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Influence of Teen Contraceptive Use on Academic Achievement among Public School Students in Bungoma South Sub-County

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Abstract: The adolescent stage is a period of turmoil marked with enormous vibrancy, discovery, innovation and hope and also the time when many of them initiate sexual relationships and involvement. This can be a challenging time for young people who are becoming aware of their sexual and reproductive rights and needs, and who rely on their families, peers, schools, media and health service providers for affirmation, advice, information and the skills to navigate is sometimes a difficult transition to adulthood. The subject on sex has been surrounded by mystery and beclouded by dark silence as neither parents nor teachers are ready to discuss it with teenagers despite unplanned pregnancies, dropping out of school by students, Sexually Transmitted Infections among teenagers. The study investigated influence of teen contraceptive use) on academic achievement among public secondary school students in Bungoma South Sub-County, Kenya. The study adopted Albert Bandura's Social Cognitive Theory postulated in 1986. A descriptive research design was used with target population of 3774 Form 3 students. A sample of 400 students was selected using, Miller, L.R. & Brewer, J.D. (2003) mathematical formula and stratified randomly from 52 schools and conveniently selected equally between boys and girls. Data was collected using structured interview schedule and questionnaire and analyzed descriptively. Results highlights most students were aware about contraceptive use with females slightly more than males and media was the major source of information on contraceptive use while parents/guardians had no significant contribution since teenagers rarely receive their first information on sexual matters from their parents. More than half of the sexually active students used contraceptives though it still interfered with their academic performance. This paper points at sex education curriculum in schools, setting up reproductive health institutions for the youth and distribution of contraceptives among teenagers which has a bearing on students' performance.

Keywords: Academic achievement; Contraceptives; Reproductive health knowledge.

1. Introduction

Global statistical analyses as of 2012 indicated that by the age of 19, 7 in 10 teenagers had had sex. This resulted in approximately 18 million pregnancies among teenage girls. In equal measure, there were estimated 1.8 million to 2.4 million teenagers living with HIV/AIDs. Narrowing down to Kenya, 260,000 teenagers out of 1.6 million infected people live with the condition. While the abovementioned effects and statistics are heart-wrenching, the realization that they are preventable is even more distressing. The instant study seeks to interrogate the influence of contraceptive use on academic achievement among teenagers. This has been triggered by the alarming rate of HIV/AIDs infections, STI transmissions, pregnancies and abortions, school dropouts and death pervasive among teenagers, being direct results of unhealthy sexual behaviour. It proceeds on the presumption that various factors including age, peer pressure, environment and economic stability influence teen sexual activity. These, coupled with inaccessibility and inadequate information on contraceptive use results in irresponsible teen sexual behaviour.

Tuju (1996) further noted that myths, lies and rumours on sexuality prevail in the African society. For instance, it is a taboo for parents to discuss sexual matters with their teenagers. As a result, in the absence of sex information, teenagers internalize the rumours and the myths and this often puts them in danger. He further pointed out that any discussion of youth sexuality in public degenerates into a debate dominated more by emotion rather than reason. In addition, many parents, churches and other interest groups become suspicious of any government programme which is intended to educate the youth about sexuality or reproductive health or family life, depending on what terminology is used. The negative side of such emotion is that nothing gets done to address the problems of youth sexuality.

Youssef (1995) adds that policy makers often fear that parents will oppose sex education for young people; this therefore hinders teachers from giving accurate information to students.

According to the 2010 survey by WHO/UNAIDS/UNICEF (2011) a new generation of young people is taking charge of their destinies by protecting themselves against HIV/AIDS and unplanned pregnancies. The Center for Disease Control affirms the same by indicating that public opinion about condom use and teenage sex had significantly increased (Brann, 2012; Harrison *et al.*, 2012). The former fuelled by concern with high rate of STDS and increased education on sexual abstinence. By 2010 approximately 100 million women around the world had used pills as contraceptives (Time Magazine, 2010). According to Ochieng *et al.* (2011), the social demographic characteristics, perception of peer behavior and attitudes towards their sexual and reproductive health may impact greatly on whether or not they have sex, the number and types of sexual relationships they form and their condom use. Peers spend most of the time together and the values of the group may be instrumental in determining the levels of academic success or failure of a teenager. If the peer pressure exerted is on sexual relationships, it may hamper the academic achievement of the student (Charlie, 2010; Majeed, 2010). Peer education is a preferred measure in many countries as it empowers students collectively and individually. The rationale behind it is that, it is easy for students to reach out to fellow students for assistance with both personal and social problems. It is thus known to decrease depression, reduce anxiety, and promote self-awareness, positive decision making and academic performance (Mill, 2009).

Teenage contraceptive use in Africa is 37% (Gutmacher, 2011; Kennedy *et al.*, 2011; Kirby, 2011/2012). According to Cleland (2009) Sub Saharan Africa is the only region where low levels of contraceptive use persist. In Kenya to fit into the society that stigmatizes teenage sex, the Kenyan girl is ensnared into the emergency contraception pill (e-pill) trap or injection to please a boyfriend who refuses to use the condom and at the same time fears the relatives finding out, hence maintaining school and the relationship at the same time (Njagi, 2012). Often, sexual activity is unplanned and many youth do not use contraceptives or use less effective contraceptives (Chipeta, 2010). In sub-Saharan Africa levels of contraceptive use increase with years of education and attendance in school is associated with less sexual activity (Boonstra, 2007). The exposure to information on contraceptive use increases with the number of years of education and socio economic status. The younger the adolescents begin sexual activity, the less they are able to use contraception.

Many studies in the developed and developing countries have revealed that teenage sexual involvement at an older age is associated with contraceptive use. The older a boy or girl is at sexual debut the more likely they are to use contraceptives (Lowen and 2011). This is because they are able to comfortably negotiate contraceptive use (Holcombe *et al.*, 2008). Reports reveal that sexually active teenagers before the age of 18 years were three times more likely to be expelled and two and a half times likely to drop out from school than virgins (Gakidou and Vayema, 2007). The studies imply that the earlier the teenagers involve themselves in sexual relationships without guidance on contraceptive use the more the likelihood of dropout from school

Studies by Philliber *et al.* (1983) reveal that, older teens are more likely to go to the clinics/shops for contraception and to be consistent users of the first method they select than younger teens, who, are significantly more likely to re-visit a clinic and be pregnant at the second or later visit. The observation is attributed to unavailability of contraceptives for the younger age group, lack of or minimal information about contraceptives and their use, psychological under-development among them where immaturity and inability to plan characterizes their sexual activity (CDC, 2012).

Whereas it is assumed that the teens are able to make more suitable choices for safe sex and are confident about what they are doing, teenage contraceptive use has also typically been described as irrational especially among sexually active teenagers who have had benefit of formal sex education and have contraceptive devices available to them (Czetkovich, 2010; Nicol, 2012). The United Nations Population Fund believes that as much as universal access to reproductive health by 2015 is one of the targets of the Millennium Development Goals, most developing nations still have a long way to go (Chege, 2012). Generally there is an apparent variation of contraceptive usage across the age groups and in essence, young teenagers use contraceptives less often and are likely to be less effective users than older teens. The younger a girl is at first sex, the less likely she is to use contraceptives. The reason for contraception use among the teenagers did not vary substantially by age, race or ethnicity (CDC, 2012; Lowen and 2011). The researcher was prompted by the question of how does Contraceptive use influence academic achievement among public secondary school students in Bungoma South Sub-County and based on this previously discussed research, a competing exists to explain significance differences on teenage reproductive health knowledge, accessibility of contraceptives and academic achievement among public secondary school students.

2. Materials and Methods

The study targeted 3774 Form 3 students from 52 schools found in Bungoma South Sub-County. A sample of 400 participants were stratified randomly and conveniently selected equally between boys and girls after sample size obtained from Yamane (1967) formula. Only 384 participants took part in the study. This study utilized a descriptive research design. This is because a descriptive survey research determines and reports the way things are (Mugenda and Mugenda, 2003) and also attempts to describe such things as possible behavior, values and characteristics. This was in line with the study purpose as it sought to investigate the influence of Contraceptive use on academic achievement in Bungoma South Sub-County. It was the adhesive that was used to join the whole study (Teenage reproductive health knowledge, Accessibility of Contraceptive use and academic achievement) to come up with a beautiful pattern (meaningful and coherent study). The study employed questionnaires and interview schedule as data collecting instruments because in researching human beings, no single source of information can be trusted to

provide a comprehensive perspective in any study program. As a result it is imperative to use two methods of data collection to improve on the reliability and validity of the data collected. Schofield (1996) reports that using a combination of data sources and collection methods are a validating aspect which cross-checks the data. Data was analyzed using descriptive and inferential statistics (Pearson’s r) and presented in form of frequency, percentages and means to get the quantities of teenage contraceptive users and academic achievement.

3. Results and Discussion

The purpose of the study was to investigate the influence of Contraceptive use on academic achievement among public secondary school students in Bungoma South Sub-County. The study return rate of 96.0 per cent was achieved which boosted the reliability of the results that were set at a 5 per cent level of precision. The mean age of the students was 18 years for both boys and girls and 74.7 per cent of the students reported having both parents and 25.3 per cent had singlehood parents. The findings of the study indicates that 49.2 per cent of students mostly preferred friends as their overall confidants in sharing contraceptive use and sex education followed by parents/guardians at 38.02 per cent, teachers at 9.11 per cent and the least preferred were relatives at 3.64 per cent. This means peers have a great influence on teenagers lives and they can ‘make or break’ them. This may also depend on the student’s efficacy level, since they believe in each other more as teenagers are likely to spend more time together and this has a bearing on students’ performance in schools. This results points at Charlie (2010) and Majeed (2010) who noted that peers spend time together and values of the group are instrumental in determining the level of success or failure of the group.

The study found out that 89.58 per cent of the male students and 97.92 per cent of the females had heard about contraceptives, while 10.42 per cent of the male and 2.08 per cent of the female students were ignorant. Overall most of the students were aware about contraceptive use, with females slightly more than males. This could be attributed to the fact that more females engage in sexual relationships earlier than males, are likely to be vulnerable to pregnancies and therefore are more curious to know about contraceptive use to take charge of their reproductive health. Awareness is not a precursor for contraceptive use as reported by the 2010 survey by WHO/UNAIDS/UNICEF (2011), a new generation of young people is taking charge of their destinies by protecting themselves against HIV/AIDS and unplanned pregnancies. Concerning the source of information on teen sexual behaviour, most of the students, both male 75 per cent and female 65.1 per cent indicated that the media was the major source of information on contraceptive use. Friends/peers were second at 15.1 per cent males and 18.75 per cent females, followed by teachers at 9.9 per cent males and 10.94 per cent females while parents/guardians were the least source of information at 0 per cent for males, 5.21 per cent for females. The task of instructing adolescents about sex has been seen as the responsibility of the parents. But parent-child communication in sexual matters may be hindered by parental inhibitions or by various intergenerational tensions, and studies have shown that teenagers rarely receive their first information on sexual matters from their parents. This implies parents/guardians and teachers play the least role in teaching students on contraceptive use. This could be attributed to the parental role where the parents /guardians and teachers due to the cultural and religious aspect shy away from the topic. These findings points at Tuju (1996) who noted that myths, lies and rumours on sexuality prevail in the African society. For instance, it is a taboo for parents to discuss sexual matters with their teenagers. As a result, in the absence of sex information, teenagers internalize the rumours and the myths and this often puts them in danger. He further pointed out that any discussion of youth sexuality in public degenerates into a debate dominated more by emotion rather than reason. Therefore, both parties feel sex is sacred and should be practiced within marriage and therefore teaching teenagers about contraceptive use is like allowing them to engage in pre-marital sex as it is even taboo talking about sex. The average response was 3.7 for male students and 3.9 for female students. This means majority of the students were in agreement on the importance of awareness and use of contraceptives. This shows most of the students are able to make informed decisions on their sexual life given proper information on contraceptive use. Results are shown in Table I.

Table-I. Teenage Reproductive health knowledge and its influence on Academic Achievement among public secondary school students

Description			F	%
Level of Awareness on contraceptive use	Male	Yes	172	89.58
		No	20	10.42
	Female	Yes	188	97.92
		No	4	2.08
Source of information	Male	Parents	0	9.9
		Teachers	19	75.0
Source of information	Female	Friends	29	15.1
		Media	144	75.0
		Parents	10	5.21
		Teachers	21	10.94
		Friends	36	18.75
		Media	125	65.1

Surveyed data (2016)

This result is in line to those by WHO/ UNAIDS/UNICEF (2011) that a new generation of young people is taking charge of their destinies by protecting themselves against diseases and pregnancies. Whereas the males were non-committal on this, females were certain on importance on awareness of contraceptive use. This could be associated to the fact that the repercussions on the females are more severe (dropping out schools due to pregnancies) as compared to their male counterparts.

The study then explored the opinion of students on whether their engagement in sex for pocket money without using contraceptives made them drop out of school at one time, 17.71 per cent male and 19.27 per cent of female students strongly agreed, 10.94 per cent of male students and 8.85 per cent female students agreed, 5.73 per cent males and 9.9 per cent female students were neutral, 25 percent male students and 14.58 per cent female students disagreed with 40.63 per cent male students and 47.4 per cent female students strongly disagreed. The average response was 2.4 for both male and female students. This means that most of the students disagreed with this. It also means few engaged in sex without contraceptive use and could have dropped out due to pregnancies or disease. If done intentional at times this could be due to need to prove their fertility. Families are an incredibly important influence on the behaviour of any child in many ways. For instance, low family socio economic status has been repeatedly linked to risky adolescent sexual behaviour. Findings points at Chipeta (2010) that often, sexual activity is unplanned and many youth do not use contraceptives or use less effective contraceptives and these teenagers engage sex without at times thinking about repercussions despite knowledge on contraceptive use.

Furthermore, students had recently engaged in an intimate relationship without using contraceptives and that had affected their academic performance, 16.67 per cent male and 11.97 percent female students strongly agreed, 14.58 per cent male students and 15.1 percent female students agreed, 13.02 per cent males and 14.1 percent female students were neutral in giving their opinion, 35.42 per cent male students and 25 percent female students, disagreed with 18.75 percent male students and 33.85 per cent female students strongly disagreed. The average response was 2.7 for male students and 2.5 for female students. This means that a number of the students were non-committal. Results are stated in Table II.

Table-II. Teenage contraceptives accessibility and their influence on academic achievement

Access to Teenage Contraceptives	G	SA		A		N		D		SD		TOTALS	
		F	%	F	%	F	%	F	%	F	%	TF	%
1. At the age [16-19] it is healthy to be aware of and use of contraceptives.	M	68	35.2	52	27.1	20	10.4	40	20.8	12	6.3	192	100
	F	108	56.3	13	6.8	24	12.5	20	10.4	27	14.6	192	100
2. At the age [16-19] it is not worth being aware on the use of contraceptives.	M	60	31.3	51	26.6	20	10.4	33	17.2	28	14.6	192	100
	F	39	20.3	36	20.3	18	9.38	41	21.4	58	30.2	192	100
3. I use condoms to avoid diseases and I do not miss school	M	44	22.9	23	11.9	14	7.3	59	30.7	52	27.1	192	100
	F	16	8.3	20	10.4	33	17.2	52	27.1	71	36.9	192	100
4. My engagement in sex for pocket money without using contraceptives made me drop out of school at one time.	M	34	17.7	21	10.9	11	5.7	48	25	78	40.6	192	100
	F	37	19.3	17	8.9	19	9.9	28	14.6	91	47.4	192	100
5. Having ignored use of condoms I once contracted a disease that made me miss school for medication purpose.	M	17	8.9	21	10.9	22	11.5	56	29.2	76	39.6	192	100
	F	11	5.7	26	13.5	21	10.9	77	40.1	57	29.7	192	100
6. I have always engaged myself in sex due to my family conditions and have never contracted diseases	M	26	13.5	23	11.9	17	8.9	48	25	78	40.6	192	100
	F	27	14.1	24	12.5	11	7.5	59	30.7	71	36.9	192	100

nor been absent from school because I use contraceptives.													
7. I have had multiple lovers but use of condoms as a measure against diseases which has made me stay safe in school without interrupting my studies.	M	27	14.1	12	6.3	9	4.7	52	27.1	92	47.9	192	100
	F	20	10.4	16	8.3	18	9.4	48	25	90	46.9	192	100
8. I am in an intimate relationship and I use contraceptives and that has never affected my academic performance	M	44	22.9	21	10.9	28	14.6	65	33.9	34	17.7	192	100
	F	25	13.0	16	8.33	12	6.25	48	25	91	47.4	192	100
9. I recently had an intimate relationship without using contraceptives and that affected my academic performance.	M	32	16.7	28	14.6	25	13.0	68	35.4	36	18.8	192	100
	F	23	11.9	29	15.1	27	14.1	48	25	65	33.9	192	100
10. I have had a relationship without using contraceptives in order to win my rival and as a result I contracted an STD that made me temporarily drop out of school.	M	20	10.4	15	7.82	23	11.9	88	45.8	46	23.9	192	100
	F	12	6.3	42	21.9	12	6.3	64	33.3	62	32.3	192	100

Surveyed data (2016)

These results are low when compared to others where Teenage contraceptive use in Africa is 37 per cent (Guttmacher, 2012; Kennedy *et al.*, 2011; Kirby, 2011/2012). According to Cleland (2009) Sub Saharan Africa is the only region where low levels of contraceptive use persist. In Kenya to fit into the society that stigmatizes teenage sex, the Kenyan girl is ensnared into the emergency contraception pill (e-pill) trap or injection to please a boyfriend who refuses to use the condom and at the same time fears the relatives finding out, hence maintaining school and the relationship at the same time (Njagi, 2012). It implies either they could not link their academic performance to sexual engagement or used contraceptives and therefore no impact.

4. Conclusion

In light of the findings of this study, the following conclusions were made:

Based on the findings of the study, the paper concludes that 74.7 per cent of the students had both parents but they had no significance influence on teen sexual behaviour since most of students preferred friends as their overall confidants in sharing contraceptive use and sex education. This pointed at peers having a great influence on teenagers lives and they can ‘make or break’ them hence affects academic achievement.

The study points at the major role of Teen reproductive health knowledge on use of contraceptives and the significance contribution of open discussion of sex and relationship education since the media plays a crucial role disseminating sex education, it may not give target specific information to teenagers. Therefore, Peer and teacher counseling have a significance influence on contraceptive use that ultimately answers students’ anxiety and emotions in making the right decisions which may influence their academic achievement in schools.

Furthermore, most students had heard about contraceptive use, accessing was a challenge and therefore average response was 2.7 for male students and 2.5 for female students. This means that a number of the students were non-committal and found difficulties in accessing contraceptives and this point at high rate of STDS, unplanned

pregnancies due to increased education on sexual abstinence alone. This has been triggered by the alarming rate of HIV/AIDS infections, STI transmissions, pregnancies and abortions, school dropouts and death pervasive among teenagers, being direct results of unhealthy sexual behaviour hence students' performance if affected.

Based on the findings, this paper points at the following recommendations of the study:

Detailed sex and relationship education curriculum in schools is key alongside the implementation of academic curriculum for the young people in schools. This should help schools in formulation of policies, provision of adequate support and training materials and also training of competent sex education instructors.

The Government should set up reproductive health institutions for the youth, promote peer counseling, talks by health providers in schools and distribution of contraceptives among teenagers at the youth friendly reproductive centers which has a bearing on students' performance.

References

- Boonstra, D. H. (2007). Young people need help in preventing pregnancy and HIV; How will the world respond? : Available: www.guttmacher.org
- Brann, J. (2012). The change in pregnancy and birth rates in the USA. Women Healthcare Topics, Word Press Administration. Available: <http://www.womenshealthcaretopics.com/Blog/teenage-pregnancy-birthrates>
- CDC (2012). Pre-pregnancy contraceptive use among teens with unintended pregnancies resulting in live birth-pregnancy risk monitoring system. *The Journal of the American medical Association*, 307(12): Available: <http://jama.jamanetwork.com/article.aspx?artid=1152686>
- Charlie, S. (2010). Peer pressure in teenagers. Available: <http://www.buzzle.com/articles/peer-pressure-in-teenagers.html>
- Chege, N. (2012). Contraceptives: Myths and misconceptions. Available: <http://www.standardmedia.co.ke/lifestyle/article/2000061891/contraceptives-myths-and-misconceptions/?pageNo=3>
- Chipeta, K. (2010). Contraceptive knowledge, benefits and attitudes in rural Malawi: misinformation, misbeliefs and misperceptions. Available: www.ncbi.nlm.nih.gov/pubmed
- Cleland (2009). Most effective after sex contraceptive: IUDs. Available: www.myhealthnewsdaily.com
- Czetkovich, G. B. (2010). The psychology of adolescents use of contraceptives. Available: <http://www.tanfonine.com/doi/abs/10.1080/0022449709550900>
- Gakidou, E. and Vayema, E. (2007). Use of contraceptives by the poor is falling behind. *PLOS Med*, 4(2): Available: <http://www.plosmedico.org/article/info:doi/10.1371/journal.pmed0040031>
- Guttmacher (2011). Increased contraceptive use and shifts to more effective contraceptive methods behind this encouraging trend, news in context. Available: <http://www.guttmacher.org/media/inthenews/2011/12/01/index.html>
- Guttmacher (2012). Facts on american teens sexual and reproductive health. Available: <http://www.guttmacher.org/Pubs/FB-ATSRH.html>
- Harrison, A., Gavin, L. and Hasting, A. P. (2012). Pre-pregnancy Contraceptive Use Among Teens with Unintended pregnancies Resulting in Live Births- pregnancy Risk Assessment Monitoring System (PRAMS), 2004-2008. Available: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6102a1.htm>
- Holcombe, E., Carrier, D., Manlove, D. and Ryan, S. (2008). Contraceptive use patterns across teens sexual relationships. Available: www.childtrends.org/childTrends
- Kennedy, E., Gray, N., Azzopardi, P. and Createl, M. (2011). Adolescent Fertility and Family Planning in East Asia and Pacific; a Review of DHS reports. Available: <http://www.reproductive-health-journal.com/content/8/1/11>
- Kirby, D. (2011/2012). Impact of sex education on the sexual behaviour of young people. UNO. Available: <http://www.un.org/esa/population/publications/expertpaper2011-12-kirby-Expert-paper.pdf>
- Lowen, L. and (2011). Statistics on Teens and sex, Birth Control and use of contraceptives. Available: <http://womanissues.about.com/od/datingandsex/a/statistics-Teens-sex-Birth-control>
- Majeed, A. (2010). Peer group effects on academic achievement of government girls high school khyaban-e-sirsye. Available: <http://www.scribd.com/doc/26716720/peer-Effects-on-Academic-Achievement>
- Mill, E. (2009). The Peer counseling/Peer helping Model. Available: <http://uir.Unisa.ac.za/bitstream/handle/10500/2530/03chapter3.pdf>
- Mugenda, M. O. and Mugenda, G. A. (2003). *Research methods: Quantitative and qualitative approaches* Laba Graphics Services Ltd: Nairobi-Kenya.
- Nicol, M. E. (2012). Teens having sex are clueless. *Daily RX*: Available: <http://www.dailyrx.com/news-article/sex-education-needed-all-teens-17104.html>
- Njagi, D. (2012). Society stigma lures Kenyan teens into the e pill trap Retrieved February 16, 2013, from seventysixthstreet.wordpress.com/2012/03/07/society-stigma-lures-kenyan-teens-into-e-pill-trap.
- Ochieng, M. A., Kakai, R. and Abok, K. (2011). Knowledge, attitude and practice of condom use among secondary schools students in Kisumu District, Nyanza Province. *Asian Journal of Medical Sciences*, 3(1): 32-26.

- Philliber, S., Namerow, P. and Kaye, J. (1983). *Pregnancy risk-taking among adolescents, final report prepared for the national institute of child health and human development national institutes of health, Public Health Service, U.S. Department of Health and Human Services, Bethesda, MD.* Columbia University: New York.
- Schofield, W. (1996). *Survey sampling.* In R. Sapsford and V. Jupp (1996) (eds) *Data collection and analysis.* Sage and the Open University Press: London. 25–55.
- Time Magazine (2010). A brief history of birth control. Available: <http://www.time.com/time/>
- Tuju, R. (1996). *AIDS: Understanding the challenge.* ACE Communications: Nairobi.
- WHO/ UNAIDS/UNICEF (2011). Epidemic update and health sector progress towards universal access. South Africa. Available: [www.Unaids.org/en/media/Unaid/Contentassets/documents/Unaidpublication/](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/)
- Yamane, T. (1967). *Statistics: An introductory analysis.* 2nd edn: Harper and Row: New York.
- Youssef, M. (1995). *working with young people-a guide to preventing Hiv/AIDS AND STDS.* Commonwealth Secretariat: London.