



Perceived Health Benefits of Exercise Among Civil Servants in Ikwerre Local Government Area, Rivers State

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Abstract

Civil servants often face high-pressure environments and demanding workloads. The demanding nature of their work often exposes them to high levels of stress, long tedious hours of work and sedentary office environments which increase chronic medical conditions such as obesity and cardiovascular diseases. This study investigated the perceived health benefits of exercise among civil servants in Ikwerre Local Government Area, Rivers State. The study was designed using a descriptive survey design. The study population comprised all Civil Servants in the Local Government Area. A sample of 384 respondents was used for the study gotten using the Cochrane formula. Using the convenience approach, respondents were recruited to participate in the study from the various departments and parastatals in the Local Government Area. A self-developed and validated questionnaire with a reliability index of 0.71 was used to elicit information from the respondents. A retrieval rate of 98.2% was achieved. Frequencies and mean were used to answer the research questions while ANOVA was used to test the hypotheses at 0.05 level of significance. Observations of the results showed that exercise participation was high among civil servants in the study area as 69.0% regularly participated in exercise. Out of those that participated in exercise, 14.3% reported participating in exercise daily, while only 4.5% of the respondents exercised five or more times a week. Furthermore, the results showed that 33.4% of the respondents exercised for 30 minutes or less per session while 30.0% spent between 31-60minutes per session. It was also observed that 59.2% of the respondents engaged in light-intensity exercise while only 11.2% engaged in vigorous-intensity exercise. It was revealed that exercise participation had significant benefits on physical ($F= 20.569$; $p= 0.000$), emotional ($F= 45.928$; $p= 0.000$) and psychological health ($F= 45.091$; $p= 0.000$) as well as the stress level ($F= 57.101$; $p= 0.000$) among civil servants in Ikwerre Local Government Area of Rivers State. It was recommended that Employers of labour especially Government Agencies should provide support for their staff by offering workplace wellness programmes that promote exercise, this can include designated exercise breaks and on-site fitness facilities.

Keywords: Physical Health Benefits, Emotional Health Benefits, Psychological Health Benefits, Exercise, Civil Servants,

Introduction

Having a job has many benefits; it is a means of livelihood necessary for meeting the fundamental needs of individuals and enabling them to handle financial responsibilities in the nuclear family, extended family and society at large. One such job is that of a civil servant. Civil servants are individuals who work for the government in administrative, managerial, or professional roles (Ijewereme, 2018; Page et al., 2024). They are typically employed by local, regional or federal governments in a variety of departments, agencies and organizations. They are usually saddled with the responsibility of implementing policies and providing citizens with public service. They may be responsible for administrative work, programme administration, regulatory enforcement, and policy analysis. In order to protect the public interest, they are frequently bound by particular laws, employment policies, and codes of conduct that regulate their actions and obligations (Obi & Nwokwu, 2018; Ijewereme, 2018). The confines of civil service employment typically force personnel to spend long hours at their desks with few opportunities for movement or physical activity breaks (Lowe, 2010). For this group of workers, lengthy periods of sitting and sedentary behaviour are caused by administrative duties, paperwork and computer-based work (Chau et al., 2013; Clemes et al., 2014). Sedentary lifestyles and long hours spent sitting at desks contribute to health issues such as obesity, cardiovascular disease, and musculoskeletal problems, and many civil servants are at risk of these medical conditions. Physical inactivity is responsible for economic loss and is a considerable

burden to public healthcare systems (World Health Organization, 2024), it is recognised as one of the most significant risk factors for deaths that are attributable to non-communicable diseases of which about 77% are reported to be in low and middle-income countries like Nigeria (Ndubuisi, 2021).

The World Health Organization, in a current data, estimated that 1.8 billion adults globally or over one-third (31%) of all adults globally do not currently meet the recommendations for physical activity (World Health Organization, 2024). In addition, a large number of adults especially in Africa are inactive and work at jobs that promote sedentary lifestyles (Oyeyemi et al., 2018). The job of the civil servant, though important, is however fraught with several tasks which often exposes them to high levels of stress, this is coupled with long tedious hours at work and sedentary office environments (Igbokwe-Ibeto et al., 2015). Participating in regular physical activity may play a significant role in mitigating this serious public health challenge, especially among this category of workers. Exercise refers to physical activity that is planned, structured, and repetitive, with the goal of improving or maintaining physical fitness, health, or overall well-being (National Centre for Health Statistics, 2017). It can take many forms, including cardiovascular activities like running, cycling, or swimming, strength training using weights or resistance bands, flexibility exercises such as yoga or stretching, and balance exercises like tai chi or Pilates (Pinkard et al., 2019; Rooney et al., 2023). Participation in regular exercise has numerous benefits for both physical and mental health, as it can help strengthen muscles and bones, improve cardiovascular health, boost metabolism, enhance mood, reduce stress, improve sleep quality, and promote overall longevity and well-being (Mahindru et al., 2023). The type, duration, and intensity of exercise may vary depending on the individual fitness goals, preferences, and physical capabilities (Clark, 2016). There are several types of exercise, each targeting different aspects of physical fitness and well-being; aerobic exercise such as running, walking, cycling, swimming, dancing, and aerobics classes; strength training such as weightlifting, bodyweight exercises (like push-ups and squats), resistance band workouts, and using weight machines; flexibility exercises such as stretching exercises, yoga, Pilates, and tai chi and balance exercises such as standing on one leg, balance board exercises and yoga poses (National Institute of Health, 2021).

Regular participation in structured exercise programmes designed specifically for civil servants can ultimately lead to stress reduction, improved focus and productivity, reduced sick leave and absenteeism, reduced healthcare costs, improved mental health, and enhanced job performance among this category of workers hence incorporating structured exercise programs into the lives of civil servants can lead to significant improvements in both personal health and professional efficiency (Marquez et al., 2020;). The benefits of exercise increase dramatically when exercise becomes a lifelong commitment and part of one's lifestyle (Bakinde, 2022). Lifestyles are patterns of behavioural choices made from the alternatives that are available to people according to their socioeconomic circumstances and the ease with which they are able to choose certain ones over others (Mollborn, et al., 2018; Bakinde, 2022). Lifestyles are the behaviour of choice which affect one's fitness and health status (Serio, et al., 2023). Unhealthy lifestyle patterns which include poor diet choices and sedentary behaviours are key factors that increase the risk of chronic diseases such as hypertension, diabetes and obesity in Nigeria particularly among civil servants. A sedentary lifestyle is common among civil servants, a large percentage of their routine work are performed on a seat. Research has shown that people who do not regularly participate in exercise have an increased risk of coronary heart disease and stroke; increased risk of prediabetes/type 2 diabetes; cancer; early death; osteoarthritis; hip fracture; depression; and dementia (Bennell et al., 2011; Booth et al., 2012; Feskanich et al., 2014; Kubota et al., 2017; Tian & Meng, 2019). A sedentary lifestyle has an adverse influence on the health status of individuals, hence it is necessary to investigate the benefits of exercise among this category of workers (civil servants) whose nature of work entails a lot of sedentary activity using the Ikwerre Local Government Area of Rivers State as a case study.

Statement of the Problem

Civil servants often face high-pressure environments and demanding workloads. The demanding nature of their work often exposes them to high levels of stress, long tedious hours of work and sedentary office environments. Many of these civil servants including those who work in Ikwerre Local Government Area of Rivers State may be unaware of the danger of the sedentary nature of their job. Some of these workers tend to complain when their daily routine is interrupted and they are given errands that may be out of their schedule which may entail leaving a comfortable workstation to a more physically demanding activity. Some of the civil servants who are cognisant of the sedentary nature of their job may be unaware that engaging in a few minutes of exercise every day may reduce the stress faced by the job and family, improve their productivity and enhance overall well-being hence may be less motivated to prioritize physical activity in their daily lives. It is on this premise that the researcher seeks to investigate the perceived health benefits of exercise participation among civil servants in the Ikwerre Local Government Area of Rivers State with the view of promoting greater engagement in physical activity among these civil servants.

Aims and Objectives of the Study

The study investigated the perceived health benefits of exercise among civil servants in the Ikwerre Local Government Area of Rivers State. The specific objectives of the study were to;

1. assess the level of exercise participation among civil servants in Ikwerre Local Government Area of Rivers State.
2. evaluate the benefits of exercise participation on physical health among civil servants in Ikwerre Local Government Area of Rivers State.
3. determine the benefits of exercise participation on emotional health among civil servants in Ikwerre Local Government Area of Rivers State.
4. ascertain the benefits of exercise participation on psychological health among civil servants in Ikwerre Local Government Area of Rivers State.
5. assess the benefits of exercise participation on stress levels among civil servants in Ikwerre Local Government Area of Rivers State.

Research Questions

The following research questions guided the study;

1. What is the level of exercise participation among civil servants in Ikwerre Local Government Area of Rivers State?
2. What are the benefits of exercise participation on physical health among civil servants in Ikwerre Local Government Area of Rivers State?
3. What are the benefits of exercise participation on emotional health among civil servants in Ikwerre Local Government Area of Rivers State?
4. What are the benefits of exercise participation on psychological health among civil servants in the Ikwerre Local Government Area of Rivers State?
5. What are the benefits of exercise participation on stress levels among civil servants in the Ikwerre Local Government Area of Rivers State?

Hypotheses

The study was further guided by the following hypotheses;

1. Exercise participation has no significant benefit on physical health among civil servants in Ikwerre Local Government Area of Rivers State.
2. Exercise participation has no significant benefit on emotional health among civil servants in Ikwerre Local Government Area of Rivers State.
3. Exercise participation has no significant benefit on psychological health among civil servants in Ikwerre Local Government Area of Rivers State.
4. Exercise participation has no significant benefit on stress levels among civil servants in Ikwerre Local Government Area of Rivers State.

Materials and Methods

The design of the study was the descriptive survey design. The area of study is the Ikwerre Local Government Area which is located in Rivers State, one of the states in the Niger Delta region of Nigeria. The study population comprised all Civil Servants in the Local Government Area. A sample of 384 respondents was used for the study gotten using the Cochran formula. Using the convenience approach, respondents were recruited to participate in the study from the various departments and parastatals in the Local Government Area. A structured and validated questionnaire with a reliability index of 0.71 was used to elicit information from the respondents. A retrieval rate of 98.2% was achieved. Data collected was subjected to descriptive and inferential statistics. Frequencies and mean were used to answer the research questions while ANOVA was used to test the hypotheses at 0.05 level of significance.

Results

Table 1: Level of Exercise Participation among Civil Servants in Ikwerre Local Government Area of Rivers State

Variables	Description	Freq	Percent
Exercise participation (n=377)	No	117	31.0
	Yes	260	69.0
Frequency of exercise participation (n=377)	Never	117	31.0
	Daily	54	14.3
	1-2 times a week	132	35.0
	3-4 times	57	15.1
	5 or more times	17	4.5
Duration of exercise session (n=377)	Never	117	31.0
	≤ 30minutes	126	33.4
	31-60minutes	113	30.0
	≥ 61minutes	21	5.6
Exercise intensity (n=260)	Light intensity	154	59.2
	Moderate intensity	77	29.6
	Vigorous intensity	29	11.2

Source: Field Survey, 2024

Table 1 presents the result on the level of exercise participation among civil servants in the Ikwerre Local Government Area of Rivers State. The result showed that 69.0% engaged in exercise while 31.0% of the respondents never participated in any form of exercise. The study further showed that 14.3% exercise daily, 35.0% exercised about twice in a week while only 4.5% of the respondents exercised five or more times a week. Furthermore, the results showed that 33.4% of the respondents exercised for 30 minutes or less per session while 30.0% spent between 31-60 minutes per session. It was also observed that 59.2% of the respondents engaged in light-intensity exercise while only 11.2% engaged in vigorous-intensity exercise.

Table 2: Perceived Benefits of Exercise Participation on Physical Health among Civil Servants in Ikwerre Local Government Area of Rivers State

Duration of exercise Participation	Physical Health							
	Very Poor		Poor		Good			
	Freq	%	Freq	%	Freq	%		
Never	32	27.4	48	41.0	37	31.6		
≤ 30minutes	8	6.3	21	16.7	97	77.0		
31-60minutes	8	7.1	36	31.9	69	61.1		
≥ 61minutes	7	33.3	0	0.0	14	66.7		
Total	55	14.6	105	27.9	217	57.6		

Source: Field Survey, 2024

Table 2 presented the summary of cross-tabulation on the perceived benefit of exercise participation on physical health among civil servants in the Ikwerre Local Government Area of Rivers State. The result showed that 41.0% of the respondents who never participated in exercise had poor physical health. However, 77.0% of the respondents who exercised for 30 minutes or less, 61.1% of those who exercised between 31-60 minutes, and 66.7% of those who exercised for more than 60 minutes all experienced good physical health in the study area.

Table 3: Perceived Benefits of Exercise Participation Emotional Health among Civil Servants in Ikwerre Local Government Area of Rivers State

Duration of exercise Participation	Emotional Health							
	Poor		Good		Very Good			
	Freq	%	Freq	%	Freq	%		
Never	63	53.8	31	26.5	23	19.7		
≤ 30minutes	4	3.2	31	24.6	91	72.2		
31-60minutes	20	17.7	28	24.8	65	57.5		
≥ 61minutes	4	19.0	2	9.5	15	71.5		
Total	91	24.1	92	24.4	194	51.5		

Source: Field Survey, 2024

Table 3 presented the summary of cross-tabulation on the perceived benefit of exercise participation on emotional health among civil servants in the Ikwerre Local Government Area of Rivers State. The result as presented revealed that 53.8% of the respondents who never participated in exercise reported poor emotional health. Conversely, 72.2% of those who exercise for 30 minutes or less per week, 57.5% of those who exercise between 31-60 minutes, and 71.5% of those who exercise for more than 60 minutes per week all reported very good emotional health in the study area.

Table 4: Perceived Benefits of Exercise Participation Psychological Health among Civil Servants in Ikwerre Local Government Area of Rivers State

Duration of exercise Participation	Psychological Health							
	Poor		Good		Very Good			
	Freq	%	Freq	%	Freq	%		
Never	73	62.4	32	27.4	12	10.2		
≤ 30munites	20	15.9	40	31.7	66	52.4		
31-60miniutes	19	16.8	24	21.2	70	61.9		
≥ 61minutes	3	14.3	3	14.3	15	71.4		
Total	115	30.5	99	26.3	163	43.2		

Source: Field Survey, 2024

Table 4 presented the summary of cross-tabulation on the perceived benefit of exercise participation on psychological health among civil servants in the Ikwerre Local Government Area of Rivers State. It was observed from the result that 62.4% of the respondents who never participated in exercise suffered poor psychosocial health. However, 52.4% of those who participated in exercise for 30 minutes or less per week, 61.9% of those who participated in exercise between 31-60minutes per week, and 71.4% of those who participated in exercise for more than 60minutes per week all had very good psychosocial health in the study area.

Table 5: Perceived Benefits of Exercise Participation Stress Level among Civil Servants in Ikwerre Local Government Area of Rivers State

Duration of exercise Participation	Stress Level							
	Very Low		Low		High			
	Freq	%	Freq	%	Freq	%		
Never	18	15.4	16	13.7	83	70.9		
≤ 30minutes	79	62.7	31	24.6	16	12.7		
31-60minutes	75	66.4	22	19.5	16	14.2		
≥ 61minutes	16	76.2	1	4.8	4	19.0		
Total	188	49.9	70	18.6	119	31.6		

Source: Field Survey, 2024

Table 5 presented the summary of cross-tabulation on the benefit of exercise participation on stress levels among civil servants in the Ikwerre Local Government Area of Rivers State. It was observed from the result that 70.9% of the respondents who never participated in exercise had high levels of stress. The result also revealed that 62.7% of the respondents who participated in exercise for 30 minutes or less per week, 66.4% of those who participated in exercise between 31-60minutes per week, and 76.2% of those who participated in exercise for more than 60minutes per week all reported very low-level stress in the study area.

Hypotheses Testing

H₀₁: Exercise participation has no significant benefit on physical health among civil servants in Ikwerre Local Government Area of Rivers State.

Table 6: ANOVA of Benefits of Exercise Participation on Physical Health among Civil Servants in Ikwerre Local Government Area of Rivers State

	Sum of Squares	Df	Mean Square	F	p-value	Decision
Between Groups	28.729	3	9.576	20.569	0.000	Significant
Within Groups	173.659	373	0.466			
Total	202.387	376				

Source: Data Analysis, 2024

Table 6 presented the summary of Analysis of Variance (ANOVA) on benefits of exercise participation on physical health among civil servants in Ikwerre Local Government Area of Rivers State. The result showed that exercise participation has significant benefit on physical health ($F= 20.569$; $p= 0.000$) among civil servants in Ikwerre Local Government Area of Rivers State. Therefore, the null hypothesis was rejected at 0.05 alpha level of significance.

H₀₂: Exercise participation has no significant benefit on emotional health among civil servants in Ikwerre Local Government Area of Rivers State.

Table 7: ANOVA of Benefits of Exercise Participation on Emotional Health among Civil Servants in Ikwerre Local Government Area of Rivers State

	Sum of Squares	Df	Mean Square	F	p-value	Decision
Between Groups	69.288	3	23.096	45.928	0.000	Significant
Within Groups	187.571	373	0.503			
Total	256.859	376				

Source: Data Analysis, 2024

Table 7 presented the summary of Analysis of Variance (ANOVA) on benefits of exercise participation on emotional health among civil servants in Ikwerre Local Government Area of Rivers State. The result showed that

exercise participation has significant benefit on emotional health ($F= 45.928$; $p= 0.000$) among civil servants in the Ikwerre Local Government Area of Rivers State. Therefore, the null hypothesis was rejected at 0.05 alpha level of significance.

H₀₃: Exercise participation has no significant benefit on psychological health among civil servants in Ikwerre Local Government Area of Rivers State.

Table 8: ANOVA of Benefit of Exercise Participation on Psychological Health among Civil Servants in Ikwerre Local Government Area of Rivers State

	Sum of Squares	Df	Mean Square	F	p-value	Decision
Between Groups	72.361	3	24.120	45.091	0.000	Significant
Within Groups	199.528	373	0.535			
Total	271.889	376				

Source: Data Analysis, 2024

Table 8 presented the summary of Analysis of Variance (ANOVA) on benefits of exercise participation on psychological health among civil servants in Ikwerre Local Government Area of Rivers State. The result as presented showed that exercise participation has significant benefit on psychological health ($F= 45.091$; $p= 0.000$) among civil servants in Ikwerre Local Government Area of Rivers State. Therefore, the null hypothesis was rejected at 0.05 alpha level of significance.

H₀₄: Exercise participation has no significant benefit on stress levels among civil servants in Ikwerre Local Government Area of Rivers State

Table 9: ANOVA of Benefits of Exercise Participation on Stress Level among Civil Servants in Ikwerre Local Government Area of Rivers State

	Sum of Squares	Df	Mean Square	F	p-value	Decision
Between Groups	92.645	3	30.882	57.101	0.000	Significant
Within Groups	201.726	373	0.541			
Total	294.371	376				

Source: Data Analysis, 2024

Table 9 presented the summary of Analysis of Variance (ANOVA) on benefits of exercise participation on stress levels among civil servants in Ikwerre Local Government Area of Rivers State. The result as presented revealed that exercise participation has significant benefit on stress level ($F= 57.101$; $p= 0.000$) among civil servants in Ikwerre Local Government Area of Rivers State. Therefore, the null hypothesis was accepted at 0.05 alpha level of significance.

Discussion

The study investigated the perceived health benefits of regular exercise participation among civil servants in the Ikwerre Local Government Area of Rivers State. The results revealed that more than one-quarter of the respondents in the study area never participated in any form of exercise; about three-quarters do participate in exercise at some point during the week, and the majority of the respondents exercised between 1-2 times a week. Among those who exercised, the majority of the respondents spent 30 minutes or less per exercise session while about three-fifths of the respondents engaged in light-intensity exercise in the study area. The findings implied that a good number of the Civil Servants who participated in this study actively participated in exercise to stay fit and healthy. Oyeyemi et al., (2018) also obtained similar results. In their study which investigated the physical activity profile of Nigeria, they found that the prevalence of physical activity was high (78%). Thus it is possible that if more opportunity is given to these workers and the facilities are readily available, more may participate in regular exercise.

It was observed that those who spent time exercising even if it was less than 30 minutes per session experienced good physical health; whereas poor physical health was noticeably more prominent among respondents who never participated in any exercise regimes. Thus it is implied that regular exercise participation is associated with better physical health outcomes in the study area. To add credence to this, when subjected to inferential statistics, results showed that exercise participation has significant benefit on physical health among civil servants in Ikwerre Local Government Area of Rivers State. The finding agreed with Silva-Filho et al. (2023) who reported that a consistent

light-intensity exercise regime significantly improves fitness and physical health and can potentially reverse the effects of prolonged sedentary lifestyles. A similar result was also reported by Marcen et al. (2024), who averred that short consistent exercise programmes significantly improved respondent's physical health outcomes. During exercise, there is a release of endorphins (neurotransmitters produced by the central nervous system and the pituitary gland with its known ability to reduce pain and induce feelings of euphoria and well-being) which creates a state that is described as "runner's high," which athletes and fitness enthusiasts experience during prolonged physical activity (Schoenfeld & Swanson, 2021). This release of endorphins may explain the feeling of wellness that those who participated in the study experienced.

Exercise has been noted to improve mental health and wellness (Mahindru et al., 2023). The present study revealed that more than half of the respondents who never participated in exercise experienced poor emotional health. Conversely, about three-quarters of those who exercised for 30 minutes or less per session exercise experienced good emotional health; those who spent between 31-60minutes, and more than 60minutes per week all reported very good emotional health hence it appears that regular exercise participation, not matter the frequency, enhances for the emotional health of those who engage in it. The tested hypothesis revealed that participation in regular exercise had significant benefit on emotional health among civil servants in the Ikwerre Local Government Area of Rivers State. The findings implied that exercise programmes for civil servants would significantly improve the emotional health of workers who regularly participate, and this agreed with a previous study that reported that exercise improves mood, self-esteem, self-satisfaction and emotional states (Glavaš & Banai, 2022; Li et al., 2022; Mahindru et al., 2023).

The study findings further revealed that about two-thirds of the respondents who never participated in exercise experienced poor psychosocial health whereas those who participated in some form of exercise no matter the frequency or duration reported very good psychosocial health. Furthermore, it was shown that exercise participation had significant benefit on psychological health among respondents in the study area. Li et al., (2020) averred that exercise promotes social cohesion and integration. Similarly, Song and Lin (2022) reported that enhancing social relationships through exercise and social interaction significantly increases the benefits for mental health (depression, anxiety, and stress) and assists recovery from stress-related mental disorders, and this is often achieved when the exercise programme is carried out on a natural environment. One of the benefits of exercise participation is the reduction of stress reduction. Exercise has been consistently shown to be an effective stress reliever by reducing levels of stress hormones such as cortisol and increasing the release of endorphins, which are natural mood lifters (Schoenfeld & Swanson, 2021). This resonates with the findings in this study that revealed that the majority of the respondents who never participated in exercise reported high stress levels whereas those who exercised at least 30 minutes or less per week reported very low stress levels. The release of endorphins (neurotransmitters produced by the central nervous system and the pituitary gland) during exercise often described as the "runner's high," which is a state of euphoria and exhilaration that athletes and fitness enthusiasts experience during prolonged physical activity (Schoenfeld & Swanson, 2021). It is possible that the release of this hormone during bouts of exercise is responsible for the reduction in stress levels reported in the study.

Conclusion

Based on the study findings, it was concluded that the level of exercise participation among civil servants in the Ikwerre Local Government Area of Rivers State was high. Exercise participation had significant benefits on physical, emotional and psychological health as well as the stress level among civil servants in Ikwerre Local Government Area of Rivers State.

Recommendations

The following recommendations were made based on the study findings

1. Civil servants should continue to participate in regular exercise to maintain and improve their physical, emotional, and psychological health. They should also encourage their colleagues to engage in exercise by sharing the personal benefits experienced.
2. Employers of Labour especially Government Agencies should provide support for their staff by offering workplace wellness programmes that promote exercise. This can include designated exercise breaks and on-site fitness facilities.
3. The Human Resources Department of various companies including Government Agencies should integrate wellness policies into workplace culture by offering flexible hours or incentives for regular physical activity participation.
4. Community Health Workers should provide periodic health screenings and counselling to monitor and enhance the benefits of physical activity.

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