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# SCHOOL BASED SEX EDUCATION AND HIV PREVENTION IN LOW- AND MIDDLE-INCOME COUNTRIES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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## ABSTRACT

*School-based sex education is a cornerstone of HIV prevention for adolescents who continue to bear a disproportionally high HIV burden globally. We systematically reviewed and meta-analyzed the existing evidence for school-based sex education interventions in low- and middle-income countries to determine the efficacy of these interventions in changing HIV-related knowledge and risk behaviors*

***Keyword**: Sex, Education, HIV Prevention, Systematic Review and Meta-Analysis*

**Introduction:**
Peer education is an approach to health promotion, in which community members are supported to promote health-enhancing change among their peers. Peer education is the teaching or sharing of health information, values and behavior in educating others who may share similar social backgrounds or life experiences (*Boyle, J. et al, 2011).*

Rather than health professionals educating members of the public, the idea behind peer education is that ordinary lay people are in the best position to encourage healthy behavior to each other.

## AREA OF APPLICATIONS

Peer education has become very popular in the broad field of HIV prevention. It is a mainstay of HIV prevention in many developing countries, among groups including young people, sex workers, people whom practice unprotected sex, or people who use intravenous drugs.


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Peer education is also associated with efforts to prevent tobacco, alcohol and other drug use among young people. Peer educators can be effective role models for young adolescents by promoting healthy behavior, helping to create and reinforce social norms that support safer behaviors, and also serve as an accessible and approachable health education resource both inside and outside the classroom (*Kelly, J. A, et al, 1992).*

Peer education is useful in promoting healthy eating, food safety and physical activity amongst marginalized populations. Peer education is also favorably used in medical education. Some public school districts have implemented peer-education programs. For example, New York City schools implemented a peer-led sex education program in 1974.

## THE PROCESS

A peer education programme is usually initiated by health or community professionals, who recruit members of the *target* community to serve as peer educators. The recruited peer educators are trained in relevant health information and communication skills. Armed with these skills, the peer educators then engage their peers in conversations about the issue of concern, seeking to promote health-enhancing knowledge and skills. The intention is that familiar people, giving locally-relevant and meaningful suggestions, in appropriate local language and taking account of the local context, will be most likely to be able to promote health-enhancing behaviour change.

There is a great variety in the support provided to peer educators. Sometimes they are unpaid volunteers, sometimes they are given a small honorarium, sometimes they receive a reasonable salary. The peer educators may be supported by regular meetings and training, or expected to continue their work without formal supports (*Anderson and Lisa F, 2019).*

## Peer Education includes:

i. Useful for reaching young people in their chosen environments
ii. In some settings, difficult to ensure privacy and confidentiality
iii. Relies on acceptability of peer educators



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iv. Requires good supervision and access to services
v. Suffers from lack of support, poor evaluation and participant self-selection
vi. Recent review found little evidence that peer sexed increases condom use or reduces odds of pregnancy/having a new partner

## WHAT DO EFFECTIVE SRH EDUCATION PROGRAMS SHOULD AVOID AND INCLUDE

### They Avoid:

- **Scare Tactics:** Its also called fear appeals, are intended to make people think about the worst case scenario that can follow from a problematic health behaviour.
- The intention is to cause mental distress in order to prompt healthy behaviour that will minimise the health threat
- Yet for people who don't meet this two conditions, fear appeals can backfire
- **Knowledge-only approaches:** The learner already have a minimal knowledge
- The learner needs to acquire additional knowledge on it and he/she may decide to utilize the knowledge negatively or positively

### They Include:

i. Relevant knowledge
ii. Skills development and rehearsal through participatory approaches
iii. positive focus to create a sense of possibility about making health choices
iv. Providing friendly social support, developing collective empowerment
v. Including critical thinking around social pressures relating to gender roles

### Will teaching about SRH and contraception make adolescents more likely to become sexually active?

i. No
ii. Improved education and access to good SRH information is associated with delayed sexual initiation, fewer partners and better use of protection

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iii. Majority said that sex education should be address in school(96%) had sex education in school in the last years(56.2%) and mentioned that had felt very well informed (59%) with issues discussed in the sex classes. Women and young people of the younger age group (18 to 21years) most often mentioned that they had sex education at school.

iv. Another result from an article also shows that: To assess parents', teachers' and students' knowledge of sex education and their level of acceptance of its introduction into the school curriculum in Nigeria, questionnaires were sent to teachers, students and parents of eight secondary schools located within Ile-Ife town. The responses of individual groups were collated, analysed and compared. A total of 1000 respondents (400 students, 400 parents and 200 teachers) returned the completed questionnaires. All the teachers and parents and 60% of the students had heard of sex education. A majority of the parents (92%), teachers (90%) and students (78%) supported its introduction into the school curriculum and believed that it would prevent unwanted pregnancies, enhance healthy relationships between opposite sex, prevent transmission of HIV infections and STDs, and provide the knowledge of sexual interactions, consequences and responsibilities and to educate the students on the basic processes of human reproduction. One hundred and fifty-four (15.4%) of the respondents opposed the introduction of sex education because they believed that it would corrupt the students, it might lead to experimentation and that it should be the responsibility of the parents at home. Adolescent sex education should be incorporated into Nigerian schools. It is probably the most cost-effective intervention that could be made to ensure the future reproductive health of the Nigerian community.

## Mass Media

i. Shows mostly improvement in knowledge, social norms and inter-personal communication

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ii. Evidence of effect on risky behaviour varied ''but leaned towards having no effect'' except for condom use
iii. Intensity of exposure critical
iv. Tailored messages important
v. Programmes involving mass media and supporting media/interventions tend to be better

Result of a research conducted showed that a total of 132 informants and adolescent of 15 to 19 years participated. Respondent mentioned a number of media technologies such as televisions, cell phones, computers as well as internet and online hardcopy novels.

They said this has positive and negative influence on them. The media had a strong influence on adolescent sexual and reproductive health especially regarding, relationships and sexual practice.

It also expose them to pornography and internet fraud. In conclusion, the important role the media play in the sexual health of adolescent in the research reveals that intervention programmes need to make use of these medium to reach out to more adolescents and measures should be instituted to prevent adolescent from misusing the media.

In another study, majority of youth had about HIV and its related effect. However, condom use and attendance at SRH services is very low among this population.

The government, parents, NGOs, religious institutions and health service providers play a role in addressing risky sexual behaviours among youth.

Parents must avoid putting children in an unsafe and vulnerable situation.

Factors that contribute to participation of youth on risky sexual practices include the following:

i. Lack of sound education about SRH
ii. Lack of decision making power
iii. Drug and alcohol abuse
iv. Desire for material goods
v. Lack of appropriate income generating activities for youth
vi. Poor implementation of policies and laws

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## YOUTH FRIENDLY SERVICE/CENTRE

### What is youth friendly service?

Youth friendly service is an approach which brings together the qualities that young people demand, with high standard that have to be achieved in the best public services. Such services are accessible, acceptable and appropriate for young people.

They are in the right place, at the right time, at the right price (free where necessary). And delivered in the right style to be acceptable to young people.

They are equitable because they are inclusive and do not discriminate against any sector of these young people on ground of gender, ethnicity, religion, disability, social status or any other reason. Indeed, they reach out to those who are most vulnerable and those who lack services *(Healthy Teen Network, 2014).*

i. Separate space or special hours
ii. Non judgemental staff, respect for young people's choices
iii. Often combined with outreach work
iv. ''Centres'' often integrated FP and RH services with extra-curricular and social activities (sports clubs, computer classes, ''hangout'' space)- evaluations mixed, depending on criteria

## COMMON CHARACTERISTICS OF EFFECTIVE CLINIC PROGRAMMES

i. Clinics changed their protocols for working with adolescent clients
ii. Provided more than routine information
iii. Asked questions about adolescents' sexual behaviour and barriers to abstaining from sex or using protection
iv. Did role plays refusing sex or using condoms
v. Gave a clear message about avoiding unprotected sex.

The youth friendly services must be efficient so that they do not waste money, and they must record enough information to be able to monitor and improve performance. The standard for youth friendly services is that they are effective, safe and affordable *(WHO, 2010).*

They must meet individual need of young people who return when they need to and recommend services to friends.

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Doctors and nurses need good knowledge of normal adolescent development and the skills to diagnose and treat common conditions, such as anaemia or menstrual disorder in girls, and to recognise signs of sexual and physical abuse.

They need access to the right drugs and supplies to threat common conditions and prevent health problems.

They should know where to refer young people for specialised physical or psychological treatment. Such referrals may be to people or services outside the health system for counselling or social support.

## HEALTH FACILITY CHARACTERISTIC INCLUDE

i. Convenient space/location
ii. Convenient hours
iii. Comfortable surroundings
iv. Peer counsellors

## CHARACTERISTICS OF THE SERVICE PROVIDER

i. Specially trained staff: The service provider is trained in adolescents and youth friendly services
ii. Respect for young people
iii. Privacy and confidentiality
iv. Adequate time for client provider interaction

## PROGRAMME DESIGN CHARACTERISTIC

Involvement of young people in design and continuing feedback. In addition to their involvement during the design, young people are allowed to give their feedback on the service/programme and feedback must be addressed *(Healthy Teen Network, 2014).*

i. Involve the young people in the health committee to improve the adolescent friendly services.
ii. No overcrowding and short waiting time
iii. Affordable fees
iv. Publicity and recruitment that inform and reassure the young people. Services are publicised for young people to be aware

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v. Both young men and women are welcomed and served
vi. Wide range of services available
vii. Necessary referrals available
viii. Group discussion available
ix. Alternative ways to access information, counselling and services.

## SERVICES PROVIDED IN ADOLESCENT AND YOUTH-FRIENDLY CENTRE

- Information and counselling on sexual and reproductive health issues

i. Promotion of healthy sexual behaviours through various methods including peer education
ii. Family planning information, counselling and methods including emergency contraceptive methods
iii. Condom promotion and provision
iv. Management of STIs
v. Antenatal care, delivery, postnatal care and preventing mother to child transmission services (PMTCT)
vi. Appropriate referral linkage between facilities at different levels (WHO, 2010).

## OTHER APPROACHES

i. ICT based approaches i.e. Browsing, Posting through twitter and Facebook.
ii. Work base projects, e.g. factories
iii. ''Livelihood'' approach, e.g. offering micro-credit or employment opportunities
iv. Empowerment projects
v. Abstinence-only or religious education messages ('virginity pacts')

## PREVENTING EARLY PREGNANCY

***Preventing early pregnancy: six critical outcomes of focus***

1. Reduce marriage before age 18
2. Reducing pregnancy before age 20
3. Increase use of contraception by adolescents

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4. Reducing coerced sex among adolescents
5. Reduce unsafe abortion among adolescents
6. Increase use of ANC, childbirth and PNC by pregnant adolescent

## HOW TO PREVENT TEENAGE PREGNANCY

i. **Sexual Abstinence:** this method is the only one that guarantees no risk of getting pregnant and protects the teen from getting STDs.
ii. **Various Contraceptive Technique:** It is a fact that there are still a large number of them who will be involve in sexual relations. For this reason, it is important that tens be provided with broad information on how to do so responsibly using various contraceptive believe *(Kost K, et al, 206).*
iii. Presence of school health clinic nationwide with the purpose of reducing teen pregnancy with the availability of contraceptives.
iv. Making teens aware of the reality of raising babies and the negative effects that an unplanned pregnancy can cause in both mother and child's life.
v. Teenage mothers must be aware of the tremendous effect their offspring will have on society in the future.
vi. Teens must be aware that an unplanned pregnancy will take a tall on other aspect of their lives.
vii. When exposed to such information about the result of unplanned pregnancy, teens are forced to analysed weather sex is worth the risk of forever changing their lives, and those of their future children
viii. So as research shows, it is the job of parents and school to teach teens about
    a. The negative effect of teenage pregnancy.
ix. The parents can strongly influence their children decision by taking the
    a. Time to be involved when the issue of sex arises.
x. The school can also do their part by providing necessary
    a. Information on preventing pregnancy and by encouraging teens to
    b. Make responsible choices when having sex.

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xi. Therefore, the responsibility of adults is to provide teens with a
    a. Thorough understanding of abstinence, contraceptive techniques and
    *b.* The consequence of sexual activity *(Martin JA, et al, 2015).*

## REDUCE PREGNANCY BEFORE THE AGE OF 20 YEARS

### Strong Recommendations:

i. Advocate for adolescent pregnancy among all stakeholders through interventions
ii. Maintains and improve effort to retain girls in school, both at primary and secondary levels
iii. Offer inventions that combine curriculum based sexuality education with contraceptive promotion to adolescents in order to reduce pregnancy rates
iv. Offer and promote postpartum and post-abortion contraception to adolescents through multiple home visits and/or clinic visits to reduce the chances of 2nd pregnancy

### General Recommendation

i. Declare about your own sexual value and attitude
ii. Talk with your child early and often about sex and love be specific
iii. Supervise and monitor your children's activity
iv. Know your children's friends and their family
v. Discourage early, frequent and steady dating
vi. Take a strong stands against teen dating who are significantly older or younger than they are
vii. Help your teens have options for the future that are much more attractive than early pregnancy and parent hood
viii. Emphasize how much you value education
ix. Know what your kids are watching, reading and listening to
x. Strive for a relationship that is warm and affectionate form in

## REFERENCES

*Oringanje, Chioma; Meremikwu, Martin M.; Eko, Hokehe; Esu, Ekpereonne; Meremikwu, Anne; Ehiri, John E. (February 3, 2016). "Interventions for preventing unintended pregnancies among adolescents". The Cochrane Database of Systematic Reviews.* ***2****: CD005215. doi: 10.1002/14651858 .CD005215.pub3. ISSN 1469-493X PMID*



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*26839116*. *"Comprehensive sexuality education - UNFPA - United Nations Population Fund". Retrieved* March 13,*2017.*

*Kirby, D. (2001). "Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy". National Campaign to Prevent Teen Pregnancy. Homepage of the study. Archived January 30, 2015, at the Wayback Machine.*

UNADS. UNADS report on the Global AIDS epidemic. Geneva Switzerland, 2012.

Finer LB et al., Disparities in rates of unintended pregnancy in the United States, 1994 and 2001, Perspectives on Sexual and Reproductive Health, 2006, 38(2):90–96.

Gallant M. Maticka-Tynodale E. School-based HIV prevention programmes for African Youth. Social Med. Apr. 2004; 58(7):1337-2351.

National Sexual Education Standards: Core Content and Skills, K-12. A Special Publication of the Journal of School Health. 2012: 6-9. http://www. futureofsexed.org/ documents/ josh- fose- standards-web.pdf. Accessed October 2, 2013.

Episode 204:Bathling the opioid crisis. Jan. 23; 2020.

Episode 195; The promise of midwives. October 24, 2019.

CDC. Sexual Risk Behaviors and Academic Achievement. Atlanta, GA: CDC, (2010);

http://www.cdc.gov/HealthyYouth/ health_and_academics/ pdf/sexual_risk behaviors . pdf; last accessed 5/23/2010. 12.

Chin B et al. "The effectiveness of group-based comprehensive risk-reduction and abstinence education interventions to prevent or reduce the risk of adolescent pregnancy, human immunodeficiency virus, and sexually transmitted infections: two systematic reviews for the Guide to Community Preventive Services." American Journal of Preventive Medicine, March 2012.

Engle, P. 2009. Growing global evidence. In Woodhead, M. and Oates, J. (eds). *Effective Early Childhood Programmes*. Vol. 4 of Early Childhood in Focus. Milton Keynes

UNESCO. 2012. *EFA Global Monitoring Report. Policy Paper 03*. April 2012.

*Marope, P.T.M.; Kaga, Y. (2015). Investing against Evidence: The Global State of Early Childhood Care and Education (PDF). Paris, UNESCO. pp. 243–265.*

*Amadio, M. (2014). "Curriculum in the Twenty-First Century: Challenges, Tensions and Open Questions". ERF Working Papers. Paris, UNESCO. No. 9.*

Eisen M, Pallitto C, Bradner C, Bolshun N. *Teen Risk-Taking: Promising Prevention Programs and Approaches*. Washington, DC: Urban Institute; 2000.

Baumgartner JN, Geary CW, Tucker H, Wedderburn M. The Influence of early sexual debut and sexual violence on adolescent pregnancy: A matched case-control study in Jamaica. Int Persp on sexual and reproductive health. 2009;35(1)

Mazengia F, Worku A. Age at sexual initiation and factors associated with it among youths in North-East Ethiopia. Ethiop J Health Dev. 2009;23(2): 154–162. PubMed.

*Boyle, J.; Mattern, C. O.; Lassiter, J. W.; Ritzler, M. S. (2011). "Peer 2 peer: Efficacy of a course-based peer education intervention to increase physical activity among college students". Journal of American College Health.* ***59*** *(6): 519–529.*

Green, J. (2001). Peer education. Promotion and Education, 8(2), 65-68.Sriranganathan, G., Jaworsky, D., Larkin, J., Flicker, S., Campbell, L., Flynn,

S., Janssen, J., & Erlich, L. (2010). Peer sexual health education: Interventions for effective program evaluation. Health Education Journal, 71(1), 62-71.

*Kelly, J. A.; St Lawrence, J. S.; Stevenson, L. Y.; Hauth, A. C.; Kalichman, S. C.; Diaz, Y. E.;*



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*Brasfield, T. L.; Koob, J. J.; Morgan, M. G. (1992). "Community AIDS/HIV risk reduction: the effects of endorsements by popular people in three cities". American Journal of Public Health.* ***82*** *(11): 1483–1489.*

*Main, D. S. (2002). "Commentary: Understanding the effects of peer education as a health promotion strategy". Health Education and Behaviour .* ***29*** *(4): 424–426.*

*Gibson, Kyle R.; Qureshi, Zeshan U.; Ross, Michael T.; Maxwell, Simon R. (2014-01-01). "Junior doctor-led 'near-peer' prescribing education for medical students". British Journal of Clinical Pharmacology.* ***77*** *(1): 122–129. doi:10.1111/bcp.12147. ISSN 1365-2125. PMC 3895353_. PMID 23617320*

*Yeung, Eugene Y. H.; Alexander, Megan (2017-08-11). "Use of junior doctor-led peer education to improve antibiotic stewardship". British Journal of Clinical Pharmacology.* ***83*** *(12): 2831 2832.*

*Anderson, Lisa F. (November 2019). ""Kids Know What They Are Doing": Peer-led Sex Education in New York City". History of Education Quarterly.* ***59*** *(4): 501–527.*

Healthy Teen Network, 2014, characteristics of youth friendly health care services, October 8th, 2014.

Adapted from adolescent job aid: A Handy Desk Reference Tool for Primary Level Health Workers, WHO, 2010).

Martin JA, Hamilton BE, Osterman MJ, Driscoll AK, Mathews TJ. Births: final data for 2015. Natl Vital Stat Rep 2017;66:1. Available at: https://www.cdc. gov/ nchs/data/nvsr/nvsr66/nvsr66_01.pdf. Retrieved March 3, 2017.

Sedgh G, Finer LB, Bankole A, Eilers MA, Singh S. Adolescent pregnancy, birth, and abortion rates across countries: levels and recent trends. J Adolesc Health 2015;56:223–30.

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