PERCEIVED STATUS OF SCHOOL-BASED ORAL HEALTH EDUCATION (SBOHE) IN PRIMARY SCHOOLS IN ENUGU STATE

ANI, N. R. (Ph.D) [1], AND FAMUYIWA S. A. Ph.D [2]

Abstract

The study was a cross- sectional survey research, aimed at ascertaining primary school teachers' perception of status of school –based oral health education (SBOHE) in primary schools in Enugu State. Three research questions and one null hypothesis guided the study. The population for the study was 12,783 teachers in 1,208 governments owned primary schools in the 17 local government areas of Enugu State. A total of 640 primary school teachers were sampled using multi - stage sampling procedure. A 15-item 4-point scale questionnaire known as School –Based Oral Health Education Questionnaire (SBOHEQ) which was developed by the researcher was used to collect data from the respondents. The instrument was validated by three experts and Cronbach Alpha was used to ascertain the internal consistency of the instrument which yielded an index of 0 .81. Mean was used to answer the research questions while the null hypothesis was tested using Z-test at P<.05. The findings revealed that the status of existence of oral health education methods, utilization of oral health education strategies and provision of oral health education materials in primary schools in Enugu State were low, and that it was not dependent on location. Based on the foregoing, a number of recommendations aimed at improving the status of school –based oral health education (SBOHE) in primary schools in Enugu State were put forward, which include that Enugu State Universal Basic Education Board (ESUBEB) should organize periodic workshops and seminars for teachers under their employ.

Keywords: oral health, status, health education, primary school.

[1] DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION, ENUGU STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY, ENUGU.

[2] DEPARTMENT OF HUMAN KINETICS AND HEALTH EDUCATION, UNIVERSITY OF IBADAN

Introduction

Health is a basic human right and is essential for all round development of the child. Health is linked to educational attainment which to a large extent determines the quality of one's social life, economic productivity and general life attainment. Oral health is an aspect of general health. Oral health according to Ejike, Nnabueze & Pufaa (2009) is the state of complete, physical, social and physiology condition of the mouth, not merely the absence of disease or infirmity of the mouth. In addition, Nwobodo (2007) defined oral health as the ability of an individual to keep the oral cavity clean and healthy, as well as carry out essential functions, not merely the absence of disease or infirmity of the mouth According to Koop (2001), oral health is critical to the overall health especially that of the children because health, well being and self confidence are all boosted by a healthy and well cared mouth. This also facilitates communication and good human relationship. Hay (2004) opines that oral health contributes to general wellness, quality of life and can affect physical health, appearance, speech and interpersonal relationship. Further, Hay posits that oral health cannot be considered separate from the other aspects of health and well being. Invariably, if one does not have good oral health, such a person is not healthy.

According to WHO (2001) and Nwobodo (2007), Oral health is the ability of an individual to keep the oral cavity clean and healthy, as well as carry out essential functions like eating, speaking and socializing not merely the absence of disease or infinity of the mouth. Oral health is very important for the holistic development of a child (socially, emotionally, educationally and economically).Most children are found in the school and School is a good place for oral health promotion through school-based oral health education (SBOHE).Consequently, according to UNICEF (1998) an estimated 17.3 percent of Nigerian's over 100 million populations are children of primary school age and majority of these children enjoy unhindered access to school (Nwankwo, 2004). According to Ezedum (2006),It therefore follows that with the majority of children having access to schools thus forming an accessible target group, directing health services meant for children at schools could be cost effective This line of thought had been shared at different times by World Bank (1993) and Nwobodo (2012).Therefore the provision of SBOHE which is primarily aimed at promoting and maintaining the oral health of the children so as to give them a good start while in addition to enabling them benefit optimally from school experiences is of paramount importance.

According to WHO (2003c), oral health problems and disease remain a public health problem worldwide, causing increased morbidity and mortality among people especially school children (Ndiaye, 2005).This leads to loss of valuable school days due to pains, aches and even death, caused by oral health problems and diseases. According to WHO (2003a), these oral health problems could have been prevented through SBOHE.

School-base oral health education according to Ani (2011) are all the efforts, methods, materials and mechanisms adopted by the school in order to teach, educate and inculcate good knowledge, positive attitude and correct practices in the pupils towards their oral health and that of others. In addition, Nwobodo (2012) defined SBOHE as the sum total and combination of learning opportunities and teaching activities designed to facilitate , inform , motivates and help people to adopt and maintain healthy oral health practices and life style. Hence, Petersen and Christensen (1995) enumerated methods, materials and strategies adopted for oral health education as the scope of SBOHE. Buttressing the above facts, Parks (2011) observed that a number of oral health problems that occur in children and subsequently when they grow to adult could be prevented with little or no medical interventions, if oral health education is given at early stage of a child's life probably at school. However, schools as microcosms of the larger community provide excellent opportunities for integrating oral health into the curriculum that is acceptable, appropriate and effective. According to US Department of Health and Human Services (2000), schools can effectively inform and influence children's oral health knowledge, beliefs, attitudes and behaviour. By providing oral health facilities, schools are able to promote effective learning, to reinforce health messages and particularly for oral health, to undertake health promotion activities.

The importance of improved oral health of pupils not withstanding a good number of experts (Maxia, Petersen, Andre & Tascona, 2003, Ejike, Nnabueze & Pufaa, 2009, Ani, 2010, & WHO, 2003a) has reported evidences of poor oral health in school children. This goes further to reiterate that the onus of promoting oral health through proper oral health education lies squarely on the shoulders of the school through their teachers to redirect the pupils and establish a template for effective transcription and translation of both old and new concepts in oral health education. Okafor (2000) and Ejifugha, (2002) observed that primary school is the most effective base for inculcating of any desirable health habits aimed at improving

the life patterns of the general population not minding where it is located, urban or rural. Although Nwagu (2006), Karina (2008) and Nwobodo (2012) stated that location or living environment influences the provision of health services, however, no empirical evidence existed to verify whether the location of school affect the status of SBOHE primary school pupils in Enugu State.

Based on the above, and given the importance of SBOHE, the question arose as to what is the status of SBOHE for primary school pupils in Enugu state as perceived by their teachers? To achieve the above objective, the following research questions were formulated to guide the study:

1. What is the status of existence of oral health education methods in primary schools in Enugu State?
2. What is the status of utilization of oral health education strategies in primary school in Enugu State?
3. What is the status of provision of oral health education materials in primary schools in Enugu State?

Hypothesis

H_o: Provision of SBOHE in primary schools in Enugu State is not dependent on location.

Methods

The cross-sectional survey design was adopted for the study. The population for the study comprised all the 12,783 teachers in all the 1,208 government owned primary schools in the 17 local government areas of Enugu State (Enugu State Universal Basic Education Board (ESUBEB, 2012)

The study sample comprised 640 primary school teachers. This represented five per cent of the population. Nwana (1990) asserted that five per cent of the population serves as a good sample, if the population runs in thousands. The population for this study was in thousands, hence the use of five per cent of the entire population. The sample size was selected through multistage sampling procedure. The first stage involved stratified sampling of five LGAs that had urban and rural areas, which gave a total number of 4267 teachers (1845 rural and 2422 urban teachers). The essence of this was to enhance comparison of results on urban – rural bases.

Using proportionate random sampling technique, 15 per cent of the teachers which was the sample frame were proportionately drawn from urban and rural schools; this gave a total of 363 urban teachers and 277 rural teachers. The final stage of the sampling process involved the use of systematic random sampling technique to

draw the teachers from their various schools until the required number was obtained, by this all the teachers were given equal opportunity of being selected.

Instrument for data collection was a 15 - item questionnaire known as School – Based Oral Health Education Questionnaire (SBOHEQ) which was developed by the researcher. The face and content validity of the questionnaire was established through the judgment of two experts in health education and one expert in measurement and evaluation.

The reliability of the instrument was established by administering the instrument on 30 primary school teachers that did not form part of the study sample. In order to determine the internal consistency of the instrument; Cronbach Alpha formula was utilized to compute the reliability co-efficient. Uzoagulu (2011) adjudged this procedure suitable for computing the reliability of the instrument, the coefficient index was 0.81 which showed a high reliability of the instrument.

The instrument was administered directly to the sampled 640 primary school teachers with the aid of 10 research assistants. The research assistants were trained by the researcher in a one-day orientation meeting. This helped to foster interaction and communication between the assistants and respondents as they were able to explain to them points not understood by them. Thus, ensuring that the actual respondents for whom the instrument was meant were indeed those who completed them. The respondents were requested to complete the copies of the questionnaire on the spot and return same. Copies of the retrieved questionnaire were screened to select the properly completed ones for data analyses. Out of the 640 copies of questionnaire distributed and collected, 17 copies (9 urban and 8 rural) were not properly completed leaving 623 copies (354 urban and 269 rural) viable for use, this signified 97.5 per cent return rate.

The research question was answered using mean. The response options were weighted. The weighted scores were used to derive the mean scores item by item. In order to determine the status of SBOHE, limit of scores was adopted and interpreted thus: Very High Status (VHS) = 3.50 and Above, High Status (HS) = 2.50 - 3.49, Low Status (LS) = 1.50 - 2.49 and Very Low Status (VLS) =1.49 and below. The z-test statistic was employed to test the null hypothesis of the study at .05 level of significance. The decision rule for the hypothesis, were to reject Ho at .05 level of significance if z-calculated was greater than or equal to the z-critical (z-cal > z-cri), do not reject Ho, if z-calculated was less than z-critical (z-cal < z-cri) at

appropriate degree of freedom. Data were analyzed using Statistical Package for Social Science (SPSS) version 17.0.

Results

Table 1: Existence of oral health education methods in the primary schools

	Methods used for OHE in primary schools	(n = 623) $\bar{X}$	Dec.
1.	Lecture	2.61	HS
2.	Seminar	0.72	VLS
3.	Discussion	1.22	LS
4.	Group work	2.51	HS
5.	Problem solving	1.38	LS
6.	Debate	1.43	LS
7.	Teaching	3.68	VHS
8	Demonstration	1.01	VLS
Grand Mean		1.82	LS

Source: Field Survey(2013)

Table 1 shows that there was VHS for item 7, HS for items 1and 4, LS for items 3, 5 and 6 and VLS for items 2 and 8. The table further shows that the status of existence of oral health education methods is low as evidenced by the grand mean score of 1.82.

Table 2: Status of utilization of oral health education strategies in the primary schools

	Strategies used for OHE in primary schools	(n = 623) $\bar{X}$	Dec.
9.	Peer teaching	2.21	LS
10	Direct teaching	0.81	VLS
11	Integrated teaching	2.50	HS
12	Incidental teaching	2.52	HS
Grand Mean		**2.01**	**LS**

Source: Field Survey (2013)

Table 2 reveals that there was HS for items 11 and 12, LS for item 9 and VLS for item 10. However the grand mean showed a low status of utilization of oral health education strategies in primary school with mean scores of 2.01

Table 3: Provision of oral health education materials in the primary schools

	Provision of materials for OHE in primary schools	(n = 623) $\bar{X}$	Dec.
13.	Audio materials(radio, tape recorder etc)	1.31	VLS
14	Visual aids (boards,models,books,posters etc)	3.03	HS
15	Audio – visual aids(projectors,television, computer)	0.92	VLS
Grand Mean		**1.75**	**LS**

Source: Field Survey (2013)

Table 3 indicates that there was HS for item 14 and VLS for items 13 and 15. The table went further to indicate that the status of provision of oral health education materials in primary schools is also low as evidenced by the grand mean score of 2.01.

Table 4: z-test summary on the status of SBOHE in primary schools based on location

Location	n	$\bar{X}$	S^2	Df	Standard Error	Z-cal	Z-critical	Dec
Urban	354	2.18	0.91					
				621	0.78	1.359	1.960	Do not
Rural	269	1.72	0.89					Reject

The z-test results in Table four revealed that the z-calculated value (1.359) was less than the z-critical value (±1.960) at .05 level of significance. From the interpretation of the data, the research hypothesis was hereby not rejected. This implies that there was no significant difference in the status of provision of oral health education for urban and rural primary school pupils in Enugu State.

Discussion of findings

The finding in Table1 revealed that the status of oral health education methods in primary schools in Enugu State was low. The result was surprising considering that there are various methods to be adopted in oral health education; this is because a diversified instructional method is essential to effective oral health education. However, for this to be appropriate and acceptable to the target learners it should take into account the learning objectives and resources available. According to WHO (2003a), while some methods are more suitable for conveying knowledge, others are designed to provide skills and attitude. For example, lectures are more efficient in providing knowledge to a larger number of learners but they are less effective in teaching skills or in influencing beliefs or attitudes. Also while discussion, debates and problem solving exercise may be more useful in challenging perceptions and myths, practical sessions such as laboratory experiments and tooth brushing exercises are more effective in building skills. According to Alsoliman (2010) whatever method adopted for school oral health education, they should aim at promoting active involvement and reinforcement of the children. Going by these varieties of methods, one would have expected that these methods could have been fully utilized for the benefit of these children.

Table 2 revealed that the respondents' perceived status of utilization of oral health education strategies is low. This goes on to show that the teachers do not know or probably not well informed on the current and most functional strategies for oral health education, this is worrisome. The worry is precipitated on the fact that although WHO (2002) observed that

Strategy like peer teaching employs learners themselves to act as positive role models and educators for other children, it is not adequately used by the teachers. Studies have shown that the peer teaching method is effective in promoting oral health (WHO, 2003b). For example, peer leaders can help monitor other children to practice oral hygiene and develop self-care capacity in oral health. Furthermore, children may be encouraged to take the initiative to help develop innovative oral health education materials that are used by other learners

The result in Table 3 indicated that there was low status of provision of oral health education material in the primary schools, although a few aspects were reportedly and widely used .That visual aids like board, leaflets ,posters ,charts ,and models are provided represented a welcome development , however, this line of argument may not always hold when one considers the fact that in the present findings that auditory and audio – visual materials like radio, television and projectors was not adequately provided during oral health education was not encouraging. This low status in the provision of oral health education materials in primary schools suggested that many of the children would have been ignorant of the basic routine oral health practice. In the case of this result, it could be that the primary school teachers needed to be encouraged to cultivate the habit of reading and researching so as to keep abreast of the science and technological developments as related to the use of oral health education materials, or it could be that there was imbalance between curative and preventive or promotive oral health activities in the urban and rural schools as pointed out by Nwobodo (2012). It could equally be because of environmental and cultural practices which might thrive where the schools were located and which might influence or affect the school oral health directly or indirectly (Nwagu, 2006).

The difference in the status of oral health education and location was not significant. The no significant difference found in the status of oral health education was gratifying. This was because the schools were able to provide some oral health education for the pupils, regardless of their location (urban and rural). However, the finding could be necessitated by the kind of training and supervision given to teachers by the Government irrespective of their location.

Implications of the Findings

The findings of the study have far-reaching implication for personal health and hygiene of primary school pupils. This is because the quality of care and support especially those that pertains to the health of the child given to the child in an educational

system determines the wellbeing of the child and the system. Provision of quality oral health education for pupils in the school helps in curbing the prevailing oral health problems which the school pupils experience at various times. These oral health problems have serious interference with the primary school pupils' academic performance and by extension their success in life. Consequently, this calls for a serious challenge for teachers and health educators. The indispensable role of educating, mobilizing and motivating pupils by their teachers to acquiring oral health knowledge cannot be overemphasized, this is because, oral health education is considered by many as important part of primary health care, school health services and health promoting school (Nwimo, 2001, WHO, 2003a and Ezedum, 2006). This is most true of a developing country such as Nigeria and its rural setting where oral health services are rarely provided especially for children. There is therefore an urgent need for all to be involved in all health education programmes targeted at children. However, to imagine that the schools in this century could not offer the children better oral health education is unthinkable. This scenario, point to either of two things: the teachers were either willfully neglecting this aspect of education in primary schools or were ignorant of their expected roles. These by implication might be capable of truncating all the efforts made to shore up the education and health of the Nigerian children.

Conclusion

Based on the results and findings of the study, it would be concluded that the status of SBOHE in primary schools in Enugu State was low. Further, there was no significant difference in the mean scores of urban and rural primary schools on the status of SBOHE in Enugu State; hence the status of SBOHE in primary schools in Enugu State was not dependent on location. Basic education especially those that relates to oral health directly and personal health indirectly are not guaranteed in primary schools in Enugu State.

Recommendations

Based on findings of the study, the following recommendations aimed at improving the status of SBOHE are proffered:

1. The teachers themselves should be encouraged to prepare and upgrade themselves in the current theory and practice of Health education.
2. Oral health education should be emphasized and further highlighted in the primary school Health Education curriculum.
3. Enugu State Universal Basic Education Board (ESUBEB) should organize

periodic workshops and seminars for teachers under their employ. The focus of such workshop should be on equipping the teachers with the skills necessary for oral health education.

4. The ministry of education should pay more attention to the provision of teaching aids and other Health Education materials that will make teaching and learning of Health Education more efficient and effective.

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