

The background of the slide features a microscopic view of cells, likely stained with hematoxylin and eosin (H&E), showing various cellular structures and nuclei. A large, white, rounded rectangular text box is superimposed over the center of the image, containing the title and author information.

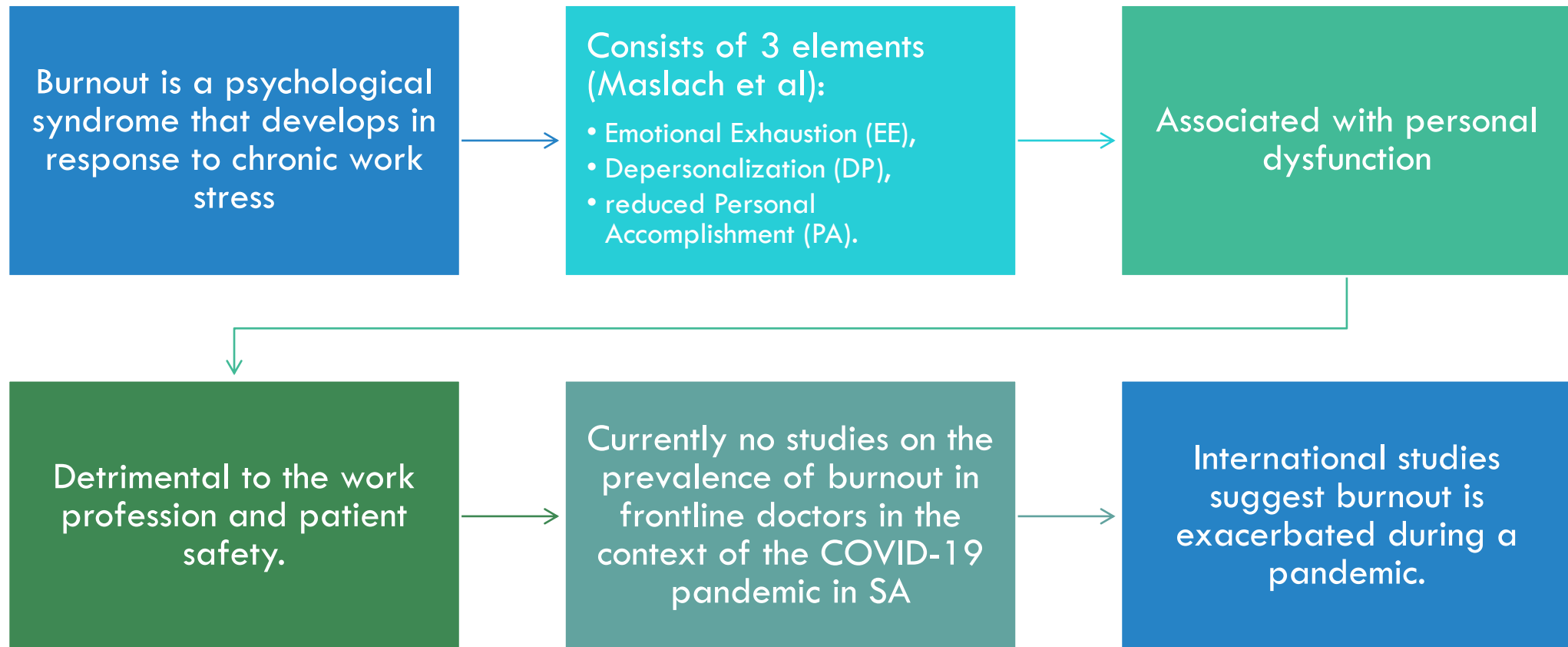
# Burnout in Frontline Doctors working in Public Sector Hospitals during the COVID-19 Pandemic, Tshwane, South Africa

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# INTRODUCTION

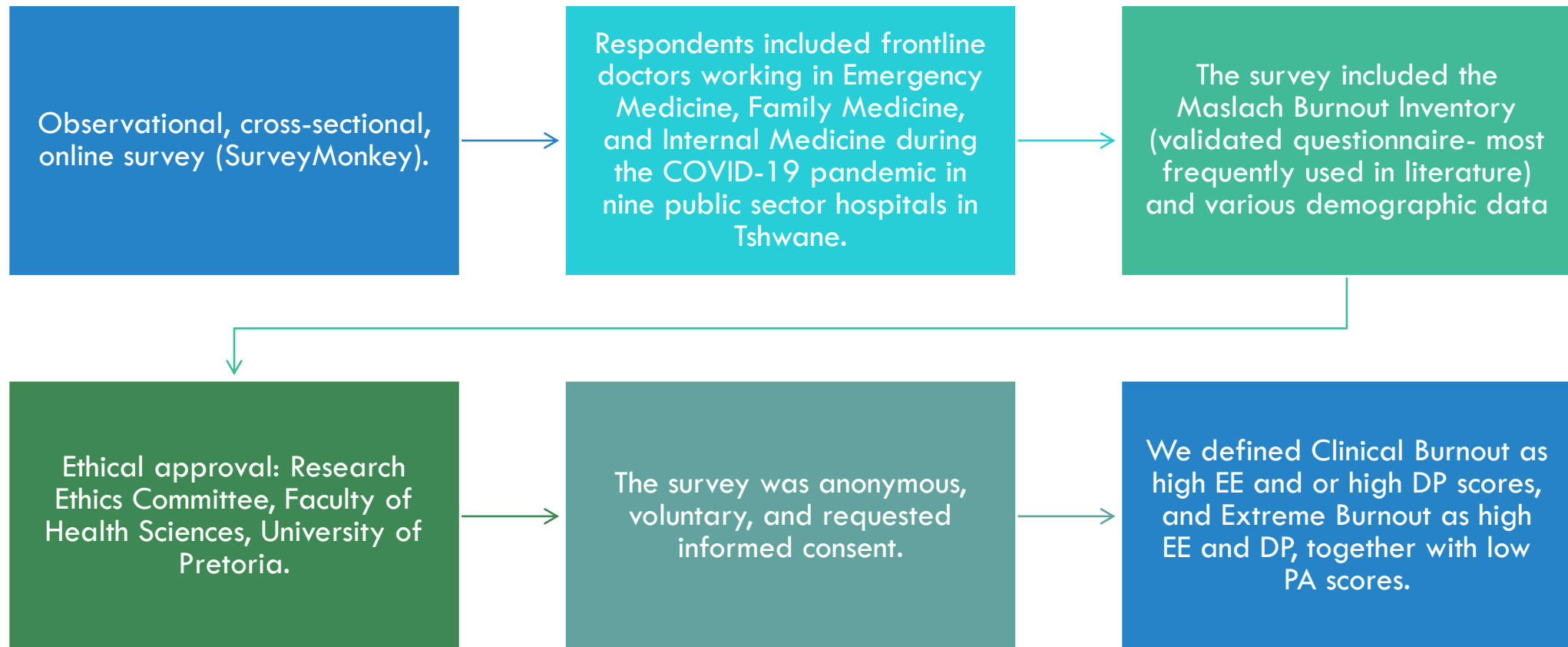


# OBJECTIVES

## Primary objective:

- To determine the prevalence and severity of burnout in frontline doctors in public sector hospitals, Tshwane, SA during the COVID-19 pandemic.

# METHODS



# RESULTS

- 163 responses, with 119 females (73.0%) and 44 males (27%).
- Most of the sample scored high on EE (n=89; 54.6%) and DP (n=58; 35.6%), with 64 (39.3%) scoring low on PA
- 69.9% of doctors had either high EE, high DP or low PA
- **Clinical burnout present in 58,9%** (n=96),
- **Extreme burnout in 19.6%** (n=32)
- Higher levels of EE and DP were found to be associated with more **adverse somatic symptoms**

**Table 2. Frequencies of EE, DP, and PA.**

<b>Emotional Exhaustion</b>	<b>n</b>	<b>%</b>
Low	31	19.0
Moderate	43	26.4
High	<b>89</b>	<b>54.6*</b>
<b>Depersonalization</b>		
Low	53	32.5
Moderate	52	31.9
High	<b>58</b>	<b>35.6*</b>
<b>Personal Accomplishment</b>		
Low	<b>64</b>	<b>39.3*</b>
Moderate	52	31.9
High	47	28.8

\*Highest response frequency

# DISCUSSION

This study highlights a concerning prevalence of burnout in doctors working on the frontlines during the COVID-19 pandemic in public sector hospitals, Tshwane.

Several other studies conducted in SA (outside the context of the COVID-19 pandemic) also demonstrate a worrisome prevalence of burnout in doctors working in our public sector hospitals.

A systematic review conducted by Ghahramani et al. on burnout among HCWs during the COVID-19 pandemic reported the overall prevalence of burnout to be 52% (95% CI 40-63%) among all HCWs. This is higher than rates reported in other pandemic related studies conducted over the past two decades, but lower than found by our study.

# DISCUSSION

International literature suggests burnout is exacerbated during a pandemic; however, our study did not demonstrate higher burnout during the COVID-19 pandemic.

The reasons for this are likely multifactorial:

- Hard lockdown and alcohol ban: reduced volume of trauma cases
- Findings may not be generalizable to other settings (rural hospitals, and other provinces)
- Data collected during this study was mostly at the beginning of the pandemic which may have influenced results, as burnout may take some time to develop.
- Mercurri et al. found less than 20% of Canadian EU physicians had burnout during the 1st wave of the COVID-19 pandemic. During the 2nd wave, burnout prevalence had increased to 60%.
- Lastly, it has been argued that doctors working in resource limited countries are accustomed to resource shortages and facing adversity which develops resilience, which in turn, is protective against burnout.

# CONCLUSION

This study did not find the pandemic to cause worsening burnout as the international literature suggests, however, the severe level of burnout in SA doctors deserves priority attention.

Further research is needed to establish evidence-based interventions to alleviate vulnerability, strengthen resilience, improve organizational short-comings, and safeguard the mental and physical health of frontline doctors, especially under pandemic conditions.



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- We declare no competing interests.

# REFERENCES

- 1. Maslach C, Jackson SE, Leiter MP. Maslach burnout inventory manual. 3rd ed. Palo Alto, CA: Consulting Psychologists Press; 1996.
- 2. Mercuri M, Clayton N, Archambault P, Wallner C, Boulos ME, Chan TM, et al. Canadian emergency medicine physician burnout: A survey of canadian emergency physicians during the second wave of the covid-19 pandemic. CJEM. 2022;24(3):288–292. <https://doi.org/10.1007/s43678-021-00259-9>
- 3. Ng WM, Cheng L, Situ W, Mok PL, Lin Z. Burnout amongst emergency healthcare workers during the covid-19 pandemic: A multi-center study. AJEM. 2021;46:700–702. <https://doi.org/10.1016/j.ajem.2020.10.040>
- 4. Ghahramani S, Lankarani KB, Yousefi M, Heydari K, Shahabi S, Azmand S. A systematic review and meta-analysis of burnout among healthcare workers during covid-19. Front Psychiatry. 2021;12. <https://doi.org/10.3389/fpsy.2021.758849>
- 5. Dugani S, Afari H, Hirschhorn LR, Ratcliffe H, Veillard J, Martin G, et al. Prevalence and factors associated with burnout among frontline primary health care providers in low- and middle-income countries: A Systematic Review. Gates Open Res. 2018;2:4. <https://doi.org/10.12688/gatesopenres.12779.3>

# REFERENCES

- 6. Liebenberg AR, Coetzee Jnr JF, Conradie HH, Coetzee JF. Burnout among rural hospital doctors in the Western Cape: Comparison with previous South African studies. *Afr J Prim Health Care Fam Med*. 2018;10(1):e1–e7. <https://doi.org/10.4102/phcfm.v10i1.1568>
- 7. Rossouw L, Seedat S, Emsley RA, Suliman S, Hagemester D. The prevalence of burnout and depression in medical doctors working in the cape town metropolitan municipality community healthcare clinics and district hospitals of the provincial government of the western cape: A cross-sectional study. *S Afr Fam Pract*. 2013;55(6):567–573. <https://doi.org/10.1080/20786204.2013.10874418>
- 8. Hain S, Tomita A, Milligan P, Chiliza B. Retain rural doctors: Burnout, depression and anxiety in medical doctors working in rural kwazulu-natal province, South Africa. *S Afr Med J*. 2021;111(12):1197. <https://doi.org/10.7196/SAMJ.2021.v111i12.15841>
- 9. Naidoo T, Tomita A, Paruk S. Burnout, anxiety and depression risk in medical doctors working in kwazulu-natal province, south africa: Evidence from a multi-site study of resource-constrained government hospitals in a generalised hiv epidemic setting. *PLoS One*. 2020;15(10):e0239753. <https://doi.org/10.1371/journal.pone.0239753>
- 10. Zeijlemaker C, Moosa S. The prevalence of burnout among registrars in the school of clinical medicine at the University of the Witwatersrand, Johannesburg, South Africa. *S Afr Med J*. 2019;109(9):668–672. <https://doi.org/10.7196/SAMJ.2019.v109i9.13667>

# REFERENCES

- 11 Rajan S, Engelbrecht A. A cross-sectional survey of burnout amongst doctors in a cohort of public sector emergency centres in Gauteng, South Africa. *Afr J Emerg Med.* 2018;8(3):95–99. <https://doi.org/10.1016/j.afjem.2018.04.001>
12. Coetzee JF, Kluyts H. Burnout and areas of work-life among anaesthetists in south africa part 1: Burnout. *South Afr J Anaesth Analg.* 2020;26(2):73–82. <https://doi.org/10.36303/SAJAA.2020.26.2.2358>
13. van der Walt N, Scribante J, Perrie H. Burnout among anaesthetists in south africa. *South Afr J Anaesth Analg.* 2015;21(6):169–172. <https://doi.org/10.1080/22201181.2015.11102798>
14. Peltzer K, Mashego TA, Mabeba M. Short communication: Occupational stress and burnout among South African medical practitioners. *Stress Health.* 2003; 19(5):275–280. <https://doi.org/10.1002/smi.982>