

Sedentary Lifestyle and Wellness in Kaduna State, Nigeria

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ABSTRACT The study examined the differences in the sedentary lifestyle of rural and urban people of Kaduna State, Nigeria. It also investigated the series of health problems suffered by the people of the State as a result of their sedentary lifestyle. A descriptive research design was adopted for the study. The sample consisted of individuals from the age of 18 years living in both the rural and urban areas of Kaduna State as at the time of the study. A total of 1350 respondents were randomly selected through a multistage cluster random sampling technique from the three (3) senatorial districts of the state. A structured questionnaire developed and pilot-tested was used to collect relevant data from the respondents. The data gathered from the study were analysed using appropriate descriptive and inferential statistics, i. e., student t-test and chi-square analysis. The results revealed that urban people of Kaduna State engaged in sedentary lifestyle more than their rural counterparts hence, health problems suffered by the people of Kaduna State are significantly related to their sedentary lifestyle. The paper recommends public health education to reduce health problems like obesity, hypertension, stroke and other cardiovascular diseases caused by a sedentary lifestyle mostly among the urban residents of Kaduna State.

INTRODUCTION

Lifestyle is generally considered a personal issue. However, lifestyles and social practices or ways of living adopted by individuals often reflect personal or group and social-economic identities. In other words, although lifestyle reflects individual identities, it is primarily a reflection of the norms and values an individual holds. According to Mayo Clinic (1999) individual lifestyle or health habits and behaviours constitute what a person does and what he/she fails to do, ranging from smoking, overeating, inactivity, alcoholism, drug abuse and participation in unprotected sexual relationships. Hence, the World Health Organization (1993) reported a strong relationship between mortality rates and lifestyle practices. It further highlighted conditions that promote unhealthy lifestyle practices by individuals such as lack of adequate health knowledge, acquisition of misinformation about health matters and development of hazardous lifestyles. One of such lifestyle is physical inactivity or a sedentary lifestyle.

Urban lifestyle in Africa and particularly in Nigeria is characterized by changes in dietary habits involving an increase in consumption of refined sugars and saturated fat, including canned food which results in a reduction in fibre intake (Sharma et al. 1996; Mennen et al. 2000). The

majority of the people in the Nigerian urban centres, especially the elite, depend on imported and refined food with little nutritional value which may have adverse effects on well-being and wellness. In addition to this, recent technological and communication advancements do not help matters in this regard. The use of automobiles, telephone facilities, air-conditioners and house-hold gadgets has substantially increased the sedentary lifestyle of the urban residents thereby reducing their physical activity. Rural populations on the other hand rely upon walking on foot as a means of transportation and often have intense agricultural and manual activities as their main occupations (Alemu and Lindtjorn 1995). Rural people, therefore, have a high physical activity related energy expenditure compared to their urban counterparts (Singh et al. 1989; Heini et al. 1991). Explaining the higher rates of obesity, hypertension, stroke and other cardiovascular diseases in the cities, Rashid et al. (2000) reported that obesity and cardiovascular diseases are at least 7 times higher in urban compared to rural areas. This is closely related to physical inactivity by people living in the urban centres.

A regular level of physical activity has great potential to improve health and well-being. Health gains from physical activity include enhanced mood and self-esteem, improved physical

appearance and a substantial reduction of several cancers, premature mortality, obesity, high blood pressure, cardiovascular diseases, non-insulin dependent diabetes and osteoporosis. Moreover, physical activity or exercise aids cardiovascular and respiratory functions, slows the loss of muscular strength, increases bone mass, aids digestion and bowel functions, promotes sound sleep and prevents depression. Physical inactivity or sedentary lifestyle on the other hand helps to develop these diseases. David (2002) reported a high risk of non-fatal cardiac diseases for women in the sedentary control group in comparison with the active group. He added that regular physical activity has significant benefits for health and well-being. He suggested 30 minutes of moderate activities each day because it improves health status and reduces the risk of developing certain conditions or diseases. According to him, the 30 minutes can be accumulated in shorter bouts of 10 minute walks. Moderate activity is good and energetic, but should be at a level at which conversation can be maintained. This was also supported by the United States Department of Health and Human Services (1996). This research project therefore examined the sedentary lifestyle of rural and urban people of Kaduna State with a view to proffer suggestions that will reduce health problems associated with sedentary lifestyle among the study population.

STATEMENT OF THE PROBLEM

The prevalence of obesity continues to increase in Nigeria, particularly in Kaduna State, the provincial headquarters of the former Northern region. The factors that appear to be most responsible are sedentary behaviour patterns and excessive fat in the diet. There is a scarcity of both national and international epidemiological studies assessing the prevalence of sedentary lifestyles in the area. However, sedentary lifestyle is a practice or way of life that involves no physical activity and longer time spans of sitting (No participation in activities and long time sitting Down-NP +LSD). However, attempts to encourage individuals to adopt and more active lifestyle and to maintain low-fat have not been very successful in producing significant and long lasting weight loss resulting from a sedentary lifestyle. The conception that physical activity is not needed or that one's daily occupation provides enough follows the wrong assumption. Sedentary

behaviours reduce cardiovascular fitness, leading to reduced energy, making exercise less likely. Therefore, is there any difference in the sedentary lifestyle of rural and urban people of Kaduna State? Of what importance is physical activity or exercise in the reduction of health problems associated with a sedentary lifestyle among the people of Kaduna State? These are the questions addressed by this study.

RESEARCH METHODOLOGY

Study Area

Nigeria is one of the most populous countries in Africa with a population of about 140 million people spread across the 36 states of the federation including Abuja, the Federal Capital Territory. Kaduna State is one of the thirty-six states in Nigeria. It is mostly populated by the Hausa, Gwari, Garje and other minority groups like Nupe and Fulani. Other ethnic groupings like Yoruba and Igbo can also be found in the state; hence, Kaduna State is a conglomerate. The state capital is situated in the city of Kaduna. Administratively, the state is divided into twenty- three Local Government Areas. Among these are Kaduna North, Kaduna South, Birni Gwari, Sabon Gari, Katchia, Kagarko, Kaura, Zango-Kataf, Giwa, and so on. In 1991, the population of the state stood at 3.9 million. By 2006 the population doubled, putting the population at about 6 million. This population status put the Kaduna as the third most populous state in Nigeria.

Design and the Instrument Used in Data Collection

A descriptive research design was adopted for this study. The population consisted of individuals from age 18 years with manifestations of health problems associated with sedentary lifestyles in both rural and urban areas of Kaduna State. A total of 1350 respondents were randomly selected through a multistage cluster random sampling technique from towns and villages that made the three senatorial districts of Kaduna State. Four hundred and fifty (450) respondents were selected from the rural areas and a total of nine hundred (900) respondents were selected from the urban areas. A structured questionnaire instrument was developed to collect data for the study. The instrument was administered to the

respondents by the researchers with the help of four (4) research assistants fluent in the various local languages of Hausa, Fulani, Nupe, Garje, Yoruba and Igbo in the study communities. The data emerging from the study were analysed using appropriate descriptive and inferential statistics, such as student t-test, to analyse the differences in the sedentary lifestyle of rural and urban people of Kaduna State and a chi-square test to find out whether the health problems suffered by the people of Kaduna State are significantly related to their sedentary lifestyle.

Hypotheses

Hypothesis 1

Null Hypothesis (Ho): there is no significant difference in the sedentary lifestyle of rural and urban people.

Alternative Hypothesis (H1): There is a significant difference in the sedentary lifestyle of rural and urban people.

Test of Hypothesis 1

Null Hypothesis (Ho): Improved physical activity or exercise will not significantly reduce health problems associated with sedentary lifestyle.

Alternative Hypothesis (H1): Improved physical activity or exercise significantly reduces health problems associated with sedentary lifestyle.

RESULTS

Table 1 shows that the calculated t-value of 3.47 is greater than the critical value of 1.96 at the 0.05 alpha level of significance. Therefore, the null hypothesis that says that rural and urban people of Kaduna State are not significantly different in their sedentary lifestyle or physical

inactivity is rejected. We therefore accept the alternative hypothesis which states that there is a significant difference in the sedentary lifestyle of rural and urban people of Kaduna State. The table further shows that the mean of urban people (N=900, Mean = 8.2821, S.D = 2.672) are less than the mean of rural people (N= 450, Mean= 8.8222 and S-D = 2.739), confirmed that Urban people engages more in sedentary lifestyle than their rural counterparts.

Test of Hypothesis 2

Null Hypothesis: Improved physical activity or exercise is not significantly related to health problems associated with sedentary lifestyle.

Alternative Hypothesis: Improved physical activity or exercise is significantly related to health problems associated with sedentary lifestyle.

From table 2 the calculated χ^2 value of 57.64 is greater than the critical value of 23.68 at the 0.05 alpha level of significance. Therefore, the null hypothesis that says health problems suffered by the people of Kaduna State are not significantly related to physical inactivity or sedentary lifestyle is rejected. Therefore, we accept the alternative hypothesis that states health problems suffered by the people of Kaduna State are significantly related to sedentary lifestyle or physical inactivity.

DISCUSSION

The finding that significant differences exist between rural and urban people in their sedentary lifestyle is not unexpected as Adesina (1990) and Mensik et al. (1997) postulated that environment is considered a crucial factor in the health and well-being of the individual. Adesina (1990) asserted that physical and social environments play a decisive role in the individual's choice of lifestyle factors. Thus, it can be surmised that individuals in the urban area engage in sedentary

Table 1: Means, standard deviation, standard error and t-value of differences between the sedentary lifestyle of rural and urban people of Kaduna State.

Type of dwelling	No of cases	Mean	Standard deviation	Standard error	Degree of freedom	Calculated t-value	Critical value
Rural	450	8.8222	2.739	0.129	1348	3.47	1.96
Urban	900	8.2821	2.672	0.089			
Total	1350						

P< 0.05

Table 2: Chi-Square showing the relationship between health problems and sedentary lifestyle or physical inactivity of the people or Kaduna State

Question	Yes	%	No	%	No response		Total	χ^2
					No	%		
1. Do you participate in physical exercise?	1160	85.9	156	11.6	34	2.5	1350	
2. Do you experience any of these difficulties due to physical inactivity?								$\chi^2 = 57.64$
(a) High blood pressure	256	19.0	62	4.6	1032	76.4	1350	
(b) cardiovascular disease	52	3.9	39	2.9	1259	93.3	1350	
(c) Obesity and overweight.	220	16.3	71	5.3	1059	78.4	1350	
(d) Diabetes and cancer related disease	79	5.9	65	4.8	1206	89.3	1350	
(e) Depression anxiety and uneasiness	249	18.4	105	7.8	996	73.8	1350	
(f) All of the above	44	3.3	27	2.0	1279	94.7	1350	
(g) Others	31	2.3	50	3.7	1269	94	1350	
(h) No Response	419	31.0	931	68.9	-	-	1350	
Total	1350	100	1350	100				

$\chi^2 = 57.64$, DF = 14, Critical Value = 23.68, P<0.05

lifestyles to deal with stress occasioned by both physical and social environment. WHO (1993) also reported an association between lifestyle and environmental problems occasioned by unhealthy lifestyles. According to WHO (1993) millions of people die every year from illnesses caused by unhealthy lifestyle like physical inactivity, alcoholism, unprotected and indiscriminate sexual practices in cities in Great Britain, Portugal, Sweden, United States of America, Kenya, South Africa and Nigeria.

Corroborating the relationship between one's place of abode and a sedentary lifestyle, Alemu and Lindtjorn (1995) reported that rural populations rely upon walking on foot as a means of transportation and often have intense agricultural activities and manual work as their main occupations. On the other hand, there is a reduction in physical activity with an urban lifestyle. The use of automobiles, telephones, mobile phones, air conditioners (in the car, offices and at home), and household gadgets has substantially increased the sedentary lifestyle of urban residents.

The result has also revealed that health problems suffered by people are significantly related to their sedentary lifestyle or physical activity. This finding is in agreement with the report of Ogunbiyi (2002) and Shehu (2005) who found a significant relationship between disease conditions suffered and the lifestyles of rural and urban women in the state. In the same vein, Dishman and Sallis (1994) submitted that

sedentary lifestyle contributes significantly to the occurrence of obesity, cancers, high blood pressure, osteoporosis, diabetes and premature mortality. The main observations are

- 1) Urban people in the study area engage more in sedentary lifestyle than their rural counterparts.
- 2) Health problems suffered by the people of Kaduna State are significantly related to their sedentary lifestyle or physical inactivity.

CONCLUSION

Lifestyle is the sum total of one's way of life. It is a reflection of what an individual does and what he/she fails to do which affect wellbeing and wellness. These may include smoking, overeating, inactivity, alcohol intake, drug abuse and sexual practice. This study focused on the sedentary lifestyle of rural and urban people of Kaduna State and its implication on wellness. The paper found that sedentary lifestyle was common among the residents of the urban centres unlike their counterparts in the rural area, the majority of whom were farmers and who were engaged in farming activities that promoted exercise and invariably their well-being. The use of mobile phones, automobiles, air-conditioners and household gadgets in the urban areas has substantially increased the sedentary lifestyle in that area. Their counterparts in the rural areas on the other hand depended largely on walking and bicycling as their major means of transportation. They also engage

in agricultural activities and manual work as their main occupations, thus providing substantial opportunities for the rural people to engage in physical activity and reduce the incidence of obesity, hypertension, overweight, stroke and cardiovascular diseases that were common among sedentary individuals in urban areas.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

Public health education should be intensified to improve people's awareness of the consequences of an unhealthy lifestyle, especially in the urban centres with the sole aim of encouraging residents to participate in physical activity that will improve their health status. In other words, through public health, health-related problems like obesity, hypertension, and cardiovascular diseases arising from a sedentary lifestyle common among urban residents can be prevented.

Non-governmental organisations present in the state should refocus their attention or perhaps extend their activities to include physical education that prevents the incidence of health related problems associated with sedentary lifestyle.

As a matter of urgency the government should make provision for more recreational facilities for the promotion and maintenance of positive lifestyle for the people of the state including the rural communities.

If these recommendations are carried out, fewer people will be seeing fall ill or die as a result of health problems associated with sedentary lifestyle and physical inactivity.

REFERENCES

- Adesina Caleb Babatunde 1990. *Health knowledge, interest and concerns of selected secondary school students*. PhD Thesis, Unpublished. Nigeria: Ahmadu Bello University, Zaria.
- Alemu T, Lindtjorn B 1995. Physical Activity Illness and Nutritional Status among Adults in a Rural Ethiopian Community. *International Journal of Epidemiology*, 24: 977-983.
- David B 2002. Physical Activity and Coronary Heart Diseases in Older Adults: A Systematic Review of Epidemiological Studies. *European Journal of Public Health*, 12: 171-176.
- DHHS 1996. *Report of the Surgeon General: Physical Activity and Health*. Department of Health and Human Services, Report Series. USA: DHHS.
- Dishman RK, Sallis JF 1994. Determinants and Interventions for Physical Activity and Exercise. In: E Bouchard RJ Shepherd, T Stephens (Eds): *Physical Activity, Fitness and Health*. International Proceedings and Consensus Statements. Champaign: Human Kinetics, pp. 214-238.
- Heini A, Schutz Y, Dia ZE 1991. Free-living Energy Expenditure Measured by Two Independent Techniques in Pregnant and Non-pregnant Gambian Women. *American Journal of Epidemiology*, 261: 9-17.
- Levitt NS, Katzenellen BJM, Bradshaw D, Haffoman MN, Bonninc F 1998. The Prevalence and Identification of Risk Factors for NIDDM in Urban African in Cape Town, South Africa. *Diabetes Care*, 16: 601-607.
- Mayoclinic ZB 1999. Dietary Intake Pattern and Socio Demographic Factors in the Atherosclerosis Risk in Communities Study. *Preventive Medicine*, 28: 769-780.
- Mennen LI, Mbanya JC, Cade J 2000. The Habitual Diet in Rural and Urban Cameroon. *European Journal Clinical Nutrition*, 54: 150-154.
- Mensik GBM, Loose N, Oomen CM 1997. Physical Activity and its Association with Other Lifestyle Factors. *European Journal of Epidemiology*, 13:711-778.
- Ogunbiyi Ruth Bosede. 2002. *Effects of Lifestyle on Health: A Study of Rural and Urban Women in Kaduna State*. M.Sc Thesis, Unpublished. Nigeria: Ahmadu Bello University, Zaria.
- Rashid S, Aspray TJ, Mugusi F. 2000. Rural and Urban Differences in Diabetes Prevalence in Nigeria: The Role of Obesity, Physical Inactivity and Urban Living. *Tropical Medical Hygiene*, 94: 637-644.
- Sharma S, Cade J, Jackson M, 1996. Development of Food Frequency of Questionnaires in Three Population Samples of African Origin from Cameroon, Jamaica and Caribbean Migrants to the U.K. *European Journal of Clinical Nutrition*, 50: 479-486.
- Shehu Raheem Adaramaja 2005. *Relationship between Demographic Factors and Lifestyles of the People of Kaduna State*. Ph.D Thesis, Unpublished. Nigeria: Ahmadu Bello University, Zaria.
- Singh J, Prentice AM, Dia ZE, 1989. Energy Expenditure of Gambian Women During Peak Agricultural Activity Measured by the Doubly- Labeled Water Method. *British Journal of Nutrition*, 62: 315-329.
- WHO 1993. *Environmental Health Profile*. WHO's Report. Technical Report Series 186. Geneva: WHO.