



Exercise and Sleeping Patterns Among University Faculty and Staff

Omar Vazquez, Faith DeNardo, David A.Tobar, K. Todd Keylock
Bowling Green State University, Bowling Green, OH



Abstract

BACKGROUND: There has been little research examining the exercise and sleeping patterns of faculty and staff members and what role these factors play in overall health. The information gathered in this study was used to analyze how faculty and staff can adapt their lifestyle with exercise and sleep to improve health and well-being. **PURPOSE:** To explore the relationship between exercise and sleep in faculty and staff at a university in the Midwest. **METHODS:** The study performed secondary analyses on data collected from the American College Health Association's National Faculty and Staff Health Assessment. Independent t-tests were performed to analyze exercise levels. Chi-Square and Mann-Whitney U tests were performed to analyze sleeping patterns. An alpha level of .05 was used for all analyses. **RESULTS:** In the 553 respondents, sex differences were found regarding the amount of vigorous exercise obtained each week, the amount of time needed to fall asleep, and the use of over-the-counter medication to promote sleep. Overall, 53.8% and 17.2% of respondents indicated obtaining the guidelines for aerobic exercise and highly active adults, respectively. Compared to males, females reported fewer total minutes performing vigorous activity in the past seven days (females 38.1 vs. males 55.9 minutes). A majority of females (71.1%) and males (75.5%) reported either six or seven hours of sleep per night. However, 67.4% of faculty and staff reported difficulty staying asleep in the last 12 months. A greater proportion of females (17.7%) indicated taking 31 minutes or more to fall asleep compared to males (9.4%), and a greater proportion of males (28.9%) indicated taking 5 minutes or less to fall asleep compared to females (18.7%). A total of 26.3% of respondents indicated using over-the-counter medication to fall asleep. The proportion of females (29%) was greater than males (19%) for using over-the-counter medication to promote sleep. Although 67.4% indicated difficulty falling asleep at times, there were not any sex differences found. **CONCLUSION:** In these subjects there were some sex differences in sleep patterns and amounts of exercise. Further research is needed to determine the precise relationship between exercise and sleep in faculty and staff members.

Purpose

To understand the relationship between exercise and sleeping patterns among faculty and staff at a university in the midwestern United States, and to determine if there are any sex differences.

Methods

Secondary analyses were performed on data collected from the American College Health Association's National Faculty and Staff Health Assessment. The survey was sent to 2387 faculty and staff members, and 553 responded to the survey, leading to a response rate of 23.2%. This study focused on survey questions related to exercise levels and sleeping patterns in faculty and staff.

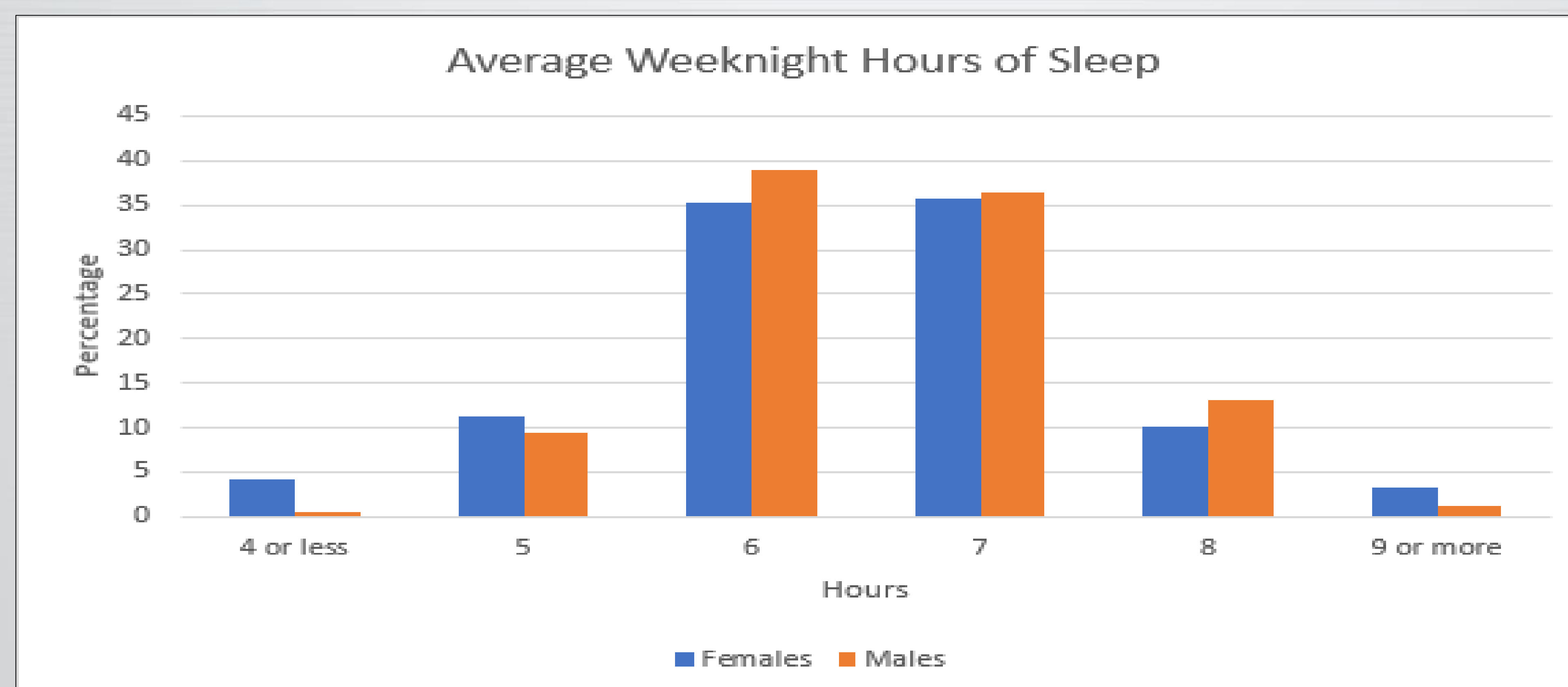
Independent t-tests were performed to analyze the exercise patterns of faculty and staff. Chi-Square and Mann-Whitney U tests were performed to determine statistically significant differences between the sleeping patterns of faculty and staff members.

Results – Exercise Levels

1. Females and males did not differ on how many (total) minutes spent doing moderate physical activity in the past 7 days, $t(542) = -0.642, p = 0.52$.
2. Females and males did differ on how many (total) minutes spent doing vigorous physical activity in the past 7 days, $t(527) = -2.26, p = 0.024$.
3. Females and males did not differ, $t(539) = -1.15, p = 0.251$, on how many days spent doing exercises to strengthen or tone muscles in the past 7 days.

Results – Sleep Patterns

4. Females and males did not differ, $t(549) = -0.977, p = 0.329$, on how many days in the past 7 days they felt well rested when they woke up.
5. The proportion of females (69%) was similar to males (63%) for experiencing difficulty staying asleep, $\chi^2(1, N = 551) = 2.18, p = 0.140$.
6. The proportion of females (29%) was greater than males (19%) for using an over-the-counter medication to promote sleep, $\chi^2(1, N = 551) = 5.10, p = 0.024$.
7. The proportion of females (11%) was similar to males (5.6%) for using a prescription medication to promote sleep, $\chi^2(1, N = 551) = 3.73, p = 0.053$.
8. No sex differences were found for average hours of sleep, $z = 0.82, p = 0.41$. A majority of females (71.1%) and males (75.5%) reported either 6 or 7 hours of sleep.
9. Sex differences were found ($z = -3.21, p = 0.001$) that females take a longer to fall asleep than males. A greater proportion of females (17.7%) indicated taking 31 minutes or more to fall asleep compared to males (9.4%), and a greater proportion of males (28.9%) indicated taking 5 minutes or less to fall asleep compared to females (18.7%).



Exercise Guidelines	Male (percent %)	Female (percent %)	Total (percent %)
Guidelines for Aerobic Exercise	60.1	50.6	53.8
Guidelines for Active Adults	31.1	25.8	27.4
Guidelines for Highly Active Adults	20.9	16.1	17.2

Sleeping Patterns	Male (percent %)	Female (percent %)	Total (percent %)
Difficulty staying asleep in the last 12 months	63.2	69.0	67.4
Obtaining an average of less than 7 hours of sleep on weeknights	50.0	50.9	50.3
Getting enough sleep to feel well rested in the morning in the past 2 days	34.2	36.5	35.9
Used over-the-counter medication to promote sleep in the past 7 days	19.1	28.6	26.3

Conclusions

- In these subjects there were some sex differences in sleep patterns and amount of vigorous exercise
- A majority of faculty and staff were found to be obtaining adequate amounts of exercise based on the ACSM guidelines
- Further research is needed to determine the precise relationship between exercise and sleep in faculty and staff members

Key References

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