

Factors Influencing the Choice of Health Science Subject at the Senior Secondary School Level in Ekiti State, Nigeria

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Abstract

This paper examined factors influencing the choice of Health Science subject by Senior Secondary School students in Nigeria. A simple random sampling technique was used to select eight hundred (800) Senior Secondary School II students in Ekiti State senior secondary schools located in ten local government areas. A questionnaire designed and validated by the researchers was used to gather relevant information. Data collected were analysed with the use of multiple regression. Findings revealed that personal interest of the students, availability of school health facilities and equipment, parental decision and school health counselling services were better predictors to the students' choice of health service than peer group, teachers' personality, class size and West African Examination Council / National Examination Council (WAEC/NECO) requirements. Based on these findings, it was recommended that students' personal interest should be greatly considered in the choice of Health Science subject and the school counsellors should be more enlightened on the relevance of Health Science/ Health Education to the national development.

Keywords: Factors, Influence, Choice, Health Subjects, Senior Secondary Schools, Ekiti State, Nigeria

1.0 Introduction

Nigeria, as a developing country, is really emphasising the values of science and technology to improve its manpower requirements. The importance of science cannot be over-emphasised, most especially Health Science among other Sciences in the development of a nation's manpower (Eke, 1988 and Ojeme, 1990). It is inconceivable to note that the physical fitness level of the labour force, coupled with the positive health attitudes, knowledge and practices are the qualifying factors for human effectiveness. Furthermore, the secondary school educational objectives as contained in the National Policy on Education (1991), are to prepare the students for useful and healthy living within the society and later cater for difference in talents and opportunities. These objectives could be achieved by exposing the students to the study of Health Science contents, and thus, equipping them to live effectively and serve best. Within the realms of Sciences, Health Science is highly recognised internationally as an important discipline, most especially, in the western world (Fawole, 1987 and Oshodin, 2004). Health Science as a discipline of applied science deals with human and animal health. It involves the study, research, and knowledge of health and the application of that knowledge to improve health, cure diseases, and understanding how humans and animal function (Ogunniyi and Yandila, 1994). Health Science education has its root in the recognition by victorious society that had changed from an agrarian society in United Kingdom to one dominated by a reliant, scientific and technological expertise. In 1851, the Great Exhibition in United Kingdom brought the realisation that this new society could only be sustained by ensuring that a body of people were educated in Health Science and Technology (Secondary Education Review, 1998). In Nigeria, Health Science is included in the Senior Secondary School curriculum as an examination subject at the West African School Certificate Examination and National Examination Council (WASCE/NECO) levels, to attract many talented young Nigerians to a career which provides the cornerstone for optimum effectiveness in a democratic society.

The choice of Health Science, among other sciences by the senior secondary school students is a key figure which the school authority is expected to look into. Studies revealed that senior secondary school students prefer Chemistry, Physics and Biology to the choice of Health Science (Okeke and Wood-Robinson, 1980; Erinsho, 1994). Over nine out of ten senior secondary school students are taking either Physics or Chemistry and Biology with approximately 20,000 candidates for WAEC/GCE/NECO, while students' enrolment for Health Science is always considerably low. About one out of every ten senior secondary school students, of which just 600—1,000 senior students registered in WAEC/NECO/GCE examinations (WAEC/GCE Reports, 2000—2006). It was reported that Physics had increased from 38% to 50%, Chemistry 40% to 50%, Biology 18% to 38% while Health Science with lesser candidates from 10% dropping to 6% (Secondary Education Review, 1998—2005). Findings revealed that many senior secondary principals believe that students' decision not to offer Health Science are determined by the influence of the significant factors

such as peers, school counselling services, school teachers, class size, parents and provision of school health facilities, equipment and supplies. Health Science is unpopular among subjects in senior secondary school in Nigeria because no deliberate efforts or steps have been taken to promote it. In most Federal and State Colleges of Education, teachers are not trained specifically in Health Science.

Examining the influence of teachers on the choice of Health Science, Akanbi (1983) claimed that the students only held practical sessions/lessons once in four weeks. Furthermore, analysis was done on how frequently class oral discussions were held immediately after practical session. Findings revealed that reasons for Health Science are that many schools lacked enabling Health Science facilities/ equipment and supplies coupled with inadequate qualified and experienced personnel and non-motivational forces from the education stakeholders to cope with the stress and concept of regular practical session (Hawes, 2003 and Alfred, 2003). The non-challant attitudes of some senior secondary school principals and the inconsistency of the government policies on Nigerian educational system are identified as variables towards the choice of Health Science subjects. At times, the senior secondary school principals restricted the recruitment of teaching staff and merging of subjects such as Biology and Health Science following the government directives (Okebukola and Jegede, 1992). In spite of the values of Health Science as identified, it is observed that secondary schools in Nigeria usually record low enrolment of students offering the subject. Omolawon (2000) asserted that the major reason for low enrolment in the subject is that the school counsellors are not personally interested in the subject matter. Similarly, the shortsightedness of the school principals who hide under the pretext of satisfying West African Examination Council (WAEC) and National Examination Council (NECO) regulations usually discourage the talented and interested students in the choice of the subject. They often advise them towards offering more popular and general subjects such as Biology, Agricultural Science, Economics, Government, and Commerce. This reduces the number of students' enrolment for WASCE/NECO and admission of potential Health Science students into higher institution thus, reducing the production of future manpower in the profession. Most of the studies carried out on the choice of Health Science in Ekiti State have not provided sufficient and reliable data on which inference could be based. Furthermore, there is a noticeable increase in the choice of popular science and other general subjects among senior secondary school students, just as there seems to be a decrease in the choice of Health Science at the senior secondary school level in Ekiti State. However, the magnitude of this problem is not quite known. This study was therefore, designed to examine some variables which determine the students' choice of Health Science at senior secondary school level in Ekiti State and determine the contributing effects of the variables on students' choice of future careers. The justification for using Ekiti State for the study is that Ekiti State is the "Fountain of Knowledge" with high quality of education particularly in the choice of science subjects in their various senior secondary schools. Ekiti State has also produced the greatest number of professors in various fields of endeavours in Nigeria and other parts of the world.

2.0 Research Hypotheses

The following hypotheses were raised for the study:

There is no significant relationship between students' personal interest and peer group influence in the choice of Health Science at the senior secondary school level in Ekiti State. There is no significant relationship between the availability of school health facilities and equipment and class size in the choice of Health Science at the senior secondary school level in Ekiti State. There is no significant relationship between parental influence and teachers' personality in the students' choice of Health Science at the senior secondary school level in Ekiti State. There is no significant relationship between the school counselling services and regulation for external examinations registration in the choice of Health Science subject at the senior secondary schools in Ekiti State.

2.1.1 Method

A descriptive research of the survey type was used for the study to be covered. The population of the study consisted of eight thousand (8,000) senior secondary schools (SSS II) students in one hundred and fifty-three (153) Ekiti State secondary schools. A multistage simple random sampling technique was used to select eight hundred (800) senior secondary (SSS II) students for the study from ten out of sixteen (16) local government areas of Ekiti State. Four senior secondary schools were randomly selected in each of the ten sampled local government areas. In all, 20 SSS II students were randomly selected from four senior secondary schools that had presented candidates for Secondary School Certificate Examination and with equal number of students from each local government area. Senior secondary school students were used for the study because of their level of maturity.

A self-developed questionnaire, consisting eight items with four point rating scale was used for the study. The questionnaire was sub-divided into sections A and B. *Section A* was designed to collect information on the students about their future careers. *Section B* consisted of items based on the variables used for the study, such as class size, peer groups, school counselling services, students' personal interest, parents' and teachers' personality. The instrument was given to three experts in Health Education and Test and Measurement for face and content validities. Their corrections and observations yielded the final draft used for the study. The instrument was tested for reliability using test—re-test method which involved one hundred and fifty (150) participants outside the sample used for the study. A reliability coefficient of 0.79 was obtained using Pearsons' Product Moment Correlation coefficient. The instrument was self-administered to the participants in their respective schools with the assistance of ten secondary school sports-masters and mistresses. All the eighty (80) copies of administered questionnaire were duly completed and returned, this making a 100% return rate.

2.1.2 Results

1. There is no significant relationship between students' personal interest and peer group influence in the choice of Health Science at the senior secondary school in Ekiti State. Table 1: Relationship between students' personal interest and peer group influence in the choice of Health Science at SSS level in Ekiti State

Source of Variation	SS	df	M_{ss}	F_c	F_t	Inference
Regression (SS_{reg})	29.6	2	14.8	3.22	5.79	NS
Regression (SS_{res})	9.6	5	1.9			

P=0.05 NS = Not Significant

Table 1 revealed that F-calculated value of 3.22 was less than F-table value of 5.79 at df 2,5 and p=0.05. Hence, research hypothesis 1 was accepted. Therefore, there is no significant relationship between students' personal interest and peer influence in the choice of Health Science subject at the senior secondary school in Ekiti State. Furthermore, putting peer group influence aside, for every increase in personal interest (3.62), there was a corresponding decrease in peer group influence (0.09) in the choice of Health Science among senior secondary school students in Ekiti State. Therefore, personal interest of the students was a better predictor than peer group influence and has relationship with the choice of Health Science at the senior secondary school level.

2. There is no significant relationship between the availability of school health facilities/equipment and class-size in the choice of Health Science at the senior secondary school level.

Table 2: Relationship between the availability of school health facilities/equipment and class size in the choice of Health Science at SSS level in Ekiti State

Source of Variation	SS	df	M_{ss}	F_c	F_t	Inference
Regression (SS_{reg})	32.44	2	16.22	1.76	5.96	NS
Regression (SS_{res})	46	5	9.2			

P=0.05 NS = Not Significant

Table 2 revealed that F-calculated value of 1.76 was less than F-table value of 5.96 at 0.05. Hence, research hypothesis 2 was accepted. Therefore, there is no significant relationship between the availability of school health facilities/equipment and class size in the choice of Health Science subject at the senior secondary school level. Furthermore, putting class size aside, for every increase in the availability of school health facilities/equipment (0.57), there was a corresponding decrease in the class size (0.15) in the choice of Health Science subject among students in senior secondary schools in Ekiti State. Therefore, the availability of essential school health facilities and equipment was a better predictor of the students' choice of Health Science subject than the class size at senior secondary school level.

3. There is no significant relationship between parental influence and teachers' personality in the students' choice of Health Science at the senior secondary school level in Ekiti State.

Table 3: Relationship between parental influence and teachers' personality in the choice of Health Science at the senior secondary school level

Source of Variation	SS	df	M_{ss}	F_c	F_t	Inference
Regression (SS_{reg})	-9.41	2	4.71	-0.51	5.79	NS
Regression (SS_{res})	46	5	9.2			

P=0.05 NS = Not Significant

Table 3 showed that F_c value of -0.51 was less than F_t value of 5.79 at df 2,5 and 0.05 alpha level. Therefore, H_{O3} is accepted. Thus, there is no significant relationship between parental influence and teachers' personality in the students' choice of Health Science at senior secondary school in Ekiti State.

Furthermore, putting teachers' personality aside, for every increase in parental influence (5.13), there was a corresponding decrease of teachers' personality (0.001) in the choice of Health Science subject among senior secondary school students in Ekiti State. Therefore, parental influence or decision is a better predictor than teachers' personality in the choice of Health Science at the senior secondary school level in Ekiti State.

4. There is no significant relationship between the school counselling services and regulations for external examination registrations in the choice of Health Science subject at the senior secondary school level in Ekiti State.

Table 4: Relationship between school counselling services and regulation for external examinations in the choice of Health Science subject at the senior secondary school level in Ekiti State

Source of Variation	SS	df	M_{ss}	F_c	F_t	Inference
Regression (SS_{reg})	3936.57	2	1968.29	213.94	5.79	S
Regression (SS_{res})	46	5	9.2			

P=0.05 S = Significant

Table 4 showed that F_c value of 213.94 was greater than F_t value of 5.76 at df (2,5) and 0.05 alpha level. Therefore, H_{O4} is rejected. Thus there is a significant relationship between school counselling services and regulation for external examination registration in the choice of Health Science subject at the senior secondary school level.

Furthermore, putting regulation for external examinations registration aside, for every increase in the school counselling services (27.05) there is a corresponding decrease in the regulations for the external examinations registrations (0.88) in the choice of Health Science subject at the senior secondary school level in Ekiti State. Therefore, school counselling service is still a better predictor than the regulation for the external examination registration in the choice of Health Science subject at the senior secondary school level.

3.0 Discussion

Finding from this study revealed that the provision of modern school health facilities/equipment and supplies is a better predictor of the choice of Health Science by the students at the senior secondary school level. It is the major determinant of class size. This statement agreed with the findings of Ajisafe (1991) and Oshodin (2004) that the provision of school health facilities and equipment especially in the area of Health Education or Health Science are often regarded as part of the most essential tools designed to facilitate and stimulate educational programme, and also coupled with the availability of competent and knowledgeable school personnel with relevant motivation forces towards enhancement of teaching-learning situation. Nwajei (1993) pointed out that in many places where the health facilities or equipment are provided, the teachers take little or no interest to organise the students to use and maintain them. Furthermore, the students' personal interest predicts their choice of Health Science than the interest of their peer group. The determination of students to choose a particular subject should be viewed as their personal interest in the subject based on their experiences and focus as future career (Uke, 1974).

Parents significantly predict the students' choice of subjects at the senior secondary school level owing to the fact that, they are co-educational stakeholders and considering their experiences and the expectations for their offspring in future. This contradicts the claim of Fawole (1987) that most parents show little or no interest in whatever their children learn in Health Science of Health Education, they rather concentrate on other subjects with least attention to Health Education. However, the classroom teachers' personality in terms of mastery of the subject matter, methods of teaching, interest and his personal attitudes towards the future of students contribute to the students' choice of subject

especially Health Science at the senior secondary school level (Akanbi, 1983). Furthermore, this study revealed that school counselling services rendered by the non-science oriented school counsellors, coupled with school principals, who are not interested in Health Science, significantly influence the choice of the subject at senior secondary school level. They ensure that those students interested in Health Science are discouraged at the decision level to choose another career. The WAEC and NECO do not include Health Science as one of the six or seven compulsory subjects to be offered. Therefore, the subject is optional for the students.

4.0 Conclusion and Recommendations

The study revealed that school counselling services, parents, availability of modern school health facilities, equipment and supplies and students' personal interest significantly relate to the choice of Health Science by the students at senior secondary school level in Ekiti State. The implication of this problem is that it could reduce the production of required nation's manpower in disciplines like Nursing and other paramedical fields of study. Based on these findings, it was recommended that: There should be an inclusion of some compulsory basic courses in Health Education or Health Science in Guidance and Counselling curriculum of all teachers' education programme in Nigeria. The education stakeholders should provide adequate and modern health facilities, equipment and supplies in schools for effective teaching and learning of Health Science or Health Education. There should also be room for improvisation of Health Science equipment by the teachers of Health Science. Talented and interested students should be allowed to make personal decision in the choice of Health Science for future career.

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