

PHYSICAL ACTIVITY RISK BEHAVIOURS AMONG SECONDARY SCHOOL TEACHERS IN UDI EDUCATION ZONE, ENUGU STATE, NIGERIA

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Abstract

Risk behaviors have been associated with leading causes of non-communicable diseases. Coupled to this is the little knowledge exhibited by people regarding this relationship. Against this background, a study to determine the physical activity risk behaviours of secondary school teachers in Udi education zone of Enugu State, Nigeria was carried out. Three research questions and two null hypotheses were raised to guide the study. The survey involved a sample of 120 teachers drawn from a population of 1225 using the multistage sampling procedure. Physical Activity Risk Behaviour Questionnaire (PARBQ) adapted from the Youth Risk Behaviour Survey (YRBS) questionnaire of Center for Disease Prevention and Control, USA, was the instrument for data collection. It was validated by three experts and reliability established through split-half method and Cronbach Alpha Statistic used to determine the correlation co-efficient index, which yielded 0.79. Only 117 out of the 120 copies of the questionnaire were duly completed. Data were analysed using mean & standard deviation. The t-test and ANOVA statistics were employed to test the two null hypotheses $p < .05$. Findings showed that the teachers were involved in physical activity risk behaviours such as neglecting participation in regular physical exercises. It was also established that while the risk behaviours depended on gender, teaching experiences had no significant influence on the behaviours. Consequently, a well designed workplace health promotion programme for the teachers was recommended.

Keywords: Physical Activity, Behaviours, Risk Behaviours, Health Promotion.

Introduction

Risk behaviours have generated a lot of disturbing concern in the public health sector. The concern arose from the fact that risk behaviours are associated with leading causes of contemporary diseases of non-communicable nature. Coupled to this is the ignorance exhibited by people regarding the relationship between risk behaviours and related diseases. Nelson and Larsen (2006) observed that little was known about risk behaviours and leading causes of morbidity or mortality. Among such risk behaviours is non participation in physical activities. WHO (2002) sees physical activity as any movement produced by skeletal muscles that require energy expenditure. Kent (2006) defined physical activity as any form of body movement that has significant metabolic demand.

Physical activity risk behaviours are actions perceived as being potentially harmful to human health through a habitual neglect of body movements that have significant metabolic demand. These activities can either be formal or informal. Behaviour has been conceptualized as observable and measurable actions that describe how an individual functions (Umeano, 1999; Hornby, 2000). Participation in physical activity regularly is habit forming and a positive one. Benefits derived from participation in regular physical activities are numerous. The US Department of Health and Human Services (1996) stated that physical activity can reduce substantially the risk of developing or dying from heart diseases, diabetes, colon cancer and high blood pressure. Okafor (2009) outlined some major benefits of participating in physical activity to include increased cardiovascular fitness, less body fat and greater lean body mass, improved flexibility, reduced effect of secondary ageing, reduction in internal tension, and good appearance among others.

In spite of these benefits, participation in physical activity has continued to receive neglected treatment from the citizens even among the educated class such as secondary school teachers. This

behaviour of neglect to physical activities constitutes a risk to human health. Participation in physical activity has the benefit of discharging harmful adrenaline activities. Build up of adrenaline in the body system promotes anxiety and stress. Anxiety and stress have adverse effect on people including workers such as teachers and disposition to work and productivity will be affected. When the worker such as the teachers is exposed to this adverse effect of non-participation in physical activities, absenteeism to work due to failing health prevails. Ill health has been highly rated as a major cause of absenteeism among teaching staff (Hobson, 2001). Participation in regular exercise could help greatly in reducing ill-health induced absenteeism among the teaching staff.

However, many reasons have been advanced on why people do not participate in physical activities on regular basis. Prominent among such reasons, according to Ene (2004) are lack of time, fatigue, inadequate facilities, poor knowledge about fitness and lack of will power to cultivate the habit of regular exercises. Another reason is lack of well designed fitness programme targeted at specific populations to help reduce the negative influence of those barriers.

Adoption of healthy life style has remained a serious challenge to greater proportion of the Nigerian population. There is every need to increase mobilization in the area of health promotion for improved health. The danger of physical inactivity portends the necessity for regular participation in physical exercise to promote health. Okafor (2009) noted that participation in physical activity regularly even to the level of addiction is a positive behaviour.

Secondary school teachers, especially those in Udi education zone of Enugu State, Nigeria are expected to be free from risk behaviours especially as regards physical activities. Positive lifestyle contributes immensely not only to good health and increased productivity but to peace and longevity. It also reduces the exposure of the worker to certain preventable diseases of both communicable and non-communicable nature. Studies, (Steinberg, 2004; Lotrean, 2010) have revealed that health related risk behaviours are responsible for most leading causes of illnesses, disabilities and death. Coupled with this is the inability of the teachers to recognized their actions as capable of exposing them to certain preventable health problems. Such actions of the teachers could be neglecting physical activities. The perceived obvious implications of this risk behaviours regarding physical activity on global, regional and national development motivated the researcher to determine the physical activity risk behaviours of secondary school teachers in Udi education zone of Enugu State, Nigeria.

Udi education zone is one of the six education zones in Enugu State, with 275 secondary schools. The zone is made up of two local government areas of Udi and Ezeagu with a population of 1225 teachers, of various length of teaching services in 55 public secondary schools in the zone. The two local government areas are rural in nature with hilly and undulating topography. One finds teachers of different categories in the zone who may be male or female, sharing different levels of teaching experiences. The study sought to determine the association between the variables of gender and location, and the risk behaviours regarding physical activity. Consequently, the study sought answers to three questions as follows:

1. What is the frequency of participation in physical activities by the teachers in Udi education zone?
2. What is the association between gender and physical activity risk behaviours of the teachers?
3. What is the association between teaching experience and physical activity risk behaviours of the teachers?

Two null hypotheses were postulated and tested at .05 level of significance.

1. There is no significant difference between male and female secondary school teachers Udi education zone, in their physical activity risk behaviours.
2. Teaching experiences will show no significant difference in the physical activity risk behaviours among secondary school teachers in Udi education zone, Enugu State.

Methods

The descriptive survey design was adopted for the study. The population for the study comprised of 1225 secondary school teachers in the 55 public grammar schools in the zone (PPSMB, 2012). Sampling was done in three stages. Stage one was clustering of the zone in into two. Each of the local government areas was regarded as a cluster. Second stage was purposive drawing of four schools each from each cluster. The purpose was to draw at least one school from each of the

locations in each local government to select eight schools. The third and final stage was drawing of fifteen teachers from each of the eight schools using the systematic random sampling technique. Through this procedure, a total of 120 teachers were drawn to serve as sample for the study, representing 10 percent of the population. Instrument for data collection was Physical Activity Risk Behaviours Questionnaire (PARBQ), made up of 7 items and adapted from the Youth Risk Behaviours Survey (YRBS) Questionnaire of Centre for Disease Prevention and Control, USA, and presented in two sections of A and B. Section A elicited information on the respondents' demographic background such as gender and teaching experiences. Section B contained five items with 4-response options of zero days; 1-3 days; 4-5 days and 6- 7 days. The validity of the instrument was established through the judgment of three experts in area of Health education and Exercise Physiology. The reliability was ascertained using the split half method. Twenty copies of the questionnaire were administered on secondary school teachers in Awgu education zone. Their responses were split into two halves and Cronbach Alpha employed to compute the correlation of the two sets of scores. The correlation co-efficient index value yielded 0.79. The instrument was therefore considered reliable.

Data collection was done by the researcher with the help of two research assistants. Copies of the questionnaire were administered and collected on the spot to ensure high return rate. The collected copies were inspected for completeness of information and 117 copies were duly completed and qualified for data analysis. Data were analysed using mean and standard deviation. The response options were assigned values of 4, 3, 2 and 1 according to the decreasing rate of risk. Mean scores of 3.50 – 4.00 were regarded as Always (A), 2.50 – 3.49 as often(O), 1.50 – 2.49 as Rarely(R) while 00-1.49 were interpreted as Never(N). The t-test and ANOVA statistics were employed to test the two null hypotheses $p < .05$.

Results

Table 1. Frequency of the Teachers Participation in Physical Activities. N=117

S/N	Item Statement	\bar{x}	SD	Dec.
1.	Teachers' daily participation in jogging activity	2.46	0.88	Rarely
2.	Teachers daily participation in fitness exercises	2.38	0.59	Rarely
3.	Teachers daily neglect of participation in physical exercise	3.22	1.01	Often
4.	Teachers' weekly participation in physical exercises.	2.40	0.97	Rarely
5.	Teachers' daily involvement in watching on television for hours.	2.68	0.73	Often
	Grand mean	2.63	0.84	Often

Data in Table 1 indicate that teachers participate in jogging ($\bar{x}=2.46$, $SD=.88$), fitness exercises ($\bar{x}=2.38$, $SD=.59$) and weekly exercises ($\bar{x}=2.40$, $SD=.97$) rarely. The Table further shows that the teachers often neglect participation in daily physical activities ($\bar{x}=3.22$, $SD=1.01$) and involve in watching TV daily ($\bar{x}=2.68$, $SD=.73$). Overall, the Table shows that the teachers often participate in physical activities ($\bar{x}=2.63$, $SD=.84$).

Table 2. Frequency of Teachers' Participation in Physical Activities According to Gender.

S/N	Item Statement	Male n = 51			Female n = 66		
		\bar{x}	SD	Dec	\bar{x}	SD	Dec
3	Teachers' daily participation in jogging activity	2.38	0.55	R	1.57	0.51	R
4.	Teachers' daily participation in fitness exercises	1.83	0.68	R	1.95	0.71	R
5.	Teachers' daily neglect of participation in physical exercises	2.88	0.85	O	3.01	0.93	O
6.	Teachers' weekly participation in physical exercises.	2.52	0.77	O	2.47	0.89	R
7.	Teachers' daily involvement in watching on television for hours.	2.77	0.58	O	2.63	0.61	O
	Grand Mean	2.48	0.69	R	2.33	0.73	R

Table 2 shows an overall mean of 2.48 for male and 2.33 for female teachers. This implies that teachers participate in physical activities rarely. The Table further shows that both male and female teachers participate in jogging daily, fitness exercises rarely. The Table also shows that male and female teachers often neglect daily participation in physical activities and involve in TV watching daily. Male teachers often participated in weekly exercises while female teachers did it rarely.

Table 3. Frequency of Teachers' Participation in Physical Activities According to Teaching Experiences

S/T	Item Statement	A = 38			C = 34			B = 45		
		\bar{x}	SD	Dec	\bar{x}	SD	Dec	\bar{x}	SD	Dec
3	Teachers daily participation in jogging activity	2.02	0.93	Rarely	2.00	0.88		2.10	0.80	Rarely
4	Teachers daily participation in fitness exercises	2.41	0.55	Rarely	2.33	0.72	R	2.20	0.64	Rarely
5	Teachers daily neglect of participation in physical activity	1.96	0.61	Rarely	2.07	0.66	R	2.14	0.71	Rarely
6	Teachers' weekly participation in physical exercises	2.54	0.79	Often	2.48	0.81	R	2.60	0.73	Often
7	Teachers' daily involvement in watching television for hours	3.51	0.74	Always	2.87	0.83	O	2.69	0.76	Often
Grand Mean		2.43	0.72	Rarely	2.35	0.78	R	2.35	0.73	Rarely

A = 10yrs and below; B = 11 – 20yrs; C = 21 – 35yrs.

Table 3 shows that teachers, irrespective of years of teaching experience participated in jogging, fitness exercises rarely and neglect participation in physical activities. The Table further shows that teachers, irrespective of years of teaching experiences participated in weekly physical exercises, while those with 10 years and below and those between 21 and 35 years often involved in daily watching on TV. Only teachers with 10 and below years of experience were involved in watching TV daily.

Table 4. Summary of t-test Statistics Testing the Differences in the Teachers' Responses on Physical Activity Risk Behaviours Based on Gender.

Variable	N	X	SD	df	t-cal	t-crit	P	Decision
Male	51	2.48	0.69	115	3.52	1.960	.05	Reject
Female	66	2.33	0.73					

Data in Table 4 revealed that the t-cal of 3.52 is greater than the t-critical table value of 1.960 at .05 level of significance. Consequently, the null hypothesis is rejected. This means that the teachers' physical activity risk behaviours are dependent on Gender.

Table 5. ANOVA Statistics Testing the Differences in the Teachers' Responses on Physical Activity Risk Behaviours Based on Teaching Experiences.

Variable	df	Sum of Squares	Mean Squares	F-cal	F-crit	p	Decision
Between Groups	2	0.0043	0.0022	0.00033	19.50	.05	Accept
Within Groups	114	77.24	0.6775				
Total	115	77.24					

Table 5 contains the data that tested the differences in the teachers' responses of their involvement in physical activity risk behaviours according to teaching experiences. According to the Table, the F-calculated value of 0.0033 is less than the F-table value of 19.50 at .05 level of significance. Therefore, the null hypothesis is accepted. This means that the teachers' physical activity risk behaviours are not dependent on teaching experience.

Discussion

The study revealed interesting findings. It was evident from the data in Table 1 that the teachers often neglected participation in regular exercises. This development has far reaching implications for the body's metabolic function and a serious disadvantage to body fitness. Coupled to this neglect is the finding that the teachers indulged in watching television for hours. The researcher expressed surprise at this finding because, the teachers are expected to have adopted exercise habit and join the current train of health promotion through exercise. Anido (2013) observed that physical activity was becoming a global pursuit as a strategy for health promotion. On the other hand, the finding confirmed the observation by Okafor (2001) the habit for not exercising had remained a neglected dimension of our life even among the educated class.

It is known that participation in physical activities up to about 30 minutes daily for 5-7 days results in acquisition of many health benefits. Prominent among these benefits are improved physical fitness, reduced risk of cardiovascular diseases and improved mental health (CDC, 2011, Harvard School of Public Health 2012, WHO, 2012). Therefore, the habit of neglecting regular physical activities among the teachers is feared to be capable of increasing the chances of cardiovascular diseases especially when the teachers are known to be involved in watching televisions for hours. Although watching television may be seen as a welcome recreation, it should be complemented with other active recreational activities. The finding that the teachers' physical activity risk behaviours depended on gender appears interesting. Data in the table indicate that while the male teachers engage in exercises weekly, the female ones rarely do so. This is not a welcome development and should be reversed.

Implications of the Study

Physical activity is seen as a cardinal instrument for health promotion. Health promotion is one of the challenges facing the contemporary healthy world. Health promotion is the process of enabling people to increase control over and improve their health (WHO, 1986). The teacher is among the people that are expected to increase control over health for the purpose of improving health status by participating in physical activities.

Education is the instrument for achieving national objectives and perpetuating good legacies. The teacher is highly indispensable among the resources for achieving the aims of education and nation at any level. Consequently, it becomes very important that the teachers' health status must be assured for the achievement of the onerous task. Studies have revealed that the standard of education of any nation is determined by the quality of the teachers (Rice, 2003; Nwabuisi, 2008).

Crisis of different dimensions and magnitude have afflicted many nations and regions of the world. The school and education process remains a veritable option for instilling the virtue of peace in the citizens. This is why it has become necessary now, that the health status of the teachers be enhanced and assured through health promotion, to enable them face and discharge their duties diligently. On the contrary when the teacher is known to be neglecting physical activities, the risk of developing cardiovascular diseases becomes increased. Ultimately, the development would reduce the fitness and the process of instilling the good virtues for lasting peace would be truncated and retarded.

Conclusion and Recommendations

Participation in regular physical activities is a neglected dimension among the teachers. This neglect exposes them to non-communicable diseases, such as diabetes, stroke, coronary heart diseases, obesity and cancer. It becomes obvious that the teachers' health would be in a precarious condition and quality of teaching reduced, thereby truncating the processing of achieving lasting peace through education and school.

Consequently, it is recommended, that a well designed and targeted workplace health promotion programme be developed for the teachers.

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