



# A Study of Sleep Deprivation and its effects on Mental Health of Year 1 and 2 MBBS students from The University of the West Indies, Faculty of Medical Sciences, St Augustine.



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## INTRODUCTION

Several reports in the literature have revealed that medical students experiencing sleep deprivation had much higher incidence rates of having poor mental health.

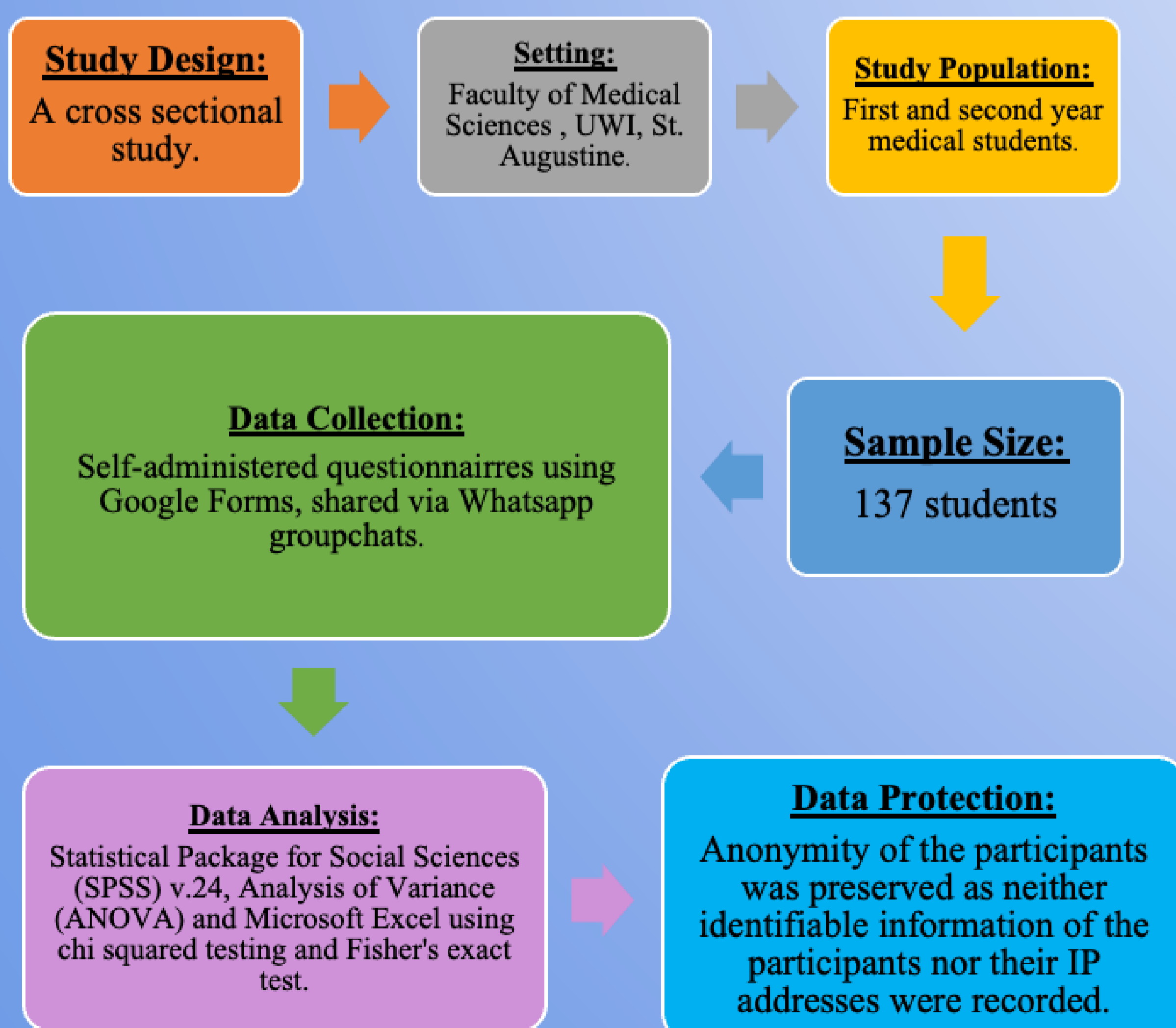
Better Health Australia, states that "Sleep deprivation is a general term to describe a state caused by inadequate quantity or quality of sleep, including voluntary or involuntary sleeplessness."

Having regard to the individual experiences of the members of this group (third year medical students) it was thought that an investigation into sleep deprivation amongst pre-clinical medical students (first and second year) and the possible negative impacts on mental health was worthy of being explored.

## OBJECTIVES

- To evaluate the factors contributing to sleep deprivation in preclinical medical students.
- To determine the effects sleep deprivation has on the mental health of preclinical medical students.

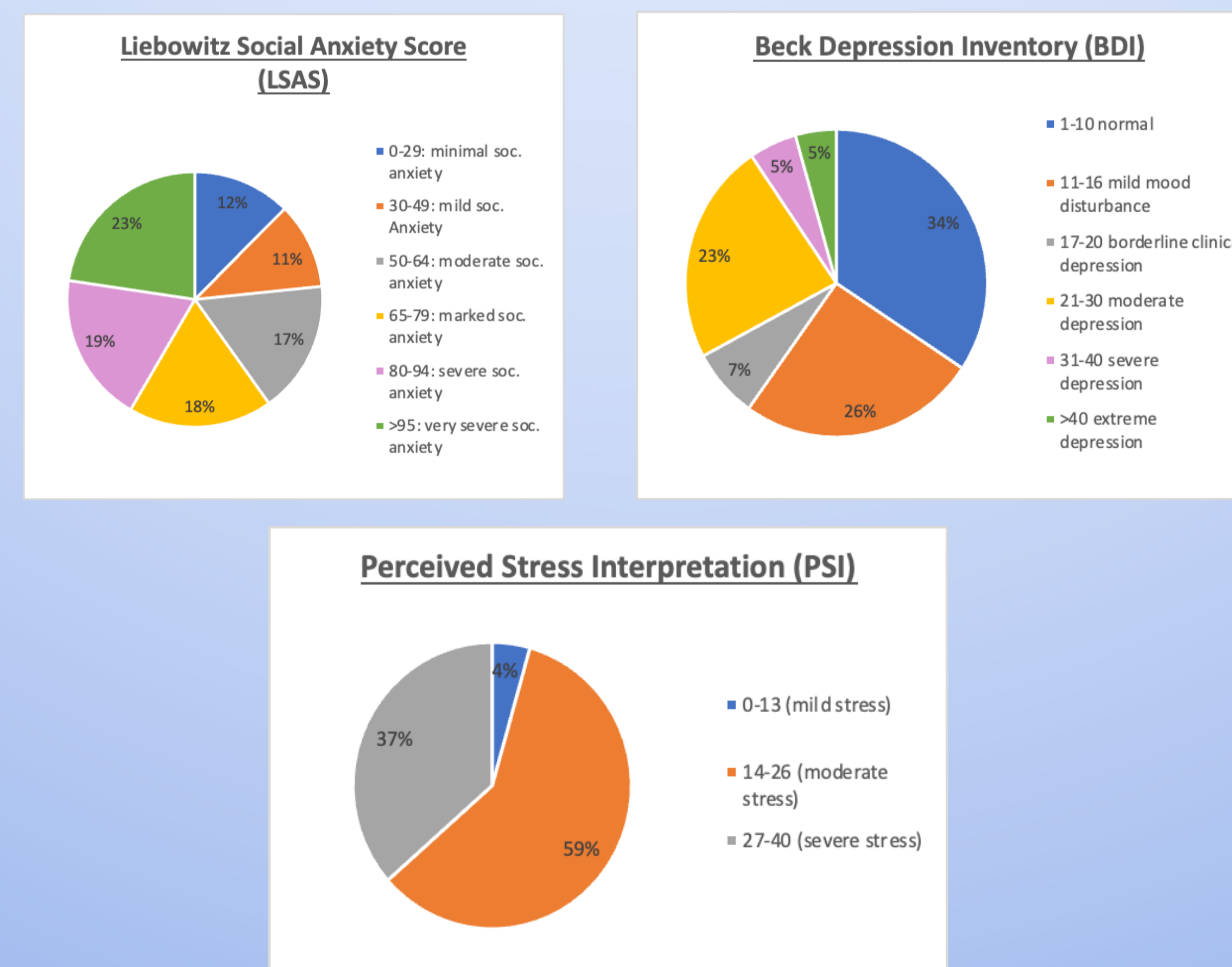
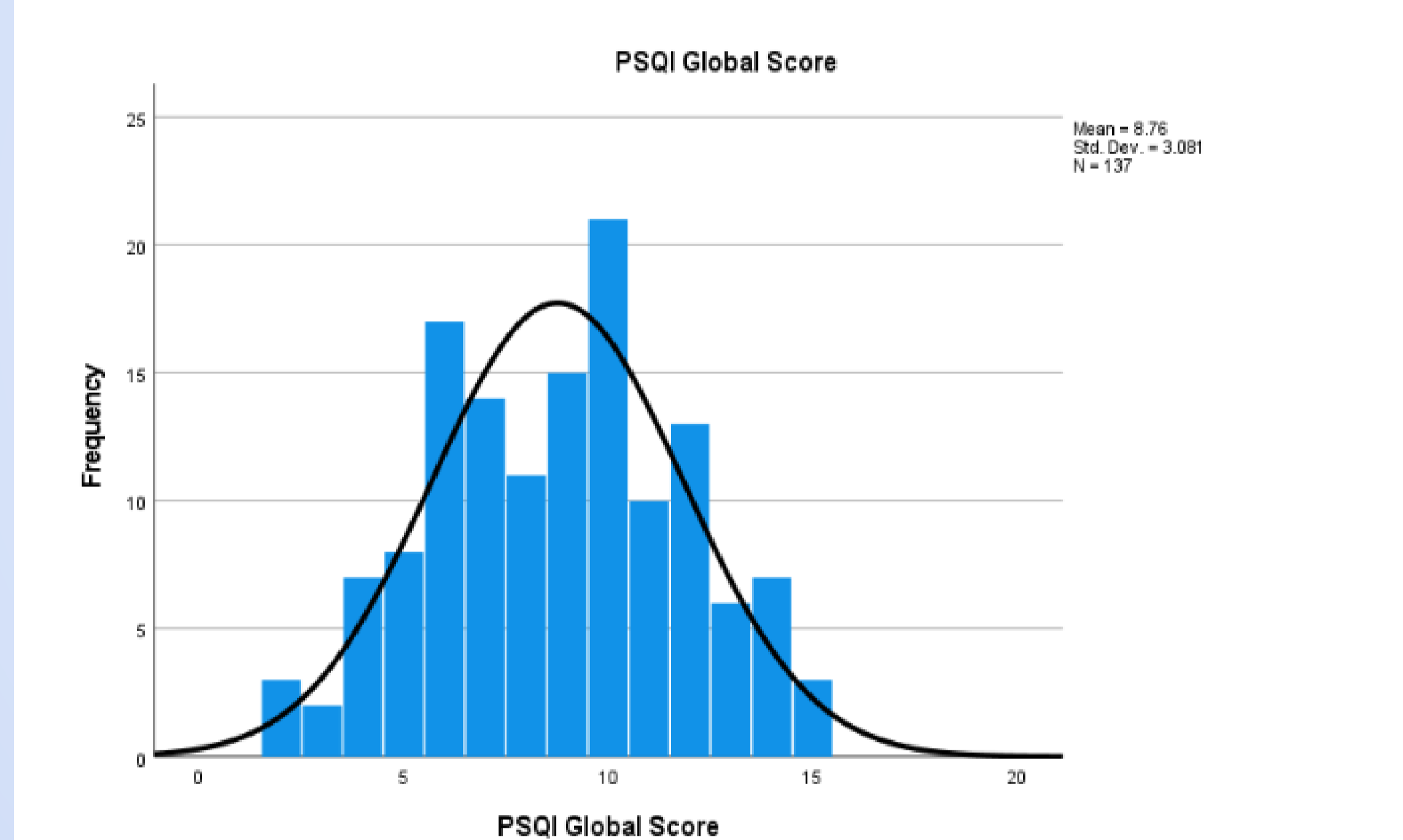
## METHODOLOGY



## RESULTS

- n= 137
- Most of the participants (56.9%) were from year 1 and the rest (43.1%) were from year 2.
- 66.4% of the participants were males, 32.8% were females and 0.7% were nonbinary.
- Pittsburg Sleep Quality Index (PSQI)** scores ranged from 0-21: 14.6% participants had good sleep quality (PSQI <5) and 85.4% had poor sleep quality (PSQI >5).

Figure 1: Histogram distribution of PSQI Global scores with curve of normal trend.



- ANOVA testing of the various scores showed that **p < 0.05** was considered significant for all respective tests.

## DISCUSSION

- Close to 60% of the student sample were moderately stressed. This was manifest in many areas of their lives with negative consequences. Risk-taking behaviour and poor social interactions were found to be some of the negative effects.
- One in three medical students from the total sample admitted to suffering from symptoms of depression, which were linked to poor sleep quality.
- Medical students who reported more sleep deprivation were expected to be at considerably higher risk of exhibiting symptoms of anxiety.
- Medical students who were sleep deprived were also found to be stressed, rather than depressed and/or anxious.
- Generally, sleep deprivation was found to be detrimental to the mental health of medical students.
- The majority of items in the questionnaire were biased towards the older year group of medical students, since they would have been more exposed to a greater workload and consequently higher stress level.
- Self-administered survey sampling involving mental health of individuals could also contribute to inaccurate data, because they may not be fully aware of their mental health status.

## CONCLUSION

Data from the Pittsburgh Sleep Quality Index, used in this study, revealed that 85.4% of the respondents reported poor sleep quality. The remaining 14.6% reported a good quality of sleep. The correlation between individual sleep quality of participants and the effect on their mental health was linked by looking at the various aspects of a person's mental health and cross referencing the data.

## REFERENCES

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