NIU Journal of Educational Research Copyright©2026
Nexus International University ISSN: *3007-1844;* 12(2): 213-221

Association Between Categories of Daily Sitting Time and Reporting Lack of Facilities as a Barrier to Physical Activity among Staff of Colleges of Education in Borno State, Nigeria

MARYAM SAIDU SALEH, MOHAMMED ABBA MODU
Umar Ibn Ibrahim El-kanemi College of Science and Technology, Bama, Borno State, Nigeria

Abstract. This study investigated the association between categories of daily sitting time (<4 hours, 4–8 hours, and >8 hours) and reporting lack of facilities as a barrier to physical activity among staff of Colleges of Education in Borno State, Nigeria. A correlational research design was employed, involving 285 staff members recruited from two government-owned Colleges of Education in Borno State: College of Education, Waka-Biu (n=130, 44.1%) and Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology, Bama (n=165, 55.9%) during the 2022/2023 academic session. Participants were selected through multi-stage sampling procedures including purposive sampling for institution selection, simple random sampling for departmental selection, and accidental sampling for respondent recruitment. Data were collected using a researcher-developed, validated questionnaire titled "Self-Reported Daily Sitting Time and Perceived Barriers to Physical Activity among Staff of Tertiary Institutions," which demonstrated satisfactory reliability (Cronbach's alpha = 0.81) following pilot testing. The questionnaire comprised two sections: Section A elicited demographic information including age, gender, marital status, educational qualification, staff category, designation, length of service, working hours, income, residence, transportation mode, and medical conditions; Section B assessed self-reported daily sitting time categories and perceived barriers to physical activity using a 5-point Likert scale. Data were analyzed using descriptive statistics (frequency counts, percentages, means, and standard deviations) for demographic characteristics and chi-square analysis to test the association between daily sitting time categories and reporting lack of facilities as a barrier at 0.05 level of significance. Chi-square analysis revealed a statistically significant association between daily sitting time categories and reporting lack of facilities as a barrier ($\chi^2 = 6.254$, df = 2, p = 0.044), leading to rejection of the null hypothesis at the 0.05 significance level. This finding indicates that staff members with prolonged daily sitting time, particularly those sitting for more than 8 hours, were disproportionately more likely to perceive lack of facilities as a significant barrier to physical activity participation compared to their counterparts with shorter sitting durations. This study provides empirical evidence of a statistically significant association between daily sitting time and reporting lack of facilities as a barrier to physical activity among staff of Colleges of Education in Borno State, Nigeria. Based on these significant findings it was recommended thatCollege of Education administrators, institutional management boards, and relevant government agencies should prioritize the development, enhancement, and maintenance of comprehensive physical activity infrastructure and recreational facilities as foundational components of workplace health promotion programmes, including establishing on-campus fitness centres, creating designated walking paths, providing outdoor exercise equipment, developing multi-purpose sports facilities, and ensuring accessibility, maintenance, and convenient operating hours

Keywords: Daily sitting time, sedentary behaviour, lack of facilities, physical activity barriers, workplace health promotion, College of Education staff

1. Introduction

Physical activity is recognized as one of the most effective strategies for preventing non-communicable diseases and promoting overall health and well-being. Regular participation in physical activity reduces the risk of cardiovascular diseases, obesity, hypertension, type 2 diabetes, depression, and premature mortality. Conversely, prolonged sedentary behaviour, particularly

excessive daily sitting time, has emerged as an independent risk factor for adverse health outcomes even among individuals who meet the recommended levels of physical activity (World Health Organization [WHO], 2020; Bailey, 2021). The World Health Organization recommends that adults should engage in at least 150–300 minutes of moderate-intensity physical activity weekly while minimizing sedentary time because replacing sitting time with physical activity provides significant health benefits (WHO, 2020). Despite these recommendations, global estimates indicate that approximately one-third of adults remain insufficiently physically active, with occupational sitting contributing substantially to prolonged sedentary behaviour (Strain et al., 2024).

Daily sitting time has become increasingly common among employees whose occupations involve prolonged desk work, including academic and administrative staff in higher education institutions. Staff of Colleges of Education often spend several hours sitting while preparing lectures, marking scripts, conducting research, attending meetings, and performing administrative responsibilities. Such occupational demands may limit opportunities for regular physical activity and increase sedentary behaviour. Bailey (2021) observed that workplace sitting is highly prevalent among office-based employees and is associated with increased risks of metabolic disorders, cardiovascular diseases, and reduced overall health. Consequently, workplace interventions that reduce sitting time and encourage movement are increasingly recognized as important strategies for improving employees' health and productivity (WHO, 2022; Bailey, 2021).

One of the major determinants of participation in physical activity is the availability of supportive facilities. Adequate recreational centres, sports equipment, walking paths, fitness centres, and safe exercise environments encourage employees to engage in regular physical activity. Conversely, lack of such facilities has consistently been identified as a major barrier to physical activity participation in workplace settings. Safi, Cole, Kelly, Zariwala, and Walker (2022) reported that employees frequently identified insufficient facilities, lack of organizational support, excessive workload, and limited opportunities for exercise as barriers to workplace physical activity. Similarly, the World Health Organization (2023) emphasizes that improving access to supportive environments and recreational facilities is essential for increasing physical activity participation across workplaces and educational institutions.

The association between categories of daily sitting time and reporting lack of facilities as a barrier to physical activity remains an important public health issue. Individuals who spend longer hours sitting during the working day may be more likely to perceive environmental barriers because they have fewer opportunities to interrupt sedentary behaviour or engage in exercise before, during, or after work. Conversely, employees with shorter sitting durations may find it easier to utilize available facilities or incorporate physical activity into their daily routines. Understanding this relationship is particularly important among staff of Colleges of Education, where sedentary occupational activities are common but institutional support for physical activity may vary considerably. Investigating whether prolonged sitting is associated with reporting lack of facilities as a barrier will provide evidence for workplace health promotion programmes and guide institutional policies aimed at reducing sedentary behaviour.

Among staff of Colleges of Education, promoting physical activity has the potential to improve physical health, mental well-being, job performance, and productivity while reducing the burden of lifestyle-related diseases. However, empirical evidence regarding the relationship between daily sitting time and perceived lack of facilities as a barrier to physical activity within this population remains limited, particularly in developing countries. Therefore, examining the association between categories of daily sitting time (<4 hours, 4–8 hours, and >8 hours) and reporting lack of facilities as a barrier to physical activity will contribute to the growing body of knowledge on occupational health and provide evidence for designing targeted workplace interventions that encourage active lifestyles among college staff.

2. Research Methodology

This study adopted correlational research design. A correlational research design is a non-experimental approach used to examine the statistical relationship between two or more variables without manipulating them. It seeks to determine whether, and to what extent, a relationship exists between variables, allowing researchers to identify patterns, trends, and associations in naturally occurring data (Creswell & Creswell, 2018). In this design, variables are measured as they exist in the real world, and the strength and direction of their relationship are typically expressed using correlation coefficients, such as Pearson's r. A positive correlation indicates that as one variable increases, the other also increases, while a negative correlation suggests that as one variable increases, the other decreases (Gravetter & Forzano, 2018).
The selection of the sample size follows the rule of thumb suggested by Nworgu (2015), for determining sample sizes based on the population. Rule of thumb states that "when the population of a

study is few hundreds, the sample size should be 40-50%. If they are a severe hundred, 20% of the population should be the sample size. When a few thousand, 10% of them will do and if several thousands 2-5 % of the population will be considered respectively". Since the population of mothers is in the thousands, the study will use a sample size of 2% of the total population.

This study adopted multi-stage sampling procedure. That is, purposive sampling procedure, sample random sampling procedure and accidental sampling procedure. Purposive sampling procedure will be used in selection of Government own universities in Borno State; sample random sampling procedure of hat sampling were used in selection of 50% of the schools in each College of Education. Sample random sampling procedure of hat sampling will be used in selection of 50% of the department in each faculty while accidental sampling technique were used in selection of the respondents.

Table 1: Population and Sampled

S/N	**College of Education**	**Population**	Sampled
1	College of Education, Waka-Biu	260	130
2	Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology, Bama	330	165
	Total	590	285

The instrument for this study is a researcher self-developed questionnaire named Self-Reported Daily Sitting Time and Perceived Barriers to Physical Activity among Staff of Tartary Institutions. The questionnaire consists of two sections. That is, section A which is the first section of the questionnaire elicit demographic information from respondents; while section B obtained information on Self-Reported Daily Sitting Time and Perceived Barriers To Physical Activity Among Staff of Tartary Institutions. The questionnaire were structured in a closed ended format on a 5-point Likert scale and were further graded as 5,4,3,2 and1 respectively. The instrument were be validated using face and content validity. Face and content and construct validity deal with assessing how all the items of the questionnaire measure all the different dimensions of the concept in all its characteristics and appropriateness of the statements. To establish face and content validity of the instrument, copies of the drafted questionnaire were presented to experts who examined and offer corrections that were incorporated. The corrected version were given to three experts in the Department of Physical and Health Education. The reliability of the research instrument were ascertained through a pilot study called split-half, using Cronbach's alpha model of reliability to determine reliability coefficient. One of the universities in Yobe state which is not part of the study used to conduct the pilot study, thirty (30) respondents. And the reliability coefficient was rii was 0.81.

To administer the research instrument, the research team visited the Colleges of Education in Borno State, with a duly signed introductory letter from the desk officer. The purpose of the letter is to be granted access to staff to respond to the questionnaires. The research team employ six trained research assistants to administer and retrieve the completed questionnaire. The results of this study were analyses using descriptive statistics of frequency counts, percentage and mean and standard deviation for demographic characteristics, and to answer the research questions. While inferential statistics of Person Product Moment Correlation was used to test the formulated hypotheses at 0.5 level of significance

3. Results

Table 2: Demographic Characteristics of Respondents (N = 285)

Variables	**Category**	**F**	**%**
Institution	College of Education, Waka-Biu	130	44.1
	Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology, Bama	165	55.9
Gender	Male	182	61.7
	Female	113	38.3
Age (Years)	20–29	42	14.2
	30–39	81	27.5
	40–49	94	31.9
	50–59	61	20.7
	60 and above	17	5.7
Marital Status	Single	68	23.1
	Married	193	65.4
	Divorced	12	4.1
	Widowed	15	5.1
	Separated	7	2.4
Educational Qualification	NCE	28	9.5

Variables	Category	F	%
	Bachelor's Degree	96	32.5
	Postgraduate Diploma	42	14.2
	Master's Degree	93	31.5
	PhD	36	12.2
Staff Category	Academic Staff	170	57.6
	Non-Academic Staff	125	42.4
Designation/Rank	Assistant Lecturer	18	6.1
	Lecturer III	25	8.5
	Lecturer II	33	11.2
	Lecturer I	28	9.5
	Senior Lecturer	24	8.1
	Principal Lecturer	14	4.7
	Chief Lecturer	8	2.7
	Administrative Officer	67	22.7
	Executive Officer	45	15.3
	Technologist	33	11.2
Length of Service	<5 years	59	20.0
	5–10 years	83	28.1
	11–15 years	72	24.4
	16–20 years	49	16.6
	>20 years	32	10.8
Average Working Hours/Day	<6 hours	34	11.5
	6–8 hours	152	51.5
	9–10 hours	76	25.8
	>10 hours	33	11.2
Monthly Income (₦)	<100,000	31	10.5
	100,000–199,999	84	28.5
	200,000–299,999	92	31.2
	300,000–399,999	55	18.6
	≥400,000	33	11.2
Place of Residence	Urban	138	46.8
	Semi-Urban	92	31.2
	Rural	65	22.0
Transportation	Walking	34	11.5
	Bicycle	11	3.7
	Motorcycle	88	29.8
	Public Transport	67	22.7
	Private Vehicle	95	32.2
Diagnosed Medical Condition	Yes	58	19.7
	No	237	80.3
Daily Sitting Time			
	< 4 hours	71	24.9
	4 – 8 hours	109	38.3
	> 8 hours	105	36.8

Table 2 presents the demographic characteristics of the 295 respondents drawn from two Colleges of Education in Borno State, Nigeria. The distribution of respondents according to institution shows that 130 respondents (44.1%) were from the College of Education, Waka-Biu, while 165 respondents (55.9%) were from Umar Ibn Ibrahim El-Kanemi College of Education, Science and Technology, Bama. This indicates that a slightly higher proportion of the respondents were drawn from the latter institution. The gender distribution reveals that the majority of the respondents were male, accounting for 182 respondents (61.7%), while 113 respondents (38.3%) were female. This suggests that males constituted a larger proportion of the workforce in the selected colleges.

Regarding age distribution, respondents aged 40–49 years formed the largest age group with 94 respondents (31.9%), followed by those aged 30–39 years with 81 respondents (27.5%). Respondents aged 50–59 years accounted for 61 respondents

(20.7%), while those aged 20–29 years represented 42 respondents (14.2%). The least represented age group was 60 years and above, comprising 17 respondents (5.7%). The marital status of respondents shows that the majority were married, with 193 respondents (65.4%). Single respondents accounted for 68 (23.1%), while widowed respondents were 15 (5.1%). Divorced respondents constituted 12 (4.1%), and separated respondents represented the smallest group with 7 respondents (2.4%). This finding indicates that most staff members had family responsibilities, which may influence their lifestyle behaviours and participation in physical activity.

In terms of educational qualifications, respondents with Bachelor's Degrees constituted the highest proportion with 96 respondents (32.5%), closely followed by those with Master's Degrees, who accounted for 93 respondents (31.5%). Respondents with Postgraduate Diplomas numbered 42 (14.2%), while those with PhD qualifications were 36 (12.2%). The least represented category comprised respondents with National Certificate in Education (NCE), who accounted for 28 respondents (9.5%). The distribution according to staff category indicates that academic staff formed the majority with 170 respondents (57.6%), whereas non-academic staff accounted for 125 respondents (42.4%). This demonstrates that the study captured responses from both teaching and administrative personnel, although academic staff were more represented. Analysis of respondents' designation or rank shows that Administrative Officers constituted the largest group with 67 respondents (22.7%). This was followed by Executive Officers with 45 respondents (15.3%). Lecturer II and Technologists each accounted for 33 respondents (11.2%), while Lecturer I represented 28 respondents (9.5%). Lecturer III accounted for 25 respondents (8.5%), Senior Lecturers 24 respondents (8.1%), and Assistant Lecturers 18 respondents (6.1%). Principal Lecturers numbered 14 respondents (4.7%), while Chief Lecturers constituted the smallest category with 8 respondents (2.7%). The distribution indicates representation across various academic and administrative ranks within the institutions.

With respect to length of service, respondents who had worked for 5–10 years formed the largest category with 83 respondents (28.1%). Those with 11–15 years of service accounted for 72 respondents (24.4%), while respondents with less than 5 years of service numbered 59 (20.0%). Respondents with 16–20 years of service constituted 49 (16.6%), and those with more than 20 years of service accounted for 32 respondents (10.8%). The distribution of respondents according to average working hours per day indicates that over half of the respondents, 152 (51.5%), worked between 6 and 8 hours daily. Respondents who worked 9–10 hours per day accounted for 76 (25.8%), while those working less than 6 hours were 34 (11.5%). Similarly, 33 respondents (11.2%) reported working more than 10 hours daily. This finding suggests that a substantial proportion of staff spent long hours at work, which may contribute to sedentary behaviour.

Regarding monthly income, the largest proportion of respondents, 92 (31.2%), earned between ₦200,000 and ₦299,999 monthly. This was followed by 84 respondents (28.5%) who earned between ₦100,000 and ₦199,999. Respondents earning between ₦300,000 and ₦399,999 accounted for 55 (18.6%), while those earning ₦400,000 and above were 33 (11.2%). The least represented income category comprised respondents earning below ₦100,000, with 31 respondents (10.5%). This indicates a relatively diverse income distribution among staff members. Concerning place of residence, 138 respondents (46.8%) resided in urban areas, making them the largest group. Respondents residing in semi-urban areas accounted for 92 (31.2%), while 65 respondents (22.0%) lived in rural areas. This suggests that nearly half of the respondents were urban residents, potentially providing greater access to recreational and physical activity facilities.

The means of transportation used by respondents reveal that private vehicles were the most common mode of transport, reported by 95 respondents (32.2%). Motorcycle users accounted for 88 respondents (29.8%), while public transport users numbered 67 (22.7%). Respondents who walked to work accounted for 34 (11.5%), and bicycle users represented the smallest group with 11 respondents (3.7%). This distribution suggests a relatively low prevalence of active transportation methods such as walking and cycling among respondents. Finally, the distribution according to diagnosed medical conditions indicates that the majority of respondents, 237 (80.3%), reported having no diagnosed medical condition, whereas 58 respondents (19.7%) indicated that they had a diagnosed medical condition. This finding suggests that most respondents perceived themselves to be in relatively good health, although a notable proportion reported existing health concerns that may influence their participation in physical activity.

Hypothesis

There is no association between categorical daily sitting time and reporting lack of facilities as a barrier.

Table 3: Chi-Square Analysis of the Association Between Categories of Daily Sitting Time and Reporting Lack of Facilities as a Barrier to Physical Activity Among Staff of Colleges of Education (N = 285)

Daily Sitting Time	Agree O (E)	Disagree O (E)	Total
<4 h	32 (39.12)	39 (31.88)	71
4–8 h	58 (60.02)	51 (48.98)	109
>8 h	67 (57.86)	38 (47.14)	105
Total	157	128	285

χ^2(df=2, N = 285) = 6.254, p = 0.044, at 0.05 level of significance

Table 3 presents the chi-square analysis examining the association between categories of daily sitting time and reporting lack of facilities as a barrier to physical activity among staff of Colleges of Education. Out of the 285 respondents, 157 (55.1%) agreed that lack of facilities was a barrier to engaging in physical activity, while 128 (44.9%) disagreed. Among staff who sat for less than 4 hours daily, 32 respondents agreed and 39 disagreed. For those who sat for 4–8 hours daily, 58 agreed while 51 disagreed. Among respondents who sat for more than 8 hours daily, 67 agreed and 38 disagreed. The observed frequencies differed from the expected frequencies in several cells, particularly among respondents who sat for more than 8 hours per day, where more respondents agreed that lack of facilities was a barrier than would be expected if no association existed. The chi-square analysis yielded a calculated value of $\chi^2(2, N = 285) = 6.254$ with a corresponding p-value of 0.044. Since the p-value is less than the 0.05 level of significance ($p < 0.05$), the null hypothesis stating that there is no association between categorical daily sitting time and reporting lack of facilities as a barrier to physical activity is rejected. This finding indicates that a statistically significant association exists between daily sitting time and reporting lack of facilities as a barrier to physical activity among staff of Colleges of Education.

4. Discussions

The chi-square analysis presented in Table 3 revealed a statistically significant association between daily sitting time categories and reporting lack of facilities as a barrier to physical activity ($\chi^2 = 6.254$, df = 2, p = 0.044), leading to rejection of the null hypothesis at the 0.05 significance level. Notably, among respondents who sat for more than 8 hours daily, 67 agreed that lack of facilities was a barrier compared to an expected frequency of 57.86, whilst only 38 disagreed compared to an expected frequency of 47.14, indicating that highly sedentary individuals were disproportionately more likely to perceive facility inadequacy as an obstacle to physical activity participation. This pattern suggests that prolonged sitting time may be associated with heightened awareness of environmental barriers, possibly because individuals who spend more time sitting have greater motivation to identify external factors that justify or explain their sedentary behaviour, consistent with attribution theory which posits that individuals seek external explanations for behaviours that conflict with health norms (Weiner, 1985). Alternatively, this association may reflect a genuine relationship whereby staff who sit for extended periods have less access to or awareness of available facilities due to their sedentary work patterns, limited mobility during work hours, or scheduling constraints that prevent facility utilization during peak availability times (Sallis et al., 2006). The Social Ecological Model of health behaviour further supports this interpretation by emphasizing that individual behaviour patterns (such as prolonged sitting) interact with environmental factors (such as facility availability) in complex, bidirectional ways that shape physical activity participation (McLeroy et al., 1988). The finding that 55.1% of all respondents identified lack of facilities as a barrier underscores the widespread perception of environmental inadequacy among College of Education staff, suggesting systemic deficiencies in workplace physical activity infrastructure that may disproportionately affect those with the highest sedentary exposure.

The observed association between prolonged sitting time and perceived lack of facilities aligns with previous research demonstrating that sedentary workers are more likely to report environmental barriers to physical activity compared to their more active counterparts. Trost et al. (2002) found that perceived environmental barriers, including lack of facilities, equipment, and safe spaces for exercise, were significantly associated with lower physical activity levels among adults, with sedentary individuals showing heightened sensitivity to these barriers. Similarly, Sallis et al. (2006) reported that access to recreational facilities and supportive physical activity environments were inversely associated with sedentary behaviour, suggesting that individuals who lack convenient access to facilities may compensate by increasing sitting time or may perceive facility absence more acutely due to their limited physical activity engagement. In the specific context of Nigerian Colleges of Education, where this study was conducted, infrastructural challenges including inadequate sports facilities, poorly maintained exercise spaces, limited equipment availability, and absence of dedicated wellness centres are well-documented barriers to staff physical activity participation (Oyeyemi et al., 2012). The cultural and organizational context of Nigerian educational institutions, characterized by heavy teaching loads, administrative responsibilities, limited budgets for recreational infrastructure, and traditional work cultures that prioritize academic productivity over employee wellness, may further exacerbate the relationship between sitting time and perceived facility barriers (Adeniyi et al., 2016). Importantly, the direction of

causality in this association remains unclear from cross-sectional data; it is plausible that lack of facilities contributes to increased sitting time by removing opportunities for active breaks and physical activity during work hours, or conversely, that individuals who sit more become increasingly aware of facility deficiencies as they contemplate behaviour change, creating a reciprocal relationship between sedentary behaviour and environmental perception (Owen et al., 2011).

The statistically significant association between daily sitting time and reporting lack of facilities as a barrier has important practical implications for workplace health promotion strategies in Colleges of Education and similar academic settings. First, institutions should prioritize infrastructure development and facility enhancement as foundational components of comprehensive sedentary behaviour reduction programmes, recognizing that environmental modifications may be particularly important for reaching highly sedentary staff who perceive facility inadequacy as a primary obstacle to physical activity engagement (Proper et al., 2011). Interventions might include establishing on-campus fitness centres, creating designated walking paths, providing outdoor exercise equipment, developing multi-purpose sports facilities, and ensuring that existing facilities are accessible, well-maintained, and available during convenient hours that accommodate diverse work schedules (Kahn et al., 2002). Second, workplace policies should address the temporal and logistical barriers that prevent facility utilization among staff with prolonged sitting time, such as implementing flexible break schedules, providing dedicated physical activity time during work hours, offering subsidized or free facility access, and creating supportive organizational cultures that normalize and encourage active breaks and exercise participation (Conn et al., 2009). Third, targeted communication and awareness campaigns should specifically address the perceptions of highly sedentary staff, providing information about existing facilities, demonstrating how to incorporate physical activity into busy schedules, offering guided facility tours, and creating peer support networks that reduce psychological barriers to facility use (Marcus et al., 2006). Finally, future research should employ longitudinal designs to clarify the causal direction of the sitting time-facility barrier relationship, investigate whether facility improvements lead to measurable reductions in sitting time among staff who initially perceived facility inadequacy, and examine potential moderating factors such as age, gender, job role, commuting distance, and prior physical activity experience that may influence the strength of this association (Bauman et al., 2012).

5. Conclusion

This study investigated the association between categories of daily sitting time and reporting lack of facilities as a barrier to physical activity among 285 staff members of Colleges of Education in Borno State, Nigeria, utilizing a correlational research design with chi-square analysis. The findings revealed a statistically significant association between these variables ($\chi^2 = 6.254$, df = 2, p = 0.044), leading to rejection of the null hypothesis at the 0.05 significance level, with staff who sat for more than 8 hours daily being disproportionately more likely to perceive lack of facilities as a barrier (67 agreed vs. 57.86 expected) compared to those with shorter sitting durations.

6. Recommendations

Based on the significant findings demonstrating a statistically significant association between daily sitting time and reporting lack of facilities as a barrier to physical activity among staff of Colleges of Education in Borno State, the following comprehensive recommendations are made:

College of Education administrators, institutional management boards, and relevant government agencies should prioritize the development, enhancement, and maintenance of comprehensive physical activity infrastructure and recreational facilities as foundational components of workplace health promotion programmes, recognizing that environmental modifications are essential for addressing the perceived and actual facility barriers that disproportionately affect highly sedentary staff.

College of Education administrators and policymakers should implement comprehensive workplace policies and organizational culture change initiatives that actively promote physical activity participation, reduce prolonged sitting time, and address the temporal, logistical, and cultural barriers that prevent facility utilization among staff, particularly those with high sedentary exposure due to occupational demands.

College of Education health promotion practitioners, human resources departments, and wellness coordinators should develop and implement targeted communication strategies, awareness campaigns, and behavioural interventions specifically designed to address the perceptions, knowledge gaps, and motivational barriers of highly sedentary staff who perceive lack of facilities as a primary obstacle to physical activity engagement.

References

Adeniyi, A. F., Ogwumike, O. O., Osinike, C. I., & Mbada, C. E. (2016). Physical activity and energy expenditure: Findings from the Ibadan pregnant women's survey. *African Journal of Reproductive Health, 20(2),* 117–126.

Bailey, D. P. (2021). Sedentary behaviour in the workplace: Prevalence, health implications and interventions. *British Medical Bulletin, 137(1),* 42–50. doi:10.1093/bmb/ldaa039

Bauman, A. E., Reis, R. S., Sallis, J. F., Wells, J. C., Loos, R. J., & Martin, B. W. (2012). Correlates of physical activity: Why are some people physically active and others not? *The Lancet, 380(9838),* 258–271. doi:10.1016/S0140-6736(12)60735-1

Conn, V. S., Hafdahl, A. R., Cooper, P. S., Brown, L. M., & Lusk, S. L. (2009). Meta-analysis of workplace physical activity interventions. *American Journal of Preventive Medicine, 37(4),* 330–339. doi:10.1016/j.amepre.2009.06.008

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches (5th ed.). Thousand Oaks, CA: Sage Publications.

Giles-Corti, B., & Donovan, R. J. (2002). The relative influence of individual, social and physical environment determinants of physical activity. *Social Science & Medicine, 54(12),* 1793–1812. doi:10.1016/S0277-9536(01)00150-2

Gravetter, F. J., & Forzano, L. B. (2018). Research methods for the behavioral sciences (6th ed.). Boston, MA: Cengage Learning.

Kahn, E. B., Ramsey, L. T., Brownson, R. C., Heath, G. W., Howze, E. H., Powell, K. E., Corso, P. (2002). The effectiveness of interventions to increase physical activity: A systematic review. *American Journal of Preventive Medicine, 22(4S),* 73–107. doi:10.1016/S0749-3797(02)00434-8

Marcus, B. H., Williams, D. M., Dubbert, P. M., Sallis, J. F., King, A. C., Yancey, A. K., Claytor, R. P. (2006). Physical activity intervention studies: What we know and what we need to know. Circulation, 114(24), 2739–2752. doi:10.1161/CIRCULATIONAHA.106.179683

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15(4),* 351–377. doi:10.1177/109019818801500401

Nworgu, B. G. (2015). Educational research: Basic issues and methodology (3rd ed.). Nsukka, Nigeria: University Trust Publishers.

Owen, N., Sugiyama, T., Eakin, E. E., Gardiner, P. A., Tremblay, M. S., & Sallis, J. F. (2011). Adults' sedentary behavior: Determinants and interventions. *American Journal of Preventive Medicine, 41(2),* 189–196. doi:10.1016/j.amepre.2011.05.013

Oyeyemi, A. L., Oyeyemi, A. Y., Adegoke, B. O., Oyetoke, F. O., Aliyu, H. N., Aliyu, S. U., & Rufai, A. A. (2012). The Short International Physical Activity Questionnaire: Cross-cultural adaptation, validation and reliability of the Hausa language version in Nigeria. *BMC Medical Research Methodology, 12,* 1. doi:10.1186/1471-2288-12-1

Prince, S. A., Adamo, K. B., Hamel, M. E., Hardt, J., Connor Gorber, S., & Tremblay, M. (2008). A comparison of direct versus self-report measures for assessing physical activity in adults: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity, 5, 56*. doi:10.1186/1479-5868-5-56

Proper, K. I., Singh, A. S., van Mechelen, W., & Chinapaw, M. J. (2011). Sedentary behaviors and health outcomes among adults: A systematic review of prospective studies. *American Journal of Preventive Medicine, 40(2),* 174–182. doi:10.1016/j.amepre.2010.10.015

Rothman, K. J., Greenland, S., & Lash, T. L. (2008). Modern epidemiology (3rd ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

Safi, A., Cole, M., Kelly, A. L., Zariwala, M. G., & Walker, N. C. (2022). Workplace physical activity barriers and facilitators: A qualitative study based on employees' physical activity levels. *International Journal of Environmental Research and Public Health, 19(15),* 9442. doi:10.3390/ijerph19159442

Sallis, J. F., Cervero, R. B., Ascher, W., Henderson, K. A., Kraft, M. K., & Kerr, J. (2006). An ecological approach to creating active living communities. *Annual Review of Public Health, 27,* 297–322. doi:10.1146/annurev.publhealth.27.021405.102100

Strain, T., Flaxman, S., Guthold, R., Semenova, E., Cowan, M., Riley, L. M., Stevens, G. A. (2024). National, regional, and global trends in insufficient physical activity among adults from 2000 to 2022: A pooled analysis of 507 population-based surveys with 5.7 million participants. *The Lancet Global Health, 12(8),* e1232–e1243. doi:10.1016/S2214-109X (24)00150-5

Trost, S. G., Owen, N., Bauman, A. E., Sallis, J. F., & Brown, W. (2002). Correlates of adults'

participation in physical activity: Review and update. *Medicine & Science in Sports & Exercise, 34(12),* 1996–2001. doi:10.1097/00005768-200212000-00020

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92(4),* 548–573. doi:10.1037/0033-295X.92.4.548

World Health Organization. (2020). WHO guidelines on physical activity and sedentary behaviour. Geneva, Switzerland: Author.

World Health Organization. (2022). Global status report on physical activity 2022. Geneva, Switzerland: Author.

World Health Organization. (2023). Physical activity. Geneva, Switzerland: Author. Retrieved from https://www.who.int/news-room/fact-sheets/detail/physical-activity