Assessment of Barriers to Physical Activity among Students at Umm Al-Qura University

*Dear, Dr. Zayed Mohammad Altowerqi

Abstract

There have been several studies on barriers to physical activity (PA) for university students published in other countries and Saudi Arabia. However, there are no data on individuals associated with Umm Al-Qura University. A total of 238 university students, aged between 18 and 27 years old, participated in this study, which was designed to assess the perceived barriers to PA among Umm Al-Qura University students. The results of this study showed that "lack of accessible places" was the most important barrier to PA. Then, "I don't know about sport facilities" was the second most important. The least important was "I don't have motivation" followed by "I feel lazy". The findings of this study confirmed that university students at Umm al-Qura University may posing highly sedentary lifestyle and physical inactivity, although there is both a sports hall and a gym at the university. Thus, educating students about the place and times is warranted.

Keywords: Physical activity, Umm Al-Qura University, students, Barriers

Introduction

The prevalence of non-communicable diseases (NCDs) is a pressing public health issue around the world, particularly in Saudi Arabia. This is due to a variety of factors, such as inadequate nutrition, lack of physical activity, tobacco use, and consumption of alcohol (Al-Hazzaa et al., 2011; Altowerqi & Zainuddin, 2021; Anjali & Sabharwal, 2018; Ilić et al., 2022). However, physical activity (PA) remains a key factor in promoting health, delaying, or preventing a variety of musculo-skeletal conditions, including neck and shoulder pain, as well as reducing the risk of coronary heart disease, high blood pressure, diabetes, osteoarthritis, obesity, and colorectal cancer (Altowerqi & Bin Zainuddin, 2022; Altowerqi & Zainuddin, 2021; Hussin et al., 2021; Özkul, 2021; Saadan et al., 2015; Sayyd et al., 2021).

The age of young adulthood is a transitional period between childhood and adulthood, and lifelong habits, such as regular PA are typically initiated during this period. (Saadan et al., 2015). A lack of PA at a young age can increase the risk of many health issues, such as cardiovascular disease, high blood pressure, type 2 diabetes later in life, and a high body mass index, and increases the chances of

* Department of Sport Science, Faculty of Education, Umm Al-Qura University, Makkah, Saudi Arabia.

being physically inactive during adulthood (Hussin et al., 2021; Martínez-Lemos et al., 2014; Saadan et al., 2015). Both modernization and the hectic pace of daily life have changed the nature of humanity (Al-Hazzaa et al., 2011; Hussin et al., 2021).

According to Sammer et al. (2021), the prevalence of physical inactivity globally among young adults is about 30%. In Saudi Arabia, for example, it has been shown that over 50% of children and over 70% of young people are physically inactive (Sayyd et al., 2020). It has been observed that a third of active high school students have experienced physical inactivity as they transition to university life. Furthermore, research has indicated that university students may experience similar physical inactivity issues (Hussin et al., 2021).

Unfortunately, despite the well-known health benefits of PA, several studies reveal that there is a decrease in regular PA among university students (Abou Elmagd et al., 2018; Anjali & Sabharwal, 2018; Martínez-Lemos et al., 2014; Özkul, 2021; Sayyd et al., 2020). PA is an individual choice but the amount of PA an individual does is also determined or influenced by different factors such as the attitudes and beliefs of PA benefits (Abou Elmagd et al., 2018; Anjali & Sabharwal, 2018; Saadan et al., 2015).

Perceived obstacles to PA refers to characteristics that a person sees as obstacles to PA. These obstacles can be divided into two categories: internal and external. Internal barriers are related to personal factors, such as beliefs and preferences, whereas external barriers are related to the physical environment, including infrastructure (Hussin et al., 2021; Saadan et al., 2015; Shava et al., 2023). The prevalence of PA in different countries can be affected by a variety of factors, such as the population, cultural background, and economic structure. For example, a study conducted in Malaysia revealed that the two most common obstacles encountered by physically inactive individuals were a lack of assistance and the absence of a physical activity hall (Saadan et al., 2015). Another study conducted in Spain revealed that lack of time for exercise, laziness, and too much work were the most reported barriers (Martínez-Lemos et al., 2014) . Recently, Umm Al-Qura University have established a fitness gym inside the sports hall, and it costs the university a vast amount of money. However, unfortunately, the number of students who attend the gym is notably low. Therefore, the purpose of this study is to evaluate the barriers to PA as perceived by Umm Al-Qura University students.

Methods

This study is descriptive in nature. Its purpose is to identify the variables that influence student participation in PA. The data collection was conducted using questionnaires on the “Perceived Barriers to Physical Activity in University Students”. The study was carried out at Umm Al-Qura University. The Ethics Committee of the Faculty of Education has approved this study. The researcher planned to recruit university students through university email and WhatsApp

messages. The purposes and details of the study were explained to the participants. Students aged 18–24 were recruited to take part in this study,

The study involved four faculties, namely the Faculty of Science (n= 72), Faculty of Humanity and Social Studies (n = 80), the Faculty of Medical Studies (n = 23), and the Faculty of Technology (n = 63). A total of 238 students (148 females (62.2%) and 90 males (37.8%)) agreed to participate in this study, all of whom were Saudis and enrolled full-time in several courses. All participants provided written informed consent. The study ran from April to May 2023 and included a self-administered 12-item questionnaire.

Contents of the questionnaire were partially based on those used in an earlier study among university students (Sayyd et al., 2021). The identified barriers were categorized into two subcategories: internal and external.

Data Analysis

SPSS Version 23.0 was used to analyse the data. Descriptive statistics were used to present the results of the barriers to PA. Preliminary data should be used as a starting point to define the barriers to PA among Umm Al-Qura University's students.

Results

The total number of students who responded was 506. Of these, 268 students were excluded from the assessment of perceived barriers to PA as they were classified as physically active. The results of this study reported that there was a higher percentage of female students participating in this study than males. In addition, the age category of 24–27 years of age had a lower participation percentage than the 18–23 category.

Table (1)
summarizes the characteristics of the respondents.

Gender	**Male 37.8%** **Female 62.2%**
Age	18–23 81.1% (72 male, 121 female) 24–27 18.9 (18 male, 27 female)
Physical Inactivity	Male 90 Female 148
Faculties	Science 72 (40 male, 32 female) Humanity and Social Studies 80 (18 male, 62 female) Medical Studies 23 (10 male, 13 female) Technology 63 (22 male, 41 female)
Mean Weight	62.83 kg
Mean Height	166.48 cm

Table (2)
Physical Activity Barriers

	Responses	
	N	Per cent
I feel lazy	57	6.4%
I don't have time	78	8.8%
I lack motivation	46	5.2%
Lack of facilities	175	19.7%
Lack of accessible places	176	19.8%
I don't know the sports hall's schedule of	116	13.1%
I have too many lectures	102	11.5%
There's no sports equipment	60	6.8%
The university is a long way from home	78	8.8%

Table (3)
Barriers to Physical Activity vs Gender

		Gender		
		Male	Female	Total
Items	I feel lazy	24 26.7%	33 22.3%	57
	I don't have time	26 28.9%	52 35.1%	78
	I lack motivation	27 30.0%	19 12.8%	46
	Lack of facilities	64 71.1%	111 75.0%	175
	Lack of accessible places	70 77.8%	106 71.6%	176
	I don't know the sports hall's schedule	45 50.0%	71 48.0%	116
	I have too many lectures	31 34.4%	71 48.0%	102
	There's no sports equipment	11 12.2%	49 33.1%	60
	The university is a long way from home	28 31.1%	50 33.8%	78
Total	Count	90	148	238

Perceived barriers to PA of the students are shown in Table 2. Barriers to PA among Umm Al-Qura University students by gender are reported in Table 3.

A lack of accessible places was the most important barrier. Then, I don't know about the sports facilities was the second most important. The barrier with the lowest percentage was "I lack motivation" followed by "I feel lazy". Figure 1 shows the perceived barriers to PA in percentages.

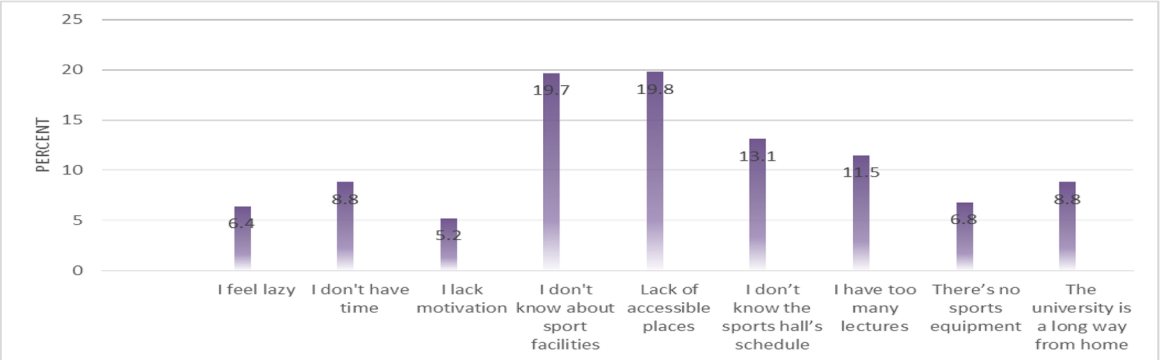

FIGURE 1 BARRIERS TO PHYSICAL ACTIVITY

Discussion

Engaging in regular physical activity can have a positive effect on your mental health as well as your cardiovascular health (Al-Zalabani et al., 2015; Özkul, 2021; Sayyd et al., 2020, 2021). It has been demonstrated that physical activity patterns are determined during childhood, adolescence, and young adulthood (Özkul, 2021; Saadan et al., 2015). According to several studies, Saudi Arabia has a high rate of cardiovascular disease and mortality, and both men and women engage in physical inactivity at different ages (Al-Hazzaa, 2018; Al-Zalabani et al., 2015; Sayyd et al., 2021)

While there are some dramatic reports, to the best of my knowledge there is a dearth of studies that assess barriers of PA for university students in Saudi Arabia. The purpose of this study is to assess the perceived barriers to PA for Umm Al-Qura University students in this study and I believe that this study will help to understand the issue behind why the students at Umm Al-Qura University are not attending the gym and this study can be used as a pilot for related studies in the future.

In a study conducted among university students, accessibility was identified as the primary factor preventing them from engaging in

physical activity. The barriers to physical activity reported by the student population concurs with the findings of the study. The study cited as one of the most significant obstacles to physical activity was the lack of accessible spaces. (Sayyd et al., 2021). Similarly, in another study conducted in Malaysia, the lack of accessible places was cited as one of the top obstacles by students (Hussin et al., 2021). When I analyse the students' answers to questionnaires related to PA barriers, the top four items in terms of percentage are: "lack of facilities"; "I don't know the sports hall's schedule"; "I have too many lectures"; and "I don't have time". According to the female students answers, the most cited barriers are: "lack of facilities"; "lack of accessible places"; "I don't know the sports hall's schedule "; and "I have too many lectures". Several studies reported that lack of time is the most cited barrier to PA. The study finding is inconsistent with previous research that showed that lack of time is the most common barrier to PA (Abou Elmagd et al., 2018; Awadalla et al., 2014; Bashatah et al., 2023; Hussin et al., 2021; Ilić et al., 2022; Saleem et al., 2018).

Despite this fact, few studies have examined the barriers among university students in Saudi Arabia (Al Salim, 2023; Awadalla et al., 2014; Sayyd et al., 2021). The findings may shed light on the interventions to promote PA among Umm Al-Qura University students. This study employed a short questionnaire designed with "need to know" questions that were easy to answer. The full response rate was recorded within the questionnaire. This enabled the objective of the study to be achieved, as it provided an understanding of the obstacles that prevent students from engaging in physical activity. As a result, the trial identified reasons for physical inactivity among students at Umm Al-Qura University. This is the first time such a trial has been conducted.

Conclusion

It is essential to educate and raise awareness of the significance of physical activity, as well as to inform guidance students about the availability of sport hall and gym facilities and the timetable for open time and training. Incorporating physical activity into daily routines will undoubtedly improve health outcomes, decrease the prevalence of cardiovascular and other

illnesses, and have a positive effect on an individual's health in the future.

References

Abou Elmagd, M., Tiwari, U., Mossa, A. H., Tiwari, D., & Elmagd, M. A. (2018). Barriers of sports participation in higher education in the UAE. http://saudijournals.com/jaspe/

Al Salim, Z. A. (2023). Barriers to physical activity participation among university students in Saudi Arabia. Information Sciences Letters, 12(1), 353–360. https://doi.org/10.18576/isl/120130

Al-Hazzaa, H. M. (2018). Physical inactivity in Saudi Arabia revisited: A systematic review of inactivity prevalence and perceived barriers to active living.

Al-Hazzaa, H. M., Abahussain, N. A., Al-Sobayel, H. I., Qahwaji, D. M., & Musaiger, A. O. (2011). Physical activity, sedentary behaviors and dietary habits among Saudi adolescents relative to age, gender and region. International Journal of Behavioral Nutrition and Physical Activity, 8. https://doi.org/10.1186/ 1479-5868-8-140

Altowerqi, Z. M., & Zainuddin, Z. A. Bin. (2021). Comparison of metabolic syndrome, uric acid and leisure time physical activity between former athletes and non-athletes. Journal of Pharmaceutical Research International, 85–95. https://doi.org/10.9734/jpri/2020/v32i4831128

Altowerqi, Z. M., & Bin Zainuddin, Z. A. (2022). Does participation in sport protect former Saudi Arabian athletes from high blood glucose after retirement? Gerontology, 68(8), 889–893. https://doi.org/10.1159/000519697

Al-Zalabani, A. H., Al-Hamdan, N. A., & Saeed, A. A. (2015). The prevalence of physical activity and its socioeconomic correlates in Kingdom of Saudi Arabia: A cross-sectional population-based national survey. Journal of Taibah University Medical Sciences, 10(2), 208–215. https://doi.org/10.1016/j.jtumed.2014.11.001

Anjali, & Sabharwal, M. (2018). Perceived barriers of young adults for participation in physical activity. Current Research in Nutrition and Food Science, 6(2), 437–449. https://doi.org/10.12944/CRNFSJ.6.2.18

Awadalla, N. J., Aboelyazed, A. E., Hassanein, M. A., Khalil, S. N., Aftab, R., Gaballa, I. I., & Mahfouz, A. A. (2014). Assessment of physical inactivity and perceived barriers to

physical activity among health college students, south-western Saudi Arabia. Eastern Mediterranean Health Journal, 20 (10), 596–604. https://doi .org/ 10.26719/2014.20.10.596

Bashatah, A., Qadhi, O. A., Sadoun, A. Al, Syed, W., & Al-Rawi, M. B. A. (2023). Evaluation of young adults' physical activity status and perceived barriers in the Riyadh region of Saudi Arabia. Journal of Multidisciplinary Healthcare, 16, 557–569. https://doi.org/10.2147/JMDH.S397341

Hussin, N. Z. M. H. @ M., Anuar, A., Hassan, N. M., & Maon, S. N. (2021). Perceived barriers towards physical activity among female university students. International Journal of Academic Research in Business and Social Sciences, 11(4). https://doi.org/10.6007/ijarbss/v11-i4/9660

Ilić, M., Pang, H., Vlaški, T., Grujičić, M., & Novaković, B. (2022). Motives and barriers for regular physical activity among medical students from the Western Balkans (South-East Europe Region). International Journal of Environmental Research and Public Health, 19(23). https://doi.org/10.3390/ijerph192316240

Martínez-Lemos, R. I., Puig-Ribera, A. M., & García-García, O. (2014). Perceived barriers to physical activity and related factors in Spanish university students. Open Journal of Preventive Medicine, 04(04), 164–174. https://doi.org/10.4236/ojpm.2014.44022

Özkul, Ç. (2021). Perceived exercise benefits and barriers in active and inactive university students. Turkish Journal of Physiotherapy and Rehabilitation, 32(3), 33–42. https://doi.org/10.21653/tjpr.794911

Saadan, R., Jano, Z., Sidek, S., Bokhari, M., & Rosli, N. (2015). Perceived barriers in physical activities among university students. Journal of Human Capital Development, 8(1), 39–45.

Saleem, F., Mohammad, B., Mohamed Azmi, H., Naheed, H., Qaiser, I., Akram, A., Muhammad, U. K., Fiaz ud, D. A., Vijay, T., & Tafseera Hashemi. (2018). Assessment of barriers to physical activities among university students in Malaysia. Pharmacy & Pharmacology International Journal, 6(6), 468–473. https://doi.org/10.15406/ppij.2018.06.00220

Sayyd, S. M., Zainuddin, Z. A. Bin, Ghabban, F. M., & Altowerqi, Z. M.

(2021). Influence of sports facilities and programs on sports participation at Saudi universities. Journal of Physical Education and Sport, 21, 2302–2307. https://doi.org/10.7752/jpes.2021.s4293

Sayyd, S. M., Zainuddin, Z. A. Bin, Ghan, D. Z. B. A., & Altowerqi, Z. M. (2020). Sports activities for undergraduate students in Saudi Arabia universities: A systematic literature review. IInternational Journal of Human Movement and Sports Sciences 8(1), 1–16. Horizon Research Publishing. https://doi.org/10.13189/saj.2020.080101

Shava, B. K., Kupenga-Maposa, T., Musingwini, T., Samudzi, T., Muchemwa, S., Chibanda, D., & Dambi, J. M. (2023). Perceived benefits and barriers to exercise and associated factors among Zimbabwean undergraduate students: A cross-sectional study. https://doi.org/10.21203/rs.3.rs-2616746/v1