

Assessment of Personal factors effects on Physical Activity Level among Employees in University of Mosul

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Abstract:

Background: Human physical activity has decreased as a result of the development of technology and mechanical living; nonetheless, Lack of mobility is the cause of 70% of disorders.

Aim of the study: This study aims to identify the factors influencing physical activity levels among University of Mosul employees using a socio-ecological model.

Methods and Materials: A descriptive cross-sectional study was conducted among the employees of the University of Mosul from October 1, 2025, to June 1, 2026. A multi-stage stratified random sampling method was used to select (254) employees for the University of Mosul. A self-administered developed questionnaire was used to data collection. Descriptive and analytics statistics were used to achieved the study objectives.

Results: The study found the lack of time in personal dimension is high relatively important with mean (3.36) RII (0.67). and skills is the last with mean (2.07) standard deviation (1.21) and relative importance (0.41).

Conclusions: personal, social and organizational as most affecting on physical activity level of employees at University of Mosul lack of time and lack of spaces for exercise was most affected.

Recommendations: The implementation of public health promotion programs within the University of Mosul should focus on disease prevention, particularly physical activity, based on an environmental theory that considers all factors influencing physical activity engagement. This includes establishing awareness campaigns and health initiatives during working hours.

Keywords: Physical Activity, University of Mosul, Personal factors

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INTRODUCTION

Human physical activity has decreased as a result of the development of technology and mechanical living; nonetheless, Lack of mobility is the cause of seventy percent of disorders. One of the main causes of mortality, illness, failure, or disability in people is an immobility lifestyle. Frequent exercise is essential for human health, and immobility is a worldwide issue that hinders the improvement of public health and is one of ten major contributors to community death and disability (Sahranavard Gargari et al., 2018).

Physical Activity (PA) helps adults avoid and manage noncommunicable diseases including diabetes, cancer, and cardiovascular disease. It also improves brain function, lessens the symptoms of anxiety and depression, and can promote general well-being (WHO,2024)

The recognition of the various levels of influence influencing population level PA behavior, coupled with a growing understanding of the health benefits of PA and the percentage of populations that meet (or do not meet) guidelines, led to the development of cross-sectoral PA policy and advocacy approaches and the perception of PA promotion as a global priority (Mclaughlin et al., 2025).

For significant health advantages, adults should engage in at least 150–300 minutes of moderate-intensity aerobic physical activity, 75–150 minutes of vigorous-intensity aerobic physical activity, or an equivalent mix of both types of activity per week (Bull et al., 2020).

The prevalence of sedentary behavior during the day is largely attributed to television viewing and work activities. The advent of mobile devices has transformed the television watching experience, enabling consumers to access shows anytime and from anywhere. This shift is driven by the increased use of smartphones, tablets, and streaming services, which have collectively influenced viewer habits and preferences in significant ways (Nicolson et al., 2019).

There are many factors affecting physical activity; the purpose of this study aims to determine the personal factors influencing the University of Mosul employees' levels of physical activity.

METHODOLOGY:

A cross-sectional investigation was conducted among employees at University of Mosul with the aim of investigating their behaviors towards physical activity based on the socio-ecological model. From October 1, 2025, to June 1, 2026.

The information used in this study was gathered from the four colleges in University of Mosul between October 26, 2025 to February 1, 2026. A multistage stratified randomly sampling procedure was utilized to choose. employees for University of Mosul. In the first stage, the university's colleges were divided into four groups by specialization (Medicine, Science, Engineering, and Humanities). In the second stage, one college was randomly selected from each academic specialization to represent each field. Finally, employees were randomly selected from the selected college within each specialization. The study's sample include107 male and 147 females. The study adopted self-administered, developed questionnaire as the major instrument of data collection According to the SEM, the following five tiers or sets of elements personal variables, interpersonal variables, organizational variables, community variables, and public policy determine or influence PA behavior. After collecting and coding the data it was analyzed by using The Statistical Package for Social Sciences (SPSS) version 26 and Microsoft Office Excel 2019 AMOS program version 24 for Windows 10. Which were used to analyze the data obtained for the study.

RESULTS:

Table (1): Distribution of the study sample according to demographic characteristics.

Variables	F	%
Sex		
Male	107	42

Female	147	58
Total	254	100
Age	F	%
20-29 years	24	9
30-39 years	56	22
40-49 years	104	41
50 above years	70	28
Marital status	F	%
Single	64	25
Married	177	70
Widow	13	5
Educational level	F	%
Preparatory	25	9
Diploma	28	11
Bachelor	201	80
Colleges	F	%
Nursing	40	16
Science	77	30
Law	44	17
Engineering	93	37
Total	254	100

F: Frequency % : Percent

Table (2): The relative importance index for personal dimension regarding physical activity among employees.

Intrapersonal domain	Items	Mean	SD	RII	Ranking
Psychological Health factors	2	2.28	1.30	0.46	4
Knowledge	3	2.46	1.22	0.49	3
Attitudes	7	2.48	1.23	0.50	2
Skills	2	2.07	1.21	0.41	6
Self-concept	4	2.13	1.17	0.43	5
Time	1	3.36	1.36	0.67	1

DISCUSSION:

The demographic data for the study sample, consisting of (254) employees from the University of Mosul, indicates that the percentage of female participants exceeded that of males (58%). This finding suggests that the percentage of female employees is higher than that of male employees in the selected colleges. The data also revealed that the majority of employees were between (40-49) years old (41%), followed by the largest age group, (50-59) years old (28%). This result suggests that the majority of employees are middle-aged or older, which may influence health-related behaviors, including physical activity. Furthermore, the results showed that the majority of employees were married (70%). This finding of married individuals aligns with the age structure of the study sample. Marital status may influence health related behaviors through family responsibilities and social support mechanisms. The study also indicated that most participants held a bachelor's degree (80%), reflecting the nature of their academic work. This

suggests a relatively high level of education, consistent with university positions, where a good educational background often facilitates access to knowledge regarding health-related behaviors.

The results of the study revealed the presence of a clear role for the personal factors in influencing the level of physical activity among the employees of the University of Mosul, confirming the importance of the individual level in the socio-ecological model in explaining health behaviors related to physical activity. It is at this stage of the model that we see how health behavior is influenced by external factors as well as by individual characteristics such as knowledge, attitudes, skills, personal motivation and perception of one's own capacity to exercise. Results indicated that time was the most important personal barrier to physical activity mean (3.36), with the highest relative importance among the dimensions of the personal axis (0.67). This finding may be explained by the nature of the job and the professional and family commitments employees face, which reduces their ability to allocate sufficient time for regular physical activity. This may also be connected to increase in administrative burdens and daily routines which decrease the possibility of physical activity, especially among the employees in the middle age groups who have multiple responsibilities in and outside their workplace. This result is in line with study in both Southern Ontario and South Carolina, the most often reported general obstacle to PA among individuals aged 18 to 64 was a lack of time. Both men and women experienced this (Cavallini et al., 2020). The result of the (2721) individuals in the study, population-based sample of persons in Finland that are working age. The most common obstacle to engaging in physical activity during leisure time was a lack of time (Borodulin et al., 2016).

The findings also indicated that attitudes and knowledge measured moderate levels of impact RII (0.50), (0.49). This means that most of the employees have a satisfactory level of knowledge regarding the importance of physical activity, as well as its health benefits. This result in line with a study in Pakistan a 32-item Likert-type scale measuring attitudes toward physical activities was created for use with degree college students. It was discovered that both male and female students had good attitudes about physical activities as social experiences (Khan et al., 2021). However, this knowledge alone was not sufficient to translate behavior into regular actual practice. Another study showed about 49% of participants correctly identified the suggested physical activity recommendations, according to the study conducted in India, and there was no significant link (Spearman correlation of 0.072) between individuals' levels of physical activity and their awareness of these guidelines (Parthasarathi et al., 2026).

The study concluded that the time constraints were the most significant personal barrier to physical activity. Among the personal factors affecting physical activity participation, time limitations were the most significant, particularly due to the nature of the job, which typically consumes a large portion of the time.

The implementation of public health promotion programs within the University of Mosul should focus on disease prevention, particularly physical activity, based on an environmental theory that considers all factors influencing physical activity engagement. This includes establishing awareness campaigns and health initiatives during working hours.

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