

# The Relationship between Physical Activity and Life Satisfaction among Omani Teachers

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**Abstract** Teachers' health habits can have an impact on their students. Despite this, few studies have been conducted to investigate teacher physical activity and its relationship to life satisfaction. The prevalence of obesity has steadily increased over the years. Among both genders, the age-adjusted prevalence of being overweight or obese is higher among Omani participants across time. This study looks into how physical activity relates to life satisfaction among Oman's teachers. Some 671 teachers (40.3% male; 59.7% female) aged 20-50 years took part in the survey. Participants were recruited using a Google form survey. SPSS statistical tools were used to analyse the collected data. According to the findings, Physical Activity has a significant positive correlation with life satisfaction. The findings also revealed that gender influenced Omani teacher life satisfaction, with female teachers having higher life satisfaction than males. This study found no significant differences in life satisfaction based on age or Body Mass Index (BMI). This study was intended for use in public schools. More research can be conducted in both private and public schools. In sum, health promotion professionals might develop plans to improve employee health status if they had a better grasp of impact of factors associated with physical activity participation. As a result, there will be improvement in worker life satisfaction, which is considered to be a cognitive component of subjective well-being.

**Keywords** Body Mass Index, Life Satisfaction, Omani

Teachers, Physical Activity

## 1. Introduction

The educational environment has long been recognised as a conducive setting to perform preventative programmes. More than a third of school community members seek treatment for a mental health illness while still in school [1]. Schools are increasingly taking proactive approaches to well-being because young people spend the bulk of their waking hours in schools. At the same time, school administrators and teachers have come to recognise that schools are more than places of academic learning and achievement; they are also places where well-being and life satisfaction are vital issues to take into account [2,3].

Health is one of the most valuable possessions, but academic employees often disregard their physical health [4]. Physical and psychological health are important factors in determining one's level of life satisfaction [5,6]. Physical exercise plays a key role in general health education and is favoured in self-determination to build fitness and wellness abilities. Much research on physical activity (PA) has covered the general population, and very little has targeted educators. Since educator health practices will influence students either directly or indirectly, this study examines the association between PA

and teacher life satisfaction in Oman. It also investigates the relationship between physical activity and teacher gender, age and body mass index (BMI).

Physical exercise and life satisfaction are linked [7], as it was found that young individuals who exercised moderately or vigorously reported improved life satisfaction [8]. Results vary, however, in terms of PA intensity and subjective well-being. For example, recent research linked moderate-to-vigorous physical exercise to improved quality of life [7]. Another research found that low-intensity exercise provided the most subjective well-being for healthy persons [9]. Yet high-intensity physical exercise was not associated with subjective well-being [10]. Prospective cohort research found a positive relationship between moderate-intensity physical exercise and subjective well-being, but a negative relationship between high-intensity physical activity and subjective well-being [11]. It is uncertain if habitual physical exercise at leisure improves life satisfaction.

Furthermore, little research has investigated the correlation between physical activity and life satisfaction among teachers. Indeed, teachers are the strength of a nation, and acknowledging their attitudes and behaviours is unquestionably important as they serve as good role models for students. As a result, their mindsets about their own physical and psychological body images, as well as other aspects of their current lifestyles and behaviours, will greatly influence students' attitudes and beliefs. about their own physical and psychological body images [12]. Teachers are expected to act as real role models for their pupils [13]. These teachers' actions mirror their behaviours and perspectives on life. Concern should be raised about the possibility that teachers' inappropriate and perhaps harmful attitudes, ideas, and behaviours might be transmitted to their pupils either intentionally or unintentionally. Yet, few studies have covered the importance of physical activity practice among teachers. To fill the gap in the literature, this study investigated how physical activity is linked to life satisfaction among teachers in Oman. The second goal was to clarify the links between age, Body Mass Index (BMI), gender, and life satisfaction.

## 2. Literature Review

First, the benefits of exercise will be discussed. Research has shown exercise is vital for health as habitual exercise has various physical and psychological advantages that have a dramatic impact on life [14]. Physical exercise, according to Chen et al. [15], can help people achieve physical and mental fulfilment, increase their subjective assessment of quality-of-life satisfaction, promote positive emotions, and improve overall quality of life. According to an empirical study [16], participating in physical activity produces satisfaction and high emotional well-being which can directly increase subjective well-being. Hence, this

research proposes that "Physical activity among teachers is linked to a higher level of life satisfaction".

Physical activity (PA), according to Kalinková et al. [17], has a positive long-term and short-term effect on psychological well-being. Increasing worker PA results in a healthier workforce [18], increased productivity, and reduced risk of increasingly costly and debilitating diseases [19]. Furthermore, recent advances in psychology have rekindled interest in activating a healthy lifestyle by encouraging physical activity to reap critical PA benefits.

Xu et al. [20] found that physical activity (PA) directly promotes life satisfaction. Vigorous and moderate physical exercise improves work satisfaction [21]. Sedentism, on the other hand, reduces contentment, satisfaction, and subjective well-being [22].

Sedentary lifestyles have long been regarded as the primary public health risk [30]. World Health Organization (WHO) statistics show that obesity-related deaths reach 2.8 million each year. Inactive employees pose higher healthcare costs; sick leave and lower workplace productivity are related issues. Low physical activity levels increase the risk of chronic illnesses, potentially leading to negative behavioural, cognitive, and physiological outcomes [3,23]. Kalinková et al. [17] noted how physical exercise has positive long-term and short-term influence on psychological well-being.

The psychological benefits of organised and planned physical exercise as part of an active lifestyle include improved mood and a higher quality of life [24]. This study examines how physical activity among teachers in Oman relates to life satisfaction. It also examines whether PA and life satisfaction differ by gender, age and body mass index (BMI).

## 3. Research Methodology

This research used a cross-sectional design; this methodology was selected because it enabled us to collect information on the participants without affecting the study setting.

Before beginning this research, the instrument developer should be contacted to obtain permission to use the instruments in question. Permission to use the instrument was sought through email for this study. The study procedure began after completing the requisite formalities relating to the request for approval from the Department of Psychology, Faculty of Education, University of Malaya, and the Ministry of Education of Oman. The participants were also told of the study goals and scope due to the need to discuss research ethics, which includes data protection and privacy. They were told of these ethical concerns prior to questionnaire administration. A cover letter explaining the study's intent and confidentiality was also added to the questionnaire.

### 3.1. Sample

The 671 teacher participants were recruited from different schools in Oman. Permission to use the instrument was sought by e-mail from the developers prior to conducting the study. We employed a two-stage stratified sampling method, and to do this, for administration, Oman [25] is divided into 3 categories based on regional location: North, Middle, and South.

This study focused on male and female schools at the same time because they have the same rules and work environment and are managed by the Ministry of Education in Oman. Hence, districts were selected based on the number of teachers from each of the regions. We then chose the 2 districts based on male teachers and the 2 districts based on female teachers from each region.

### 3.2. Instruments

#### 3.2.1. Habitual Physical Activity Index (HPAI)

The current study utilised the Habitual Physical Activity Index (HPAI) developed by Burns and Froman [26] to measure the level of physical activity in leisure time among the teachers (see Table 1). A self-administered survey, the HPAI has three subscales: work, sport, and leisure. The current study, however, used the physical activity related leisure time subscale only for the study purpose. This was because the nature of Omani teachers' duties in government schools was restricted by rules reflecting customs and traditional habits besides requiring formal clothes that may limit both genders from workplace exercise; hence we used only the scale related to leisure time physical activity. This subscale asked participants about leisure time physical activity in the past one month. The Leisure Index asked respondents about their frequency of involvement in different physical activities with a rating

scale ranging from 1 "never" to 5 "always". Item PAL3 (see Table 1), however, is reversed-scored. The reliability of physical exercise in leisure and recreational activities was .89, indicating that this instrument has sufficient reliability.

#### 3.2.2. Life Satisfaction Scale

This scale was created by Diener et al. [27] to serve as a worldwide indication of a cognitive-judgmental approach. It consists of five elements that evaluate individual life satisfaction level. It is focused on the person's mental health. Instead of using measurements that the researcher thinks are significant, the Satisfaction with Life Scale helps people assess their overall satisfaction based on variables that they believe are significant [28]. Using a seven-point Likert-type scale, responses to the Satisfaction with Life Scale were rated from 1 strongly disagree to 7 strongly agree. According to Lim [29], the Cronbach's alpha reliability coefficient for this scale in the current study is .932, indicating strong reliability. Table 2 displays the items on this scale.

### 3.3. Procedure

Permission to use the instrument was sought by e-mail from the developers prior to conducting the study. The study procedure began after completing the requisite formalities relating to the request for approval from the Ministry of Education of Oman. Prior to questionnaire administration, participants were informed about the purpose and scope of this study; they were also told about research ethics, and that their data will be protected, and their privacy will be preserved. The consent form and an explanation of the study's intent and confidentiality were also attached to the questionnaire.

**Table 1.** Physical Activity during Leisure Time

No.	Item
(PAL1)	During leisure time, I sweat due to physical activity
(PAL2)	During leisure time, I play sport
(PAL3)	*During leisure time, I sit or recline
(PAL4)	During leisure time, I walk
(PAL5)	During leisure time, I exercise in classes or in club
(PAL6)	During leisure time, I exercise at home
(PAL7)	In comparison with others of my own age, I think my physical activity during leisure time is....

**Table 2.** Items of the life satisfaction scale

No.	Item
(life1)	In most ways, my life is close to my ideal
(life2)	The conditions of my life are excellent
(life3)	I am satisfied with my life
(life4)	So far, I have gotten the important things I want in life
(life5)	If I could live over, I would change almost nothing

**3.4. Data Analysis**

In this study, we used a variety of analytical tests. First, skewness and kurtosis were used to assess the normality of PA and life satisfaction scores. Furthermore, the mean and standard deviation were used to provide descriptive analysis for the study variables. The PA and life satisfaction association was investigated by multiple regression analysis. While the *t*-test was used to uncover gender differences in life satisfaction and PA, ANOVA was used to test age differences in life satisfaction.

**4. Results**

The descriptive analysis of this study involved the participant demographic profile, Table 3 shows the demographic characteristics of the study sample in terms of gender, age, weight, height, and BMI.

**Table 3.** Respondent Demographics Profile

Demographic Items	Frequency (n)	Percentage (%)
<b>Gender</b>		
Male	264	39.3
Female	407	60.7
<b>BMI</b>		
<18.5	46	6.9
18.5–24.9	165	24.6
25–29.9	250	37.3
≥ 30	210	31.3
<b>Age</b>		
20-29	50	7.5
30-39	329	49.0
40-49	252	37.6
50and more	40	6.0

Based on Table 3, a total of 671 Omani teachers (60.7% females; 39.3% males) have participated in the current study. Among the participants, 46 (6.9%) are less than 18.5 BMI, 165 (24.6%) are 18.5–24.9 BMI, 250 (37.3%) are 25–29.9 BMI, and 210 (31.3%) are ≥ 30 BMI. Around 50 respondents (7.5%) are aged between 20-29 years, 329

(49.0%) are aged between 30-39 years, 252 (37.6%) are between 40-49 years, and 40 (6.0%) are aged 50 and above. The mean score of PA was 18.62, (SD = 3.72), while the mean score of life satisfaction was 26.48, (SD = 4.88) (see Table 4). Before conducting inferential analysis, we tested the data normality distribution before conducting regression and ANOVA. Results displayed in Table 4 show the skewness and kurtosis values fall within the required range of -2 and +2.

**Table 4.** Descriptive analysis for PA and life satisfaction

<b>Descriptive</b>			
		Statistic	Std. Error
PA	Mean	18.6185	.14333
	Std. Deviation	3.71289	
	Minimum	10.00	
	Maximum	31.00	
	Skewness	.180	.094
	Kurtosis	-.109	.188
LS	Mean	26.4844	.18821
	Std. Deviation	4.87540	
	Minimum	11.00	
	Maximum	35.00	
	Skewness	-.649	.094
	Kurtosis	.036	.188

The first research question was: Is there a link between physical activity and life satisfaction? We used multiple regression analyses to answer this question. Tables 5-8 summarise the findings. The *F*-ratio of ANOVA demonstrated that the overall regression model is a good fit for the data in this study, as shown in Table 5. The findings show that the independent variable (leisure time physical activity) statistically significantly predicts the dependent variable (life satisfaction), with the overall regression being statistically significant ( $R^2 = .015$ ,  $F(1,669) = 10.392$ ,  $p .05$ ). This shows that the regression model successfully fits the data.

The result presented in Table 6 revealed that the correlation between PA and life satisfaction was 0.124. The *R* Square value of .015 means that 1.5% change in life satisfaction is explained by PA at leisure time in this study.

In addition, it was found that PA at leisure time significantly predicted life satisfaction as shown in Table 8 ( $\beta = .124$ ,  $p < .05$ ).

The second research question was: Is there a significant gender difference in life satisfaction? To answer this question, we used a *t*-test analysis. As shown in Table 9, there were significant differences in life satisfaction by gender  $t(669) = -2.586$ ,  $p = .010$  ( $p < 0.05$ ). Female teachers had higher life satisfaction ( $M = 26.8$ ,  $SD = 4.84$ ) than male teachers ( $M = 25.88$ ,  $SD = 4.88$ ). This means that the null

hypothesis (Ho) of no significant difference in life satisfaction among teachers based on gender was rejected. It can be concluded that female teachers' life satisfaction differs from male teachers', and female teachers are more satisfied with their lives than male teachers.

The third research question was: Is there a significant

difference in life satisfaction based on age? To answer this question we did an ANOVA test; the result is presented in Table 10. No significant difference was found in life satisfaction based on age wherein  $F(3,667) = .368, p > 0.05$ . This may be interpreted as variance-covariance for life satisfaction is homogeneous across age.

**Table 5.** The results of the ANOVA test

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.744	1	9.744	10.392	.001 <sup>b</sup>
	Residual	627.279	669	.938		
	Total	637.023	670			

**Table 6.** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.124 <sup>a</sup>	.015	.014	.96832

**Table 7.** Correlations

PA_at leisure	Life Satisfaction	
	Pearson Correlation	PA at leisure
	Sig. (1-tailed)	.001
	N	671

**Table 8.** Coefficient and significance of the regression

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	4.692	.191	.124	24.53	.000	1.000	1.000
	PA at leisure	.227	.071		3.224	.001		

**Table 9.** Independent t-tests for life satisfaction based on gender

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Total LS	Equal variances assumed	.008	.931	-2.586	669	.010
	Equal variances not assumed			-2.581	609.597	.010

**Table 10.** ANOVA test of differences in teachers' life satisfaction based on age

ANOVA					
Total_LS					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26.295	3	8.765	.368	.776
Within Groups	15899.290	667	23.837		
Total	15925.586	670			

**Table 11.** ANOVA test of differences in teachers' life satisfaction based on BMI

ANOVA					
Total_LS					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	112.358	3	37.453	1.58	.193
Within Groups	15813.228	667	23.708		
Total	15925.586	670			

The fourth research question was: Is there a significant difference in life satisfaction based on BMI? Table 11 displays the findings of the ANOVA test used to address this research question. The outputs indicated no significant differences among the dependent variables for each group, ( $F(3,667) = 1.580, p > 0.05$ ). This could be interpreted as variance-covariance for the life satisfaction is homogeneous across BMI.

## 5. Discussion

The current study sought to investigate the relationship between PA and life satisfaction among Omani teachers; the findings revealed a significant positive relationship between PA and life satisfaction. Life satisfaction is a cognitive-evaluative component of subjective well-being, which could explain this [30]. Individuals with high levels of life satisfaction perform better in intrapersonal, social, and cognitive domains [31]. As a result, understanding life satisfaction aspects enables formulation of targeted strategies for increasing teacher well-being.

Results of this study align with that by Penedo and Dahn [32] who found that PA significantly improved life satisfaction and health by lowering illness risk, enhancing body composition, and fostering weight loss [32].

Further, the results of this study are also supported by a study that found physical exercise has been shown to boost mood, reduce depression and anxiety and lower psychological stress [33]. Several studies indicated that teachers who exercise frequently are more likely to feel cheerful and energised; this is especially true if they exercise with others (motivated by social motives). Besides, physical activity is important in promoting physical and mental health [34], improving quality of life, enhancing mood, and fostering an active lifestyle hence increasing self-worth and self-efficacy [34]. In addition, PA is recognised as promoting well-being and enhancing positive motor skill development [35]. By improving teacher PA in Oman, we can anticipate an increase in student PA activity as well, and subsequently enhanced student health and well-being.

Another study conducted by Al-Fazari et al. [36] explained that exercise results in increased dopamine and

oxytocin release, modifying physiology to the point that "pleasure induction" is sought by persons who exercise consistently. Exercise also releases endorphins and norepinephrine, which assist in reducing depression. It also increases social support and self-efficacy through increasing psychological well-being [37]. Many people resort to health activities such as exercise to regain their physical and mental health, as well as a feeling of balance and well-being. This is because exercise improves mood in the near term and increases contentment over time. Endorphins, morphine-like molecules produced in the brain, are responsible for short-term exercise effects [38]. How far teachers use physical activity to improve their wellness might impact their influence on students.

An active lifestyle is usually associated with enhanced quality of life by reducing psychological stress. Quality of life is a multifaceted phenomenon impacted by health, natural and social, environmental, and socio-psychological variables [39]. These factors contribute significantly to overall life happiness. Chapman University's research found that life satisfaction is linked to a decreased risk of death and that changes in LS are deleterious to health and lifespan [40]. Thus, findings of investigation into life satisfaction will help people develop a healthy lifestyle. Kim et al. [41] studied the association between leisure-time physical activity and LS in adults with impairments [41]. They argue that leisure-time PA helps establish appropriate coping strategies and hence increases life pleasure.

This study found that physical exercise predicted life satisfaction among teachers in Oman. These findings are consistent with earlier research that showed high levels of LS were expressed by those who were active and by those who exercised [42,43]. Exercise is supposed to benefit both physical and mental health [37]. Given the significance of exercise in enhancing well-being, the positive link between PA and life satisfaction is not surprising [42]. Life is more meaningful when people are happy and less focused on unpleasant things.

In other investigations, the kind and intensity of physical exercises were compared. All evidence points to our present conclusion. Leisure exercise involvement, according to Kim et al. [42], leads to active coping methods that foster life satisfaction.

In a recent study [44], people who did high and moderate levels of exercise outperformed those with low levels of

activity in terms of life satisfaction and enjoyment. Physical exercise is linked to life satisfaction in young, middle-aged, and elderly persons [44]. A strong link exists between vigorous physical exercise, self-maintenance, and quality of life in youngsters. Santino et al. [45] found correlations between leisure activities and life satisfaction. Exercise is associated with improved functional abilities and day-to-day living activities [42] (in addition, physical activity level is linked to personal welfare and functional independence of the elderly).

Active living enhances overall life satisfaction and subjective health [46]. A physically active lifestyle may increase mental health and life happiness, according to Aldegehyr [47]. Plans to enhance our everyday well-being would urge us to be more active and less sedentary. People whose jobs interfere with their personal lives, like teachers, should be given greater consideration [48]. Earlier research found this exercise-life happiness association inconsistent. Life satisfaction exhibited high positive relationships with physical and psychological health [49]. Yet, unlike Busing and West [50], Zusková et al. [51] found no association between total PA and life satisfaction, although Hegberg and Tone [63] observed that physically active people are better at dealing with stress and mental health difficulties.

The demographic review of the participants in this study showed that life satisfaction differed by gender. This gender difference may be because women typically have a low degree of expectation and are more likely to be resilient to unanticipated stress [52]. The results of this study support a study that found significant gender-life satisfaction correlation [53], whereas it is inconsistent with a previous study finding that LS had no significant difference by gender [54]. Joshanloo [55] found no significant gender differences in LS in recent research of data from 150 nations, validating the gender similarities theory. Recent research by Vitales-Hernandez [56], however, discovered gender disparities. According to Duman et al. [57], among Turkish and German populations, females were more pleased than males. A previous study has shown that females have more happy emotions than males [58].

Satisfaction level and age variables were evaluated in this study, but the results were not significant. Results of the current study also demonstrate no significant variations in life satisfaction based on BMI; this result contradicts that of Karyani et al. [59] who discovered a substantial link between BMI and life and health satisfaction in Iranian individuals. This association between BMI and life satisfaction, however, was not found in Heshmat et al. [60]. These differences in research results might be attributed to people's lifestyles being continually updated.

## 6. Conclusions

This study examined the relationship between physical

activity (PA) and life satisfaction, as well as the differences in life satisfaction based on gender and age among a sample of Omani teachers. We found that teacher physical activity predicted life satisfaction and life satisfaction differed significantly by gender, but not by BMI or age. Despite enhanced exposure to awareness of exercise benefits, however, most Omani people do not partake in adequate PA regularly to enjoy the maximum PA benefits. Teachers' daily lives might be improved if they were encouraged to be more active and less sedentary. Teachers who engage in regular PA are more likely to be satisfied with their lives, according to this study. The more active teachers should expect to enjoy better health, which can contribute to better performance and less costly or less serious diseases. Hence, government policies for all ages should encourage teachers to engage in physical exercise to enhance their lifestyles and set a good example for their students. Oman's overall healthcare budget may be stretched by the effects of physical inactivity. By changing teacher attitudes toward physical activity, the Ministry of Education can ensure teachers in Oman set a good example such that students will improve their well-being and the overall national health status will be improved. The research results point out how the teachers' Physical Activity and Life Satisfaction may affect their teaching quality. The school directors or other stakeholders should realise the significance of teacher mental health and implement some activities to promote their mentality and happiness.

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