



**Beneficial Factors of Home-Based Physical Activity for Fitness and Healthy Lifestyles
During Covid-19 Pandemic among Public Servants in Oyo State**

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Abstract

The need to participate in physical activity and keep fit during Covid-19 epidemics cannot be over emphasized, these goes beyond ability to cope with daily demand of life. The pandemics have forced many public servants to stay at home and self-isolate for a period of time. It was discovered from this study that an individual should engage in physical activity for 3-5 days in a week. The purpose of this research work was to find out beneficial factors of home-based physical activity during Covid-19 pandemics among the public servants in Oyo state. A descriptive survey research design was used for the study using both male and female civil servant as respondents. The research instruments used was self-modified questionnaire for data collection. Chi-square analysis set at 0.05 level of significance was used to analyze the data. From the findings it was concluded that physical health, social health and emotional health development were beneficial factors of home-based physical activity during Covid-19 pandemic among the public servants in Oyo town. It was therefore recommended that home-based physical activity if made available and relevant can enable public servants in tertiary institution to identify its fitness and healthy important and equally learn how to organized such as to survive and achieve optimum fitness lifestyles during Covid-19 pandemic.

keywords: Beneficial Factors, Physical Activity, Fitness, Home-Based, Healthy Lifestyles Covid-19 Pandemic

Introduction

The new research area referred to as physical activity and living healthy lifestyles during Covid-19 pandemics has become more important in this present year. This is because the



development of new ideals and distance isolation has made it possible to study relationship and effects of physical activity during this alarming dimension of Covid-19 pandemics. Pellegrini and Smith (1998) reported that it is now widely recognized that inactivity is a high priority problem for the health of an individual.

The recent emphasis on Covid-19 pandemics and every individual is as results of problems of global prevalence of physical inactivity, causing millions of deaths worldwide as reported by World health Organization (2020) Nigeria is not included. Physical activities that are performed at moderate to high intensity levels are capable of improving health considerably. According to Cavil, Kahlmeier and Racioppi (2006) moderate-intensity physical activity (MIPA) raises the heart beat; makes the participant feel slightly out of breath and warm. The primary aim of guided physical activity is to improve or maintain the overall functional capacity and general health. Yan and Spaulding (2020) suggested that regular might significantly reduce the risk of acute respiratory distressed syndrome, which is the main cause of death in Covid-19 patients.

Despite general public awareness and concerns about effects of physical activity on coronary heart diseases and other respiratory diseases, the prevalence of Covid-19 continues to rise. Coronal viruses are a large fairly of viruses that are phenotypically and genotypically diverse (Hammami, Harrabi, Mohr and Krustup; 2020).

It was reported by WHO (2020) that Covid-19 outbreak began in December 2019 in Wuhan, China. Due to this pandemic in almost all territories and regions, various protective measure have been introduced by WHO and other authorities such as bans on travel, closure of schools, cultural and sporting events, social gathering all resulted to isolation. From this perspective, it was advised to stay at home and travelers to self-isolate for fortnights. This is an avenue for preventing the wide spread of the virus and way to manage those who contacted the virus. This action negatively affects an individual health as a result of physical inactivity due to more time spent on watching screen which negatively affect physical health, social health and participation in physical activity.

The benefits of physical activity have been demonstrated across the lifespan. Moderate-to-vigorous physical activity has been shown to help reduce the use of alcohol and other substances for Covid-19. Additionally, participation in regular physical activity is shown to boost the immune system.

Many organizations are offering free use of on-line platform that may help to identify a variety of in-home activities such as treadmill running, bicycle ergometer cycling and many others during this critical period but there are other activities that does not required much more money such as home-based aerobic dance. Many individual stays at home, sitting down more than we usually do and very hard to do such physical activity. It is very important for all ages and abilities to be as active as possible. Regular physical activity benefits both the body and mind, reduces high



blood pressure, manages weight, reduces risk of heart diseases, stroke, type 2 diabetes and various cancers at all these increase susceptibilities of Covid-19.

Due to the ongoing epidemics; there is very limited opportunity to participate in physical activity outdoors with most individual family were forced to stay at home and adopt isolation protocols to prevent transmission of the virus. As asserted by Barnett (2014), this period is characterized by the cessation of outdoor exercising. During this period of lockdown, physical activity has been one of the rare reasons for going out in some countries. It is therefore recommended for people to stay active by exercising at home for the purpose of this, aerobic dance exercise can be practiced. It was recommended by WHO (2010) that ages 5-17 years should engaged in 60 minutes daily physical activity with moderate to vigorous aerobic intensity thrice weekly. For adults and elderly >17years recommended physical activity for 75minutes per week with vigorous aerobic exercise intensity of 150 minutes per week of moderate aerobic intensity twice weekly (WHO, 2010). It was also reported by Xiao (2020) that there are plenty of studies that are addressed the impact of Covid-19 on physical activity.

Home-based physical activity has been used for maintenance of cardiovascular, metabolic and musculoskeletal fitness (Barenett, 2014). Home-based aerobic dance exercise involved the use of body movement and expression and many physical and mental health benefits can be achieved through dancing which may directly or indirectly affect quality of life (Alpert, 2011). Therefore, the purpose of this research work was to find out beneficial factors of home-based physical activity during Covid-19 pandemics among the civil servants in Oyo state, Nigeria.

Research Questions:

1. What is the gender distribution of the participants?
2. What is the age distribution of the participants?
3. What is the institutional affiliated of the participants?

Null Hypotheses

1. There is no significant relationship between physical health development and participation in home-based physical activity of public servants during Covid-19 pandemic.
2. There is no significant relationship between social health development and home-based physical activity of public servants during Covid-19 pandemic.
3. There is no significant relationship between emotional health and participation in home-based physical activity of public servants during Covid-19 pandemic.



Methodology

The objective of this study was to identify contemplation issues related to beneficial factors of home-based physical activity among public servants towards achieving optimum healthy living during stay at home of Covid-19 pandemics. In light of this, the descriptive survey research design was adopted for this research work to examine beneficial factors of home-based physical activity during stay at home of Covid-19 principles. The population for this research work was apparently public servants in Oyo town.

The sample for this study comprised of three hundred and sixty-seven (367) public servants in tertiary institutions in Oyo town, Oyo State. Purposive sampling technique was used to select male (271 participants) and female (96 participants) based on their characteristics. The age ranges were between 25-61 years. A self-developed questionnaire was used as the main instruments for collecting the data. Three self-developed questionnaire items were constructed namely physical health development, social health development and emotional health development as beneficial factors towards participation in home-based physical activity. Section A of the questionnaire recorded demographic data of respondents while B part covered beneficial variables using modified 4-likert scale. The consistency estimate of coefficients alpha ranged between .68 to .78. This indicated that all the test scales were reliable.

Demographic data of the participants

Table 1: Participants gender

Sex	Frequency	Percentage (%)
Male	271	73.8
Female	96	26.2

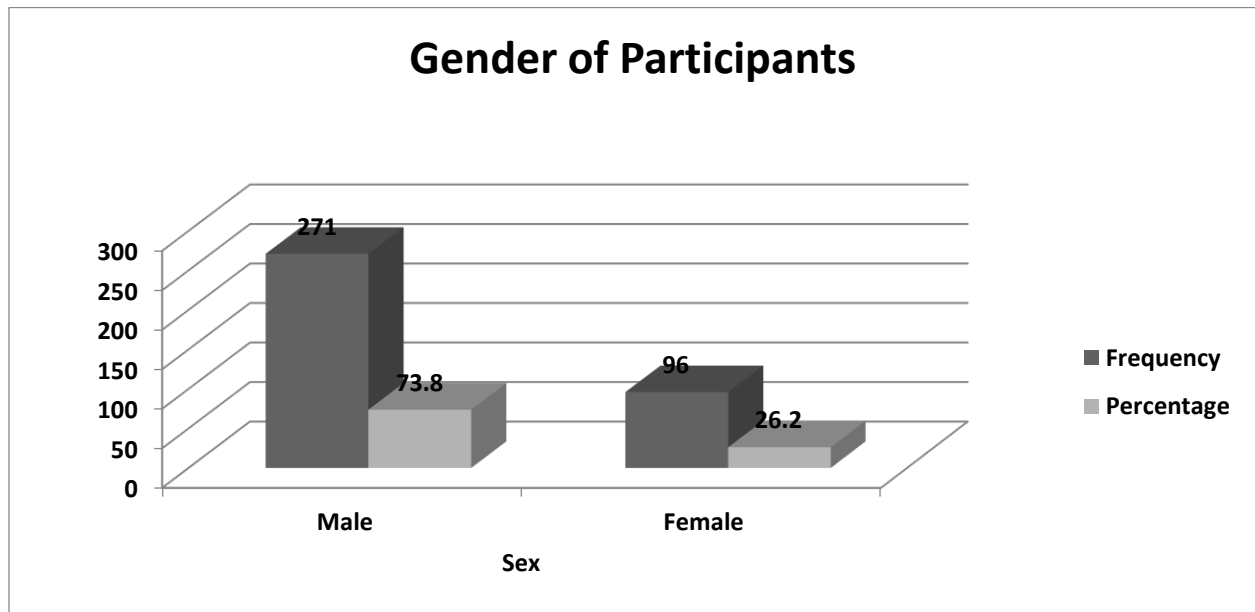


Figure 1: participants' gender (field work 2022)

The Table and Chart revealed the gender of the participants; male participants were 271(73.8%) while female participants were 96 (26.2%).

Table 2: Participants age

Age range	Frequency	Percentage
25-34	59	16.1
35-44	131	35.7
45-54	143	38.9
55-64	34	9.3

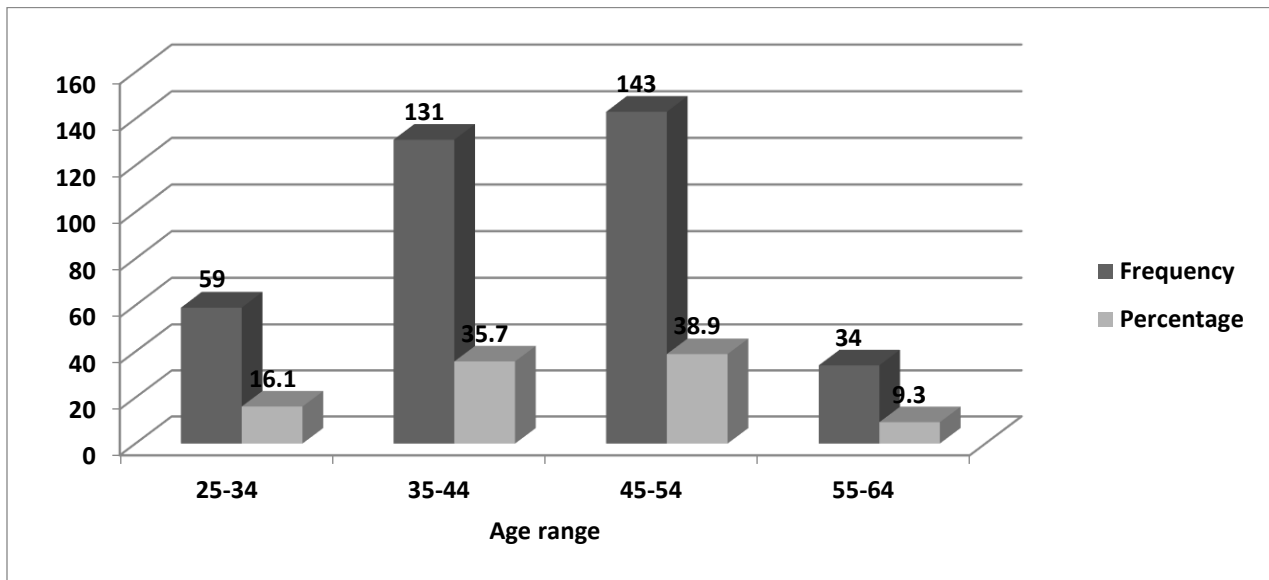


Figure 2: participants' age (field work 2022)

From the Table 2. and Chart in Figure 2, a total of 367 participants were involved in the study, 59(16.1%) were between the ages 25-34, 131 (35.7%) were between the ages 35-44, 143(38.9%) were between ages 45-54 while 34(9.3%) were between the ages 55-64.

Table 3: Participant's Institutions

Institutions	Frequency (n)	Percentages (%)
Ajayi Crowther University, Oyo	27	7.4
Emmanuel Alayande College of Education, Oyo	201	54.8
Federal College of Education (SP), Oyo	116	31.6
Federal Survey School, Oyo	23	6.2
Total	367	100

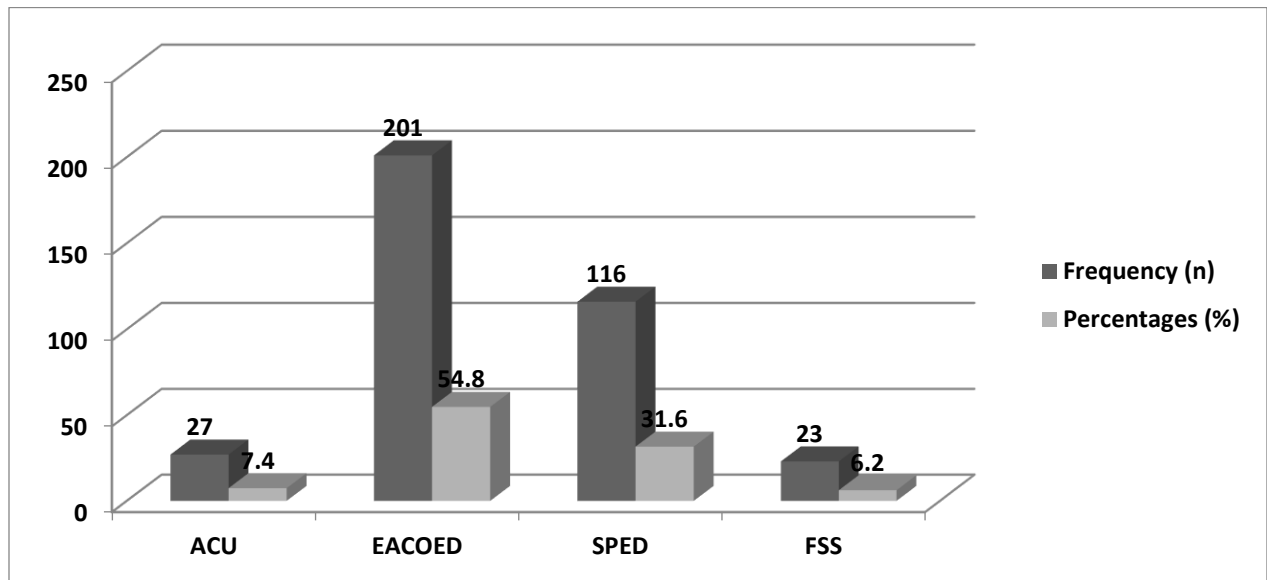


Figure 3: participants' institutions

The result in Table 3 and the Chart in Figure 3. revealed the number of participants in each selected institution, ACU were 27(7.4%), EACOED 201(54.8%), SPED 116(31.6%) and Survey school were 23(6.2%).

Results

Null Hypothesis 1: There is no significant relationship between physical health development and participation in home-based physical activity of public servants during Covid-19 pandemic.

Table 4: X^2 analysis of physical health on HBE during Covid-19 pandemics.

S/N	Items	SA	A	D	SD	X^2	X^2_{crit}	dec
1	Impacts on physical health on participation in HBE	197	90	41	39			
2	Improvement on the stature and posture of public servants following HBE during Covid-19 pandemics	141	64	101	61	96.30	16.91	sig.
3	Muscle tone improvement following HBE during Covid-19 pandemics	176	40	103	48			
4	Physical fitness improvement following HBE during Covid-19 pandemics	201	19	13	134			

$X^2_{cal}=96.30$, $X^2_{crit}=16.91$, $df=9$ @ 0.05 sig level



Table 4 presented the X^2 analysis of home-based physical activity on physical health during Covid-19 pandemics among the public servants in tertiary institutions. The calculated value of 96.30 is greater than the critical value of 16.91 at 0.05 alpha levels. Hence, the null hypothesis which stated that there is no significant relationship between physical health development and participation in home-based physical activity of public servants during Covid-19 pandemic was rejected. This implies that positive relationship exist between physical health, improvement on stature and posture, good muscle tone and physical improvement in physical fitness when participating in home-based exercise.

Null Hypothesis 2: There is no significant relationship between social health development and home-based physical activity of public servants during Covid-19 pandemic.

Table 5: X^2 analysis of social health on HBE during Covid-19 pandemics

S/N	Items	SA	A	D	SD	X^2_{cal}	X^2_{crit}	Decision
1	HBE creates an avenue to make friend within the family	157	160	21	29			
2	Participate in HBE during Covid-19 pandemics allow conformity	211	14	81	55			
3	Participate in HBE during pandemics provides an outlet for socialization	196	32	93	46	98.33	16.91	sig
4	HBE allows to cope with the intellectual demands at work place	161	119	23	64			

$X^2_{cal}=98.33, X^2_{crit}=16.91, df=9 @ 0.05 sig level$

Result from the Table 5, showed the critical value of 16.91 is less than the calculated value of 98.33 at 0.05 alpha levels therefore, the null hypothesis which stated that there is no significant relationship between social health development and home-based physical activity of public servants during Covid-19 pandemic was rejected. This implies that home-based physical activity creates relationship for family friendship, allow conformity, an outlet for socialization between the family members hence, allowing public servant to cope with the intellectual demands at work place.

Null Hypothesis 3: There is no significant relationship between emotional health and participation in home-based physical activity of public servants during Covid-19 pandemic.



Table 6: X^2 analysis of emotional health on HBE during Covid-19 pandemic.

S/N	Items	SA	A	D	SD	X^2_{cal}	X^2_{crit}	Decision
1	HBE is a way to deal with and express emotion during Covid-19 pandemics	133	141	17	76			
2	HBE improves mood, help to relieve depression	207	39	17	104	118.67	16.91	sig
3	Participation in HBE increases feeling of well-being	187	13	112	55			
4	HBE improves way to share feeling and ideals with friend	172	107	40	44			

$X^2_{cal}=118.67, X^2_{crit}=16.91, df=9 @ 0.05 sig level$

Table 6 revealed that the calculated X^2 value of 118.67 was greater than critical value of 16.91 at 0.05 alpha levels, hence the null hypothesis which stated that there is no significant relationship between emotional health and participation in home-based physical activity of public servants during Covid-19 pandemic the hypothesis was rejected. This shows that significant relationship exists between emotional health and home-based physical activity during Covid-19 pandemic.

Discussion of Findings

Relationship between physical health development and participation in home-based physical activity of public servants during Covid-19 pandemic.

From the results of the findings, it was discovered that participants agreed that there is positive relationship of physical health, improvement on stature and posture, good muscle tone and physical improvement in physical fitness when participating in home-based exercise. This finding corroborate with the report of Heydarnejad and Dehicordi (2010) who indicated that exercise could improve and maintain healthy quality of life and physical fitness. Home-based physical activity is one of the primary ways improve health and fitness lifestyle and to develop ability to perform daily activities during Covid-19 epidemics self-isolation.

Relationship between physical health development and participation in home-based physical activity of public servants during Covid-19 pandemic

It was strongly agreed among the participants that participating in home-based physical activity creates avenue for family friendship, allow conformity, an outlet for socialization among the family members and cope with the intellectual demands at work place. This is in line with the report gathered from Prentice (1999) that participation in sports events creates an avenue for



participants to make friends and be in conformity with behavioral patterns of the society. In other words, participation in home-based physical activity during Covid-19 epidemics provides an outlet for socializing improves intellectual demands of the children during this pandemic.

Relationship between emotional health and participation in home-based physical activity of public servants during Covid-19 pandemic

There was a significant benefit of emotional health on home-based physical activity during Covid-19 pandemics. This result was in line with National Center for Chronic Disease Prevention (NCCDP) (2010) that regular physical activity improves mood, helps relieve depression and increases feelings of well-being. Thus, good health habits, in its broader role of home-based physical activity, are more important component in maintaining and improving the health of civil servants family during Covid-19 epidemics to achieve optimum fitness lifestyles. According to Moronkola (2003), physical, social, spiritual, mental and emotional health can be improved upon through participation in planned physical activities directed by a qualified, matured and disciplined person as exercise itself is a form of preventive medicine.

Conclusion

From the findings it was concluded that:

Participation in home-based physical activity improves physical health of civil servants during Covid-19 epidemics. Social health has good benefits when participating in home-based physical activity during Covid-19 epidemics. There is a significant benefit of emotional health on home-based physical activity during Covid-19 pandemics

Recommendations

Based on the findings of the study the following were recommended:

1. Home-based physical activity if made available and relevant will enable civil servants in tertiary institution to identify its fitness and healthy important and equally learn how to organized such as to survive and achieve optimum fitness lifestyles during Covid-19 pandemics.
2. That civil servant in tertiary institutions should learn how to manage time through participation in home-based physical activity to achieve optimum fitness and healthy lifestyles during Covid-19 epidemics.
3. Home-based physical activity programme that includes strength, aerobic, balance, and coordination exercise should be considered the best for civil servants in other to maintain the principles of exercise during Covid-19 epidemics.



4. Staying at home can lead to a lot of stress, anxiety and mental distress, therefore, the best way is to encourage and replace outdoors activities with home-based physical activity.

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