

Analysis of healthy lifestyle (diet, physical activity, and healthy behavior) in the employees of Dar Al Uloom University

Redhwan Ali Esmail Mohammed^{1*}

¹ Humanities Section, University Preparation Program, Dar Al Uloom University, Riyadh, Kingdom of Saudi Arabia.

* Correspondence: Redhwan Ali Esmail Mohammed; redhwan.m@dau.edu.sa

ABSTRACT

The study aimed to assess the reality of healthy lifestyle among the employees of Dar Al Uloom University, to determine the level of obesity among the employees and also to determine the differences in the reality of healthy lifestyle among the students of Dar Al Uloom University according to the study variables (adjective, gender, and age). The researcher used the descriptive analytical approach that fits with the nature of this study. The study sample amounted to 184 of individuals (125 male and female students), (42 faculty members), (17 employees). The researcher used a measure of a healthy lifestyle includes three axes (healthy food, physical activity, and healthy behavior), in addition to defining a body mass indicator to determine degrees of obesity. The results showed that the employees of Dar Al Uloom University are practicing a moderately healthy lifestyle, and that the percentage of obesity was 22.58%, regarding overweight was 37.10%, and healthy weight with a percentage of 40.32%. The results also showed that faculty and staff members have more commitment to a healthy lifestyle by students in the axes of food and healthy behavior, and that males and females, and different other age groups share the same view points and prospective about the reality of a healthy lifestyle. The study recommended spreading awareness of the importance of practicing physical activities for university employees as a way of life, and the necessity of interest in spreading nutritional and health awareness among the university employees by holding different sports and awareness events.

KEYWORDS

Diet; Physical Activity; Healthy Behavior; Dar Al Uloom University

1. INTRODUCTION

In today's fast-paced and demanding work environment, employees are increasingly facing various physical, emotional, and mental health challenges. A sedentary lifestyle, unhealthy dietary habits, and high levels of stress can have negative impacts on the health and well-being of employees. This can lead to increased absenteeism, decreased productivity and overall job dissatisfaction.

According to the World Health Organization (WHO), it is estimated that 40% of the global non-communicable disease (NCD) burden appears to be linked to a few modifiable behavioral risk factors. Indeed, physical inactivity and low intake of fruits and vegetables are considered by the WHO to be among the major preventable risk factors for NCDs (WHO, 2009).

Physical activity and healthy nutrition are two important components of a healthy lifestyle. They are interrelated and play a critical role in promoting overall health and well-being. Research has shown that regular physical activity and a balanced diet are essential for preventing a range of health problems, including obesity, heart disease, type 2 diabetes, and certain types of cancer (WHO, 2020).

A healthy diet that is rich in fruits, vegetables, whole grains, and lean proteins, and low in unhealthy fats, added sugars, and processed foods, can help to promote overall health and prevent a range of chronic health conditions (U.S. Department of Agriculture, 2021). On the other hand, a diet that is high in unhealthy foods can increase the risk of developing chronic health problems, such as obesity, heart disease, and type 2 diabetes.

Physical activity, on the other hand, has numerous health benefits, including improving cardiovascular health, strengthening bones and muscles, reducing stress, and boosting mental health (Centers for Disease Control and Prevention, 2021). Regular physical activity has been shown to reduce the risk of developing chronic health problems such as heart disease, stroke, and type 2 diabetes, and can also help to manage existing health conditions (American Heart Association, 2021).

Physical inactivity is a major risk for many NCDs and is globally responsible for 9% of premature mortality. It is well recognized that lifestyle factors, such as physical inactivity, sedentary behaviors, unhealthy dietary habits, and insufficient sleep, are associated with many adverse health outcomes, including weight gain, obesity, reduced cardiorespiratory and musculoskeletal function, less favorable metabolic health, inflammation, insulin resistance and type 2 diabetes mellitus, decreased cognitive function, and negative psychological health (Lee et al., 2012).

The promotion of healthy lifestyle practices in the workplace has gained significant attention in recent years, as organizations seek to improve the health and well-being of their employees. Numerous studies have highlighted the benefits of promoting healthy habits in the workplace, including increased productivity, reduced absenteeism and health-care costs, and improved employee morale and job satisfaction (Halbesleben et al., 2004). A study by the World Health Organization found that workplace health promotion programs can result in significant improvements in the health and well-being of employees (WHO, 2010). The study found that programs that promote physical activity, healthy eating, and stress management, as well as programs that address other lifestyle factors such as smoking and excessive alcohol consumption, can have a positive impact on employee health and well-being. Research by the National Institutes of Health (NIH) has also shown that promoting healthy habits in the workplace can have a positive impact on employee health and productivity (National Institutes of Health, 2017). The study found that workplace health promotion programs that focus on physical activity, healthy eating, and stress management are particularly effective in improving employee health and well-being.

Several studies have revealed the relationship between physical activity and the enjoyment of a minimum health-related fitness in developing individuals' health and protecting them from many diseases related to lack of movement (Haung et al., 2009). Physical fitness directly contributes to the physical component of health, and indirectly contributes to the other psychological and social components. Ratib (2004); Al-Arjan (2015) point out that health-related fitness is one of the most important variables that effectively contribute to improving the health of individuals, as improving the health-related elements of physical fitness helps to reduce the risk of many diseases, the most important of which are heart and arterial diseases, diabetes, osteoporosis, and the elimination of obesity.

On the other hand, physical inactivity is the fourth cause of risk of death globally according to the data of the World Health Organization, as there is one person out of every (4) adults in the world who does not engage in physical activity sufficiently, and more than (80%) of adolescents suffer from the world is lacking in physical activity. Therefore, regular physical activity helps prevent chronic diseases such as heart disease, diabetes, high blood pressure, overweight and obesity, and improves the quality of life. The benefits of physical activity are not limited to the health aspect only, but extend to social, psychological, physical and economic benefits (Physical Activity Guide, 2020), which is confirmed by the World Health Organization (2014) that physical inactivity is the fourth leading risk factor for premature death globally. It causes 3.2 million deaths annually, and

insufficient physical activity is one of the four main risk factors responsible for the alarming increase in the volume of noncommunicable diseases such as heart disease, cancer and diabetes.

Despite the importance of physical activity for health, it is considered low in various groups of Saudi society. For example, most Saudi children, youth, and adults were not active enough to meet the recommended guidelines for moderate to vigorous physical activity. Saudi females were disproportionately less active than males, starting in the early school years. The proportions of Saudis at risk of inactivity are much higher than those at risk of other coronary heart diseases (AL-Hazaa, 2018). This reflected negatively on the spread of chronic diseases in Saudi society significantly. Survey studies during previous years indicated that 71% of deaths in the Kingdom of Saudi Arabia are caused by chronic diseases, and the prevalence of diabetes in the age group 30 years and above is 28%. The prevalence of blood pressure is 21%, and the most important risk factor associated with chronic diseases is overweight and obesity, which reaches 68% in Saudi society (Eslim et al., 2020). Alsunni (2015); Sayd (2014); Al-Hazaa (2004) confirm that proper nutrition based on scientific foundations for individuals is one of the important basic factors in gaining health, staying away from diseases, maintaining internal body systems, helping individuals to perform their daily duties efficiently, and enhancing many health organizations such as the American Society for Nutrition (ASN) and the American College of Sports Medicine (ACSM) stress the importance of nutrition, especially for young people, in mitigating the health risks associated with overweight and obesity.

The Saudi Arabia Ministry of Health, in line with the 2030 vision, seeks to increase the rates of physical activity, as the level of physical fitness related to health and health awareness is one of the factors affecting the prevention of diseases, especially modern diseases, and this was confirmed by the American National Center for Disease Control and Control (CDC) that there is strong scientific evidence stresses the importance of physical activity for the health of the individual and that the regular practice of moderate intensity physical activity for 30 minutes most days of the week and the high physical fitness of the individual yield positive effects on the various functions of the body (Al-Hasanat, 2009).

1.1. Research Problem

The World Health Organization recommends in its strategy for nutrition and physical activity that it is very important to monitor and regularly track levels of physical activity, inactivity and eating habits in the population, and that this is even more important when the target group is young people, adolescents and students. It is noticeable in the Saudi society that the levels of physical

activity, eating habits and practicing a healthy lifestyle are not at the level they hoped-for, especially among the youth, who must be given great and increasing attention with the emergence of several health issues, including obesity and related diseases such as diabetes, high blood pressure and heart diseases. It is well known that an unhealthy lifestyle such as physical inactivity, sedentary behavior, unhealthy eating habits, and insufficient sleep, are associated with significant risks such as obesity and low cardiac fitness, respiratory, muscular and metabolic, type 2 diabetes, deterioration in mental functions and brain health. According to the World Health Organization (2014) report, it is expected that in 2030 noncommunicable diseases will become the main cause of death in all countries of the world. The researcher believes that the problem of obesity has become a global problem affected and linked to each of nutrition, activity and physical inactivity, as well as is no longer limited to specific societies. It has taken an upward curve and an unprecedented increase in most countries of the world and is currently considered one of the most important topics, it occupies the attention of health organizations at the present time due to its danger to the health of the individual.

Since food and health behavior, and physical inactivity play a major role in determining health status and the quality of life for individuals, the deterioration of the nutritional status and lack of physical activity and sports lead to exposure to diseases and disruption of public health, the best example of which is overweight, obesity, and obesity which are considered a gateway to other diseases such as diabetes, high blood pressure, heart disease, and others.

The study aims to know the reality of healthy lifestyle among the employees of Dar Al Uloom University, to determine the level of obesity among the employees of Dar Al Uloom University and also to determine the differences in the reality of healthy lifestyle among the students of Dar Al Uloom University according to the study variables (adjective, gender, age). We hope that the study will provide results and recommendations that will be useful for spreading culture and health awareness among the university staff, including students, professors and employees, and show the importance of maintaining a healthy lifestyle to prevent chronic diseases.

2. METHODS

2.1. Participants

The researcher used the descriptive analytical approach that fits with the nature of this study. The study population included 614 students who recently entered the university for the first semester (2021-2022), as well as several administrators and faculty members of Dar Al Uloom University. The sample of the study was selected using the random stratified method and it amounted to 186

individuals, and the percentage of the sample was 33% of the study population. Table 1 shows the distribution of the sample according to its variables.

Table 1. Distribution of study sample members according to study variables

Variables	Categories	Frequency	Percentage
Gender	Male	115	61.83%
	Female	71	38.17%
Job description	Student	126	67.74%
	Instructor	43	23.12%
	Employee	17	9.14%
Age categories	18 - 25	112	60.22%
	26 - 35	25	13.44%
	36 - 45	30	16.13%
	More than 45	19	10.22%
Total		186	100%

2.2. Study Tool

The researcher used a comprehensive survey and depth interviews with a selected group of participants. The study used the "Healthy Lifestyle" measure: the reality of a healthy lifestyle for Dar University employee's science." The scale consisted of (31) items distributed over three axes, namely:

1. The healthy food axis, which includes (11) items, and the response to it is a choice of eight options.
2. The theme of physical activity, which includes (10) paragraphs, and the response to the first three paragraphs is a choice of eight options, while the remaining paragraphs are a choice of four options.
3. The axis of healthy behavior, which includes (10) paragraphs, and the response is based on the first three paragraphs a choice of five options, while the rest of the paragraphs a choice of four options.

2.3. Scale Validity

To verify the validity of the scale, it was presented to a committee of (9) arbitrators with special needs. The competence and experience of the faculty members, whereby their directives and suggestions were considered, has been modified the linguistic formulation of some paragraphs, when five arbitrators agree on that.

2.4. Scale Reliability

To verify the reliability of the scale, the stability coefficients were calculated using the application and reapplication method by applying it to an exploratory sample outside the study sample, which is (23) students, faculty members, and employees, to be applied twice with a time interval. Two weeks between the first application and the second application. Pearson coefficients were included in the results of the two applications, as the values ranged from 0.87 for the physical activity axis, 0.79 for healthy behavior, and 0.94 for healthy food, and the value of the correlation coefficient for the total scale was (0.89). These are acceptable values for conducting such a study.

3. RESULTS AND DISCUSSION

Table 2 shows the results of the descriptive statistics on the perceptions of the study participants with regard to a healthy lifestyle.

Table 2. The results of the descriptive statistics on the perceptions of the study participants with regard to a healthy lifestyle.

#	Dimensions	From to	Average	standard deviation	stylistic degree	
1	Healthy food	0 – 7	2.39	1.125	Average	
2	Physical activity	Exercising in a week	0 - 7	1.43	1.460	Average
		Physical activity in a general	0 – 4	2.43	.467	Average
3	Healthy behavior	smoking	0 – 4	1.97	1.24	Few
		Healthy behavior	1 - 4	2.05	.398	Average

Table 3 shows the descriptive analysis results regarding the healthy eating axis.

Table 3. Descriptive analysis results regarding the healthy eating axis

#	Paragraphs	Average	Standard deviation	Stylistic degree
1	How many times do you eat breakfast in a week?	4.18	2.42	Average
2	How many times do you eat three meals a day per week?	3.65	2.45	Average
3	How many times do you eat desert and chocolate in a week?	3.53	2.08	Average
4	What is the amount of your weekly consumption of vegetables, with a minimum of a medium salad bowl or a bowl of vegetable edam?	3.51	2.08	Average
5	How many times do you eat fatty or fried foods in a week?	3.30	1.93	Average
6	How many times do you eat fast food in a week?	3.03	2.03	Average
7	How many times do you eat out in a week?	2.94	2.03	Average
8	How many times do you drink soft drinks per week?	2.80	2.22	Average
9	What is your weekly fruit consumption (minimum whole fruit such as apples, oranges, bananas, or a bowl of salad)?	2.78	1.81	Average

10	How many times do you eat fish in a week?	1.61	1.82	few
11	How many times a week do you drink energy drinks?	.96	1.57	few
Total		2.93	1.125	Average

Note: * Paragraph range (0 – 7)

Table 2 shows that the arithmetic mean of the estimates of the sample members on this axis was 2.93 and a standard deviation of 1.125 which corresponds to an estimate of a moderate degree. The reason for this result could lie in the association of today's lifestyle with fast food and the culture of convenience food and a change in eating habits from the number of meals per day. The emergence of this finding suggests that members of the university employee sample are moderately practicing a healthy lifestyle associated with food, and this poses a threat to health as unhealthy foods and fast foods are associated with many chronic diseases such as obesity, diabetes, hypertension, arteriosclerotic diseases and others as these foods contain large amounts of saturated (trans) fats. This result agrees with the results of the study by Al-Otaibi (2021); Kilani et al. (2013), which indicated the presence of some misconceptions of food and the role it plays in maintaining the general health of the sample members, and showed a lack of nutritional awareness among the sample members.

Table 4 shows the descriptive analysis results regarding the physical activity axis.

Table 4. The descriptive analysis results regarding the physical activity axis

#	Paragraphs	Average	Standard deviation	Stylistic degree
1	I prefer to travel by car to meet my daily needs, even if the trip is short (going to the mosque, to the market, to the garden, to work)	2.81	1.07	Average
2	It is better to take the stairs instead of the elevator in (home, university, shopping places).	2.77	1.05	Average
3	I practice physical activity as a lifestyle.	2.52	0.95	Average
4	I'd rather use apps to buy my necessities than go shopping	2.46	1.10	Average
5	It is best to do physical activity at a fixed and fixed time	2.24	0.96	Average
6	It is better to do physical activity with others	2.22	0.97	Average
7	The best physical activity in the club	2.01	1.01	Average
8	Over the past week, how often have you participated in 30 minutes of moderate physical activity, such as walking?	1.90	1.96	Average
9	During the past week, how often did you engage in intense physical activity for at least 20 minutes, such as running or swimming?	1.41	1.77	Average
10	During the past week, how many times did you go to exercise at a health club?	.98	1.62	Few
Exercising during the week		1.43	1.460	Average
Physical activities in general		2.43	.467	Average

Note: * The range of paragraphs (1, 2, 3) from (0 - 7); * The extent of the rest of the paragraphs from (0 - 4)

Table 4 shows that the arithmetic mean of the estimates of the sample members on the side of exercising during the week was 1.43 and a standard deviation of 1.46, which corresponds to the estimation of a pattern in a medium degree, on the side of physical activities in general as a whole 2.43 and standard deviation of 0.467.

The researcher attributes the emergence of this result to the fact that most university employees, students, and faculty members are not athletes, meaning they do not practice sports and are not among their daily interests, despite their keen awareness of its importance and benefits to the practitioner, as well as their positive attitudes towards physical activity in general. However, the conditions of contemporary life, the availability of luxury and technology, and the nature of the social class to which university employees belong may be a reason for the decrease in physical activities in general for this group of society. The results also showed that the paragraph that stipulated "going to exercise in health clubs" had a very low degree of estimates and responses to the sample members. This result agrees with the result of the studies of Ladabaum et al (2014); Kilani et al. (2013); Zayed (2019), which indicated a low level of physical activity among the sample members. Furthermore, a study by Al-Sharif (2013), showed that 63% of the study sample do not engage in any physical activity. Table 5 shows the descriptive analysis results regarding the healthy behavior axis.

Table 5. The descriptive analysis results regarding the healthy behavior axis

Paragraphs	Average	Standard deviation	Stylistic degree
1 I spend many hours of my day sitting and browsing the internet on my mobile.	3.07	0.85	big
2 I spend part of my time sitting down watching TV or using the computer.	2.85	0.89	Average
3 I go to sleep after 12 midnight.	2.62	1.04	Average
4 I maintain an average of 7-8 hours of sleep per day.	2.60	0.93	Average
5 I go to sleep and wake up at a set hour each day.	2.41	0.86	Average
6 I go to sleep between 9 pm and 12 midnight.	2.40	0.94	Average
7 I feel psychological pressure and constant anxiety.	2.22	1.05	average
8 Are you currently a smoker of cigarettes?	1.08	1.59	few
9 Are you a smoker of shisha or hookah?	.80	1.11	few
10 Are you a smoker of electronic cigarettes?	.44	0.94	few
smoking side	1.97	1.24	few
healthy behavior	2.05	.398	average

Note: *The range of paragraphs (1, 2, 3) from (0 - 4); * The extent of the rest of the paragraphs (1 - 4)

The results of Table 5 show that the use of portable devices affects human health, as young people spend most of their time using mobile phones and browsing various internet sites for long hours, and

this naturally leads to the danger of electromagnetic waves on brain functions, which results in headaches and poor concentration, and increases cancer risk. One of the dangers of excessive use of technology is the danger to the health of the upper limbs and neck muscles, Where studies have proven that there is a relationship between chronic headaches, numbness and spasms of the extremities, and it was more prevalent among users of electronic devices for long periods, and there is also a danger to eye health from continuing to look at screens for long periods, and the risk of car accidents, as studies have proven that electronic devices and mobile phones It is the cause of a large percentage of traffic accidents (Eslim et al., 2020). This result agrees with the study of Khunti et al. (2007), which showed that 46% of the study sample spend four hours or more watching television, video, or computer games. As well as a decrease in behaviors that promote physical activity, especially among female students. Paragraph No. (4), which reads “I spend part of my time sitting watching TV or using the computer” came in second place with an arithmetic mean (2.85) and a standard deviation (0.89), while it occupied paragraph No. (3), which states “Are you a smoker of cigarettes?” e?" The last rank with an arithmetic mean (0.44) and a standard deviation (0.94). The arithmetic mean of the estimates of the sample members on the smoking side was (1.97) and a standard deviation (1.24), which corresponds to a pattern estimation to a small degree. This indicates that the percentage of smokers among the employees of Dar Al Uloom University is small, and this result is positive and indicates awareness of the dangers of smoking and the diseases associated with it. As for the health behavior, the mean was (2.05) and the standard deviation was (0.398), which corresponds to an estimate of a pattern with a medium degree. This result may be positive, but it is not sufficient, as this group of society needs to pay more attention to it and spread health awareness and health culture on the benefits of adhering to a healthy lifestyle as a prevention factor for infection from chronic diseases, which is one of the most important health problems facing the countries of the world in general and the Kingdom of Saudi Arabia. In the following, Table 6 shows the results of the degree of obesity among the study sample according to body mass index.

Table 6. The degree of obesity among the study sample according to body mass index

#	Body mass index	Repetition	Percentage	Degree of obesity
1	18.5 – 24.9	75	40.32%	healthy weight
2	25 – 29.9	69	37.10%	Overweight
3	30 or more	42	22.58%	Obesity
Total		186	100.00%	#

The results of table above show that the frequencies of those with a body mass index (from 18.5 - 24.9) amounted to (75) with a percentage (40.32%), and the frequencies of those with a body mass index (from 25 - 29.9) amounted to (69) with a percentage (37.10%), and the frequencies of those with a body mass index (from 25 - 29.9) Body mass (more than 30) was (42) with a percentage of (22.58%). This result is consistent with the data of the Saudi Ministry of Health in 2020, which indicates a high rate of obesity in Saudi society to approximately 59%, 28.7% of them exceeded the term overweight and became obese, and 31% of them are overweight in the age group 15 years and over (National Center for Mental Health Promotion, 2020). This may be due to a significant change in lifestyles and dietary habits in the Kingdom of Saudi Arabia in recent decades, which resulted in the spread of a culture of ready and unhealthy food, in addition to the lack of movement (physical inactivity). Which many studies have proven that the levels of physical activity in the Kingdom for different age groups are low and not at the desired level (AL-Hazzaa, 2018). This result is consistent with the study of Ladabaum et al. (2014); Ali (2012), which indicated a high level of obesity among the sample members.

Table 7 presents the results of the multiple variance analysis of the differences between the arithmetic averages of the estimates of the sample members on the axes of the reality of their healthy lifestyle according to the variables of gender, trait and age group.

Table 7. The differences between the arithmetic averages of the estimates of the sample members on the axes of the reality of their healthy lifestyle according to the variables of gender, trait and age group.

Contrast source	Axles		Sum of squares	df	Mean squares	F value	P value
Gender Hotelling's=0.092 P=0.046	healthy food		4.083	1	4.083	3.398	.067
	Physical activity	Playing sports	.046	1	.046	.022	.881
		Physical activities	.009	1	.009	.043	.836
	Healthy behavior	smoking	1.754	1	1.754	10.760	*.000
		Healthy behavior	.174	1	.174	1.154	.284
Job description Wilks' Lambda=0.859 P=0.021	healthy food		9.691	2	4.846	4.032	.019*
	Physical activity	Playing sports	4.616	2	2.308	1.125	.327
		Physical activities	.285	2	.142	.665	.515
	Healthy behavior	smoking	1.237	2	.619	4.097	.018*
		Healthy behavior	3.478	2	1.739	11.517	.000*
Age group Wilks' Lambda=0.859	healthy food		.395	3	.132	.110	.954
	Physical activity	Playing sports	8.342	3	2.781	1.356	.258

P=0.088		Physical activities	1.318	3	.439	2.052	.108
	Healthy behavior	smoking	.411	3	.137	.841	.639
		Healthy behavior	.886	3	.295	1.956	.122
The error		healthy food	215.158	179	1.202		
		Physical activity	367.129	179	2.051		
		Playing sports					
		Physical activities	38.306	179	.214		
		Healthy behavior	smoking	29.177	179	.163	
		Healthy behavior	27.029	179	.151		

There are no statistically significant differences between the average estimates of the study sample members on the axes of the reality of their healthy lifestyle due to the gender variable, except for the axis of health behavior / smoking aspect, in favor of the estimates of (males). This can be attributed to the fact that females are more sitting at home, watching TV and surfing the Internet than males, and the phenomenon of smoking of various types is widely spread among women, so the results showed more commitment than males in the axis of healthy behavior in terms of sitting for long periods. digital, healthy sleep, as well as smoking. Also, there are statistically significant differences between the average estimates of the study sample members on all aspects of the reality of their healthy lifestyle due to the attribute variable, except for the axis of physical activity. The table shows that there are statistically significant differences between the estimates of the members of the study sample with the quality (student) on the one hand, and the averages of the estimates of those with the quality (a faculty member and employee) on the other hand, in favor of the estimates of those with a quality (faculty member and employee) on the comparison axes. This may be attributed to the distinguished faculty and staff with a greater awareness of the importance of adopting a healthy lifestyle in all areas of study and the health benefits that accrue to them as a result of this commitment, as well as the health risks that may occur as a result of not adhering to a healthy lifestyle, while students are at a young age and less awareness and interest in the need to adhere to a healthy lifestyle in the matter of food, exercise and healthy behaviors.

4. CONCLUSIONS

There is no longer any serious doubt that daily habits and practices profoundly affect health and quality of life in the short and long term. Increasing physical activity, proper nutrition, managing weight, avoiding tobacco, and reducing stress are all keyways that can reduce the risk of chronic disease and improve quality of life. Despite the overwhelming evidence that these practices have a

profound effect on health, there is no doubt that spreading awareness and health culture among university students will have a positive impact in increasing awareness of the importance of practicing a healthy lifestyle, and we notice this by increasing the number of students who practice physical activity continuously, whether for male or female. The results of such research will have a positive impact on motivating students, faculty members and staff to practice a healthy lifestyle.

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AUTHOR CONTRIBUTIONS

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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