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RESEARCH ARTICLE

SKILL-BASED HEALTH EDUCATION AND ITS BEHAVIOURAL IMPLICATIONS IN SECONDARY SCHOOLS IN CALABAR MUNICIPALITY, CROSS RIVER STATE, NIGERIA

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ABSTRACT

Purpose: This study investigated the level of implementation of skill-based health education in secondary schools in Calabar, Cross River State in relation to the School Health Programme implementation guidelines.

Methodology: Two hypotheses were formulated to guide the study. The study employed the descriptive survey design. The multi-stage sampling technique was adopted to select a total of 314 SS2 students, 100 teachers and 20 principals from 20 schools (10 public and 10 private) and 2 policy makers to make up the sample size of 436. A well validated questionnaire, key informant interview guides and observation checklist developed by the researchers were used to collect both qualitative and quantitative data from respondents.

Results: The results of data analysis were presented in tables and figures. The results of the study revealed that a significant difference exist between the School Health Programme implementation guidelines and the skill-based health education in schools and that school ownership significantly influenced the implementation of skill-based health education in schools ($P < 0.05$, critical $t = 1.960$). The study revealed that physical and health education was being taught in 100% of schools but not skill-based health education; because it was observed that only 10% of private schools and none of the public actually engage the students in practical sessions to develop their skills. Again, subject specialists were found in just 30% private and 60% public schools.

Recommendation: The state Ministry of Education should ensure that every school must have at least one health education specialist who will guide other teachers through the instructional strategies of skill-based health education curriculum. Further, the government and private school administrators should ensure the provision of adequate materials for teaching health education.

INTRODUCTION

Health education consist of a curriculum that is well planned and taught on daily basis in all classes with the aim of satisfying the different dimensions of health and produce positive health behaviours. The curriculum should be rich enough to enhance the development of healthy knowledge, attitude, skills and practices (Olsen & Allensworth, 2012). According to Federal Ministry of Education (2006), health education has been a curricular subject in Nigerian schools for many years, but its long years as a curricular subject has not made much impact on the knowledge, attitude and practices of students. This is a major cause for concern. The report has it that, the teaching of health education has not been effective. Some of the reasons for ineffective delivery of health education identified were the lack of health education teachers, inadequate teaching aids, less attention given to skill development/application and unavailability of appropriate teaching and learning facilities. Moronkola (2012) stated that skill based health education entails sequential, planned, incidental and integrated learning experiences with adequate skills wherein various health concepts are presented to learners to enable them make informed decision and improve their health attitudes and practices. The requirements for implementing skill-based education as a component of SHP include: a curriculum indicating activities for teachers and learners, teaching/learning materials, adequate infrastructure (classroom, lockers, chairs, demonstration rooms, toilets, water, etc.) and suitable and adequate personnel (health education teachers and trained support staff) (FMOE, 2006). To enhance the development of positive health attitude and practices, the curriculum should include plans for skill acquisition. The content must be uniform nationally and must

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be structured to meet the different age groups, culture and beliefs. The teaching/learning materials such as text books for both teachers and learners, IEC (Information, Education and Communication) materials such as Fliers, posters, charts and story books etc, should be made available in school for effective teaching and learning. To encourage appropriate skill development, the necessary infrastructure (facilities and equipment) should be provided and effective utilization encouraged. In line with the "National Policy" on SHP, the guidelines clearly states that National Certificate of Education (NCE) should be the minimum qualification for a health education teacher and other trained professionals should be recognized as support staff (FMOE, 2006).

In the same vein, Brener, Demissie, Foti, Mcmanus, Shanklin, Hawkins and Kann (2010) opined that skill based health education entails providing a curriculum to guide the process of teaching and skill development. According to them, apart from giving health information, skill based health education emphasizes the need to shape personal values and develop healthy skills necessary to adopt healthy behviours and practices. To achieve this, they suggested that adequate time must be allotted to teaching and learning health education. Regarding time allotment to the teaching of health education, they referred to the U.S National Health Education Standard as stating that students in pre-kindergarten through grade 2 should receive health education instruction for at least 40 hours per year while students in grade 3 through grade 12 should be taught for not less than 80 hours per academic year. To implement an effective school health education, they also stressed that it is necessary for teachers to engage themselves with regular trainings to get acquainted with ongoing trends in the profession.

The process of implementing health and nutrition education in US, India, Pakistan and other countries as indicated by MOE and UNESCO (2010) took different dimensions including: inclusion into the curriculum, as extra-curricular activities, as seminars or health counseling etc. Results from studies in some high schools in South Carolina revealed that an increase in time spent on health education programme stimulated students interest for the subject. This was especially so because the programme specifically focused on educating them on the prevailing health problems and how they can protect themselves. The programme recorded a reduction in the amount of money spent on treatment of students' ailments, indicated by a tremendous reduction in the incidence of sexually transmitted diseases like Gonorrhea and HIV to mention but a few. The observation by Ofovwe and Ofili (2007) in Edo state revealed that though most head teachers were observed to be aware of health education as a component of SHP, majority lacked adequate knowledge of the programme. Their study revealed that 93.1% of those in public schools and 48.3% of those in private schools lacked adequate knowledge of SHP and that more than 50% of the schools lacked trained health teachers. This revelation according to them affected their implementation of the skill based health education. This is because inadequate time was given to the study of health education as a subject. In Cross River State, Ogbiji and Ekpo (2011) observed a significant difference in public and private schools with regards to the frequency of instruction on health education. They reported that, the public schools allotted more time, had more qualified teachers and more facilities for the teaching of health education. These findings are not surprising because they explained that the government of Cross River State was equipping her schools with both manpower and facilities to the tune that no private individual could compete with them.

Purpose of the study

This study investigated the level of implementation of skill-based health education in secondary schools in Calabar, Cross River State in relation to the SHP implementation guidelines. The study hypotheses were:

- Skill-based health education in secondary schools in the study area does not significantly differ from the implementation guidelines.
- The implementation of skill-based health education in secondary schools in the study area is not significantly influenced by school ownership (public/private).

METHODOLOGY

Study setting

The study was carried out in 'Calabar Municipality', an LGA among the 18 Local Government Areas (LGA) in Cross River State, and in fact, the capital city of the state. There are a total of fifteen (15) public secondary schools and thirty six (36) private secondary schools in the LGA (Cross River State Secondary School Education Board, Calabar). This study was aimed at determining the level of implementation of skill-based health education in secondary schools in Calabar Municipal in relation to the implementation guidelines. The study was delimited to SS2 students, teachers of health-related subjects (health and physical education, nutrition, agriculture, biology and integrated science), principals of the secondary schools and policy makers in the Ministry of Health.

Study design

A descriptive survey design was adopted for the study. The study population consisted of all students, teachers and principals in private and public secondary schools in Calabar Municipality and policy makers in the state ministry of health. Records from the secondary school education board and the inspectorate department of Ministry of Education Calabar, revealed that there are 15 public and 36 private secondary schools in Calabar Municipality, bringing it to a total of 51 secondary schools.

Sample size determination

The sample size for students and teachers was determined with the use of the Lutz (1982) sample size determination formular which is given as:

$$\text{"}n = \frac{z^2pq}{d^2}\text{"}$$

The sample size for students was 314 while that of teacher was 101. The principals of all the 20 selected secondary schools were interviewed as well as two policy makers from the State Ministry of Health. That made up the sample size to 437.

Data collection

The quantitative data were collected from 300 students (out of the 314 students enumerated – 96% response rate) and 100 teachers (100% response rate) with the use of copies of the questionnaire. Qualitative data were collected from 20 principals and 2 policy makers using the key informant interview guides and from the school directly during a physical observation exercise in the 20 selected schools.

Ethical consideration

Ethical approval was obtained from the 'ethical board' in the Ministry of Health, Calabar. The respondents/key informants were presented with the study objectives and were informed of their freedom to participate in the study or to opt out. Their permission was sought and verbally obtained. All respondents were assured of confidentiality and anonymity.

RESULTS

Respondents' characteristics

The 300 students were made up of 131 males (43.7%) (86 from private schools and 45 from public schools) and 169 females (56.3%) (71 from private schools and 98 from public schools). The 100 teachers were made of 35 males (35%) (25 from private schools and 10 from public schools) and 65 females (65%) (25 from private schools and 40 from public schools). The 20 principals comprised of 11 males (55%) (8 from private schools and 3 from public schools) and 9 females (45%) (2 from private schools and 7 from public schools). The 2 policy makers were made of a male and a female (Table 1). Students within 12-14 years constituted 33.7%; those within 15-17 years were 62% while those who were 18 years and above made up only 4.3%. All the 100 teachers, 20 principals and 2 policy makers were all adults above 30 years of age.

Table 1. Respondents' characteristics

Characteristics	Private schools		Public schools		Total	
	No	%	No	%	No	%
Students:						
Gender:						
Males	86	28.7	45	15.0	131	43.7
Females	71	23.6	98	32.7	169	56.3
Total	157	52.3	143	47.7	300	100
Age:						
12 - 14 years	76	25.4	25	8.3	101	33.7
15 - 17 years	77	25.7	109	36.3	186	62.0
18 years and above	4	1.3	9	3.0	13	4.3
Total	157	52.3	143	47.7	300	100
Teachers:						
Gender:						
Males	25	25	10	10	35	35
Females	25	25	40	40	65	65
Total	50	50	50	50	100	100
Principals:						
Gender:						
Males	8	40	3	15	11	55
Females	2	10	7	35	9	45
Total	10	50	10	50	20	100
Policy makers:	Ministry of Health					
Gender:						
Males	1					
Females	1					

Table 2. Skill-based health education in private schools

Item	Number of students	%	Number of teachers	%
Teaching of physical and health education				
Yes	130	82.8	50	100
No	27	17.2	0	6
Total	157	100	50	100
Health education specialist teaching subject				
Yes	70	44.6	12	24
No	87	55.4	38	76
Total	157	100	50	100
Health education taught for three or more times in a week				
Yes	94	59.9	39	78
No	63	40.1	11	22
Total	157	100	50	100
Regular conduct of practical sessions on health issues				
Yes	67	42.7	13	26
No	90	57.3	37	74
Total	157	100	50	100
Adequacy of materials for teaching health				
Yes	92	58.6	40	80
No	65	41.4	10	20
Total	157	100	50	100

Report on status of skill based health education in private and public schools: Virtually all the teachers from both private and public schools (100%) reported that physical and health education is taught in their schools. The students who gave the same response were 130 (82.8%) from private schools and 133 (93%) from public schools. When asked if health education is taught by the subject specialist, 12 (24%) teachers and 70 (46%) students from private schools gave positive responses while 28 (56%) teachers and 60 (42%) students from public schools reported same. Many of the respondents (39 – 78% teachers and 94 – 59.9% students from private schools and 31 – 62% teachers and 91 – 63.6% students from public schools) reported that health education is taught for up to 3 times or more per week in their schools. Regarding regular conduct of practical sessions on health issues, up to 13 – 26% teachers and 67 – 42.7% students from private schools and 5 – 10% teachers and only 10 – 7% students from public schools gave positive responses. Adequacy of teaching materials was reported by majority of the respondents: 40 – 80% teachers and 92 – 58.6% students from private schools and 20 – 40% teachers and 55 – 38.5% students from public schools (Table 2 and 3).

Table 3. Skill-based health education in public schools

Item	Number of students	%	Number of teachers	%
Teaching of physical and health education				
Yes	133	93	50	100
No	10	7	0	0
Total	143	100	50	100
Health education specialist teaching subject				
Yes	60	42	28	56
No	83	58	22	44
Total	143	100	50	100
Health education taught for three or more times in a week				
Yes	91	63.6	31	62
No	52	36.4	19	38
Total	143	100	50	100
Regular conduct of practical sessions on health issues				
Yes	10	7	5	10
No	133	93	45	90
Total	143	100	50	100
Adequacy of materials for teaching health				
Yes	55	38.5	20	40
No	88	61.5	30	60
Total	143	100	50	100

Table 4. Result of t-test analysis on difference between the SHP implementation guidelines and skill-based health education programme in schools

Variable	N	Df	Mean	μ	SD	t
	Teachers' responses:					
SHP in secondary schools	100	99	2.68	0.88	1.516	11.873
	Students' responses:					
SHP in secondary schools	300	299	2.660	0.82	1.463	21.775

Table 5. Result of t-test analysis on influence of school ownership on the skill-based health education component of SHP in secondary schools

Variable	N	Df	Mean	SD	t
Skill-based health education:					
Teachers:					
Private schools	50	98	3.06	1.867	2.436
Public schools	50		2.30	1.165	
Students:					
Private schools	157	298	2.879	1.460	2.577
Public schools	143		2.441	1.466	

Test of hypothesis one: The result of t-test analysis for the responses of teachers and students for hypothesis one which states that, skill-based health education in secondary schools in the study area does not significantly differ from the implementation guidelines revealed a calculated t value of 11.873 for teachers' responses and 21.775 for students' responses. These values were higher than 1.960 which is the critical t value at 0.05 level of significance, thus the null hypothesis was rejected. Implying that, there is a significant difference between the actual implementation of skill-based health education in secondary schools in Calabar Municipality and the implementation guidelines (Table 4).

Test of hypothesis two: Analysis of data for hypothesis two which states that, the implementation of skill-based health education in secondary schools in the study area is not significantly influenced by school ownership (public/private) revealed calculated t values (for both teachers' and students' responses) of 2.436 and 2.577 which are both higher than the critical value of 1.960 at 0.05 level of significance with df of 98 and 298. With this result, the null hypothesis was rejected, which implies that the implementation of skill-based health education is significantly influenced by school ownership (Table 5).

Observation results on skill-based health education: The data revealed that, among the 20 schools (100%) observed to be teaching Physical and Health Education, 9 (45%) of them (6

public schools and 3 private schools) had health education specialist as teachers. It was observed that, up to 18 (90%) schools (9 public and 9 private) were observing three periods every week to teach the subject and as much as 14 (70% -7 each from both private and public schools) of them had adequate materials for teaching the subject. Only one school (private school) showed evidence of the conduct of health education practical sessions (Figure 1 and 2).

and Ofili (2007), it disagrees with the observation of Ogbiji and Ekpo (2011). Whereas Ofovwe and Ofili observed good knowledge of health education in 93.1% of public schools and 48.3% of private schools, this study reveals presence of subject specialist in 60% of public schools and 30% of private schools. The study revealed no difference between public and private schools in the time allotted to the teaching of health education (3 periods per week) and the availability of health education

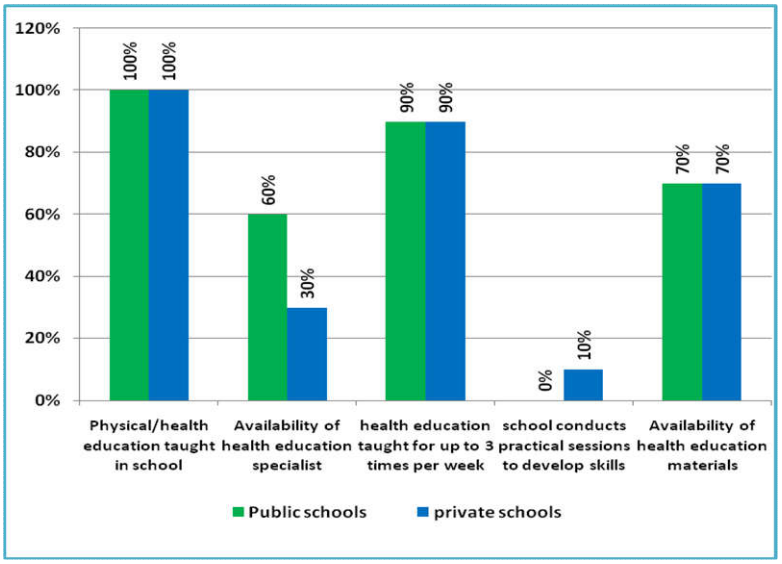

Fig. 1. Differences in skill-based health education programme in public and private schools as observed (n = 10 private and 10 public schools)

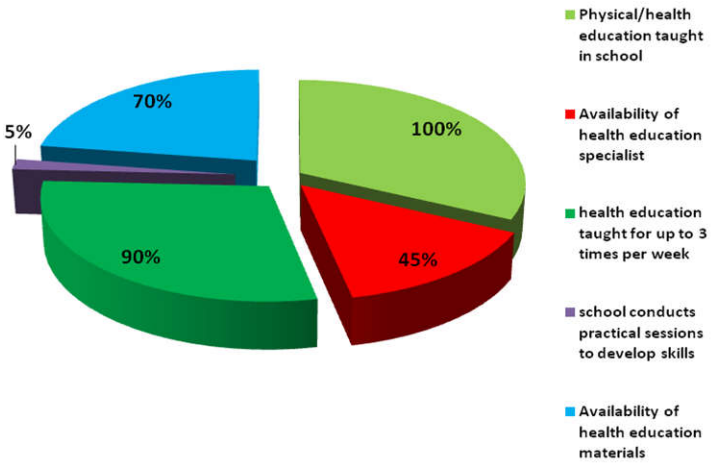

Fig. 2. Observation results on skill-based health education in secondary schools in Calabar Municipality, Cross River State (n = 20)

DISCUSSION

In consonance with the implementation guidelines, all schools in this study (100%) teach physical and health education and 90% of them observe up to 3 periods each week for the subject. But only 45% of the schools have the subject specialist teaching the subject and 70% were observed to have adequate Materials for teaching the subject. This situation can be discouraging to students and kill their interest in the subject. This finding agrees with the assertion by the Federal Ministry of Education[2] (2006) that despite the long existence of health education as a curricular subject its effectiveness in influencing knowledge, attitude and behavior has been ineffective because of the dearth of health education teachers, lack of appropriate and adequate teaching aids and absence of learning facilities. The result of this study, though consistent with that of Ofovwe materials, but Ogbiji and Ekpo, observed a significant difference in public and private schools with the public schools allotting more time and having more materials for teaching the subject. However, the result of this study regarding more public schools having subject specialist than private schools is in agreement with that of Ogbiji and Ekpo.

Implication on behaviour

Education and health are known to be highly correlated – that is, more education indicates better health and vice versa. Health education builds or develops the ability to think critically and make healthy choices that enhances healthy lifestyles. Skills-based health education (SBHE) also referred to as life skills-based education is an interactive process of teaching and learning which enables learners to acquire

knowledge and to develop attitudes and skills which support the adoption of healthy behaviours. Its approach uses different learning styles including self-guided and experiential learning (learning by doing) by which learners acquire knowledge, attitudes, skills and ultimately behaviours (Jukes, Drake and Bundy, 2008). SBHE has promoted the adoption of behaviours that play a critical role in combating diseases. For example, It is a truism in Nigeria that the Ebola scourge which prompted intensive health education on the need for hand hygiene promoted the practice of hand washing or use of hand sanitizers both in homes and public places like hospital, schools, offices etc.

It was observed in Poznan region in Europe that SBHE plays an important role in promoting healthy behaviours. Students who were exposed to physical and health education were found to be more active, eat more fruits and watch less television than those who were not exposed to physical and health education (Tassitano, Barros, Tenorio, Bearra, Florindo and Reis, 2010). Other research reports in Uganda, South Africa and other nations revealed obvious behavioural changes following exposure to skill-based health education. Few of such reports by Yankah and Aggleton, 2008 and Mayer-Mihalski and Deluca, 2009 are as follows:

- Health education delayed sexual debut among students who were sexually naive.
- Health education intervention reduced secondary school students' risky sexual behaviours (non use of condom, multiple sex partners etc.).
- SBHE increased knowledge about reproductive and sexual health and subsequently increased condom use.
- Those with acceptance attitude towards people living with HIV and AIDs increased.
- There was a decline in the rate of stigma and risky cultural and sexual practices.
- Gender violence (wife battery/bullying) also decreased.

Conclusion

The researchers conclude that there is a short fall in the implementation of skill-based health education programme in secondary schools from the implementation guidelines and a significant influence of school ownership on the implementation of this educational component of the SHP.

Recommendation

- A copy of the national policy on SHP and the implementation guidelines should be made compulsory documents for all schools to guide programme implementation.
- All schools should form school health committees whose duty will be to look into the modalities for the effective implementation of the different components of SHP.
- To ensure commitment on the part of the school population, the Ministry of health and Education should, through collaborative effort organize sensitization programmes for all school administrators, teachers and students on the why, what, how and way forward of school health education.
- Health education cannot be adequately taught without the relevant instructional materials. The government and school authorities must ensure the provision of relevant and modern textbooks, pamphlets, posters, computers and other related materials for students and teachers.
- The state Ministry of Education should ensure that every school must have at least one health education specialist who will guide other teachers through the instructional strategies of the health education curriculum.

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