Evaluation of Healthy Lifestyle Behaviors of Female Students in A Public Accommodation Center From Kırşehir, Turkey

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ABSTRACT

Goal: This study is a descriptive analysis aiming to determine the healthy lifestyle behaviors of students staying in a female dormitory in the Central Anatolia region.

Methods: A total of 295 students staying in a state-run female dormitory were included in the study. Data was collected with a personal information form and a “Healthy Lifestyle Behavior Scale” between March and May 2014. The dependent variables of the study were the HLBS points and subscales. The independent variables were age, class, department, family structure, place of longest residence, family education and occupation, perception of income, sport, academic success, BMI and nutrition.

Results: The average age of students participating in the study was 19.92±1.39 (17-26) years. The average HLBS points of the students in the study were determined to be 120.24±16.99 (85-170). There was a statistically significant difference found between the students’ regular participation in sport, use of cigarettes, department they studied in and academic success levels with healthy lifestyle behavior and subscales (p<0.05).

Conclusion: We determined that student’s scores taken from healthy lifestyle behaviors scale was moderate level. We consider that regular and continuous education to develop healthy lifestyle behavior during undergraduate education will benefit students who will become the health professionals of the future.

Key words: Healthy lifestyle behavior, student, health promotion.

1. INTRODUCTION

According to the definition of the World Health Organization (WHO) health is not just the absence of disability or disease but a full sense of physical, mental and social wellbeing (1). According to the WHO, 70-80% of deaths in developed countries and 40-50% of deaths in less-developed countries are caused by diseases emerging due to lifestyle. The way to prevent disease related to lifestyle, such as heart disease, obesity and diabetes, is to change lifestyle behavior (2).

Healthy lifestyle behavior (HLB) comprises the methods used by individuals to stay healthy and prevent disease along with their beliefs about health. (3). According to another paper, healthy lifestyle comprises all approaches used by an individual to take control of behavior related to themselves and to raise the health levels of daily activities. Healthy lifestyle behavior then is behavior motivated by protecting the state of well-being and keeping well-being at high levels (4).

According to the Center for Disease Control (CDC), gaining and applying healthy behavior also brings about a more healthy life. According to the CDC there are 4 different risk behaviors, especially, which endanger life. These are insufficient physical activity, bad nutrition, tobacco and use of tobacco products and alcohol intake (5). These unhealthy behaviors are responsible for many diseases and the development of deadly chronic diseases. According to data from the Turkish Statistical Institute (TSI), circulation system diseases (39.8%), benign and malignant tumors (21.3%), respiratory diseases (9.8%) and diseases related to endocrine, nutrition and metabolism (5.6%) take first place among diseases causing death. Of circulation system disease deaths 38.8% are due to ischemic heart disease, 25.2% are due to cerebrovascular diseases, 17.7% are due to other heart diseases and 12.8% are due to hypertensive diseases (6). The leading risk factors playing a role in the development of cardiovascular diseases are cigarettes, inactive lifestyle and unhealthy nutrition. Of

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every 10 Americans who die each year, the cause of death in 7 is chronic disease. Heart disease, cancer and stroke are responsible for more than 50% of deaths each year (7). As a result to reduce these preventable diseases in society, it is necessary to encourage and monitor healthy behavior in a sustainable manner.

As indicated, there is a strong relationship between chronic diseases and the lifestyle of individuals (8). Currently it is recommended to identify risk factors related to lifestyle, direct individuals to develop healthy lifestyle behavior and correct negative environmental conditions (8; 9; 10; 11). On this point, changing behavior involves time and effort. To maintain sustainability, especially, it is very important to repeat health education for each age group at regular intervals. Among these age groups, young adults take first place. To prevent chronic diseases identifying risk behavior that plays a role in developing unhealthy lifestyles and to take early precautions with education, it is easier, albeit relatively, to change unhealthy behavior in the university period than in later life. University life is a period when important changes occur and risk behavior can develop. Apart from career education in this period, there are changes in physical and personal development, in the psycho-social life and health behavior of the individual. University students are an important risk group expected to practice healthy lifestyle behavior to protect and develop societal health. Developing healthy attitudes and behavior in students will contribute to the development of healthy lifestyle behavior in society (8;12).

This study aimed to investigate the incidence and risk factors of healthy lifestyle behavior in a female dormitory in Kirşehir.

2. METHODS
This descriptive study was completed in a female dormitory between March and May 2014 in a state in the Central Anatolia region. Before choosing the sample the population was studied, however some students did not want to answer the survey forms and as some forms were not fully completed, 295 students were included in the study. Permission for the research was obtained from the necessary institutions and, with respect for voluntary principles, written consent was obtained from the students participating in the study. Data was collected with a personal information form and the “Healthy Lifestyle Behavior Scale”. The personal information form comprised 20 questions aiming to determine the sociodemographic characteristics of the students and their perception of healthy lifestyle.

The Healthy Lifestyle Behavior Scale (HLBS) was developed by Walker et al. in 1987. The validity and reliability study for our country was completed by Esin in 1997 (13).The scale has a total of 48 items and 6 subscales. The subscales are personal development, health responsibility, exercise, nutrition, interpersonal support and stress management. The 48 items provide total healthy lifestyle behavior points. The scale uses a 4-point Likert-type system calculated as “Never” 1 point, “sometimes” 2 points, “often” 3 points and “regularly” 4 points. The lowest points for the whole scale are 48 while the highest points are 192. As the points increase the positive health behavior levels increase.

3. STATISTICAL ANALYSIS
In the present study, dependent variable was HLBS score and its subgroups. While independent variables were age, class grade, section, family type, place of living, parents’ education and occupation, income perception, sports, academic achievement, Body Mass Index, nutrition type. Data were analyzed using the SPSS software version 17.0. The variables were investigated using visual (histograms, probability plots) and analytical methods (Kolmogorov-Smirnov/Shapiro-Wilk’s test) to determine whether or not they are normally distributed. Descriptive statistics (frequencies, percentages, means, standard deviations) were used to describe groups of numerical data and the basic features of the data. Independent Samples T test and Kruskal Wallis test were used to compare numerical parameters between the groups.

4. RESULTS
The average age of participating students was 19.92±1.39 (min:17-max:26) years. As seen in Table 1, 34.2% of participants (n:101) were studying in the nursing department and 47.5% (n:140) were first year students. The place of longest residence was city for 29.8% (n:87) and metropolis for 29.5% (n:88). The perception of academic success of 53.6% was good.

| Department          | Number (n) | Percentage (%) |
|---------------------|------------|----------------|
| Nursing             | 101        | 34.2           |
| Child Development   | 100        | 33.9           |
| Midwife             | 48         | 16.3           |
| Medical Documentation and Secretarial | 25   | 8.5           |
| First Aid and Emergency | 6    | 2.0           |
| Other               | 15         | 5.1            |

| Class               | Number (n) | Percentage (%) |
|---------------------|------------|----------------|
| 1st grade           | 140        | 47.5           |
| 2nd grade           | 70         | 23.7           |
| 3rd grade           | 49         | 16.6           |
| 4th grade           | 36         | 12.2           |

| Living place        | Number (n) | Percentage (%) |
|---------------------|------------|----------------|
| Major city          | 87         | 29.5           |
| City                | 88         | 29.8           |
| District            | 77         | 26.1           |
| Village             | 43         | 14.6           |

| Academic achievement| Number (n) | Percentage (%) |
|---------------------|------------|----------------|
| Very Good           | 34         | 11.5           |
| Good                | 158        | 53.6           |
| Medium              | 93         | 31.5           |
| Bad                 | 8          | 2.7            |
| Very bad            | 2          | 0.7            |

The perception of health was described as good by 53.2% of students (n:157), 75% (n:22) used cigarettes, 2.4% (n:7) consumed alcohol, and 87.1% (n:257) ate a mainly mixed diet. According to BMI, 80.3% (n:237) were normal and 12.9% (n:38) were underweight. To pass the time the 30.8% (n:91) of students used computers and the internet, 29.2% (n:86) used books and music and 16.6% (n:49) watched television.

It was found that 81.0% (n:239) of students participating in the study lived in a nuclear family setting. The mothers of 64.4% (n:190) and the fathers of 59.0% (n:174) were primary school graduates with the mothers of 88.1% (n:260) housewives, the fathers of 24.7% (n:73) working in the private sector and the income of 69.5% (n:205) at middle levels.

The subscales and total points averages from the healthy lifestyle behavior scale were calculated as 158.53±18.87. As seen in Table 2, the subscales of “Nutrition and Nest” and “Physical Activity” had the highest level and the lowest level was seen in the subscale of “Recreational Activity”. The scale points and subscales were found to be normally distributed. For the whole healthy lifestyle behavior scale, the mean was 158.53±18.87 (n:295). The subscales were studied to determine the factor determinants of healthy lifestyle behavior.

Table 1. Demographic characteristics of the study population, Kirşehir, 2014.

| Academic achievement | Number (n) | Percentage (%) |
|----------------------|------------|----------------|
| Very Good            | 34         | 11.5           |
| Good                 | 158        | 53.6           |
| Medium               | 93         | 31.5           |
| Bad                  | 8          | 2.7            |
| Very bad             | 2          | 0.7            |
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There is no statistically significant difference found (p>0.05). The exercise and total healthy lifestyle behavior of those who do regular sport and the average nutrition points of those who do not consume cigarettes were found to be higher (p<0.05).

When the department attended is investigated, the average health responsibility, exercise and healthy lifestyle behavior averages are found to be higher in undergraduate students compared to certificate students and this difference was found to be statistically significant (p<0.05). When the perceived academic success is examined, all subscales were found to have a statistically significant difference, apart from health responsibility and exercise (p<0.05). The average points of those with good-very good academic success were found to be higher. The average exercise points of those living in metropolis/cities were high compared to those from towns/villages and the difference was statistically significant (p<0.05) (Table 4). When the healthy lifestyle behavior of students in the study is investigated according to parental education, family structure and parental occupation, there was no statistically significant difference found (p>0.05).

5. DISCUSSION

This descriptive study completed in a female dormitory in Kırşehir investigated the healthy lifestyle behavior (HLBS) of students. The positive health behavior of individuals is related to gaining a high score on the HLBS and subscales. In our study the average HLBS points of the students were 120.2±16.99. In a study by Şimşek et al. the average points were 134.4 ± 9.7; while studies in the states of Corum, Çanakkale and Hatay had similar average points to our study (121.57±19.65; 122.1±19.8 and 122.09 ± 16.93, respectively) (14; 15; 4). The average points for university students in Turkey from other studies range from 116.1 to 126.4 (16, 17).

The majority of students in our study group came from nuclear families and this sociodemographic finding was similar to the Çanakkale study (15). The majority of students in our working group were studying in the nursing department, together with female students of the vocational health school. Around half of participants had good academic success, the body mass index of the majority was normal and cigarettes use was very low. In this study a statistical difference was found between the dependent variables of healthy lifestyle behavior and subscales and the independent variables of regular sport, cigarette use, and academic success levels (p<0.05). Of students in the study 53.2% perceived they had good health, 7.5% used cigarettes, 2.4% consumed alcohol, 87.1% had a mixed diet, while according to BMI 80.3% were normal and 12.9% were overweight. In a study of nurses working in a hospital Özkan and Yılmaz reported 46.6% smoked, 7.4% consumed alcohol, 74.8% ate unhealthily, 27.6%
In a study of nursing students at Hititte University, the incidence of smoking was 14.1% while 70.1% reported their general health situation as good (14). A comprehensive study of health workers found cigarette and alcohol consumption at very low levels and determined that avoiding risky behavior was an important responsibility for health professionals (19). As a result to prevent risk behavior at earlier ages and to develop positive health behavior, researching and improving healthy lifestyle behavior in students is very important.

In our study group 69.5% of students reported moderate income levels. In the study by Yılmazer et al., the economic levels were also at moderate levels (67.1%). When the educational level of mothers and fathers is examined in our study, the educational level of mothers was similar to findings from Yılmazer et al., (64.4% primary school and lower), however when the educational level of fathers is examined more than half were found to be primary school graduates (14).

In a study of nursing department students at Hititte University, the students who perceived general health as "good" had higher average points for the subscales of self-realization and nutrition (14).

An Istanbul study identified that the perceived health of nurses affected healthy lifestyle behavior, with those perceiving their health as very good 0.39 times more likely to exhibit healthy lifestyle behavior than those who perceived their health as good (20). In our study when the healthy lifestyle behavior of students is investigated with relation to health perception there was no statistically significant difference found. Health responsibility affects the initiation and continuation of behavior necessary to perceive, assess, improve and develop the health situation of the individual. To protect and develop the health of university students, studies which reveal health perceptions and healthy lifestyle behavior and determine the educational needs related to health should be completed (21). Studies of university students have shown that healthy lifestyle behavior is at moderate levels and recommend that education should be directed at this risk group to develop and protect health (22; 2; 23; 3).

In our study when the healthy lifestyle behavior related to alcohol use and BMI is examined, no statistically significant difference was found. The study by Yılmazel et al. found that the nutrition subscale points were higher for students who do not smoke (14). Similarly in our study the average nutrition points of those who do not use cigarettes were found to be higher.

In a study of high school students in Malatya, the nutrition subscale points were higher for students who ate breakfast (24). Students living in dormitories do not generally have a habit of eating regular breakfast. Negative housing, nutrition and environmental conditions, especially, can be an obstacle to students developing correct health behavior (14). A study of nursing students in Erzurum found that the total HLBS points did not change depending on where the student stayed, but determined that the students staying in state dormitories had lower exercise subscale points (25). In our study group the exercise subscale and total HLBS average points were higher for those who partook in regular exercise.

A study in Istanbul found that there was a significant increase in health responsibility subscale points during nursing education and a significant difference between the year of study, (26). While there was no difference found in other subscales in the study by Yılmazel et al., the health responsibility subscale points for second year students were found to be higher (14). Observing risk behavior in the adolescent and young adult periods is expected, as a result changes in behavior related to health frequently may affect results. In our study there was no statistically significant difference in the average healthy lifestyle behavior points according to year of study of the student. When investigated for the department of study, undergraduate students had total average points for health responsibility, exercise and healthy lifestyle behavior significantly higher than certificate students.

When the healthy lifestyle behavior and parental education, family structure and parental occupation are investigated, there was no statistically significant difference found (p>0.05). According to the study by Şimşek et al. those living with family, those from broken homes, those with health perceived as middling and those with perceived high level economic situation had better healthy lifestyle behavior (16).
Additionally when the average points for subscales of the Healthy Lifestyle Behavior Scale are examined, nurses were found to have highest points for self-realization and the lowest points for exercise, nutrition and stress management subscales, in that order (18). Also in a study of university students, health responsibility and nutrition average points of the healthy lifestyle behavior scale for nursing students were found to be higher at a statistically significant level compared to students from other departments. However, the same study found that students in the business, nursing and science-literature departments had lower average points for the exercise subscale compared to students from other departments (2). According to these results while nutritional habits are better in the student years, after entering working life due to the effect of work stress, factors related to working conditions or stress factors from family-social environments, nutritional habits may get worse with age and the risk of developing unhealthy nutritional behavior should not be forgotten. Service training provided to protect or regain healthy nutritional behavior is very important. Another important healthy lifestyle behavior of regular physical activity was found to be low among nursing students or in studies of nurses, creating another important work health problem (18; 2; 4). Regular education directed at developing and maintaining exercise behavior, an important protective factor against obesity and the struggle with work stress among health workers, should be provided.

A study by Koçoluğ and Akin in Konya city center investigated the effect of socioeconomic inequality in health and healthy lifestyle behavior and quality of life. In conclusion they showed that class position, perceived income level, place of residence and number living in the household had a determining role in healthy lifestyle behavior and quality of life (27).

İlhan et al. in a study of university students found that the health responsibility and nutrition subscale average points were significantly higher for students in the nursing department compared to students from other departments (2). The same study found the HLBS average points were higher to a statistically significant degree for those with very good economic situation compared to those with middling and good economic situation. In our study those with bad economic situation had exercise and interpersonal support point averages statistically significantly higher than those with middling or good economic situation.

An educational study of students in a vocational health school determined a significant increase in the level of healthy lifestyle behavior from before education to after education (15). Additionally when the cost of time and effort to create behavior changes is considered, education to develop positive health behavior during the student period will be very productive for risk groups such as nurses who will provide service as health professionals. Güner and Demir in a study of surgery nurses found average healthy lifestyle behavior points of 116.89±16.3. They also emphasized that nurses, whose education is related to health, should have higher points (28).

6. CONCLUSION

We consider that regular and continuous education to develop healthy lifestyle behavior during undergraduate education will benefit students who will become the health professionals of the future. Additionally monitoring to determine the socio-demographic needs of students who may have disadvantages such as in our study group and inclusion in education to develop health will be helpful to develop positive health behavior.

CONFLICT OF INTEREST: NONE DECLARED.

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