

INFLUENCE OF PHYSICAL ACTIVITY LEVEL ON THE QUALITY OF LIFE AMONG STAFF OF ADEYEMI COLLEGE OF EDUCATION, ONDO

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Abstract, This study investigated the influence of physical activity level on the quality of life among academic staff of Adeyemi College of Education, Ondo. Expo-facto research design was used in the study. All staff of Adeyemi College of Education, Ondo formed the population. Purposive sampling technique was used to select 39 respondents for the study. The adapted International Physical Activity Questionnaire (IPAQ) and the adapted World Health Organization Health Related Quality of Life (WHO-HRQoL) Questionnaire were used to obtain information from the respondents. Data were analysed using frequency, percentage, mean, standard deviation and independent sample *t*-test. The results of the findings showed that there is significant difference, $t(37) = -3.638, p < .05$, between the quality of life of physically inactive academic staff ($M = 58.50 \pm 2.51$) and physically active academic staff ($M = 77.03 \pm 10.04$) of Adeyemi College of Education, Ondo and the *t*-test value $t(37) = -4.112, p < .0001$; was obtained for psychological wellbeing. Based on the findings of the study, it was concluded that physically active academic staff have better quality of life and psychological health than the physically inactive academic staff of Adeyemi College of Education, Ondo. It was recommended that there should be adequate sensitization of the staff about the importance of engaging in physical activities during conferences, seminar, health talk and so on . by the physical and health educators and the school management should organize periodic health enhancing physical activity programmes for the staff like fitness walk or jogging once in a month.

Keywords: Physical Activity Level, Quality of life,

I. Introduction

Physical activities refer to all human movement including during leisure time, home and workplace. Physical activity is defined as any bodily movement produced by the contraction of the skeletal muscles that require energy expenditure. Physical inactivity is one of the leading risk factors for non-communicable diseases (NCDs) and death worldwide, this indicates that physical activity is a key to

improving the health of a nation Katzmarzyk *et al* (2021).

Talabi, (2016) defined physical activity as any physical action that involves the use of the body. It could be whole or part body activities which include walking, jogging, playing sports etc. According to American College of Sport Medicine (ACSM) (2007), all healthy adults aged 18-65 years should participate in moderate intensity aerobic programme for a minimum of 30mins for 5days/week or vigorous

intensity aerobic activity for a minimum of 20mins for 3days/week. Talabi, (2016) also asserted that participating in this form of physical activity at the recommended level induces a lot of health benefits on the body which includes maintaining healthy body composition, healthy cardiorespiratory system, reduced risk of chronic and metabolic disease. Risky body composition makes affected individuals to be predisposed to arthritis, type II diabetes, and hypertension, and these might ultimately lead premature mortality (Dominic, Ibraheem, Seidina & Niyi-Odumosu, 2017).

Today, physical activity is no longer part of daily life as automobiles have replaced walking, elevators have taken the place of stairs, while washing machines have replaced manual laundry, and various mobile communications and remote controls have drastically reduced human movements (Talabi, Ajayi-Vincent, Adesina & Aribamikan, 2010). The result of all these technological advancements has placed individuals in a state of inactivity and has resulted into disease leading to poor lives' qualities.

WHO (2021) posited that the pressure of living life generally exposes an individual to a lot of physical, emotional and psychological stresses and that all chronic ailment, like cardiovascular diseases, migraine, headaches, ulcer, allergy, cancer, and many more are

stress related. it is imperative to study the physical activity levels in older individuals especially those working in school settings and the impact on their health because college staff may be more susceptible to decreased physical activity due to life stressors including societal demands, financial concerns, and working demands.

It is a policy in Nigeria today that all higher institutions seeking government approval should have modern sporting facilities and it is also included in the National Sport Policy that a day be set aside for sports to enable staff and students participate in physical activities because of its tremendous importance to individual and community development (Ajibua, Olorunsola & Alla, 2013). Adegun and Konwea (2009) lamented that public servants by the nature of their jobs, live sedentary lifestyles and lack of physical activity or sedentariness is one of the leading causes of major non-communicable diseases, which contribute to the high rise of cardiovascular diseases, deaths and disability.

Quality of life (QoL) of an individual is a personal perception of life position in the context of culture and value systems of livelihood, which has relationship with the personal goals, expectations, standards and concerns of such individual (Krzepota, Biernat & Florkiewicz, 2015). It is the degree of satisfaction that an

individual enjoys and experiences in everyday life. Most definitions of quality of life (QoL) involve domains such as functional ability, socioeconomic status, emotional state, intellectual activity, cultural and ethical values, religiosity, health, living environment, and daily activities.

From this perspective, quality of life (QoL) consists of physical, psychological, social, cultural, mental, and spiritual domains. Physical domains of quality of life are divided into various parts which includes functional ability such as psychomotor speed, touch sensibility, vision, hearing and speech ability, pain perception, skeletal muscle strength and power; sleep etc. The physical domain of the quality of life is related to the whole of physical functions of the human body (Ojo, 2021).

Psychological domain of quality of life can be described as the psychological wellbeing of an individual, especially, the expression of fear, depression and possible disorders of psychological functions such as anxiety, worry, depression, fear and so on (Krzepota, Biernat & Florkiewicz, 2015). Environmental and social domain in quality of life means assessment of how the individual relates with his/her immediate environment such as housing, air quality, and other components of the environment (Albert & Logsdon, 2000).

Health related quality of life (HRQoL), which encompasses factors such as mental, physical, and social well-being, plays a large role in determining an individual's overall health (Anokye, Trueman, Green, Pavey & Taylor, 2012). Health related quality of life is a self-perceived value, and therefore is a direct indication of how satisfied or dissatisfied an individual is with their own health. Therefore, this value gives health care providers, or researchers, an important insight into the mind of an individual. The ratings for HRQoL can be determined via a survey, which take the various factors, such as physical and psychological well-being, into account. Health related quality of life reports are strongly rooted in self-perception of the individual being surveyed regarding their physical and emotional well-being (Nakamura, Teixeira, Smirmaul, Sebastiao, Papini, Gobbi, et al., 2014).

According to the World Health Organization (WHO, 2010), participation in physical activity (PA) plays a key role in healthy aging and in promoting good quality of life (QoL). Additionally, physical activity has positive effects on psychological, physical, and emotional well-being. However, there is still need for studies on the benefits of physical activity for domains of well-being and quality of life (Bize, Johnson & Plotnikoff, 2007).

An active lifestyle has been documented to show reduced symptoms of depression and anxiety, improved self-efficacy, effective coping with stress and an increase in an individual's overall satisfaction with one's life. In a study conducted by Stephens (1988), it was concluded that level of physical activity was positively associated with mental health. Omolawon and Ibraheem (2011) also reported that active participation in physical activities and recreation correlate positively to the overall quality of life. Regular physical activity promotes life quality by strengthening psychological well-being and physical functioning. The World Health Organization (WHO, 2004) has set the goal that individuals should have a healthy and better life quality as well as being productive in social, economic and spiritual terms.

Statement of the Problem

Physical activity is an important aspect of daily life and many studies have examined the effect of physical activity on one's perceived quality of life (Omolawon and Ibraheem, 2011; Ajibua, Olorunsola & Alla, 2013; Bize, Johnson & Plotnikoff, 2007). Despite the numerous benefits of physical activity on quality of life, the researcher observed that members of academic staff of Adeyemi College of Education have been consistently absent from the sporting arena which may be due to many factors such as job demand, time constraint among others and also,

following the researcher's visit to the college health centre, it was discovered that most of the cases reported by the members of staff of the college were related to cardiovascular diseases and stress.

Omolawon and Ibraheem (2011) reported that active participation in physical activities and recreation correlate positively to the overall quality of life. An individual who is not active may be prone to cardiovascular diseases, sarcopenia, obesity, low-bone density among others, which could lead to death. The researcher also observed that the rate of mortality among the staff is also on the alarming side and could be as a result of low level of physical activity participation. Measures need to be put in place to avoid further increase.

No research of this nature has been carried out among Adeyemi College of Education academic staff to the knowledge of the researcher. Hence, the researcher seeks to investigate the influence of physical activity level on the quality of life among academic staff of Adeyemi College of Education, Ondo State, Nigeria.

Objectives of the Study

The following will serve as the objective of this study:

1. to know the extent to which participation in physical activities affect the quality of

- life of Adeyemi College of Education Staff;
2. to find out the difference in the quality of life between the physically active and the physically inactive college staff; and
 3. to find out the relationship between the physical activity level and the quality of life among staff of Adeyemi College of Education, Ondo.

Research Hypotheses

The following hypotheses are formulated at 0.05 level of significant:

H₀₁: Physical activity level will not significantly influence the quality of life of staff of Adeyemi college of Education, Ondo.

H₀₂: Physical activity level will not significantly influence the psychological wellbeing of staff of Adeyemi college of Education, Ondo.

II. Methodology

Ex-post facto research design was adopted for this study. An ex-post facto research design is a method in which groups with qualities that already exist are compared on some dependent variable and the assignment of subjects to

different groups is based on whichever variable is of interest to the researcher. The population of the study comprised all the academic staff in Adeyemi College of Education, Ondo. A sample of 40 respondents was selected for this study. Purposive sampling technique was used in selecting the sample. An adapted International Physical Activity Questionnaire (IPAQ) was used to obtain the physical activity status of the respondents and an adapted World Health Organization Health Related Quality of Life (WHO-HRQoL) Questionnaire was used to obtain information about the perceived quality of life of the respondents. A coefficient ($r = 0.72$) was obtained after a test-retest method was carried out to check the reliability of the instrument. Data were analysed with Statistical Package for Social Science (SPSS) version 23.0 using frequency, percentage, mean and standard deviation for the demographic data of the respondents, while Independent Sample *t*-test analysis was used to test the differences among physical activity level categories and quality of life of the respondents at 0.05 alpha level.

Normative Reference Tables

Table 1: Classification of Physical Activity Level

Physical Activity Level	Low/Sedentary	Moderate	Vigorous
Rating	Less than 600 MET-min/week	601-3000 MET-min/week	Above 3000 MET-min/week

Source: (WHO, 2004)

Results

Table 2

Demographic characteristics of the participants

Age Range	Frequency	Percentage (%)
Below 30 years	6	15.0
31 – 50 years	22	57.5
Above 50 years	11	27.5
Total	39	100

Gender	Frequency	Percentage (%)
Male	20	51.3
Female	19	48.7
Total	39	100

Table one shows the demographic characteristics of the participants. The table shows that majority of the participants fall within

the age bracket of 31 – 50 years (57.5%) while others fall within the age bracket above 50 years (27.5%) and below 30 years (15%).

Table 3

Physical Activity Level of the respondents in the study

Variable & Category	Mean ± SD (MET – min/week	Frequency	Percentage
MET	2048.89 ± 1453.11		
Inactive		4	10.3
Moderately Active		29	74.4
Active		6	15.4
Total		39	100.0

Table three reveals the physical activity level, M = 2048.89 ± 1453.11 MET – min/week and PAL

classification of the respondents in the study. It shows that majority of the respondents (74.4%)

are moderately active while 10.3% (4) of the respondents are physically inactive and only 15.4% (6) are hyper active.

Hypothesis one: Physical activity level will not significantly influence the quality of life of staff of Adeyemi college of Education, Ondo

Testing hypothesis

Table 4

Independent Sample t-test analysis showing the difference between the quality of life of the respondents

Variable	Category	Mean ± SD	Mean Difference	Standard Error diff	df	t	p	Decision
Quality of Life	Physically Inactive	58.50 ± 2.51	-18.53	5.09	37	-3.638	.001	Rejected
	Physically Active	77.03 ± 10.04						

Table four shows the *t*-test analysis of difference between the quality of life of physically inactive staff and physically active staff of Adeyemi College of Education, Ondo. The table revealed that quality of life $t(37) = -3.638, p < .05$, thus, the null hypothesis is

rejected which means that the difference between the quality of life of physically inactive staff ($M = 58.50 \pm 2.51$) and physically active staff ($M = 77.03 \pm 10.04$) is significant because the calculated *p* value (.001) is lesser than the 0.05 alpha level.

Table 5

Independent Sample t-test analysis showing the difference between the psychological health of the respondents

Variable	Category	Mean ± SD	Mean Difference	Standard Error diff	df	t	p	Decision
Psychological Health	Physically Inactive	12.00 ± 2.16	-5.914	1.438	37	-4.112	.000	Rejected
	Physically Active	17.91 ± 2.77						

Table five shows the *t*-test analysis of difference between the psychological health of physically inactive staff and physically active staff of Adeyemi College of Education, Ondo. The table revealed that psychological health $t(37) = -4.112, p < .0001$, thus, the null hypothesis is

III. Discussion

The purpose of this study is to determine the influence of physical activity level on the quality of life of staff of Adeyemi college of Education, Ondo. The results of the present study revealed positive correlations between quality of life and physical activity levels among the staff of Adeyemi College of Education, Ondo. The highest overall quality of life, perceived health condition, and quality of life in its particular domains: physical, psychological, social and environmental were noted in those whose level of physical activity was high. Following the IPAQ guidelines, respondents with high physical activity levels were defined as those who performed vigorous physical exercise for three or more days a week at the caloric cost of at least 1500 MET min/week, or who performed any combination of low-, moderate-, or high-intensity activities for seven days a week a caloric cost of at least 3000 MET min/week. The findings agreed with the previous findings of Omolawon and Ibraheem (2011) whose findings

rejected which means that the difference between the quality of life of physically inactive staff ($M = 12.00 \pm 2.16$) and physically active staff ($M = 17.91 \pm 2.77$) is significant because the calculated *p* value (.000) is lesser than the 0.05 alpha level.

reported that active participation in physical activities and recreation correlate positively to the overall quality of life. Regular physical activity promotes life quality by strengthening psychological well-being and physical functioning

Hypothesis one that states that “physical activity level will not significantly influence the quality of life of staff of Adeyemi college of Education, Ondo” was rejected because the calculated *p*-value is less than .05 alpha level. The results of the present study revealed positive correlations between quality of life and physical activity levels among the staff of Adeyemi College of Education, Ondo. This finding agree with the findings of Brown et al. (2003) whose study that respondents who undertook moderate-level physical activities for at least 30minutes a day for five days a week; or vigorous physical activities for at least 20 minutes a day for three days a week have a significant improvement in perceived quality of life. Individuals with a higher level of physical activity may also have

more energy, have better mobility, get more sleep, and perform activities of daily living more easily (WHOQOL-BREF, 1990). This is consistent with the literature indicating that increased levels of physical activity participation are associated with fewer disabling limitations (Phillips, Wójcicki, & McAuley, 2013).

Hypothesis two stated that “Physical activity will not significantly influence the psychological health of staff of Adeyemi College of Education, Ondo. The null hypothesis was rejected because the calculated *p*-value is less than .05 alpha level. This finding agrees with the earlier findings of Krzepota et al. (2015) who noted positive correlations between physical activity and the psychological domain of quality of life. There have been confirmed relationships between physical activity and such factors as optimism and joy of life, visual attention, self-esteem, and reduced anxiety or depression.

IV. Conclusion

Based on the findings, it is concluded that:

- i. physically active staff have better quality of life than the physically inactive staff of Adeyemi College of Education, Ondo; and
- ii. physically active staff have better psychological health than the physically inactive staff of Adeyemi College of Education, Ondo.

Recommendation

Based on the conclusion of this study, the following recommendations were made:

1. The school management should ensure that one or two days should be endorsed in the evening for staff participation in sport after the working hour.
2. The school management should organize periodic health enhancing physical activities programme for the staff like fitness walk or jogging once in a month.
3. Provision and maintenance of sport facilities should be prioritized by the school management.
4. There should be adequate sensitization of the staff about the importance of engaging in physical activities during conferences, seminar, health talk etc. by the physical and health educators.
5. There should be periodic evaluation and assessment of the fitness level of the college staff.

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