Effect of Knowledge on the Causes, Consequences and Prevention of Unwanted Pregnancy among Adolescents in Selected Government Secondary Schools in Oyo State, Nigeria

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Abstract:  
Nigerian mortality rate is still high in relation to unwanted pregnancy among adolescents and this constitutes a great problem to the society since early pregnancy and pregnancy outside wedlock are not the acceptable practice especially in the south west region of the country. There is low information on sexuality education to the adolescents mostly especially from the parents during early childhood period that is necessary for the upbringing of children in the prevention of unwanted pregnancy among the adolescents. The objectives of this study are to assess the knowledge of the pupils on causes, consequences and prevention of unwanted pregnancy and to enhance their knowledge on sex education.

The study utilized two groups’ pre and post quasi experimental research design. A sample size of 373 students was randomly selected out of 1329 utilizing Cochran’s formula but 360 completed the study. The total numbers of 185 and 175 students were used as experimental and control group respectively. Descriptive statistics were used to answer research questions and paired t-test was used to test the hypotheses at 0.05 level of significance. A teaching package was used as intervention for the experimental group while the control group was excluded.

The study concluded that the training package utilized in this study enhanced the knowledge of students on the causes, consequences and prevention of unwanted pregnancy thus making them to be well informed. These findings could contribute to the reduction of unwanted pregnancy among the adolescents. Therefore, it was recommended that periodic sex education should be included in the school’s curriculum and should be given in collaboration with medical professionals.

Keywords: Adolescents, enhancing training package, knowledge, sexuality education, unwanted pregnancy

1. Introduction  
At creation, God released a blessing on mankind to multiply and replenish which means they need to give birth to younger ones. Pregnancy in wedlock is a thing of joy that calls for celebration and often expected from married couples who are believed to be physiologically, emotionally, financially, psychologically and spiritually matured to handle pregnancy. However, when it occurs in a younger individual such as adolescents, it is been frowned at rather than celebrated because it is often associated with health problems in the society affecting the individual, family and the society at large. Often than not, such pregnancies are unwanted.

Unwanted pregnancy is the pregnancy that occurs in a female child when not desired. Lack of knowledge on sexuality is the major factor responsible for unwanted pregnancy among adolescents. Some other causes of unwanted pregnancy in adolescents are poverty, low socioeconomic status of the parents, and lack of good parental care, peer pressure, exposure to media or internet (pornography), rape and non-use of contraceptives by the sexually active ones (Osaiikhuwuomwan & Osemwenkha 2013). Unwanted pregnancy among the adolescents has a lot of consequences attached to it. Because unwanted pregnancy is not culturally acceptable, many adolescents with unwanted pregnancy tend to abort and if not, they are faced with consequences which may be psychological both to the individual and at times to the parents in terms of low self-esteem and shame. It may disrupt the academic attainment of the girl or there may be health
challenges associated with pregnancy such as pre eclampsia, pregnancy induced hypertension, anaemia, low birth weight, abortion, sepsis and even death. The safest and most acceptable preventive measure against unwanted pregnancy among the adolescents is total sex abstinence. When this is not possible, contraceptives should be used by the sexually active ones.

Adolescent or teenage pregnancy is the pregnancy that occurs in a female child before the age of 20 (Plugradt, 2019). Unwanted pregnancy among the adolescents is a major health issue both in the developed countries and the developing countries including Nigeria (Bankole, Oye-Adeniran & Singh, 2006). Adolescent pregnancy is one of the major social and health problems being faced by the individuals involved, the parents, the society and the nation at large because of the complications associated with it during pregnancy, delivery and afterbirth because the adolescent has not fully developed physically, emotionally and most importantly financially to be able to cope with the care of the baby. Out of many factors that influence teenage pregnancy rates, the number one cause for teenage pregnancy is unprotected sex. Others are peer pressure, sexual abuse or rape, substance abuse, low socio-economic status, barriers to contraceptives and family relationship that exist between the adolescents and the parents (Sarah, 2019). Lack of education about sex is another cause to unwanted pregnancy among teenagers. Sex education should be given not to only the teenage girls but to boys also (Sarah, 2019).

The United States saw a drop in teen pregnancy by 7 percent from 2016 to 2017. Nevertheless, the U.S. number of teen pregnancies is still higher than in most industrialized countries. Unwanted pregnancy occurs in women of all ages but adolescents have been most affected (Adewole, Oye-Adeniran, Iwure, Oladokun, Gbadegesin & Babarinwa, 2004). Pregnancy can occur with sexual intercourse after the start of ovulation, which can be before the first menstrual period (menarche) but usually occurs after the onset of menstrual periods. In well-nourished females, menarche usually takes place around the age of 12 or 13 (WHO 2004). In developing countries, young women between 15-24 years of age account for more than 40% of unsafe abortions due to the high number of unwanted and or out of wedlock pregnancies (Soura, Lankoade & Senderowicz, 2018).

Adolescents’ sexual and reproductive health is a challenge in many low and middle income countries (Furry, Mashalla & Tshweneagae, 2019). Unintended pregnancy among adolescents represents an important public health challenge in many countries, especially in developing countries. Numerous prevention strategies have been employed by countries across the world, in an effort to address this problem. However, the adolescent unwanted pregnancy is still increasing in many Africa countries (Nalenga, 2012). Adolescents like other female adults face the same related issues during pregnancy but most times they are not physically matured enough to sustain a healthy pregnancy to term and to deliver (Mayor, 2004). There are lot of risk in relation to biological age associated with adolescent pregnancy such as low birth weight, premature labour, anaemia and pre-eclampsia despite prenatal care (Loto, Ezeki & Kalu, 2004). Unwanted pregnancy constitutes a problem, even at the community level; the high contraceptives awareness should be translated to an increased use to bridge the gap of unmet need (Lamina, 2015). When educational intervention and promotion of birth control are used in combination, this used in combination; this can reduce the risk of unintended teenage pregnancies (Orangejane, Chiom, & Meremikwu, 2016).

In Nigeria, there is a restrictive abortion law which makes abortion of unwanted pregnancies not possible or legal except it is needed to save the life of the woman but this is usually done in the private hospitals by the unskilled provider and or in an unhygienic environment which most of the time complicate the matter and most often lead to sepsis due to either retained products of conception or introduction of infection during the procedure by an unskilled provider. Unsafe abortion is a major contributor to the country’s high levels of maternal death, ill health and disability. The use of contraceptives and abstinence by the unmarried women of reproductive age (15-49) is the best way to prevent unwanted pregnancy and reduce mortality (Bankole et al, 2006). WHO (2016) stated that 25 million (45%) were unsafe out of 56 million induced abortions that took place each year during 2010–2014 worldwide. In all, 55% of abortions each year were safe, 31% were less safe, and 14% were least safe. About 50,000 Nigerian women die yearly in Nigeria due to complications caused by unsafe abortion, adding that majority of the victims were teenagers and school girls (Chid, 2016). Bankole (2012) asserted that an estimated 1.25 million induced abortions occurred in Nigeria in 2012, equivalent to a rate of 33 abortions per 1,000 women aged 15-49. He noted that the level of unintended pregnancy is on the high side in Nigeria; the rate of unintended pregnancy was 59 per 1,000 women aged 15-49 in which 56% resulted into abortion. About 212,000 women were treated for complications of unsafe abortion and additional 285,000 experienced serious complications but did not receive treatment they needed. Unwanted pregnancy may be related to factors such as low social economic factors, family size, rape and pregnancy resulting from incest etc. Both the female and male students are responsible for the pregnancy but in most cases it is the female adolescents that are at the receiving end. In order to avoid becoming mother prematurely and having a child out of wedlock and for the fear that the pregnancy may disrupt her education with the fact that child outside wedlock is usually frowned at and not socially acceptable. These make the female adolescents resort to abortion. Due to the fact that abortion is not yet legalized, she may fall into the hands of quacks which predispose her to a lot of danger. Increased efforts are needed especially in the developing countries to ensure access to contraceptives and safe abortion (WHO 2017).

Adolescent pregnancy and its consequences represent a major public health concern in many low to middle income countries of the world. The World Health Organization (2013) has recently developed evidence-based guidelines addressing critical areas: preventing early marriage; preventing early pregnancy through sexuality education, increasing education opportunities and economic and social support programs; increasing the use of contraception; reducing coerced sex; preventing unsafe abortion; and increasing the use of care childbirth and postpartum care (Chandra-Mouli, Camacho & Michaud, 2013). The following research questions were used to drive this study:

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What is the pre and post intervention knowledge of the students in the experimental group on the causes, consequences and prevention of unwanted pregnancy?

What is the pre and post intervention knowledge of the students in the control group on the causes, consequences and prevention of unwanted pregnancy?

What is the post intervention knowledge of the students in the experimental and control group on the causes, consequences and prevention of unwanted pregnancy?

2. Methodology

Two group pre-test post-test quasi experimental design was used in this study, a multistage sampling technique was used to randomly select four government secondary schools from two local Governments in a selected senatorial district. A total number of 373 students from senior classes in Ogbomoso Grammar school, Soun High School, Iresaadu High School and Olugbon High School were randomly selected from 1329 students in their senior classes but 360 completed the study.

Two major instruments used in this study were a self developed questionnaire on demographic, sexuality, pregnancy related issues and test paper on the causes, consequences and prevention of unwanted adolescent pregnancy designed to obtain data to provide answers to research questions and hypotheses.

The letters were given to the principals of each of the schools under the study. Also, inform consent was sought from the respondents and the purpose of the study was made known to them.

The data collection was in three sessions for both the control and the experimental groups. This includes:

2.1. Pre Intervention Session

This session was conducted during the first week in which the schools were visited and self-introduction was made to the principals of each school, the purpose of the study was made known to the principals of the schools. The researcher was introduced to the respondents and the respondents were assured of confidentiality that all information given will be used for academic purpose and were made to know that they can withdraw at any stage without any negative impact on them. Self-developed questionnaires were administered to assess the respondents' pre intervention knowledge on the causes, consequences and prevention of unwanted pregnancy.

2.2. Intervention Session

This session was conducted within the period of two weeks in which the interventions were given to both experimental and control group.

The control groups were given an intervention on carrier talk and good conduct that can influence their success such as good attitude to school work, hard work, truthfulness, punctuality and readiness to learn. The experimental groups were given an enhancing package on the causes, consequences and prevention of unwanted pregnancy.

2.3. Posttest/ Evaluation Session

The knowledge level of the participants were assessed, both groups were involved in the post test to know the effectiveness of the intervention.

3. Results

| Variables                              | Frequency | Percentage (%) |
|----------------------------------------|-----------|----------------|
| Age Range                              |           |                |
| 13-15 years                            | 88        | 24.4           |
| 16-18 years                            | 225       | 62.5           |
| 19 years                               | 47        | 13.1           |
| Total                                  | 360       | 100.0          |
| Level of Study                         |           |                |
| SS1                                    | 149       | 41.4           |
| SS2                                    | 136       | 37.8           |
| SS3                                    | 75        | 20.8           |
| Total                                  | 360       | 100.0          |
| Gender                                 |           |                |
| Male                                   | 204       | 56.7           |
| Female                                 | 156       | 43.3           |
| Total                                  | 360       | 100.0          |
| What is your parent occupation         |           |                |
| Self employed                          | 277       | 76.9           |
| Professional/Civil servant             | 59        | 16.4           |
| Others                                 | 24        | 6.6            |
| Total                                  | 360       | 100.0          |
| What type of accommodation do you live in|           |                |
| One room apartment                     | 130       | 36.1           |
| Self-contained flat                    | 162       | 45.0           |
| Bungalow                               | 53        | 14.7           |
| Duplex                                 | 15        | 4.2            |
| Total                                  | 360       | 100            |

Table 1 Students Socio Demographic Data [S-SDD]
| Variables                                      | Frequency | Percentage (%) |
|------------------------------------------------|-----------|----------------|
| Have you had any form of sex education         |           |                |
| Yes                                           | 226       | 62.8           |
| No                                            | 134       | 37.2           |
| Total                                         | 360       | 100.0          |
| What was the source of information            |           |                |
| Parents                                       | 56        | 24.8           |
| Friends                                       | 32        | 14.2           |
| School                                        | 80        | 35.4           |
| Social                                        | 58        | 25.7           |
| Media                                         |           |                |
| Have you started Menstruating                 |           |                |
| Yes                                           | 145       | 92.9           |
| No                                            | 11        | 7.0            |
| Total                                         | 156       | 100            |
| What was your age at menarche                 |           |                |
| Age: 9                                        | 1         | 0.64           |
| 10                                            | 2         | 1.28           |
| 11                                            | 5         | 3.2            |
| 12                                            | 13        | 21.8           |
| 13                                            | 34        | 21.8           |
| 14                                            | 57        | 36.5           |
| 15                                            | 30        | 19.2           |
| 16                                            | 6         | 3.8            |
| 17                                            | 8         | 5.1            |
| Total                                         | 156       | 100            |
| How many sexual exposure does one need to get pregnant? |           |                |
| 1 Exposure                                    | 109       | 30.3           |
| 2-3 Exposure                                   | 215       | 59.7           |
| 4-5 Exposure                                   | 23        | 6.4            |
| 6 Exposure                                    | 13        | 3.6            |
| Total                                         | 360       | 100            |
| Does social media has influence on your view about sex |           |                |
| Yes                                           | 170       | 47.2           |
| No                                            | 190       | 52.8           |
| Total                                         | 360       | 100            |
| Did you know any contraceptives                |           |                |
| Yes                                           | 66        | 18.3           |
| No                                            | 294       | 81.7           |
| Total                                         | 360       | 100            |
| What are the type you know                    |           |                |
| Condom                                        | 66        | 100            |
| Total                                         | 66        | 100            |
| Did you use any contraceptives                 |           |                |
| Yes                                           | 23        | 6.5            |
| No                                            | 337       | 93.6           |
| Total                                         | 360       | 100            |
| What type did you use                         |           |                |
| Condom                                        | 23        | 100            |
| Total                                         | 23        | 100            |

Table 2: Students Data on Sexuality

| Variables                                      | Frequency | Percentage (%) |
|------------------------------------------------|-----------|----------------|
| Have you been Pregnant before                  |           |                |
| Yes                                           | 8         | 5.1            |
| No                                            | 148       | 94.9           |
| Total                                         | 204       | 100            |
| Have you impregnated any one before           |           |                |
| Yes                                           | 1         | 0.5            |
| No                                            | 203       | 99.5           |
| Total                                         | 204       | 100            |
| What was the outcome of pregnancy             |           |                |
| Live birth                                    | 2         | 22.2           |
| Miscarriage                                   | 6         | 66.7           |
| Not sure                                      | 1         | 11.1           |
| Total                                         | 9         | 100            |
| Complication of Pregnancy                     |           |                |
| Pain and infections                           | 5         | 55.6           |
| Bleeding                                      | 4         | 44.4           |
| Total                                         | 9         | 100            |

Table: 3 Students Data on Pregnancy and Its Outcomes
Figure 1: Pre and Post Score Mean for Control and Experimental Groups on the Causes of Teenage Pregnancy

Figure 2: Pre and Post Score Mean for Control and Experimental Groups on the Consequences of Teenage Pregnancy

Figure 3: Pre and Post Score Mean for Control and Experimental Groups on the Prevention of Teenage Pregnancy
4. Discussion of Findings

The findings from Table 1 shows that 88 (24.4%) students were between 13-15 years old, 225 (62.5%) students were between 16-18 years old, while the remaining 47 (13.1%) students were 19 years. The level of education of the students showed that 149 (41.4%) were in SS1, 136 (37.8%) were in SS2 and the remaining 75 (20.8%) students were in SS3, majority of the students were male 204 (56.7%). The findings on the occupation of the students’ parents depict that predominantly, 277 (76.9%) self-employed most of which were petty traders and farmers. This was supported by the study carried out by Iseyemi et.al (2017) that women with low socioeconomic status were more likely to have an unintended pregnancy as low socioeconomic status was associated with an increased risk of unintended pregnancy.

Furthermore, Yazdkhasti et.al, (2015) stated that social stratification ranks individuals based on their education, income and employment status and therefore consolidates their position in the system and unintended pregnant teens will be more exposed to risk factors including lower education and income levels and being focused to take low status jobs, low coverage for family planning is an important factor in unwanted pregnancy.

The findings from Table 2 show that only 62.8% of the respondents have had any form of sex education. Most of these were from the school and parents. This differ from Chiazor et.al, (2017) that stated that poor sex education is one of the major causes of teenage pregnancy as most parents tend to keep information on sex away from their children. This they postulated was due to not having time to give education on sex. This attitude of hiding these facts from their children cause more harm and make the children to be prone to unwanted teenage pregnancy. Ochiogu et.al, (2011) documented finding that sex education was provided in all schools at junior and senior secondary school levels support the finding that majority of participants in this study got their information from the school. Odeyemi, et.al, (2018) opined that sex education should start and be encouraged from home and it must be a primary responsibility of the parent towards their children and the influence of social media and peer group should be cautioned.

272 [75.6%] students were living with both parents. Majority of the students 287 [79.7%] have started menstruating with their age ranges from 9 years to 17 years with the majority started at age 14 [36.5%]. Majority (190 [52.8%]) of them believed that it is sexual exposure of two to three that can result into pregnancy. Many of them (294 [81.7%]) were not aware of any contraceptives and those that were aware 66 [18.3%] know about condom only of which 23 [6.5%] used only condom. This was in concert with the study carried out by Masemola-Yende & Mataboge (2015) that non-use of contraception is one of the factors predisposing the adolescents to unwanted pregnancy.

In the study carried out by Idowu et.al(2015), almost all (92.3%) of the respondents were aware of family planning but only 58.1% and 55.3% of them had good knowledge on and positive attitudes towards family planning respectively. In all, 64.0% of the sexually active respondents had ever used family planning. Condom was the commonest family planning method ever used which is in support of the result that those that are on contraceptives majorly are on condom.

The findings from Table 3 show that 8[5.1%] of female students have been impregnated before and 1[0.5%] of male had impregnated, majority of the pregnancy led to miscarriage as stated by Darroch, Woog, Bankole, Ashford & Points(2016), that some 3.9 million unsafe abortions among girls aged 15 to 19 years occur each year, contributing to
maternal mortality and lasting health problems, 5[55.6%] of the pregnancies were complicated by pain and infections while 4[44.4%] were complicated by vaginal bleeding. Emechebe, (2016) in a study carried out in a low resource setting revealed that the most common complications were sepsis (64.59%) and hemorrhage (40.64%). Similarly, Oyefabi, (2016) reported that vaginal bleeding is the most common complication of miscarriage of pregnancy. Conversely, (Darroch et al, 2016), stated that adolescent mothers (ages 10 to 19 years) face higher risks of eclampsia, puerperal endometritis, and systemic infections than women aged 20 to 24 years.

5. Conclusion and Recommendations
In conclusion, the knowledge of the respondents on the causes, consequences and prevention of unwanted pregnancy were found to be below average but was noted to have increased significantly in the post intervention test. (2009). Interventions for preventing unintended pregnancies in adolescents in developing countries. Recommendations that:

- The training and health talk on sex education should not be underrated among the teenagers in the secondary schools.
- Training programs on sex education and the related factors like unwanted teenage pregnancy should be included in the school curriculum.
- The schools should detect early the vulnerable students such as students from poor home, students from single parents and find a means of counselling and providing support to the students at the appropriate time.
- Health talk on sex education and pregnancy related factors should be included in the welcoming programme for fresh students.
- The parents should be encouraged to be closer to their wards and to give adequate information on sex education and related issues to support the one done in the schools.
- Integrity and purity should be held in high esteem in the society in relation with abstinence and self control.
- Government should provide youth friendly services for the adolescents where they can have easy access to sexual and reproductive health issues including contraceptives
- Government's policy should improve the economy of the populace so as to minimise the incidences being caused by low socio economy status of the parents that affect the children.

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