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3. The Journal will accordingly encourage the publication of the following categories of papers.
 - (a) Research papers that move away from orthodoxy and which really break new grounds in terms of methodology and findings.
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In this edition, eighteen (18) manuscripts scale through the eye of the needle of the Editor-in Chief. The title of the papers in this edition are: effect of cold compress on the reduction of musculoskeletal pain, swelling and hemarthrosis among orthopaedic patients in Lautech Teaching Hospital, Ogbomoso, Oyo State, Nigeria; Awareness of Prostate Cancer Screening Among Male Civil Servants In Egor Local Government Area, Edo State, Nigeria; Knowledge, Perception And Utilization Of Maternal And Child Health Care Among Women In Ogbomoso, Oyo State, Nigeria; Assessment Of Knowledge And Utilization Of Electronic Medical Records Among Nurses In Secondary Health Care Facilities In Jigawa State, Nigeria; Effect Of Midwife Led Educational Intervention On Knowledge Of Anaemia And Risk Factors Among Pregnant Women Attending Ante-Natal In Selected Primary Health Care Facilities In Osun State, Nigeria; Knowledge Of Health Implications Of Rape And Associated Factors Among Male Undergraduates In Ahmadu Bello University Zaria, Nigeria; Effectiveness Of Family Caregivers Centered Nursing On Knowledge Of Pressure Ulcer Prevention In A Tertiary Health Facility In Kano, Nigeria; Knowledge And Practice Of Malaria Prevention Among Expectant Mothers In Selected Primary Health Centers In Mushin Local Government Area, Lagos State, Nigeria; Prevalence Of Sexual And Psychological Abuse In Almajiri System Of Education In Zaria Local Government Area, Kaduna State, Nigeria; Assessment Of Male Involvement In Maternity Care In Selected Health Facilities In Ado Ekiti, Ekiti State, Nigeria; Educational Intervention On Knowledge Of Prevention And Self-Care Practices Of Selected Lifestyle Diseases Among Civil Servants In State Secretariat Oke-Mosan, Abeokuta Ogun-State, Nigeria; Nursing In An Age Of Change In Nigeria; Knee Replacement Surgery: The Role Of The Nurse In Patient Safety In The Operating Room, The Nigerian Perspective; Choice Of Places Of Delivery Among Women Attending Ante Natal Clinic At Ngwo Health Centre; Systematic Review On Adolescent Girls' Knowledge And Practice Of Menstrual Hygiene In Nigeria; Knowledge And Prevention Of Hypertension Among Patients Attending Medical Outpatient Department Of Garki Hospital, Abuja, Federal Capital Territory, Nigeria And Socio-Cultural Factors Influencing Nutritional Status In Under-Five Children In Akure North Local Government, Ondo State, Nigeria.

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EDUCATIONAL INTERVENTION ON KNOWLEDGE OF PREVENTION AND SELF-CARE PRACTICES OF SELECTED LIFESTYLE DISEASES AMONG CIVIL SERVANTS IN STATE SECRETARIAT OKE-MOSAN, ABEOKUTA OGUN-STATE, NIGERIA

KOMOLAFE FOLASADE OMOLADE; OKAFOR N. ANTHONIA;
& CHIDINMA EMEKA ABARIBE

ABSTRACT

This research assessed the effectiveness of workplace educational-intervention on knowledge of prevention and self-care practices of selected lifestyle diseases among civil servants in state secretariat complex Oke-mosan, Abeokuta. A quasi-experimental study was used to evaluate the effectiveness of a workplace educational intervention on knowledge of prevention and self-care practices of lifestyle diseases among civil servants in Ogun State, Nigeria. A total of 108 civil servants participated in the study, which used a validated questionnaire with a Cronbach's alpha coefficient of 0.75-0.85. The results showed significant improvements in knowledge levels of prevention of hypertension ($p=0.000$), obesity ($p=0.000$), and diabetes ($p=0.000$) between pre- and post-intervention phases. Additionally, significant differences were found between pre- and post-intervention knowledge levels of prevention of lifestyle diseases ($p=0.000$) and between civil servants' age and knowledge of prevention and self-care practices ($p=0.000$). Gender was also found to significantly influence knowledge of preventing lifestyle diseases ($p=0.000$). The study concludes that educational intervention is effective in increasing knowledge of prevention and self-care practices of lifestyle diseases among civil servants. The findings suggest that nurses should prioritize educational intervention to prevent lifestyle diseases. The study's results have implications for policymakers and healthcare providers seeking to improve the health and wellbeing of civil servants in Nigeria.

Keywords: Civil Servants; Educational Intervention; Lifestyle Diseases; Self-care Practice.

INTRODUCTION

Lifestyle diseases, also known as non-communicable diseases (NCDs), include conditions such as obesity, diabetes, cardiovascular diseases, hypertension, and certain types of cancer, which are largely preventable through lifestyle modifications. Globally, these diseases, categorized as ailments mostly associated with an individual's daily routine, affect people of all ages and are rapidly becoming a public health concern (Budreviciute et al., 2020). A shift towards sedentary behaviors, urbanization, and changing dietary habits has been identified as key drivers of the rise in these diseases. Furthermore, the global percentage of sedentary lifestyles is estimated to be around 31.1% (Park et al., 2020; World Health Organization [WHO], 2020). Consequently, several interventions have been implemented to address the lifestyle disease problem, focusing on promoting healthy behavior, improving access to preventive care, and addressing environmental factors. These interventions include health and behavior change programs, dietary interventions, physical activity promotion and screening, and health awareness programs.

Community-based approaches have been considered the gold standard and are widely used in the field of health promotion and prevention, providing cultural context and addressing specific health needs of target populations (Balwan et al., 2023; Summer et al., 2022). Therefore, it is essential to consider the negative health impacts associated with sedentary routines when designing effective

health interventions that promote public health and facilitate healthy self-care practices among various demographic populations. Research has shown that knowledge levels of lifestyle diseases vary significantly among different demographic groups (WHO, 2023). According to Yue et al. (2021), education and awareness play a vital role in improving knowledge levels and health status. Studies have demonstrated a relationship between education and various health risk factors, such as diet, exercise, stress management, behavior modification, and care for hypertension and obesity, which are largely linked to lifestyle habits. Additionally, findings from literature on a study conducted to determine factors influencing knowledge in individuals noted that factors such as age, gender, education level, socioeconomic status, and cultural background can influence an individual's awareness and understanding of disease prevention and management. By enhancing knowledge through educational training and public health preventive strategies, individuals at risk of developing lifestyle diseases in the community can be empowered to make changes regarding healthy self-care practices.

Civil servants are more at risk of developing lifestyle diseases due to workplace-related sedentary routines and individual lifestyle choices. The lifestyle diseases among civil servants reflect the impact of sedentary lifestyles, poor dietary habits, stress, and limited physical activity prevalent in many office-based environments. According to Hayford et al. (2019), technology in workplaces has led to changes in workers' lifestyle behavior, with many workers spending most of their workday sitting down and focusing on their computer screen, and commuting to and from work in cars, resulting in additional time sitting and hours of immobility. Research has further proven that this sedentary culture has led many workers to become more physically inactive and at risk of lifestyle diseases, with studies showing that prolonged sitting is associated with an increased risk of obesity, hypertension,

diabetes, and overall mortality (Park et al., 2020; Cabanas-Sanchez et al., 2022). Civil service roles often involve high levels of responsibility and pressure, leading to chronic stress, which can have detrimental effects on physical and mental health, contributing to the development of various lifestyle diseases.

Addressing lifestyle diseases among civil servants requires comprehensive strategies that prioritize health and well-being in the workplace. Providing education and raising awareness about the risks associated with sedentary lifestyles, poor dietary habits, and stress can empower civil servants to make healthier choices and prioritize their well-being (Dunstan et al., 2021). Active life-improving health programs have been shown to be effective in reducing the prevalence of lifestyle diseases among various demographic populations. However, many people still fail to meet the recommended guidelines for maintaining a healthy lifestyle. Therefore, workplace health promotion should be considered an essential component of lifestyle disease prevention and self-care practices, enhancing knowledge and motivating workers to consciously embrace self-care practices that can combat the negative health impact of sedentary routines. Effective health promotion lies in a primary healthcare strategy that emphasizes increased knowledge, early detection, appropriate treatment, and delivery of high-quality interventions (Carrier, 2022).

Self-care is the practice of using one's knowledge and information resources to take care of one's health and maintain optimal health (Zeng et al., 2023; Riegel et al., 2017). According to the World Health Organization (WHO), self-care is a decision-making process that enables people to effectively and conveniently take care of their health, working with health and social care experts as necessary. Studies have established that knowledge can translate to a change in behavior and the adoption of healthy lifestyle practices, which can help prevent or reduce the progression of lifestyle diseases. However, most individuals and groups still lack adequate

knowledge of the prevention of these chronic lifestyle diseases, leading to increased prevalence of lifestyle diseases, particularly hypertension, diabetes, and obesity (Aynalem et al., 2021). If the issue of risk factors and self-care practices of healthy lifestyle modifications is not critically addressed, it can further lead to a higher occurrence among high-risk population groups, such as civil servants, leading to progressive incidences of lifestyle diseases, financial hardship, and reduced life expectancy (Oduyemi et al., 2023).

The rising prevalence of lifestyle diseases, exacerbated by sedentary lifestyles, has become a significant public health challenge globally (Balwan et al., 2023; Summer et al., 2022; WHO, 2020). Civil servants, like many individuals in modern society, are becoming more physically inactive and sedentary due to the demands of their daily job schedules and lifestyle choices (Colozza et al., 2023). Sedentary cultures often contribute to the development and exacerbation of lifestyle diseases (Budreviciute et al., 2020). Without targeted interventions, the burden of lifestyle diseases is likely to continue increasing, leading to negative health outcomes, including a decline in overall health, frequent hospital admissions, increased economic burden, decreased productivity, poverty, low quality of life, and ultimately increased morbidity and mortality (Obasohan et al., 2019; WHO, 2020). Furthermore, knowledge about lifestyle disease prevention may still be inadequate among civil servants, hindering them from making prompt health decisions, early diagnosis, and healthy lifestyle self-care practices (Aynalem et al., 2021). Community-based interventions have been widely used to promote health and prevent diseases, including lifestyle diseases, and have been utilized to address various health issues effectively (Hanssen, 2023). In low- and middle-income countries (LMIC), there is evidence for the successful implementation of community-based interventions that increase knowledge levels and change behavior related to cardiovascular diseases (Hassen et al., 2021).

Having adequate knowledge about lifestyle diseases could motivate civil servants to consciously take steps to modify their risk by adopting healthy self-care practices. Understanding the existing knowledge base of civil servants is crucial to enable a tailored intervention package. However, people with limited health literacy are less likely to adopt lifestyle self-care practices and behavioral modifications to reduce their risks, which is fundamental in disease prevention (Robatsarpooshi et al., 2020; Ozoemena et al., 2019). This study aimed to determine the effect of community-based intervention on knowledge, prevention, and self-care practices for lifestyle diseases among civil servants in Ogun State, Nigeria. The study will utilize a mixed methods approach, employing Pender's theoretical Health Promotion Model as a framework to provide a structured, evidence-based guide for assessing the acceptability of healthcare interventions (Paynter et al., 2023; Pender et al., 2015). By conducting a workplace educational intervention, it is proposed that modifiable risk factors among civil servants will be greatly reduced, and the rising prevalence of lifestyle diseases will be mitigated.

Objective of the Study

The main objective of the study is to assess the effect of educational intervention on knowledge of prevention, and self-care practices level of selected lifestyle diseases among civil servants in state secretariat Oke-mosan, Abeokuta Ogun State, Nigeria. The specific objectives are to:

- I. examine the pre and post-intervention knowledge on prevention practice levels of lifestyle diseases among civil servants in Ogun State Nigeria;
- ii. assess the pre and post-intervention knowledge of self-care practice levels of lifestyle diseases among civil servants in Ogun State Nigeria;
- iii. examine the difference between Civil Servants' age and knowledge of

prevention, and self-care practices for lifestyle diseases.

METHODOLOGY

Design: A one-group pretest-posttest design was adopted for the study. We measured scores before and after the intervention (treatment), and then compared the difference between the pretest and posttest scores of the participants. A one-group pretest-posttest design is a quasi-

experimental research design in which the same dependent variable is measured in one group of participants before (pretest) and after (posttest) treatment is administered (Campbell & Stanley, 1966).

Setting: being a workplace health promotion, the study was conducted in the Ogun-state government civil service secretariat Oke-mosan Abeokuta, Ogun State. The pre-test and post-test design notations are presented in the Table 1.

Table 1: Showing Study Design

O ₁	X ₁	O ₂	(Community-Based Education Intervention)
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Where:

O₁ – Represents Pretest Measure

O₂ – Represent Posttest Measure

X₁ – (Workplace Educational Intervention)

Population: The total study population was 626, encompassing civil servants in selected ministries, departments, and agencies (MDAs) in the State Civil Service secretariat complex, Abeokuta.

Inclusion and Exclusion Criteria: Civil servants working in MDAs, in Ogun State civil service secretariat complex, Abeokuta, between the age brackets of 25-60 years were included to study, while civil servants that are severely ill or pregnant before the study were excluded from the study.

Sample Size Determination for quantitative study: The sample size was determined using the Sample size formula designed to detect differences in proportions before and after an intervention to ensure adequate statistical power to detect meaningful effects.

$$n = \frac{2\delta^2(Z_{crit} + Z_{pow})^2}{D^2}$$

Considering the possibility of respondents' drop-outs, the estimated sample size base on the formula was N = 90.3, which was increased 20% more. Hence, Attrition of 20 % of calculated sample size = 20/100x90= 18

Therefore 18 (Addition of attrition calculated) was added to the calculated sample size=18+90 = 108. (Calculated sample size was 108 plus attrition rate). Hence, 108 participants were selected from MDAs of the Ogun State civil service secretariat complex Oke-mosan

Sampling Techniques: Multistage Sampling Technique was adopted, viz:

Stage 1- Selection of MDAs: a list of all MDAs in the secretariat was obtained and a simple random sampling technique was used for the selection of three (3) MDAs randomly through balloting since civil servants working in the MDAs are homogenous in characteristics (civil servants in all the MDAs share very similar traits) same location, similar occupation, and employment.

Stage 2- Selection of respondents: proportional allocation was used to determine the number of respondents to be chosen in each of the selected MDAs. This was done by proportionally allocating the required sample size to the selected ministries according to their staff strength.

Stage 3- Determining sampling fraction: the required respondents were then selected at regular intervals of the sampling fraction.

Table 1: Sampling Distribution

S/N	Ministry	Staff Strength	Minimum Sample Required from each cadre (20%)	Total number of participants From each selected MDA
1	Ministry of Information and Strategies	234	E 8 A 16 O 17	41
2	Civil Service Commission	72	E 3 A 4 O 5	12
3	Ministry of Industry, Trade and Investment	320	E 14 A 16 O 25	55
	Total	626	108	108

Instruments

Validated questionnaire adapted and modified from WHO STEPS approach to NCD risk factor surveillance and Instructional Guide for Community-Based Education Intervention. The questionnaire consisted of three parts: (1) selected demographic information in sample areas, (2) twenty-item questions related to knowledge of lifestyle disease, (3) Fifteen-item questions on knowledge of lifestyle disease prevention (focusing on hypertension, diabetes, and obesity) and (4) 15 items scale that focused on 3 domains which include Physical Activities (PA), Diet, and their general disposition to lifestyle diseases and healthy lifestyle choices. Various options were used to assess participants' responses to each question.

A pilot study was conducted on (10% of the study population) among administrative staff of federal college of education Abeokuta, Ogun state; modifications of the instrument and method were accordingly performed. Internal consistency reliability (Cronbach's alpha)

estimates reached 0.73 for Knowledge of Lifestyle Disease, 0.82 for Knowledge of Lifestyle Disease Prevention, and 0.89 for Self-care Practice Test Paper. The overall internal consistency reliability = 0.81.

Data Collection Method

Pre-test Post-test Quasi Experimental): The instrument designed for the study was administered to the participants. The procedure was conducted in three phases: pre-intervention, intervention, and post-intervention. After obtaining official permission from the ministries, departments, and agencies (MDAs) for approval to use the setting for the research study. The researcher made several visits to the secretariat to familiarize and gain consent. The participants were informed that the study would be in 3 phases (Pre-intervention, Intervention, and Post-intervention) after a brief introduction of the research study, the researcher highlighted the topics of the training, and agreement on

time for each training session was reached. Furthermore, what Sapp number of willing participants was collected with consent sort and given 2-days training were conducted for four research assistants to assist in data collection. They were taken through the study methodology, objective, scope, and purpose of the research so that they could have a good understanding of the study and also the study areas. In addition, they were taken through the instrument for better familiarization with the instrument used for the intervention. In collaboration with the civil service management, a convenient conference hall was arranged for the educational intervention. For effective health education, participants were divided into two groups for the health education sessions.

The training was carried out by trained research assistants who are health professionals (Nursing Officers/ Nutritionist). The researcher participated in the teaching as well as monitors the proper execution of the intervention package and research protocols. The educational training sessions were tailored to gaps in knowledge of lifestyle disease, prevention, and self-care practices among the civil servants and lasted four weeks. For effective health education sessions, the participants (102) out of the 108 calculated sample sizes of the study were grouped into two in different halls, and training was given simultaneously by the second team of research assistants who are professionals. At the end of the intervention phase, a Post-test was administered after 6 weeks of the community-based intervention to the participants to test the effect of the intervention on knowledge, prevention, and self-care practices.

Data Analysis: Data entry was performed SPSS 28.0 statistical software (IBM Company, Armonk, NY, USA) was used for statistical analysis. Data was analysed, using the descriptive statistics method of analysis. Differences in the mean of the two groups have been compared using the respondent's t-test. All the hypotheses were tested using a t-test at 0.05 significant levels.

RESULTS

Description of the Socio-demographic Characteristics of the Participants

The presented table 1 delineates the socio-demographic characteristics of participants of study. A total of 102 civil servants out of the calculated sample of 108 translating into 94.4% response rate participated in the study. Among the participants, there was a nearly balanced representation in terms of gender, with 54 as male (52.9%) and 48 as female (47.1%). Age distribution showed that civil servants within 41 - 50 years age bracket, has the highest frequency (38.2%). While below 30years has the lowest frequency (2.9%).

In terms of educational attainment 57.8% had completed Polytechnic or University education, translating to more than half of the study population having higher degree certificate. Considering job category, executives staff has the highest frequency (53.9%), translating to more than half of the study population. The distribution of years of service among participants showed that civil servants with more than 15years of service has the highest frequency(45) translating to 44.1% of the respondents of population study, while only 3.9% have less than 5years in service. In essence, this comprehensive breakdown provides a clear overview of the demographic composition of the study's participants, offering insights into their gender, age, education levels, job categories, and tenure in the workforce. This study indicates that majority of the respondents are male (52.9%), between 41 – 50years (38.2%), with Polytechnic/University completed (57.8%). Result also shows that majority of respondents are Executives staff (53.9%) with more than 15 years of experience (44.1%).

Table 1: Socio-demographic Characteristics of Respondents N = 102

Variables	Frequency	Percentage (%)
Gender		
Male	54	52.9
Female	48	47.1
Age		
Below 30 years	3	2.9
30 - 40 years	38	37.3
41 - 50 years	39	38.2
51 - 60 years	22	21.6
Highest Level of Education		
Primary school completed	2	2.0
Secondary school completed	10	9.8
Polytechnic/University completed	59	57.8
Post graduate degree	31	30.4
Job Category		
Administrative staff	39	38.2
Executives staff	55	53.9
Auxiliary staff	8	7.8
Years of Service		
Less than 5 years	4	3.9
5 - 10 years	19	18.6
11 - 15 years	34	33.3
More than 15 years	45	44.1
Total	102	100.0

Source: Field Survey, 2024

Table 2 presents a summary of descriptive statistics regarding the knowledge of prevention strategies for lifestyle diseases, specifically focusing on hypertension, obesity, and diabetes, before and after an educational intervention. The table details the maximum points on the scale of measure, the mean and standard error (SE) for pre-intervention and post-intervention scores, the standard deviation (\pm S.D), the effect size (ES) along with a 95% confidence interval (CI), and the p-value indicating the statistical significance of the observed changes.

For hypertension prevention, the maximum points on the scale of measure were 5. Prior to the intervention, the mean knowledge score was 2.00, with a standard error of 0.09 and a standard deviation of 0.60, indicating moderate initial knowledge levels. Following the intervention, the mean score increased significantly to 4.25, with a standard error of 0.10 and the same standard deviation of 0.60. This substantial improvement is reflected in an effect size of 1.99, with a 95% confidence interval ranging from 1.81 to 2.22. The p-value of .000 indicates that the increase in knowledge

is statistically significant, suggesting that the probability of this result occurring by chance is extremely low.

Regarding obesity prevention, the maximum points on the scale were also 5. The pre-intervention mean score was 1.79, with a standard error of 0.12 and a standard deviation of 0.63, showing relatively low initial knowledge levels. Post-intervention, the mean score rose significantly to 4.01, with a standard error of 0.15 and a slightly lower standard deviation of 0.61, indicating a significant gain in knowledge despite some initial variability. The effect size for this improvement is 2.09, which is very large, with a 95% confidence interval of 1.84 to 2.26. The p-value of .000 confirms the statistical significance of the changes, indicating that the observed improvements are not due to random variation.

For diabetes prevention, the maximum points on the scale were 5. The mean score before the intervention was 1.74, with a standard error of 0.14 and a standard deviation of 0.61, reflecting low initial knowledge levels. After the intervention, the mean score increased dramatically to 4.58, with a standard error of 0.13 and a slightly higher standard deviation of 0.66, indicating a significant enhancement in knowledge. The effect size of 2.74 is exceptionally large, with a 95% confidence interval from 2.49 to 2.92, suggesting a

profound impact of the intervention. The p-value of .000 indicates that this result is highly statistically significant, reinforcing that the improvement in knowledge is not due to chance.

Overall, the data from Table 2 indicates that the educational intervention was highly effective in increasing participants' knowledge of prevention strategies for lifestyle diseases, including hypertension, obesity, and diabetes. The mean scores for all three conditions showed significant increases from pre-intervention to post-intervention assessments. The effect sizes (1.99 for hypertension prevention, 2.09 for obesity prevention, and 2.74 for diabetes prevention) all suggest large to very large effects, demonstrating the substantial impact of the intervention. The 95% confidence intervals for the effect sizes do not overlap zero, further confirming the reliability of these findings. Moreover, the p-values for all variables were .000, underscoring the statistical significance of the knowledge gains and indicating that the improvements are unlikely to be attributed to random chance. This study observe a level of significant difference in the pre and post intervention knowledge levels of the prevention of lifestyle diseases among participants between groups focusing on Hypertension (P= 0.000), Obesity (P=0.000) and diabetes (0.000).

Table 2: Descriptive Statistics on levels of Prevention of Lifestyle Diseases (n=102)

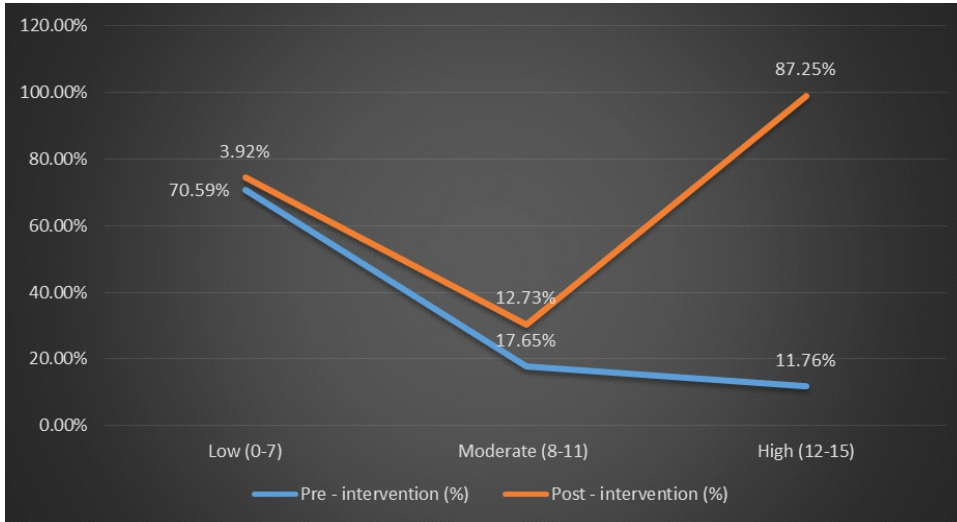
VARIABLES (Prevention)	Maximum Points on Scale of Measure	Pre-intervention		Post – intervention		*ES (95%CI)	P-value
		Mean (SE)	±S.D	Mean (SE)	±S.D		
		Hypertension	5	2.00(0.09)	0.60		
Obesity	5	1.79(0.12)	0.63	4.01(0.15)	0.61	2.09(1.84 - 2.26)	.000
Diabetes	5	1.74(0.14)	0.61	4.58(0.13)	0.66	2.74(2.49 - 2.92)	.000

Source: Field Survey, 2024

Figure 1 further revealed knowledge levels of prevention among participants of study.

Figure 1

Level of Knowledge of Prevention of Lifestyle Diseases among participants of study



In summary, the intervention significantly enhanced knowledge about the prevention of hypertension, obesity, and diabetes, showcasing its effectiveness in promoting health awareness and understanding of preventive measures for lifestyle diseases that can facilitate behavior change.

Pre- and Post-Intervention Self-Care Practice Levels of Lifestyle Diseases

Table 3 presents a summary of descriptive statistics regarding self-care practices before and after an educational intervention. The table details the maximum points on the scale of measure, the mean and standard error (SE) for pre-intervention and post-intervention scores, the standard deviation (\pm S.D), the effect size (ES) along with a 95% confidence interval (CI), and the p-value indicating the statistical significance of the observed changes. The variable under consideration is self-care practices, with a maximum score of 52 on the scale of measure. The pre-intervention mean score was 24.67, with a standard error of 0.56 and a standard deviation of 5.70. This indicates that the participants had moderate levels of

self-care practices prior to the intervention, with a fair amount of variability among them.

Following the intervention, the mean score for self-care practices increased significantly to 51.17, with a standard error of 0.39 and a reduced standard deviation of 3.98. This marked improvement demonstrates a substantial enhancement in self-care practices among the participants. The effect size for this change is calculated to be 5.39, with a 95% confidence interval ranging from 4.80 to 5.98. This very large effect size indicates a profound impact of the intervention on the participants' self-care practices. The confidence interval does not overlap zero, further confirming the significance of this finding.

These data clearly indicates that the educational intervention was highly effective in enhancing the self-care practices of the participants. The mean score for self-care practices increased from 24.67 pre-intervention to 51.17 post-intervention. This significant rise demonstrates a considerable improvement in the participants' ability to manage their self-care routines. The effect size of 5.39 is exceptionally large, indicating a

substantial effect of the intervention on self-care practices. The confidence interval (4.80 to 5.98) supports the reliability and magnitude of this effect, suggesting that the intervention had a consistent and robust impact across the

participants. Findings of this study note that there is a level of significant difference in the pre and post educational intervention 12weeks follow-up on self-care practice.

Table 3: Effects of Educational-intervention at 12 weeks follow -up on levels of S elf-Care Practise (n=102)

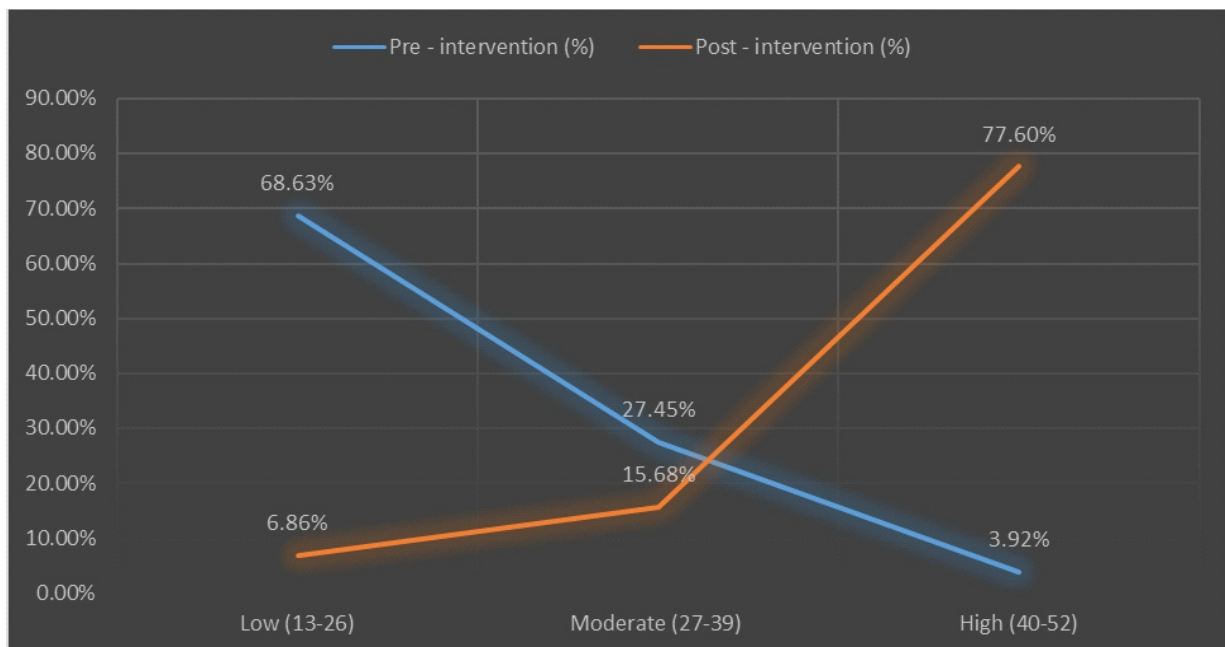
VARIABLES (Self-care practices)	Maximum Points on Scale of Measure	Pre-intervention		Post – intervention		*ES (95%CI)	P-value
		Mean (SE)	±S.D	Mean (SE)	±S.D		
Self-care Practices	52	24.67(0.56)	5.70	51.17(0.39)	3.98	5.39(4.80 - 5.98)	.000

Source: Field Survey, 2024

Figure 2 further give more details of the level of self-care practices among the participants before and after the intervention.

Figure 2:

Lifestyle Self-Care Practices Levels among the Participants



In summary, the educational intervention significantly improved self-care practices of the participants. The substantial increase in the mean scores, the very large effect size, and the highly significant p-value all underscore the effectiveness of the intervention

Test of Hypotheses

Hypothesis One: There will be is no significant difference between pre-and post-intervention knowledge levels of lifestyle diseases among Civil Servants in Ogun State Nigeria

The Results from table 2 indicated that the mean level of knowledge of lifestyle disease of participants increased between the baseline (pre-test) and after the intervention (post-test).

After the community-based intervention, the level of knowledge score significantly increased in the T-group between pre and the post-intervention (t-cal value of 54.991 was significant at P value (0.000) < 0.05.). Consequently, the null hypothesis was rejected. Hence, there was a significant difference between pre-and post-intervention knowledge levels of lifestyle diseases among civil servants in Ogun State Nigeria (P=0.000).

This study reveals that here is a significant difference between pre and post-intervention knowledge levels of prevention of lifestyle diseases among civil servants in Ogun State Nigeria(P=0.000);

Table 4: T-test of pre-and post-intervention knowledge levels of lifestyle diseases

Variations	N	Mean	Std. Deviation	Df	T	Sig	Decision
Pre-Intervention	102	7.23	1.14	101	54.991	.000	Sign. (P<0.05)
Post-Intervention	102	17.39	1.48				

*P<0.05

Hypothesis Two: There is no significant difference between pre-and post-intervention knowledge levels of prevention of lifestyle diseases among civil servants in Ogun State Nigeria.

There is no significant difference between pre and post-intervention knowledge of self-care practice levels of lifestyle diseases among civil servants in Ogun State Nigeria:

Table 3 presented the knowledge level of prevention of lifestyle diseases among civil

servants, post-intervention. Findings showed that significant differences existed between the two groups. The calculated tcal (61.102) was significant at P<0.05. Consequently, the null hypothesis was rejected while the alternative hypothesis was upheld. Hence, there was a significant difference between pre-and post-intervention knowledge levels of prevention of lifestyle diseases among civil servants in Ogun State Nigeria. (P=0.000)

Table 3: T-test of pre and post intervention knowledge level of prevention of lifestyle diseases

Variations	N	Mean	SD	df	t-test	Sig	Decision
Pre-Intervention	102	5.53	0.93	101	61.102	.000	Sign. (P<0.05)
Post-Intervention	102	12.92	0.79				

Hypothesis Three: There is no significant difference between pre-and post-intervention healthy self-care practice levels among civil servants in Ogun State Nigeria

Table 4 presented the paired sample analyses of the difference between pre-and post-intervention lifestyle self-care practice levels among civil servants. The result showed that there was a significant difference between pre-and post-intervention healthy self-care practice levels among civil servants in the T-group.

Calculated t_{cal} (38.500*) at $p < 0.05$ level of significance Hence, the null hypothesis was rejected because there was a significant difference between pre-and post-intervention lifestyle self-care practice levels among civil servants in Ogun State Nigeria. This study shows that there is a significant difference between Civil Servants' age and knowledge of prevention, and self-care practices for lifestyle diseases ($P=0.000$).

Table 4: T-test analysis between Pre-and Post-intervention healthy self-care practice

Variations	N	Mean	Std. Deviation	Df	T	Sig	Decision
TPre-Intervention	102	24.67	5.70	101	38.500	.000	Sign. ($P < 0.05$)
Post-Intervention	102	51.17	3.98				

Hypothesis Four: There is no significant difference between gender and knowledge of preventing lifestyle diseases among civil servants in Ogun State Nigeria.

Table 5 above shows that there is a significant difference between the participants' gender and knowledge of the prevention of lifestyle diseases, $t(100) = 2.753$, at $P < 0.05$ level of significance. Male participants ($x = 11.21$, $S.D = 3.311$) to female participants ($x = 14.59$, $S.D = 4.922$). Hence, the hypothesis was rejected. Therefore, there is a significant difference between gender and knowledge of

preventing lifestyle diseases among civil servants in Ogun State Nigeria. Female participants had more knowledge of the prevention of lifestyle diseases compared to their male counterparts. Statistically significant differences were noted in the knowledge of the prevention of lifestyle diseases among civil servants concerning gender. This means that participants' gender significantly influenced their knowledge of preventing lifestyle diseases among civil servants in Ogun State Nigeria. ($P=0.000$)

Table 5: T-test between gender and knowledge of the prevention of lifestyle diseases

Gender	N	Mean	Std. Deviation	Df	T	Sig
Male	54	11.21	3.311	100	2.753	.000 ^b
Female	48	14.59	4.922			

Findings of this study note that there is a level of significant difference in the pre and post educational intervention 12weeks follow-up on self-care practice.

DISCUSSION OF FINDINGS

Socio-Demographic Characteristics of Study Participants

This study assess the effect of community-based intervention on knowledge, prevention,

and self-care practices for lifestyle diseases among civil servants in Ogun State Nigeria. The demographic characteristics indicates that majority of the respondents are male, between 41 – 50years, with Polytechnic/University completed. Result also shows that majority of respondents are Executives staff , with more than 15 years of experience. The gender distribution in this study was nearly balanced, with equal representation of male and female civil servants, which is consistent with Ola et al., (2021) who reported gender balance in their study. However, few studies have reported high frequency in number of female participants in health seeking behaviours in research study. The writers explained that the study suggests that interventions targeting lifestyle diseases prevention and self-care practices should consider the needs and preferences of both male and female employees to ensure equitable distribution of health among populations of study. This gender balance is significant as it ensures representation from both genders to effectively promote knowledge of prevention and self-care practices of the selected lifestyle diseases among civil servants. The level of education of respondents is high which is consistent with RobotSarpooshi et al (2020) and Latunji et al (2018) Participants of this study represented four major job categories within the civil service, highlighting the occupational roles and responsibilities present in the study population which is in agreement with Idris et al., (2020) Ali Awad et al., (2023) and Rike et al., (2022) which has shown that job roles can influence lifestyle behaviours, with sedentary occupations and high-stress roles being associated with increased risk of lifestyle diseases occurrence.

Assessing Pre and Post-Intervention Knowledge Levels of Prevention of Lifestyle Diseases

This study observe a level of significant difference in the pre and post intervention knowledge levels of the prevention of lifestyle diseases among participants between groups focusing on Hypertension, Obesity and

diabetes. This study align with Fida et al., (2021) and Kamar et al., (2019) who observed substantial gains in knowledge and emphasizing the positive impact of educational interventions on increasing awareness and understanding of preventive strategies for lifestyle diseases. This study is also consistent with Aburto et al., (2021) whose participants gains knowledge, ranging from 44.4% to 56.8%, suggesting that well-designed interventions can effectively enhance knowledge levels among participants. This study aligns with Kebede *et al* (2022) who observed that knowledge, attitude, and practices of lifestyle modification are crucial factors among hypertensive patients, further emphasizing the importance of targeted interventions to improve health-related knowledge.

Assessing Pre- and Post-intervention level of self-care practices among the Participants

Findings of this study note that there is a level of significant difference in the pre and post educational intervention 12weeks followup on self-care practice.

This study aligns with Ozoemena et al. (2019) who observed improvements in hypertension-related knowledge and self-care practices following a health education intervention among Nigerian retirees. Similarly, studies by Haymanot et al. (2021) and Aschalew et al. (2019) found that educational interventions positively impacted self-care practices among hypertensive and diabetic patients, respectively. This study is also consistent with Lemesa et al. (2022) whose positive outcomes across hypertension patients in Eastern Ethiopia exhibited good self-care practices, the emphasize the effectiveness of tailored health education interventions in promoting positive lifestyle self-care practices.

Test of Hypotheses

Our result shows that, there is a significant difference between pre-and post-intervention knowledge levels of prevention of lifestyle diseases among civil servants in Ogun State Nigeria. This study is similar to Fida et al., (2021 and ; Kamar et al., (2019) who observed

substantial gains in knowledge levels among participants, emphasizing the positive impact of educational interventions in increasing awareness and understanding of preventive strategies for lifestyle diseases.

This study shows that there is a significant difference between Civil Servants' age and knowledge of prevention, and self-care practices for lifestyle diseases. This study aligns with Kebede et al.'s (2022) who noted that knowledge, attitude, and practices of lifestyle modification are crucial factors among hypertensive patients, further emphasizing the importance of targeted interventions to improve health-related knowledge.

The result of this hypothesis shows that participants' gender significantly influenced their knowledge of preventing lifestyle diseases among civil servants in Ogun State Nigeria. This study supports WHO, (2021), who noted that gender can influence health knowledge and behaviors.

Summary

In summary, these statistical findings provide robust evidence supporting the positive impact of the intervention on knowledge of prevention and lifestyle self-care practices among civil servants. The gender-based difference in knowledge adds nuance to the findings, aligning with broader discussions on gender and health awareness. These results underscore the importance of tailoring interventions to specific knowledge domains and demographic factors to maximize effectiveness.

Conclusion

The findings from the study highlight the success of the intervention in enhancing knowledge levels and fostering positive lifestyle self-care practices among civil servants in Ogun State. It was concluded that the educational intervention had a significant positive impact on participants' knowledge levels, with substantial gains observed across

specific lifestyle diseases and prevention measures. In summary, the study concluded that the educational intervention has a significant effect on knowledge, prevention, and self-care practices. Importantly, the study further reveals that targeted interventions tailored to the unique needs of civil servants can effectively enhance knowledge and promote positive lifestyle self-care practices, contributing to improved health outcomes in this group.

Recommendations

Based on the findings and conclusion of the study, it was recommended that educational intervention should be prioritised in delivering health promotion and lifestyle disease prevention among civil servants. The Ogun State Government, in collaboration with public health nurses, should implement targeted educational programs periodically to enhance civil servants' understanding of lifestyle diseases. These programs should focus on specific lifestyle diseases, risk factors, and preventive measures, addressing identified knowledge gaps. This periodic training could serve as motivation for behaviour modifications. Also, public health/community health nurses can utilize the insights gained from the study to develop behaviour change interventions targeting specific lifestyle disease conditions in a defined population or community.

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