

## Background

- Sleep is necessary for health.<sup>1</sup>
- Poor sleep hygiene contributes to the development of insomnia.
- Insomnia affects the quality of life and has negative health consequences.
- Sleep hygiene consists of a combination of behavioral practices and environmental conditions which improve sleep.
- University students are vulnerable to insomnia and poor sleep hygiene patterns due to their stressful lifestyle.
- Data on the prevalence of insomnia, its management and sleep hygiene patterns among various populations in Qatar is scarce.
- Sleeping patterns among university students in Qatar has not been investigated before.

## Objectives

- To investigate the prevalence of insomnia among university students in Qatar.
- To explore factors contributing to the development of insomnia in this population.

## Methods

### Study Design:

- A cross-sectional web-based survey was administered to Qatar University (QU) students.
- The sample size required for this study was estimated to be 325 students.

### Survey Instruments:

- **Pittsburgh Sleep Quality Index (PSQI):** Explores sleep patterns, daytime consequences of impaired sleep and the use of sleeping aids.<sup>2</sup>
- **Sleep Hygiene Index (SHI):** Assesses the presence of behaviors and environmental conditions that compromise sleep.<sup>3</sup>
- For the purpose of this study the SHI was translated into Arabic, pilot tested and culturally adapted.

### Data Analysis:

- Descriptive and inferential tests were used to analyse the findings.
- Mann-Whitney U test and Kruskal-Wallis tests were used to assess difference of means.
- Spearman Rank test was used for examining correlations
- Binary and Multiple logistic regression tests were also conducted.

## Results

- A total of 2,062 students participated in this study, yielding a response rate of 10.5%.
- Most of the respondents were females (85%), Qatari nationals (63%), single (79%) and mostly in their late teens or early twenties.
- Around 70% of QU students were found to have poor sleep quality (PSQI score  $\geq 5$ ) and 64% experienced excessive daytime sleepiness.
- One third of the students had less than 6 hours of sleep.
- Around 79% of QU students were found to have poor sleep hygiene patterns (SHI scores  $\geq 17$ ).
- ✓ The most commonly reported negative sleep habits were “engaging in activities that may keep them awake before sleep time” and “using bed for things other than sleep (e.g. watching television, studying...etc.)”.
- Around 25% of the participating students reported previous use of sleep aids.
- A statistically significant difference in the PSQI (Figures 1 & 3) and SHI scores (Figures 2 & 4) was found between different colleges, gender and age categories.

Figure 1: Difference in PSQI scores across different colleges

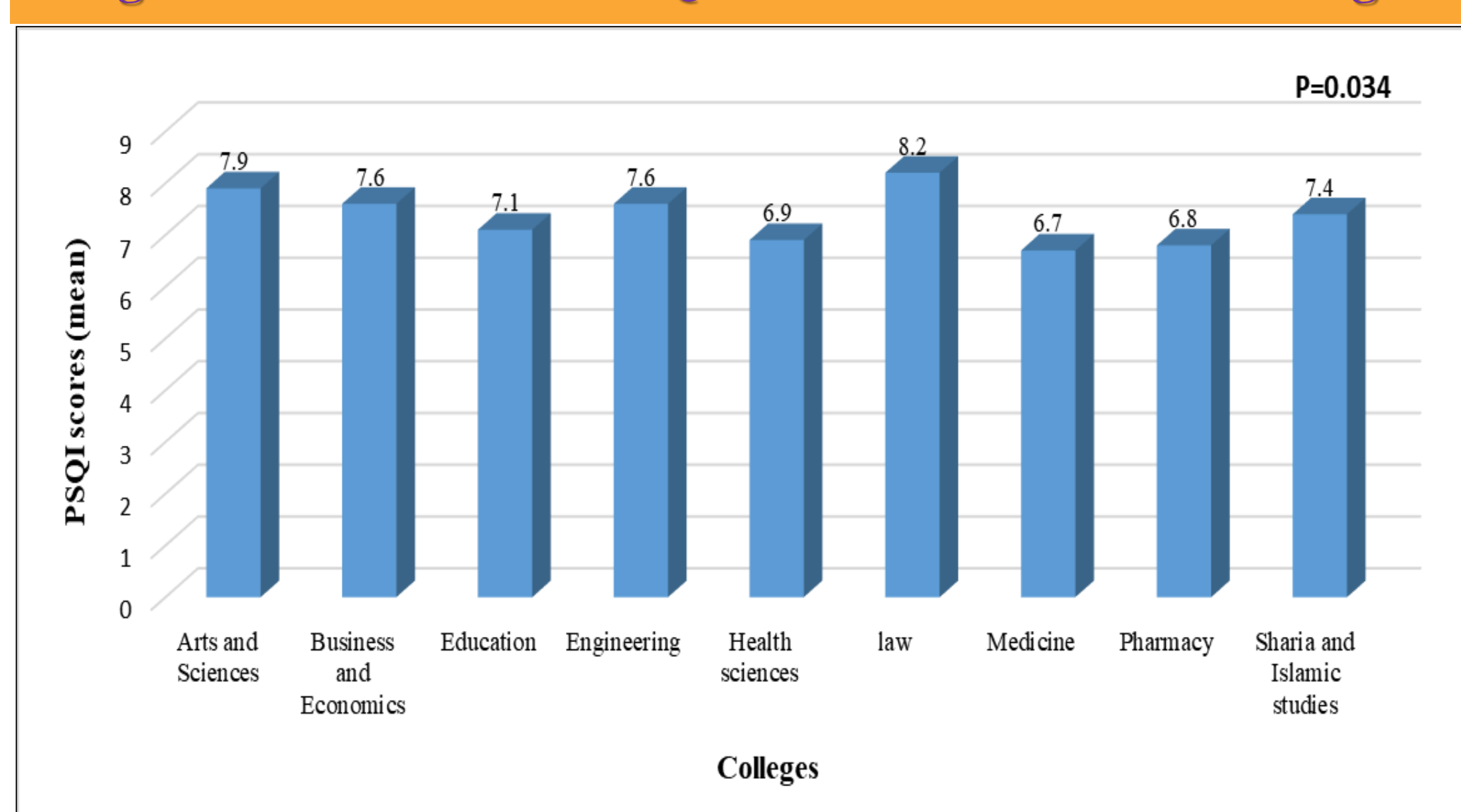


Figure 2: Difference in SHI scores across different colleges

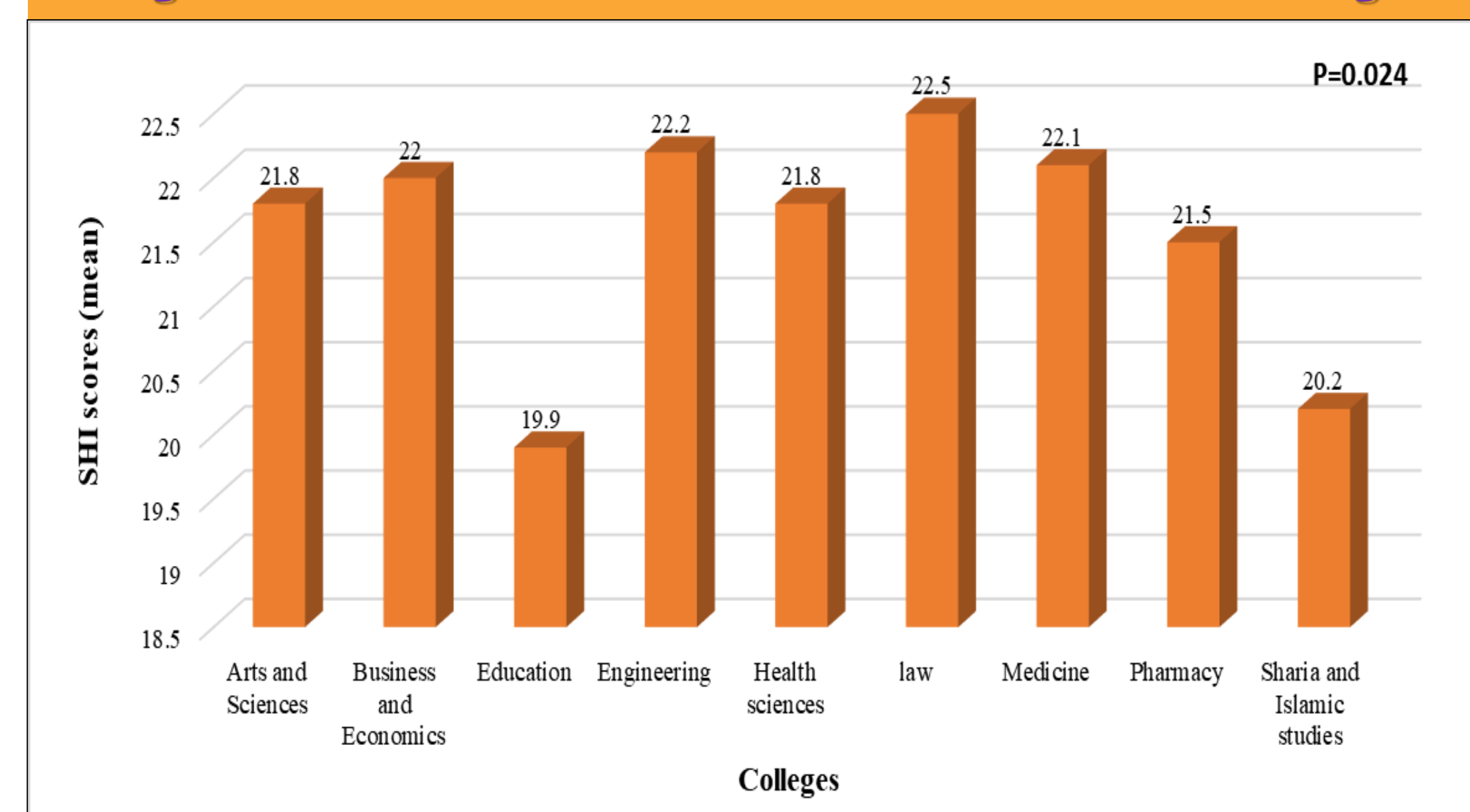


Figure 3: PSQI scores among sociodemographic variables

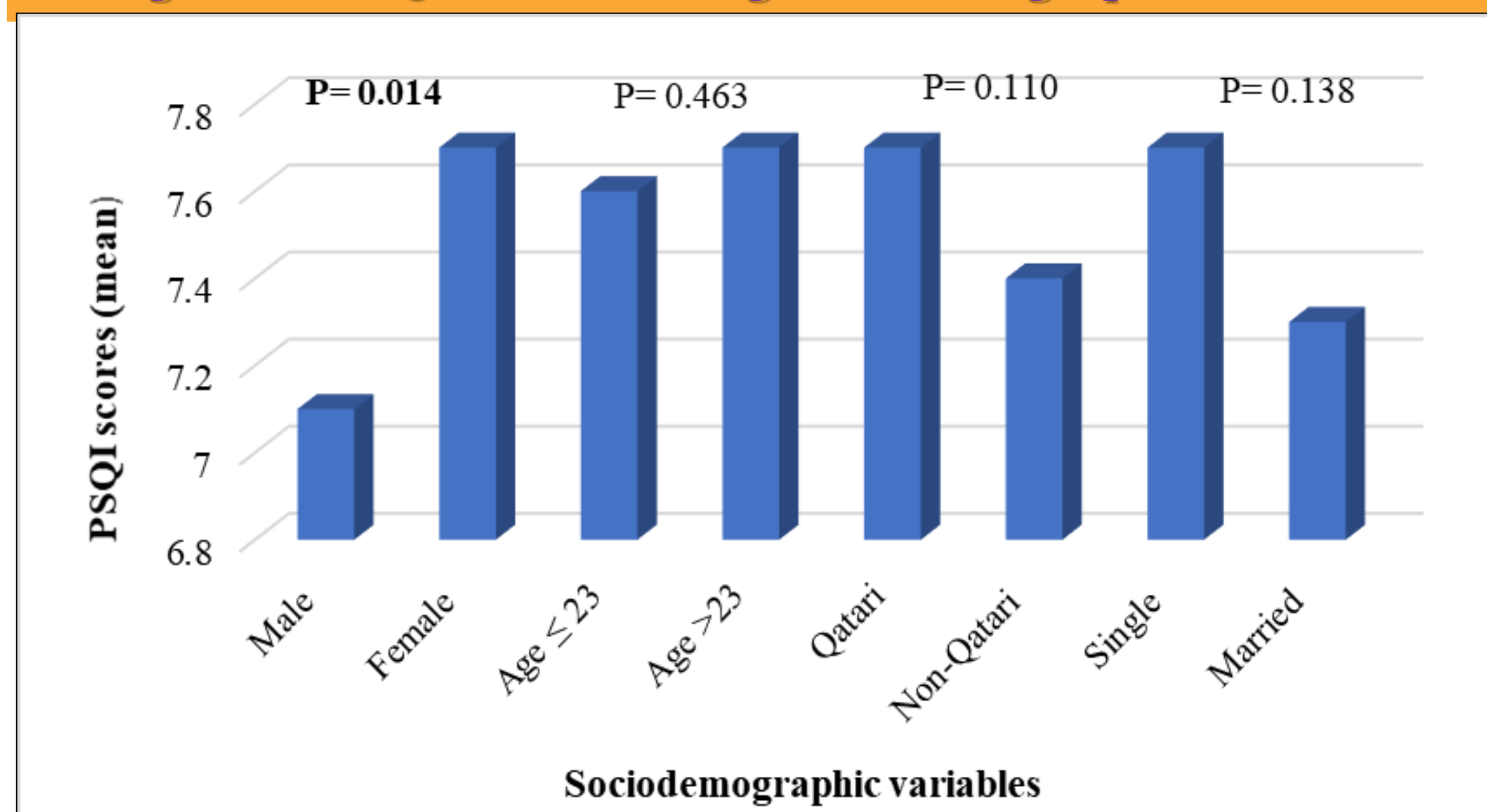
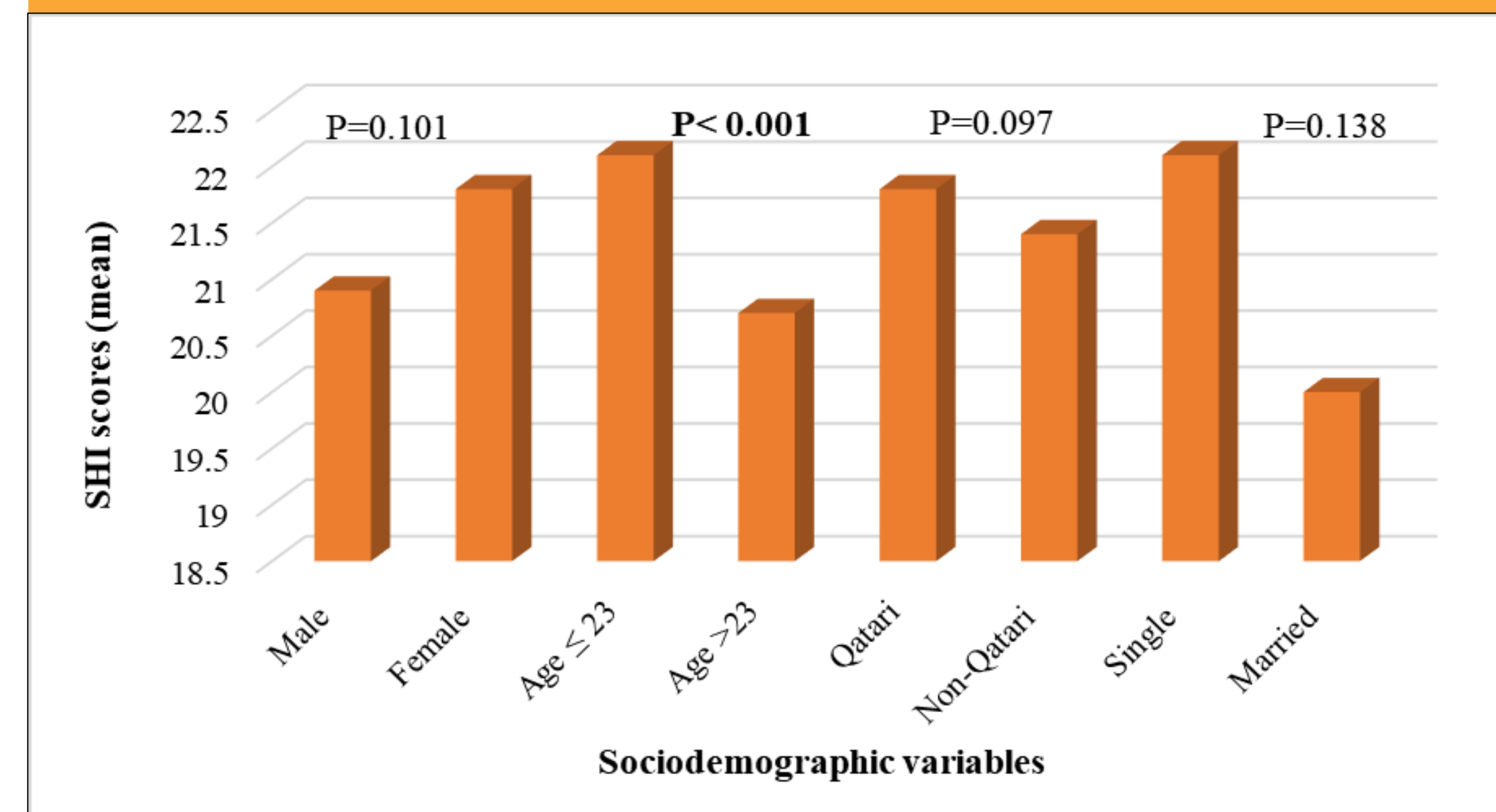


Figure 4: SHI scores among sociodemographic variables



## Results Cont.

- College distribution, gender and marital status significantly influences sleep quality:
  - ✓ Students from the Colleges of Education and Sharia and Islamic studies were more likely to have better sleep quality while those studying in the College of Law had worse sleep quality.\*
  - ✓ Male students were more likely to have better sleep quality (OR=1.31, 95% CI=0.965-1.78, p=0.083).
  - ✓ Married students had better sleep quality than single students (OR=0.738, CI= 0.571- 0.953, p=0.02).
- There was a positive association between the global PSQI score and the SHI score ( $r = 0.394$ ;  $p < 0.0001$ ).
- Regression analysis revealed that sleep hygiene had the greatest effect on sleep quality (accounting for 7% of the variance) and individuals with good sleep hygiene were 4 times more likely to have better sleep quality.

\* Compared to the College of Arts and Sciences.

## Conclusions

- Overall, poor sleeping patterns and negative sleep hygiene practices are common among QU students.
- College designation and some socio-demographic factors appear to negatively influence the sleep quality.
- Sleep hygiene is an important factor which has the highest impact on students' sleep quality. Therefore, interventions that enhance students awareness of sleep hygiene would improve the students' sleep quality.

## Acknowledgment

This study was supported by a student grant from Qatar University. We extend our gratitude and appreciation to Dr. Abdelsalam Gommaa who supported us during the data analysis. We also thank all the students who participated in this study and responded to the surveys.

## References

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