

Exploring and assessing the level of physical activity among physiotherapists in Saudi Arabia: A cross-sectional survey

ABSTRACT

Background: Physical activity (PA) is an essential part of good health. There is considerable evidence of declining PA globally, including in Saudi Arabia. One of the primary goals of physiotherapists is to advocate for a healthy lifestyle, as they serve as role models for their patients. However, there is a lack of information about PA among physiotherapists in Saudi Arabia.

Aim: This research aimed to explore the level of PA among physiotherapists in Saudi Arabia and to understand the barriers to and facilitators of PA.

Design: This was a cross-sectional survey.

Materials and Methods: This study included 172 physiotherapists currently working in Saudi Arabia as citizens or residents, with 71% ($n = 122$) being male. Between December 28, 2022, and February 2, 2023, the researcher distributed an online form of an adapted version of the International Physical Activity Questionnaire-Short Version via various social media platforms.

Results: The findings demonstrate that (1) 9.3% ($n = 16$) of respondents did not engage in any PA; (2) 90.7% ($n = 156$) engaged in various intensities of moderate, vigorous, and a combined PA; (3) 61% ($n = 105$) met international PA recommendations; (4) lack of time and work commitments were the most significant barriers; and (5) motivation to improve health and losing or maintaining weight were the most notable facilitators.

Conclusion: A high percentage of physiotherapists in this study participated in PA. However, nearly 39% of the physiotherapists did not meet international PA recommendations. Further research with a large sample is needed to improve generalizability.

Keywords: Exercise, physical activity, physiotherapists, Saudi Arabia, survey

المُلخَص

الخلفية: يُعد النشاط البدني جزءًا أساسيًا من الصحة الجيدة. وهناك أدلة قوية على انخفاض مستوى النشاط البدني عالميًا، بما في ذلك في المملكة العربية السعودية. إن الدعوة إلى اتباع نمط حياة صحي، تعد من الأهداف الرئيسية لأخصائيي العلاج الطبيعي، حيث يمثلون قدوة لمرضاهم. ومع ذلك، هناك نقص في المعلومات المتوفرة حول النشاط البدني لأخصائيي العلاج الطبيعي في المملكة العربية السعودية.

الهدف: استكشاف مستوى النشاط البدني لأخصائيي العلاج الطبيعي في المملكة العربية السعودية، وفهم العوائق والعوامل المُيسرة للنشاط البدني.

النوع: دراسة مقطعية استقصائية.

الأدوات والطرق: اشتملت هذه الدراسة على 172 أخصائي علاج طبيعي يعملون حاليًا في المملكة العربية السعودية كمواطنين أو مقيمين، شُكِّل الذكور (عددهم = 122) نسبة 71% منهم. ورَّع الباحث، في الفترة ما بين 28 ديسمبر 2022 و 2 فبراير 2023، نموذجًا إلكترونيًا لنسخة مُعدلة من استبيان النشاط البدني الدولي - النسخة المختصرة - عبر منصات التواصل الاجتماعي المختلفة.

النتائج: أظهرت النتائج أن: (1) 9.3% (العدد=16) من المشاركين لم يمارسوا أي نشاط بدني؛ (2) 90.7% (العدد=156) مارسوا أنشطة بدنية بدرجات متفاوتة من الشدة، من المعتدلة إلى الشديدة، إلى النشاط البدني المركب؛ (3) 61% (العدد = 105) استوفوا التوصيات الدولية للنشاط البدني؛ (4) كان ضيق الوقت والالتزامات الوظيفية من أبرز العوائق؛ و(5) كان الدافع لتحسين الصحة وفقدان الوزن أو الحفاظ عليه من أبرز العوامل المُيسرة لممارسة النشاط البدني.

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الخلاصة: مارس النشاط البدني نسبة عالية من أخصائيي العلاج الطبيعي المشاركين في هذه الدراسة. ومع ذلك، لم يستوف ما يقرب من 39% منهم التوصيات الدولية للنشاط البدني. هناك حاجة إلى مزيد من البحث على عينة كبيرة من أخصائيي العلاج الطبيعي للرفع من إمكانية تعميم النتيجة. **الكلمات الدالة:** أخصائيي العلاج الطبيعي، تمرين، المملكة العربية السعودية، النشاط البدني، دراسة استقصائية.

INTRODUCTION

A healthy lifestyle is vital for maintaining and improving individual health, with regular physical activity (PA) being a central element proven to aid in the prevention and management of chronic diseases.^[1-3] The World Health Organization (WHO) has emphasized the wide-ranging benefits of PA, including improvements in musculoskeletal and cardiorespiratory function.^[4] In light of these benefits, global adult guidelines recommend engaging in at least 150–300 min of moderate-intensity PA, or 75–150 min of vigorous-intensity PA, or an equivalent combination of both each week.^[5] Even low levels of PA, such as brisk walking, can contribute significantly to meeting these health objectives.^[6]

Despite these established benefits, PA levels remain noticeably low in many regions, including Saudi Arabia. Rapid economic growth and urbanization have led to increasingly sedentary lifestyles.^[7] Research has reported that 66.6% of the Saudi population is physically inactive, with women being particularly affected.^[8] More recently, only 17.4% of Saudi adults were found to meet the recommended PA levels, a figure substantially lower than in countries like the United Kingdom.^[9,10] This widespread inactivity contributes to a heightened risk of noncommunicable diseases (NCDs) such as cardiovascular disease, diabetes, obesity, and certain cancers.^[11-13] Globally, physical inactivity is estimated to cause 5.3 million deaths annually.^[11] In Saudi Arabia, inactivity accounts for approximately 18.4% of all-cause mortality and places a significant economic burden on the healthcare system.^[11,14]

Recognizing these challenges, the WHO and national strategies, such as Saudi Arabia Vision 2030, have prioritized increasing PA levels.^[15-17] Given the role of physiotherapists in promoting PA and preventing NCDs, their engagement in regular PA is essential not only for their own health but also to reinforce their credibility as health promoters.^[18,19] Physiotherapists often work in diverse settings and are well-positioned to influence patients' health behaviors.^[20] Studies have shown that health professionals who are physically active are more likely to counsel patients on PA.^[21,22] Moreover, physiotherapists who engage in regular PA often demonstrate higher confidence in promoting PA within their clinical roles.^[23,24]

To understand and improve PA among the general population, it is important to identify the barriers and facilitators that influence

PA behavior. Commonly reported barriers among healthcare professionals include lack of time, motivation, and access to facilities,^[25-28] while facilitators include health awareness, social support, and facility availability.^[29,30] Identifying these factors can help shape strategies to enhance PA participation.^[31-33]

To the best of this researcher's knowledge, there has not been any research established in Saudi Arabia that assesses the PA levels of physiotherapists employed in Saudi Arabia as residents or citizens and identifies barriers and facilitators to PA. Although there has been some research on this topic in other countries, including some in Saudi Arabia, the studies in Saudi Arabia have focused on other healthcare professionals. Therefore, these studies cannot be generalized to physiotherapists working in Saudi Arabia, since every healthcare professional has a particular type of work, a different work environment, and a diverse educational background. Thus, due to there being insufficient statistics from Saudi Arabia, particularly for the physiotherapist population, who are usually highly educated and with anecdotally higher physical activity than average, this study aims to explore the level of PA among physiotherapists in Saudi Arabia and to understand the barriers to and the facilitators of PA. The results of this study could help physiotherapists to participate more in PA and decrease their risk of the health issues associated with inactivity. This also would help physiotherapists to be good role models for the general public and for their patients in maintaining a healthy lifestyle and following their stated recommendations about PA.

MATERIALS AND METHODS

Study design

A cross-sectional survey was utilized as an exploratory study to assess the level of PA among physiotherapists in Saudi Arabia. This design was appropriate for collecting data at a single point in time and describing the current behaviors within a specific population.^[34,35] Ethical approval was granted by the Cardiff University School of Healthcare Sciences Research Ethics Committee on December 5, 2022 (REC963). Informed consent was obtained electronically from all participants before beginning the survey.^[36]

Participants and recruitment

The study targeted physiotherapists currently working in Saudi Arabia, whether as citizens or residents. Inclusion criteria were (1)

holding a bachelor's degree or higher in physiotherapy, (2) being registered with the Saudi Commission for Health Specialties, (3) fluency in English, and (4) access to the Internet. Exclusion criteria included (1) physiotherapy students or interns, (2) individuals not practicing in Saudi Arabia, (3) those lacking the required English proficiency, and (4) no Internet access.^[37]

Participation was voluntary and anonymous, and no identifiable personal information was collected. A convenience sampling method was used to recruit participants, as it was appropriate for reaching a dispersed population and suitable given the exploratory nature and timeframe of the study.^[38,39] Recruitment was conducted through social media platforms such as X and Facebook, which are widely used in Saudi Arabia and offer a practical way to engage large and diverse audiences.^[40,41] The study was conducted between December 28, 2022, and February 2, 2023.

Sample size

The estimated population of physiotherapists in Saudi Arabia in 2021 was 5,500.^[42] A sample size of 200 was targeted, which aligns with previous survey research guidance and is considered suitable for exploratory survey analysis.^[43-45] This number was sufficient to ensure meaningful data collection while also being realistic within the time and resource constraints of the study.^[46]

The questionnaire

The questionnaire was conducted online using Microsoft Forms, which allowed for efficient data collection and a wide geographical reach.^[47] An adapted version of the International Physical Activity Questionnaire–Short Form (IPAQ-SF) was used to assess the frequency, duration, and intensity of PA over the previous 7 days [Appendix 1].^[48,49]

The questionnaire was modified to exclude questions on walking and sedentary behavior and to include items assessing barriers and facilitators to PA, tailored to the study's objectives. It consisted of two main sections: (1) demographics (age, gender, region, height, weight, education level, and years of work experience) and (2) PA engagement, including moderate, vigorous, and combined activities. The section on PA-related barriers included lack of time, lack of motivation, lack of sports facilities, unsuitable weather, and work commitments, while facilitators included motivation to improve health, losing or maintaining weight, availability of sports facilities, and good social support systems.^[50-53]

Statistical analysis

Data were exported from Microsoft Forms to Microsoft Excel and analyzed using IBM SPSS version 27 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including mean, percentage (95% confidence intervals), and standard

deviation, were used to summarize the findings.^[54,55] Results were presented using tables and figures to enhance clarity.^[56]

RESULTS

Demographic data

A total of 182 physiotherapists participated in this cross-sectional survey. After excluding unrealistic data ($n = 3$) and incomplete responses ($n = 7$), 172 participants with complete data were included in the final analysis. The majority of respondents were male (71%, $n = 122$), and most participants were between 21 and 30 years old. Based on BMI, approximately 85% of respondents were classified as either normal or overweight, with similar numbers in both categories. Nearly 40% of respondents were from the central region of Saudi Arabia [Tables 1 and 2].

Professional characteristics

The majority of participants held a bachelor's degree, with a small proportion reporting postgraduate qualifications. In terms of experience, most had been working for between 1 and 4 years, although a wide range of professional experience was represented [Figures 1 and 2].

Physical activity intensity

The participants ($n = 172$) had the option of selecting more than one category of PA. Most reported engaging in moderate PA (89%, $n = 151$), with nearly similar proportions reported for vigorous activity or combined moderate and vigorous activity [Table 3].

Moderate physical activity frequency and duration

Among those who engaged in moderate PA, most reported exercising on 3–4 days per week. The majority spent 30–60 min per day in moderate activity. The mean frequency was 4.8 ± 1.5 days per week, and the mean duration was 46.9 ± 17.3 min per day [Table 4].

Vigorous physical activity frequency and duration

Participants who engaged in vigorous PA most commonly reported doing so on 2–3 days per week. Most spent 30–60 min per day performing vigorous activity. The mean frequency of vigorous activity was 4.1 ± 1.6 days per week, and the mean duration was 45.9 ± 19.9 min per day [Table 5].

Table 1: Demographic data

Demographic data of study population ($n=172$)	
Administrative region in KSA (%)	n (%)
Central region	39.50
Western region	25.60
Eastern region	16.90
Northern region	11
Southern region	7

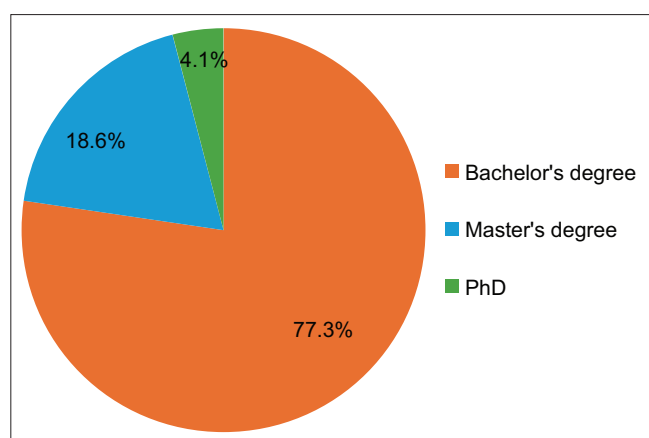


Figure 1: Percentage of participants regarding level of education

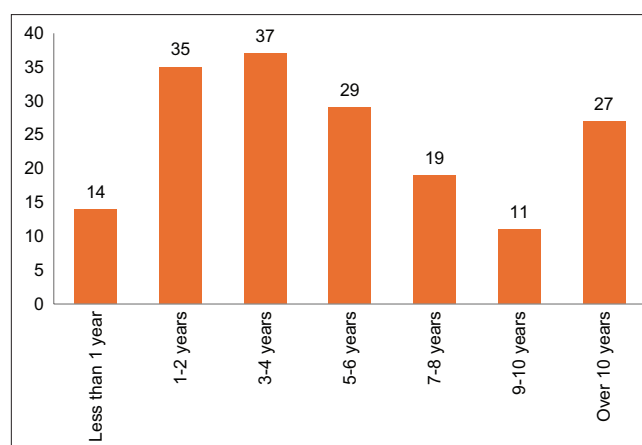


Figure 2: Number of years working as physiotherapist

Table 2: Demographic data

Demographic data of study population (n=172)	
	n (%)
Sex	
Male	122 (71)
Female	50 (29)
Age (male), years	
21–30	64 (37.20)
31–40	42 (24.40)
41–50	14 (8.10)
51–60	2 (1.20)
Age (female), years	
21–30	31 (18)
31–40	15 (8.70)
41–50	4 (2.30)
Mean±SD	
Weight (kg)	74.5±12.7
Height (cm)	169.4±7.7
BMI	25.8±3.2
BMI (kg/m ²)	
Underweight (BMI <18.5)	2 (1.2)
Normal weight (18.5–24.9)	73 (42.4)
Overweight (25.0–29.9)	75 (43.6)
Obese (BMI ≥30)	22 (12.8)

BMI: Body mass index, SD: Standard deviation

Table 3: The number of respondents who participated in physical activity based on its intensity

PA intensity		
Moderate PA (n=172), n (%)	Vigorous PA (n=172), n (%)	An equivalent combination of moderate and vigorous PA (n=172), n (%)
151 (89)	84 (49)	77 (45)

PA: Physical activity

Combination of moderate and vigorous physical activity frequency and duration

Participants who reported engaging in both moderate and vigorous PA most frequently did so 2–3 days per week. Time spent on combined activity was generally between 30 and 50 min per day. On average, the frequency was 4.0 ± 1.5 days

per week, with a mean duration of 46.2 ± 24.8 min per day [Table 6].

International recommendations for physical activity

Although a high proportion of the participants engaged in PA, approximately 39% ($n = 67$) of the study respondents did not meet the international PA recommendations, as demonstrated in Figure 3.

Physical activity barriers

Participants who reported experiencing barriers to PA ($n = 172$) could select more than one response. The most frequently cited barriers were lack of time (59.9%) and work commitments (40.7%). Lack of motivation (24.4%) and unsuitable weather (19.2%) were also common. Fewer participants identified lack of sports facilities (5.2%), “other” (1.7%), and “don’t know/not sure” (1.2%) as barriers. Additional responses under “other” included fear of injury, health conditions, and fatigue after work [Table 7].

Physical activity facilitators

Participants also had the option to identify multiple facilitators to PA. The most commonly reported factors were motivation to improve health (58.7%) and losing or maintaining weight (47.1%). Good social support systems (17.4%) and availability of sports facilities (9.9%) were less frequently selected. A few participants chose “don’t know/not sure” (1.7%) or “other” (1.2%), with additional comments under “other” included working with athletes and having a physically demanding job [Table 8].

DISCUSSION

This cross-sectional study aimed to explore the level of PA among physiotherapists in Saudi Arabia and to understand the barriers to and the facilitators of PA. Understanding PA engagement among physiotherapists is critical, as they

Table 4: Number of participants in moderate physical activity frequency and duration

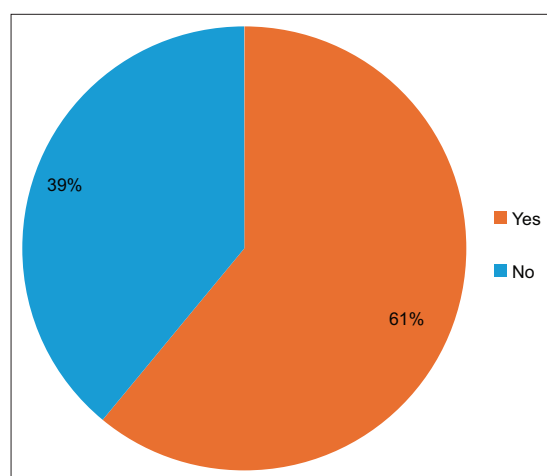
Moderate PA frequency per week (<i>n</i> =172)	Moderate PA duration per day (<i>n</i> =172)	Mean±SD (<i>n</i> =172)
1 day per week (9)	20 min per day (4)	Moderate PA frequency per week (4.8 ± 1.5)
2 days per week (20)	30 min per day (35)	Moderate PA duration per day (46.9 ± 17.3)
3 days per week (43)	40 min per day (39)	
4 days per week (38)	50 min per day (34)	
5 days per week (26)	60 min per day (28)	
6 days per week (6)	70 min per day (1)	
7 days per week (9)	80 min per day (3)	
	90 min per day (1)	
	100 min per day (5)	
	120 min per day (1)	

PA: Physical activity, SD: Standard deviation

Table 5: Number of participants in vigorous physical activity frequency and duration

Vigorous PA frequency per week (<i>n</i> =172)	Vigorous PA duration per day (<i>n</i> =172)	Mean±SD (<i>n</i> =172)
1 day per week (12)	20 min per day (5)	Vigorous PA frequency per week (4.1 ± 1.6)
2 days per week (22)	30 min per day (23)	Vigorous PA duration per day (45.9 ± 19.9)
3 days per week (18)	40 min per day (22)	
4 days per week (13)	50 min per day (12)	
5 days per week (13)	60 min per day (13)	
6 days per week (4)	70 min per day (1)	
7 days per week (2)	80 min per day (4)	
	90 min per day (2)	
	120 min per day (2)	

PA: Physical activity, SD: Standard deviation

**Figure 3: Percentage of respondents who met the international recommendations for physical activity**

are expected to serve as health role models and influence patient attitudes toward exercise. The findings provide

Table 6: Number of participants in a combination of moderate and vigorous physical activity frequency and duration

Combination of moderate and vigorous PA frequency per week (<i>n</i> =172)	Combination of moderate and vigorous PA duration per day (<i>n</i> =172)	Mean±SD (<i>n</i> =172)
1 day per week (11)	20 min per day (7)	Combination of moderate and vigorous PA frequency per week (4.0 ± 1.5)
2 days per week (21)	30 min per day (22)	Combination of moderate and vigorous PA duration per day (46.2 ± 24.8)
3 days per week (19)	40 min per day (21)	
4 days per week (12)	50 min per day (10)	
5 days per week (10)	60 min per day (6)	
6 days per week (3)	70 min per day (2)	
7 days per week (1)	80 min per day (3)	
	90 min per day (1)	
	100 min per day (2)	
	120 min per day (2)	
	150 min per day (1)	

PA: Physical activity, SD: Standard deviation

Table 7: Participants who reported physical activity barriers

Barriers	<i>n</i> =172, <i>n</i> (%)
Lack of time	103 (59.9)
Lack of motivation	42 (24.4)
Lack of sports facilities	9 (5.2)
Unsuitable weather	33 (19.2)
Work commitments	70 (40.7)
Other	3 (1.7)
Don't know/not sure	2 (1.2)

valuable insights into how professional demands and personal motivation interact in shaping PA behaviors among this group.

Level of physical activity

The present study found that 90.7% of participants reported engaging in PA, with 61% meeting international recommendations. The WHO recommends that adults aged 18–64 years accumulate at least 150–300 min of moderate-intensity aerobic activity, or 75–150 min of vigorous-intensity activity weekly, or an equivalent combination.^[5] While most physiotherapists in this study met these standards, the fact that nearly 40% did not is concerning, given their professional responsibility to model healthy behavior. Furthermore, this percentage appears higher than that reported in Turkey and the US, where variability in PA levels was noted among physiotherapists and other healthcare workers.^[21,24] However, in contrast, only 17% of adults in Saudi Arabia meet PA guidelines,^[9] indicating that PA among Saudi physiotherapists is substantially higher than in the general population.

Table 8: Participants who reported physical activity facilitators

Facilitators	n=172, n (%)
Losing or maintaining weight	81 (47.1)
Motivation to improve health	101 (58.7)
Availability of sports facilities	17 (9.9)
Good social support systems	30 (17.4)
Other	2 (1.2)
Don't know/not sure	3 (1.7)

Intensity, frequency, and duration of physical activity

The large difference in intensity between moderate and vigorous PA is expected, as moderate PA, such as regular cycling or brisk walking, is more accessible and easier to perform. These findings are supported by a study conducted in Saudi Arabia, where 74.4% of participants engaged in moderate PA compared to 25.6% in vigorous PA.^[50] In the general Saudi population, participation rates for moderate and vigorous PA have been estimated at only 16.8% and 16.6%, respectively.^[8] Several factors could explain these differences. This may be due to their education in health, exercise science, and musculoskeletal management, which can enhance their knowledge about PA benefits.^[57,58] In addition, physiotherapy is typically a physically active profession, which may increase engagement in higher levels of job-related PA, as demonstrated in a study using accelerometers and self-reports.^[59]

Moderate PA was the most commonly performed type, which may be due to its lower physical demands, accessibility, and ease of integration into daily life. These results are in line with previous research that found similar preferences among healthcare professionals.^[29] Participants in this study reported performing moderate PA 4.8 ± 1.5 days per week for 46.9 ± 17.3 min per day, values that align well with WHO guidelines. Even so, moderate PA alone may be insufficient if not performed consistently or with enough variation, especially among individuals with predominantly sedentary work.

Vigorous PA was reported less frequently, which may reflect occupational fatigue or a lack of time and resources. Similar observations were made in previous studies among healthcare professionals, who often reported avoiding vigorous PA due to postwork exhaustion and time limitations.^[21,24] The average of 4.1 ± 1.6 days per week and 45.9 ± 19.9 min per day reported in this study reflects a strong commitment among a subset of participants. However, these numbers should be interpreted cautiously, as they may be influenced by overreporting or recall bias.

Engagement in combined PA was reported by fewer participants, despite its recognized effectiveness in enhancing cardiovascular and metabolic health. The average frequency and duration (4.0 ± 1.5 days per week and 46.2 ± 24.8 min

per day) are promising, yet the lower participation rate may indicate challenges in balancing the physical demand and time required for varied intensity workouts. Previous literature has shown that combined routines are harder to maintain, especially among healthcare providers facing unpredictable schedules.^[24]

Physical activity barriers

The most cited barriers were lack of time (59.9%) and work commitments (40.7%), highlighting systemic issues within healthcare settings. These findings align with other studies that have identified similar barriers among healthcare professionals.^[25,28] Additional challenges, such as a lack of motivation and unsuitable weather, have also been recognized as relevant factors affecting PA behavior.^[26] These data suggest that both organizational and individual-level strategies are needed, ranging from flexible work schedules to behavioral interventions that promote motivation. Furthermore, the existence of both personal and professional barriers highlights the complexity of maintaining regular PA and the importance of multifaceted interventions that address both psychological and environmental determinants.

Physical activity facilitators

The main facilitators reported were motivation to improve health (58.7%) and losing or maintaining weight (47.1%). These intrinsic drivers are recognized as stronger determinants of PA, especially among healthcare workers.^[32,33] Although social support and sports facility access were reported less often, they remain important and can help sustain motivation during challenging periods.^[27] Additional facilitators, such as working with athletes or having a physically demanding job, may reflect specific subgroups of physiotherapists whose clinical environments promote more active routines. Nevertheless, these factors are not easily accessible, reinforcing the need for comprehensive support systems within the profession.

Limitations of the study

The main limitation of this study was the use of a self-reported questionnaire, which may have introduced bias. The study also utilized an adapted version of the IPAQ-SF, which was modified to align with the study's objectives. Since the modified tool was not effectively revalidated, this might affect the reliability of the findings. In addition, the sample size was relatively small compared to the total number of physiotherapists in Saudi Arabia. The use of a convenience sampling technique may have led to self-selection bias, limiting the generalizability of the results.^[60,61]

Future research

Future studies should involve larger, more representative samples to improve the generalizability of results. These

studies could also include additional variables such as sedentary time and work-related PA. Exploring the relationship between work experience, workload, and PA levels may offer further insights. In addition, assessing knowledge of PA guidelines among physiotherapists and students could identify gaps influencing behavior.

CONCLUSION

This study explored the level of PA among physiotherapists in Saudi Arabia and identified key barriers and facilitators. While a high proportion (90.7%) reported engaging in some form of PA, approximately 39% did not meet international PA recommendations. The main barriers reported were lack of time and work commitments, while the most cited facilitators were motivation to improve health and losing or maintaining weight.

These findings suggest that many physiotherapists are physically active and may serve as role models in promoting PA among patients and the general public, aligning with Saudi Vision 2030. However, those not meeting PA guidelines may miss out on critical health benefits. Given physiotherapists' position within the healthcare system, supporting their PA engagement could enhance overall public health messaging. The Ministry of Health and related stakeholders might use this data to design strategies to increase PA in the workplace, benefiting not only healthcare workers but also the broader population.

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Conflicts of interest

There are no conflicts of interest.

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APPENDIX 1 (QUESTIONNAIRE)

Questionnaire

Research title: Exploring and assessing the level of physical activity among physiotherapists in Saudi Arabia: a cross-sectional survey.

Section 1

(Demographic)

Please select the proper option or provide your own answer (s) in accordance with the question.

1. What is your gender?
 - Male
 - Female
 - Prefer not to say
2. What is your age range?
 - 21-30
 - 31-40
 - 41-50
 - 51-60
 - 61 and above
3. What is your current weight (kg)?
.....
4. What is your height in (cm)?
.....
5. What is your region?
 - Western region
 - Northern region
 - Southern region
 - Eastern region
 - Central region
6. What is your education level?
 - Bachelor's degree
 - Master's degree
 - PhD
 - Other (.....)
7. How long have you been working as a physiotherapist?
 - Less than 1 year
 - 1-2 years
 - 3-4 years
 - 5-6 years
 - 7-8 years
 - 9-10 years
 - Over 10 years

Section 2

(Physical activity questionnaire)

This section consists of two parts; please select the proper option or provide your own answer (s) in accordance with the question.

Recommended physical activity is that you are engaging in at least 150–300 min of moderate-intensity physical activity or 75–150 min of vigorous-intensity physical activity per week, or a combination of both.

The first 6 questions in part 1 will ask you about the time you spent being physically active in the last 7 days, and the second part will be concentrated on the barriers and facilitators to physical activity. Please answer each question, even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise, or sport.

Part 1

Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal.

8. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?
 - No vigorous physical activities (Skip to question 10)
 - 1 day per week
 - 2 days per week
 - 3 days per week
 - 4 days per week
 - 5 days per week
 - 6 days per week
 - Every day
 - Don't know/Not sure
9. How much time did you usually spend doing vigorous physical activities on one of those days? (You can skip this question if you don't know/not sure. Please answer in the minute format only. For instance: 10, 30, 45, 60, 80, 100, and 120).
(.....)

Think about all the moderate activities that you did in the last 7 days. Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal.

10. During the last 7 days, on how many days did you do moderate physical activities like carrying light loads, bicycling at a regular pace, brisk walking, or doubles tennis?
 - No moderate physical activities (Skip to question 12)
 - 1 day per week
 - 2 days per week
 - 3 days per week
 - 4 days per week
 - 5 days per week
 - 6 days per week
 - Every day
 - Don't know/Not sure
11. How much time did you usually spend doing moderate physical activities on one of those days? (You can skip this question if you don't know/not sure. Please answer in the minute format only. For instance: 10, 30, 45, 60, 80, 100, 120).
(.....)
12. During the last 7 days, on how many days did you do an equivalent combination of moderate and vigorous physical activity?
 - No equivalent combination of moderate and vigorous physical activity (Skip to part 2)
 - 1 day per week
 - 2 days per week
 - 3 days per week
 - 4 days per week
 - 5 days per week
 - 6 days per week

- Every day
- Don't know/Not sure

13. How much time did you usually spend doing moderate and vigorous physical activity on one of those days? (You can skip this question if you don't know/not sure. Please answer in the minute format only. For instance: 10, 30, 45, 60, 80, 100, and 120).
(.....)

Part 2

14. Have you experienced barriers to physical activity?

- A. Yes
- B. No

15. Which of the following barriers have you experienced?

- Lack of time
- Lack of motivation
- Lack of sports facilities
- Unsuitable weather
- Work commitments
- Other (.....)
- Don't know/Not sure

16. Have you experienced anything that encouraged you to do physical activity?

- A. Yes
- B. No

17. Which of the following facilitators have you experienced?

- Losing or maintaining weight
- Motivation to improve health
- Availability of sports facilities
- Good social support systems
- Other (.....)
- Don't know/Not sure

This is the end of the survey, thank you for participating.