

## COMPARISON OF SLEEP QUALITY OF ASSISTANT AND SPECIALIST PHYSICIANS IN SURGICAL AND NON-SURGICAL FIELDS IN TURKIYE

### Anesa Elvin Kalkan<sup>1</sup>, Ayşe Filiz Gökmen Karasu<sup>2</sup>

<sup>1</sup>Bezmialem Vakıf University, Faculty of Medicine, Istanbul, Turkey.

<sup>2</sup>Bezmialem Vakıf University, Faculty of Medicine, Department of Gynecology and Obstetrics, Istanbul, Turkey.

## TABLE OF CONTENTS

- Introduction
- Purpose
- Methodology
- Result
- Conclusion

## INTRODUCTION

 Shift work is defined as any irregular work schedule that extends beyond the typical 9 a.m. to 5 p.m. timeframe.

 Health workers represent the largest group of shift workers globally, facing irregular schedules that disrupt circadian rhythms, increase burnout risk, and pose challenges to patient care.

## MAIN ISSUES

•Sleep loss impairs cognitive function and reduces reaction times, increasing the likelihood of medical errors, which directly threaten patient safety.

·Burnout among healthcare workers is also closely linked to poor sleep quality.

## METHODOLOGY

#### **SCALES:**

- Pittsburg Sleep Quality Index (PSQI)
  - Maslach Burnout Inventory (MBI)
    - Insomnia Severity Index (ISI)
- Hospital Anxiety and Depression Scales (HADS)
- This cross-sectional, internet-based survey was conducted among 419 physicians in Turkey, with data collection occurring from June to September 2024.

#### **Demographic Test:**

Age, Gender, Martial status, Living Region
 (Marmara vs others.), Number of Children,
 Living condition, Monthly income, Senority
 of specialist (Resident, Specialist, Ass.
 Prof., Prof.), Working place, Cigarette and
 Alcohol usage, Sport habit...

- The survey was distributed via Google Forms to email addresses listed on;
- 1. Higher Education Council of Turkey (Yüksek Öğretim Kurumu, YÖK)
- 2. Both surgical and non-surgical professional associations websites

## **EXCLUSION CRITERIA**

**1** No Access to internet

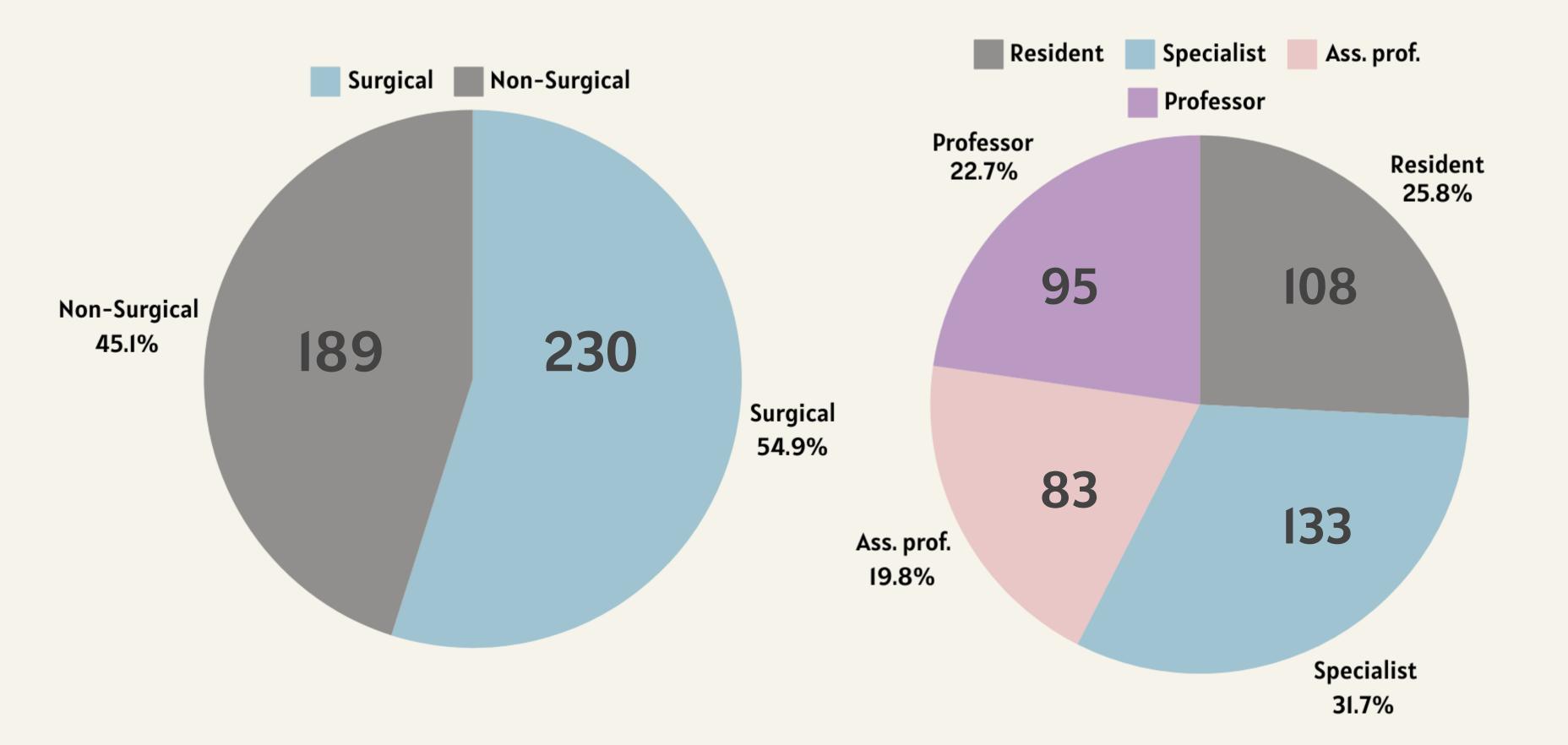
2 Basic medicine physicians

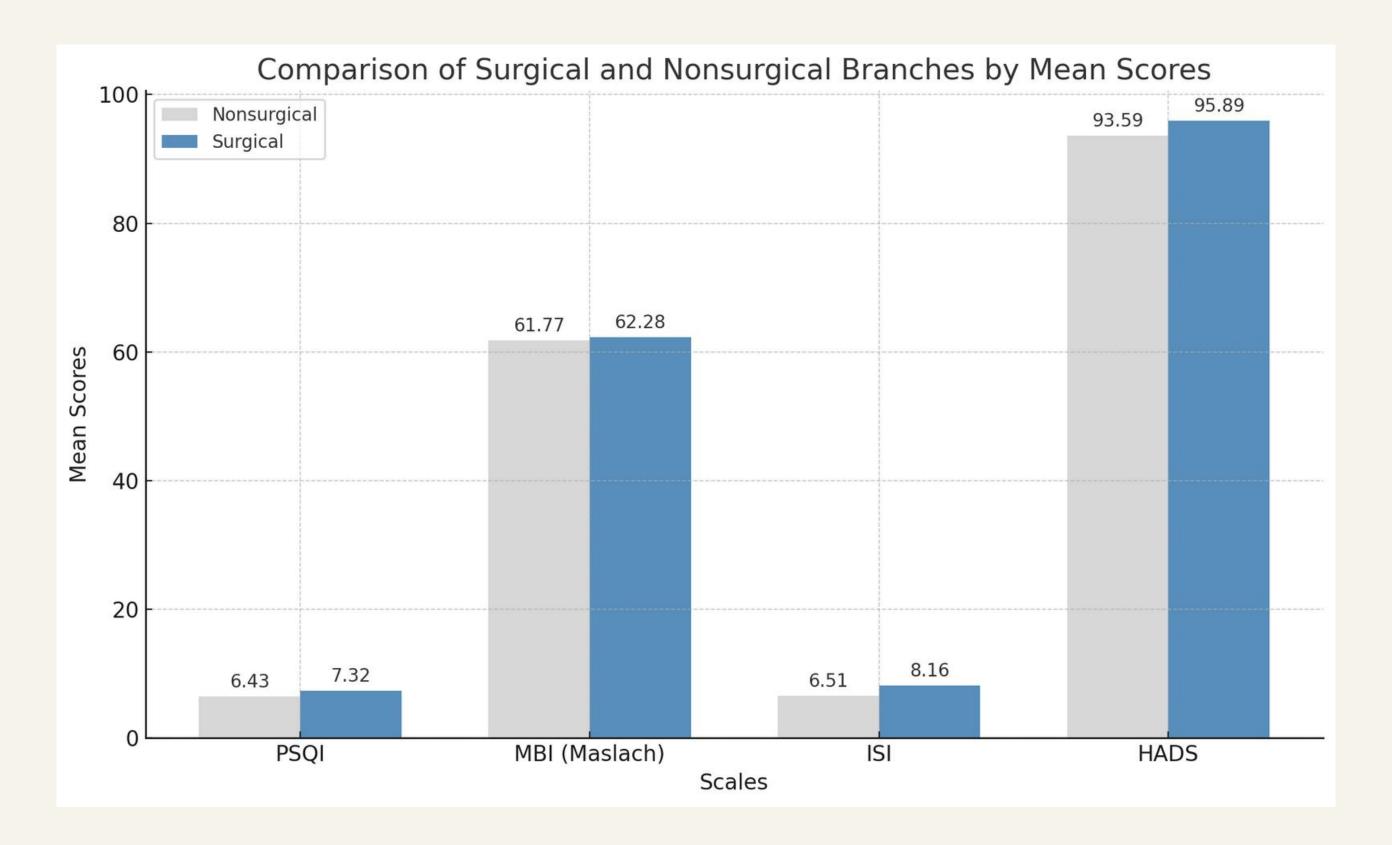
3 Physicians not actively practicing medicine (retired etc.)

# LIMITATIONS

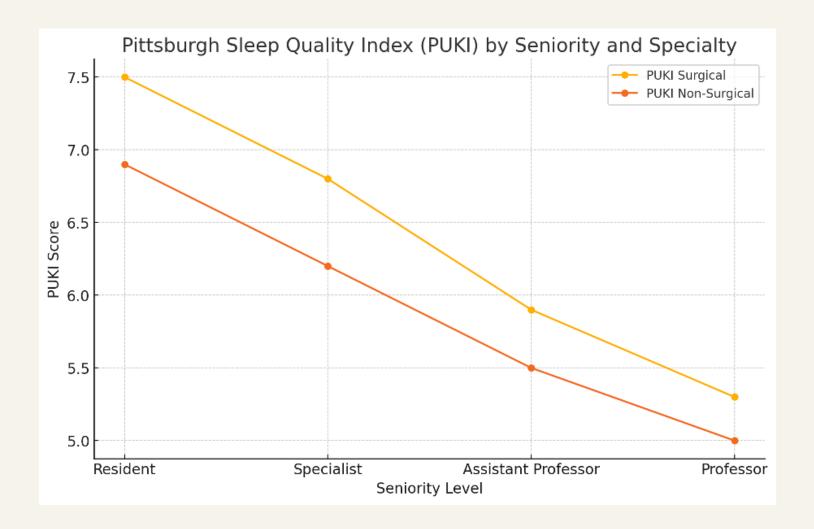
- Time
- Incorrect or invalid email addresses
- Bias (Self-reported survey)
- Lack of Objective Sleep & Burnout Measurements (polysomnography or biomarker analysis (e.g., cortisol levels))

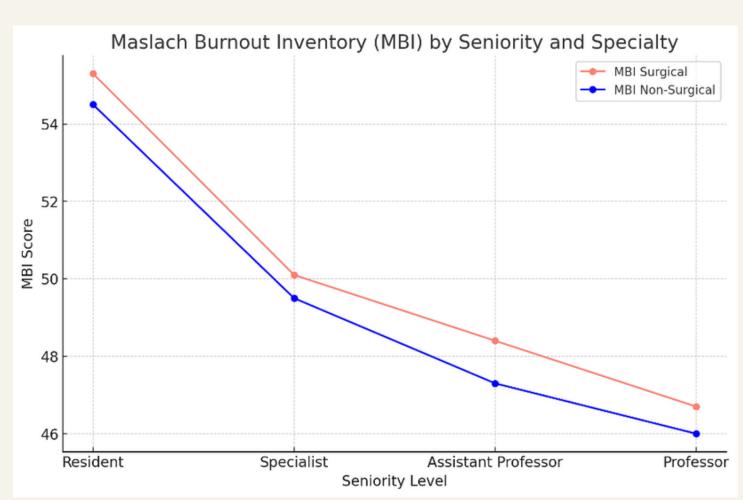
# RESULTS

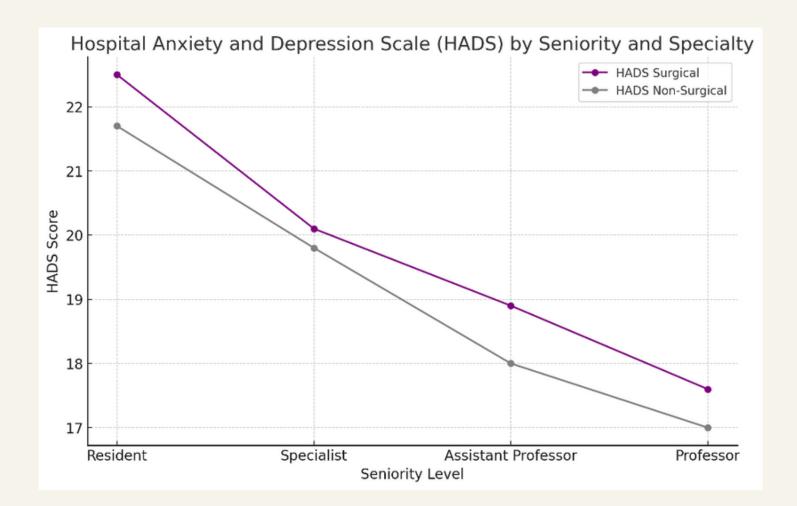


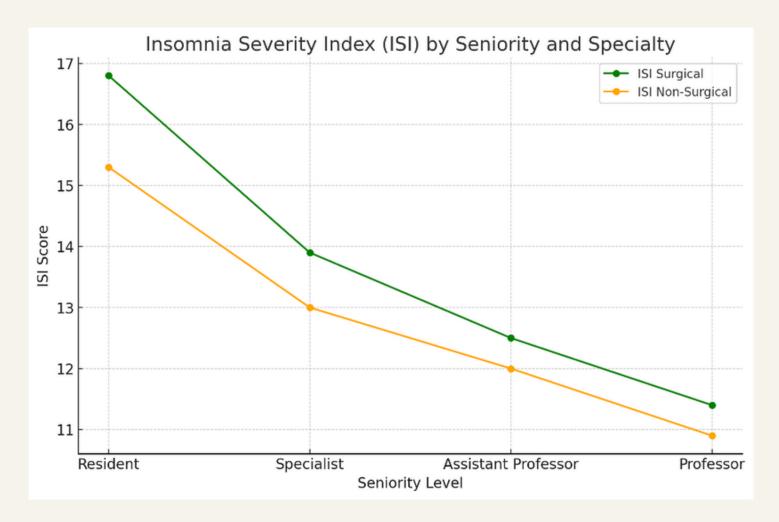


- PSQI and ISI scores were significantly higher in the surgical branch, indicating increased psychological burden and sleep problems compared to the nonsurgical branch (PUKI: p=0.001; ISI: p<0.0001).
  - There was no significant difference between surgical and nonsurgical branches regarding both MBI and HADS scores (p=0.884, p=0.317).















Early-career and surgical physicians experience poorer sleep, higher burnout, and greater mental health challenges. Seniority offers protection, underscoring the need for targeted support for residents and interventions addressing workload in surgical fields.

# REFERENCES

I.Jaradat R, Lahlouh A, Mustafa M. SleepQualityandHealthRelatedProblems of ShiftWorkAmongResidentPhysicians: A Cross-sectionalStudy. SleepMedicine. 2020 Feb; 66:201-206.

2. Hiver C, Villa A, Bellagamba G, Lehucher-Michel MP. Burnoutprevalenceamong European physicians: a systematic review and meta-analysis. International Archives of Occupational and Environmental Health. 2022 Jan; 95(1):259-273

3. Yunus Hacimusalar, Misir E, Aybeniz Civan Kahve, Goknur Demir Hacimusalar, Muhammed Alperen Güçlü, Özgül Karaaslan. Theeffects of workingandlivingconditions of physicians on burnoutlevelandsleepquality. 2021 Oct 28; 112(5):346-359.

4.Coelho J, Lucas G, Micoulaud-Franchi JA, Tran B, Yon DK, Taillard J, et al. Sleeptiming, workplacewell-beingandmentalhealth in healthcareworkers. SleepMedicine. 2023 Nov; 111:123–32.

5. Whelehan DF, Alexander M, Connelly TM, McEvoy C, Ridgway PF. SleepySurgeons: A Multi-MethodAssessment of SleepDeprivationandPerformance in Surgery. The Journal of Surgical Research. 2021 Jul 23; 268:145–57.

6.Stewart NH, Arora VM. TheImpact of SleepandCircadianDisorders on PhysicianBurnout. Chest. 2019 Nov; 156(5):1022-30.

7. Merlier M, Ghesquière L, Huissoud C, Drumez E, Morel O, Garabedian C. How do French Obstetrician-

Gynaecologistsperceivetheirquality of life? A national survey. European Journal of Obstetrics, Gynecology, and Reproductive Biology. 2023 Jul; 286:112–7.



# Thank you for your attention...