



## Level of physical activities and quality of life among public primary and secondary schools teachers

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### Abstract

Regular physical activity is proven to help prevent and manage non communicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps improve mental health, quality of life and well-being. Physical education Teachers in primary and high schools are usually involve in teaching pupils/students and encouraging students and their colleagues in active participation in sports. However, there seems to be paucity of literatures on the level of participation of school teachers in physical activity. This study investigated the physical activities level and the quality of life of teachers in both public primary and secondary schools in south western community of Ondo state, Nigeria. Ninety consenting teachers from selected public primary and secondary schools participated in the study. Data were obtained using "International Physical Activity Questionnaire Short Form (IPAQ) and "Quality of Life Scale SF-36. Analysis was done using the descriptive statistics of frequency counts, percentages and inferential statistics of independent T test on SPSS version 20.0. Alpha level was set at 0.05.

The result showed that, level of participation in physical activities among primary school teachers were higher than secondary schools' teachers, however, there was no significant difference in their overall quality of life. Furthermore, there was a significant difference between physical activity level of primary and secondary school teachers ( $t = 3.408$ ,  $p = 0.001$ ) while there was no significant difference between of total quality of life of primary and secondary school teachers ( $t = -1.323$   $p = 0.193$ ). An enlightenment program should therefore be organized to sensitize secondary school teachers on benefits and promotion of physical activities.

**Keywords:** Physical activity, quality of life, teachers

### Introduction

World Health Organization defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure (WHO, 2020). Physical activity refers to all movement including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity improve health. Popular ways to be active include walking, cycling, wheeling, sports, active recreation and play, and can be done at any level of skill and for enjoyment by everybody (Yildirim *et al.*, 2016)<sup>[6]</sup>.

Quality of Work Life is a philosophy, a set of principles, which holds that people are the most important resource in the organization as they are trustworthy, responsible and capable of making valuable contributions and they should be treated with dignity and respect (Balusamy and Sivakumar, 2020)<sup>[6]</sup>. Quality of Work Life consists of opportunities for active involvement in group working arrangements or problem solving that are of mutual benefit to employees or employers, based on labor management cooperation (Balusamy and Sivakumar, 2020)<sup>[6]</sup>.

Regular physical activity is proven to help prevent and manage non communicable diseases such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being (WHO, 2022). Regular physical activity prevents the development of cardiovascular diseases, heart conditions, certain types of cancer, and all causes of mortality. Regular physical activity has positive effects on blood pressure, lipid and lipid protein profile, weight control, mental health and psychological well-being (Haskell *et al.*, 2007)<sup>[5]</sup>.

Physically active lifestyle does not only protect the individuals from unhealthy behaviours such as smoking, the use of alcohol and drugs but also it helps them develop healthy behaviours such as balanced nutrition and a safe life style. (YelizÖzdöl *et al* 2013). Low physical activity level (PAL) is a major risk factor for development of chronic degenerative diseases such as heart diseases, cancer, hypertension, diabetes and obesity (Vuori IM., 2001)<sup>[13]</sup>.

A better quality of life also requires working, producing and being healthy. All these simple facts constitute the basis of man's mobility in everyday life (Vural, 2021)<sup>[14]</sup>. Furthermore, regular physical activity during adolescence influences mental and emotional health, as well as physical well-being (Biddle *et al.*, 2011; Singh *et al.*, 2012)<sup>[1, 12]</sup>. Inadequate leisure time, inactivity, obesity and chronic health issues plague the lives of millions of adolescents globally (CDHF 2013).

Globally, 28% of adults aged 18 and over were not active enough in 2016 (men 23% and women 32%). This means they do not meet the global recommendations of at least 150 minutes of moderate-intensity, or 75 minutes vigorous-intensity physical activity per week. Similarly, 81% of adolescents aged 11-17 years were insufficiently physically active in 2016. Adolescent girls were less active than adolescent boys, with 85% versus. 78% not meeting WHO recommendations of at least 60 minutes of moderate to vigorous intensity physical activity per day (WHO, 2022)

The drop in physical activity is partly due to inaction during leisure time and sedentary behavior on the job and at home. Likewise, an increase in the use of "passive" modes of transportation also contributes to insufficient physical activity. Having a physically active lifestyle entails health

promotion and improved quality of life and may be a sound investment in public health (Matsudo *et al.* 2000) [7]. The benefits of regular physical exercise have been reported in many literatures to increase the level of physical fitness and decrease the risk factors for serious chronic diseases (Booth *et al.*, 2001, Mechelen *et al.*, 2000) [2, 8]. Gürol *et al.* (2019) [4] concluded that participation in physical activity can be said to have reduce emotional problems and pain, and a positive effect on general health status. The findings of the research suggest that physical activity forms the basis of a healthy life and it should be carried on for the life, and that regular physical activity habits should be imposed during childhood. (Malina & Bouchard, 2004) [9].

Teachers occupy a unique position of influence in a child's life. Teachers help by getting their students moving while building a positive learning environment and teaching valuable life skills. School teachers can inspire their students to exercise in the classroom and live active healthier lives. Physical education Teachers in primary and high schools are usually involve in teaching pupils/students and encouraging students and their colleagues in active participation in sports, furthermore, they organize and supervise periodic intra and inter school sports competitions. However, there seems to be paucity of literatures on the level of participation of school teachers in physical activity. The level of involvement of school teachers in physical activities therefore needs to be assessed. This study is therefore designed to evaluate the physical activities level and the quality of life of teachers in both public primary and secondary schools in south western community of Ondo state, Nigeria.

### Materials and Methods

The cross-sectional study involved ninety consenting teachers from selected public primary and secondary schools in Owo, community of Ondo state, Nigeria A multi stage sampling techniques was used in arriving at each of the three selected public primary and secondary schools from which participants were consecutively recruited for the study. Ethical approval was sought and obtained from the Ethical Review Committee of Federal Medical Centre, Owo, Ondo State, before the commencement of this study.

Informed consent was obtained from all participants after assurance of anonymity and confidentiality of their information. Data were obtained using a self-administered questionnaire. The questionnaire consist of three section: Section A was on socio-demographics characteristics of the respondents, section B was the "International Physical Activity Questionnaire Short Form (IPAQ) (Craig *et al.*, 2003) used to obtain information on physical activity level of the respondents while section C was the "Quality of Life Scale SF-36" that sought information of the quality of life of participants. The questionnaire consisted of 11 questions and 35 items (Gülseren *et al.* 2001). Data obtained was coded and entered into Microsoft Excel spread sheets. Analysis was done using the descriptive statistics of frequency counts, percentages and inferential statistics of independent T test on SPSS version 20.0. Alpha level was set at 0.05.

### Result

Ninety participants drawn from the selected public primary and secondary schools in Owo, Ondo state Nigeria were involved in this study. The demographics of the respondents are presented in table 1. 45 were public primary school teachers (35 female and 10 male) while 45 were public secondary school teachers (32 female and 13 male). The age groups of the participants ranged from 20-55 year, with 31-35 years and 36-40 years old having the highest percentage of 31.1% in public primary schools. 31-35 years and 46-50 years have the highest percentage of 22.2% among public secondary schools teachers.

A higher percentage of 91.1% of the teachers in the public primary schools are of Yorubas tribe and 8.9% are Igbos while 88.9% of the teachers in public secondary schools are Yorubas and 11.1% are Igbos. A total percentage of 82.2% of primary teachers are married while 86.7% of the teachers in public secondary schools are also married. The teaching years of experiences ranged from 1-35 years. For primary schools, 6-10 years has the highest percentage (33.3%) followed by 1-5 years (22.2%) while 21-25 years has the highest percentage (24.4%) among the public secondary schools' teachers.

**Table 1:** Socio-demographics characteristics of public primary and secondary school teachers

Variables	Primary (n= 45) n%	Secondary(n=45)n%
<b>Age (YEARS)</b>		
20-25	1 2.2%	2 4.4%
26-30	4 8.9%	4 8.9%
31-35	14 31.1%	10 22.2%
36-40	14 31.1%	8 17.8%
41-45	3 6.7%	8 17.8%
46-50	5 11.1%	10 22.2%
51-55	4 8.9%	3 6.7%
<b>Gender</b>		
M	10 22.2%	13 28.9%
F	35 77.8%	32 71.1%
<b>Ethnic Group</b>		
Yoruba	41 91.1%	40 88.9%
Igbo	4 8.9%	5 11.1%
<b>Marital Status</b>		
Single	13.3 13.3%	5 11.1%
Married	37 82.2%	39 86.7%
Widowed	2 4.4%	0 0%
Divorced	0 0%	1 2.2%

Year of Exp.		
1-5	10 22.2%	7 15.6%
6-10	15 33.3%	10 22.2%
11-15	9 20%	4 8.9%
16-20	2 4.4%	10 22.2%
21-25	1 2.2%	11 24.4%
26-30	5 11.1%	3 6.7%
31-35	3 6.7%	0 0%

The result also shows that, among the public primary school teachers, 31.1% has low physical activity, 22.2% moderately active while 46.7% engaged in vigorous physical activity. However, for the secondary school

teachers, 46.7% were physically inactive, 33.3% were moderately active while only 20.0% engaged in vigorous physical activity (See Table 2).

**Table 2:** Table of Level of Physical Activity Level among Primary and Secondary School Teachers

Variables	Primary n%	Secondary n%
Inactive	14 31.1%	21 46.7%
Moderate	10 22.2%	15 33.3%
Vigorous	21 46.7%	9 20.0%

Table 3 shows the mean values of the respondents' quality of life using the eight different domains. The result shows that emotional wellbeing has the highest mean value (73.56± 23.49) follow by Social Function (70.56±30.75) while physical Function has the lowest mean value (50.56 ± 28.62) among public primary school teachers. For public

secondary school teachers, general health has the highest mean value (79.38± 15.82) follow by pain (71.33± 21.29) while physical health has the lowest mean value (56.81 ± 37.77). However, the overall total quality of live means score for primary school teacher was 63.00± 17.37 while that of secondary school teachers was 67.19± 15.79

**Table 3:** Shows the mean value and standard deviation for Quality of Life among public primary and secondary school teachers

Variable	Primary Mean±SD	Secondary Mean±SD
Physical Functions	50.56 ± 28.62	62.53 ± 28.28
Physical/Health	65.00 ± 28.40	56.81 ± 37.77
Emotional	51.17 ± 37.91	60.61±21.85
Energy/Emotion	60.61± 21.85	65.88± 19.82
Emotional Wellbeing	73.56± 23.49	72.18± 20.21
Social Function	70.56±30.75	67.50± 22.20
Pain	66.89±28.07	71.33± 21.29
General Health	65.67± 24.36	79.38± 15.82
Total	63.00± 17.37	67.19± 15.79

Table 4 shows the comparison of total quality of life and physical activity level among Public primary school teachers. The table shows that, there was a significant

difference between quality of life and inactivity (t = -5.654, p < 0.05), moderate physical activity level (t = -4146, p < 0.05) and vigorous physical activity level (t = -865.91, p < 0.05).

**Table 4:** Comparison of Total Quality of life (QOL) and Physical Activity (PA) categories among public primary school teachers

Total QOL	M±SD	t value	p value
Total QOL and Inactive	-1386.45±1645.02	-5.654	0.000
Total QOL and Moderate Physical Activity	1532.19±2478.97	-4146	0.000
Total QOL and Vigorous Physical Activity	-1390.88±1747.40	-865.91	0.000

Table 5 shows the comparison of total quality of life and physical activity level among Public secondary school teachers. The table shows that, there was a significant

difference between quality of life and inactivity (t = -5.922, p < 0.05), moderate physical activity (t = -4.816, p < 0.05) and vigorous physical activity (t = -4.287, p < 0.05).

**Table 5:** Comparison of Total Quality of Life and Physical Activity categories among Secondary School Teachers.

Total QOL	M±SD	t value	p value
Total QOL and Inactive	-585.12±662.84	-5.922	0.000
Total QOL and Moderate Physical Activity	-421.24±586.70	-4.816	0.000
Total QOL and Vigorous Physical Activity	-585.755±918.17	-4.287	0.000

The result of table 6 shows that, there was a significant difference between total physical activity level of primary and secondary school teachers (t = 3.408, p = 0.001). While

There was no significant difference between of total quality of life of primary and secondary school teachers (t = -1.323 p = 0.193).

**Table 6:** Comparison between Total Physical Activities of primary and secondary school teachers and Total quality of life of primary and secondary school teachers

Paired sample	Mean± SD	t value	p value
Total PA Primary and secondary	2703.82±5322.48	3.408	0.001
TotalQoOL Primary and Secondary	-4.198± 21.28	-1.323	0.193

## Discussion

Ninety participants drawn from the selected public primary and secondary schools in Owo, Ondo state Nigeria participated in this study. The result of the present study revealed that, greater proportion of the teachers in both primary and secondary schools are females (77.8% primary, 71.1% secondary). This reveals that teaching profession seems to be mostly dominated by female gender in the study environment. This finding supported the result of a study by Brito *et al* (2012) that reported a higher percentage of female among school teachers.

It was observed from the present study that, greater proportion of the primary school teachers were involved in vigorous form of physical activity. This result however contradicts the findings of Sağlam *et al.* (2017) <sup>[11]</sup> on evaluation of physical activities level and quality of life among primary teachers. Sağlam *et al.* reported only 20% of the teachers to be involved in vigorous form of physical activity. The reason for the variation could be attributed probably to the very high number of participants involved in Sağlam study. However, the observation from the present study could also be attributed to the study environment and the attribute of pupils in primary school. These primary school pupils are in their formative stage, more active and restless which put more task on the teachers in controlling the pupils. Furthermore, more physical activity programs outside the classroom coordinated by class teachers are weekly organized for the primary school pupils to keep them alerts and fit mentally for class activities.

The result however, shows that only 20% of secondary school teachers were involved in vigorous activity while majority were inactive. The result also revealed a significant difference between total physical activity of primary and secondary school teachers. Although there seems to be no direct study in literature that compared primary and secondary school teachers to which the present result could be compared, therefore, the significant difference observed in the present study could still be attributed to the aforementioned reasons in favour of primary school teachers.

Observation from the result on quality of life shows that emotional wellbeing score was higher, followed by social function, while physical function was lower among public primary school teachers. This suggests that emotional wellbeing may play a more active role in the daily work of primary school teachers. The study of Sağlam, *et al.*(2017) <sup>[11]</sup> on evaluation of physical activities level and quality of life of teachers however observed that physical function and physical role were increased than other domains of quality of life. For the secondary school teachers, the general health status and the emotional wellbeing domain of the quality of life had the highest score compare to other domains.

From the present study, there were significant differences between the overall quality of life and each of the categories of physical activities for both primary and secondary school teachers. However, the comparison of the overall total quality of life between primary and secondary school teachers revealed no significant difference. Although, Kırgız

*et al.* (2014) found that the quality of life of instructors at the School of Physical Education and Sports was high, indicating that the high quality of life observed may be related to the effort the teachers spent in practical courses. Since, there seems to be no previous study that compared quality of life of primary and secondary school teachers, it is therefore concluded that, involvement in physical activity has no significant effects on the quality of life of teachers in primary and secondary schools.

## Conclusion

Teachers at primary and secondary schools occupy a unique position of influence in a child's life and can inspire students to exercise in the school to live active and healthier lives. The physical activity level and quality of life of teachers were investigated in this study. The level of participation in physical activities among primary school teachers were higher than the counterpart in secondary schools, however, there was no significant difference in their overall quality of life. An enlightenment program should therefore be organized to sensitize secondary school teachers on benefits and promotion of physical activities thereby promoting daily activities and periodic intra or inter school sports competition among teachers and students.

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