The Correlation Between a Pharmacy Curriculum and Stress in Pharmacy Students

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Introduction

Stress is a prevalent state of mind for a college student, particularly those in pharmacy school who are under immense pressure to succeed. Numerous studies have evaluated students' stress in non-direct entry programs, (i.e. 2 years of pre pharmacy before applying), however few have evaluated direct entry programs like the University of Findlay's. Through this study, the stress level of direct entry pharmacy students in the University of Findlay College of Pharmacy was evaluated to determine if there is a correlation between progression through the program and increasing stress levels.

To evaluate this, 3 identical surveys were compiled using various professional stress evaluation questionnaires. These surveys were sent out in the second week of classes, during midterms, and the week before finals through Canvas announcements. We received a total of 248 responses throughout the data collection period.

Materials and Methodology

Student responses to a survey were collected three times during a fall semester. The survey contained questions on student demographics, and questions compiled from several validated assessment scales, like the DASS-21 and the Perceived Stress Scale, which focused on how the students perceived their own stress, how stress is affecting the students' lives, and included questions to allow the investigators to identify outliers in the data based on life events.

The study was conducted throughout the fall 2019 semester at the University of Findlay College of Pharmacy, starting August 19, 2019 and completed on December 12, 2019.

All UF College of Pharmacy students received an email from the investigators 3 times throughout the semester to assess the stress levels of the students as the semester progressed. The survey was administered second week that classes began, a second time around the week of midterm exams, and then again the week before finals. The survey was submitted electronically by the students. This survey was anonymous and did not collect students' names or student ID numbers.

Results

Survey 1: 127 participants
- Males: 34 Females: 93

P1: 21	P4: 12
P2: 31	P5: 27
P3: 21	P6: 15

GPA	
2.5 - 3.0	10
3.1 - 3.5	56
3.6 - 4.0	60
No response	1

Survey 2: 67 participants
- Males: 18 Females: 49

P1: 17	P4: 10
P2: 13	P5: 11
P3: 14	P6: 2

GPA	
2.5 - 3.0	7
3.1 - 3.5	30
3.6 - 4.0	30

Survey 3: 54 participants
- Males: 9   Females: 45

P1:14	P4: 3
P2: 14	P5: 10
P3: 13	P6: 0

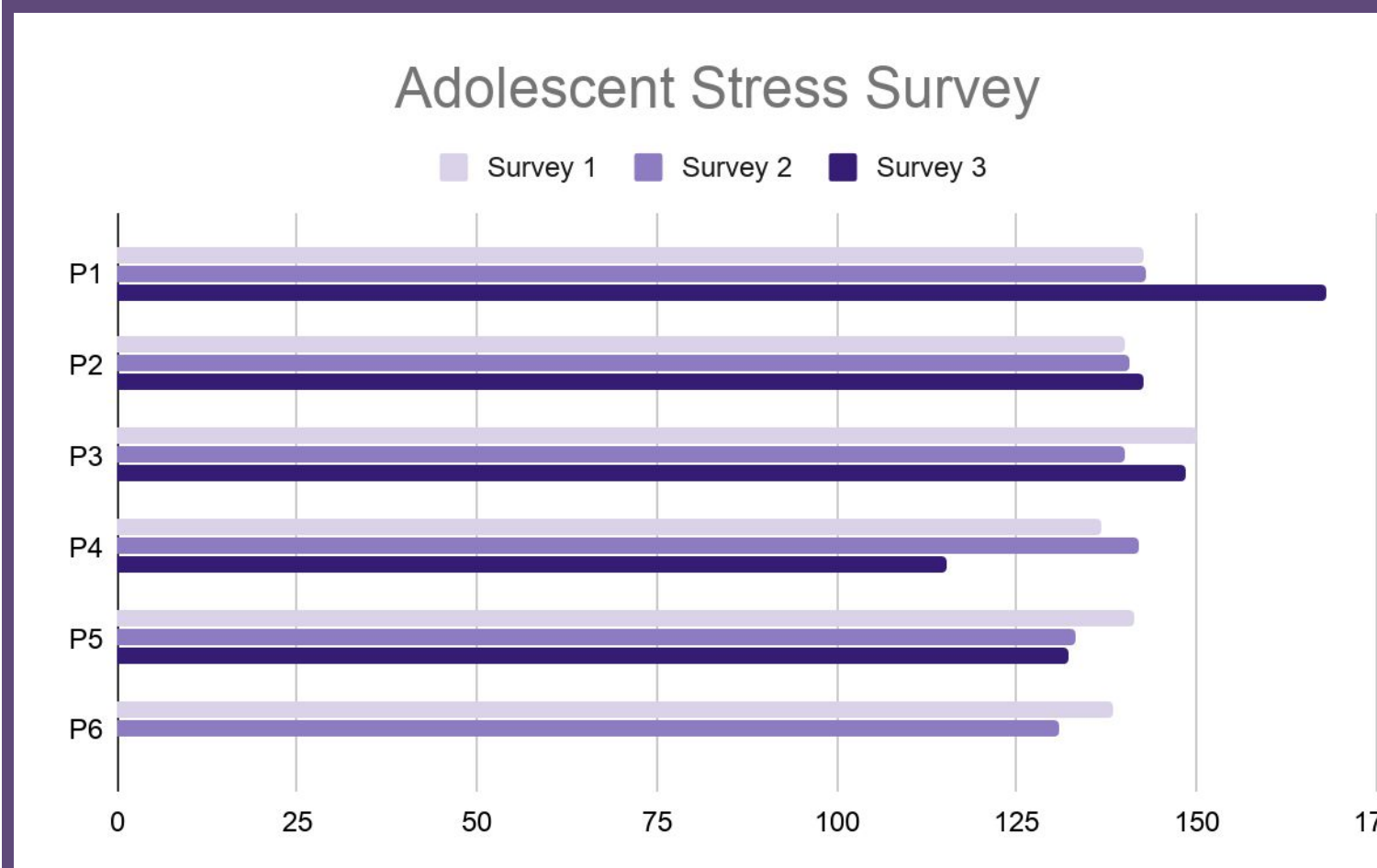| GPA	
2.5 - 3.0	8
3.1 - 3.5	23
3.6 - 4.0	22

Figure 4:. Adolescent Stress survey: This data is presented as descriptive statistics and comparative across all class cohorts.
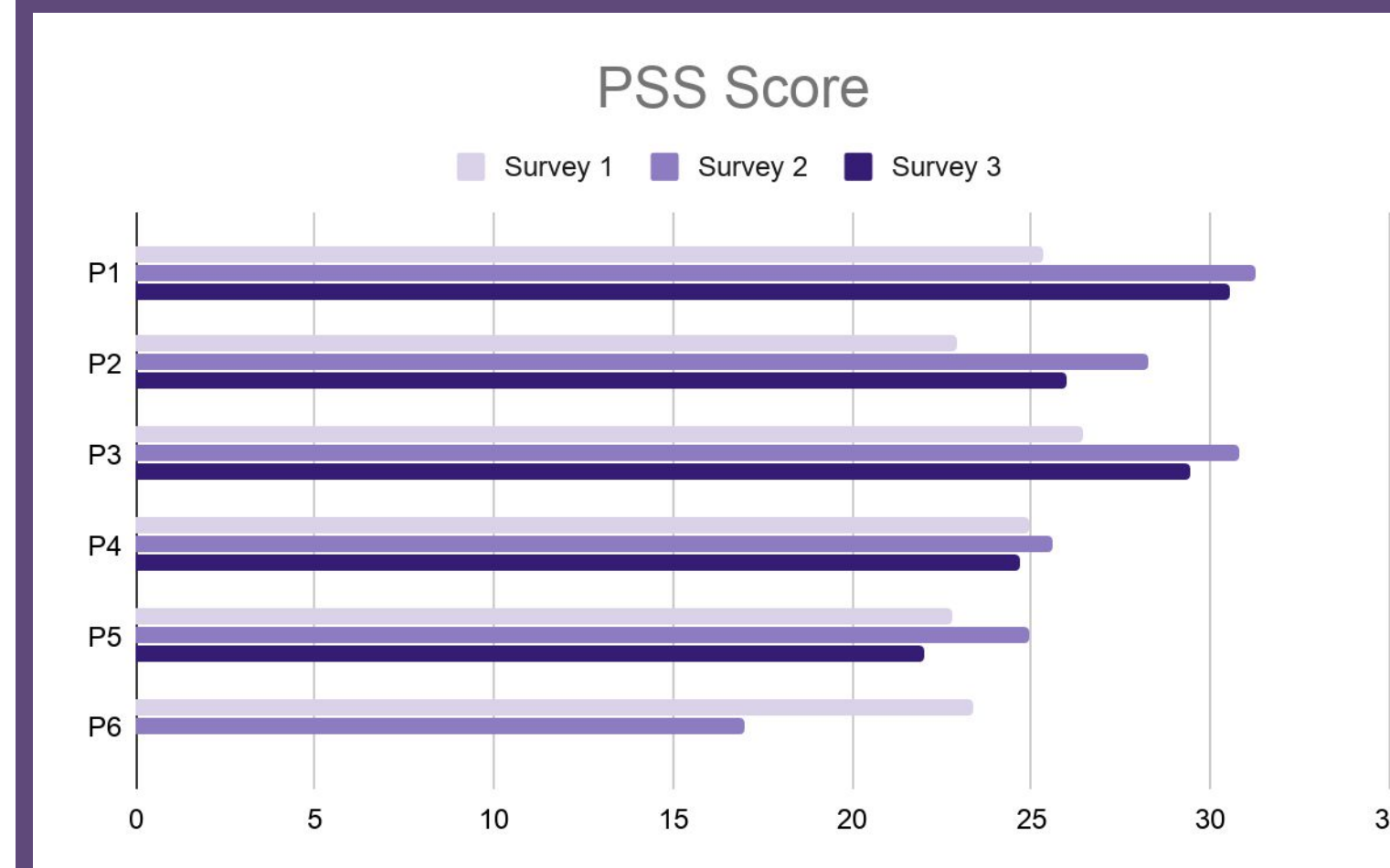
Results

Figure 1. PSS Score: This data is presented as descriptive statistics and comparative across all class cohorts.
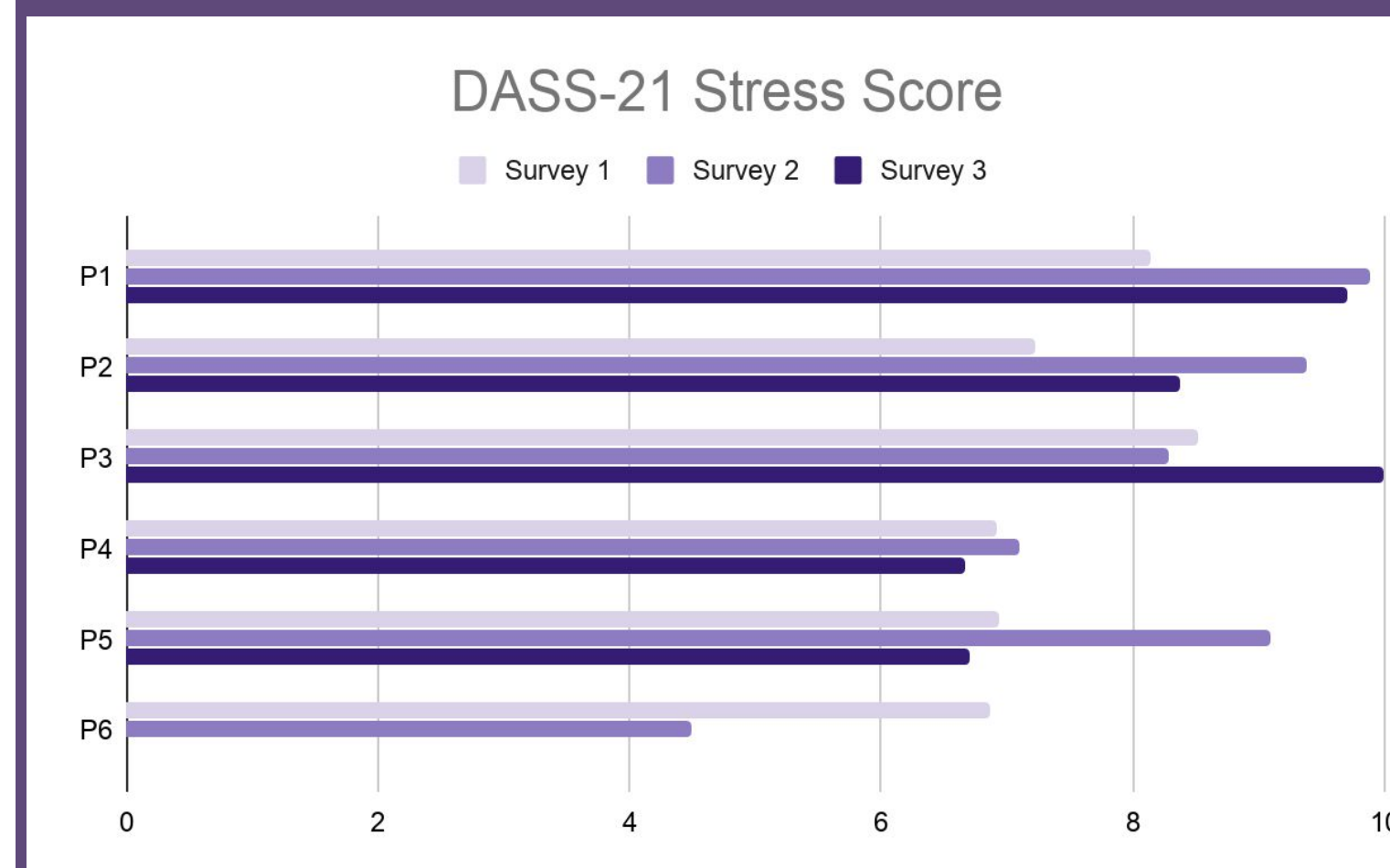

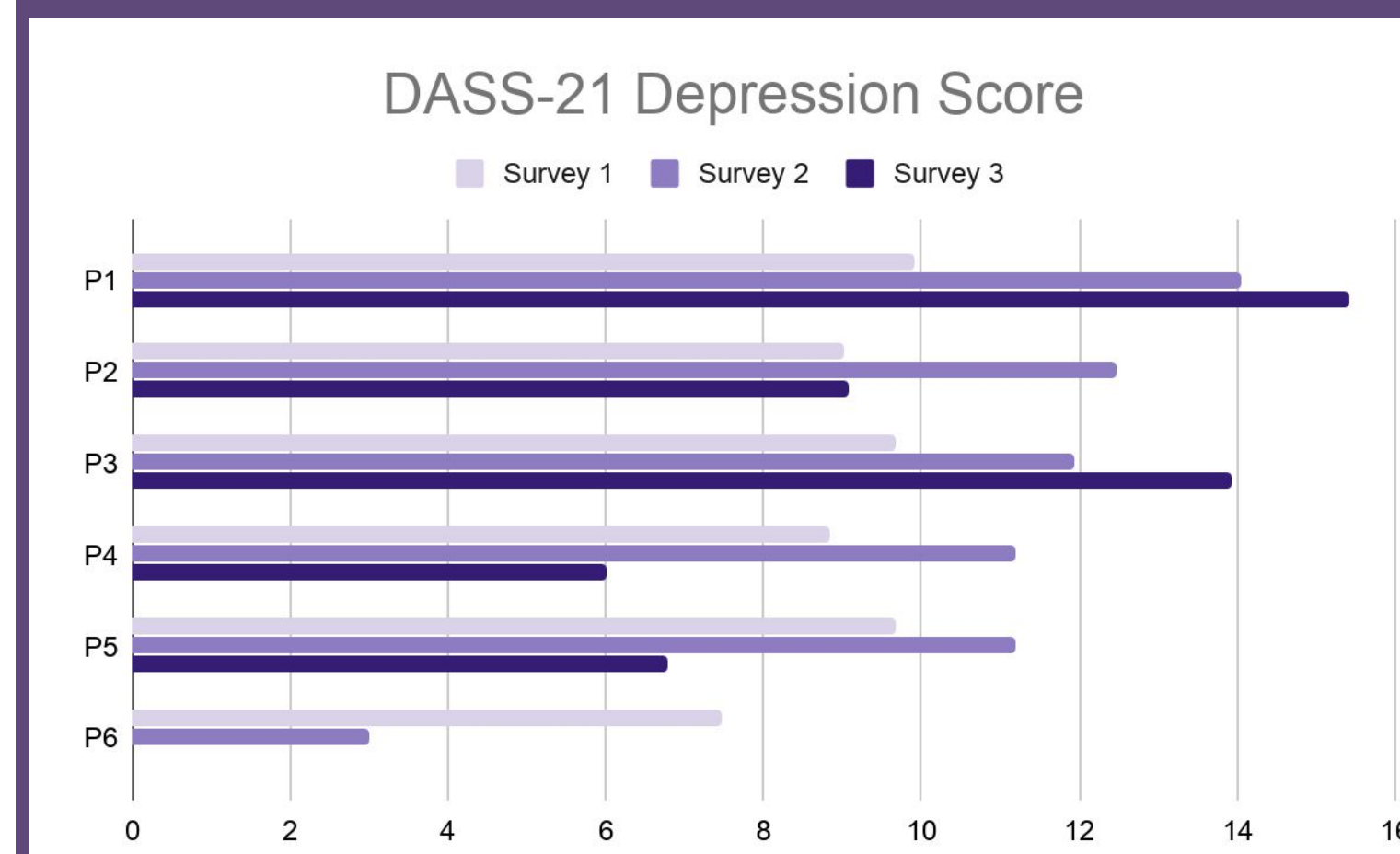Figure 2: DASS-21 Score: Score of 0-14 are normal stress levels and 15-18 are mild stress levels.

Figure 3: DASS-21 Score: A score of 0-9 are normal depression levels, 10-13 mild, and 14-20 are moderate depression levels.

Conclusion

Using a variety of scoring scales the stress levels of pharmacy students at the University of Findlay were measured. While there was an apparent trend in the data from most of the surveys used, the Adolescent Stress Survey lacked the common trend of a decrease in stress after year three. Looking at results from the surveys the students showed trending decreases in their stress levels the older the class, with the lowest levels of stress being reported in the P6 year. The P1 class consistently showed the highest reported stress levels, along with the P3 class. The P1 trends could be due to adjusting to a brand new environment and difficulty of the program. P3 year is notoriously known as being the most difficult year of pharmacy school, with the combination of general education and pharmacy classes being overwhelming. This conclusion correlates with another study, *Stress and Its Effects on Medical Students: A Cross-sectional Study at a College of Medicine in Saudi Arabia,* which found stress levels of students to be higher in the first three years of course than the last two years. In conclusion, stress levels of pharmacy students at the University of Findlay decreased as students progressed through the program.

References

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