Factors Affecting Adolescent Sexual Risk Taking Behavior in Nigeria and Gaps For Programming

By

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Abstract

The National Adolescent Health Policy in Nigeria defines adolescents as individuals between the ages of 10 and 24 years. This age group makes up one third of Nigeria’s total population of 148.1 million. Sexual and reproductive health issues lead the health challenges of adolescents in Nigeria and globally and this results from the sexual risk taking behavior prevalent among adolescents. As such, this literature review sets out to highlight the contextual factors affecting youth sexual risk taking and notes the gaps in youth sexual and reproductive health programming. The results showed that the sexual and reproductive health needs of male adolescents and have received little attention. Other youth groups not reached by sexual and reproductive health programs include: out of school young people, youths living with HIV, married adolescent girls, young people with disabilities, orphans and young people in rural areas. The review concluded with recommendations on how to meet these challenges.
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**Problem Statement**

The adolescent population is increasing worldwide and presently constitutes one-fifth (1.2 billion) of the world population.\(^3\) With the increasing population of adolescents worldwide, more adolescents will be expected to present to the health care facilities with different illnesses. This is undoubtedly a large group that cannot be ignored or neglected in the health care scheme.\(^3\) Sexual and reproductive health issues lead the health challenges of young people globally\(^4\) and the enormity of the consequences associated with risky sexual behavior has been documented.

The National Adolescent Health Policy in Nigeria defines adolescents as individuals between ages 10 and 24 years.\(^1\) This age group makes up one third of Nigeria’s total population of 148.1 million, hence making sexual and reproductive health among this age group critical.\(^2\) From an international perspective, any study on the sexual health of Nigerian adolescents is of significance to sub-Saharan Africa, as a third of African youths live in Nigeria.\(^2\) Problems associated with adolescents’ sexual health include high rates of teenage pregnancy reflected by about one million births per year occurring in Nigeria to teenage mothers.\(^3\) In 2008, 23% of women aged 15–19 years were already mothers or were pregnant with their first child.\(^4\) In the North West Zone of Nigeria, teenage childbearing is as high as 45% of women aged 15 to 19.\(^4\) It was noted in 2008 that 20% of women in Nigeria were sexually active by age 15, and the median age for first sex stood at 17.7 years for women and 20.6 years for men.\(^4\) Early sexual initiation lengthens the period of exposure to unwanted pregnancies, HIV, and other sexually transmitted infections.
Extensive research into adolescent and young people’s behavior concerning reproductive health has identified five thematic areas that influence these behaviors. These areas comprise: (1) Individual characteristics of young people, which include their knowledge, attitudes, beliefs, values, motivations and experiences. (2) Their sexual partners and peers. (3) Their families and the adults in the community. (4) Institutions that support the youth and provide opportunities, such as schools, workplaces and religious organizations influence young people’s behavior. And (5), communities, through which social expectations are transmitted about gender norms, sexual behavior, marriage and child bearing. Against this background, this document will proceed to elucidate on the contextual factors affecting youth sexual risk taking in Nigeria.

**Conceptual Framework: Adolescent Sexual Risk Taking in Nigeria**

Following a review of the literature, the diagram below serves as the conceptual framework on youth sexual risk taking in Nigeria. At the distal section of this framework, religion, government policies, socioeconomic status (SES), place of residence, and family and gender work through the more proximate factors. These include peer influence, contraception, mass media, communication, in/school status and early marriage which give rise to youth sexual risk taking behaviors which include multiple sex partners, early sexual activity and transactional sex. We will review each of these factors in turn.
DISTAL FACTORS:

Religion:

Religiosity is a protective factor for a number of adolescent health-related outcomes, including sexual behavior. The 2009 study by Adeyemo et al showed that females who had higher religiosity scores were more likely to have higher self-efficacy in communicating with both new and steady partners about sex, refusing an unsafe sexual encounter, and communicating with their partners about sexually transmitted diseases and infections, as well as pregnancy prevention. Further findings in the Adeyemo et al. study indicated that female adolescents with higher religiosity scores were more likely to initiate sex at a later age and possessed more
favorable attitudes toward condom use. These findings suggest that religiosity may be a protective factor to adolescent sexual risk behavior in Nigeria.\textsuperscript{6}

**Government Policies:**

Policies on Adolescents Sexual and Reproductive Health (ASRH) in Nigeria have shown an increasing commitment to the health and development of young people. However, this commitment has been selective and has not fully addressed adolescent ASRH needs. For example, the Federal Government’s decision to allow the Child Rights Act implementation to be left to the discretion of individual states as to whether or not such marriage acts should be passed into law has not helped in promoting optimal sexual and reproductive health among adolescents.\textsuperscript{7} This situation is particularly glaring in states like Bauchi and Borno which have not passed the Child Rights law. These states have continued to present a strong resistance to the provisions of the Child Rights Act.\textsuperscript{7} In defending this position, the opponents of the Act have argued that some stipulations of the Act are against the Muslim religion and as such cannot be followed.\textsuperscript{8} Furthermore, there are no policies addressing the sexual and reproductive health needs of adolescents in marriage. Given their large numbers and vulnerability of those marrying very early, married adolescents represent an acutely under-served group.

**Socio Economic Status:**

Studies have documented the association between socio-economic status and sexual behavior.\textsuperscript{9-12} As this body of evidence shows, economic deprivation considerably affects ability to negotiate or adopt protective behavior, especially among young women whose sexual partners are often older, richer and more powerful men with whom they may be unable to negotiate safe sex for fear of losing the economic benefits from such relationships. Also, Anthropologists
examining the global AIDS pandemic have highlighted the impact of poverty and inequality as fundamental structural determinants of who is at risk.13

**Place of Residence:**

In Nigeria, it is recognized that abstinence and consistent condom-use protect against STIs/HIV/AIDS. Condoms are widely available and are free for young people through many nongovernmental organization outlets or at minimal subsidized prices. Yet, there is evidence that urban young slum people do not use these, suggesting the existence of barriers to adopting safe sexual practices. For example, In Nigeria, slum communities are closely knit, and the pattern of social organization largely mirrors those found in traditional societies.14 This close-knit structure is reflected in housing patterns organized along family compounds that are expected to regulate social and sexual behaviors of members, particularly those of females. Within this context, negotiating condom-use to prevent HIV/AIDS may signify negative connotations about individual character and sexual morality, and these threaten relationships. The ability of young women to request or insist on condom-use is, therefore, subjected to these constraints.14-15 Studies have also shown that youths in rural areas may have less access to contraceptives, including condoms.16

**Family:**

The family as a unit of care can mitigate adolescent problems.3 Family cohesion is conceptualized to include the degree of commitment, help and support that family members provide.3 High levels of family cohesion lead to bonding, and low levels of cohesion indicate poor family support, which could lead to a family dysfunction. Low family cohesion is associated with adolescent sexual risk behavior while high family cohesion is associated with
effective parenting (nurturing and supportive, with clear and consistent discipline). Parental monitoring and effective communication with the adolescent children may prevent association with deviant peers, a primary pathway leading to onset and escalation of high-risk behavior in adolescence.\(^3\) Family members also exert influence on adolescents through their own modeling of risk behaviors and through shared core family processes.\(^3\)

**Gender:**

The nature and structure of the African family system are important determinants of sexual behavior.\(^16\) Research shows that extramarital relationships by married men are accepted in most Nigerian communities.\(^17\) In the same vein, the practice of patronizing commercial sex workers is also prevalent among men in Nigeria.\(^17\) This patriarchal ideology which is prevalent in most African societies is consistent with women being less likely to control how, when, and where sex takes place given their economic dependence. This ideology influences sexual behavior such that young people with traditional gender role attitudes appear to be poorer contraceptive users than those with less traditional attitudes.\(^17\) Moreover, the prediction that men will be more promiscuous than women is consistent with most theories of sexual behavior. Empirical evidence demonstrating a strong support for this prediction is seen in a survey in rural and urban Nigeria which showed that rates of adolescent sexual activities are higher among males (50%) than females (40%).\(^17\) Similarly, in the 2006 study by Sunmola et al\(^17\) on reproductive knowledge, sexual behavior, and contraceptive use among adolescents in Niger State of Nigeria, he found that 36% of the females in contrast to 64% of the males reported sexual experience.

**PROXIMATE FACTORS:**

**Mass media:**
The mass media (including music, television, and most recently, the internet) are an important part of the adolescent’s community. The excessive use of the Internet has recently attracted the attention of scholars. And research evidence suggests a relationship between exposure to sexual content in the media and sexual beliefs, attitudes, and behaviors. Given the popularity of the Internet amongst adolescents in Nigeria, some researchers have investigated the relationship between young adults’ involvement with online sexual content (including online chats, meeting partners, and looking for romantic and sexual relationships) and the development of their sexuality. For example a study by Adebayo et al. examined the influence of internet use on the sexual behavior of young adults in Nigeria. The results revealed that as the use of the internet increased, participants reported a greater extent of risky sexual behavior. Moreover in the 2011 study by Onyeonoro et al, other media sources like television served as the most common source of information on sex. Studies in Nigeria have reported increasing negative effect of media on adolescent sexuality due to unrestricted access and increase in sex content.

Parent - Child Communication:

Although many parents want their adolescent children to know about abstinence, contraception, and how to prevent HIV and other sexually transmitted infections (STIs), they often have difficulty communicating about sex. Most Nigerian cultures frame good parenting in terms of parental ability to shield children from early sexual knowledge. However, studies have shown that effective communication on sex does not encourage early initiation of intercourse but on the contrary, communication concerning sexual matters between parents and their adolescent children serve as a protective factor. This is illustrated in the 2009 study done by Akinwale et al. This study showed that younger parents were more likely to discuss about sexuality issues than older parents. This discussion helps adolescents establish individual values
and make sexually healthy decisions. In view of the findings, it was recommended that more efforts be geared towards developing intervention programs targeting different categories of parents, particularly those with little or no education and older ones, who are usually not too comfortable in discussing issues relating to sexuality with their children in the home.

**Peer Influence:**

Adolescence is marked by the establishment of close, intimate relationships with same and opposite sex peers. It is during this developmental period that teens start relying more on friends for advice and companionship as they slowly individuate from parents. Almost all teens would cite their friendships with peers as one of the priorities in their lives. The Ankomah et al study which looked at influence of peer pressure on sexual risk taking among Nigerian adolescents showed pressure from friends played a major role in the experiences of first sexual encounters and this pressure could range from subtle name calling to physical harassment. However the role of peers as a source of positive information has been documented. This was shown in the 2001 study by Brieger et al which showed positive sexual behavior changes among adolescents following a peer intervention program.

**Contraception:**

Studies in Nigeria indicate that more than 60% of women with unplanned pregnancy were not using contraceptives. Reasons often advanced for nonuse of contraception include lack of awareness, lack of access to contraception, fear of side effects and objection to its use by partners or family members. In the 2011 study by Abiodun et al, all respondents were aware of contraceptives, irrespective of sexual activity or inactivity. The main reason for not using contraception was fear of side effects of modern contraceptives. The Abiodun et al. study
showed that young women using contraceptives mostly obtained them from patent medicine stores rather than from family planning clinics. In Nigeria, condoms and oral contraceptive pills are readily available at patent medicine stores while injectable hormonal contraceptives and intrauterine devices are mostly available at designated family planning clinics. However, the operators of patent medicine stores are mostly nonprofessional and may not be able to give adequate information on contraceptives to adolescents.

**In-School Adolescents:**

Young people are becoming increasingly exposed to the risk of HIV infection and sexually transmitted diseases due to risky sexual practices. According to the 2008 HIV/Syphilis sentinel survey in Nigeria, 3.3% of young people aged 15-19 years are infected with HIV. The Bello et al. study, which looked at the sexual behavior of in-school adolescents in Ibadan, South-West Nigeria, revealed that the mean age of sexual initiation was 15±2.6 years. Over a quarter (28.3%) of the respondents had previous sexual exposure and about 40 percent had more than one sexual partner and more than a third had their first sexual exposure the same day they met the partner (37.6%). This study concluded that in-school adolescents practiced unsafe sexual activity and are therefore predisposed to STI/HIV and other reproductive health risks. The outcome of this study is consistent with other studies conducted in other regions of the country and similar to outcomes for adolescents in tertiary institutions. Most of the discourse on adolescents in tertiary educational systems in Nigeria has concentrated on contributions to the labor force while giving minimal attention to their sexual and reproductive health needs.

**Early Marriage:**
Seventy-three percent of girls within ages 13 and 19 are married in the North-East States of Nigeria. These marriages are usually aimed at reinforcing family linkages which in turn foster/enhance political, economic, and social alliances. Early marriage is promoted in the belief that it serves as a preventive mechanism against pre-marital sex. For example in Bauchi state, 30 out of 100 traditional leaders interviewed said that early marriage serves as a preventive mechanism against pre-marital sex. However, early marriage has implications for reproductive health problems and increased risk of HIV infection. The consequences of early marriage include early first birth that increases the risk of dying in pregnancy as exemplified by studies which show that 6 out of 100 married girls in North-East Nigeria die during pregnancy. Also infants of adolescent mothers are more likely to die before age 5 thus contributing to high infant mortality rates. Furthermore, adolescents are prone to obstructed labor and studies show that obstructed labor is responsible for 9 out of 10 vesicovaginal fistulae cases in North East Nigeria.

**SEXUAL RISK TAKING BEHAVIORS:**

**Multiple Sex Partners:**

The purpose of the Izugbara et al. study was to understand the views of Nigerian adolescents regarding the risks and benefits of having multiple sexual partners. It showed that respondents were aware that having multiple sex partners was a risk factor for several negative health outcomes, including contracting STIs, poor academic outcomes, and economic losses. Nevertheless in this study, the respondents associated having multiple sexual partners with many benefits. Generally, the benefits that study participants associated with having several sexual partners centered on the perceived potential to reinforce their acceptance among their
The findings from this study have implications for sexuality education. Moreover, from the point of view of prevention, the study confirms that awareness that a particular behavior is risky does not appear to be a sufficient condition for young people to avoid it. This is because the same behavior may also be perceived as having important benefits. Hence, sex education curricula that are insensitive to what young people perceive as the benefits of the sexual practices and behaviors they engage in may not effectively deliver their expected impact.

**Transactional Sex:**

At the national level, about 10 percent of females and 26 percent of males aged 15-24 years engaged in transactional sex in 2005. In the 2005 study by Wusu et al., factors influencing involvement in transactional sex among university students include poverty, broken homes, peer influence and desire to make cheap money. The data from this study suggest that most students who engage in transactional sex rarely use measures of protection such as condoms and most of the partners who engage students in risky sexual behaviour are of higher social and economic status. This inequality in social and economic status makes it very difficult for the students to negotiate safe sex, hence increasing their vulnerability to sexual transmitted infections (STIs) and HIV.

**ADOLESCENT SEXUAL AND REPRODUCTIVE HEALTH (ASRH) PROGRAM MODELS IN NIGERIA:** The adolescent sexual and reproductive health of adolescents has received much attention, and attempts by the Nigerian government and non-governmental organizations have been made to promote the optimal sexual and reproductive health of
adolescents. Adapted from the USAID ASRH health project review and design, is a summary of the five most common program models (MODELS A-E) being implemented.

A. **In-School Family Life and HIV Education (FLHE):** The 2001 United Nations General Assembly Special Session on HIV/AIDS sought to ensure that by 2010 at least 95% of the world’s youth would have access to information and education necessary to reduce their vulnerability to AIDS. School based programs can potentially reach a large number of young people, especially where school enrollment rates are high. The Family Life and HIV/AIDS Education (FLHE) is an example of such strategy specifically developed to suit the Nigerian context. FLHE aims to provide young people with knowledge, positive attitudes and skills to foster behavior change and thus reduce their risk of acquiring HIV/AIDS and other reproductive complications. The target age groups include adolescents aged 10-24. It is a nationally approved curriculum and has a strong state buy in. However it is limited by financial resources to facilitate training.

B. **Stand-alone Sexual and Reproductive Health (SRH)/Information Education**

**Communication IEC/Life skills program:** This program model has no health related services but is limited to educational interventions. The core focus of this model is building the knowledge and skills of young people. It targets both in and out of school adolescents and focuses on young people aged 10 to 24. Many young people at some point need health related services and not just information and life skills. Consequently, this model requires a robust referral network to ensure that the needs of the young people it targets are comprehensively met.

C. **IEC Integrated with livelihood skills:** This model provides ASRH information alongside vocational training or livelihood skills. Females are targeted more often than
males and the programs are often strategically directed towards married adolescent females. It attempts to address the economic and livelihood issues which are major developmental challenges for young people in Nigeria. The challenges of this model include its cost. Moreover, resources are needed not only for vocational training but also for post-graduation support, to achieve the desired outcome for the beneficiaries of the intervention.25

D. **IEC Integrated with Health Services:** This model involves both IEC and service delivery. They are often implemented as part of youth friendly health services or closely linked to health facilities. It targets all adolescents and males are more likely to use the services. Because they are linked to delivery of health services, they have a potential for increasing utilization and facilitating the access of many young people to adolescent targeted services. Because this type of service incorporates several health service units and involves a variety of staff including health professionals, startup cost can be expensive.25

E. **Mass Media/Information Communication Technology (ICT):** This model targets broader reproductive age groups and has rich adolescent related contents particularly relating to HIV and sexual behavior which is communicated through information technologies such as television, radio, internet and phones. Because the use of such communication technology such as phones is growing among urban based adolescents in Nigeria, behavior change messages are now being disseminated thorough phones. A strength of this model is that mass media programs can reach a large number of young people of all ages. Also programs using electronic media can be strategic in reaching out-of-school and rural adolescents. While computer and telephone programs can be useful
particularly for urban young people and can promote learning through enjoyable activities, a limitation to this model is the financial resource involved while the impact on sexual behavior may be variable.

Critical Review of Selected Literature on Adolescent Reproductive Health Programs in Nigeria

Having described the factors affecting youth sexual risk taking in Nigeria and highlighting the five current ASRH program models, this section will review the literature on the evidence supporting these models. Articles were chosen that: (1) described intervention studies on adolescent sexual risk taking; (2) were published in peer-reviewed journals in English between 2000 and 2011; (3) the intervention was conducted in Nigeria; and (4) the studies reported on the Nigerian population. The articles were then categorized according to the five ASRH program models in Nigeria. Studies were identified by searching PUBMED, MEDLINE, GOOGLE SCHOLAR), as well as gray literature from websites of organizations working in the ASRH field. Articles 1-5, 8 showed studies on in school interventions, reflecting model A while articles 6, 7 showed evidence supporting models C and E. Key words include: Adolescent, sexual risk taking, Nigeria, program interventions. Review articles were excluded. The outcomes in the studies reviewed were largely limited by self-reporting. Studies reflecting all the ASRH models could not be found.

ARTICLE REVIEW:
1. **Effect of sex education programme on at-risk sexual behaviour of school-going adolescents in Ilorin, Nigeria. Mary Ogechi Esere**

The objective of this study was to determine whether a sex education intervention program would reduce at-risk sexual behaviors of school-going adolescents. A school was randomly chosen in Ilorin Metropolis of Nigeria. In the selected school, twenty-four school-going adolescents aged 13-19 years were selected. The study hypothesized that there would be no significant difference in the at-risk sexual behavior of school-going adolescents exposed to treatment and those in the control. A total of twenty four students, drawn from a mixed sex secondary school in Ilorin Metropolis constituted the study sample. Twelve students each were randomly placed in the intervention and control group. A Pre-test, post-test control group quasi-experimental design was utilized. The twelve students in the intervention group were exposed to a Sex Education intervention program with main outcome measures being self-reported exposure to sexually transmitted diseases, multiple sex partners, anal sex, oral sex and non-use of condoms. When the treatment (intervention) group was compared with the control group in an intention-to-treat analysis, there were significant differences in at-risk sexual behaviors of the two groups with those in the intervention group reporting less at-risk sexual behaviors than their counterparts in the control group thus causing a rejection of the null hypothesis. The self-reporting and sample size of this study contributed to its limitation.

2. **Effect of sexuality education on the improvement of health status of young people in the University of Ado-Ekiti, Nigeria. Akanle Florence, Foluso, Odu B.K.**

The objective of this study was to investigate the effectiveness of sexuality education on the improvement of the health status of university undergraduates. A pretest-posttest experimental
design was adopted for the study. The subjects were 40 undergraduates’ students who were sexually active. A 2 x 2 factorial design was used for the study. Twenty students were randomly assigned to each of the two groups, the control and the experimental groups. An instrument named the Sexuality Adjustment Scale and validated by researchers, was used to measure pre and posttest health status of subjects. Subjects in the experimental group were exposed to sex education while those in the control group did not receive sex education but were allowed their normal lectures outside the venue of the treatment. Regarding results, the subjects exposed to the treatment were more comfortable in discussing sexuality issues, gained more knowledge of reproductive health, and adopted change in behavior such as a reduction in the number of sexual partners and consistent and correct condom usage. Based on these findings, It was recommended that sexuality education should be made a compulsory course in all the institutions in Nigeria as it would lead to the improvement of sexual health status of adolescents in Nigeria and Africa as a whole.

3. Effect of training program on secondary school teacher’s knowledge and attitude towards reproductive health education on rural schools in Ile-Ife, Nigeria. Adegbemro AC, Adeniyi JD, Oladepo O.

The study assessed the effect of training programs on teacher’s knowledge and attitudes towards reproductive health education/sexually education (RHE/SE) in five randomly selected rural schools in Ife North local Government Area (LGA), Nigeria. All 84 teachers in the selected school in the LGA were recruited for the study. They were trained for one month on reproductive and sexual health education. The pre-training percentage of general knowledge on RHE/SE was 14.3% as against 53.6% after the training and this was significant at p= 0.0011. The findings in this study corroborate the earlier reviewed literature on the impact of
reproductive health education. The study concluded by suggesting that teachers saddled with the responsibility of training in-school adolescents on sexual and reproductive health issues should undergo a mandatory training so as to be equipped to communicate this knowledge effectively.  


This intervention study by Sekoni et al. assessed the effectiveness of health education and provision of free Human Immunodeficiency Virus (HIV) counseling and testing services on sexual behavior and uptake of HIV counseling and testing (HCT) among out of school youths (15-24yrs) in a Nigerian border town market using Seme border as the study group and Idi Iroko border as the control group. In the methodology, a systematic sampling techniques was used for selecting 120 respondents in each border town market. Data were collected using a standardized validated questionnaire. The results showed that both groups had similar demographic pattern, mean age of the respondents was 19 years while mean age at sexual debut was 16 years. Following the sex education intervention, condom use increased in the intervention group from 60% to 74%, consistency of use from 15% to 19% while multiple partners decreased from 26% to 19% while in the control group no appreciable difference was noted in the control group. Also noted was the statistically significant increase in number of youths who had done HCT post intervention from 18% to 59% (P = 0.05) The study concluded that provision of accessible youth friendly voluntary counseling and testing VCT services at the border as well as health education for out of school youths will help in improving uptake of VCT services and condom use among sexually active adolescents.
5. Evaluation of a School based reproductive health education program in rural south western Nigeria. Ademola AJ, Briegger W

This quasi experimental study compared the relative efficacy of teacher instructions alone, peer education alone and a combination of these two on reproductive health knowledge, attitude, perceived self-efficacy and sexual practices among secondary school students in the Ibarapa district of south western Nigeria. A baseline questionnaire was administered to a systematic sample of students in four schools that were randomized into four treatment arms: Teacher instructions alone E1, Peer education alone E2, combination of teacher instructions and peer education E3, and control. The results were used to design the contents of the intervention which were implemented for one academic session. A follow up survey using the same sampling procedures as baseline was conducted to measure the outcome of the intervention. The control group had superior reproductive health knowledge at baseline. By follow up survey however, all three interventions showed significant knowledge gains while the control school students mean score increased slightly. Increase in knowledge was greatest among the group E3 (5 points) followed by E2 with (3.4 points) and E1 at (1.4 points) while the control had (0.3 points). The intervention schools showed a significant positive shift in attitude towards use of contraceptives while perceived self-efficacy for safe sex increased significantly among E1 from (10.8 to 11.8) and E3 from (10.4 to 12.6). Reported condom use was significantly higher in the intervention groups as compared to the control.

This paper by Oduotolu et al. examined the relationship between empowerment (defined in terms of increased access to reproductive health information and economic resources) and reproductive behavior among women aged 19-25 years. This study hypothesized that economic empowerment through entrepreneurial skill development and availability of credit facilities to start a business venture could significantly alter the perception and behavior of young women in sexual and reproductive issues. Data for the study were obtained from part of a large-scale intervention program that was implemented by Life Vanguards, a nongovernmental organization. The intervention program was designed to increase access to reproductive health information and services and economic resources among young women who had received formal education in tertiary institutions and those who had completed trainings on various vocations. The intervention program spanned a two year period from June 1999 to July 2001, after which an assessment of impact on knowledge attitudes and practices of beneficiaries was undertaken by an independent assessor. The results showed a linkage between poverty and risky sexual behavior as participants who benefitted from the loans and started up a business were less likely to be involved in risky sexual behaviors.

7. The Effects of a Communication Program on Contraceptive Ideation and Use Among Young Women in Northern Nigeria Babalola S, Folda L, Babayaro H

This study reports the impact of a communication campaign consisting of mass media, aimed to reach young people in northern Nigeria. The campaign messages sought to encourage young people to use modern family planning methods to avoid unwanted pregnancies. The messages were designed to address the factors that have been empirically demonstrated to
influence contraceptive use. The data analyzed for this study was drawn from a 2005 sample survey among young men and women aged 15 to 24 living in two northern states, Bauchi and Kano. The respondents were selected for interview through a multistage random process that involved successively selecting enumeration areas, households, and respondents. A local research firm, Research and Marketing Services (RMS), was hired to implement the survey. A total of 3,844 individuals (1,924 males and 1,920 females) were interviewed successfully. Of the 1,920 female respondents, 819 were sexually experienced. Following an analysis of the results of the study, it showed that the communication program was significantly associated with greater contraceptive ideation and, to a limited extent, with higher contraceptive use.32

8. West African Youth Initiative: Outcome of a Reproductive Health Education Program.

Brieger WR, Delano GE, Lane GE, Oyediran AK, Oladepo AK.

The objective of the West African Youth Initiative program was to improve the knowledge of sexuality and reproductive health, and promote safer sex behaviors and contraceptive use among sexually active adolescents in Nigeria and Ghana. Between November 1994 and April 1997, two organizations supported community-based youth-serving organizations in the two countries to implement peer education projects which consisted of youth involvement in the dissemination of information and materials informing adolescents on sexual and reproductive health knowledge.33 A cross-sectional baseline survey was developed from focus group discussions (FGDs) that were held with youth at each project site in mid-1994. Baseline data were collected between October 1994 and January 1995, in designated intervention and control communities. For the in-school interventions, control schools were identified in similar socio-economic neighborhoods in different parts of the same city or in a neighboring town. Out-of-school sites were neighborhood-based, and control areas were similar neighborhoods in other
noncontiguous parts of the same city. The survey instrument examined indicators such as levels of sexual activity in the previous 3 months, knowledge of reproductive health issues, prevalence of STIs, attitudes toward contraception, and contraceptive use. In comparison with data after the study, the results showed significant differences over time and between intervention and control groups concerning reproductive health knowledge, use of contraceptives. Overall, the project provided evidence that peer education was effective at improving knowledge and promoting attitudinal and behavior change.

All reviewed intervention studies in this section spanned 2000 to 2011. The intervention studies reflecting the in-school FLHE model lent credence to the model as adolescents exposed to the educational intervention experienced changes in their risky sexual behavior. To further improve the In-school model, a combined approach involving peer education and teacher education could be beneficial. The success of this combined approach was reflected by the quasi experimental study of Ademola et al. which showed the most positive impact on risky sexual behavior when the combined approach was implemented in an in-school setting. The educational intervention has also been successful in out-of-school settings as shown by the Sekoni et al. study. However, these studies are limited by the self-reporting outcomes noted. The limitation of the educational intervention approach on out-of-school adolescents is observed in the study by Odutolu et al. which showed that despite exposure to educational interventions resulting in increased awareness of the negative impact of sexual risk taking behavior, adolescents living in urban slums still practiced risky sexual behaviors. Evidence from the results showed that the out-of-school adolescents in the study still practiced unprotected sex and had multiple sex partners. Hence, an understanding of the operational barriers within urban slums
will be needed so as to develop effective sexual and reproductive adolescent models that would mitigate the effects of urban slum dwellers in promoting sexual risk taking among adolescents.

The stand-alone model might continually have a negligible effect in changing sexual risk behavior as it is only limited to educational interventions and did not provide access to services or contraceptive methods.

In the discussion of SES as a factor affecting youth sexual risk taking behavior in Nigeria, it was noted that economic deprivation considerably affects the ability to negotiate safe sexual practices. This finding is further supported by the intervention study by Odutolu et al. which showed that participants who benefitted from the loans and started up a business were less likely to be involved in risky sexual behaviors. This finding lends credence to the (IEC Integrated with livelihood skills) model. However, the evidence that this intervention study presents is limited by its not accounting for adolescents of high socioeconomic status who engage in risky sexual behavior. Hence the provision of economic support may serve as a vehicle for promoting risky sexual behavior among adolescents if other contextual factors are not addressed.

The mass media/ Information Communication Technology (ICT) model can reach a large number of young people of all ages but its impact on behavior change may be a variable. This is supported by the Babalola et al. study which looked at the effect of a communication program on contraceptive ideation and use among young women in Northern Nigeria.

Study interventions in Nigeria to lend credence to the IEC integrated with health services mode were not found. It should be noted that all the intervention studies above were limited by self-reporting.
Gaps for Adolescent Sexual and Reproductive Health Programming in Nigeria

Research Gaps:

I believe that it would be useful to embark on well-designed impact evaluations to provide evidence about the quality and content of interventions. Carefully collected longitudinal data are needed; because programs may be initiated after sexual activity has begun—leading to incorrect assumptions that programs increase adolescent risk behavior.

Many of the adolescents at greatest risk are missed by school-based programs because they are no longer in school. Therefore, it is important to target both in-school and out-of-school youth. Moreover, research should not be limited to government/public schools as there are private secondary schools and universities. It would be beneficial for this population to be involved in intervention studies as peculiar factors promoting risky sexual behaviors may be noted among them.

Program Gaps:

Male targeted programs are needed to meet the needs of male adolescents who are a neglected group (except possibly for HIV programs). Also given that no single educational or communication program appears to lead to lasting behavior change, a stronger focus on behavior change interventions is crucial. Other programmatic gaps include out-of-school young people, youths living with HIV, married adolescent girls and young people in rural areas.

Policy Gaps:

There is a failure on the part of the government to take the lead in youth reproductive health programs. Findings show that the Federal Ministry of Health (FMOH) has no budget line for
young people’s sexual and reproductive health, and activities conducted are most often funded by donor organizations.\textsuperscript{34} Also the Federal Government’s decision to allow the Child Rights Act implementation to be left to the discretion of individual states as to whether or not such marriage acts should be passed into laws and the non-creation of policies on married adolescents shows a limited support to achieving optimal SRH of adolescents.

**Recommendations and Conclusions**

- Monitoring and evaluation should be emphasized in the development and implementation of programs such that, findings from the evaluation can be used to inform future research and policy development on adolescent sexual and reproductive health.

- Following a review on this topic, programs that involve male adolescents have grown from existing programs for females. Such a secondary focus is unlikely to be the best approach to serving male adolescents. An important guiding question should be how best to design and structure public health programs that focus on male adolescents and contribute to a reduction in sexual risk taking behaviors. This is relevant as the literature is replete with findings that male adolescents are more likely than the females to be involved with risky sexual behaviors. As such, research questions that would be recommended so as to effectively meet the needs of this group would include:
  - What are the most appropriate settings for male sexual health programs?
  - What are the most appropriate services for male programs?
  - What are the most appropriate content for counseling and health education for males and what strategies would best deliver that content?
• Do male clients feel more comfortable with male providers than with female providers?

• Risk reduction programs need to be systematically linked to other youth programs that directly address socioeconomic disadvantage. The literature paints an overall picture of heightened risk among poor and disadvantaged adolescents. It is recognized that it is both difficult and costly to incorporate vocational and academic counseling and support, as well as mentoring and related services, into sexual and reproductive health programs. Hence, rather than attempt to provide these important services as exemplified by the (IEC Integrated with livelihood skills) model, sexual risk reduction programs could form active partnerships with youth programs that are focused on these other goals. Such partnerships would connect teenagers to a supplementary web of services as well as increase the level of coordination between a wide array of youth organizations and providers.

• Programs need to effectively address the influence of peer groups, social norms and pressures on adolescents to have sex. The influence of social norms is particularly acute during adolescence, which is characterized by a strong need to fit in with one's peers. Peer education intervention programs offer a unique opportunity to develop and reinforce norms that support risk reduction behaviors. This approach takes advantage of natural social networks among adolescents and has been shown to be effective as illustrated in the literature reviews. Hence adequate funding should be made available to promote peer intervention program models.
• Finally, in order to ensure the sustainability of programmatic efforts in reducing risky sexual behaviors among adolescents, the Nigerian government will need to show more commitment. As such,

• The Federal Ministry of Health (FMOH) should take the lead in mobilizing a national multi-sectorial response to young people Sexual and Reproductive Health (SRH) in Nigeria.

• FMOH/National Planning Commission of Nigeria should coordinate all donors supporting young people’s SRH and seek additional support.

• Strategic partnerships with religious organizations should be established to promote adolescent sexual and reproductive health.

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