )
Physicians stated that both their assessment and treatment plans were significantly different for vaccinated vs. unvaccinated patients, respectively.	( $P=0.039/P=0.0167$ )
When comparing responses of DOs (46.52%) vs. MDs (53.48%), DOs were more likely to indicate that they see faster recovery in COVID-19 patients treated with OMT as compared to those who are not.	( $P=0.002$ )
Statistically significant relationship between gender and respondents' perception that their work schedule leaves them enough time for personal/family life.	( $P=0.026$ )*

\*Respondents who identified as male (64.8%) reported higher means (3.47) on this question than respondents who identified as female (2.98; 33.7%).

## Participant Demographics (N=196)

Degree	Frequency	Percentage
DO	87	44.4%
MD	100	51.0%
Did Not State	9	4.6%

Age	Frequency	Percentage
24-34	51	26%
35-45	50	25.5%
46-56	47	24%
57-67	38	19.4%
68+	10	5.1%

Gender	Frequency	Percentage
Male	127	64%
Female	66	33.7%
Non-binary/prefer not to say	3	1.5%

## Discussion

Physicians continue to experience stress and burnout due to differences in vaccination status of patients admitted to COVID-19 clinics. The qualitative comments from physicians supported this conclusion and provided evidence that the stress is related to many different areas including patient attitudes, changing guidelines, eroding trust in healthcare providers, and attitudes of healthcare providers towards unvaccinated patients. This indicates that individual health alone was not the source of stress; the issues are complex and relate to community health as well as the relationships physicians build to care for their patients. Workplaces may consider if opportunities to compassionately provide medically relevant information to both patients and healthcare workers would help to relieve the stress that comes with difficult patient care topics.

Our survey results illuminated the utility of OMT on COVID-19 disease recovery. Further research is needed in this area to track patient outcomes. Several clinical trials are underway to investigate whether adjunctive OMT can decrease disease progression in hospitalized COVID-19 patients [3, 4]. However, to the best of our knowledge, a physician self-reported corroboration of this fact has not been described before

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Figure 1: Age and Burnout

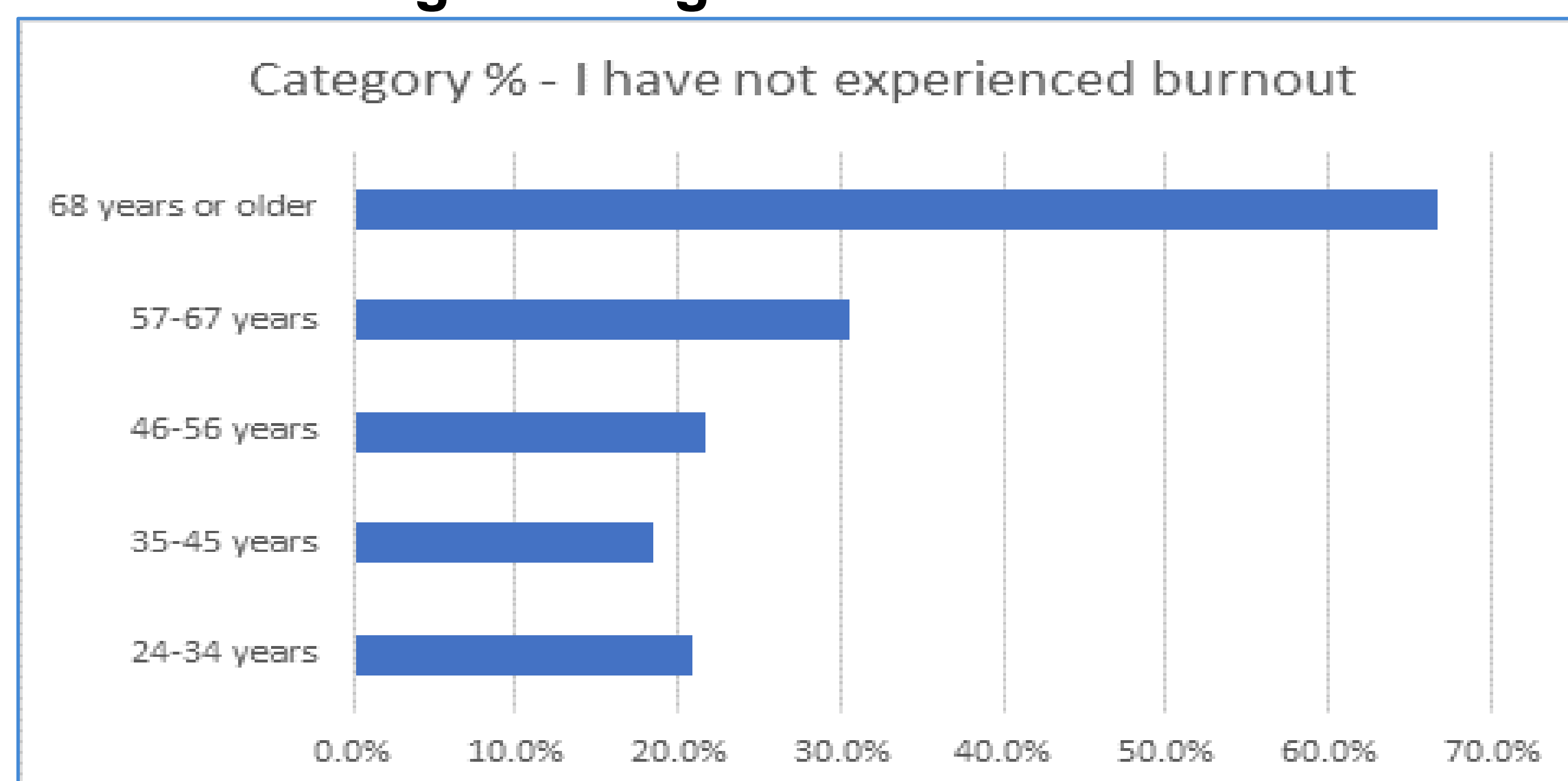
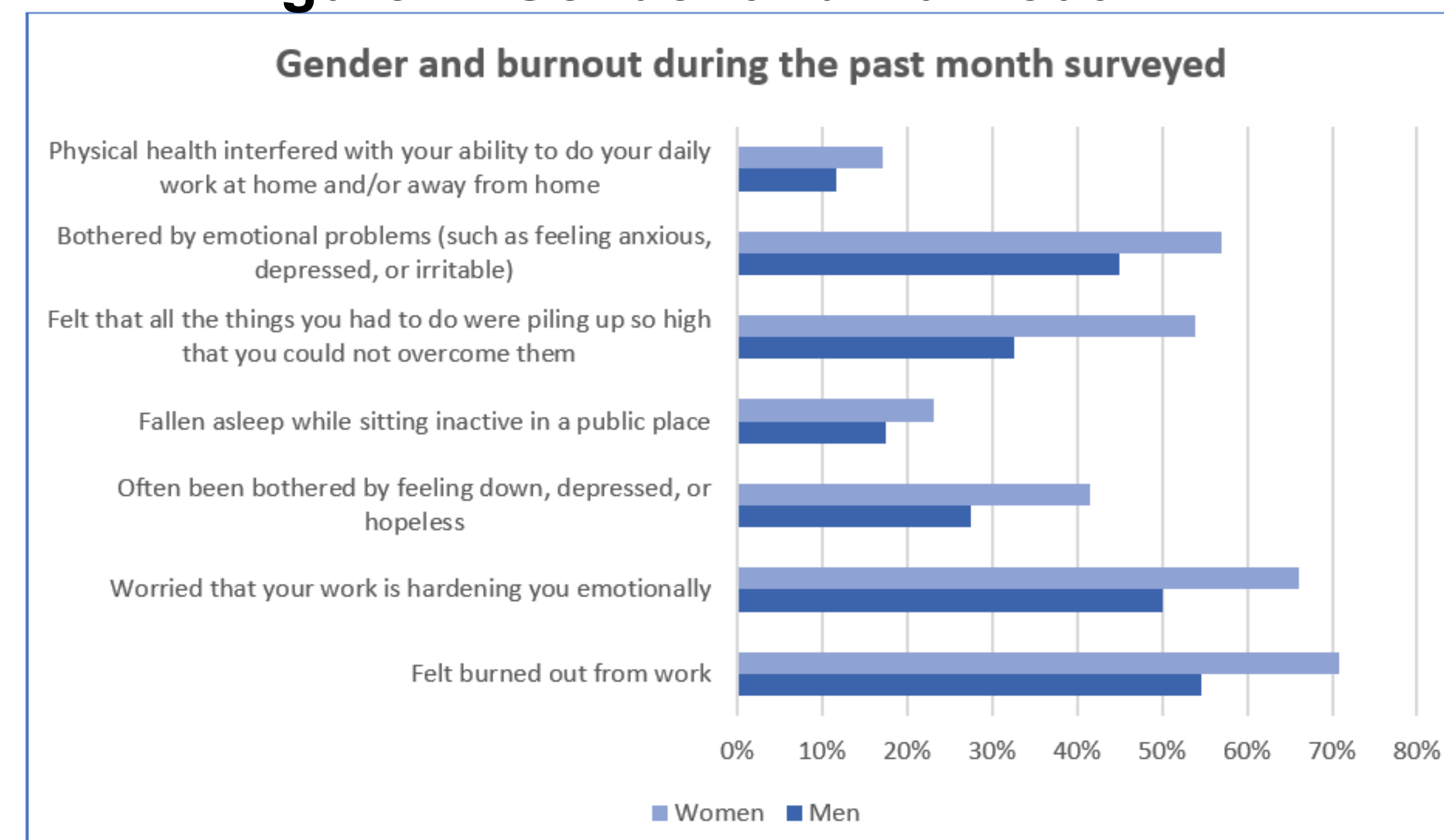


Figure 2: Gender and Burnout



## References

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