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Awareness on Risks of Sedentary Lifestyle among college students

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ABSTRACT

A sedentary lifestyle is defined as a type of lifestyle where an individual does not receive regular amounts of physical activity. A sedentary lifestyle is found more common among college students. Physical inactivity is associated with the risk of many diseases like diabetes, obesity, cardiovascular diseases etc. The present study is to investigate awareness of the risks of a sedentary lifestyle among college students—a cross-sectional type of study conducted among the college people comprising 150 subjects. A total questionnaire of 15 questions was framed and responses were circulated and collected with the help of an online platform google forms. The results were analyzed using SPSS software. The survey showed that 45.21% of the respondents are doing regular physical activity in a daily basis, 53.42% of the respondents are following a proper diet, 54.1% are following proper sleep cycle. Regarding the awareness of risks of a sedentary lifestyle, 63.5% were aware and 36.5% were unaware. The Pearson Chi-square analysis showed that there is no significant correlation between gender and awareness on the sedentary lifestyle among college students. Hence the study can be concluded that awareness on risks of sedentary lifestyle among college students is moderate.

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INTRODUCTION

A sedentary lifestyle is defined as a type of lifestyle where an individual does not receive regular amounts of physical activity. This is quite common among college students (Greenleaf and McGreer, 2006). Worldwide, obesity and sedentary lifestyle give the race to noncommunicable diseases (Barkley and Lepp, 2016). A sustainable pattern of participation is important in the maintenance of health and prevention of disease. Physical inactivity has been linked with diabetes, obesity, and cardiovascular disease, but it can also increase the risk of certain cancers (Barkley and Lepp, 2016; Qin, 2020). The transition from secondary school to college is a crucial period which involves significant changes in lifestyle behaviours that may influence long-term health. Moreover, today's cell phones increase opportunities for sedentary behaviours. Higher risk of health problems is mainly due to the sedentary lifestyle. College is a critical period regarding unhealthy changes in energy-related behaviour (Chen, 2019). It is a public issue that

appears to be increasingly widespread in many nations. The study done by Hasmun Al Kilani Has mentioned according to the WHO, the important risk factors of NCDs high blood pressure, high blood cholesterol level, carcinogenesis (Gan *et al.*, 2019) also when there is inadequate intake of fruits and vegetables in does not lead to obesity-related issues (Shukri *et al.*, 2016). According to the World Health Organization (WHO), physical inactivity and low intake of fruit and vegetables are considered to be some of the major preventable risk factors for non-communicable diseases (NCDs) (Mytton *et al.*, 2017). In addition, the WHO has identified physical inactivity as the fourth leading risk factor responsible for 6% of global deaths. In order to minimize the occurrence of NCDs and enhance cardio-respiratory and muscle health, reduce depression and strengthen muscles, existing International Physical Activity (PA) recommendations recommend that adults participate in at least 150 minutes of moderate-intensity aerobic activity or 75 minutes of vigorous-intensity weekly PA (Escalante *et al.*, 2011).

Physical inactivity also contributes to obesity, which increases the risk for various diseases like diabetes, cardiovascular diseases, cancers etc. (Shukri *et al.*, 2016). Thyroid cancer is the most widespread endocrine malignant cancer (Ma, 2019). Glioma is the prime cause of cancer in adolescent people and it accounts for about 80% of all malignant tumours (Li, 2020). Naturally occurring medicinal plants can inhibit the growth of various cancers (Rengasamy *et al.*, 2018). Phycical activity increases the antioxidant status, which is potential to reduce the risk of cancer (Ramya *et al.*, 2018). Adiponectin is considered to be one of the key factors for obesity and it is believed to be an important link of the connection between obesity and breast cancer (Mohan *et al.*, 2015).

The purpose of this study is necessary to understand the causes of sedentary lifestyle many college students do not know the seriousness of. They are unaware of the effects like cardiovascular disease, type two diabetes, early death, obesity which are totally dependent on the amount of physical activity performed and the eating patterns (Akkoyunlu *et al.*, 2017). Thus, the aim of the present study is to create awareness on the risks of a sedentary lifestyle among college students.

MATERIALS AND METHODS

A self-administered questionnaire was prepared on the awareness of risks of sedentary behaviour among the college students. The questionnaire was

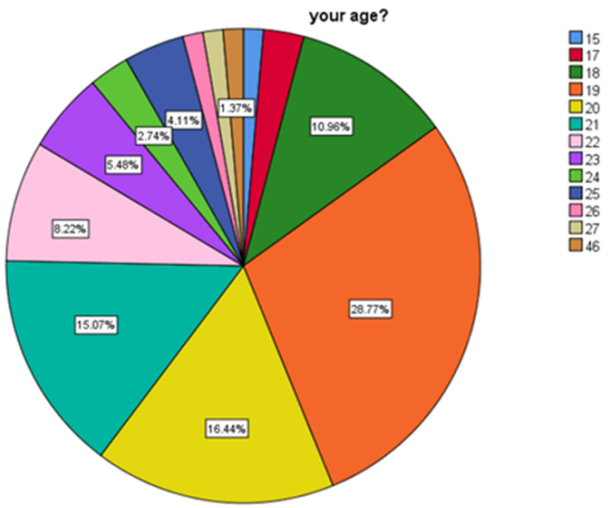

Figure 1: This pie chart shows the percentage distribution of age of the students who participated in the survey

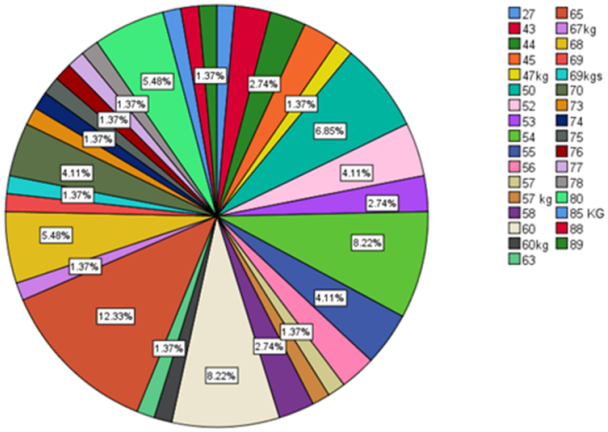

Figure 2: The pie chart shows the percentage distribution of the weight of the students participated in the survey

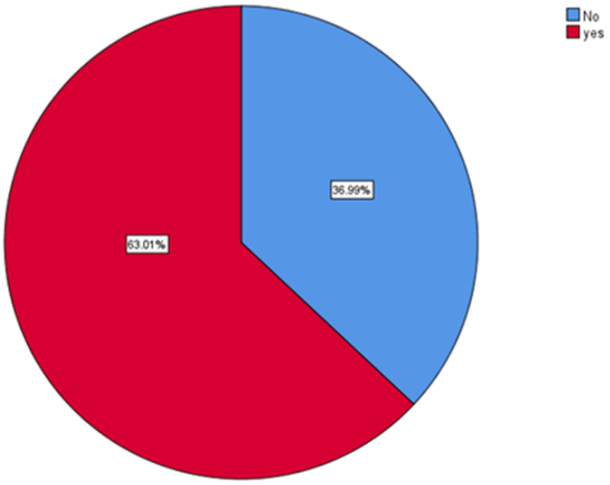

Figure 3: The pie chart shows the percentage distribution of whether the students are playing computer or video games or not

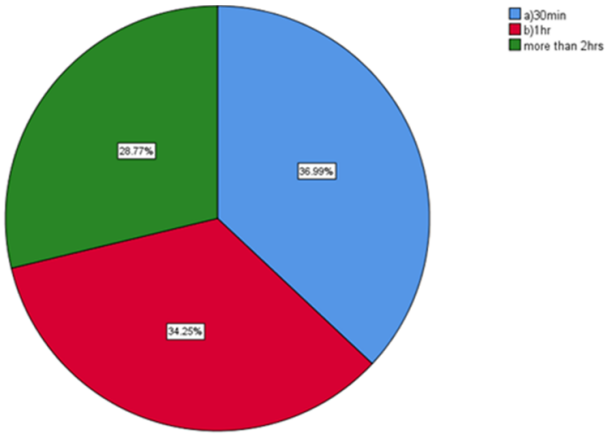

Figure 4: The pie chart shows the percentage distribution of the average time the students spent on a phone call

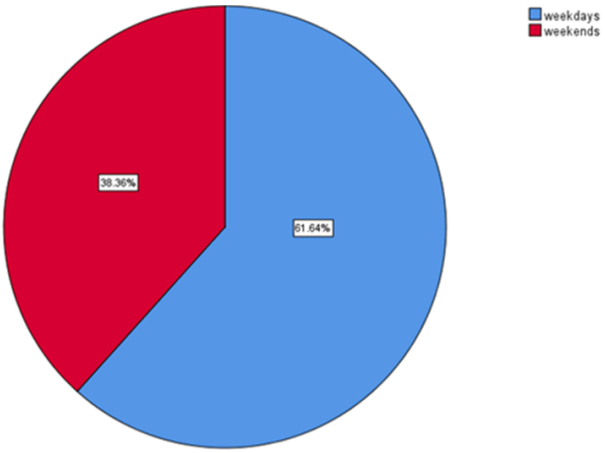

Figure 5: The pie chart shows the percentage distribution of during which days in a week the students watch TV and read books

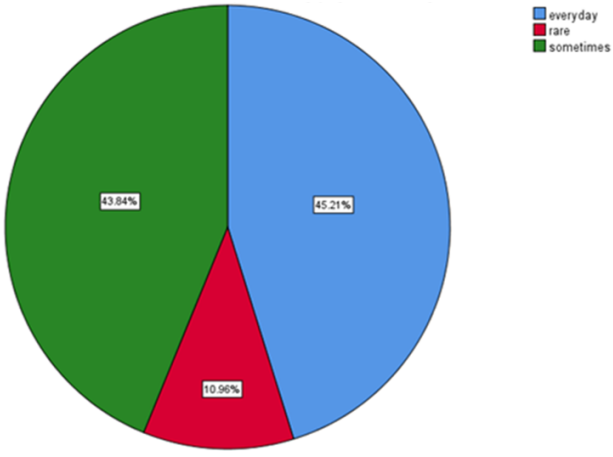

Figure 6: The chart shows the percentage distribution of how often the students perform physical activity

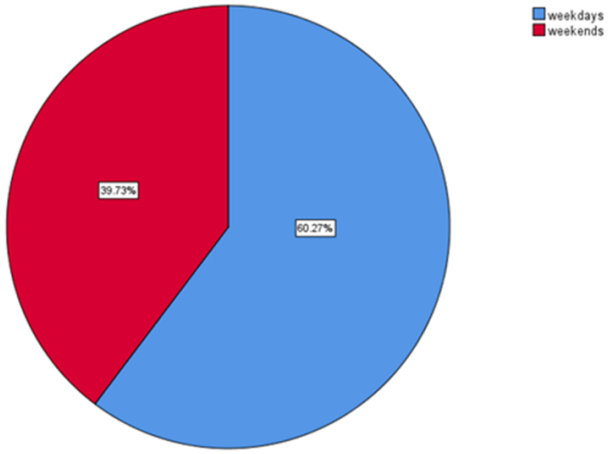

Figure 7: The pie chart shows the percentage distribution of when the students preferred to perform physical activity

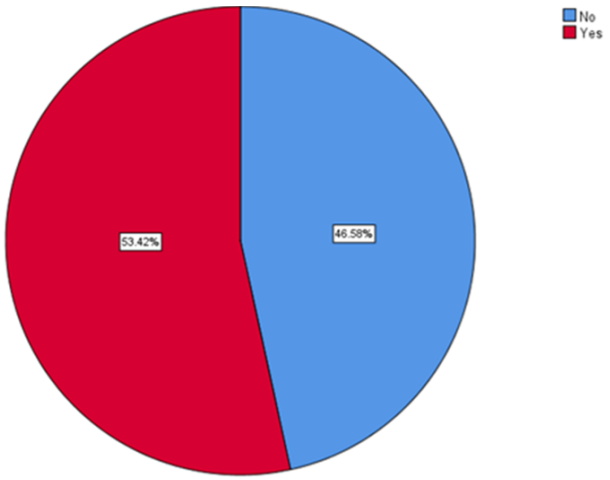

Figure 8: The pie chart showsthe percentage distribution of the students followinga proper diet

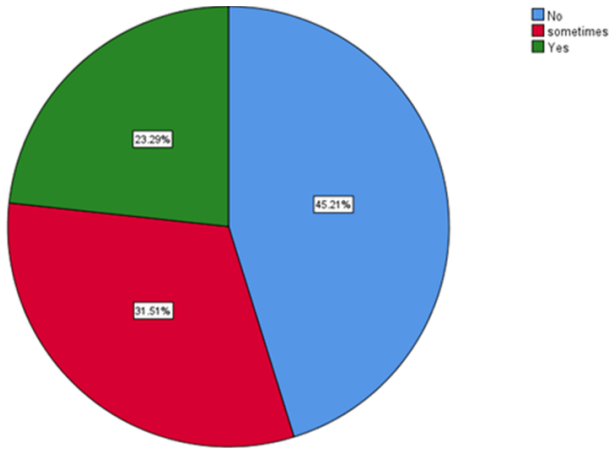

Figure 9: The chart shows the percentage distribution of Binge eaters among the students who participated in the survey

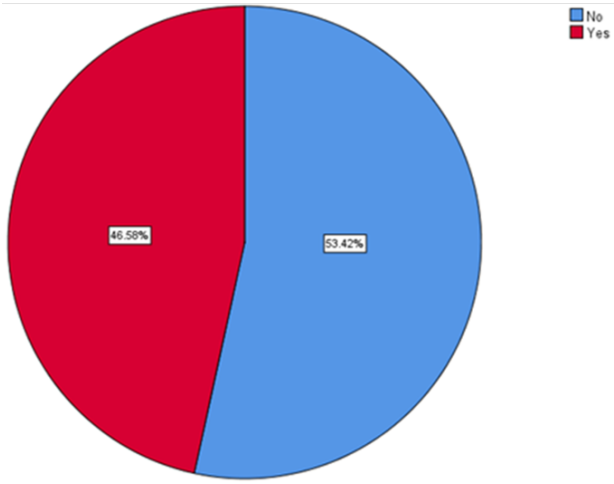

Figure 10: This pie chart shows the percentage distribution of students following a proper sleep cycle

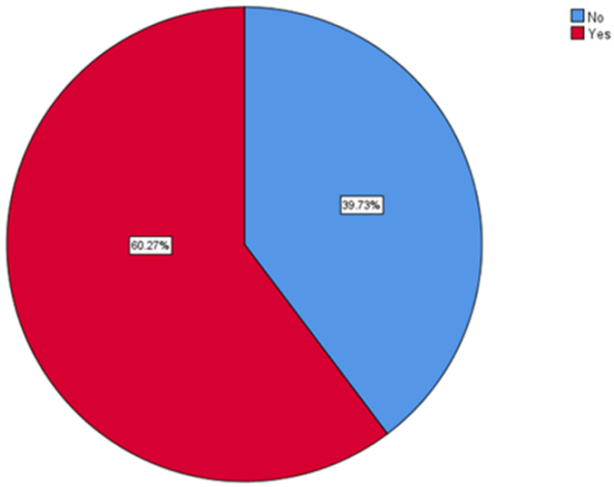

Figure 11: This pie chart shows the percentage distribution of students who playedany sport to keep themselves fit

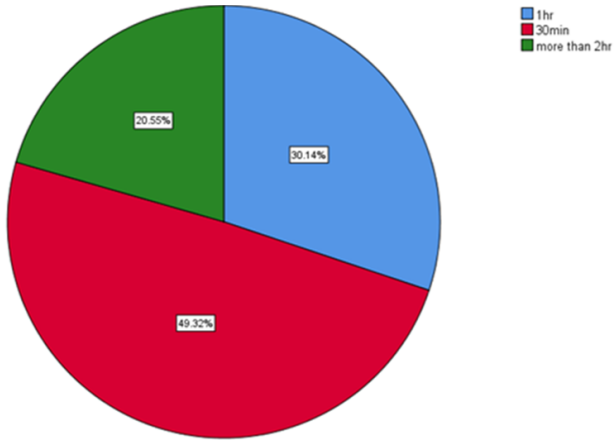

Figure 12: This pie chart shows the percentage distribution of time spent by the students on other activities rather than sitting

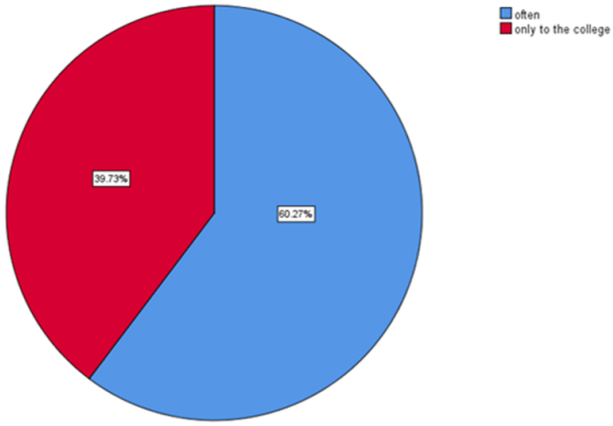

Figure 13: This pie chart shows the percentage distribution of students who drove a car or bike to the college or to any other places

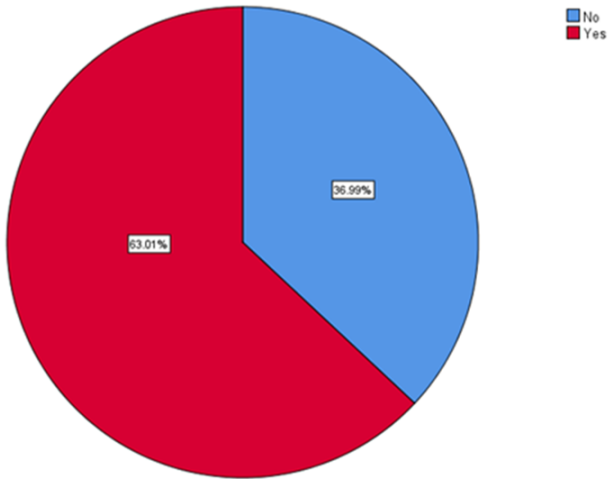

Figure 14: This pie chart shows the percentage distribution of awareness of the effects of a sedentary lifestyle among the students

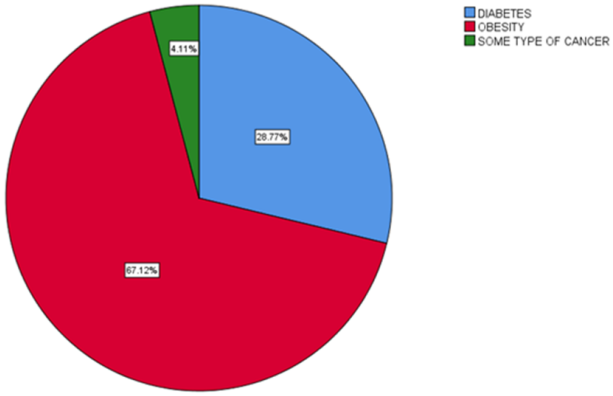

Figure 15: This pie chart shows the percentage distribution of awareness of the students on the health risks associated with a sedentary lifestyle

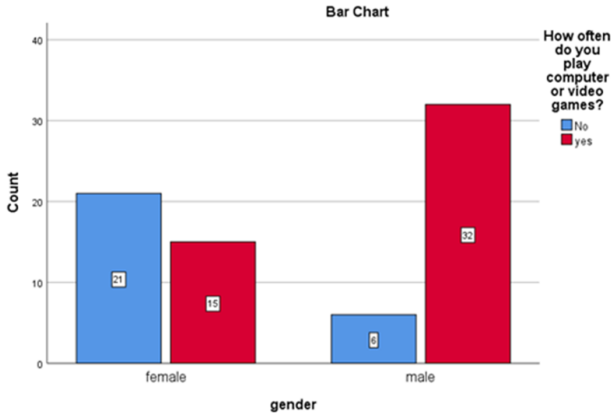

Figure 16: Barchart showing the association between gender and the number of students playing computer or video games

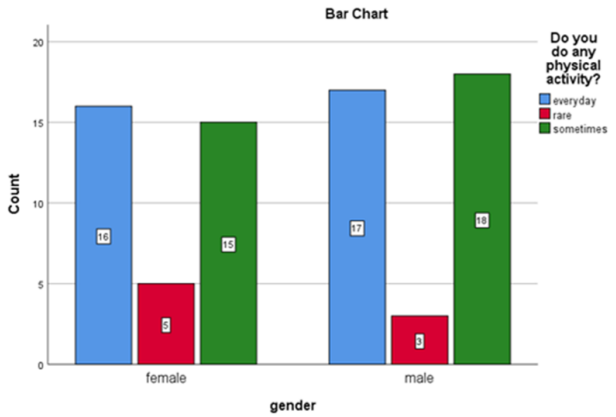

Figure 17: Barchart showing the association between gender with the number of students performing physical activity

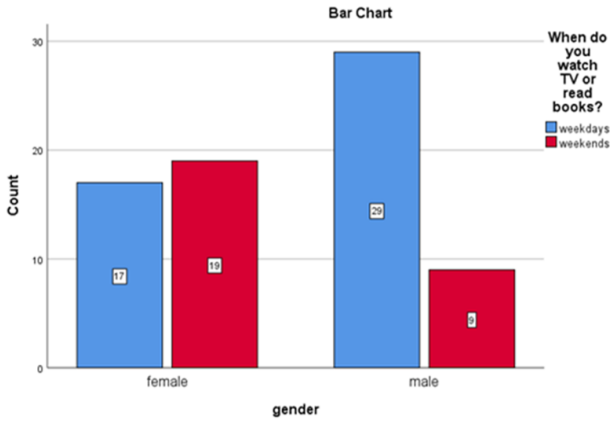

Figure 18: Bar chart showing the association between gender with how frequently the students watch TV or read books

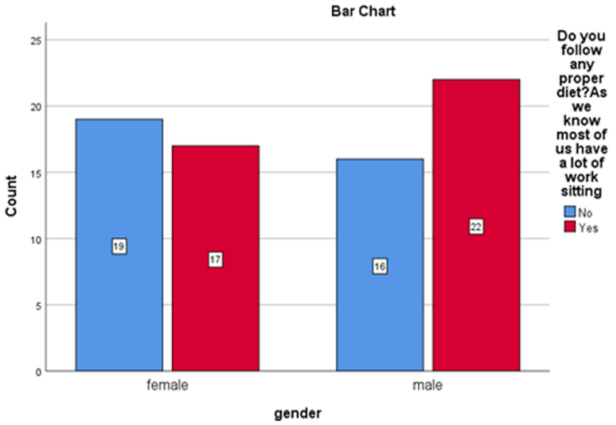

Figure 19: Bar chart showing the association between the gender and number of students following the proper diet

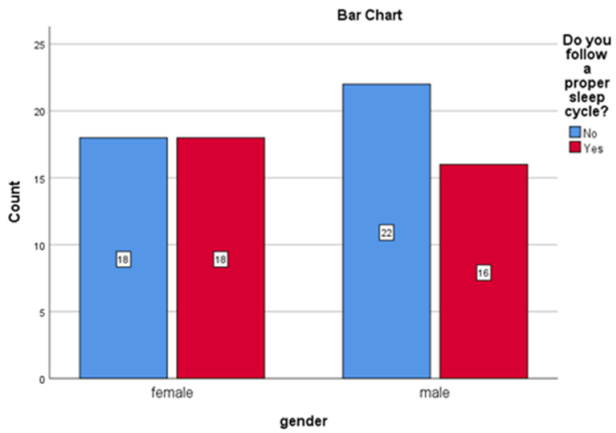

Figure 20: Bar chart showing the association between the gender and the number of students following the proper sleep cycle

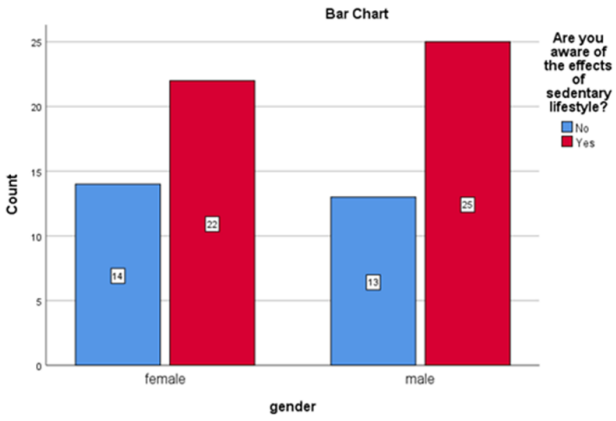

Figure 21: Bar chart showing the association between gender and awareness on the effects of a sedentary lifestyle

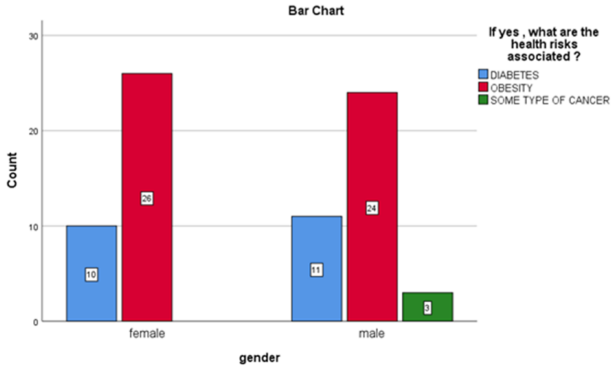

Figure 22: Bar chart showing the association between gender and awareness on the health risks of a sedentary lifestyle

prepared on Google forms which is an online survey. The link was being circulated among 150 college students after which results were collected, data were analyzed using SPSS software. The results were represented as bar graphs.

RESULTS AND DISCUSSION

A total of 150 participated in the study, results were collected, and the data was analyzed. The majority of the students were aware of the risks of a sedentary lifestyle; overall, it was a positive report. Figures 1 and 2 indicate the age and weight of the participants, out of which many were not obese. Regarding how long the students play computer games or video games, 63.5% responded as often played and 36.5% responded as not frequently playing (Figure 3). Further Figure 4 shows the average time the student spent on the phone, in which 37.8% spend over 30 minutes followed by 33.8% over an hour and 28.4% for about two hours which stands a minority. The percentage of students who read books or watch TV on weekdays were 62.2% and 37.8% on the weekends (Figure 5). Further, the frequency of their physical activity was also asked in which those who did sometimes comprising 43.8% and 45.21% are doing physical activity every day and those who performed very rarely were around 10.8% (Figure 6).Figure 7 shows those who preferred to perform physical activity during weekdays (60.27%) and those who preferred during weekends (39.73%). Figure 8 shows that 53.42% of the college students are following a proper diet, while 43.27% did not. The percentage of college students who were binge eaters comprises 23% and those who did sometimes were 31.1% and those who did not were 45.9% (Figure 9). Figure 10 represents the percentage of people having a proper sleep cycle comprised 54.1% and those who did not were around 45.9%. Further in Figure 11 percentage of college students who play to keep them fit was 60.8% and 39.2% did not. In Figure 12, the percentage of students who spent time in other activities for 30 minutes, where 48.6%, 29.7% did it for one hour and 21.6% did it for more than two hours. Figure 13 shows the habit of sitting and driving most often among the college students comprised 59.5% and 40.5% used driving only for going to college. In Figure 14, the percentage of college students who were aware of sedentary lifestyle is 63.5% and the rest where (36.5%) of the respondents were not aware. 67.12% of the students were aware that a sedentary lifestyle could cause obesity, 28.77% responded as diabetes, and 4.11% responded as some type of cancer (Figure 15). In this study, we have depicted the bar graphs showing a correlation with the gender with the awareness on the effects of a sedentary lifestyle. The chi-square test showed that male respondents are more frequently playing video games (P-value 0.000<0.05) than female (Figure 16). The statistical analysis shows that there is no significant association between physical activity and gender (p-value is 0.68 >0.05) (Figure 17). The chi-square test also showed that male respondents more frequently watch TV and read books than females (p-value 0.010<0.05) (Figure 18). The results showed that there is no association between the gender and the number of students following a proper diet followed and gender (p-value is 0.358 >0.05) (Figure 19) and a proper sleep cycle Figure 20 shows that This shows that there is no significant association between gender and proper sleep cycle followed (p-value is 0.496 >0.05). Also, there is no association between the gender and the awareness on the effects of a sedentary lifestyle Figure 21 shows that There is no significant association between gender and awareness on the effects of a sedentary lifestyle (p-value is 0.676 >0.05) and health risks associated with it Figure 22 shows that There is no association between the gender and the awareness on the health risks associated with a sedentary lifestyle (p-value is 0.215>0.05).

The use of natural products is used widely nowadays to treat many lifestyle disorders (Menon *et al.*, 2016; Rengasamy *et al.*, 2016). The use of traditional and alternative medicine in various diseases, including cancer, is documented in many studies (Ponnulakshmi *et al.*, 2019; Wu, 2019). Previous studies have demonstrated that 4-shogaol from ginger may be a novel anticancer agent for the treatment of metastasis in breast cancer (Chen, 2019). Garcinol has also shown strong activity against breast cancer and leukemia (Jainu *et al.*, 2018). Bionanotechnology has a pivotal role in the development of a novel therapy in the treatment of cancer (Ke, 2019; Wang,

2019).

Over the 20 years, great innovations have been introduced, designed in order to reduce labour activities however the technology has improvised which has led to unexpected consequences towards a sedentary lifestyle and prolonged static postures (Kanteshwari, 2011). In this present study, it is found that college students are aware of the risks and are, to an extent taking measures to control or avoid it. According to the previous study done by (He and Agu, 2016), the percentage of students performing physical activity was 80% in the majority which is similar to our current study comprising 85.2%. Also comparing the current study with the study done by (Xiong, 2020) proper diet management was not followed by 70% majority, which stands in contradiction. Further, the study carried by (Barkley and Lepp, 2016) stated that usage of mobile phones was more than a year by the majority comprising 60% but contradictory to the current study with 33.8 %. Next, a study by (Akkoyunlu *et al.*, 2017) the improper sleep cycle was common in 70% of the students which is contradictory to the present study. Further previous studies stated that (Akkoyunlu *et al.*, 2017; Felez-Nobrega *et al.*, 2020) awareness of the sedentary lifestyle among the college students was 70%, which is similar to ours. And compared to the study by (Yang, 2018) showed that majority of the respondents (65.2%) believed obesity as the major risk associated with a sedentary lifestyle which was observed similar to our study.

The limitations in this current study are that the survey was carried through online means much of diagnostic modalities were not used. The study was also pretty precisely circulated among college students and health affects immune systems are much discussed. The future is the further scope of the study is a population which should be increased more awareness and knowledge should be created and the limitation should be explored and sort it out.

CONCLUSION

Physical inactivity and sedentary lifestyle are seen commonly in college students. The present study showed that about 63% of the respondents were aware of the risks of a sedentary lifestyle, at the same time a considerable portion of the respondents are not doing regular physical activity and following a proper diet and sleep. Hence the study can be concluded that the awareness of risks of sedentary lifestyle among college students is moderate and measures should be taken to make them aware and physically active.

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The authors declare that they have no funding support for this study.

Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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