



Assessment of Extracurricular Activities Relating to Physical Activities in Primary Schools in Gwagwalada Area Council, Federal Capital Territory, Nigeria

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Summary

BACKGROUND

Physical inactivity, a phenomenon that cuts across age groups, is increasingly becoming a menace among children globally. With a rise in the obesity rates among children in the last three decades, lack of physical activity is a cause for major concern among school-aged children.

AIM

This study aimed to assess extracurricular activities relating to physical activities in primary schools in Gwagwalada Area Council, of the Nigerian capital

METHODOLOGY

A cross-sectional study was conducted among 146 primary schools. Respondents' interviews and direct observations were used. The findings were entered into a questionnaire adapted from School Health Program Evaluation questionnaire.

RESULT

While 5 (3.4%) of the schools surveyed allotted three periods a week for physical activities/ health education, 106 (72.6%) assigned two periods per week for this. All the schools surveyed observed break periods/ recess. A total of 39(36.8%) private schools, compared with 33(82.5%) public schools, had sports fields ($p<0.001$). Within the preceding year of the study, one hundred and seventeen (80.1%) of the schools staged drama as a form of periodic extracurricular activity. Inter-house sports was organized by 22(55.0%) public and 19(17.9%) private schools ($p<0.001$).

CONCLUSION

Most of the schools carried out varying forms of extracurricular activities on a daily, weekly or annual basis. Physical activities were more commonly undertaken in public schools. Private schools should be compelled by the appropriate authorities to provide adequate space for sporting and other physical activities. The schools should be made to adopt the recommendations of the World Health Organization

Keywords: Extracurricular activities, physical activities, obesity, primary schools, Gwagwalada, Federal Capital Territory, Nigeria

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Introduction

Extracurricular activities refer to any kind of activities that are outside the scope of lessons predetermined in the curriculum, such as sports, music, drama or debates, intended for various reasons including reduction of boredom, general health improvement and socialization.[1,2]

It provides an opportunity for increased physical activities with consequent short- and long-term health benefits. [3] These benefits include, but are not limited to, reduction in the risk of developing cardiovascular disease, obesity, cancer, diabetes and osteoporosis as well as improved quality of life.[4,5]

Recognition of this strong relationship between physical activity and major non-communicable diseases led member states of the World Health Organization to agree to a 10% relative reduction in the prevalence of inadequate physical activity by 2025, as one of the nine global targets to prevent non-communicable diseases. [6]

Physical inactivity levels are increasing in many countries with a global age-standardized prevalence of 27.5%.[7] It is now identified as the fourth leading risk factor for global mortality.

In recent times, children were also becoming significantly less physically active. Nowadays, an average child has high screen hours of close to six hours watching television, playing video games or using the computer.[8]

This lack of physical activity is a cause for major concern among primary school children as it has resulted in an increased incidence of obesity which has tripled in the last three decades.[8] Hence there is a need to constantly encourage increased physical activities among children.

With the contemporary situation in Nigeria where pupils spend a considerable part of their daytime in schools,[9,10] the school is, therefore, an important institution that can provide a good avenue to increase the level of physical activities in children. Internationally, there is growing evidence that the school environment provides an opportunity for improving

physical activities.10 Anecdotal reports showed that the Nigerian schools' settings offered satisfactory space for physical activity programs, though with variation in the provision of space and time for the physical activity programs.[10] These need to be confirmed across the region/ states.

Hence, there is a need to regularly assess various physical activity related extracurricular events in Nigerian schools as well as the level of engagement of the school pupils. This will enable schools to reinvigorate existing physical activity programs, if need be, to meet the global standard and best practices. Currently, there is no published study on physical activities available in primary schools in the study location.

This study, therefore, sought to assess the extracurricular activities relating to physical activities available in primary schools in Gwagwalada Area Council of the Nigerian federal capital.

METHODOLOGY

Study Area

The study was nested within a school health programme survey carried out from April to October 2017 in the Gwagwalada Area Council (GAC) of the Federal Capital Territory (FCT), Nigeria. GAC is one of the six area councils in the FCT located in Northcentral, Nigeria with a projected population of 402 000 people as of 2016. [11]

The area council had 291 registered primary schools, consisting of 80 public and 211 private schools. The authority of the schools lies with the Universal Basic Education (UBE) Board and Zonal Education Office (ZEO), Gwagwalada.

Study Desig & Population

A descriptive cross-sectional study engaging Public and private primary schools in the area.

Sample Size Determination

To obtain the largest size for the chosen error margin of 0.005, a sampling ratio of 50% of all registered schools was used.[12] Thus, with a sampling ratio of 50%, 146 schools were selected from 291.



Sampling Technique for the Schools

The primary schools were stratified into public and private schools. There were 80 public and 211 private primary schools. Applying a sampling ratio of 50% to each stratum, 146 schools were selected for the study including 40 schools from public and 106 from private schools. The 146 schools were randomly selected from the list of schools by balloting.

Ethical Consideration

Ethical approval was obtained from the University of Abuja Teaching Hospital's Research and Ethics Committee. Approvals were also obtained from FCT Universal Basic Education Board and Zonal Education Office, GAC. Consent was also obtained from the participants in selected schools.

Confidentiality was assured by the use of codes on the assessment forms as schools were anonymized.

Data Collection

The study instrument used was adapted from the School Health Programme Evaluation Scale. [13] It was completed for each school by direct interview and inspection by the researchers.

The headteachers provided information on school administration and other information that could not be check-listed by observation at each school. Direct observation of all forms of extracurricular activities available in the schools was carried out with clarification sought where applicable. Information about extracurricular activities was gotten from the headteacher and 3 teachers from each school surveyed.

In each school, a teacher was selected from an alternate list of classes from primary one through six. Two pupils from each selected school were also interacted with to confirm, or otherwise, the information gotten from the teaching staff. The pupils were asked about the extracurricular activities carried out in their schools, daily, weekly as well as in the previous year.

The school timetable was also inspected to arrive at the duration of the break period and the number of periods per week allotted to extracurricular

activity (physical/ health education). Physical and health education sessions, as well as break periods, were also attended in some schools.

Data Analysis

The data collected were sorted based on school ownership (private/ public). The data were analysed using Statistical Programme for Social Science (SPSS) version 20. Categorical variables were reported as frequencies. Frequency tables were drawn to illustrate the results. Pearson chi-square test or Fischer's exact test (where appropriate) was used to determine significant associations between qualitative variables. In all statistical tests of significance, only P-values of less than 0.05 was regarded as significant.

RESULTS

Some characteristic features of the schools surveyed are as shown in Table I. This study was undertaken in 40 public and 106 private (total of 146) primary schools in Gwagwalada Area Council (GAC). There was a total of 52 756 pupils in the schools surveyed.

This was made up of ; 26 774 females and 25 982 males, with a male to female ratio of 1:1.03. Public schools had more pupils, 38 685 (73%) compared to 14071 (27%), in private schools.

The qualification of the majority (52.69%) of the teachers was the Nigerian Certificate in Education (NCE). Of the Bachelor degree holders, 527(59.54%) were degrees in education. Public schools had significantly more teachers with education-related qualifications (Grade II teacher certificate, NCE, Bachelor in Education) than private schools ($p < 0.001$).

Parent-Teacher-Association was present in 137(93.8%) schools. There was a significant difference between public and private schools (37.5% versus 14.2% respectively) for the presence of the school health committee ($p = 0.002$).



Table 1: Characteristic Features of The Schools Surveyed

Characteristics	School Type			χ ²	P-value
	Private	Public	Total		
School population	n(%)	n(%)	n(%)		
Pupils					
Male	6,932(49.3)	19,050(49.2)	25 982(49.2)		
Female	7,139(50.7)	19,635(50.8)	26 774(50.8)		
Total	14,071(100.0)	38,685(100.0)	52756(100.0)		
Staff					
Teaching	1,072(49.8)	1,082(50.2)	2154(100.0)		
Non-teaching	207(47.5)	229(52.5)	436(100.0)		
Qualification of Teachers	n(%)	n(%)	n(%)		
NCE	497(46.4)	638(59.0)	1135(52.7)	172.153	<0.001*
Bachelor degree	448(41.2)	437(40.4)	885(41.1)	304.484	<0.001*
Senior School certificate	80(7.5)	0(0.0)	80(3.7)	84.165#	<0.001*
National Diploma	43(4.0)	0(0.0)	43(2.0)	44.447#	<0.001*
Master degree	4(0.4)	6(0.6)	10(0.5)	2.783#	0.095
Total	1072(100.0)	1082(100.0)	2154(100.0)		
School Health Provider †	N=106 n(%)	N=40 n(%)	N=146 n(%)		
SchoolHealth Committee	15(14.2)	15(37.5)	30(20.5)	9.698	0.002*
Functional PTA	97(91.5)	40(100.0)	137(93.8)	3.619	0.057

†: multiple responses possible *: statistically significant



Table 2 shows the time allotted to physical activity/ health teaching in schools. While 5 (3.4%) {1 (2.5%) public and 4(3.8%) private schools} of the schools surveyed allotted three periods a week for physical activities/ health education, 106 (72.6%) assigned two periods per week for this. All the schools surveyed observed break/recess periods daily.

A total of 39(36.8%) private schools, relative

to 33(82.5%) public ones, had sports fields. This was significant statistically ($p < 0.001$).

In the last year, one hundred and seventeen (80.1%) of the schools consisting of 29(72.5%) public and 88(83%) private schools staged drama as a form of extracurricular activity. Inter-house sports was organized by 41(28.1%); 22(55.0%) public and 19(17.9%) private schools. This was statistically significant ($p < 0.001$)

Table 2: Time Allotted to Physical Activities, Extracurricular Facilities, and Extracurricular Activities

Variable	School Type Public N=40 n(%)	Private N=106 n(%)	Total N=146 n(%)	χ^2	p-value
Time allotted to Physical activity					
One period/week	12(30.0)	23(21.7)	35(23.9)	1.098	0.295
Two periods/week	27(67.5)	79(74.5)	106(72.6)	0.721	0.396
Three periods/week	1(2.5)	4(3.8)	5(3.4)	0.142‡	0.706
Extracurricular facilities					
Sports facilities available	23(57.5)	71(67.0)	94(64.4)	1.138	0.286
Sports field available	33(82.5)	39(36.8)	72(49.3)	24.273	<0.001*
School bus	0(0.0)	45(42.5)	45(30.8)	24.547‡	<0.001*
Extracurricular activities					
Inter-house sport	22(55.0)	19(17.9)	41(28.1)	19.766	<0.001*
Interschool sport	16(40.0)	34(32.1)	50(34.2)	0.810	0.368
Excursion	5(12.5)	48(45.3)	53(36.3)	13.498	<0.001*
Drama	29(72.5)	88(83.0)	117(80.1)	2.019	0.155
Debates	19(47.5)	86(81.1)	105()	1.294	0.255

‡: Fischer's exact * statistically significant †: multiple responses possible



Discussion

Most of the schools surveyed carried out extracurricular activities. These activities were carried out on a daily / weekly or annual basis. Most of the daily and weekly activities in the schools surveyed took place during recess and physical/ health education periods.

Physical and health education periods with a duration of 35 minutes in most schools were commonly used for teaching health education in addition to physical activities.

Furthermore, a majority (72.6%) of the schools allocated two periods per week to physical activities and teaching of health education contrary to the recommendations of the Nigerian Education Research and Development Council (NERDC)[14] All these culminated into inadequate time devoted to daily or weekly physical activities in schools in the study location.

Therefore the World Health Organization (WHO) recommendation [8] of at least 60 minutes of daily moderate- to vigorous-intensity physical activity and vigorous-intensity activities 3 times per week in the study location may be unattainable. The finding in this study was similar to a report in the United States of America where about 92% of elementary schools in Oregon did not meet the recommended period for physical activity.[15] Also, 44% of schools were reported to cut down the daily/ weekly periods available for physical activities in yet another American study. [16]

Furthermore, a study of German schools revealed that the usual three physical education lessons per week only existed on paper but were generally not given in most of the schools surveyed in that study. [17] These connote a global pattern to the problem. Meanwhile, results from an Algerian study indicated that classroom-based physical activity during breaks is an effective and inexpensive method to improve children's physical activity levels.[18] There is, therefore, a need for the schools to increase the times dedicated to such daily and weekly physical activities.

As regards the annual/ periodic forms of extracurricular activities, most of the schools surveyed in this study carried out at least one form of the extracurricular event similar to finding in other Nigerian studies. [19,20] However, more public than private

schools engaged in physical activities in form of sports (like inter-house and interschool sports competitions). This, perhaps, was because of the availability of sports fields in most public schools which were not the case with private ones. Most of the private schools were housed in residential buildings which were not designed ab initio to fit the requirement of a school.

Most of such schools, therefore, lacked adequate spaces for sports fields. This was contrary to the National Sports Policy of Nigeria that mandated every primary and secondary school to have a playground for sport as a prerequisite for their approval.[21] It had been observed that not much attention is paid to sports development in Nigerian schools, especially primary schools.[21] This may also account for the lukewarm attitude towards the provision of sports fields in the schools. The engagement of more public schools in physical activities could also be related to the fact that most public schools teachers had education-related qualifications. This might have allowed the teachers to know the importance of physical activities in children as some of them might have specialized in Physical and Health Education.

Excursions undertaken predominantly by private schools could be due to the absence of school buses in public schools. This perhaps resulted in an inability to transport the public school children to desired excursion location. It could also be due to a large number of pupils in the schools in addition to the fact that a number of them may be from a low socioeconomic background (since public schools are low or no fee-paying institutions). Availability of school buses in a third of the schools, all privately owned, was higher than that reported by Kuponiyi et al.[22]The absence of school buses in public schools in the present study was similar to the finding by Asiabaka.[23] These may be due to poor budgetary provision for it by the government generally in Nigeria.

Overall, staging drama was the commonest form of extracurricular activities in the schools surveyed. This was, however, organized predominantly by private schools. This may be due to more commitment to these by the teachers/ school authorities in those schools. Even though staging drama and excursion would expose the children to activities outside the classroom with, a possible, positive effect on their psychosocial health, this may not result in desired increase in physical



activities. A report from a previous study showed that pupils from private schools accounted for the majority of cases of overweight and obesity associated with physical inactivity.[24]

The pupils in most of the private schools in the current study where physical activities were less available may, therefore, be at an increased risk of developing obesity. The finding in the present study, however, contrasts that reported in Russia where physical activities were the commonest form of extracurricular activity accounting for more than 60% of all activities. [25] This may be due to more commitment by the school authorities in Russia to inculcate more physical activities in the school children to curb the increasing trend of obesity among the children.

The school health committee and Parent-Teacher-Association are central to the implementation of some school activities including extracurricular activities. They often act as drivers and sometimes, as the provider for such activities. Their presence in a higher proportion of public schools in this study might have accounted for higher participation in physical activities in form of sports in those schools. Their presence could also be explored in the future for the provision of other sporting facilities lacking in those public schools. More private schools should also be encouraged to constitute such committees and associations.

Conclusion and Recommendations

Most of the schools carried out varying forms of extracurricular activities on a daily, weekly or annual basis; however, physical activities were more commonly undertaken in public schools. The commonest form of extracurricular activity undertaken by most of the schools surveyed (particularly the private schools) was drama which may not have a significant contribution to physical activities necessary to decrease the incidence of childhood obesity.

Private schools should be compelled by the appropriate authorities to provide adequate space for sporting and other physical activities

Schools in the study area should also be made to adopt the recommendations of the World Health

Organization (WHO) and Nigerian Education Research and Development Council (NERDC)

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