.INFLUENCE OF GENDER ON SCIENCE TEACHERS ATTITUDES TOWARDS TEACHING HUMAN SEXUAL REPRODUCTION IN EDUCATION DISTRICT 1 OF LAGOS, NIGERIA

[1]ABDULAZEEZ, Bolanle Tawakalt-Anu, [2]BELLO, Zakariyau Adebayo, [3]IBRAHIM, Hassan Bisiriyu & [4]BELLO Sefiya

[1]HOD Science Department, Guardian Angels success schools, Ilorin
bolanleabdulazeez@gmail.com.
[2]Department of Integrated Science, Kwara State College of Education Ilorin.
P.M. B 1527 Ilorin, Nigeria
Zakbay26@gmail.com.
[3]Department of Integrated Science, Kwara State College of Education Ilorin.
P.M. B 1527 Ilorin, Nigeria
Yurisibi44@gmail.com.
[4]Department of Biology, Kwara State College of Education Ilorin.
P.M. B 1527 Ilorin, Nigeria. safiyyahbello36@gmail.com

Abstract

Young people need to have a sound knowledge of the changes that accompanies adulthood. This will reduce their quest for adventure born out of curiosity. Such knowledge was intended in the biology curriculum through topics related to human sexual reproductive health. Therefore, this research found out the influence of gender on teachers attitude towards teaching human sexual reproduction. This research was a descriptive survey, used an adapted research instrument tittled "Teachers' Attitude Towards Teaching Human Sexual Reproduction" (TATTHSR). A reliability coefficient of 0.78 was obtained using cronbach's Alpha at 0.05 level of significance. Stratified random sampling was used to select 285 teachers from 145 senior schools comprising of Agege, Alimosho, and Ifako/Ijaiye local government areas of lagos state. The result shows that Teachers' attitudes towards teaching human sexual reproduction was positive and it was more pronounced in co-educational schools when compared with teachers in single sex schools and There was no statistically significant difference between the attitudes of male and female teachers towards teaching human sexual reproduction in Education District 1 of Lagos among others, The study recommends that human sexual reproduction should be made reasonably voluminous with instructions that could give students firsthand information on sexual and reproductive health and The topic should be moved to the first year of the senior secondary school curriculum so that it will be taught to students at the time they need to know about their sexuality.

Keywords: Gender, Teachers Attitudes & Human Sexual Reproduction

Introduction

Science plays an important role in a developing nation; it brings about civilization and technological advancement. Its importance cannot be overemphasized because it effects are felt in all ramifications. The word "science" is derived from Latin word "scientia" which means knowledge so science as a discipline is termed to be a creative structure, built on facts. According to Abimbola (2013) science is defined as a body of knowledge, a way or method of investigating, and a way of thinking in order to understand nature. Olorundare (2014) described science as a self criticizing, self correcting and an improving activity which deals with facts relating to the natural phenomenon of the universe and how these are interpreted.

The Business dictionary (2021) defined science as a body of knowledge comprising of measurable or veritable facts acquired through application of the scientific method and generalized into scientific laws or principles. The attitudes or values that underlie 'sciencing' is known as the spirit of science which includes longing to know, questioning of all things, search for data and their meaning, demand for verification, respect for logic, consideration of premises and consideration of consequences (Olorundare, 2016). Teachers who teach science are not scientists but science teachers who have undergone teachers' training in science education.

Science education is a field concerned with sharing science content and processes with individuals that are not traditionally considered part of scientific community. The goal of science teaching is to produce scientifically literate citizenry (Olorundare, 2014). Biology is an important science subject taught in schools and colleges. It educates a child on the anatomy and physiology of his body therefore making him understand and cope with the natural changes that accompany adulthood; this would be if the subject is well taught with a positive attitude.

Sarojini (2001) defined biology as the study of living things interacting with its non-living components. Ahmed (2012) opined that biology helps an individual to understand the parts of his body and their functions enabling such individual to question superstition due to certain interest arising from comprehension of causes and events bringing into focus the need to maintain good health. The researcher submitted that biology as a science subject in the school curriculum is designed to ultimately produce educated individuals some of whom may or may not take biology in their professional studies or pursuit. However, in whatever profession these individuals find themselves, it is hoped that the biology education they have acquired in the school will be of value to the totality of their lives.

Biology educates a child on the anatomy and physiology of his body therefore making him understand and cope with the natural changes that accompany adulthood; this would be if the subject is well taught.

Children growing from teen ages to adults experience a lot of changes in their body systems and behavior, some of which comes along with the transition and age difference while some as a result of heredity and environmental factors like peer group pressure, religious indoctrination and mass media (Osakinle, Babatunde &

Alade, 2013). These changes are mostly due to the development of secondary sex cells or reproductive organs.

Reproduction as defined by Michael (2012) is the ability of living organisms to give rise to new individuals of the same specie. The researcher was of the opinion that the purpose of reproduction is continuity of life. Reproduction as a topic in the senior school biology syllabus is the only source of sexual and reproductive health information in senior secondary schools in Nigeria (Aransiola, Asa, Obinjuwa, Olanrewaju, Ojo & Fatusi, 2013).

Mlyakado (2013) submitted that reproduction is not the only topic through which teachers teach sexuality education in Tanzania. The researcher asserted that topics such as; sexual intercourse at early stages, sexually transmitted infections and HIV/AIDS, body and behavior changes in adolescents among other topics related to reproductive health are taught in Tanzania. This should serve as source of information on sexual and reproductive health for young people in senior secondary schools in Tanzania but many teachers have a negative attitude towards teaching these topics. In the teaching and learning process, the role of a teacher cannot be totally displaced, what students at all levels know and achieve intellectually depends largely on what their teachers teach; how these are taught and the faithfulness with which the job is conducted (Olorundare, 2016).

Adedeji and Bello (2016) defined a teacher as a unique human being who has learnt to use himself effectively and efficiently to help a society achieve their own purpose of education. A teacher is also a person whose job is to teach in a school or college thereby facilitating the teaching and learning process. Teachers have an important role in classroom behavior management and the achievement of teaching aims which makes an important contribution to students' academic success (Gelisli, 2007). The Great School Staff (GSS) blog (2016) is of the opinion that teaching is one of the most complicated jobs today. It demands knowledge of subject matter, curriculum and standards; enthusiasm, love for learning and knowledge of discipline, classroom management techniques, a desire to make a difference in the lives of young people and most of all; a caring attitude.

Reproduction as a topic in the senior school biology syllabus is the only source of sexual and reproductive health information in senior secondary schools in Nigeria (Aransiola, Asa, Obinjuwa, Olanrewaju, Ojo & Fatusi, 2013).Teachers' attitude towards their profession are mostly related to liking of their job, commitment to their job awareness of the necessity and importance of their job to the society, and the belief that they have to develop themselves constantly for their profession (Temizkan, 2008). Positive teachers' attitude leads to effective teaching, this is because learners find teachers with positive attitude interesting irrespective of their gender. Abidoye (2015) affirmed that gender has no influence on the perception of biology teachers. Edu, Edu and Kalu (2012) also submitted that gender has no influence on the attitudes of teachers. Contrary to these were the submissions of Tran (2015), the researcher was of the opinion that there is significant difference between

male and female teachers' perception of teaching efficiency, job satisfaction and job stress in all school types.

Statement of the Problem

Many teachers do not feel comfortable when discussing sexual issues with students in the classroom likewise parents, guardians and healthcare workers are unwilling to provide complete, accurate, age-appropriate reproductive health information to young people

In the Nigerian culture, it is a taboo to discuss sex openly. Many adolescents do not feel comfortable discussing sexual issues with parents or other adults with whom they can talk about their reproductive health concerns. Likewise, parents, health care workers and teachers are unwilling to provide complete, accurate, age-appropriate reproductive health information to young people (Osakinle, Babatunde & Alade, 2013). The only source of sexual information young people get in senior secondary level of education is what is taught in reproduction in the biology syllabus. However, observations and studies have shown that teachers are shying away from this topic (Aransiola, Asa, Obinjuwa, Olanrewaju, Ojo & Fatusi, 2013).

Adolescents quest for adventure have made them become sexually active at a younger age. Therefore, awareness about sexual and reproductive health matters. In spite of the introduction of sexuality education in secondary schools for more than a decade now, sources from research works, the media and the general public. Showed that the implementation is haphazardly carried out. Consequently, students grow into adults not really being knowledgeable about their sexuality and related issues. This could be as a result of teachers not teaching topics related to reproductive health in biology because of their perception of those topics or their attitudes towards those topics.

According to the submissions of Ahmed (2012), it is not enough for students to pass all assessment and evaluation but also to be able to apply the knowledge of biology to their lives even if they do not want to take up a career in science.

Meanwhile the impact of biology is not felt in the lives of young people as they have the higher percentage in statistics of unhealthy habits like drug abuse and indiscriminate sex, which leads to emotional and psychological disorder, sexually transmitted infections and unplanned pregnancy. These might be because young people do not get relevant information on sexual and reproductive health.

Purpose of the Study

The main purpose of this study was to find out the influence of gender on the attitudes of biology teachers towards teaching human sexual reproduction in Education district 1 of Lagos state, Nigeria. Specifically, the study examined;

1. the attitudes of biology teachers towards teaching human sexual reproduction in co-educational and single sex school.
2. gender influence on attitudes of biology teachers towards teaching sexual human reproduction.

Research Questions

The following research questions guided this study

1. What are the attitudes of biology teachers towards teaching human sexual reproduction in co-educational and single sex school?
2. Does gender have any influence on the attitudes of biology teachers towards teaching human sexual reproduction?

Research Hypotheses

The following null hypotheses were formulated and tested in this study

1. There is no significant difference in the attitudes of teachers of co-educational (mixed) schools and single sex schools.
2. Gender does not significantly influence the attitudes of biology teachers towards teaching human sexual reproduction.

Literature Review

Empirical Studies on Adolescents' Sexual Behavior

The adolescence period has been described as a period of storm and stress, when young children are prone to risks with regard to sexual activities. Moreover, at this period some adolescents lack access to sufficient information, parental guidance and even sufficient counseling services. Many unmarried girls and boys are sexually active before the age of fifteen without the benefits of information, skills and service to protect themselves from unplanned pregnancies and sexually transmitted diseases. In recent times, young people become sexually active at a very early age (Adegoke, 2003).

Osiki and Adebisi, (2015) submitted that adolescents' quest for adventure have made them become sexually active at a younger age. Nwafor (2006) opined that sex has created and is still creating problems for many of our adolescents, the youths, their parents, and the entire society. One of the greatest challenges facing man in contemporary society is how to positively handle sexuality. Osiki and Adebisi, (2015) found out that criminal abortion, child abandonment, Human Immunodeficiency Virus (HIV), Acquired immunodeficiency syndrome (AIDS) and psychologically based health problems due to frustration of unintended pregnancies are all evidences that buttress the need to discuss sex and reproductive health.

Teachers' attitude towards the integration of sexuality education in secondary school biology curriculum for sustainable development. The study adopted a descriptive survey and three research questions guided the formulation of a thirty item questionnaire. The sample consisted of one hundred and two teachers from Owerri, Orlu and Okigwe educational zone of Imo state. Data collected was analyzed using simple percentages. The findings showed that teachers with high knowledge of sexuality education had positive attitude towards its integration into the biology curriculum and indicated 55.8% were willing to teach sexuality education. The study also found out that parents and religious leaders were possible barriers to the

integration of sexuality education into the biology curriculum. The findings showed that academic qualifications of teachers influenced their attitude in favor of qualified teachers.

Mustapha (2017) assessed senior secondary school biology teachers' attitude towards the teaching of human reproductive systems in Ilorin, Nigeria. The research was a descriptive survey of the survey type. The sample consisted of 300 biology teachers in three local governments in Ilorin metropolis. Data gotten through a questionnaire was analyzed using frequency, mean score and t-test. The results showed that teachers had a negative attitude towards teaching human sexual reproduction and gender was a major determinant of such attitude.

Dehghani, Nasiriani, Pour and Dehghani (2015) also found out that teachers attitude towards sex education to adolescents. It was a cross sectional study done on secondary and high school teachers in Yazd, Southeast Iran. Cluster sampling technique was employed to select teachers randomly for the study. Questionnaire was used to collect data which was analyzed using SPSS software version 16, Descriptive (mean and frequency) and inferential (chi square) statistics. Kruskal Wallis and Mann-Whitney U-tests were also used for data analysis. The result showed that teachers showed a positive attitude towards sex education to adolescents, most of the teachers (91.7%) focused on issues on maturity such as hygiene especially ablution, moral values to abstain from premarital sex and believed that sex education made marriage easier. Teachers believe that the training must start in high school. The results showed that there was significant difference between school types and attitude of teachers.

Mkumbo (2012) sought the views of senior secondary school teachers on their attitudes towards and comfort about teaching-school based sexuality education in urban and rural Tanzania. One hundred and two teachers were randomly selected from twelve schools in urban districts (Kinondoni) and ninety six from eight schools in the rural districts (Sengerama). A questionnaire adapted from Weaver (2002) was used to collect data. Data collected was analyzed using SPSS statistical package version 16, t-test and multivariate analysis of variance MANOVA. The results showed that teachers in urban and rural Tanzania had a positive attitude towards sexuality education but felt some topics such as masturbation, homosexuality and pornography were not important and are hard to teach. However rural teachers find it difficult to teach family planning because of the reactions of parents and religious leaders.

Methodology

This study was a descriptive research of the survey type. The population for the study included all the biology teachers in Education district 1of Lagos State, Nigeria. Stratified sampling technique was used to select two biology teachers each from the one hundred and forty-five schools purposely selected from the three local governments to give a total of two hundred and ninety respondents. However, only two hundred and eighty-five respondents showed willingness and participated in the study.

The research instrument that was used in this study was a questionnaire adapted from Sujata Mishra (2017). The 40-item likert-type "Teachers' Attitude towards Teaching Human Sexual Reproduction Questionnaire" has two sections,

Frequency, percentages, mean score and t-test statistical analysis was used to analyze the data.

Result

Research Question 1 What are the attitudes of biology teachers towards teaching human sexual reproduction in co-educational and single sex schools?

The mean scores of the attitude of biology teachers teaching human sexual reproduction in co-educational and single sex schools were presented in Table 2, with co-educational having higher mean (*M*=76.65, *SD*=16.03) compare with single sex (*M*=67.44, *SD*=12.86).

Table 2: Mean scores of biology teachers' attitude in co-educational and single sex schools

School Type	N	M	SD
Co-educational	260	76.65	16.03
Single	25	67.44	12.86

Research Hypothesis 1 There is no significant difference in the attitudes of teachers of co-educational (mixed) schools and single sex schools.

The t-test statistics result ($t_{(283)}$=2.79, p=0.01) revealed that there was a significant difference in the attitude of teachers of co-educational schools and single sex schools as shown in Table 3 in favor of co-educational schools with higher mean (M=76.65, SD=16.03) as against single sex schools (M=67.65, SD=12.86). Hence, hypothesis 1 was rejected as the p-value 0.01 was less than 0.05 alpha level. This implies that attitude of teachers towards teaching of human sexual reproduction in mixed schools in is completely different from their colleague in single sex schools.

Table 3: t-test analysis of biology teachers' attitude in co-educational and single sex schools

School Type	N	M	SD	T	Df	Sig.
Co-educational	260	76.65	16.03			
				2.79	283	.01
Single	25	67.44	12.86			

p<0.05

Research Question 2 Does gender have any influence on the attitudes of biology teachers towards teaching human sexual reproduction?

The mean scores of the attitude of biology teachers teaching sexual human reproduction based gender were presented in Table 4, with female teachers having

marginal higher mean (M=76.11, SD=16.35) when compared with male teachers (M=75.46, SD=12.86).

Table 4: Mean scores of biology teachers' attitude based on gender

Gender	N	M	SD
Male	119	75.46	15.50
Female	166	76.11	16.35

Hypothesis 2 Gender does not significantly influence the attitudes of male and female biology teachers towards teaching human sexual reproduction.

The t-test statistics result ($t_{(283)}$=0.34, p=0.74) showed that there was no significant difference in the attitude of teachers' gender as shown in Table 5. Hence, hypothesis 2 was not rejected as the p-value 0.74 was greater than 0.05 alpha level. This implies that teachers' attitude towards teaching of human sexual reproduction did not differ based on gender.

Table 5: t-test analysis of biology teachers' attitude based on gender

Gender	N	M	SD	T	df	Sig
Male	119	75.46	15.50			
				.34	283	.74
Female	166	76.11	16.35			

p>0.05

Discussion of Result

This study shows that teachers have a positive attitude towards teaching human sexual reproduction to students in Education District 1 of Lagos. Majority of the teachers (91.50%) in co-educational schools felt comfortable teaching human sexual reproduction because of its importance to the learners. Teachers in single sex school also teach the topic, most of them (87.45%) teach the topic only because it is in the senior secondary school biology curriculum. This is in line with the findings of Dehghani, Nasiriani, Pour and Dehghani (2015) that teachers in co-educational schools have more positive attitude towards teaching topics related to sexual and reproductive health.

Researches such as Iwu, Onoja, Ijioma, Nguma and Egeruoh (2011) also showed that most teachers have positive attitude towards teaching the sexuality components of Biology and sexuality education. Most teachers of single sex schools (85.60%) are of the opinion that their students know more than they do, this is in line with the submissions of Mkumbo (2012) who found out that teachers' attitude depends on their perspectives of the students they teach. When teachers feel their students are 'wild' they see no reason to teach those students about sexuality. Studies such as Adebanji (2010) showed that teachers' attitude in co-educational and single sex schools may be influenced by culture of the society which invokes parents' and religious leaders' reactions.

This study shows that no statistically significant difference exist between male and female teachers' attitude towards teaching human sexual reproduction. However, more female teachers felt comfortable teaching the topic than male teachers. This is in line with the findings of Adogu and Nwafulume (2015); Goel (2014) and Nakpodia (2012) that female teachers have more positive attitude towards teaching the sexuality education component of biology in all school types.

Female teachers tend to assume the 'mother role' when teaching human sexual reproduction, they feel comfortable teaching the topic in all school types. This study found out that male teachers on the contrary prefer teaching male students but have no problem teaching the topic in mixed schools. Male teachers are of the opinion that female students feel shy when taught human sexual reproduction by a male teacher in a mixed school.

Conclusion

This study has attempted to find out the influence of gender on the attitudes of biology teachers towards teaching human sexual reproduction to secondary school students in Education District 1 of Lagos, Nigeria.

1. Findings from this study showed that teachers in co-educational school have positive attitude towards teaching human sexual reproduction than those in single sex schools.
2. Findings from this study showed that irrespective of their sex, teachers have positive attitude towards teaching human sexual reproduction

Recommendations

Since the findings from this study showed that majority of the teachers have positive attitude towards teaching human sexual reproduction in secondary schools, the following recommendations are made:

1. The study recommends that human sexual reproduction should be made reasonably voluminous with instructions that could give students firsthand information on sexual and reproductive health.
2. The topic should be moved to the first year of the senior secondary school curriculum so that it will be taught to students at the time they need to know about their sexuality.
3. Private school proprietors/managers should employ qualified teachers and also organize seminars/workshops for teachers.
4. The government should not relent on sensitizing teachers through their seminars/workshops and should also involve private school teachers in such seminars/workshops.

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