Improving Sexual Literacy Level of in-School Adolescents in Osun State, Nigeria: A Comparison of Effectiveness of Two Approaches

By

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Abstract

The study investigated the effect of two approaches of peer sexuality education training on adolescents’ sexual literacy in secondary schools of Osun state in Nigeria. The study adopted pre-test, post-test experimental design. The population of the study comprised all secondary school students within the age bracket of 13 – 16 years, in Osun State. A sample of 138 students was used for the study. The result showed that 60.43% of the sampled students had low level of sexual literacy though 11.51% demonstrated high level of sexual literacy. The results further showed that peer sexuality education training had a significant effect on students’ sexual literacy t = 1.17; p < 0.05, and that sex and religion had no significant effect on peer sexuality education training t = 0.98, df 56 p > 0.05 and t = 0.20, p > 0.05 respectively. Age was found to be significant on the effectiveness of Peer Sexuality Education Training, t = 4.33, p < 0.05. The study concluded that teacher-led approach was not as effective as peer-led, therefore adolescents who demonstrated low level of sexual literacy can be assisted to improve on their sexual literacy level through peer-led sexuality education training.

1. Introduction

The concern for adolescents’ sexual health and sexual behaviour has given rise to sexuality education training. This is with a view that when adolescents are well educated or informed in sexual issues about them, they will form better attitude towards sexual issues. The introduction of sexuality education into the school programme has become one of the efforts to assist adolescents in forming the right attitude towards sexual issues as related to them. Sexuality education examines relationship skills and knowledge, attitudes and behaviors, and values that promotes healthy sexuality within those relationships. Its main purpose is to protect and promote health and to provide skills needed for engaging in responsible relationships. This type of education involves a planned process of education that factors in the acquisition of factual information, positive attitudes, beliefs and values and the development of skills to cope with the biological, socio-cultural and spiritual aspects of human society (Mommoh, Aroh & Ejike. 2009). Thus, the common approach for transmitting this necessary information is the school-based sex education projects. This methodology is usually teacher led and mostly didactic in delivery especially in Nigeria. Although, in principle, it is expected that this approach should be effective, but in practice the visible impact of this approach is yet to be significantly ascertained. This conjecture is justified by the seeming increase in sexual risk of adolescents (Odu & Akanle, 2008). Otherwise, how best could it be ascertained other than that the information shared by the teacher with the students in the classroom has been effectively translated to a healthy sexual behaviour in practice.

There is a growing body of literature surrounding youth-to-youth work frequently defined as peer-education (Harden, Oakley, & Oliver 2001; Mellanby, Newcombe, Ree & Tripp, 2001; Forest, Strange; Oakley and the RIPPLE study team 2002; Cai, Hong, Shi 2008). Considering the benefits of making adolescents sexually literate, it is expected that any method that will ensure this should be attempted. Such benefits are inferred from the fact that they (adolescents) see each other very often, enjoy doing things together, understand each other’s feelings and motivation, know each other’s language and needs,
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and would rather seek help from peers than their parents or family members. It is assumed by this study that empowering the adolescents to share sexual information that can assist their peers to live a sexually healthy life will make a difference. Although it is also acknowledged that young people may not be able to deliver all aspects of sex education but at least it brings about the integration of the peer sex education into the mainstream education and to determine which areas are best dealt with and by whom.

Furthermore, it is believed that peers may be more influential as role models or may be more popular when it comes to understanding issues related to sexual matters. It is common knowledge that adolescents seek information about sexual life from a variety of sources, especially from their peers, and this is not usually healthy for them since such information could be misleading, distorted and incomplete. However, this could be harnessed for the benefit of the youth if the peers are given adequate information to transmit to others. According to Okanlawon (2004) many of the adolescents feel more comfortable to imitate and learn from their peers, therefore the opportunity can be utilized positively through appropriate and adolescents focused peer education training.

What adolescents know may influence the life they would live. In other words, the level of their literacy especially in sexual matters may tend to determine their sexual life. Training that provide relevant information to youths in relation to their sexual health would likely build young people’s confidence; skills and readiness to practice safe sexual relationship. It is important to note that, the knowledge of what constitute sexual risk and other sexual information adolescents need to know are very important and connected to adolescents’ attitude towards healthy sexual living. This is basically to say that the level of sexual literacy of adolescents is important to their sexual healthy living as association of knowledge; Attitude and Practice (KAP) have always been emphasized in the literature. Most studies have always been concerned with the knowledge level of adolescents about sexual issues, but have neglected the investigation of which mode of transmission of this information is most effective so far. Thus this study is not only concerned about the sexual literacy level of secondary school students in Osun state in Nigeria, but also the comparison of two different approaches to delivering the message. Dissemination of sexual information is a challenge when dealing with adolescent especially in Nigeria. This problem is strengthened by the fact that our socio-cultural heritage stipulates that issues relating to sexuality are usually not discussed openly. Also parents who ought to be the primary sexuality educators for their children and communicate to them specific values about sexuality play the least role in this area. Even in schools, Mommoh, Aroh and Ejike (2009) reported that teachers skip such topics as reproduction, sexually transmitted diseases, and premarital sexual relationships, which are very important areas of knowledge on human sexuality. They further stated a major constraint to the effective teaching of sexuality which is hampered by lack of qualified teachers. Action Health Incorporated (1996) in listing factors hindering the promotion of school based sexuality education, pointed out that a great number of school principals and teachers do not feel comfortable speaking about sexuality even in biology classes. This is also opined by Esie (2008) that schools too provide little or no sexuality education for young people, leaving their seemingly misinformed peers as the primary source of information on sexual issues. These situations leave the adolescents ignorant, curious and ill-prepared to contend with their blossoming interest in sexuality or sex and leading them to seek information from their peers. This may have been the cause of many discouraging reports concerning adolescent sexuality. For instance, Agboola (2012) reported that Nigeria’s epidemic is characterized by one of the most rapidly increasing rates of new HIV/AIDS cases in West Africa and concluded that schools are expected not only to teach, but also instill in their students the skills, knowledge and values that promote safe behaviours in order to protect themselves against HIV infection. Apart from this, the intent of teaching sex education in Osun State secondary schools is based on helping adolescents to handle their sexual life responsibly. The content is based on a comprehensive sexuality education as prepared by Action Health Incorporated (AHI, 2003). According to Ola (2012), a comprehensive sexuality education should have four main goals including, provision of information about human sexuality. Including human development, relationships, personal skills, sexual behavior, sexual health, society and culture; providing an opportunity to question, explore,
and assess sexual attitudes in order to develop values, increase self-esteem, create insights concerning relationships with members of both genders, and understand obligations and responsibilities to others; helping to develop interpersonal skills— including communication, decision-making, assertiveness, and peer refusal skills; and help to create satisfying relationships and to help create responsibility regarding sexual relationships, including addressing abstinence, resisting pressure to become prematurely involved in sexual intercourse, and encouraging the use of contraception and other sexual health measures. However the schools in Osun State have not actually demonstrated the effectiveness of the didactive approach on this.

It is against this background that this study is conceived in that if these peers have access to the right information on sexual issues they may likely be a means of improving sexual literacy of their colleagues. If this is not done, there is the likelihood that adolescent in secondary schools would lack adequate sexual information necessary for healthy sexual living and thereby increase the sexual risk practices or unsafe sexual intercourse with various sex partners that might expose them to unwanted pregnancies, abortion, HIV/AIDS and other sexually transmitted infections (STIs). It is therefore imperative to understand the level of sexual literacy of the secondary school students. Also, there is the need to know how effective the peer sexuality education and teacher led approaches would be on the level of sexual literacy of the students.

The study was set out to examine the effectiveness of peer-led and teacher-led sexuality education training on the sexual literacy of secondary school students. Specifically the study was to

1. assess the level of sexual literacy of adolescents in Osun State secondary schools;
2. examine the effect of the peer and teacher sexuality education training on sexual literacy of Osun State secondary school students; and
3. determine the effect of factors such as gender, age and religion of adolescent students on the effectiveness of the peer sexuality education training.

2. Methodology

Research design for this study was pre-test, post-test group experimental design. This design entails the process of comparing participant groups and measuring the degree of change occurring as a result of treatment or intervention. It entails the assignment of subject to experimental (Treatment) and control groups through randomization. This design is considered the best for this study as the study involves a treatment / intervention which is peer sexuality education training for adolescents. The population for this study consisted of all adolescents in Osun state public secondary schools. There are three senatorial districts in Osun State. Two senatorial districts were randomly selected for the study. These are Osun East and Osun Central Senatorial Districts. From each of these districts one local government was randomly selected and from each of the local government, one co-educational secondary school was randomly selected. Students from SS2 class were used in each of these schools. This is because SS3 students were busy with their final examination at the time of this study. The SS1 students were assumed to be less suitable because of the age consideration in this study and also to be certain of some level of homogeneity in the group. SS2 students were considered to be suitable because of the age range of 13-16 years. It is assumed that the participants with this age bracket would likely be found in this group. Thus the instrument used for data collection was administered to a total of 138 students in both schools to determine their level of sexual literacy (69 students from each school). Three students with scores between 19-30 (which was adjudged to be high scores) were selected in each school to be trained by the researcher as peer trainee. The remaining 66 students from each school were randomly assigned into two equal groups. (33 each) for both experimental and control groups. The experimental group consisted of 66 students, who were exposed to peer sexuality education training for a period of three weeks (6 sessions) through their peers who were selected based on their high scores (19-30) on the sexual literacy scale. The control group consisted of 66 students who were exposed to the same information but through their teachers.
In this study, quantitative data was collected through the use of a research instrument titled “Adolescents Sexual Literacy Inventory” ASLI. This instrument was used to elicit information on the level of adolescents’ sexual literacy in Osun state public secondary schools. It had two sections, Section A was designed to obtain demographic data such as name, age, class, gender and religion. Section B had one part with 30 items of Yes/No response choice. The items consisted of statements related to body image, sexual and reproductive systems in male and female, touching, kissing, love, dating, pregnancy and abortion, masturbation, use of condom and other contraceptives, myths, HIV/AIDS and other sexually transmitted diseases, negotiation skills and sex education to measure the adolescents knowledge on sex and related matters. The items were generated from the sexuality education modules for secondary school students by Action Health Incorporated (AHI, 2003) and from relevant literature. This instrument was validated through a test retest of the instrument which was carried out in a two weeks interval on students in two schools in Ile-Ife (different from the schools used for the study) to ascertain the reliability of the instrument. The outcome yielded a co-efficient of 0.76 which was adjudged to be good enough for the study. The instrument was administered and based on their high scores on the sexual literacy level; the peer educators (3 from each school) were selected. They were trained for three weeks (6 sessions), using their break periods, free periods and after school hours to train them. The remaining 132 students were assigned randomly to both experimental and control groups respectively. Those in experimental group were taught by the trained peers for a period of three weeks (6 sessions) whiles the control group was taught by their teachers. However, nine participants dropped out before the completion of the experiment. Only 123 participants completed the exercise. The whole exercise took place between 26th September and 20th November 2012 in the two schools.

The treatment package contained six major areas such as the anatomy of male and female reproductive systems, principles of healthy sexual behaviours; myths and facts associated with human sexuality; intimacy and management of sexual desire, love, dating, masturbation, body image and protection of sexual health.

3. Results

What is the level of sexual literacy of adolescent students in Osun State secondary schools?

To answer this question, Adolescents Sexual Literacy Inventory (ASLI) was administered on the sampled secondary school students. The students' responses were scored and the individual student obtained score was used to classify them into sexual literacy level. In this study ASLI score that ranged between 0-13 is classified as low sexual literacy level while score 14-18 is classified average sexual literacy level and a score between 19-30 is classified as high sexual literacy level. Table 1 presents the sampled students' sexual literacy levels.

Table 1: Students' Sexual Literacy Level

<table>
<thead>
<tr>
<th>Sex</th>
<th>Pre-Treatment Levels of Students’ Sexual Literacy</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Average</td>
<td>High</td>
</tr>
<tr>
<td>Male</td>
<td>34(52-31)</td>
<td>23(35.38)</td>
<td>8(12.31)</td>
</tr>
<tr>
<td>Female</td>
<td>27(46.55)</td>
<td>26(44.83)</td>
<td>5(8.62)</td>
</tr>
<tr>
<td>Age</td>
<td>13-15 years</td>
<td>16(51.61)</td>
<td>11(35.48)</td>
</tr>
<tr>
<td></td>
<td>16-19 years</td>
<td>45(48.91)</td>
<td>38(41.30)</td>
</tr>
<tr>
<td>Religion</td>
<td>Christian</td>
<td>28(40.58)</td>
<td>31(44.93)</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>33(61.11)</td>
<td>18(33.33)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>61(49.59)</td>
<td>49(39.84)</td>
</tr>
</tbody>
</table>
Table 1 showed that 49.59% of the sampled students had low sexual literacy level while the sexual literacy level of 39.84% was average and 10.57% of the students had high sexual literacy level. The Table also showed that 52.31% and 46.55% of the male and female students respectively had low sexual literacy level. Also 51.61% and 48.91% of students within the ages 13-15 years and 16-19 years respectively had low sexual literacy level.

**Hypothesis 1:** Peer sexuality education training has no significant effect on adolescents' sexual literacy.

To test this hypothesis, the sampled students were randomly assigned into an experimental and control groups. The ASLI was administered on the experimental and control groups after exposing the experimental group to the study treatment. The pre and post-treatment scores of the two groups were compared using independent t-test statistic. Table 2 presents the results.

**Table 2: Effect of Peer Sexuality Education Training on Students’ Sexual Literacy**

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Data collection period</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Test Score</td>
<td>N</td>
<td>( \bar{x} )</td>
<td>SD</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td></td>
<td>62</td>
<td>18.94</td>
<td>4.44</td>
<td>1.17*</td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td>61</td>
<td>18.05</td>
<td>3.94</td>
<td></td>
</tr>
</tbody>
</table>

* Table 2 showed that while there was no significant difference in sexual literacy of the experimental and control groups in the pre- peer sexuality education training (PSET) test, \((t_{121}) = 1.17, p > .05\), there was a significant difference in the post-PSET sexual literacy of the students \((t_{113}) = 27.57, p < .05\). Thus, peer sexuality education training had a significant effect on students’ sexual literacy.

**Hypothesis 2:** There is no significant effect of sex on the effectiveness of peer sexuality education training

To test this hypothesis, the post PSET score of male and female students in the experimental group were compared using independent t-test statistics. The result is as presented on Table 3

**Table 3: t-test showing the effect of sex on the effectiveness of PSET on sexual literacy**

<table>
<thead>
<tr>
<th>Students Sex</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>22</td>
<td>27.1818</td>
<td>3.08045</td>
<td>0.98</td>
<td>56</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Female</td>
<td>36</td>
<td>27.8056</td>
<td>1.76990</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of the analysis as presented in Table 5 -indicated that while the male students’ post-test mean score \( (\bar{x} = 27.18, SD = 3.08) \), the female students had a post-test mean score \( (\bar{x} = 27.81, SD = 1.77) \) with a t-test value \( (t = 0.98, df- 56 & P > .05) \). The result showed that the difference in the post-PSET sexual literacy of male and female students is not significant. Thus, students’ sex had no significant effect on the effectiveness of the peer sexuality education training.

**Hypothesis 3:** There is no significant effect of religion on the effectiveness of peer sexuality education training.

To test this hypothesis, the post PSET score of the sampled students based on their religious affiliation (Christian and Muslim) in the experimental group were compared using independent t-test statistics. The result is as presented on Table 4.
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Table 4: t-test result showing the difference in the mean of post-PSET sexual literacy of experimental group based on religion.

<table>
<thead>
<tr>
<th>Students religion</th>
<th>N</th>
<th>$\bar{x}$</th>
<th>SD</th>
<th>t</th>
<th>Df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christianity</td>
<td>35</td>
<td>27.51</td>
<td>2.57</td>
<td>0.22</td>
<td>56</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>Islam</td>
<td>23</td>
<td>27.65</td>
<td>2.01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result as presented in Table 7 indicated that while the Christian students' post-test mean score was ($\bar{x}$ - 27.51, $SD = 2.57$), the Muslim students has a post-test mean score ($\bar{x}$ - 27.65, $SD = 2.01$) with a t-test value ($t = -0.22$, df = 56 & $P > .05$). The result showed that the difference in the post-PSET sexual literacy of Christian and Muslim students was not significant. Thus, religion had no significant effect on the effectiveness of the peer sexuality education training.

Hypothesis 4: There is no significant effect of students’ age on the effectiveness of peer sexuality education training.

To test this hypothesis, students in the experimental group were divided into two groups based on their age (13-15 and 16-19 years). The difference in the mean sexual literacy score was then compared using independent t-test statistics. The result is as presented in Table 5.

Table 5: t-test result showing the difference in the mean of post-PSET sexual literacy of experimental group based on age.

<table>
<thead>
<tr>
<th>Students religion</th>
<th>N</th>
<th>$\bar{x}$</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-15 Years</td>
<td>23</td>
<td>26.13</td>
<td>2.90</td>
<td>4.33</td>
<td>56</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>16-19 Years</td>
<td>35</td>
<td>28.51</td>
<td>1.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result as presented in Table 5 showed that PSET was more effective in enhancing the sexual literacy of students within the ages of 16 and 19 years with a post-test sexual literacy mean score ($\bar{x} = 28.51$) and with the obtained t-test value ($t(56) = 4.33$, $P < .05$). It was an indication that students' age had a significant effect on the effectiveness of peer sexuality education training. The result also revealed that older students had higher mean score (28.51) than the younger students. The null hypothesis which states that there is no significant effect of student’s age on the effectiveness of PSET was rejected.

4. Discussion

The result of the study indicated that the level of sexual literacy varies across different categories of the students. On the average, most of the students were found to possess low level of sexual literacy while only a few could be said to have high levels. The proportion of those who possessed low level of sexual literacy was higher among boys than among girls. This could be that girls were more conscious about their sexual life since physiological changes in them are usually obvious and may lead them to be inquisitive and curious about it. However the fact that, generally, their low level of sexual literacy abound may be as a result of significant others (like parents and teachers) neglect of providing adequate information for the adolescents. This corroborates Egbochukwu and Ekanem (2008) findings that girls are
more sexually literate than boys. Another aspect of this finding is that low level of sexual literacy is influenced by age. This may be because parents or teachers might assume that they are too young to be provided with such information.

Also, younger students of less than 15 years of age were found to possess lower levels of sexual literacy. This may be as a result of the fact that sexual literacy background of the students is poor. Egbochukwu and Ekanem (2008) found that parent-child discussion on sexual matters is beclouded by parental inhibitions and inter-generational tensions as most Nigerian parents shy away from such discussions. It is generally believed that it will make the adolescent attempt to experiment on what they have been told. They contended that the whole subject thus becomes surrounded by secrecy and the children now become too embarrassed to discuss these matters with their parents. It is not uncommon to find a bride and bridedgrooms ignorant of sex until their wedding night. He contended that some might only mention few things to their daughters about their menstrual experiences but for boys their parents try to keep them in total blackout. This finding also agrees with other studies that children rarely receive information on sexual matters from their parents. Odoemelam, 1996; Okonkwo and Eze, 2000; Akerele and Egbochuku, 2001.

It is possible that teachers skip such topics as reproduction, sexually transmitted diseases, and premarital sexual relationships, which are very important areas of knowledge on human sexuality. This opinion was also reported by Mommoh, Aroh and Ejike (2009). Another plausible reason for low level of sexual literacy as reported by this study may be because the teachers lacked the technique and language of peer interaction in providing sexual information to the students. This situation leaves the adolescents ignorant, curious and ill-prepared to contend with their blossoming interest in sexuality and sex, leading them to seek information from their peers.

Another finding of this study indicated that although there was no significant difference in the pre-test scores of both the experimental and control groups on the measure of sexual literacy, their post-test scores showed a significant difference. The students in the experimental group were found to perform significantly better than those in the control group in terms of their sexual literacy. This may be interpreted to mean that although the participants in the experimental study were from the same background showing no significant difference in their scores at the pre-test level. However, after the administration of the treatment, a significant difference was found in their post-test score on the sexual literacy measure. It could therefore be concluded that the peer sexual literacy education training is effective. This is in agreement with other findings. For instance research indicated that Peer-led health education in school could be more effective than adults-led (Mellanby, Rees & Tripp, 2012). Baghianimoghadam, Forghani, Zolghadr, Rahaei and Khani (2012) found a similar trend. Also, Ibrahim, Rampal, Jamil and Zain (2012) found that Peer-led education program in HIV prevention improved knowledge, attitude and substance risk behaviour. Generally, the effectiveness of peer education is commonly based on the belief that students often feel more comfortable talking with peers when it comes to sensitive issues such as sexuality and drug use.

Hypotheses 2, 3 and 4 were posed to explore factors which may moderate the effectiveness of the peer sexuality education. The study found that only age seemed to influence the effectiveness of the peer sexuality education programme; sex and religion were found not to moderate the effectiveness. This is in contrast with the findings of Ibrahim, Rampal, Jamil and Zain (2012). They found that their peer-led education programme on HIV prevention was moderated by ethnicity and gender (sex). Nevertheless, it is possible that the variance in this case may be due to the subject matter. The present study was generally on sexual literacy and not on HIV prevention. Age might have inhibited the effectiveness because in learning process maturity plays an important role. It is logical to think that older adolescents will be more interested in sexual information than the younger ones. This might account for the difference. This is also in line with the findings of Michielsen, Beauclair, Delva, Roelens, Van Rossem and Temmerman (2012) as they found that younger people prefer receiving HIV information from other sources than peers.
5. Conclusion

The result concluded that there is low level of sexual literacy among the students. The peer-led approach is more effective than the teacher-led approach in improving the level of sexual literacy of the students. Thus students can be assisted in becoming more sexually literate if their informed mates are engaged in providing information on sexual related issues that concern them.

References


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