

Pharmacist and Pharmacy Student Wellness and Mental Health Analysis

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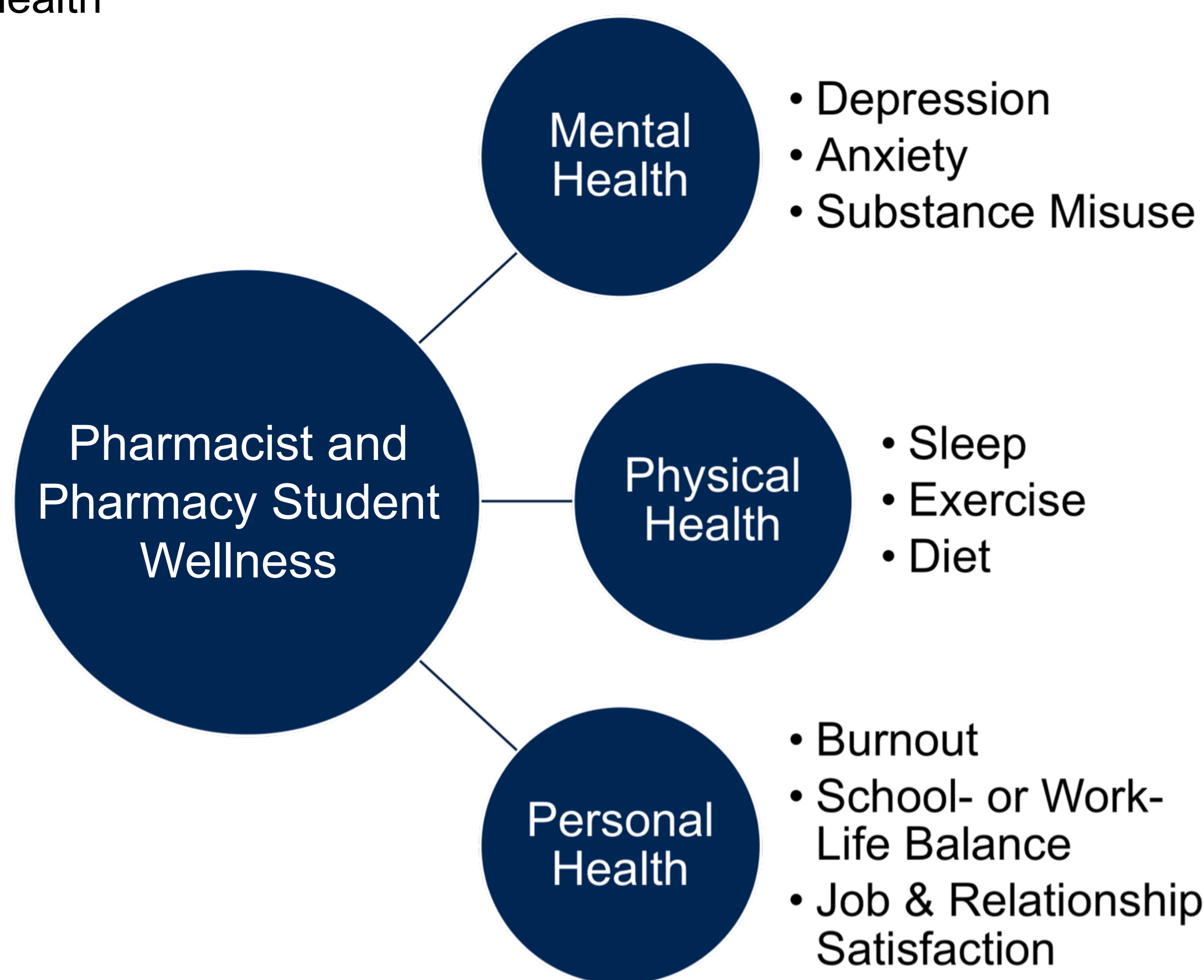
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BACKGROUND

- Current literature on pharmacist and pharmacy student wellness has separately examine stress levels, job satisfaction, and burnout.
- Subgroup isolation within this literature limits generalizability and the potential to recognize associations for current trends in wellness.
- The impact of mental, physical, and personal health across pharmacy practice and PharmD programs is needed for a comprehensive view of wellbeing.

OBJECTIVES

- To survey a large sample of pharmacists and pharmacy students in various practice areas and pharmacy school settings, respectively, to assess three areas of wellness: mental, physical, and personal, health



METHODS

- Two-armed, IRB-approved Qualtrics survey:
 - PharmD students
 - Representatives from 10 accredited U.S. pharmacy schools disseminated the student arm of the survey to all currently enrolled students (01/19 and 02/19)
 - Practicing pharmacists
 - North Carolina Board of Pharmacy disseminated survey to all actively licensed pharmacists in North Carolina (12/18-2/19)
- Descriptive statistics, Pearson's Chi-square, and Student's t-tests were performed using SPSS and Stata software with assistance from the Odum Institute for Research in Social Science

BASELINE CHARACTERISTICS

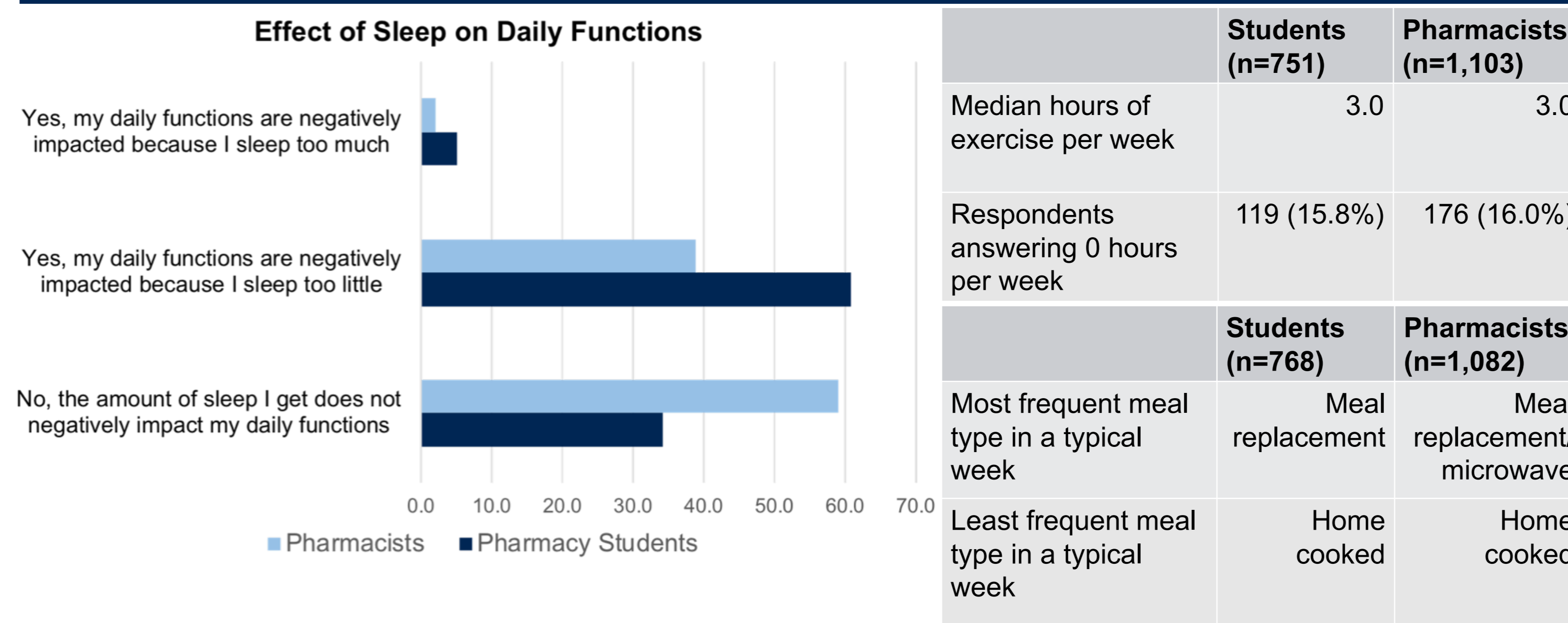
Demographic*	Pharmacy Students n (%) / Mean ± SD	Pharmacists n (%) / Mean ± SD
Gender	n = 804	n = 1080
Male	201 (25.0)	339 (31.4)
Female	595 (74.0)	719 (66.6)
Non-Binary/Other	8 (0.9)	22 (2.0)
Ethnicity	n = 851	n = 1095
White/Caucasian	465 (60.4)	947 (86.5)
Asian American	172 (22.3)	46 (4.3)
Hispanic/Latino	56 (7.3)	12 (1.1)
Black/African American	42 (5.5)	34 (3.1)
Other/Prefer Not To Say	31 (3.6)	37 (3.4)
American Indian/Alaska Native	5 (0.6)	15 (1.4)
Pacific Islander	3 (0.4)	3 (0.3)
Age	n = 801	n = 1,022
Average (years)	24.7 ± 3.8	42.7 ± 12.8

Pharmacy Students n (%)		Pharmacists n (%)	
Class Year (n=763)		Primary Area of Practice defined as 50% or More (n=1,108)	
PY1	200 (26.2)	Corporate Community	407 (34.6)
PY2	192 (25.2)	Hospital Inpatient	238 (20.2)
PY3	218 (28.6)	Independent Community	180 (15.3)
PY4	153 (20.1)	Other Pharmacy Practice	143 (12.1)
Type of Institution (n=760)		Ambulatory Care	
Public	336 (44.2)	Hospital Outpatient	68 (5.8)
Private	424 (55.8)	Industry	59 (5.0)
Region (n=800)		Academia	
Southeast	447 (55.9)	Managed Care	23 (2.0)
South	181 (22.6)	Employment Status (n=1,104)	
Northeast	110 (13.8)	Full-time Pharmacist	878 (79.5)
Midwest	54 (6.8)	Part-time Pharmacist	194 (17.6)
Southwest/Pacific	6 (0.8)	PGY1 Resident	20 (1.8)
Northwest	2 (0.3)	PGY2 Resident	7 (0.6)
Working During School Year (n=769)		Fellow	
Yes	499 (64.9)	Years in Pharmacy Practice (n=1,107)	
No	270 (35.1)	<5	257 (23.2)
Intended Career Path Post-Graduation (n=807)		5-9	159 (14.4)
Direct Employment	326 (40.4)	10-19	255 (23.0)
Pharmacy Residency	397 (49.2)	20-29	185 (16.7)
Pharmacy Fellowship	56 (6.9)	30-39	161 (14.5)
Other	28 (3.5)	≥40	90 (8.2)

* Response rate: Pharmacists: 9.7% based on NC Board of Pharmacy 2018 statistics; Students: ~15% based on an average class size of 130 students

RESULTS

Physical Health Findings: Sleep, Exercise, and Diet



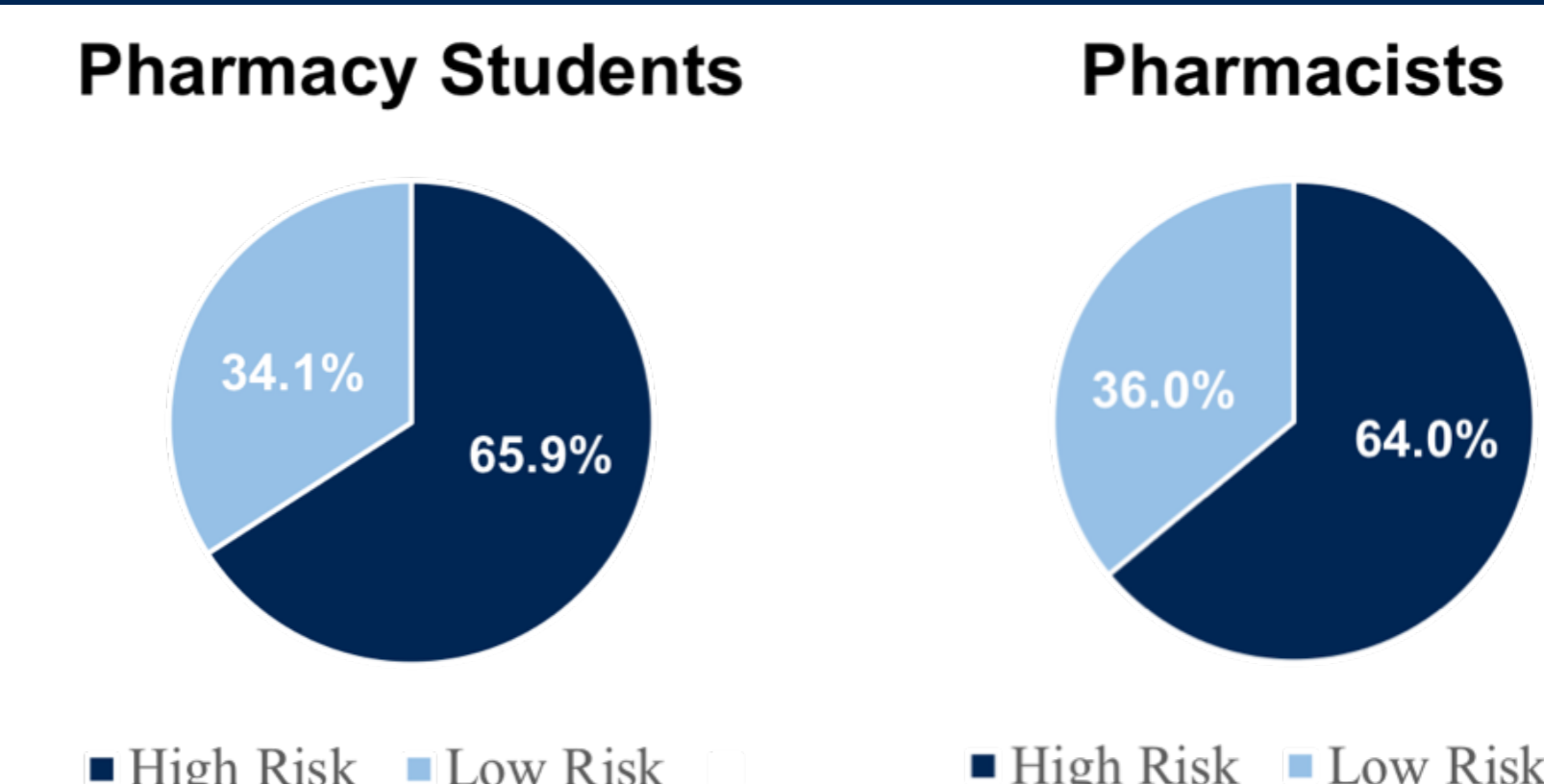
Mental Health Findings: Anxiety and Depression

Tool Used	Pharmacy students' scores indicating likely anxiety or depression (n=809)	Pharmacists' scores indicating likely anxiety or depression (n=1,056 and 1,054)
Anxiety: GAD-2	341 (42.2%)	259 (24.5%)
Depression: PHQ-2	201 (24.8%)	175 (16.6%)

GAD-2= Generalized Anxiety Disorder 2-item; PHQ-2= Patient Health Questionnaire-2

RESULTS

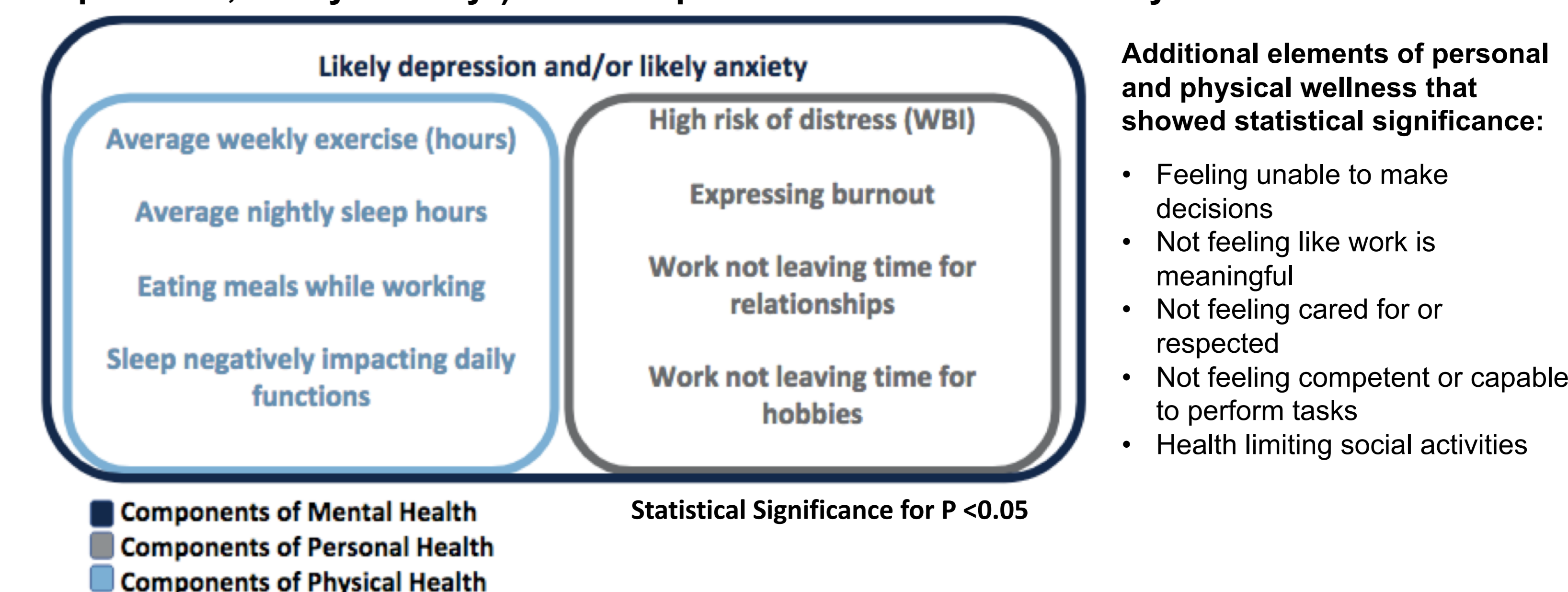
Personal Health Findings: Burnout*



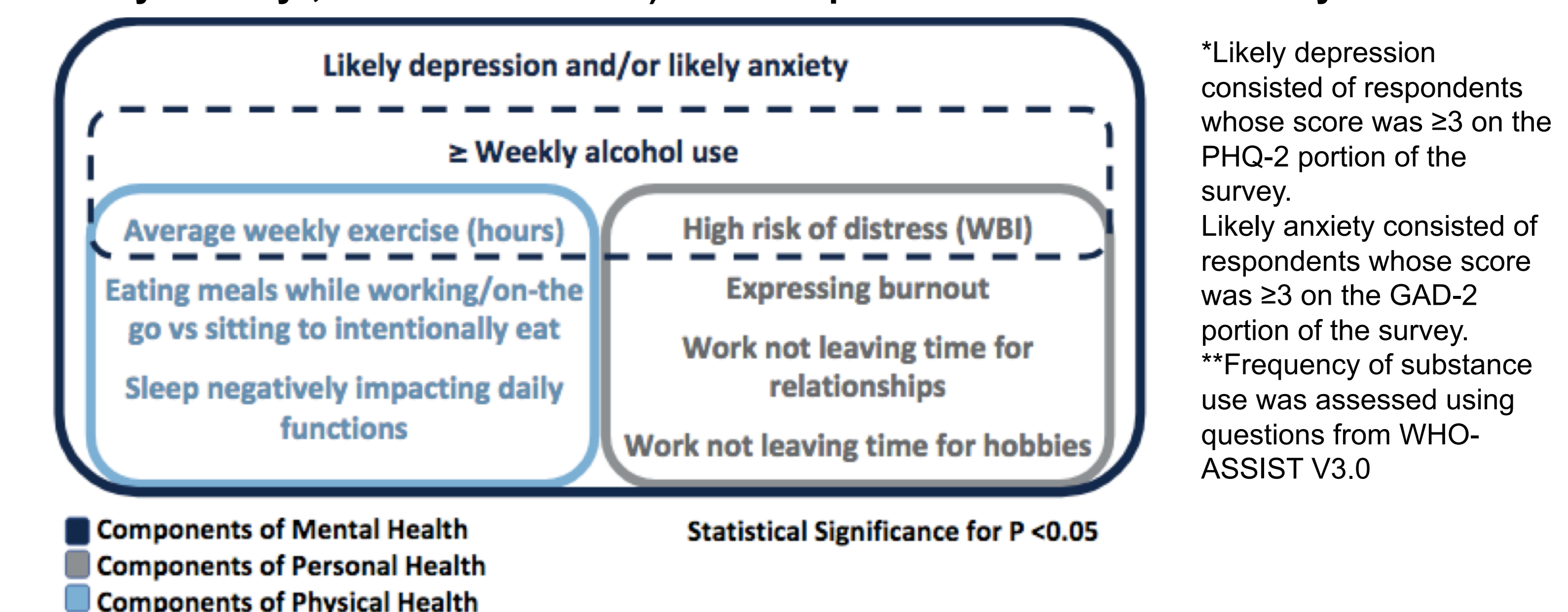
*Burnout risk was calculated using scores from the Well-Being Index question, with a score of ≥4 indicating a 2x higher risk of burnout for students and a score of ≥3 indicating a 5x higher risk of burnout in pharmacists.

Statistically Significant Associations Found

Pharmacy Students: Associations Between Components of Mental Health (Likely Depression, Likely Anxiety*) and Components of Personal and Physical Health



Pharmacists: Associations Between Components of Mental Health (Likely Depression, Likely Anxiety*, and Alcohol Use**) and Components of Personal and Physical Health



CONCLUSIONS

- Our surveys found similar trends in diet, exercise, and risk of burnout in pharmacists and students, but possibly higher rates of poor sleep and depression and anxiety in students.
- Several components of personal and physical health are significantly associated with both likely depression and likely anxiety, though associations with ≥ weekly alcohol was only found in pharmacists.
- Further associations between demographic factors and wellness, as well as interrelatedness between wellness domains, will be conducted.
- Findings can inform employers and pharmacy schools when evaluating needs of their respective populations and hopefully lead to increased resources and programs to support wellness.