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Burnout and Cortisol levels among laboratory personnel from selected facilities in Klang Valley during COVID-19 pandemic

Maznieda Mahjom¹, Rohaida Ismail², Noor Syaqlah Shawaluddin¹, Lim Kuang Kuay¹, Tuan Mohd Amin Tuan Lah¹, Nadia Mohamad², Raheel Nazakat², Rosmanajihah Mat Lazim¹, Muhaini Othman¹, Mizanurfakhri Ghazali¹, Masita Arip³

¹Centre of Occupational Health Research, Institute for Public Health, National Institutes of Health, Ministry of Health Malaysia

²Environmental Health Research Centre, Institute of Medical Research, National Institutes of Health, Ministry of Health Malaysia

³Allergy and Immunology Research Centre, Institute of Medical Research, National Institutes of Health, Ministry of Health Malaysia

1 Introduction

- Since March 2020, the World Health Organization declared the COVID-19 outbreak as a global pandemic¹, and led to prolonged crisis in the healthcare sector which demands continuity for patient care. Laboratory personnel are exposed to long-term stressor leads to burnout and could be associated with low level of cortisol². The assessment of burnout is imperative and will help to identify the prevalence among laboratory personnel during the COVID-19 pandemic

- This study aimed to determine the prevalence of burnout and cortisol levels among laboratory personnel.

2 Methodology

- A cross sectional study was conducted from October to December 2021.

STUDY POPULATION

372 laboratory personnel in 3 facilities



LEVEL OF BURNOUT

- PERSONAL
- WORKPLACE
- CLIENT

STUDY TOOLS



- Data was obtained in Excel sheet, and analysed for descriptive and association using SPSS 26.

4 Discussion

- This study was conducted during the late phase of the COVID-19 pandemic when the daily cases reported were fewer than in the early phase of the pandemic, thus, this could affect the prevalence of burnout.
- The prevalence recorded were lower compared to a study that was conducted during the second wave of the COVID-19 in Canada which showed a total of 72.3% medical laboratory technologists (MLTs) experienced burnout³
- Similarly, a study in Malaysia from April to May 2020 reported that more than half of medical laboratory HCWs had experienced personal and work-related burnout⁴
- Several studies also reported low salivary cortisol among nurses and teachers suffered from burnout⁵. High cortisol level was due to exposure to stressors which alters the body by activating the hypothalamic-pituitary-adrenal axis (HPA), then leads to enhanced production of cortisol, one of the most significant steroid hormones secreted by the adrenal cortex⁶.

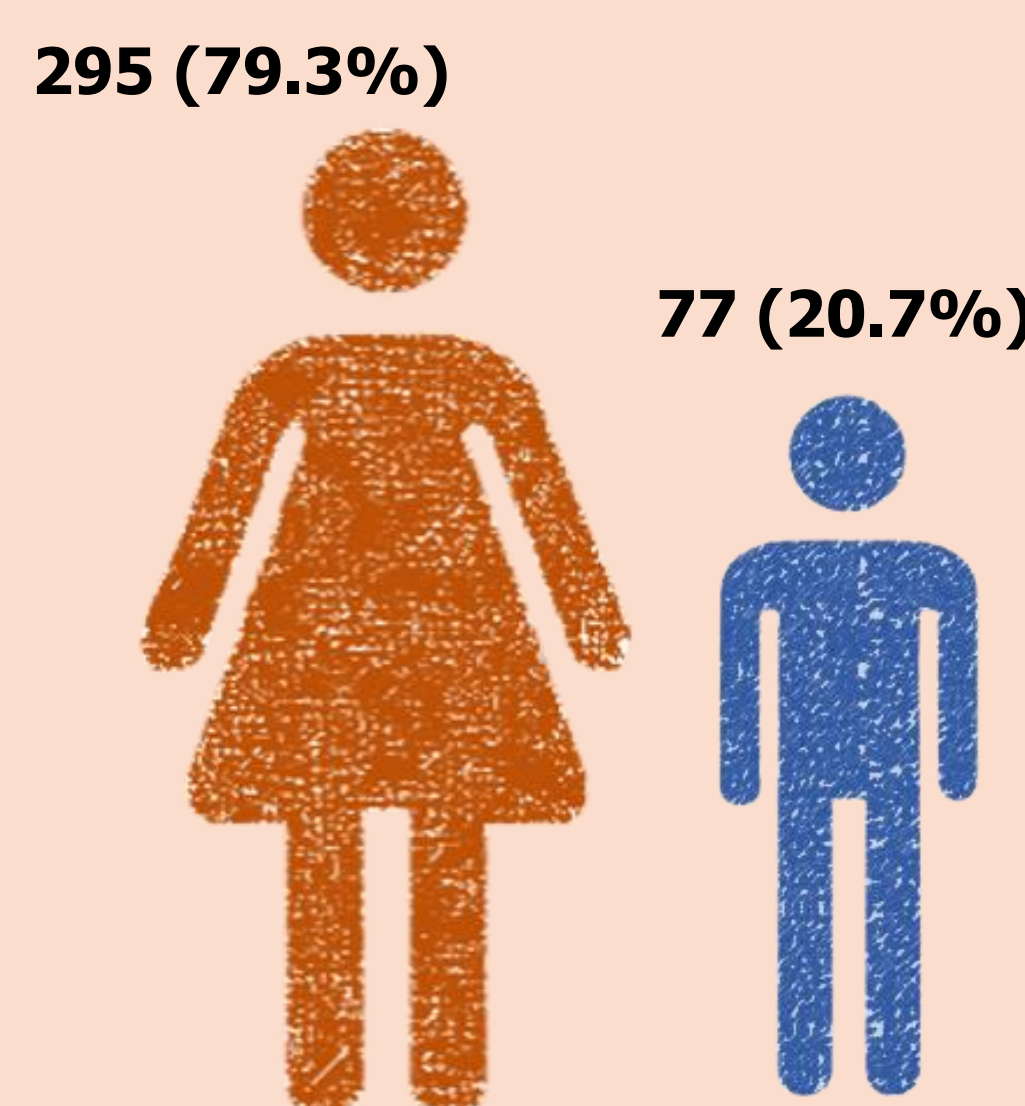
5 Conclusion

- Pandemic COVID-19 bring impact not only to physical illness, but impacted the social, economy and mental health wellbeing.
- A quarter of burnout laboratory personnel recorded low level of cortisol.
- Thus, mental health programs need to be addressed at each facility by regularly screening laboratory personnel and designing an intervention program. It is also vital to improve coping skills by increasing the awareness of good coping skill techniques.

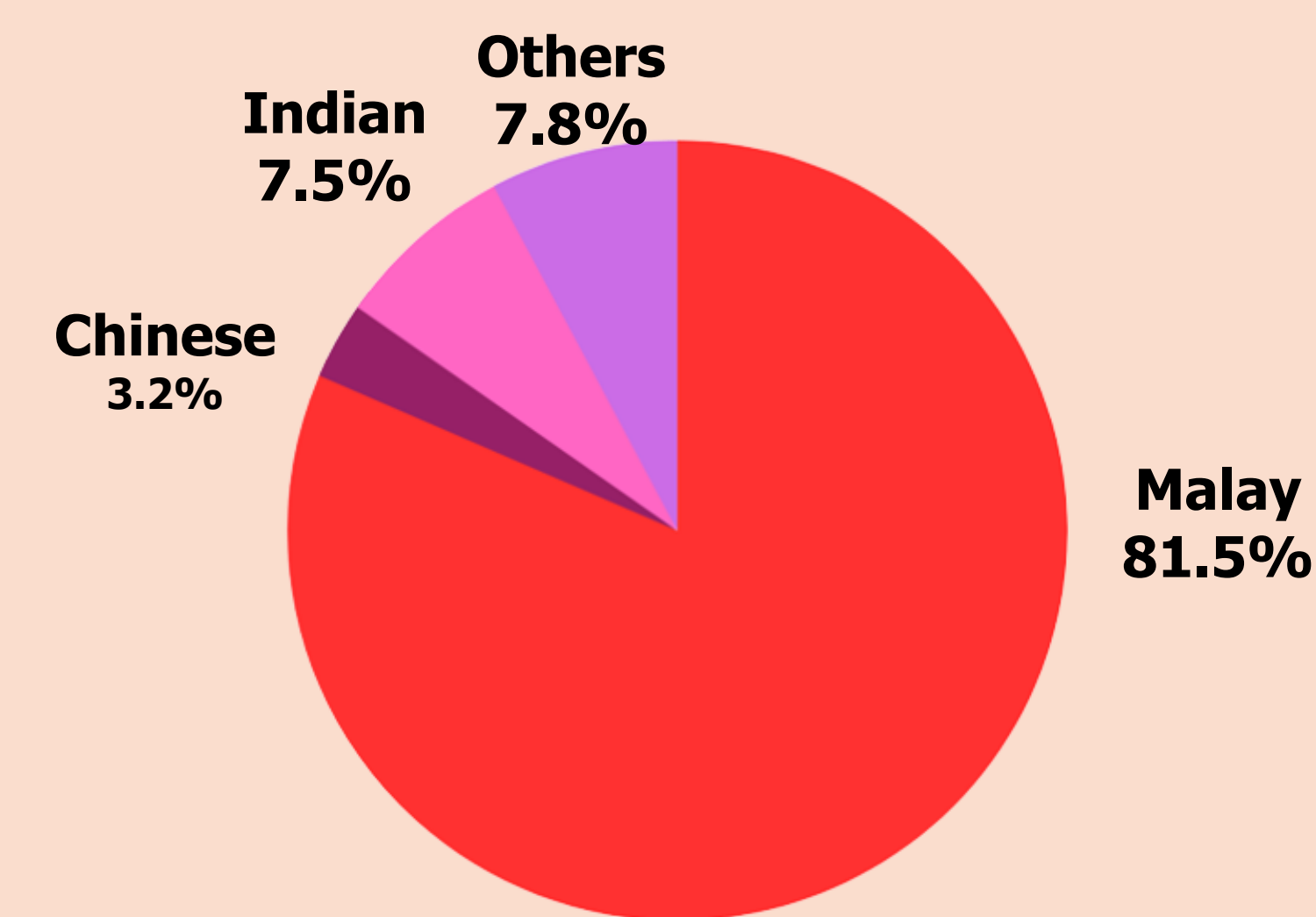
3 Results

SOCIO-DEMOGRAPHIC OF THE LABORATORY PERSONNEL (N=372)

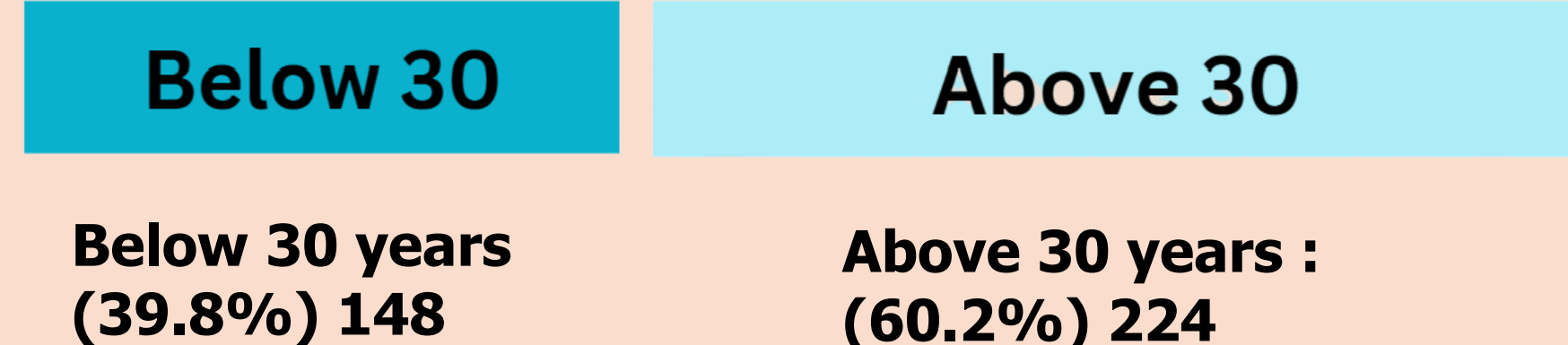
GENDER



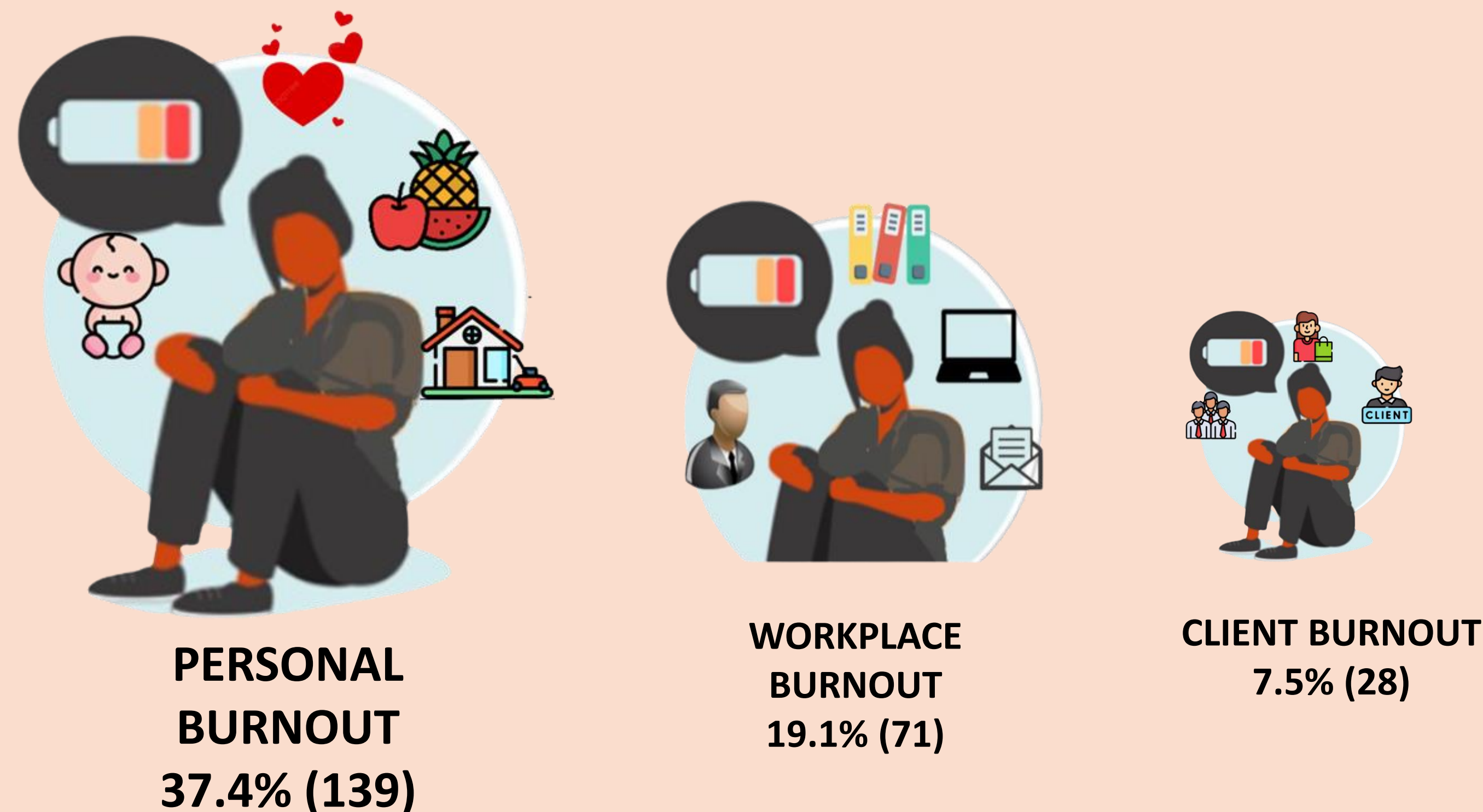
ETHNICITY



AGE

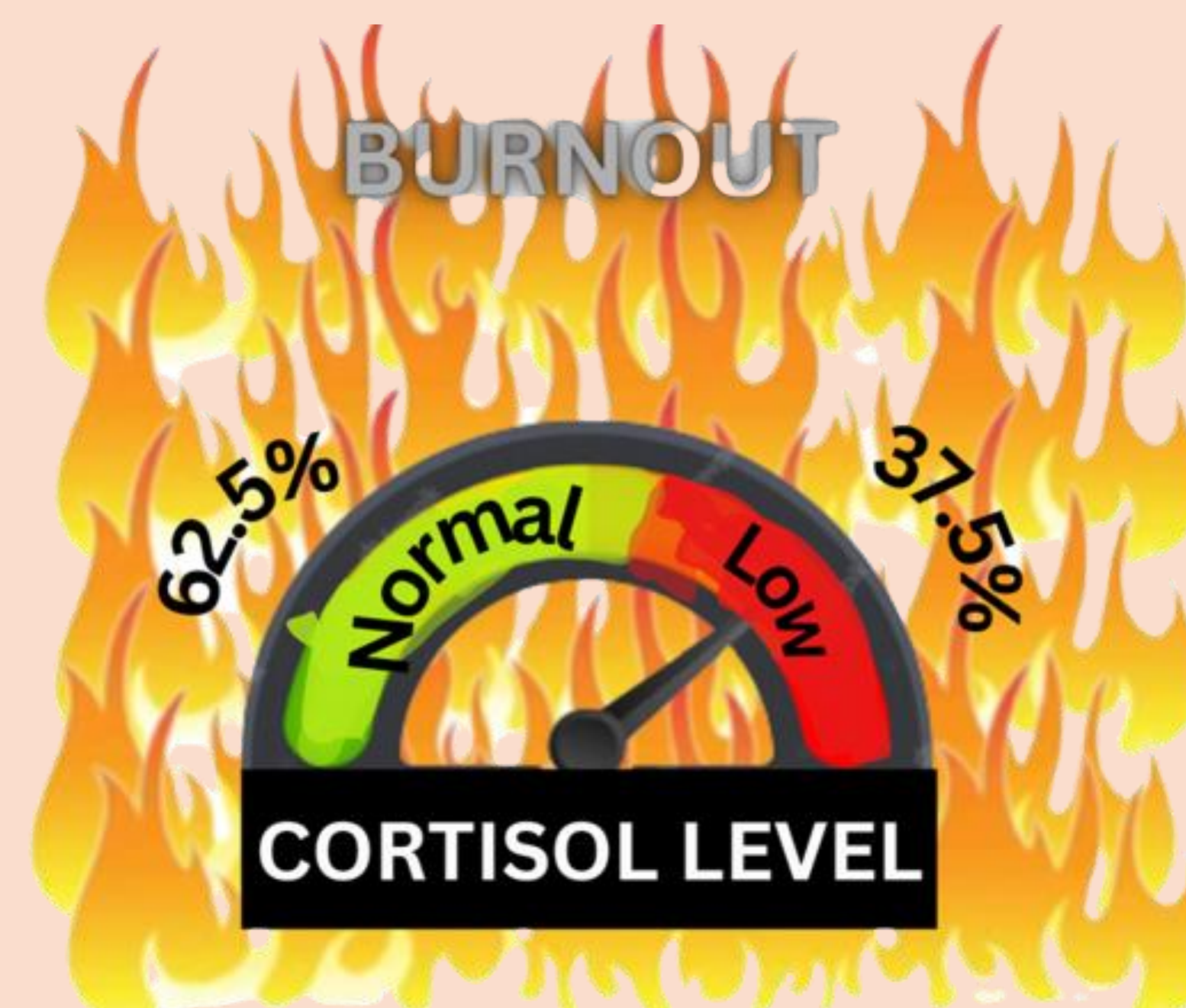


STATUS OF BURNOUT AMONG LABORATORY PERSONNEL (N=372)



OVERALL BURNOUT AMONG LABORATORY WORKERS 15.1% (56)

OVERALL BURNOUT SALIVARY CORTISOL AMONG LABORATORY PERSONNEL (N=372) AND ASSOCIATIONS



There is **Significant relationship** ($p < 0.05$) between burnout status and level of cortisol

More than one third of respondents (37.5%) with overall burnout had **low level of cortisol**.

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