



## Evaluation of Humanity Collegian Females' Sedentary Behaviors in the University of Baghdad

Noora Hama Karim, MScN\*,

\*Academic Nursing Specialist/ Al-Rusafa Health Directorate/  
Ministry of Health and Environment/Iraq.  
Corresponding author, E-mail: [nnoor0730@gmail.com](mailto:nnoor0730@gmail.com)

Dr. Mohammed Fadhil  
Khalifa, PhD\*\*

\*\* Professor/ Community Health Nursing Department/ College of  
Nursing/ University of Baghdad/Iraq.  
E-mail: [mh.hala2013@gmail.com](mailto:mh.hala2013@gmail.com)

### ABSTRACT

**Background:** Sedentary behaviors are poorly understood, despite the fact that it has reached pandemic proportions and is now a major public health issue.

**Objectives:** This study aimed to evaluate the humanity collegian females' sedentary behaviors.

**Methods:** A cross-sectional study is conducted through the period of January 10th, to November 1st, 2021 to evaluate the humanity collegian females' sedentary behaviors at the University of Baghdad, the study employs a purposive (non-probability) sampling technique to select (eighty) female students in College of Education for Women and College of Languages, (forty) collegian females from each college with inclusion criteria: 1) Collegian females whose ages are between (18-21) years old; 2) single, 3) free of chronic diseases. The questionnaire comprises 18 questions about time spent sitting in five basic domains, including meals, transportation, studying, screen time, and other activities, as well as sleeping/napping time on the previous day.

**Results:** The findings of this study show that more than half of the study sample have experienced a high level of sedentary behaviors.

**Recommendations:** The study recommendations according to the findings, the curriculum should be reviewed and adjusted to include special courses or lectures on sedentary behaviors in order to educate university students about the consequences of such behaviors.

**Keywords:**

Collegian, Sedentary Behaviors.

### Introduction

In English speakers borrowed sedentary Middle French sedentary from Latin sedentaries in the late 16th century. Sedentarius, which means "sitting one," is derived from the present portion of the verb sedere, which means "to sit" (Patel et al., 2019). In a sitting, reclining, or lying posture, sedentary behaviors are defined as the lack of muscle contractions or any waking

behaviors characterized by an energy expenditure of less than (1.5) metabolic equivalents (WHO, 2019).

The prevalence of sedentary behaviors has reached epidemic levels and is now a major public health problem (Bao et al., 2020; Yang et al., 2017). Furthermore, sedentary behaviors are responsible for (3.8) percent of annual mortality in (54) nations (Western Pacific

region, followed by European, Eastern Mediterranean, American, and Southeast Asian countries). Also, sedentary behaviors are estimated to be responsible for (6.9%) of the death load in Australia. Eliminating sedentary activities will increase life expectancy in those nations by (0.20) (McVeigh et al., 2016).

Moreover, in both sexes, the amount of time spent sitting is linked to mortality from cardiovascular disease or any other cause. The risk of death increases as the amount of time spent sedentary increases. These relationships hold true in both active and inactive adults, implying that the risk of death from sitting or sedentary is unrelated to one's level of physical activity (Stamatakis et al., 2011).

Previous research has found that throughout the transition from high school to college, there are large increases in sedentary habits and decreases in physical activity and students may spend more time in sedentary behaviors, such as sitting in class, reading at the library, and studying at home, due to the nature of higher education (Tao et al., 2019; Castro et al., 2018). In addition, emerging adulthood ages (18–25) is a critical developmental time in the study of health-related behaviors. For many people, emerging adulthood coincides with the completion of post-secondary education. Increased inactive time, a lower likelihood of reaching physical activity standards, and unhealthy food intake are all linked to university (or college) student lifestyles (Stoliker and Lafreniere, 2015; Nelson et al., 2008). Because lifestyle choices made during this time might have long-term health consequences, this transitional phase offers a window of opportunity for focused health promotion initiatives (Nelson et al., 2008).

**Method:**

A cross-sectional study is conducted through the period of January 10<sup>th</sup>, to November 1<sup>st</sup>, 2021 to evaluate the humanity collegian females' sedentary behaviors at the University of Baghdad, the study employs a purposive (non-probability) sampling technique to select (eighty) female students in College of Education for Women and College of Languages, (forty) collegian females from each college with

inclusion criteria: 1) Collegian females whose ages are between (18-21) years old; 2) single, 3) free of chronic diseases.

For the evaluation procedure, a self-report questionnaire is constructed based on the literature. The study instrument consisted of two parts: (a) general characteristics and (b) Sedentary behaviors questionnaire which consists of 18 questions: 1 – 4 questions related to time spend sitting during meals, 5-6 questions related to time spend sitting during transportation, 7-9 questions related to time spend sitting during studying, 10-12 questions related to time spend sitting during screen time, 13-18 questions related to time spend sitting during other activities to calculate domain-specific sedentary time and overall sedentary time on the previous day, as well as two questions related to sleeping/napping time.

A pilot study is used to determine the study instrument's internal consistency, reliability, and content validity. Content validity is determined by a panel of (22) experts with more than eleven years of expertise in the field of research interest. Data was gathered via distributing online questionnaires filled out by female students via a Google form.

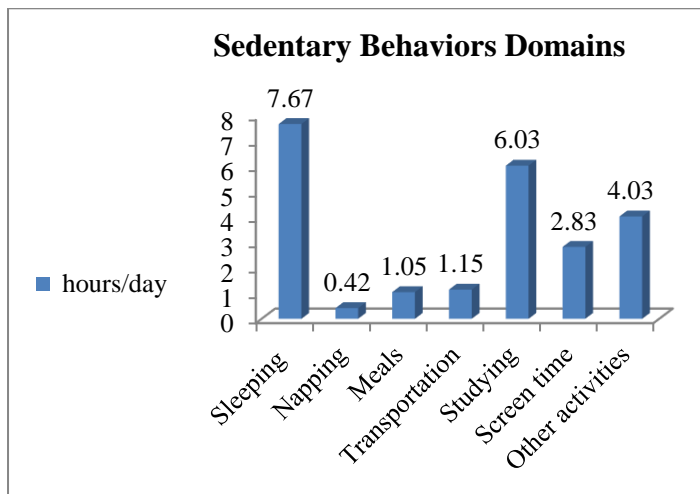
**Results:**

**Table (1):** Overall Evaluation of Humanity Collegian Females' Sedentary Behaviors\*

Low sedentary (7.35-10.88) hours/d ay	Moderate sedentary (10.89-14.41) hours/d ay	High sedentary (14.42-17.95) hours/d ay	Mean 15.11 hours/d ay
4(5 %)	21(26.25 %)	55 (68.75%)	

\*Sedentary Behaviors include total sitting time during meals, transportation, screen time, and other activities domains.

Table (1) indicates that most of humanity collegian females have experienced a high level of sedentary behaviors (68.75%).



**Figure (1):** The Average Time (hours/day) Spent in Different Domains of Sedentary Behaviors for Humanity Collegian Females

The findings in figure (1) specify that humanity collegian females spend more time sleeping than studying, other activities, screen time, transportation, meals, and napping.

**Discussion**

**Part I: Discussion of the Overall Evaluation of Collegian Females’ Sedentary Behaviors**

The results of the data analysis are shown in Table (1) indicate that more than two-thirds of humanity collegian females have experienced a high level of sedentary behaviors (14.42-17.95) hours/day, with a mean of sedentary time (15.11) hours/day. Because female college students spend a large percentage of their time sedentary, this statistic can be interpreted to mean that they sit for more than six hours/day during studying and more than 4 hours/day during other activities.

Supportive evidence for such evaluation is presented by a cross-sectional study which has revealed that the sedentary time is highest during studying (Nicolson et al. (2019)). Also, another cross-sectional study revealed that the total sedentary time in humanity colleges is (14.83) hours/day (Moulin and Irwin, 2016). As well as, a cross-sectional study reported that the total number of students’ sedentary time is (14.93) hours/day (Xu et al., 2020). This finding is nearly close to that of the present study.

**Part II: Discussion of the Average Time (hours/day) Spent in Different Domains of Sedentary Behaviors for Humanity Collegian Females**

The results of the data analysis are shown in Figure (1) indicates that the mean time during sleeping and napping is (7.67) hours/night and (0.42) hours/day respectively. This indicates that these students sleep at night less than 8 hours because they took a nap during the day for about half an hour. According to supporting statistics which found that more than half of the students had sleep of (<8) hours per night (Alzamil et al., 2019; Lovato et al., 2014). Besides that, a cross-sectional study reported that more than three-quarters of collegian students take long naps over (0.5) hour/day (Alzamil et al., 2019).

The mean sedentary time during meals is (1.05) hour/day. The average amount of time people spend eating during the day is represented by this number. Several studies have revealed that students spend (≥1) hour/day during meals, this finding is virtually close to that of the present study (Felez-Nobrega et al., 2019; Moulin and Irwin, 2016; Lynch et al., 2014).

The mean sedentary time during the transportation is (1.15) hour/day. As a result of the city's excessive traffic, this has materialized. Study participants spend one hour every day sitting while on travel (Felez-Nobrega et al., 2019; Gorely et al., 2007).

The mean sedentary time during studying is (6.03) hours/day. This statistic implies that female college students must succeed and achieve their goals in general. As a result, they spend the majority of their time studying. A cross-sectional analysis backs up this claim by finding that the studying requires the highest sitting time (Nicolson et al., 2019). While this contradicts previous data claiming that students study for two to five hours each day (Xu et al., 2020; Nicolson et al., 2019; Moulin and Irwin, 2017; Felez-Nobrega et al., 2017; Duan et al., 2015; Lynch et al., 2014).

The mean sedentary time during screen time is (2.83) hours/day. This time limit is considered normal recreational screen usage

during the day when compared to the requirement of fewer than three hours per day. Previous research has indicated that participants spend about (2) hours per day on screen-based time, which is less than the standardized time of (3) hours per day (Nicolson et al., 2019; Felez-Nobrega et al., 2019; Duan et al., 2015; Al-Hazzaa et al., 2011).

The mean sedentary time during other activities is (4.03) hours/day. These data suggest that college students may spend time sitting while doing other things like cooking, ironing, and listening to music, among other things. Preceding research has revealed that sitting time during other activities is > (4) hours per day, which supports this viewpoint (Felez-Nobrega et al., 2019; Harvey et al., 2015),

### Conclusion

The study concludes that when the findings are compared to the standardized time, the humanity collegian females spent regular recreational screen time during the day and the sedentary time during the studying for the female students was higher than the rest of the sedentary domains.

### Recommendation

The study recommendations according to the findings, the curriculum should be reviewed and adjusted to include special courses or lectures on sedentary behaviors in order to educate university students about the consequences of such behaviors.

### Ethical Considerations Compliance With Ethical Guidelines

The questionnaire was approved based on official permission from College of Education for women and College of Languages University of Baghdad to ensure their approval and facilitate the researcher's duty is to enter these colleges and apply the questionnaire to the students after clarifying the purpose of the study to them and earning their approval.

**Disclosure Statement:** The authors reported no conflict of interest. Thanks and appreciation to the College of Education for women and the College of the Languages University of Baghdad

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