

ASSESSING THE INCLUSION OF SEX EDUCATION IN BIOLOGY CURRICULUM: A PANACEA FOR CURBING SEXUAL ASSAULT AMONG SECONDARY SCHOOL STUDENTS IN ABIA STATE

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Abstract

The study focused on assessing the necessity of sex education in secondary school Biology curriculum in Abia state. A survey research design was used for the study. Questionnaire on Sex Education in Secondary Schools (QOSEISS) was used to assess the perceptions of parents, Biology teachers and students on the inclusion of sex education in Biology curriculum which served as instrument for data collection. The population for the study comprised 317 Biology teachers, 3,374 parents and 32,617 students from 231 public secondary schools in the three education zones of Abia state. Simple random sampling technique was used to obtain a sample size of 176 Biology teachers, 358 parents and 395 students. The study has three research questions and three null hypotheses. Reliability of the instrument was established using Cronbach Alpha and reliability coefficients of 0.81, 0.84 and 0.78 were obtained for parents, teachers and students respectively. Mean and standard deviation were used to answer the research questions, while t - test was used to test the null hypotheses. The result of the study shows that parents, teachers and students agree that sex education be included in secondary school Biology curriculum. It was found out also that the inclusion of sex education in the curriculum could help reduce adolescents' sexual problems. Thus, it was recommended that curriculum planners should include sex education in secondary school Biology curriculum. Government should ensure the inclusion of sex education in secondary school Biology and enforce its implementation across all secondary schools. Furthermore, workshops, seminars and conferences organised by Science Teachers Association of Nigeria should include special training of Biology teachers on how to implement sex education curriculum in secondary schools.

Keywords: *Assessment, Sex Education, Sexual Assault, Biology Curriculum.*

Introduction

The National Policy on Education (NPE) (FGN, 2014) has the Nigeria's philosophy of education which states that education is based on the development of the individual into a sound and effective citizen and the provision of equal opportunities for all citizens of the nation at the basic, secondary and tertiary levels both inside and outside the formal school system. Education as contained in the NPE maximizes the creative potentials and skills of the individual for self-fulfilment and general development of the society. The national educational goals derived from the philosophy include but not limited to the development of the individual into a morally sound, patriotic and effective citizen as well as total integration of the individual into the immediate community, the Nigerian society and the world.

These national goals and philosophy of education can only be achieved through a well-planned curriculum. Kanno (2019) sees curriculum as well planned and structured experiences which are systematically and sequentially presented to learners to enable them have a willful and purposeful growth in order to mature and become effective, competent and socially capable members of their society. Dashen (2004) states that curriculum embodies the totality of the school's planned programme of studies designed to bring about desirable changes in the behaviours of learners. Uga (1990) in Nwakonobi and Onwuachu (2009) defines curriculum as the total situation through which the school makes behavioural changes in those who pass through it. Tanner and Tanner (1975) in Kanno (2019) opined that curriculum refers to planned and guided experiences and intended learning outcomes, formulated through the systematic reconstruction of knowledge and experiences under the auspices of the school for the learner's continuous and willful growth in personal social competence. The Federal Ministry of Education through the Nigerian Educational Research and Development Council (NERDC) has the mandate to develop curricula for use at all levels of the educational system in Nigeria. To fulfil this mandate, NERDC has developed the senior secondary school curricula for various subjects including Biology.

An analysis of the secondary school Biology curriculum in Nigeria shows the non-inclusion of sex education (Nwakonobi & Onwuachu, 2009). In developing countries like Nigeria, the words sex and sexuality sound bizarre to adolescents and young adults. This might be due to controversies surrounding sex education and wrong information from wrong sources. Some researchers have come up with findings about the inclusion of sex education in the school curriculum. Hartmann (2002) states that abstinence - plus

curriculum should be provided in schools. In another contribution, Ofoegbu (2004) found out that teachers believe that sex education is necessary in school for a balanced education of the child. Eko, Osuchukwu, Osonwa and Offiong (2013), opined that teachers and students share the same view, that sex education should cover areas such as abstinence, Sexually Transmitted infections, basis of reproduction among others. Sex education as stated by Njoku (2018) is the process of acquiring information and forming attitudes and beliefs about sex, sexual identity, relationships and intimacy, and should be taught in schools. In the past, people thought sex and sexuality meant sexual intercourse. There are still people that hold this notion but we do not need to have sexual intercourse to enjoy our sexuality (Federal Ministry of Education, 2016).

Inadequate sex education in schools and homes causes sexual assaults, social tension, stress, inner turmoil among individuals and anxiety to families by adolescents' sexuality. It is important to note that these consequences associated with inadequate sex education in the school system needs urgent attention of parents, teachers and counsellors. The study of sex education in schools is often shaped by cultural and religious perceptions. Some students find discussion on sex strange and will not like to be part of it. Some communities and religious groups regard discussion on sex with adolescents as a taboo (Eko et al, 2013). This perception certainly makes adolescents seek information about sex and sexuality from wrong sources such as peers, social media or by observing adults, hence the need to include sex education in secondary school Biology curriculum.

It is important to note that sex, sexuality and sexual intercourse are different though related. Differentiating these concepts will help in guiding young people appropriately. Federal Ministry of Education through Family Life and HIV Education (2016) states the differences among these concepts. Sex refers to whether we are born male or female. Our physical characteristics (example, penis in a male; vagina in a female and so on) determine whether we are male or female. Sexuality is how an individual acts, feels and thinks about his/her own body and that of others as a result of his or her being a boy or girl. Sexual intercourse on the other hand involves a man's penis penetrating through a woman's vagina.

Sexual assault is common worldwide and is particularly rampant in developing countries such as Nigeria. Sexual assault according to Eze (2013) encompasses a range of acts, including coerced sex in marriage and dating relationships,

rape by strangers, organised rape in war, sexual harassment (including demands of sex for jobs or school grades), and rape of children, trafficking of women and girls, female genital mutilation, and forced exposure to pornography. It is important to note the ramifications of sexual assault, as not only a physical act, but also could be verbal or visual sexual abuse or any act that forces a person to join in unwanted sexual contact or attention. Sexual assault is also not discriminatory to gender; both males and females are affected but studies have shown that the number of female sexual assault victims (and assaults perpetrated by males) is far greater than male victims (Eze, 2013).

There are many cases of sexual assault in Nigeria particularly rape, as incest and sexual harassment are not commonly reported. In general, sexual assault is quite alarming to the extent that every woman is susceptible to it. The result of a survey published by Noipolls in July, 2019, stated that up to three out of ten girls living in Nigeria could have experienced at least one form of sexual assault by the time they are 25 years old. Few instances of recent rape cases in Nigeria will give us clearer view of the discussion.

Premium times reported the following cases:

- i. A lady named Barakat Bello was gang raped and murdered in Oyo state on 2nd June, 2020.
- ii. A 17-year-old girl was also gang raped in Ekiti state in June, 2020
- iii. A university student named Uwaila Vera Omozuwa was raped on Wednesday, 27th May, 2020 in a church in Edo state. She died on Saturday, 30th May, 2020 after she was taken to the hospital.
- iv. A 12-year-old girl in Ajah, Lagos, was raped by four masked men in her home on Thursday, 4th June, 2020.
- v. Another 12-year-old girl was raped in Jigawa state in April, 2020. On 10th June, 2020, vanguard reported some rape cases as well
- vi. A 40-year-old medical practitioner was apprehended for allegedly raping a 13-year-old girl in Otukpo LGA, Benue state.
- vii. A police officer at Okpoga in Okpokwu LGA of Benue state apprehended a 35-year-old commercial motorcycle operator for allegedly raping a 16-year-old girl on 18th May, 2020.
- viii. Four men allegedly drugged and took turns in raping a 13-year-old girl.
- ix. A 15-year-old boy in Ekiti state was arrested for raping a three-year-old girl in May, 2020.
- x. Two men were arrested still in Ekiti state for raping a 17-year-old female hawker.

- xi. A resident at Otoda community in Otukpo LGA of Benue state forcefully took advantage of a teenager after beating her up.
- xii. A 25-year-old man raped an 85-year-old grandma in Niger state.
- xiii. BBC reported on 10th June, 2020, that the Nigerian police arrested a man after 40 women were raped in one town called Dangora town in Kano State.
- xiv. The Director of Child Welfare Services in the Ministry of Women Affairs, Children and Social Welfare in Anambra state, reported on 8th June, 2020, that Anambra recorded 80 rape cases during COVID-19 lockdown. Worse still, was that fathers raped daughters more during the lockdown.
- xv. On April 16th, 2020, the cables reported that a 27-year-old lady was robbed and raped by a five-man gang in Abia state.
- xvi. On 15th June, 2020, it was reported by Abia online that there were 717 cases of rape recorded in Nigeria between January and May, 2020 as revealed by Inspector General of Police.
- xvii. Sahara reporters had it on 25th September, 2020 that a police man was arrested for allegedly raping a student of Abia state Polytechnic.

Those are few instances just to give an idea of what is happening. It is an indication that the society has a big task at hand to curtail this ugly trend. If proper and comprehensive sex education is included in the curriculum, it will go a long way in preventing sexual assault. The school counsellors will just build on the foundation laid already in the class during implementation of the curriculum. This is because most of the perpetrators and victims of this act were students.

The goal of education as contained in the National Policy on Education is to develop an individual into a morally sound, patriotic and effective citizen as well as total integration of the individual into the society. From the foregoing, it is expected that as a child passes through the school system, he should be morally sound by practising what is accepted in the society. This morality is conveyed through the curriculum which is a tool for training students in school.

In spite the efforts by teachers to inculcate good behaviours in the students as they pass from one level of education to another, we still have moral ills in the society. Such ills include sexual assaults leading to unwanted pregnancies, sexually transmitted diseases, school drop outs, unplanned marriages,

abortions etc. All these social ills retard development of the nation educationally and economically.

Most of the perpetrators of these immoral acts are youths who either have passed through school or are in school. This means a gap needs to be filled in the curriculum for students to be informed about their sexual life. This gap may be as a result of non-inclusion of sex education in Biology curriculum as opined by Nwakonobi and Onwuachu (2009). This makes it necessary for this research to find out the need to include sex education in secondary school Biology curriculum.

Three research questions and three hypotheses guided the study and they include:

1. What is the opinion of parents towards the inclusion of sex education in secondary school Biology curriculum?
2. What is the perception of secondary school Biology teachers on the inclusion of sex education in secondary school Biology curriculum?
3. What is the opinion of secondary school students regarding the inclusion of sex education in secondary school Biology curriculum?

H₀₁: There is no significant difference between the opinions of parents and secondary school Biology teachers on the inclusion of sex education in secondary school Biology curriculum.

H₀₂: There is no significant difference between the perception of students and teachers towards the inclusion of sex education in secondary school Biology curriculum.

H₀₃: There is no significant difference between the opinions of parents and students on the inclusion of sex education in Biology curriculum.

Method

A survey research design was used for the study. This is because a group of people were studied by collecting and analysing data from only a few people considered being representative of the entire group (Nworgu, 2015). The population was made up of 3691 teachers (317 Biology teachers and 3,374 non-Biology teachers) and 32,617 students from 231 public secondary schools in the three education zones of Abia state; Aba, Umuahia and Ohafia (SEMB, 2021). Taro Yamane formular was adopted to determine the sample size, while simple random sampling technique was used to obtain a sample size of 395

students and 362 teachers (176 Biology teachers and 358 non-Biology teachers). The non-Biology teachers served as parents for the study. A four-point Likert rating scale titled Questionnaire on Sex Education in Secondary Schools (QOSEISS) was used as the instrument for data collection. Thus, Strongly Agreed (SA) = 4 points, Agreed (A) = 3 points, Disagreed (D) = 2 points, and Strongly Disagreed (SD) = 1 point. The instrument was validated by three experts from Michael Okpara University of Agriculture, Umudike. Cronbach Alpha was used to determine the reliability of the instrument. Reliability coefficients of 0.81, 0.84 and 0.78 were obtained for parents, teachers and students respectively. Mean and standard deviation were used to answer the research questions, while t-test was used to test the null hypotheses at 0.05 level of significance. Any response with a mean of 2.5 and above was regarded as accepted, while any with a mean of less than 2.5 was considered not accepted.

Results

The results of data analyses are presented in table 1 - 6.

Table 1: Mean and Standard Deviation of Parents' Opinions towards the Inclusion of Sex Education in Secondary School Curriculum.

S/ N	ITEMS	RESPONSES						
		SA (4)	A (3)	D (2)	SD (1)	MEAN	ST. DV.	DEC.
1.	Sex education should be included in Biology curriculum because parents see it as a taboo and hardly discuss it with their children	147	102	68	41	3.0	1.0	A
2.	Parents are very shy to discuss sex issues with their children. Therefore, it should be discussed as a topic in Biology	98	117	106	37	2.8	0.9	A
3.	Inclusion of sex education in Biology curriculum can help reduce adolescents sexual problems	108	127	89	34	2.9	0.9	A
4.	Social tension, stress inner turmoil and anxiety caused to families by adolescents sexuality will be reduced if sex education is taught in the class	113	68	142	35	2.7	1.0	A
5.	When sex education is taught in the class, students will be free to express their feelings about sex.	103	57	152	46	2.6	1.0	A
	Grand Mean					2.8	1.0	

Where, SA=strongly agree, A=Agree, D=Disagree, SD=strongly disagree, ST.DV= Standard Deviation and Dec=Decision

Table 1 shows the responses of parents towards the inclusion of sex education in Secondary School Biology curriculum. All the items in table 1 are accepted by parents since all have mean responses above 2.5 set as the bench mark.

Table 2: Mean and Standard Deviation of Teachers' Perception on the Inclusion of Sex Education in Secondary School Biology Curriculum

S/ N	ITEMS	RESPONSES						
		SA (4)	A (3)	D (2)	SD (1)	MEAN	ST. DV.	DEC.
1.	Sex education should be included in Biology curriculum because there is wrong perception of sexual issues outside the classroom	86	41	28	21	3.1	1.0	A
2.	I will be very comfortable teaching sex education to both male and female students	121	24	18	13	3.4	0.9	A
3.	Inclusion of sex education in Biology curriculum can help reduce adolescents' sexual problems.	115	11	09	41	3.1	1.3	A
4.	Social tension, stress, inner turmoil and anxiety caused to families by adolescents sexuality will be reduced if sex education is taught in the class.	81	41	07	47	2.9	1.3	A
5	When sex education is taught in the class, students will be free to express their feelings about sex.	13	21	78	64	1.9	0.9	SD
Grand Mean						2.9	1.1	A

Where, SA=strongly agree, A=Agree, D=Disagree, SD=strongly disagree, ST.DV= Standard Deviation and Dec=Decision

Table 2 displays the perception of teachers on the inclusion of sex education in secondary school curriculum. Item 1,2,3 and 4 were accepted by teachers because they all have mean responses above 2.5, while item 5 was not accepted having its mean response below 2.5. However, the overall mean response is above 2.5 which indicates acceptance of most of the items.

Table 3: Mean and Standard Deviation of Students' View on the Inclusion of Sex Education in Secondary School Biology Curriculum

S/ N	ITEMS	RESPONSES				MEAN	SD	DEC.
		SA (4)	A (3)	D (2)	SD (1)			
1.	My parents don't discuss sex issues with me, so sex education should be included in secondary school Biology curriculum	236	52	37	70	3.1	1.9	A
2.	My parents are shy to discuss sex issues with me	148	158	56	33	3.1	0.9	A
3.	I will be comfortable to learn about sex issues from my teachers	197	152	30	16	3.3	0.8	A
4.	Inclusion of sex education in Biology curriculum can help reduce adolescents' sexual problems.	152	67	157	19	2.9	1.0	A
5.	Sex education in Biology curriculum will help students to be exposed to anti-social behaviours among youths and how to avoid them.	114	42	168	71	2.5	1.1	A
Grand Mean						3.0	1.1	

Where, SA=strongly agree, A=Agree, D=Disagree, SD=strongly disagree, St.dv= Standard Deviation and Dec=Decision

Table 3 shows the views of students on the inclusion of sex education in secondary school curriculum. All the items were accepted.

Table 4: t-test Analysis on Opinions of Parents and Secondary School Biology Teachers on the Inclusion of Sex Education in Secondary School Biology Curriculum

Groups	N	Mean	SD	df	t-cal	t-crit	Decision
Parents	358	2.8	1.0				
Teachers	176	2.9	1.1	532	1.00	1.96	Accepted

Where, N=number, SD= standard deviation, df= degree of freedom, t-cal=t-calculated, t-crit=t-critical

Table 4 showed that there was no significant difference between the opinions of parents and secondary school Biology teachers on the inclusion of sex education in secondary school Biology curriculum. Since t-critical is more than calculated value, the null hypothesis was accepted.

Table 5: t-test Analysis on Perception of Students and Biology Teachers on the Inclusion of Sex Education in Secondary School Biology Curriculum

Groups	N	Mean	SD	df	t-cal	t-crit	Decision
Parents	395	3.0	1.1	569	1.11	1.96	
Teachers	176	2.9	1.1				Accepted

The calculated value is less than t-critical. The null hypothesis which states that there is no significant difference between the perception of students and teachers towards the inclusion of sex education in secondary school Biology curriculum was therefore accepted.

Table 6: t-test Analysis on Views of Students and Parents on the Inclusion of Sex Education in Secondary School Biology Curriculum

Groups	N	Mean	SD	df	t-cal	t-crit	Decision
Parents	395	3.0	1.1	751	0.98	1..96	
Teachers	358	2.8	1.0				Accepted

Where, N=number, SD= standard deviation, df= degree of freedom, t-cal=t-calculated, t-crit=t-critical

The null hypothesis which states that there is no significant difference between the opinions of parents and students on the inclusion of sex education in Biology curriculum is accepted since t-critical is more than the calculated t-value.

Discussion

Research question one was used to find out the opinions of parents towards the inclusion of sex education in secondary school Biology curriculum. The result indicates that parents agree that sex education be included in secondary school Biology curriculum. This finding agrees with Nwakonobi and Onwuachu (2009) finding which states that parents are of the view that sex education be taught in schools. This could be as a result of some parents seeing discussion of sex issues with their children as a taboo and some feel shy. Consequently, the inclusion of sex education in Biology curriculum will reduce adolescents' sexual problems among young people and they will be free to express themselves among their peers with the teachers as indicated in the findings of this study.

The results of this study also indicate that teachers agreed with the inclusion of sex education in Biology curriculum. They show readiness to teach sex education to both male and female students because it can help reduce adolescents' sexual problems and tension caused to families. This finding is in agreement with the findings of Njoku (2018) which states that sex education is the process of acquiring information and forming attitudes and beliefs about sex and should be taught in schools. It also agreed with Ofoegbu (2004) who states that sex education is necessary in schools for a balanced education. This may be as a result of the fact that as teachers teach in schools, they observe students' behaviours and responses to issues.

The results show that students accept that sex education should be included in the curriculum. They agree that parents feel shy to discuss sex issues with them, so they are more comfortable to learn about sex issues from teachers. The result also indicated that students are of the view that sex education in schools can help reduce adolescents' sexual problems and avoid anti-social behaviours among youths. This is in line with Hartmann (2002) who opined that abstinence - plus curriculum should be provided in schools. These findings may be as a result of the fact that students spend more time in school

than home and therefore the school environment should be a better place to learn sex education along with other concepts.

The analyses of data show that there is no significant difference among parents, Biology teachers and students' opinions on the inclusion of sex education in secondary school Biology curriculum. This finding agrees with the findings of Eko, Osuchukwu, Osonwa and Offiong (2013). They found out that parents, teachers and students share the same view that sex education is necessary in schools and should cover areas such as abstinence, sexually transmitted infections, basis of reproduction etc. In the same vein, Nwakonobi and Onwuachu, 2009 state that parents and teachers have common view that sex education be taught in schools. These findings could be as a result of the fact that the teachers have better training on teaching strategies that can be applied to sex education in order to achieve the aim of having sex education in secondary school curriculum.

Conclusion

The aim of this study was to assess the necessity for the inclusion of sex education in secondary school Biology curriculum in Abia state. The findings reveal that parents, Biology teachers and students are of the view that sex education should be included in secondary school Biology curriculum. This could help in curbing sexual assaults among secondary school students and by extension it will help avoid anti-social behaviours among youths and reduce tension among parents.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Curriculum planners should include sex education in secondary school Biology curriculum.
2. Government should ensure the inclusion of sex education in secondary school Biology curriculum and enforce its implementation across all secondary schools
3. Workshops, seminars and conferences organised by Science Teachers Association of Nigeria should include special training of Biology teachers on how to implement sex education in secondary schools.

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