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Research Article

Influence of Location on the Extent of Provision of School – Based Oral Health Promotion (SBOHP)

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ABSTRACT: *Poor oral health in children has been identified as one of the prevailing school health problem in developing countries. Occurrence of oral health diseases may prevent the school child from benefiting from various educational activities provided in the school. This is because among other problems, low oral health status may result to low school attendance and low self esteem, leading to poor school performance. It is in consideration of this enormity that it becomes imperative to the researcher to conduct a cross-sectional survey research aimed at ascertaining the perception of primary school teachers on the influence of location on the extent of Provision of School – Based Oral Health Promotion (SBOHP).One purpose of study and one hypothesis guided the study. Population was 12,783 and sample was 640 teachers which were drawn using multi-stage sampling procedure. School – Based Oral Health Promotion Questionnaire (SBOHPQ) developed by the researcher was the instrument for data collection. Validity of the instrument was established through the judgment of three experts in Health Education and the reliability index value yielded 0.82, using Cronbach Alpha statistic. Data were analyzed using Z test statistic for the null hypotheses at .05 level of significance. The findings revealed that location influenced the extent of provision of SBOHP in public primary schools in Enugu State. Based on the foregoing, a number of recommendations were put forward which included that oral health education and promotion services should be provided in schools at both rural and urban settings.*

Keywords**:** *Health education, Location, Oral health, Pupils, Status.*

I. INTRODUCTION

Oral health is described as a state of complete, physical, social and physiological condition of the mouth, not merely the absence of disease or infirmity of the mouth. It is recognized as important in relation to general health, but unfortunately this state of health may be eluding the school children due to excruciating pains they may be going through as a result of oral diseases. Oral disease in children is one of the most costly diseases which can lead to severe pain, tooth loss, school absenteeism, poor academic performance, a condition that affects the appearance, quality of life, nutritional intake and consequently, the growth/ development of children and even death. In fact, the burden of oral disease in school aged children is very diverse. Oral health appears to be elusive among Nigerian school children as demonstrated by the observation of [1]. This report explains that oral health is seen as a very low priority in the African Region, where extreme poverty means that the limited resources available to the health sector, are directed towards life threatening conditions such as HIV/AIDS, tuberculosis, malaria and other communicable and non-communicable diseases. [2] posited that oral diseases affected the quality of life of school children. School pupils frequently suffer from oral health diseases and defects and a significant number of children suffer from illness and pain related to the mouth [3]. Consequently, poor oral health of a school child may prevent the child from benefiting from various educational activities. This is because among other problems, low oral health

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status may result to low school attendance and low self esteem, leading to poor school performance. It can be deduced that unhealthy mouth can lead to poor nutrition, poor digestive process leading to malnutrition of the school child, speech problem as well as distraction from attendance to school and interfere in the learning process of the school child. Similarly, [2] indicated that poor oral health could have a detrimental effect on children's performance in school and their success in later life. Hence, children who suffer from oral health related diseases are more likely to have more restricted daily activity including missing school than those who do not [4]. From the foregoing, oral diseases remain a major public and perhaps school health problem worldwide and may be salvaged through SBOHP [5]. School-based oral health promotion is the integration of oral health promotion strategies into the various components of the school health programme. It is that aspect of school health programme and services which provide regular oral health screening, prevention, control and monitoring of onset of oral diseases and condition as well as maintain good oral health among the school children [6] in addition SBOHP play the important role in promoting school children's oral health by supporting the efforts made by the community and families like providing training expertise and supply of oral health materials, hence in SBOHP, the oral health team works collaboratively with the primary health care team to provide accessible oral health service for the school children. Such a school offers many opportunities to promote oral health as an integral part of health and well being. The effectiveness of SBOHP is influenced by the extent to which the programme are made available and each of these components to integrate and complement with other health promotion efforts. According to [7],[6] and [8] SBOHPS include provision of routine appraisal of the children's mouth, emergency oral health services, creation of supportive healthy school environment and provision of school oral health education. These services are what should be obtained in all the schools irrespective of where it is located. While there has been improvement in oral health generally, poor oral health of children still remains one of the most common childhood diseases, in urban and rural, industrialized and developing cities [2]. A substantial proportion of children in many rural communities are affected by oral problems and most of the problems may be left untreated due to limited access to oral health services in rural areas. [5] observed that location may be a factor for oral health but suggested that SBOHP still remained a focal point to curbing and preventing oral health problems especially among school children. According to [2] the models for providing SBOHP may vary immensely between, as well as within developed (urban) and undeveloped (rural) areas. Consequently, Schools, no matter the location (urban or rural) have always been part of health promotion especially as regards improving the health of the pupils in the school environment. Apparently, for primary school to achieve the lofty objectives set in the educational curriculum, due attention must be given to the pupils health through health promoting school which by extension encourages oral health promotion through the various programmes. According to [9] primary school is the most effective base for inculcating of any desirable health habits aimed at improving the life patterns of the general population irrespective of where it is located.

Location refers to a place where something happens or exists. It can also be seen as a place of residence. Location can either be considered as urban and rural environment and or according to geographical region. Urban location are referred to the location that has basic amenities like pipe borne water, tarred road, electricity and exposure in the area of health, education and business. On the other hand, where these factors that characterized urbanization is lacking is regarded as rural location or setting.

Studies carried out on oral health had shown at various times that location or living environment influence oral health status. This is because the remoteness of an area may bring about poor dental man power, meager facilities and limited resources. Also oral health problems were more prevalent among people from the poorest area of the world which in many cases are rural and remote in nature, where resources for promoting and maintaining dental and oral health are limited, children from rural areas reported high percentage of inadequate oral hygiene than children from urban areas[10]. In addition [11] observed that rural and remote areas may make people more disadvantaged to access oral health services due to bad condition of roads. He also noted that while people in the urban cities may be enjoying the services of qualified dental personnel at their disposals, rural dwellers may has long un tarred distance, hence impeding the frequent visits of dentists and or establishment of dental care institutions in that area.

Similarly, [8] also found that while knowledge, attitude and practice of oral health are high in women from urban location it was found to be moderate in women from rural areas. According to [12] location affects people's way of accessing health services including oral health services. In analyzing the oral health seeking behaviour and oral health programme for

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Quenchua indigenous people of Peru, Karina noted that remoteness of the area affected their oral health status. The Quenchua people lacked accessibility to dental services due to the geographic isolation of where they live. He further noted that more than 80% of the urban population has access to iodized and fluoridated salt; while not up to 60% rural population have access to it. Due to their geographical barrier, they lacked awareness of measures to improve their oral health thereby making them vulnerable to supposed preventable diseases like oral diseases. According to [10] in their study, the common factor associated with oral health was children from rural areas reported high percentage of inadequate oral hygiene than children from urban areas; they suggested that these differences could be that SBOHPS are not being implemented in schools. For instance while there may be comprehensive on site oral health facilities in schools in urban the reverse might be the case in the rural schools. However, this postulation has not been empirically ascertained in the study area; hence the need for the study. The main purpose of the study was to establish the association between location and extent of provision of SBOHP in public primary schools in Enugu State.

1.1Research question: Does Location affect the extent of provision of SBOHP in public primary schools in Enugu State?

1.2 Hypothesis

Location is not a significant factor with respect to the extent of provision of SBOHP in public primary schools in Enugu State.

II. METHODS

The cross sectional survey design which explains and interprets issues and conditions in their current setting [13] was adopted. 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 [14]. The study sample comprised 640 primary school teachers (277 rural and 363 urban); this represented five per cent of the population. [15] 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.

Instrument for data collection was 32 item questionnaires known as School-Based Oral Health Promotion Questionnaire (SBOHPQ) which was developed by the researcher. The questionnaire was arranged in 4 point scale of Very Great Extent (VGE), Great Extent (GE), Low Extent (LE) and Low Extent (VLE). Validity of the instrument was established through the judgment of two experts in health education and one expert in measurement and evaluation. The reliability for internal consistency was determined using test re test method. The coefficient index value yielded .81 using Cronbach Alpha statistic.

The instrument was administered personally by the researcher with the aid of 10 research assistants. 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 were not properly completed leaving 623 copies viable for use, this signified 97.5 per cent return rate.

The z-test statistic was employed to test the null hypothesis of the study at .05 level of significance. The decision rule for the hypotheses, 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.

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III. RESULTS

Table 1: Summary of Z-Test Analysis Verifying the Difference in the Mean Responses of Urban And Rural Primary School Teachers on the Extent of Provision of School-Based Oral Health Promotion (SBOHP) in Public Primary Schools in Enugu State.

Location	N	$\overline{X}$	S^2	Df	Standard Error	Z-cal	Z-critical	Decision
Urban	354	2.57	0.88		0.67			
Rural	269	1.43	0.79	621		2.013	1.960	Reject

Data in TABLE 1 showed that the calculated z-value of 2.013 was higher than the table z-value of 1.960 at .05 level of significance at 621 degree of freedom. This means that significant difference does exist between urban and rural primary schools regarding the extent of provision of School Based Oral Health Promotion (SBOHP) in public primary schools in Enugu State.

IV. DISCUSSION

Result showed that significant different existed between urban and rural primary schools on the extent of provision of SBOHP. This finding was in agreement with [12] who found that location affects people's way of accessing health services. This finding agrees with [10] who observed that school children from urban tended to have better oral health than pupils from rural areas. Due to the remoteness of the location, there might be poor dental man power, meager facilities and limited resources to cater for oral health of school pupils during school period [11,12]. In addition, [5] while lamenting at this finding, noted that mixture of factors like inappropriate dental curricular, inadequate number and distribution of oral health personnel, low awareness of oral diseases and little or no involvement of communities where schools were located in promoting oral health and providing oral health emergencies could equally be contributing factors. Similarly [16] indicated that location was an environmental factor that influenced any health promotion programme.

Perhaps, while primary school pupils in urban schools might be enjoying the services of qualified dental personal at their disposals, primary school pupils in rural schools might be having problem in accessing oral health services due to bad condition of roads, environmental factors like belief, culture and lack of oral health awareness on their part and that of their teachers. The above assertion further noted that due to location barriers, rural people lacks awareness of measures to improve their oral health thereby making them vulnerable to supposed preventable diseases like oral diseases. This finding concurs that of the report of [17], who observed that oral health problems were particularly prevalent among primary school pupils; be that as it may, the finding in this study was unexpected and surprising. One would have expected better result especially when it related to matters that affected children. Owing to the fact that primary school administrators experienced the same kind of training and were exposed to similar supervision irrespective of their location.

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4.1 Health Education Implications of the Finding

The findings of the study have far-reaching implication for Health Education. Health education is a process of persuading individuals or groups to accept those behaviours that are beneficial to them and reject those behaviours that are detrimental to their health. Therefore, health education is a strong force which could be utilized by the members of the society for the solution of its social, political, economic, health and educational problems. The process of providing oral health promotion programmes for pupils in the school helps in curbing the prevailing oral health problems and was considered in this study as a serious challenge for health educators and other health and education professionals. The indispensable role of educating, mobilizing and motivating pupils, teachers and community members to provide oral health in primary schools cannot be overemphasized.

Oral health education is considered as part of primary health care and school health services [2]. 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 involve themselves in all health education programmes targeted on children.

However, to imagine that the schools in this century could not offer the children better services is unthinkable. This, to state the least, points to either of two things: the teachers were either willfully neglecting the oral health of the primary school pupils or were ignorant of their expected roles. These by implication might be capable of truncating all the efforts made by the Federal Ministry of Education, Federal Ministry of Health, Millennium Development Goals (MDGs), Vision 20-20-20 and other International Governmental and Non-governmental Organizations (NGO's) to shore up the education and health of the Nigerian children.

While the provision of SBOHP in some schools is a welcome development, the near absence of it in rural schools is unfortunate. The implication is that preempting and following up problems capable of stalling the children's health and learning would for as long as the condition persists, remain a mirage. This should create platform or spring board for the health education specialists, the government, NGOs and the general community to help in improving the oral health provision in the primary schools.

V. RECOMMENDATIONS

In the light of the findings of the study, the following recommendations were proffered for improvement:

1. Oral health specialists, professionals and health educators as a matter of urgency should embark on intensified public enlightenment campaign, so as to help spread information on how to improve the pupils, their parents and the general public's knowledge on various aspects of school oral health.
2. Oral health education and services should be introduced in schools where it does not exist and or improved in primary schools where it exists by the primary school management board and or the school administrators. This will go a long way in checking oral health problems.

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