

## Burnout And Depression Among Residents And Faculty In A Single Academic Medical Institution– A Pilot Study

Manasa Enja MD<sup>#</sup>; Rosebella Capio MS<sup>\*</sup>; Inmaculada B. Aban, PhD<sup>\*</sup>; Irena Bukelis MD<sup>#</sup>

### Introduction

- ❖ Burnout is defined as a long term, unresolvable job stress leading to feelings of exhaustion, overwhelm, cynicism, detachment from job and a lack in sense of personal accomplishment
- ❖ > 40% physicians were reporting burnout according to Medscape National Physician Burnout in last 3 years
- ❖ Although a well-established problem, there is a scarcity of studies that investigated the association between physician burnout and depression

### Methods

- ❖ Research study (IRB approved) was done between December 2018 to February 2019
- ❖ Instruments used for burnout and depression measure respectively - Maslach Burnout Inventory (MBI) and Quick Inventory of Depressive Symptomatology – Self Report (QIDS-SR)
- ❖ Demographics:

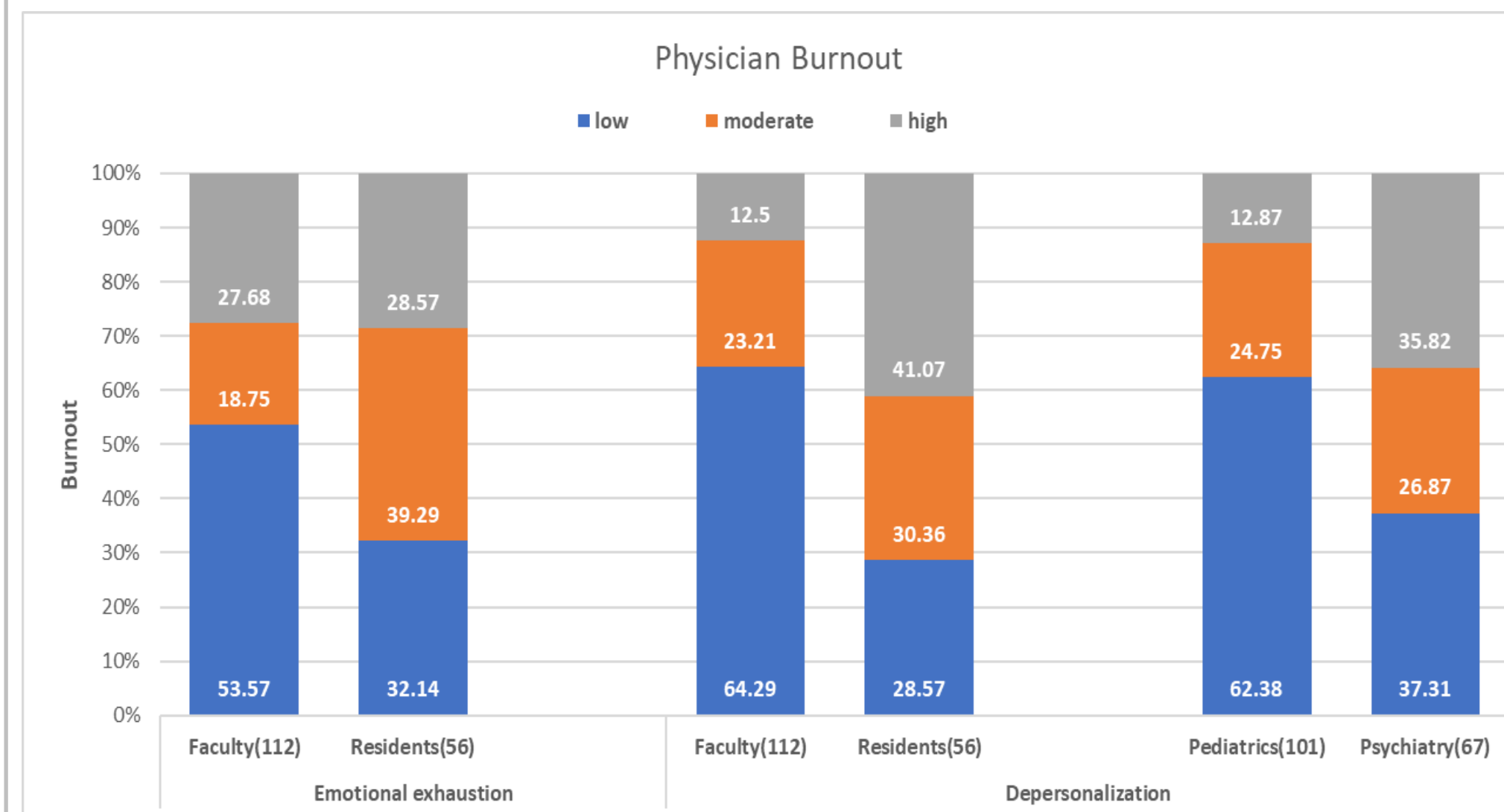
	Role		Specialty	
	Faculty	Residents	Pediatrics	Psychiatry
N for MBI=168	112	56	101	67
N for QIDS-SR=167	111	56	101	66

	Gender		Race		
	Male	Female	African American/Black	Others*	White
N for MBI=168	73	95	14	27	127
N for QIDS-SR=167	73	94	14	27	126

\*Others in race include -Asian/American Indian/Alaskan Native/ Native Hawaiian/Pacific Islander/Other

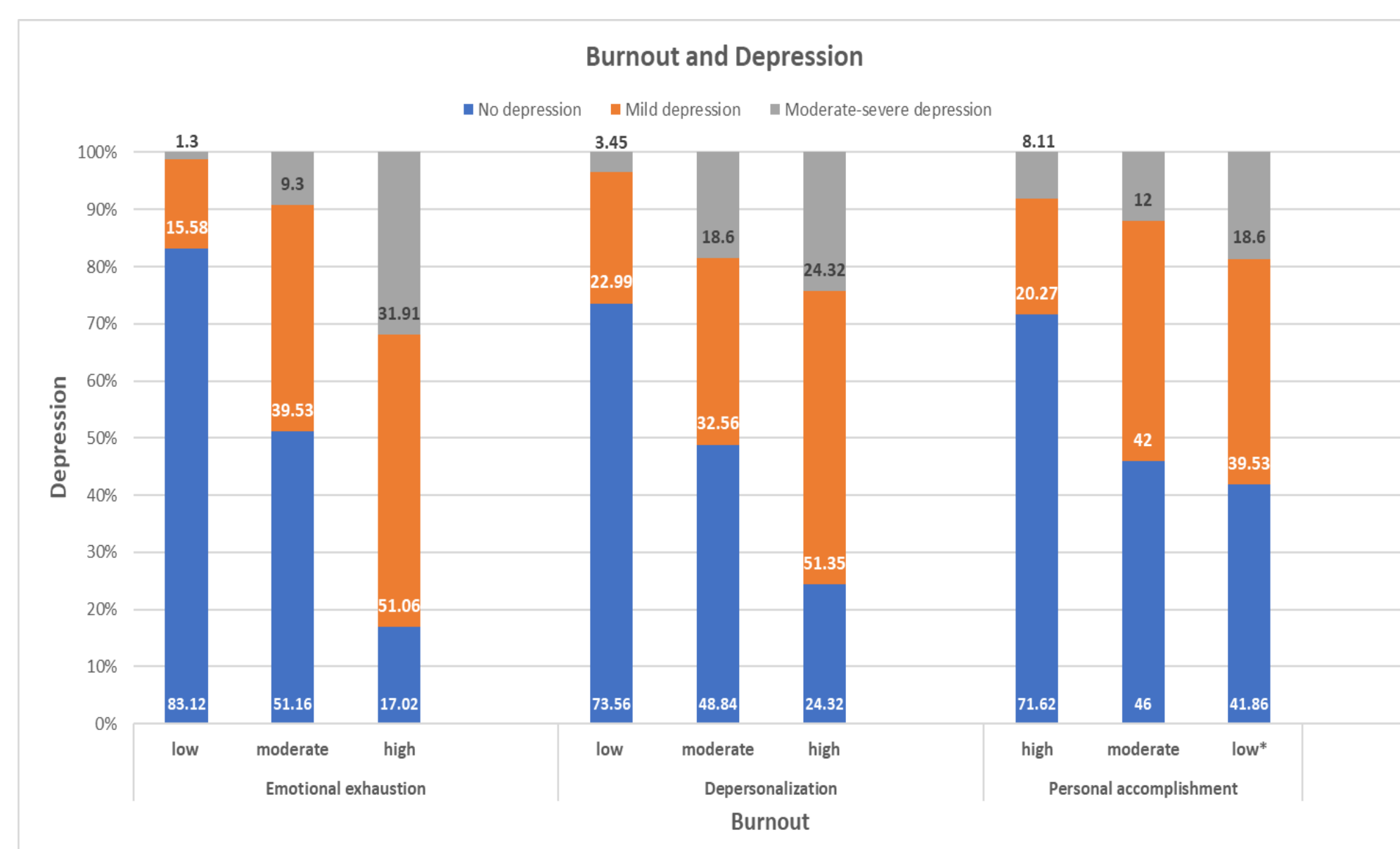
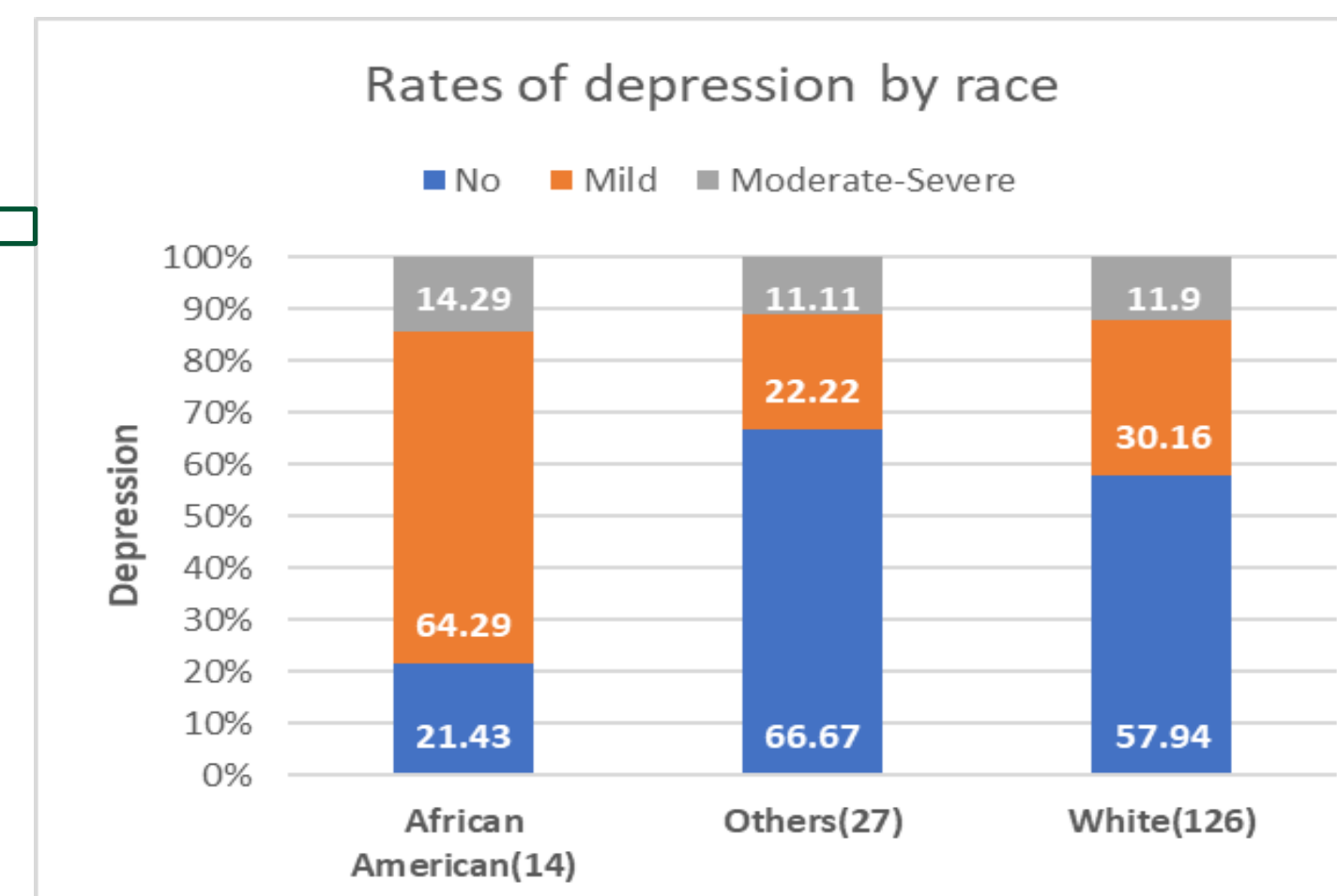
- ❖ MBI was scored and analyzed as three components : emotional exhaustion/EE, depersonalization/DP, and personal accomplishment/PA
- ❖ QIDS-SR scores were categorized as no, mild and moderate –severe depression
- ❖ Chi-square and Fischer’s exact tests were used to determine if association between various categories was statistically significant; p<0.05 for data presented here

### Results



- ❖ Percentage of faculty and residents with high EE are comparable ~ **28%** while % residents with moderate EE were twice that of faculty (**18.75% vs 39.29%**)
- ❖ There is no evidence of difference in EE between pediatrics and psychiatry, gender, and by race
- ❖ Significant difference in high DP among residents (**41.07%**) compared to faculty (**12.5%**)
- ❖ High DP noted in **Psychiatry (35.82%) > Pediatrics(12.87%)**
- ❖ There is no evidence of difference in DP between gender, and by race

- ❖ Moderate to severe depression is recognized as clinically significant
- ❖ African Americans reported higher moderate to severe depression than whites and others - **14.29% vs 11.11% & 11.9%** respectively (p=0.0483)
- ❖ No evidence of difference in depression rates between faculty and residents, pediatrics and psychiatry, by gender



- ❖ **31.91%** of physicians with **high EE** reported moderate to severe depression while ~68% of them reported mild to no depression
- ❖ **24.32%** of physicians with **high DP** reported moderate to severe depression while ~19% of them with moderate depersonalization reported moderate to severe depression
- ❖ **\*Lower PA score indicates higher burnout**
- ❖ **18.6%** of physicians with **low PA (high burnout)** reported moderate to severe depression

### Conclusions

- ❖ Physicians in training seem to be twice as likely to experience burnout
- ❖ High burnout seems to be a predictor of clinically significant depression in physicians
- ❖ Higher emotional exhaustion, higher depersonalization and low personal accomplishment are associated with higher depression in physicians
- ❖ Current available data estimates rates of depression at 12-19% among physicians and 28.8% among resident physicians compared to 7.1% in the general population
- ❖ 11% of residents and 14% of faculty reported clinically significant depression in our study
- ❖ Although this is a pilot study with only two specialties, the rates of depression is found to be higher than general population
- ❖ Further analysis is underway which includes burnout and depression rates among physicians based on age groups, marital status, ethnicity etc.
- ❖ Future directions: to replicate this study post-Covid-19 for the effects of pandemic on physician well-being and mental health

### References

- ❖ National physician Burnout, Depression and Suicide Report, Medscape 2019
- ❖ <https://www.mindgarden.com/329-maslach-burnout-toolkit-for-medical-personnel>
- ❖ Physician Suicide, Medscape Aug 2018 <https://emedicine.medscape.com/article/806779-overview>
- ❖ Mata DA, Ramos MA, Bansal N, et al. Prevalence of Depression and Depressive Symptoms Among Resident Physicians: A Systematic Review and Meta-analysis. JAMA. 2015;314(22):2373–2383

<sup>#</sup>Department of Psychiatry, School of Medicine, The University of Alabama at Birmingham  
<sup>\*</sup>Department of Biostatistics, School of Public Health, The University of Alabama at Birmingham