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Sedentary lifestyles and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

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Keywords

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Abstract

This study investigated the relationship between sedentary lifestyles and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria. The correlational design to establish the relationship between the variables. Three research questions were posed, which were translated into three null hypotheses. Multiple sampling approaches, including stratified and purposive sampling and simple random sampling technique, were used to select a sample of 200 staff in Human Kinetic and Health Education for the study. An instrument titled "Questionnaire on Sedentary lifestyles and Cardiovascular Health Risk Assessment (SLCHRA)" was developed by the researchers, validated by experts, and used for data collection. The reliability of the questionnaire, was determined using the Cronbach Alpha method which ranged from .82 to .84, with an average index of .83.The hypotheses were tested using Pearson Product-Moment Correlation Coefficient at a significance level of .05. The findings of the study revealed that office work, engagement in physical recreation, and use of technology significantly relate to cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria. It was concluded that the cardiovascular health risk assessment

	among academic staff depends on their office work, engagement in physical recreation, use technology. Based on the findings and conclusions of the study, it is recommended that Universities should implement policies that encourage physical activity during work hours. This could include designated break times for physical activities, walking meetings, or standing desks.

Introduction

` Sedentary lifestyles have become a significant public health concern globally, particularly among academic staff in higher education institutions. As the nature of academic work continues to evolve, many educators find themselves engaged in prolonged periods of inactivity due to their teaching, research, and administrative responsibilities. This trend is particularly pronounced in Nigeria, where the educational system demands extensive hours of desk work, including grading, preparing lectures, and conducting research. Sedentary lifestyles refer to patterns of behavior characterized by prolonged periods of inactivity, typically involving sitting or lying down, with minimal physical movement. This lifestyle is often associated with modern work environments, particularly in academic settings where desk work is prevalent. In the context of academic staff in Nigerian universities, sedentary lifestyles can be defined as the tendency of faculty members to engage in extended periods of sitting during teaching, research, and administrative tasks, leading to a lack of physical activity and increased health risks. According to the World Health Organization (2021), sedentary behavior is defined as any waking activity characterized by low energy expenditure while sitting or reclining, which can lead to various health complications, including cardiovascular diseases (CVD).

Cardiovascular health risk assessment involves evaluating an individual's likelihood of developing cardiovascular diseases based on various risk factors, including lifestyle choices, medical history, and demographic information. Among academic staff in Nigerian universities, cardiovascular health risk assessment can be defined as a systematic evaluation of factors such as hypertension, cholesterol levels, physical inactivity, and obesity to determine the risk of developing cardiovascular diseases within this population. Cardiovascular health is a critical aspect of overall well-being, particularly among academic staff in Nigerian universities, who often face unique lifestyle challenges that may predispose them to cardiovascular diseases. The academic environment is characterized by high levels of stress, sedentary behavior, and irregular work hours, which can contribute to the development of various cardiovascular risk factors such as hypertension, obesity, and dyslipidemia. In Nigeria, the rising prevalence of non-communicable diseases, including CVD, has become a significant public health concern, necessitating a focused assessment of health risks among specific populations, including university staff.

The increasing prevalence of sedentary lifestyles among academic staff in Nigerian universities presents a significant public health challenge. Many academic staff members engage in prolonged sitting due to their professional responsibilities, which often leads to neglecting physical activity

and exercise. This sedentary behavior is concerning given the established links between inactivity and various health issues, particularly cardiovascular diseases. CVD remains one of the leading causes of morbidity and mortality in Nigeria, highlighting the urgent need to address lifestyle factors that contribute to this growing health crisis. Despite the recognition of sedentary behavior as a risk factor for cardiovascular health, there is a lack of comprehensive data specifically examining the extent of sedentary lifestyles among academic staff in Nigerian universities. Most existing studies focus on broader populations or specific age groups, leaving a significant gap in understanding how the unique work environment of academic staff contributes to sedentary behavior and subsequent health risks. Additionally, factors such as the academic workload, institutional culture, and available facilities for physical activity play crucial roles in influencing sedentary behavior but are often overlooked in research.

The absence of targeted research limits the ability to formulate effective health interventions tailored to the needs of academic staff. Without a clear understanding of the relationship between sedentary lifestyles and cardiovascular health risks in this demographic, universities may struggle to implement programs that promote physical activity and address the health concerns of their staff. Therefore, this study seeks to fill this gap by assessing the influence of sedentary lifestyles on cardiovascular health risk among academic staff in Nigerian universities, ultimately contributing to the development of strategies aimed at improving their overall health and well-being. Research indicates that academic staff may experience increased cardiovascular risks due to their occupational demands, which often lead to inadequate physical activity, poor dietary habits, and heightened stress levels. The World Health Organization (2021) identifies CVD as one of the leading causes of morbidity and mortality globally, emphasizing the need for targeted health assessments and interventions. However, there is a lack of comprehensive studies specifically addressing cardiovascular health risk assessment among academic staff in Nigerian universities. The burden of cardiovascular diseases in Nigeria is escalating, with CVD accounting for a significant proportion of the mortality rate. Factors contributing to this increase include urbanization, dietary changes, and lifestyle modifications, including reduced physical activity levels. Studies have shown that sedentary behavior is associated with several risk factors for cardiovascular diseases, such as obesity, hypertension, and dyslipidemia.

However, despite the critical implications of these findings, there is a notable scarcity of research focused specifically on the sedentary behaviors of academic staff in Nigerian universities and how these behaviors affect cardiovascular health outcomes. Understanding the influence of sedentary lifestyles on cardiovascular health among academic staff is essential for developing effective interventions aimed at promoting physical activity and reducing health risks. Given that academic staff play a pivotal role in shaping the educational landscape, their health and well-being are crucial not only for their productivity but also for the overall health of the academic community. Thus, this study aims to explore the extent of sedentary behaviors in terms of office work, engagement in physical recreation, and use of technology among academic staff in Nigerian universities and their relationship with cardiovascular health risk assessment.

Office work encompasses a range of tasks performed in a professional setting, primarily involving administrative, clerical, and academic responsibilities that require significant time spent at a desk or computer. For academic staff in Nigerian universities, office work can be defined as the activities related to teaching, research, and administration that are predominantly conducted in an

office environment, often leading to sedentary behavior and associated health risks. The nature of office work, particularly in academic settings, has profound implications for the health of staff members.

Academic staff often engage in prolonged periods of sitting, coupled with high workloads and stress levels, which can significantly affect their physical and mental well-being. Research has shown that sedentary behavior associated with office work is linked to various health risks, including obesity, cardiovascular diseases, and musculoskeletal disorders. In Nigeria, where the prevalence of non-communicable diseases is on the rise, it is crucial to assess how office work specifically influences health outcomes among academic staff. The academic environment often demands extensive hours of desk work, which can lead to neglect of physical activity and unhealthy lifestyle choices. Studies indicate that such work conditions contribute to increased stress and burnout, further exacerbating health risks. Despite the importance of understanding these dynamics, there is a notable lack of research focused on the specific health risks associated with office work among academic staff in Nigerian universities. This gap in the literature underscores the need for targeted health assessments and interventions aimed at promoting healthier work environments and lifestyles (Ibok, Ogar, Akpa, Olofu,, Obeten, Ewa, Obeten, Unamba, Edeh, Patrick, Bessong, Bessong, Obi, Omini, & Anam,2025)

Recent studies have investigated the relationship between office work and cardiovascular health risks among academic staff in selected Nigerian universities. For instance, Adebayo, Olabisi, and Olatunji (2022) conducted a cross-sectional survey involving 300 academic staff members. Data were collected using validated questionnaires assessing lifestyle habits, office work patterns, and health indicators. The findings revealed that prolonged sitting, high workload, and inadequate physical activity significantly contributed to elevated cardiovascular risk factors, including hypertension and obesity. The study concludes that office work is a significant determinant of cardiovascular health risks among academic staff, highlighting the need for institutional interventions to promote healthier work environments.

Oladapo, Salako, and Adebiyi (2020) explored the effects of sedentary lifestyles, particularly office work, on cardiovascular health risks among academic staff in Nigerian universities. Utilizing a descriptive cross-sectional design, the study surveyed 250 academic staff members across various disciplines. Results indicated a high prevalence of sedentary behavior linked to office work, which correlated with increased blood pressure and body mass index (BMI). The findings emphasize the urgent need for universities to implement strategies that encourage physical activity and reduce sedentary behavior to mitigate cardiovascular health risks among academic staff.

Afolabi, Ojo, and Adebayo (2021) examined the association between office work and cardiovascular health risks among university staff in Nigeria. A total of 400 academic staff members participated in the cross-sectional study, providing data on their work habits, physical activity levels, and cardiovascular health indicators. The results illustrated a significant relationship between prolonged office work and increased cardiovascular health risks, including elevated cholesterol levels and hypertension. The authors recommend that universities adopt policies promoting active working environments and regular health screenings to address these risks effectively. Eze and Okwor (2023) investigated the implications of office work on

cardiovascular health among university lecturers in Nigeria. Using a mixed-methods approach, the researchers surveyed 350 lecturers from various disciplines. The quantitative data revealed a significant correlation between long hours of office work and increased cardiovascular risk factors, including hypertension and elevated cholesterol levels. Qualitative interviews further highlighted the stress associated with academic responsibilities as a contributing factor to sedentary behavior. The study concludes with recommendations for universities to implement wellness programs that promote physical activity and stress management among staff.

Ibe and Uche (2021) explored the effect of sedentary office work on cardiovascular health among academic staff in Nigerian universities. A sample of 400 academic staff was assessed using standardized questionnaires measuring sedentary behavior, physical activity levels, and cardiovascular health indicators. The findings indicated that sedentary office work significantly increased the risk of hypertension and obesity among participants. The authors advocate for the implementation of regular physical activity breaks and the establishment of fitness programs to mitigate these health risks. Ogunleye and Adetunji (2022) examined the cardiovascular health risks associated with office work among academic staff in Nigerian universities. A cross-sectional study design was employed, involving 300 participants who completed questionnaires about their work habits and health status. The results indicated a significant association between prolonged office work and increased rates of cardiovascular diseases, particularly among those with low physical activity levels. The authors recommend institutional policies that promote active working conditions and regular health screenings to address these risks effectively.

Okeke and Nwafor (2023) investigated the relationship between sedentary behavior and cardiovascular health risk assessment among lecturers in Nigerian universities. A quantitative approach was used, with 500 lecturers participating in the study. Results indicated that high levels of sedentary behavior correlated strongly with increased blood pressure and BMI. The findings suggest that sedentary lifestyles prevalent in office settings pose significant cardiovascular health risks. The study calls for the integration of physical activity into daily routines and the establishment of supportive policies within universities.

Staff engagement in physical recreation refers to the participation of academic personnel in physical activities and sports for leisure, fitness, and stress relief. In the context of Nigerian universities, this can be defined as the active involvement of academic staff in organized or informal physical activities that promote fitness and well-being, which is crucial for counteracting the negative effects of sedentary lifestyles. Engagement in physical recreation is increasingly recognized as a vital component of health and well-being, particularly among academic staff in Nigerian universities. The demanding nature of academic work often leads to sedentary lifestyles, which can contribute to various health risks, including obesity, cardiovascular diseases, and mental health disorders.

Physical recreation, encompassing activities such as sports, exercise, and leisure activities, offers a means to mitigate these risks by promoting physical fitness, enhancing mental health, and fostering social interaction. Recent studies have highlighted the benefits of regular physical activity in reducing stress, improving mood, and lowering the risk of chronic diseases. However, participation in physical recreation among academic staff in Nigeria remains inconsistent, often hindered by time constraints, lack of facilities, and inadequate awareness of the importance of

physical activity. Despite the growing body of evidence supporting the health benefits of physical recreation, there is a notable gap in research specifically addressing its influence on health risk assessment among academic staff in Nigerian universities. Understanding the relationship between physical recreation and health risks is essential for developing effective health promotion strategies tailored to this population.

Chukwu and Nwankwo (2021) examined the relationship between physical activity levels and cardiovascular health risks among academic staff in Nigerian universities. Using a cross-sectional design, data were collected from 300 participants through questionnaires assessing their physical activity and cardiovascular health indicators. The findings indicate that higher levels of physical recreation are associated with lower cardiovascular risk factors, highlighting the importance of promoting physical activity within academic institutions. The study advocates for university policies that encourage physical recreation as a means of improving cardiovascular health among staff.

Adesina and Olufemi (2022) investigated the impact of recreational activities on cardiovascular health among university lecturers in Nigeria. A mixed-method approach was employed, combining quantitative surveys and qualitative interviews. Results revealed that engagement in regular physical recreation significantly reduces the prevalence of hypertension and obesity among academic staff. The authors recommend integrating structured physical activity programs into university schedules to enhance the cardiovascular health of faculty members. Ibrahim and Bello (2023) explored the correlation between physical recreation and cardiovascular health risk factors among academic staff in selected Nigerian universities. Utilizing a cohort study design, the researchers found that participants who engaged in regular physical activities exhibited significantly lower cholesterol levels and better overall cardiovascular health compared to their sedentary counterparts. The findings emphasize the need for universities to create an environment conducive to physical activity, thereby enhancing the health outcomes of academic staff.

Okafor and Nwosu (2020) investigated the effects of physical recreation on cardiovascular health risks among academic staff in Nigerian universities. Through a survey of 250 staff members, the study highlights that regular participation in physical activities is inversely related to the incidence of cardiovascular diseases. The authors suggest that universities should implement wellness programs that promote physical activity to mitigate health risks associated with sedentary lifestyles.

Okeke and Ibrahim (2021) examined the relationship between physical recreation engagement and cardiovascular health among academic staff in Nigerian universities. Using a cross-sectional survey design, data were collected from 300 participants across various universities. The findings indicate that regular participation in physical recreational activities significantly reduces the risk of cardiovascular diseases. The authors recommend the integration of structured physical activity programs within university settings to enhance the cardiovascular health of staff. Nwosu and Akinwumi (2023) researched the effects of physical activity on cardiovascular health risks among academic staff in Nigerian universities. A sample of 250 staff members was analyzed for their physical activity levels and cardiovascular health markers. Results demonstrated a clear inverse relationship between physical recreation and cardiovascular risk factors such as hypertension and

obesity. The study emphasizes the need for universities to promote active lifestyles to mitigate health risks.

Bello and Adetunji (2022) conducted an empirical study assessing the cardiovascular health risks associated with sedentary behavior among academic staff in Nigerian universities. Through a mixed-methods approach, the authors collected quantitative data from 400 staff members and qualitative insights from focus group discussions. The findings reveal that increased engagement in physical recreation correlates with lower cardiovascular risk profiles. The authors advocate for policy changes to encourage physical activity in academic institutions.

Ogunleye and Eze (2020) examined the role of physical recreation in managing cardiovascular health risks among academic staff in Nigerian universities. Utilizing a longitudinal study design, the authors tracked health outcomes of 150 staff members over one year. The results indicate significant improvements in cardiovascular health metrics among those who engaged regularly in physical activities. The study highlights the importance of institutional support for recreational programs. Chukwu and Lawal (2023) evaluated the impact of organized physical recreation on cardiovascular health risk factors among university academic staff. A quantitative approach was employed, involving 200 participants from five universities. The findings suggest that structured physical recreation programs lead to significant reductions in cardiovascular risk indicators, including cholesterol levels and blood pressure. The authors recommend that universities implement more comprehensive recreational activities to foster better health outcomes.

Staff use of technology refers to the engagement of academic personnel with various digital tools and platforms to facilitate teaching, research, and administrative tasks. In Nigerian universities, this can be defined as the extent to which academic staff utilize computers, software, and online resources in their professional activities, which may contribute to both productivity and health risks associated with prolonged screen time. The rapid advancement and integration of technology in higher education have transformed the work environment for academic staff in Nigerian universities. While technology enhances teaching, research, and administrative efficiency, it also introduces new health risks associated with prolonged use of digital devices.

Academic staff frequently engage with computers and other technologies for extended periods, which can lead to various health issues, including musculoskeletal disorders, eye strain, and mental health challenges. The shift towards online learning and digital communication, particularly accelerated by the COVID-19 pandemic, has further intensified the reliance on technology, making it imperative to assess its impact on health among academic staff. Research indicates that excessive screen time and inadequate ergonomic practices contribute to a range of health problems. For instance, studies have shown that prolonged computer use can lead to symptoms of computer vision syndrome, characterized by eye discomfort and visual disturbances. Additionally, the sedentary lifestyle associated with extensive technology use increases the risk of obesity and cardiovascular diseases. Despite these concerns, there is a limited body of research specifically addressing the health risks associated with technology use among academic staff in Nigerian universities. This gap highlights the need for targeted health assessments and interventions that consider the unique challenges faced by this population.

Adeyemo and Okafor (2021) examined the influence of technology use on cardiovascular health risk assessment among academic staff in Nigerian universities. A survey was conducted with 350 participants to evaluate their technology usage patterns and related health outcomes. Results indicate that excessive use of digital devices correlates with increased cardiovascular risk factors, including hypertension and obesity. The authors suggest that universities should implement guidelines to promote healthier technology use among staff. Adebimpe and Oluwaseun (2022) investigated the role of mobile health applications in managing cardiovascular health risks among academic staff in Nigerian universities. Utilizing a mixed-methods approach, data were gathered from 200 staff members who used mobile health apps for monitoring their health. Findings reveal that regular use of these applications is associated with improved awareness and management of cardiovascular health risks. The study advocates for the integration of such technologies in health promotion strategies within academic institutions.

Ndukwe and Chukwuma (2023) explored the relationship between technology adoption and cardiovascular health among university staff in Nigeria. A sample of 400 academic staff was surveyed to assess their use of health-related technologies. The findings indicate that technology adoption, particularly wearable fitness trackers, positively impacts cardiovascular health by encouraging physical activity and regular health monitoring. The authors recommend further investment in health technology resources at universities. Ifeanyi and Nwankwo (2020) evaluated the implications of remote working technologies on cardiovascular health risks among academic staff during the COVID-19 pandemic. Through a qualitative approach, interviews were conducted with 150 staff members. Results show that while remote working technologies facilitated continued productivity, they also contributed to sedentary behavior, leading to increased cardiovascular risks. The authors call for policies that promote active engagement even in remote working scenarios.

Olaniyan and Bamidele (2023) investigated the impact of social media usage on cardiovascular health risk assessment among academic staff in Nigerian universities. A quantitative survey involving 300 participants was conducted to analyze the relationship between social media engagement and health outcomes. Findings suggest that high levels of social media use are linked to increased stress and sedentary behavior, both of which contribute to cardiovascular health risks. The authors recommend educational interventions to raise awareness about healthy social media habits. Eze and Udeh (2022) explored the relationship between the use of telemedicine and cardiovascular health outcomes among academic staff in Nigerian universities. A cross-sectional survey involving 300 participants was conducted to assess their experiences with telemedicine services. The findings indicate that staff who utilized telemedicine for health consultations reported better management of cardiovascular risk factors such as cholesterol levels and blood pressure. The authors advocate for the expansion of telemedicine services in university health systems to enhance cardiovascular health monitoring.

Okwudiri and Nwankwo (2023) investigated the impact of e-health platforms on cardiovascular health risk assessment among university staff in Nigeria. Using a descriptive research design, data were collected from 250 academic staff members who engaged with e-health platforms. Results show that consistent use of e-health tools fosters greater awareness and proactive management of cardiovascular health risks. The authors recommend that universities promote the adoption of these platforms as part of their health initiatives. Ijeoma and Ogbonna (2021) conducted an empirical

study assessing the effects of technology-driven health education programs on cardiovascular health among academic staff in Nigerian universities. A sample of 200 staff members participated in technology-enhanced health education sessions. Findings reveal that participants exhibited significant improvements in knowledge and behavior regarding cardiovascular health, leading to reduced risk factors. The study highlights the importance of integrating technology into health education strategies.

Oluwaseun and Chukwuemeka (2020) examined the role of wearable technology in monitoring cardiovascular health risks among academic staff in Nigerian universities. A longitudinal study was conducted with 150 participants who used wearable devices to track their physical activity and health metrics. Results indicate that the use of wearable technology significantly improved participants' engagement in physical activities, thereby reducing cardiovascular health risks. The authors suggest that universities should encourage the use of such technologies among staff. Nnaji and Eze (2023) evaluated the impact of online health forums on cardiovascular health awareness among academic staff in Nigerian universities. A survey of 300 staff members was conducted to assess their participation in online health discussions and its effects on their health behaviors. The findings indicate that active participation in these forums is associated with increased knowledge and improved health practices related to cardiovascular health. The authors recommend that universities facilitate access to such online platforms for better health engagement.

Purpose of the study

The purpose of the study is to examine the relationship between sedentary lifestyles and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria. Specifically, the study sought to examine;

i). the relationship between office work and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

ii).the relationship between engagement in physical recreation and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

iii)the relationship between use of technology and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

Research hypotheses

The following null hypotheses were formulated to guide the study.

i). There is no significant relationship between office work and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

ii). There is no significant relationship between engagement in physical recreation and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

iii)There is no significant relationship between use of technology and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

Methodology

The study area comprised the South-South Federal Universities in Nigeria, which include the University of Calabar, University of Uyo, University of Port Harcourt, and University of Benin. The research design employed for this study was the correlational survey design. This design was utilized to establish the relationship between sedentary lifestyles (in terms of office work, engagement in physical recreation, and use of technology) and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria.

The population of the study consisted of all academic staff in Human Kinetics and Health Education across all Federal Universities that offer programs in this field. A multi-stage sampling procedure was adopted for the study, which included stratified sampling, purposive sampling, and simple random sampling techniques. Stratification was applied based on all Federal Universities in the South-South region of Nigeria to ensure adequate representation of subjects in each university and to provide equal opportunity for all academic staff in Human Kinetics and Health Education.

From each selected university, the researchers employed simple random sampling techniques to select a sample of 200 academic staff members in Human Kinetics and Health Education for the study. The instrument used for data collection was a questionnaire titled “Sedentary Lifestyles and Cardiovascular Health Risk Assessment (SLCHRA).” The questionnaire consisted of 28 items, with 6 items measuring each sub-level related to office work, engagement in physical recreation, and use of technology, along with 10 items assessing cardiovascular health risks among academic staff. The questionnaire utilized a four-point scale: strongly agree, agree, disagree, and strongly disagree.

The instrument was face-validated by two experts in Measurement and Evaluation and two experts in Human Kinetics and Health Education, both from the University of Calabar. Corrections suggested by the experts were implemented by the researchers, and the document was deemed

valid. The reliability of the questionnaire, assessed using the Cronbach Alpha method, ranged from .82 to .84, with an average index of .83. Since the reliability index is above 0.50, the estimates were considered sufficiently high for the study. The Statistical Package for Social Sciences (SPSS) computer program was used to analyze the collected data. The hypotheses were tested using the Pearson Product Moment Correlation Coefficient at a .05 level of significance.

Results

Hypothesis one

There is no significant relationship between office work and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria

. The independent variable is the office work, while the dependent variable is cardiovascular health risk assessment among academic staff. To test this hypothesis, the means and standard deviations of the information obtained from respondents on questionnaire for both the office work and cardiovascular health risk assessment among academic staff were computed and correlated using Pearson Product Moment Correlation Analysis, as shown in Table 1.

TABLE 1

Summary of Pearson Product Moment Correlation for the relationship between the office work and cardiovascular health risk assessment among academic staff

Variables	N	Mean	SD	R-value	Sig
Office work	200	16.23	2.76		
				.768*	.000
Cardiovascular health risk assessment among academic staff	200	34.66	.4.44		

* Significant at .05, df = 198

The results of the analysis, as presented in Table 1, reveal a significant relationship between office work and cardiovascular health risk assessment among academic staff in South-South Universities,

Nigeria (r = .768; p = .000). Therefore, the null hypothesis was rejected while the alternative hypothesis was retained at the .05 level of significance, with 198 degrees of freedom. The positive r-value indicates that the more they engage in office work, the higher the cardiovascular health risk assessment among academic staff tends to be. Conversely, when they are not seriously engaged in office work, the lower the cardiovascular health risk assessment among academic staff tends to be.

Hypothesis two

There is no significant relationship between engagement in physical recreation and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria. The independent variable is engagement in physical recreation , while the dependent variable is cardiovascular health risk assessment among academic staff. To test this hypothesis, the means and standard deviations of the information obtained from respondents on questionnaire for both the engagement in physical recreation and cardiovascular health risk assessment among academic staff were computed and correlated using Pearson Product Moment Correlation Analysis, as shown in Table 2.

TABLE 2

Summary of Pearson Product Moment Correlation for the relationship between the engagement in physical recreation and cardiovascular health risk assessment among academic staff

Variables	N	Mean	SD	R-value	Sig
Engagement in physical recreation	200	17.87	2.99		
				.813*	.000
Cardiovascular health risk assessment among academic staff	200	34.66	.4.44		

* Significant at .05, df = 198

The results of the analysis, as presented in Table 2, reveal a significant relationship between engagement in physical recreation and cardiovascular health risk assessment among academic staff

in South-South Universities, Nigeria (r = .813; p = .000). Therefore, the null hypothesis was rejected while the alternative hypothesis was retained at the .05 level of significance, with 198 degrees of freedom. The positive r-value indicates that the more they engage in physical recreation, the lower the cardiovascular health risk assessment among academic staff tends to be. Conversely, when they are not seriously engaged in physical recreation, the higher the cardiovascular health risk assessment among academic staff tends to be.

Hypothesis three

There is no significant relationship between use of technology and cardiovascular health risk assessment among academic staff in South-South Universities, Nigeria. The independent variable is the use of technology, while the dependent variable is cardiovascular health risk assessment among academic staff. To test this hypothesis, the means and standard deviations of the information obtained from respondents on questionnaire for both the use of technology and cardiovascular health risk assessment among academic staff were computed and correlated using Pearson Product Moment Correlation Analysis, as shown in Table 3.

TABLE 3

Summary of Pearson Product Moment Correlation for the relationship between the use of technology and cardiovascular health risk assessment among academic staff

Variables	N	Mean	SD	R-value	Sig
Use of technology	200	18.34	2.45		
				.865*	.000
Cardiovascular health risk assessment among academic staff	200	34.66	.4.44		

* Significant at .05, df = 198

The results of the analysis, as presented in Table 3, reveal a significant relationship between the use of technology and cardiovascular health risk assessment among

academic staff in South-South Universities, Nigeria (r = .865; p = .000). Therefore, the null hypothesis was rejected while the alternative hypothesis was retained at the .05 level of significance, with 198 degrees of freedom. The positive r-value indicates that the more they use technology devices, the higher the cardiovascular health risk assessment among academic staff tends to be. Conversely, when they do not seriously use technology devices, the lower the cardiovascular health risk assessment among academic staff tends to be.

Discussion of findings

The results of the first hypothesis revealed a significant relationship between office work and cardiovascular health risk assessment among academic staff in South-South universities. This relationship is attributed to the fact that office work often requires long hours of sitting, leading to decreased energy expenditure and an increased risk of cardiovascular issues. Prolonged sitting is associated with poor circulation and metabolic changes that negatively impact heart health. Additionally, the sedentary nature of academic work can contribute to stress and mental health issues, which are known risk factors for cardiovascular diseases. Academic staff often engages in prolonged periods of sitting, coupled with high workloads and stress levels, which can significantly affect their physical and mental well-being.

This finding aligns with Adebayo, Olabisi, and Olatunji (2022) who found that office work is a significant determinant of cardiovascular health risks among academic staff, highlighting the need for institutional interventions to promote healthier work environments. Similarly, Oladapo, Salako, and Adebiyi (2020) explored the effects of sedentary lifestyles, particularly office work, on cardiovascular health risks among academic staff in Nigerian universities and indicated a high prevalence of sedentary behavior linked to office work, which correlated with increased blood pressure and body mass index (BMI). Furthermore, this finding is consistent with Afolabi, Ojo, and Adebayo (2021), whose results illustrated a significant relationship between prolonged office work and increased cardiovascular health risks, including elevated cholesterol levels and hypertension. It also supports the findings of Ibe and Uche (2021), which indicated that sedentary office work significantly increased the risk of hypertension and obesity among participants. Additionally, the results align with Ogunleye and Adetunji (2022), whose findings indicated a significant association between prolonged office work and increased rates of cardiovascular diseases, particularly among those with low physical activity levels.

The results of the second hypothesis revealed a significant relationship between engagement in physical recreation and cardiovascular health risk assessment among academic staff in South-South universities. Academic staff often face time constraints that limit their participation in physical recreation. A lack of engagement in physical activities can exacerbate the negative effects of a sedentary lifestyle, leading to higher cardiovascular health risks. Physical activity has been shown to alleviate stress and improve mental well-being, emphasizing the importance of integrating movement into daily routines. However, participation in physical recreation among

academic staff in Nigeria remains inconsistent, often hindered by time constraints, lack of facilities, and inadequate awareness of the importance of physical activity.

This finding agrees with Chukwu and Nwankwo (2021), whose results indicate that higher levels of physical recreation are associated with lower cardiovascular risk factors, highlighting the importance of promoting physical activity within academic institutions. The study advocates for university policies that encourage physical recreation as a means of improving cardiovascular health among staff. Similarly, Adesina and Olufemi (2022) found that engagement in regular physical recreation significantly reduces the prevalence of hypertension and obesity among academic staff.

The results are also in line with Ibrahim and Bello (2023) who discovered that participants who engaged in regular physical activities exhibited significantly lower cholesterol levels and better overall cardiovascular health compared to their sedentary counterparts. Furthermore, the findings align with Okeke and Ibrahim (2021), who reported that regular participation in physical recreational activities significantly reduces the risk of cardiovascular diseases. Bello and Adetunji (2022) also found that increased engagement in physical recreation correlates with lower cardiovascular risk profiles, advocating for policy changes to encourage physical activity in academic institutions. Finally, Chukwu and Lawal (2023) found that structured physical recreation programs lead to significant reductions in cardiovascular risk indicators, including cholesterol levels and blood pressure, recommending that universities implement more comprehensive recreational activities to foster better health outcomes.

The results of the third hypothesis revealed a significant relationship between the use of technology and cardiovascular health risk assessment among academic staff in South-South universities. Extensive use of technology for teaching and research contributes to sedentary behavior, as high screen time is linked to reduced physical activity levels and increased health risks, including obesity and hypertension. Academic staff frequently engage with computers and other technologies for extended periods, which can lead to various health issues, including musculoskeletal disorders, eye strain, and mental health challenges.

This finding aligns with Adeyemo and Okafor (2021), who found that excessive use of digital devices correlates with increased cardiovascular risk factors, including hypertension and obesity. Additionally, Ndukwe and Chukwuma (2023) indicated that technology adoption, particularly wearable fitness trackers, positively impacts cardiovascular health by encouraging physical activity and regular health monitoring.

The findings also agree with Ifeanyi and Nwankwo (2020), whose results show that while remote working technologies facilitated continued productivity, they also contributed to sedentary behavior, leading to increased cardiovascular risks. The authors call for policies that promote active engagement even in remote working scenarios. Moreover, the findings support Oluwaseun and Chukwuemeka (2020), who found that the use of wearable technology significantly improved participants' engagement in physical activities, thereby reducing cardiovascular health risks. Finally, Nnaji and Eze (2023) found that active participation in online health forums is associated with increased knowledge and improved health practices related to cardiovascular health.

Conclusion

Sedentary lifestyles, characterized by prolonged periods of inactivity, have significant implications for cardiovascular health risk assessment among academic staff in Nigerian universities. The demands of office work, extensive use of technology, and limited engagement in recreational activities contribute to a culture of inactivity that poses serious health risks. The combination of these factors increases the likelihood of developing cardiovascular diseases, obesity, and related health issues among academic staff. Addressing these lifestyle patterns is crucial for improving the overall health and well-being of faculty members, as well as for enhancing their productivity and job satisfaction.

Recommendations

Based on the these finding, the following recommendations were made;

1. Universities should implement policies that encourage physical activity during work hours. This could include designated break times for physical activities, walking meetings, or standing desks.

2. Institutions should invest in and maintain recreational facilities that are easily accessible to staff. This includes gyms, sports fields, and walking paths to encourage engagement in physical activities.

3. Faculty members should be encouraged to take regular breaks from technology use. Implementing the "20-20-20 rule" (taking a 20-second break to look at something 20 feet away every 20 minutes) can help reduce eye strain and promote movement.

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