



The Theory-Practice Gap: Assessing Physical Activity Levels Among University Professors in Sports and Physical Activity Sciences (STAPS) at Algerian Higher Education Institutions.

الفجوة بين النظرية والتطبيق: تقييم مستويات النشاط البدني لدى الاساتذة الجامعيين في تخصص
بالمؤسسات الجامعية الجزائرية (STAPS).

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Received: 02/08/2025

Accepted: 02/12/2025

Published: 09 /02/2026

Abstract:

This study aimed to assess physical activity levels among university professors specializing in Sports Science and Physical Activity (STAPS) at Algerian universities, and to examine the gap between their theoretical knowledge and practical application. The sample included 51 professors (41 males, 10 females) from 23 Algerian universities, evaluated using an electronic questionnaire based on Al-Hazaa's (2014) Physical Activity Measurement Scale.

The results revealed that 94.1% of participants were classified as physically inactive (scoring below 25 points), with an overall mean score of 23.5 points (below the "moderately active" threshold). While no statistically significant gender differences were found ($p=0.065$), significant variations were observed based on age, academic discipline, and professional rank ($p<0.001$). These findings highlight the striking contradiction between the professors' academic specialization in sports and health sciences and their actual physical activity practice. The study underscores the need for interventions to bridge this theory-practice gap among physical education faculty members. However, the small sample size suggests the need for broader follow-up studies to confirm these findings.

Keywords: Activity physical level; University professors.; Sports and Physical Activity Sciences (STAPS).; Algerian universities.

1. Introduction:

Physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure. The term physical activity refers to all movements, including those performed during free time, for transportation from one place to another, whether in the context of work or household activities (Caspersen et al., 1985).

Physical activity is beneficial for health and well-being, while reduced engagement increases general disease risk. Health improves through physical activity practice (Warburton et al., 2006), whether of moderate or vigorous intensity. Common physical activity modalities include walking, cycling, wheelchair use, participating in various sports activities, and engaging in recreational pursuits and movement-based games - all of which can be performed regardless of skill level (Janssen & Leblanc, 2010)

Physical activity serves as a fundamental pillar for individual and community health, contributing to both physical and psychological well-being. It extends beyond preventing chronic diseases (e.g., obesity, diabetes, and cardiovascular conditions) to enhancing quality of life by boosting energy levels, alleviating stress (Eime et al., 2013), and improving individual productivity

Regular exercise fosters a strong, resilient body while enhancing self-confidence and mood through the release of happiness-inducing hormones. At the societal level, promoting sports culture reduces the burden on healthcare systems, strengthens social cohesion through group recreational activities, and increases workforce productivity thereby positively impacting socioeconomic development. Thusly, encouraging physical activity is not merely a personal choice but a vital investment in public health and societal prosperity (Grimani et al., 2019).

Physical activity recommendations differ in terms of intensity and duration based on age groups, and may vary across populations as well. The World Health Organization (WHO) recommends specific physical activity levels for health maintenance and disease prevention. Adults (18-64 years) should engage in at least 150 minutes of moderate-intensity physical activity weekly, or 75 minutes of vigorous-intensity activity, combined with muscle-strengthening exercises on ≥ 2 days/week. Children and adolescents (5-17 years) require ≥ 60 minutes daily of moderate-to-vigorous physical activity, emphasizing muscle-strengthening and bone-loading activities. For older adults (≥ 65 years), WHO advises incorporating balance training alongside aerobic activity to prevent falls (Kwieceń-Jaguś et al., 2021)

These minimum activity levels can reduce premature mortality risk by up to 30%. WHO further emphasizes limiting sedentary behavior due to its adverse health effects, even among regularly active individuals (Bull et al., 2020)

Notably, the high levels of physical inactivity are associated with modern lifestyle patterns, where determining factors include work-related commitments and demands, along with the use of motorized transportation like car, bus. Work conditions significantly impact workers' health through inappropriate behaviors that may be induced by occupational environments.

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Physical inactivity remains a prevalent issue among various professionals, (Bauman et al., 2009), including University professors.

University professors, as intellectuals and key members of society, frequently adopt sedentary lifestyles due to their occupational demands (Healy et al., 2008). Their work primarily involves prolonged sitting during lecture preparation, research supervision, and examination grading. (Dunstan et al., 2012) These static postures may lead to significant health risks including obesity, back pain, cardiovascular diseases, and mental fatigue

Despite the well-established benefits of physical activity in boosting energy, enhancing mood, and improving academic productivity, increasing administrative and academic pressures often make it challenging for faculty members to allocate sufficient time for regular exercise

This phenomenon equally applies to university faculty specializing in physical education and sports science. Their academic lifestyle mirrors that of other professors - delivering lectures, supervising research, and performing desk work (Smagulov et al., 2021). Surprisingly, some fail to implement the physical activity principles they teach, creating a theory-practice gap potentially attributable to time constraints, cognitive fatigue, or the erroneous belief that theoretical knowledge supersedes practical application.

This behavioral discrepancy not only compromises their personal health but also undermines their professional credibility as instructors of a discipline fundamentally rooted in movement and physical practice. Consequently, physical education professors must maintain active lifestyles, serving both as guardians of their own well-being and as pedagogical role models. Such commitment would foster a culture of evidence-based physical activity within academic institutions and broader society.

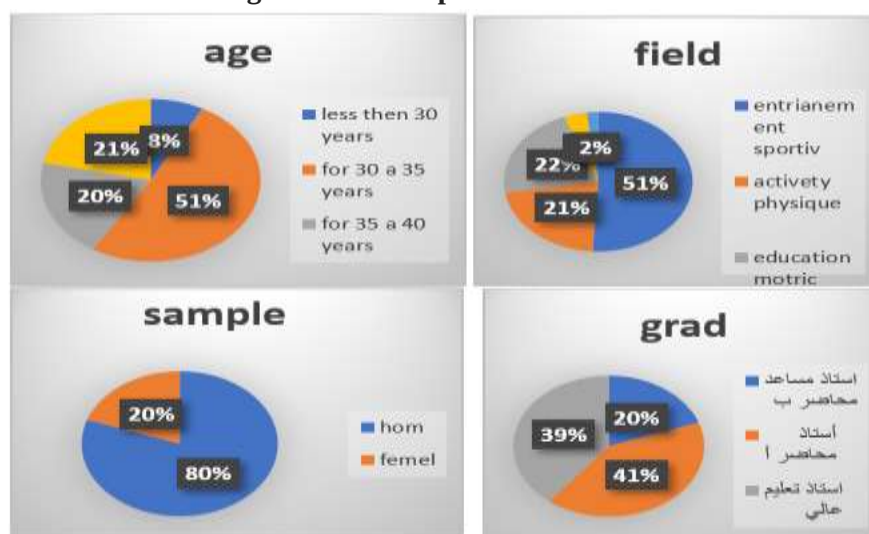
This study aims to examine physical activity levels among faculty members at institutes of physical education and sports sciences, identify barriers to regular exercise participation, and propose strategies to promote active lifestyles in academic settings. The research builds upon the hypothesis that physically and mentally healthy university professors demonstrate greater capacity for research innovation and teaching excellence.

2. Materials and methods:

2.1 Study participants:

This study included 51 university faculty members (10 female, 41 male) from institutes and departments physical education and sports science in Algerian universities. Participants were recruited to assess their physical activity levels, with Figure 1 detailing the sample characteristics.

Figure.1. the sample characteristics



Source: author's by spss V24 program.

2.2 Design and procedures:

The core objective of this study was to assess physical activity levels among faculty members of Physical Education and Sports Science institutes across all 23 Algerian universities. The researchers using a digital questionnaire from, Google Forms, adapting the physical activity measurement scale developed by Al-Hazaa (2014).

The survey was distributed via email to all targeted faculty members between May 2, 2025 and June 14, 2025. A cover letter accompanying the questionnaire guaranteed respondents' anonymity and confidentiality, emphasizing the non-commercial nature of the research. Participants were assured their responses would remain strictly confidential, in full compliance with standard scientific research ethics.

2.3 Data collection:

The study relied on a questionnaire to measure the level of physical activity among professors of Physical Education and Sports Sciences. The form consists of two parts:

- A section for professor information (gender, age, academic rank, specialization)
- A second section containing 9 questions answered by selecting the appropriate option

The form is evaluated by summing the scores of all nine questions according to the following key:

- **Scoring and Interpretation:**
 - 43 points or above: Highly active
 - 34-42 points: Active
 - 25-33 points: Moderately active
 - Less than 25 points: Insufficiently active (needs improvement). (Al-Hazaa.,2014).

2.4 Statistical analysis:

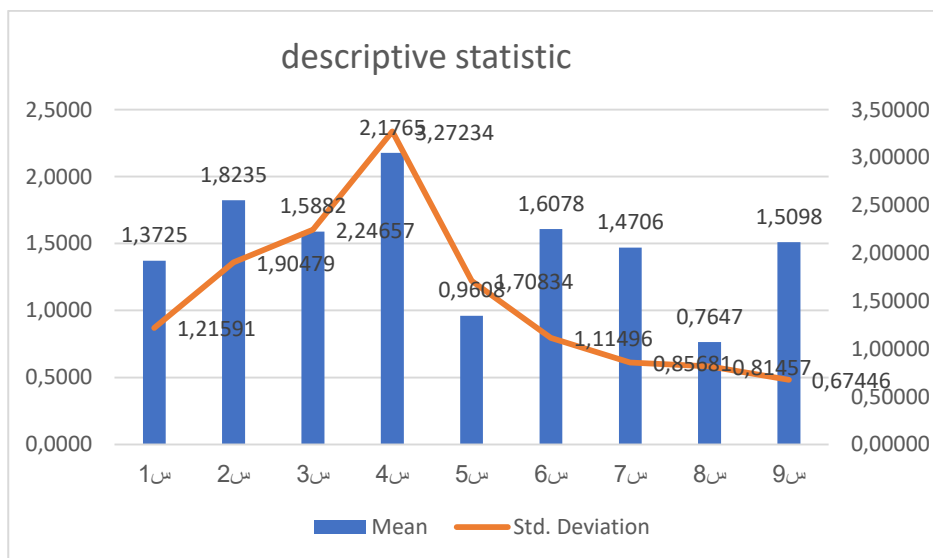
The statistical analysis was conducted using SPSS V26 software outputs, calculating the mean and standard deviation, we used also an independent samples t-test for examine the differences between males and females in physical activity levels. one-way ANOVA was employed to compare physical activity levels across different categories, using Cohen's D

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for caluling effect size, such as specialization (discipline) and (degree), and Cut-off Score Validation for validate the proposed thresholds.

3. Result:

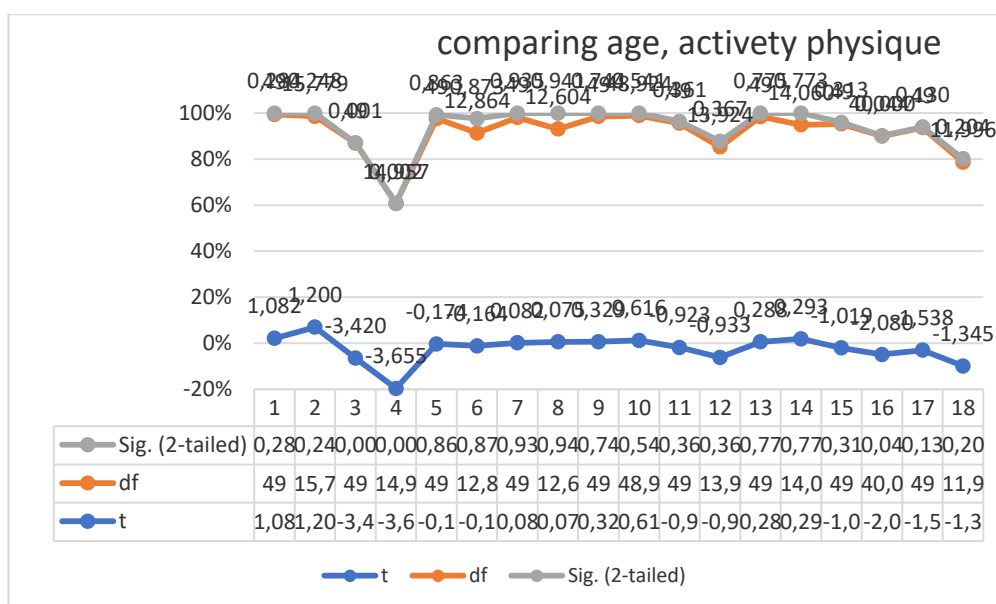
Figure 2. Distribution of physical activity levels among participants.



Source: author's by spss V24 program.

Figure 2 showing the measures of dispersion and central tendency for all questionnaire items. The results revealed that item 4 achieved the highest mean score, while item 8 showed the lowest values.

Figure. 3 Distribution of physical activity levels across age.



Source: author's by spss V24 program.

The result of Figure (3). showed demonstrates no age- differences in responses except for Item 3 ($p < 0.01$)

Table.1. Significant Differences in Physical Activity Levels by Age, Academic Field, and Rank.

		Sum of Squares	df	Mean Square	F	Sig.	effects (D)
sex	Between Groups	3.024	12	0.252	1.909	0.065	0.31 small
	Within Groups	5.015	38	0.132			
	Total	8.039	50				
field	Between Groups	33.378	12	2.782	5.458	0.000	0.6 moderate
	Within Groups	19.367	38	0.510			
	Total	52.745	50				
grad	Between Groups	21.991	12	1.833	11.513	0.000	0.44 small
	Within Groups	6.048	38	0.159			
	Total	28.039	50				
age	Between Groups	28.458	12	2.371	6.360	0.000	0.52 Moderate
	Within Groups	14.170	38	0.373			
	Total	42.627	51				

Source: author's by spss V24 program.

The results of variance analysis (ANOVA) showing the statistically significant differences in physical activity levels according to certain sample characteristics, while no significant differences were found for other variables:

The gender variable (SEX), the results showed no significant differences ($p=0.065 > 0.05$). and the Cohen's effect size was small ($d=0.31$), This proves that physical activity levels did not substantially differ between males and females in this sample.

For the other characteristic (FIELD), (GRAD), and (AGE) variables, showed significant differences ($p<0.001$). and the Cohen's effect size was medium, ($d = 0.6$ & 0.52) these findings suggest that professors' age, academic discipline, and professional rank are significantly associated with practice patterns of physical activity.

Table .2. showing Activity levels of participants.

Indicator	Value
Number of Participants	51
Total Score	1,199 points
Average Score	23.5 points
Highest Score	27 points
Lowest Score	14 points

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Table .3. showing number of participants and percent for each category.

<i>Category</i>	<i>Number of Participants</i>	<i>Percentage</i>
Very Active (≥ 43)	0	0%
Active (34–42)	0	0%
Moderately Active (25–33)	3	5.9%
Inactive (< 25)	48	94.1%

Source: author's by spss V24 program

The results in Tables 1 and 2 showed the total scores obtained by sample members for the physical activity questionnaire, along with the sample distribution across all categories. Notably, the mean score was indicated 23.5, so this value Less the "moderately active" threshold (25 points). Furthermore, 94.1% of participants were classified in the "inactive" category.

4. Discussion:

The purpose of this study was to examine the physical activity levels among university professors, specifically physical education and sports science faculty members across various Algerian universities. Based on the hypothesis that university professors maintain a moderate level of physical activity, the study also aimed to determine whether there are gender-based differences (male vs. female) in physical activity levels among these faculty members

The current study results reveal no significant gender differences in physical activity levels among male and female university professors, as clearly demonstrated in (Table 1). However, significant variations were observed based on age, academic rank, and specialization. These findings align with expectations since age is a known determinant of physical activity - individuals under 40 years tend to be more physically active than over 45.

Regarding academic rank, the correlation with physical activity levels follows a predictable pattern since promotion to higher ranks (e.g., full professor) typically requires more years of service, meaning assistant professors/lecturers are generally younger than full professors.

Notably, sports training specialists emerged as the most physically active group in our sample (Figure 1). This finding is particularly meaningful as most of these faculty members concurrently work as athletic trainers or physical preparation coaches outside their university positions, which naturally contributes to their higher activity levels.

The results of physical activity level among university professors specializing in physical and sports sciences show that most professors declare inactive or moderately active categories, as shown in (Tables 2 & 3). This finding is expected since most respondents were professors over 45 years old and held full professor positions. These results are consistent with Smagulov et al. (2021), who found that university professors generally have low physical activity levels that affect their professional performance. Similarly, Dias et al. (2017) concluded that more than half of professors lead sedentary lifestyles with prevalent weight problems and stress. Brito et al. (2012) also showed that older teachers (55-66 years)

had reduced moderate-to-vigorous physical activity, while Kwiecień-Jaguś et al. (2021) confirmed the low physical activity pattern among academics

The findings indicating low physical activity levels among physical education and sports science university professors necessitate significant recommendations and guidelines. This agrees with Bull et al. (2020), which emphasizes the importance of regular physical activity for all age groups. The primary purpose of physical activity is to enhance motor skills for health, performance, and psychosocial development in both youth and older adults, while fostering creativity and innovation.

Research shows that individuals who engage in sports maintain higher physical activity levels even in advanced age. Moreover, regular physical activity can help develop knowledge about proper nutrition, exercise routines, and personalized health practices that individuals should adopt.

Our results clearly demonstrate that most university professors hold high academic ranks, indicating their strong awareness of physical activity benefits. However, they recorded low physical activity levels, which researchers attribute to their work nature involving lecture preparation, academic research, and car dependency for transportation - all directly impacting their activity levels. This aligns with Wilms et al. (2022) regarding office work's effect on physical activity. Importantly, prolonged sitting negatively affects health; recent studies show excessive sitting adversely correlates with health outcomes, including cardiovascular/metabolic risk biomarkers and type 2 diabetes. Even increased leisure-time activity proves insufficient to counteract extensive sitting (Dunstan et al., 2012).

Physical inactivity is a well-established risk factor for cardiovascular diseases, cancer, and diabetes, which - along with chronic respiratory diseases - account for over 60% of all deaths worldwide. Recent estimates indicate that nearly 2 million annual global deaths are attributable to physical inactivity (Brundtland, 2002), leading experts to describe physical activity as "public health's best buy" (Morris, 1994). These findings confront us with the stark reality of inactivity-related risks, particularly as our study results reveal concerning low physical activity levels among university professors specializing in Physical Education and Sports Sciences - professionals who, as subject matter experts, should be most aware of these health risks.

5. Conclusions and suggestions

This study revealed a concerning gap between theoretical knowledge and practical application among university professors specializing in sports sciences and physical activity at Algerian universities. The results showed that 94.1% of the sample were classified as physically inactive. The researchers attributed these findings to age factors, as most participants were over 45 years old, despite their academic specialization which emphasizes the importance of physical activity for health and performance. These results raise serious questions about the effectiveness of the academic system in translating knowledge into

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practice and confirm the existence of structural and psychological challenges that prevent the adoption of active lifestyles among faculty members.

Finally, it should be noted that these findings cannot be generalized due to the limited sample size, which opens the door for further studies in the same field with larger sample populations.

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